

**A Financial Crisis Is a Terrible Thing to Waste:
Challenges in the Regulation of Credit Rating Agencies and
the Use of Ratings to Regulate Capital of Financial Services Firms**

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I. Abstract

This paper analyzes the legislative response to the Global Financial Crisis of 2008 focused on credit rating agencies, using economic principles for multi-sided platforms as a general framework to evaluate proposed changes in regulation of rating firms and the regulatory use of ratings. The paper uses market information, rating performance data, and anecdotal evidence on the use of ratings, to show that rating systems exhibit network effects as multi-sided platforms. These attributes explain why the market for rating services has remained highly concentrated and debt issuers continue to pay for most rating services following SEC regulation that began in 2007. Data analysis also shows that SEC regulation has not affected the accuracy or stability of ratings. The analysis also uses information on recent government enforcement and private lawsuits over losses on structured finance debt to question the policy narrative in the Dodd-Frank Act for potential changes in regulation that would affect how rating firms are selected, the methods they use for ratings, and the use of ratings as regulatory standards. The paper concludes that these changes and other regulatory efforts to change the market structure or restrict use of the issuer-pays compensation model are not warranted to improve rating performance or avoid perceived problems with ratings on structured finance debt.

II. Overview

The Global Financial Crisis that began in 2008 pushed U.S. financial regulators and policy makers to respond on a real-time basis to a near meltdown of the global financial system, with a complex series of actions on monetary and fiscal policy to stem the crisis. Congressional hearings on the crisis led to enactment of the Dodd-Frank Act, with numerous mandates for regulators to make changes in laws and regulations for the financial services industry in an effort to prevent another crisis and quell public concerns. The focus here is on provisions of the Act directed at credit rating agencies, which are private firms that issue ratings on debt securities.

Credit ratings have served a unique role in the financial services industry: ratings are widely used by debt issuers and investors as relative benchmarks of default risk, which aids in investment and pricing decisions, and regulators have incorporated ratings into rules on investment standards and capital adequacy standards for banks and other financial services firms.

Credit rating agencies were essentially unregulated for over a century until Congress authorized limited regulation in 2006 and the Securities and Exchange Commission issued formal regulations in mid-2007, just as events that led to the global financial crisis began to unfold. The main thrust of this new regulation was to remove barriers to entry by new rating firms through a formal but voluntary registration system, which over time would lead to more competition and thereby improve rating accuracy and/or stability. The new law also authorized regulation of the standard practice for debt issuers rather than investors to pay for ratings, among other business practices that were thought to give rise to conflicts of interest.

The policy response to credit ratings in the Dodd-Frank Act was not based on experience with the impact of SEC regulation of rating firms, or analysis of how debt markets and financial regulation would function if ratings were not used as regulatory standards. In large part, the policy response was shaped by the view that rating firms shared primary responsibility for the financial crisis due to unduly high ratings on complex structured finance debt,¹ and that these rating practices were the product of prior SEC actions that distorted the market for rating services by restricting entry or competition.²

¹ *See, e.g.*, Dodd-Frank Act Section 931(5) (“In the recent financial crisis, the ratings on structured financial products have proven to be inaccurate. This inaccuracy contributed significantly to the mismanagement of risks by financial institutions and investors, which in turn adversely impacted the health of the economy in the United States and around the world.”); Appendix 3, Case 16 (Dep’t of Justice/S&P).

² *See, e.g.*, CRA Act Section 2(5) (“[T]he 2 largest credit rating agencies serve the vast majority of the market, and additional competition is in the public interest.”); 109th Congress, 2d Session, Senate Report No. 109-326, Credit Rating Agency Reform Act of 2006, September 6, 2006 (“Senate Report on CRA Act”) 7 (“The Credit Rating Agency Reform Act establishes fundamental reform and improvement of the designation process. Most importantly, the Act replaces the artificial barriers to entry created by the current SEC staff approval system.”).

The analysis here questions this policy narrative, not by dissecting legislative fact-finding that led to the Dodd-Frank Act, but rather by analyzing the economic forces that account for the stable concentrated structure of the market for rating services. This analysis proceeds from a conceptual framework of economic principles for multi-sided platforms that produce direct and indirect network effects. These effects benefit all platform users and, as with rating systems, may promote use of only a small number of platforms. This market structure is economically efficient and serves to preserve network effects for platform users, and explains why the market structure has not changed. These economic principles also account for why rating firms have gravitated to the issuer-pays compensation model to overcome free rider problems among investors, who are essential users for rating systems to generate network effects. The conceptual framework is buttressed with historical and market information, and quantitative analysis of data on the performance of ratings before and after SEC regulation that began in late 2007.

The remainder of the paper is structured as follows:

Section III reviews historical information to show that rating services began and developed as a private unregulated market in response to normal competitive forces.

Section IV provides a non-technical overview of economic principles for two-sided markets and general information on characteristics of markets for rating services and debt securities. This overview explains why rating systems produce direct and indirect network effects that benefit platform users through widespread use of only a small number of rating firms. This information also shows that the issuer-pays model is a typical pricing structure for multi-sided platforms, and promotes investor use of rating systems by overcoming free rider problems.

Section V reviews SEC regulation of rating firms and recent data that show regulation has not changed these market traits, consistent with the presence of indirect network effects.

Section VI presents quantitative analysis of selected data that compares (i) rating performance before and after the SEC implemented formal regulation in late 2007, (ii) corporate and structured finance rating performance, and (iii) corporate and market implied rating performance. This analysis is used to evaluate whether SEC regulation has produced measureable improvements in rating performance, whether the accuracy and stability of corporate and structured finance ratings have differed through the global financial crisis, and whether market-implied ratings are suitable proxy for credit ratings in regulatory standards.

Section VII reviews recent government enforcement actions and private litigation related to structured finance debt. This information is used to show the status and disposition of claims against issuers, underwriters, broker dealers, and rating firms, as context to evaluate the policy narrative in the Dodd-Frank Act to eliminate ratings from regulatory standards.

Section VIII concludes by evaluating key regulatory proposals and studies under the Dodd-Frank Act focused on how rating firms are selected and paid, and the use of ratings as regulatory standards, and outlines areas for further market and data analysis.

III. Brief History of the Market for Credit Rating Services

1. Credit Rating Agencies, Regulatory Agencies, and Statutes

Credit Rating Agencies. Private firms that issue ratings on debt securities. Moody's, Standard & Poor's, and Fitch Ratings (the "Big Three") issue over 95 percent of outstanding ratings on U.S. debt securities.³ These firms and several others are registered with the SEC as NRSROs (defined below). Rating firms that do not register may issue ratings and other opinions on debt securities, whether compensated or not, as an exercise of free speech rights, but their ratings are not used to meet regulatory standards that rely on credit ratings.

³ See Appendix 2, Exhibits 1–2 (SEC charts and tables with market share data).

Credit Ratings. Credit rating agencies typically use simple scales of alpha-numeric rating categories that internal committees assign to debt securities based on a variety of quantitative and qualitative factors weighed by the committees.⁴ For corporate finance ratings, these factors tend to entail more traditional analysis of financial statements, industry conditions, and the like.⁵ For structured finance ratings, the factors entail detailed analysis of the structure of the debt security and how defaults in the underlying pool of mortgages or other assets will affect the risk of default to each level or tranche of debt holders, among other factors.⁶ The factors

⁴ See, e.g., Moody's Investors Service, Rating Symbols and Definitions (Feb. 28, 2013), http://www.moodys.com/research/Moodys-Rating-Symbols-Definitions--PBC_79004 (defines rating symbols and describes basic rating methodologies for various classes and types of debt securities); Moody's Investors Service, Index of Credit Rating Methodologies, Cross Sector Methodologies, and Other Permissible Service Methodologies (Apr. 17, 2013), http://www.moodys.com/research/Index-of-Rating-Methodologies--PBC_127479 (database with links to hundreds of specific rating methodologies for particular debt securities and industries.); Moody's 2012 Form NRSRO (Mar. 22, 2013), Exhibit 2, available at <http://www.moodys.com/Pages/reg001002.aspx> (describes general rating procedures and methodologies).

⁵ See, e.g., Langohr 257–263 (describes basic approach for corporate debt ratings: business risk analysis (country, industry, and company-specific factors); financial risk analysis (balance sheet, profitability, cash generation, liquidity); and credit risk analysis for specific debt instruments (value of firm in default and priority of debt instrument); Securities and Exchange Commission, Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets (Jan. 2003) (“SEC 2003 Report”), p. 26 & n. 64, available at <http://www.sec.gov/divisions/marketreg/ratingagency.htm> (“The primary credit considerations used in the corporate finance area involve both non-financial and financial factors.” “Some of the non-financial or qualitative considerations include: (1) stability of markets, (2) diversity of markets, (3) efficiency of operation (e.g., distribution system and operating margins), (4) peer group analysis, (5) competition and market positions, and (6) government regulation. Financial or quantitative considerations include: (1) cash generation or use, (2) balance sheet strength, (3) debt/capitalization ratios, (4) interest coverage ratios, (5) operating cash flow to total debt ratios, and (6) fixed charge ratios.”); Moody's 2012 Form NRSRO (March 22, 2013), Exhibit 2 Item 3(c), available at <http://www.moodys.com/Pages/reg001002.aspx> (Qualitative factors include: industry sector(s); key markets; market position(s); business mix; geographical diversity; business strategy; size of company; barriers to entry; competitive advantages; growth opportunities; financial policy; management quality; risk management; capital structure and structural considerations; liquidity and debt maturity analysis; analysis of salient features of the security; legal structure; ownership considerations; corporate governance; and/or regulatory environment. Quantitative factors include: level of sales; growth rates; profitability ratios; leverage ratios; coverage ratios; capitalization ratios; free cash flow and cash flow ratios; liquidity ratios; industry specific key indicator ratios; off-balance sheet adjustments; working capital management indicators; capital expenditure levels (both maintenance and development); extraordinary / exceptional items; and/or financing flows, including dividends, foreign currency exposure and accounting effects.”).

⁶ See, e.g., Langohr 296–304 (describing basic approach for structured finance debt ratings, consisting of credit modeling of default risk and expected loss for the collateral pool (e.g., risk of parameter error and structural error for modeling algorithms), and structural/contractual analysis of the debt instrument (e.g., payment triggers for senior or protected layers, quality of asset manager for collateral pool, credit enhancements, liquidity payments, legal risk); Moody's 2012 Form NRSRO (Mar. 22, 2013), Exhibit 2 Item 3(d), available at <http://www.moodys.com/Pages/reg001002.aspx> (Qualitative factors include: geographical location of assets; details of the relevant insolvency regime; bankruptcy remoteness of the special purpose entity; tax implications of the structure; integrity of the legal structure; quality of servicing employed; quality of any relevant asset management; the origination practices of the

used for corporate ratings are more typical of normal financial and strategic analysis for a business entity; the factors used for structured finance focus much more on the legal and financial structure of particular debt securities, and the quality of assets on which the security is based. Prior to the global financial crisis, rating methods for structured finance debt relied more heavily on mathematical models due in part to a relative lack of historical default and loss experience.⁷

NRSROs. Nationally recognized statistical rating organizations are rating firms that are registered with the SEC to issue ratings that can be used to satisfy regulatory standards. Ten rating firms were registered as NRSROs at the beginning of 2013 for one or more classes of debt securities.⁸ Apart from the Big Three, only AM Best (for insurance), BRS and KBRA (for financial institutions), and Morningstar (for structured finance), accounted in the most recent data for more than five percent of outstanding ratings for any class of debt securities.⁹

Credit Rating Agency Reform Act of 2006 (the CRA Act). The CRA Act was enacted in September 2006 and gave the SEC express authority to regulate credit rating agencies.¹⁰ The

seller; presence or absence of third party guarantors; credit quality characteristics of underlying assets; and/or credit factors relevant for the industry sector. Quantitative factors include: level of over-collateralization; quantity of excess spread on assets; size and structure of tranching of the bonds; interest rates; value of the reserve fund; availability, amount and details of liquidity; degree and level of amortization of the debt and payment priority; economic analyses; and/or historical performance of the relevant asset class for the sponsor and the sector. “MIS forms an opinion on a specific transaction by analyzing its legal structure and sources of credit protection, as well as the credit risk characteristics of the collateral pool backing the securitization. To evaluate the risk characteristics of the underlying collateral pool, MIS considers data from a wide variety of public sources and information provided by the securitization’s sponsor. MIS’ credit opinion is based on its own independent analysis.”); Moody’s Investors Service, *Moody’s Approach to Rating SF CDOs* (May 8, 2012), http://www.moody.com/research/Moodys-Approach-to-Rating-SF-CDOs--PBS_SF157850 (34-page document with detailed descriptions of different types of structured finance CDOs, and modeling assumptions and data used to determine ratings).

⁷ See, e.g., Moody’s Investors Service, *Moody’s Approach to Rating SF CDOs* (May 8, 2012), http://www.moody.com/research/Moodys-Approach-to-Rating-SF-CDOs--PBS_SF157850 (“The purpose of this report is to summarize Moody’s approach to rating SF CDOs, including changes we have implemented in response to the significant losses suffered by SF CDOs backed by US RMBS. Since the financial crisis we have lessened our reliance on model based methodologies and run various stressed scenarios to test the impact on the rated Notes through various events . . .”).

⁸ See list of registered NRSROs on the SEC website, at <http://www.sec.gov/about/offices/ocr.shtml>.

⁹ See Appendix 2, Exhibit [] (SEC charts with market share data by class of debt security).

¹⁰ S. 3850, 109th Congress: Credit Rating Agency Reform Act of 2006, <http://www.govtrack.us/congress/bills/109>.

SEC has issued regulations under the Act in mid-2007 and thereafter, and has submitted annual reports to Congress as required under the Act.¹¹

Dodd-Frank Wall Street Reform and Consumer Protection Act. The Dodd-Frank Act was enacted in July 2010 and contains several provisions on further regulation of NRSROs, and mandates that the SEC and federal banking regulators remove explicit references to ratings in their regulations.¹²

Securities and Exchange Commission (SEC). The SEC has direct but limited regulatory authority over NRSROs under the CRA Act, as described below in Section V. The SEC also sets capital adequacy standards for broker dealers, in particular Rule 15c3-1 (the “Net Capital Rule”).¹³ These standards have used credit ratings as a regulatory standard to identify investment grade debt securities held by the broker dealers, for which they are allowed to hold a lower capital cushion (relative to speculative grade debt securities). The capital cushion serves to absorb losses due to a decline in value of the debt securities or a default by the issuer.

Federal Banking Regulators. The Federal Reserve Board, Office of the Comptroller of the Currency, and Federal Deposit Insurance Corporation. These agencies do not regulate NRSROs or other rating firms, but they have authority over federally chartered banks and their operations, including to specify capital cushions (as described above) and other capital adequacy standards. Some of these standards use credit ratings to identify investment grade securities held by the banks, for which the banks are allowed to hold a lower capital cushion.¹⁴

¹¹ SEC staff Annual Reports on NRSROs are posted on the website of the SEC Office of Credit Ratings, <http://www.sec.gov/about/offices/ocr.shtml>.

¹² Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, H.R. 4173 (July 21, 2010), (“Dodd-Frank Act”). tit. IX, Subtitle C sec. 939F, <http://www.sec.gov/divisions/marketreg/ratingagency/wallstreetreform-cpa-ix-c.pdf>

¹³ 17 C.F.R. § 240.15c3-1.

¹⁴ See generally Board of Governors of the Federal Reserve Board, Press Release (June 7, 2012) (press release and proposed rules provide general description of bank capital rules that use ratings as regulatory standards), <http://www.federalreserve.gov/newsevents/press/bcreg/20120607b.htm>.

2. Evolving Market Structure and Regulatory Uses of Credit Ratings

Credit rating agencies commenced operations at the turn of the 20th Century as the American economy was expanding and needs arose for investment information and “market surveillance mechanisms.”¹⁵ Henry V. Poor, who published Poor’s American Railroad Journal in the mid-1850s, and a book on a similar subject, first met this demand. In 1909, John Moody published the first public credit rating for railroad bonds. Poor’s Publishing was formed in 1916 and Standard Statistics followed in 1922; the two firms merged in 1941 and McGraw Hill purchase S&P in 1966. Fitch Publishing was established in 1924 and merged in 1997 with IBCA, a British firm owned by FIMILAC, a French conglomerate.¹⁶

Before the SEC came into existence in 1934, rating firms sold large printed rating manuals directly to investors. In 1936, the Office of the Comptroller of the Currency issued a regulatory pronouncement prohibiting banks from investing in debt securities that were “distinctly or predominately speculative,” stating that the term used “may be found in recognized rating manuals, and where there is doubt as to the eligibility of a security for purchase, such eligibility must be supported by not less than two rating manuals.”¹⁷ This action intensified the

¹⁵ Sinclair (2005), 23.

¹⁶ White (2010) (1) 212.

¹⁷ See Gilbert Harold, *Bond Ratings as an Investment Guide*, 30 New York, Ronald Press (1938) (citing regulations of U.S. Comptroller of the Currency issued Feb. 15, 1936). The Comptroller clarified this regulatory pronouncement in May 1936 in response to criticisms by the banking industry about delegating judgment to rating firms: “The judgment for proper investment of bank funds . . . rests with the Directions of the institution and there has been and is no intention . . . to delegate this responsibility to the rating services, or in any way to intimate that this responsibility may be considered as having been fully performed by the mere ascertaining that a particular security falls within a particular rating classification. Reference to the rating manuals was made . . . in recognition of the fact that many banking institutions, by reason of lack of experienced personnel and access to original sources, are unable personally to investigate the background, history and prospects of a particular issuer of securities, and consequently must rely to some extent upon such information as has been compiled by various rating services in their large rating manuals. . . . Such ratings, however . . . are not conclusive on the question of eligibility.” *Id.* (citing address by J.F.T. O’Connor, Comptroller of the Currency, May 22, 1936). As discussed below, the position the OCC described in 1936 is strikingly similar to some proposals by the SEC and federal banking regulators to remove ratings from their regulations in accordance with the mandate in the Dodd-Frank Act.

demand for determination of creditworthiness from rating firms.¹⁸ During the late 1960s and 1970s, rating firms shifted to direct fee arrangements with issuers to pay for rating service.¹⁹ This change may have been prompted by a new threat of free riding by investors due to the proliferation of high-speed photocopiers by which investors could share ratings with their colleagues.²⁰ Rating firms also recognized that issuers derived significant marketing value from ratings at the time debt securities were issued.²¹

In 1975, the SEC adopted the Net Capital Rule requiring that broker dealers and other regulated entities maintain capital reserves based on a percentage of the value of debt securities they held, but applied a lower percentage for debt with high “investment grade” ratings. The SEC adopted the ratings issued by rating firms for this purpose, but only those firms that SEC staff recognized as NRSROs, a vaguely defined status that S&P and Moody’s initially dominated.²² Rating firms achieved NRSRO status when a debt issuer or other party obtained a written assurance that SEC staff would take no action to challenge the use of a particular firm’s ratings to meet the regulatory standard in the Net Capital Rule (and later other SEC rules). No-action letters served for many years as the basis for rating firms to issue ratings that satisfied SEC regulatory standards. Several other rating firms achieved such recognition, but due to

¹⁸ *Id.* 31–47 (also describing various other factors that increased demand for rating services, including psychological considerations, cost savings and other efficiencies, the effect of ratings in disciplining debt issuers to improve internal business practices, and legal considerations for investment fiduciaries, among others); White, 213.

¹⁹ Sinclair (2005), 29.

²⁰ White (2010)(1), 214.

²¹ *See, e.g.*, SEC 2003 Report 38 n. 103 (“Issuers seek credit ratings for a number of reasons, such as to improve the marketability or pricing of their financial obligations, or to satisfy investors, lenders, or counterparties who want to enhance management responsibility.”); White (2010)(2), 215 (“[T]he bond rating firms may have belatedly realized that the financial regulation described above meant that bond issuers needed their bonds to have the ‘blessing’ of one or more rating agencies in order to get those bonds into the portfolios of financial institutions, and the issuers should be willing to pay for the privilege.”).

²² Sinclair (2005), 42.

difficulties in achieving viable scale of business operations and eventual mergers, S&P, Moody's, and Fitch were the only remaining NRSROs as of 2003.²³

In 1994, the SEC issued a “concept release” seeking input on whether to regulate credit rating firms more directly. Despite advantages that rating firms recognized as NRSROs may have enjoyed, Moody's and other rating firms argued against the proposal, favoring instead a market recognition test of ratings.²⁴ The SEC took no action on the 1994 or later concept releases.

3. Credit Rating Agency Reform Act of 2006

After the CRA Act was enacted in late 2006, the SEC issued formal regulations for a voluntary registration program for NRSROs. The SEC's initial regulations under the CRA Act were adopted in June 2007 and the SEC recognized several NRSROs under this program by late 2007. By 2010, the SEC had recognized ten rating firms as NRSROs, but S&P, Moody's, and Fitch still accounted for nearly 90 percent of all ratings.²⁵ As of early 2013, ten rating firms had active registration as NRSROs for one or more classes of debt securities.²⁶

4. Dodd-Frank Act

The global financial crisis that began in 2008 focused critical attention on rating firms due to their ratings for structured finance debt securities based on pools of home mortgages and other types of loans. These debt securities are broken into tranches (layers) of exposure to

²³ See SEC 2003 Report 38 n. 103 (“Duff & Phelps, Inc. began issuing credit ratings in 1974 and became an NRSRO in 1982. McCarthy Crisanti & Maffei began issuing credit ratings in 1975 and became an NRSRO by 1983. IBCA Limited and IBCA Inc. began issuing credit ratings in 1978 and 1985, respectively, and were designated together as an NRSRO in 1990. Thomson BankWatch, Inc. entered the credit rating business in 1974 and became an NRSRO in 1991. . . . [E]ach of these NRSROs subsequently was acquired by or merged into another NRSRO, with the result that today there remain only three NRSROs.”).

²⁴ *Id.* 45; see also Matthew C. Mole, Moody's Investors Service, comment on SEC Concept Release Regarding Nationally Recognized Statistical Rating Organizations (Dec. 5, 1994), www.sec.gov/pdf/mole3.pdf, p. 5.

²⁵ SEC 2003 Report 45 (Market shares of three major rating firms were 40, 40, and 15 percent in 2008).

²⁶ See list of registered NRSROs on the website of the SEC Office of Credit Ratings at <http://www.sec.gov/about/offices/ocr.shtml>.

defaults on loans in the pool.²⁷ The volume of this debt increased greatly in years prior to the financial crisis while the economy was strong, with few defaults on loans in the pools.²⁸

Many of these debt securities became illiquid and lost significant market value as the housing market crashed and homeowners defaulted on mortgages that served as collateral. Investors were unable to find buyers or determine reliable values for this debt, which contributed to a severe liquidity crisis for large banks and other investors.²⁹ The financial crisis served as the first market-wide “stress test” for such debt, and exposed serious systemic (market-wide) risks for investors who owned this debt and firms that sold credit default swaps used to hedge against the risk under these investments.³⁰ Rapid rating downgrades to below investment-grade required banks and other financial firms that held this debt to raise additional capital to meet regulatory requirements at a time when the global economy and financial markets were in turmoil.³¹

The U.S. Department of Treasury, Federal Reserve Board, and Congress adopted a range of emergency measures to stem the liquidity crisis that arose at the outset of the financial crisis,³² but as the ensuing economic recession grew worse, attention quickly turned to government fact-

²⁷ Posner, 46.

²⁸ See Appendix 2, Exhibit 23 (chart on growth of structured finance ratings).

²⁹ See Daniel O. Beltran, Larry Cordell & Charles P. Thomas, “Asymmetric Information and the Death of ABS CDOs,” Board of Governors of the Federal Reserve System International Finance Discussion Papers No. 1075, at 1 (Mar. 2013), <http://www.federalreserve.gov/pubs/ifdp/2013/1075/default.htm> (describing liquidity crisis for structured finance debt in July 2007 following rating downgrades on subprime residential mortgage backed securities used in collateralized debt obligations, due to uncertainty about current market values, lack of reliable information on quality of assets in particular debt securities, and mistrust about bid and ask prices due to superior information held by large banks that were vertically integrated in production and sale of structured finance debt).

³⁰ See, e.g., Moody’s Investor Service, Moody’s Revisits Its Assumptions Regarding Structured Finance Default (and Asset) Correlations for CDOs 3, 9 (June 14, 2005), http://www.moody.com/research/Moodys-Revisits-its-Assumptions-Regarding-Structured-Finance-Default-and-Asset-PBS_SF57685 (“The actual application of the [Directional Ratings Transition Matrix] to structured finance ratings differs somewhat from that in the corporate sector. The reason is simply the availability of data: *the structured finance market is much less mature than the corporate bond market, thus providing a much shorter history of rating transitions. Furthermore, structured finance ratings of particularly important sectors like RMBS have tended to be more stable than corporate ratings, suggesting that there have been fewer observed transitions per rated credit per year.* The sparse data on structured finance rating transitions requires the application of a different technique to infer asset correlations than was applied in the corporate context.”) (emphasis added).

³¹ Posner, 50.

³² *Id.*, 41–42.

finding and ultimately to passage of the Dodd-Frank Act in July 2010.³³ Provisions in the Act focused on credit ratings require the SEC to pursue more extensive regulation of rating firms,³⁴ require the SEC to issue reports on proposals to mandate standardized rating systems and assign rating firms to rate particular structured finance debt,³⁵ and require that federal banking and securities regulators remove ratings from capital adequacy and other regulatory standards.³⁶

5. Regulatory Implementation of the Dodd-Frank Act

The SEC and federal banking regulators have proposed extensive new regulations and SEC staff have submitted reports to Congress pursuant to these mandates.³⁷ Some proposed changes are extensions of regulations already in force under the CRA Act, but others would have potentially far-reaching effects on the structure and operation of the market for rating services, and how banks and other regulated investors use ratings to meet regulatory requirements. Market participants have concerns about alternative to ratings that regulators have proposed.³⁸

³³ Analysts continue to study data on the performance of structured finance ratings for evidence of rating shopping by issuers, rating catering by rating firms, and other types of favoritism. *See, e.g.*, Matthias Efung and Harald Hau, "Structured Debt Ratings: Evidence on Conflicts of Interest," Swiss Finance Institute Research Paper Series 13-21 (Apr. 3, 2013):1-57; John M. Griffin, Jordan Nickerson and Dragon Yongjun Tang. "Rating Shopping or Catering? An Examination of the Response to Competitive Pressure for CDO Credit Ratings." (Jan. 25, 2013). <http://ssrn.com/abstract+2209358>.

³⁴ Dodd-Frank Act, tit. IX, subtitle C, sec. 932.

³⁵ *Id.* sec. 939(h), 939F.

³⁶ *Id.* sec. 939A.

³⁷ *See, e.g.*, "Regulatory Capital Rules: Advanced Approaches Risk-based Capital Rule; Market Risk Capital Rule." 77 Fed. Reg. 169 (August 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-16761.pdf>; "Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action; Proposed Rules." 77 Fed. Reg. 169 (August 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-16757.pdf>; "Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements." 77 Fed. Reg. 169 (August 30, 2012), <http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-17010.pdf>; Securities and Exchange Commission, Proposed Rules for Nationally Recognized Statistical Rating Organizations, 17 C.F.R. pts. 232, 240, 249, 249b, Release No. 34-64514; File No. S7-18-11. RIN 3235-AL15 (May 11, 2011), <http://www.sec.gov/rules/proposed/2011/34-64514.pdf>; Securities and Exchange Commission. Sept. 2012. *Report to Congress Credit Rating Standardization Study*. http://www.sec.gov/news/studies/2012/939h_credit_rating_standardization.pdf.

³⁸ *See, e.g.*, Appendix 1, Comment 24 (JP Morgan Chase) ("An example of the challenges faced by banks to implement an independent process is securities financing (repo style transactions) If the issuer is not represented in the bank's loan, trading or investment books it is unlikely that the bank would today have any information readily available beyond the public ratings. Given the timing considerations, a bank will effectively have to independently pre-evaluate every security, which it could be asked by a customer to finance. In the case of

SEC examination reports on credit rating agencies also raise questions about whether current regulation is effective or necessary: these reports show that the three main rating firms continue to account for the same or even larger share of rating services as they did when direct regulation began in 2007, and that virtually all rating services are now paid for by issuers rather than investors.³⁹ The SEC has not issued any focused study of the effect of regulation on rating performance, and has not reported any evidence of material problems with corporate or other ratings. This dissonance between market trends and the mandates in the Dodd-Frank Act point to a material risk of regulatory overreach in the wake of the global financial crisis.

IV. Economic Principles for Multi-Sided Platform Markets

1. Network Effects and Distinct User Groups in Platform Markets

Economic theory uses concepts of positive network externalities or network effects to describe markets in which the value of a service or product increases for each consumer as more consumers use the service.⁴⁰ These demand-side effects promote widespread adoption of a particular product, service, or technology. Telephone service is an example: additional phone lines add positive externalities to others in the network due to the increase in possible phone calls

major market participants, such as JPMC, this would effectively be the investable universe comprised of hundreds of thousands of issues. Therefore, from a practical perspective, the Proposals will result in a much narrower universe of collateral that may be financed.”).

³⁹ See SEC Staff Annual Report on Nationally Recognized Statistical Rating Organizations (Dec. 2012) (“SEC December 2012 Report”) 5–6, available at <http://www.sec.gov/about/offices/ocr.shtml> (“Of the nine NRSROs, six operate primarily under the “issuer-pay” model. Two NRSROs, KBRA and Morningstar, previously operated primarily under the “subscriber-pay” model but in recent years have begun issuing an increasing number of ratings under the issuer-pay model. Only EJR operates fully under the subscriber-pay model. The NRSROs operating primarily under the issuer-pay model account for almost 99% of the total NRSRO credit ratings reported by NRSROs as of December 31, 2011.”).

⁴⁰ See, e.g., SEC Annual Report on Nationally Recognized Statistical Rating Organizations, March 2012 (“SEC March 2012 Report”) 20, available at <http://www.sec.gov/about/offices/ocr.shtml> (“Network externalities, which are often considered in connection with such products as computer operating systems or video recorders, exist when the value of a product increases as more people use it.”) (citing Michael L. Katz & Carl Shapiro, “Network Externalities, Competition, and Compatibility,” *The American Economic Review*, Vol. 75, No. 3, pp. 424–440, (June 1985)).

among users.⁴¹ File sharing sites provide similar benefits: an increase in users who share content on the site provides more content and thus greater value to other users who visit the site.

These examples illustrate direct network effects, or benefits within a given user group from an increase in the size of that group. Economic theory also recognizes that indirect network effects may arise where the quantity demanded by at least one type of customer depends positively on the demand for one or more other types of customers, and the supplier is able to coordinate the demand of the customer groups.⁴² Positive demand externalities are the increased value of the service to members of a distinct user group as usage by another group rises. These products and services are sometimes described as two-sided or multi-sided platforms. The supplier or platform operator may use a variety of business methods to promote increased usage by the distinct user groups, and distinct price structures to maximize the value and profitability of the platform.⁴³

Operating software for Android cell phones is an example: cell phone users value having more applications for Android phones and application developers value having more users, regardless of whether the applications are available for free or sold for a fee. Credit cards and other electronic payment systems are another example: widespread acceptance of a particular payment technology or system by consumers, merchants, and banks increases the value of the system to each group.⁴⁴ Newspapers and (increasingly) online news sites are another example: the publisher provides a news platform through which readers and advertisers encounter one

⁴¹ Geoffrey Parker and Marshall W. Van Alstyne, “Information Complements, Substitutes, and Strategic Product Design,” 3 (Nov. 8, 2000) (“Parker and Van Alstyne”), <http://ssrn.com/abstract=249585>.

⁴² See, e.g., Organization for Economic Co-operation and Development, *Policy Roundtable: Two-Sided Markets* 11 (Dec. 17, 2009) (“OECD Tw-Sided Market Report”), www.oecd.org/daf/competition/44445730.pdf; David S. Evans, *A Note on the Reliability of Traditional Economic Models for Analyzing Multisided Platforms* 3 (March 4, 2013), Both Sides Now: What’s Special About Two Sided Markets? ABA Section of Antitrust Law Spring Meeting 2013 (Apr. 10, 2013).

⁴³ Parker and Van Alstyne 4; OECD Two-Sided Market Report 12, 24–26.

⁴⁴ Parker and Van Alstyne 5.

another. The value of advertising in a newspaper increases as more readers use the platform, and readers may receive more news and (potentially useful) advertising as the platform's total readership (and thus its ability to expand news coverage) increases. Another example is computer operating systems: the operating system is a platform used by consumers and by application software producers, and the value of the system to each customer group increases as overall usage of the platform increases.⁴⁵

These economic concepts have important implications in economic theory:

(i) The efficient structure of the platform market may be highly concentrated once rivalry for market acceptance has occurred, due to the positive network effects that drive distinct user groups to gravitate to platforms that are widely used.⁴⁶ High market concentration is a cause for concern because suppliers may have the ability to charge non-competitive prices, control output, or provide substandard service, but rivalry among platforms, and the demands of large and sophisticated users on one side of a platform, may discipline such conduct. Importantly, regulatory policies aimed at artificially reducing market concentration in a mature platform market risk depriving users of positive network effects from widespread use.

(ii) The profit-maximizing long-run equilibrium price to one group of customers may be less than marginal cost and even less than zero if the platform is able to maximize profits by subsidizing use for one user group and earning revenue from another group that wants access to

⁴⁵ See, e.g., OECD Two-Sided Market Report 26-29 (describing examples of two-sided platform businesses).

⁴⁶ See, e.g., SEC March 2012 Report 19 (“Network externalities can create a significant obstacle to entry for a new entrant in an industry where these effects are strong The procedures and methodologies of a rating agency create a standardized way of looking at credit risk, and one function of the rating is to facilitate communication about credit risk among market participants. Another function of credit ratings is to facilitate comparisons among credit instruments within a sector and potentially across sectors. Market participants may consider how widely the ratings of a particular rating agency are used by other investors and the breadth of coverage a rating agency provides as factors in determining the usefulness of its ratings.”); Appendix 1 Comment 18 (Langohr) (“[A]ll else equal, the larger the ‘installed base’ of ratings from a given CRA, the greater the value to investors.”).

the first group.⁴⁷ Due to the positive network effects that widespread usage produce, different price structures of this type may be desirable as a matter of public policy as well, because all platform users will benefit from a successful price structure that promotes widespread use by all user groups.⁴⁸ Importantly, regulatory policies that restrict such pricing structures will affect all user groups due to the interdependent nature of their demand for platform services.

(iii) New suppliers of platform services may face a “chicken and egg” problem in gaining customers on one or more sides of the platform, in particular if this means taking customers away from other established platforms.⁴⁹ Gaining such business may be difficult due to the positive network effects that users gain from a platform that is widely used, and the lack of such effects for a new platform that is not widely used.⁵⁰

2. Credit Rating Services Produce Network Effects as Multi-Sided Platforms

Rating systems produce network effects as multi-sided platforms that drive users to favor established rating systems by increasing the value of these systems for both issuers and investors through widespread use. This occurs for a variety of reasons:

⁴⁷ See, e.g., OECD Roundtable on Two-Sided Markets, Note by Delegation of the United States (June 4, 2009), p. 3, available at <http://www.ftc.gov/bc/international/docs/roundtabletwosided.pdf> (“In a traditional market, prices either significantly above or significantly below production cost can raise antitrust concerns. In a two-sided market, however, a highly skewed pricing structure may be efficient. In order to maximize volume in the network, a platform may set prices above production cost on one side of the market in order to subsidize the other side. Perhaps the most basic reason for this is that the nature of externalities often differs across the two groups of customers.”).

⁴⁸ See, e.g., David S. Evans, A Note on the Reliability of Traditional Economic Models for Analyzing Multisided Platforms 5-6 (March 4, 2013), Both Sides Now: What’s Special About Two Sided Markets? ABA Section of Antitrust Law Spring Meeting 2013 (Apr. 10, 2013) (“First, the profit-maximizing long-run equilibrium price to one group of customers can be less than marginal cost and, indeed zero and less than zero. . . . Second, the same statement is true for social-welfare maximizing prices. That is, a social planner could choose to establish long-run prices of less than marginal cost to one group of customers in order to maximize social welfare. In general, of course, as is the case with single-sided firms, the profit-maximizing firm would not necessarily choose the same relative prices for the various sides as the social-planner would.”).

⁴⁹ See, e.g., Appendix 1, Comment 18 (Langohr); SEC March 2012 Report 19 (“The accuracy and consistency of ratings produced by a given rating agency may only be revealed over an extended period. Because it is difficult to evaluate a particular credit rating easily, establishing and maintaining a reputation for ratings accuracy, a process which can take years, is very important for any credit rating agency.”).

⁵⁰ Parker and Van Alstyne, 3.

(i) Rating systems consist of simple scales that describe the relative risk of default (or expected loss on default) rather than an absolute assessment of default risk. This methodology produces positive externalities both for issuers and investors if the rating system covers a large percentage of debt securities overall, or in a segment of debt markets.⁵¹

(ii) The structure of debt markets reinforce network effects that established rating systems provide, because public debt markets are comprised of many thousands of debt securities. Rating systems enable comparisons among debt to aid in decisions on prices, yields, and selecting debt securities for portfolios.⁵² Large banks operate as underwriters, issuers, and investors, and have been primary intermediaries for over the counter transactions, in part with their own inventories of debt securities (although regulatory changes are reducing the latter role),⁵³ so the banks achieve network effects in these roles by using a small number of rating systems.

(iii) Rating firms seek to minimize the difference in default probabilities among securities assigned the same rating, which is an important quality demanded by investors in managing portfolios and achieving fair pricing relative to risk.⁵⁴

⁵¹ Dittrich, 73.

⁵² See e.g., Daniel M. Gallagher, Remarks at the Conference on Financial Markets Quality (speech presented at the Conference on Financial Markets Quality, Georgetown University McDonough School of Business, Washington, D.C., Sept. 19, 2012) (“Gallagher Speech”), <http://www.sec.gov/news/speech/2012/spch091912dmg.htm> (“In 2011, there were over 1 million different bonds outstanding, totaling approximately \$11.7 trillion in principal, in the corporate and municipal markets alone, compared to less than 7,000 equities listed on major U.S. stock exchanges.”); SEC March 2012 Report 16 (“Structural changes in financial markets increased the number of participants, their anonymity, and the complexity of their investment strategies. Credit ratings have offered a time-saving and comparative tool to evaluate the growing number of debt issues. Also, financial disintermediation and an increase in the proportion of credit supplied by capital markets rather than banks has been accompanied by the creation of increasingly complex securitization instruments. This increasing complexity likely contributed to additional demand from investors for NRSRO credit ratings as they provided a single summary measure of the credit risks of difficult to evaluate financial instruments.”).

⁵³ See, e.g., Gallagher Speech (“[M]ore stringent capital requirements under Basel III, coupled with anticipated Volcker Rule prohibitions on proprietary trading, have made—and will continue to make—trading certain bonds more expensive and less profitable. These changes may already be having the unintended consequence of draining liquidity in the OTC bond markets as the dealer banks are less willing to hold bond inventory, even in the face of rising demand from retail and institutional investors. Whatever the cause, the amount of corporate bonds that dealers hold on their balance sheets has dropped to about \$45 billion from about \$235 billion in 2007.”).

⁵⁴ Dittrich, 73 (“In a 1998 survey, 90 percent of institutional investors cited ‘rating consistency’ as the most important factor for determining their impression of rating accuracy.”).

(iv) Many investors buy and hold debt securities for many years and wish to avoid costs to rebalance portfolios; established rating firms have long track records to gauge the accuracy and stability of their ratings, which provides greater value to long-term investors compared to systems of new or much smaller rivals that do not have comparable track records.⁵⁵

(v) Investors value rating systems because they condense and analyze a number of variables related to creditworthiness for particular debt securities into a simple nomenclature.⁵⁶ The larger the network of debt securities a rating system covers, the more valuable this nomenclature is to investors and issuers to make investment and pricing decisions.⁵⁷

(vi) Markets for many debt securities are illiquid because investors buy and hold debt securities as long-term investors, and most debt securities are traded over the counter rather than on public exchanges, so current and accurate pricing information may not be available as for publicly traded equity securities.⁵⁸ Established rating systems aid in evaluating price quotes for debt securities, by providing relative benchmarks to compare default risk and investment quality to other similar debt securities. The contractual obligations of rating firms to issuers, and the standards and practices they follow as a condition of NRSRO status, also provide an external, event-driven evaluation for ratings and rating changes that serve to reveal concerns or benefits of particular debt securities relative to others.

⁵⁵ See, e.g., Appendix 1, Comment 18 (Langohr).

⁵⁶ See, e.g., Appendix 1, Comment 19 (OECD Hearings) (“Finally, ratings provide market participants with a common standard or language to refer to credit risk.”).

⁵⁷ See, e.g., SEC March 2012 Report 20 (“Market participants may consider how widely the ratings of a particular rating agency are used by other investors and the breadth of coverage a rating agency provides as factors in determining the usefulness of its ratings.”).

⁵⁸ See, e.g., Gallagher Speech (“[O]f the approximately 80,000 corporate bonds outstanding, only about 6,000 trade on the New York Stock Exchange’s bond trading platform [T]here is little or no centralized collection and continuous dissemination of bid/ask quotes—that is, pre-trade price transparency—in the corporate and municipal bond markets. . . . As compared to the markets for equities—as well as for Treasuries and mortgage-backed securities—the markets for corporate and municipal bonds are significantly less liquid.”).

3. Industry Recognition That Rating Systems Are Multi-Sided Platforms

Econometric evidence that rating systems produce network effects, even if feasible, is beyond the scope of this analysis, but economists and policy analysts rely on a range of market information and anecdotal evidence to evaluate demand characteristics and show industry recognition that established rating systems produce network effects.

Purchase Patterns and Stable Market Structure. Issuers make direct purchases of rating services, and network effects are reflected in their decisions over time to prefer established rating systems that are in widespread use. Investors do not make direct purchases of most rating services, but issuers' decisions are affected by long-standing experience that shows investors who purchase debt securities prefer ratings under established rating systems. Market share data shows a persistent preference for the rating systems of the three leading rating firms, which account for 96 percent of all ratings nearly six years after other firms gained registration as NRSROs.⁵⁹ This purchasing pattern is consistent with the presence of network effects on the part of issuers, who continue to prefer the leading rating firms, and on the part of investors, who continue to rely on the leading rating systems for investment decisions.

Purchasing patterns also show that network effects do not arise solely or even primarily from the use of ratings as regulatory standards, because high demand for leading rating systems has persisted even though ratings by smaller NRSROs would satisfy regulatory standards. Some commentators portray these regulatory standards as a tool for leading rating firms to maintain

⁵⁹ See Appendix 2, Exhibits 1–2 (SEC charts and tables with market share data); SEC December 2012 Report 8 (“Two NRSROs, Moody’s and S&P, accounted for approximately 83% of all credit ratings. Moody’s, Fitch and S&P accounted for approximately 96% of all credit ratings (the top three accounted for 97% of all outstanding credit ratings in last year’s report).”).

their hold on business, but these firms have submitted comments over many years advocating that ratings be removed as regulatory standards.⁶⁰

Importantly, these purchase patterns are not the result of contractual requirements that issuers or underwriters use a particular rating firm on a continuous or exclusive basis, and issuers frequently obtain ratings from at least two rating firms.⁶¹ Thus, the issuers' consistent preference for established rating systems are evidence that these systems provide network effects.⁶²

Pricing Structure for Rating Services. Detailed pricing data is not publicly available, but the SEC has reported that issuers pay for virtually all rating services, and investors (and other groups) use ratings as “public goods” without payment of a fee.⁶³ This pricing structure is consistent with multi-sided platform services, in that rating firms need investors to use and rely

⁶⁰ See, e.g., Raymond W. McDaniel, Moody's Investors Service, July 28, 2003 (Comment on SEC 2003 Concept Release on Rating Agencies and the Use of Credit Ratings Under Federal Securities Laws), <http://www.sec.gov/rules/concept/s71203/moodys072803.htm> (“Moody's would support elimination of the use of credit ratings in federal securities laws. If ratings cease to be used for regulatory purposes, we believe that credit rating agencies can continue to serve their primary objectives in support of market efficiency and investor protection. As an incidental consequence, the elimination of regulatory use would directly address the concerns of some commentators that the high barriers to entry and nature of competition in the credit ratings industry are a byproduct of government action. If authorities determine to continue to use ratings in federal securities laws, that determination should not be the justification for intrusive regulation - including efforts to control rating agencies' independent opinion content or to effect a change in the rating agencies' exposure to civil litigation. As ratings are not intentionally produced by rating agencies for use in federal securities law, Moody's would oppose a designation process if it were to lead to intrusive oversight measures, which would potentially alter the core attributes of ratings or the current business model.”).

⁶¹ See, e.g., Appendix 1, Comment 3 (California PERS) (“The market and not institutional investors through their respective investment policies demand ratings from two recognized agencies.”); John M. Griffin, Jordan Nickerson & Dragon Yongjun Tang, “Rating Shopping or Catering? An Examination of the Response to Competitive Pressure for CDO Credit Ratings” (May 25, 2012), http://business.nd.edu/uploadedFiles/Academic_Centers/Study_of_Financial_Regulation/pdf_and_documents/cdo_credit_ratings.pdf (comparing performance of CDO structured finance debt rated by two or three rating firms).

⁶² SEC staff has observed that aggregate data on the total number or ratings outstanding may not fully reflect the success of smaller NRSROs in capturing new rating business, but the SEC does not require or obtain disaggregated data from NRSROs that show market shares for ratings on newly issued debt securities. See SEC March 2012 Report 22 (“[C]omparing the number of ratings outstanding for large, established NRSROs and newly registered NRSROs may not provide a complete picture. The large NRSROs have a significantly longer history of issuing ratings and their ratings include those for debt obligations (and obligors) that were rated long before the establishment of the newer entrants. Consequently, a comparison of the number of ratings issued on more recent issuances may provide a better gauge of how well newer entrants are competing with more established firms.”).

⁶³ See, e.g., SEC December 2012 Report 9 (total revenue of NRSROs was \$4.2 billion; net income of three largest NRSROs that use issuer pays compensation model was 97 percent of total net income; no report of pricing data).

on ratings but are not able to collect fees from investors who are able to access rating information from other investors, or from issuers.

Analysis of price levels and trends may be warranted if the data becomes available, but this data may not show directly whether issuers and investors derive greater value from established rating systems due to widespread reliance by all user groups. For example, if network effects produce greater value for established rating systems that are widely used, issuers may be willing to pay higher prices for these services relative to smaller rating firms, but such price differentials arguably could reflect the ability of the leading firms to charge high prices due high market concentration rather than the quality or value of their services.

Rating Performance Data. Data on rating performance is publicly available and shows that investors and issuers value long-term accuracy and stability in rating systems. For example, the SEC recognizes these preferences through requirements that NRSROs must be nationally recognized through (relatively) widespread use, and must submit data on rating accuracy and stability over time horizons up to ten years.⁶⁴ Rating firms also provide detailed public information on rating performance that focuses on widespread use of their rating systems, and long-term accuracy and stability of ratings.⁶⁵ These performance metrics show that issuers and investors derive increased value from rating systems that are widely used over long time periods.

Pricing Structure for Debt Securities. Credit ratings are not an end good that users consume, but rather a service that market participants use to make decisions on portfolio allocation, pricing, and valuation of debt securities. Rating systems provide a benchmark based

⁶⁴ 15 U.S.C. § 78o-7(a)(1)(B) (requiring NRSRO applicants to submit rating performance data over short, medium, and long terms (defined by SEC as one, three, and ten years), a confidential list of twenty largest issuers and subscribers that use the rating firm's services, and certifications by no fewer than ten qualified institutional buyers that they have used the firm's services for the previous three years).

⁶⁵ See, e.g., Moody's 2012 Form NRSRO, Exhibit 1, *available at* <http://www.moody.com/Pages/reg001002.aspx> (tables with rating transitions and default rates for one-, three-, and ten-year periods).

on relative default risk (and perhaps expected loss), and investors and issuers typically expect that more highly rated debt will be priced higher (and thus pay a lower yield to investors), relative to similar but lower rated debt. Debt market participants who use ratings to evaluate relative pricing and investment grade status of debt securities will benefit from network effects if counterparties to transactions use the same rating systems to inform their decisions, as this symmetry serves to reduce uncertainty and achieve consensus about valuation and pricing.⁶⁶

Industry Commentary. Participants in debt markets and other organizations have submitted comments on the SEC’s proposed regulations of NRSROs and regulations to replace ratings as regulatory standards. These comments are submitted to express views on whether proposed regulations would benefit market participants as intended, would be too costly or burdensome, or would produce other problems. Industry members typically do not comment explicitly on market traits such as network effects, but these traits are reflected in a range of comments that reflect preferences and concerns of user groups for rating systems and services:

(i) Industry members have expressed preferences for rating systems that are widely used and have a long-term track record for relative accuracy.⁶⁷

(ii) Industry members have expressed concerns over counterparty risk in transactions among financial services firms if counterparties have differing views about the default risk of debt securities they hold as assets. These concerns arose during the financial crisis due to fears that counterparties would become insolvent. Related concerns over counterparty risk have been directed at proxies for credit ratings proposed by the SEC and federal banking regulators, due to

⁶⁶ See, e.g., Appendix 1, Comment 10 (COPERA) (“COPERA is not aware of any single alternative method proposed which is robust enough to characterize risk across all types of instruments.”).

⁶⁷ See Appendix 1, Comments 2 (BMA), 6 (Ford Motor), 10 (COPERA), 12 (Fidelity), 16 (SIFMA).

the risk that counterparties may not be well capitalized if they are not using common benchmarks such as established rating systems to determine the default risk for assets that they hold.⁶⁸

(iii) Industry members have raised concerns that a multiplicity of rating systems could give rise to uncertainty over compliance with regulatory standards and investment guidelines, if one or more smaller rating firms downgrades debt securities and others do not.⁶⁹

The SEC also has commented that natural barriers to entry that exist for rating service arise from network effects that benefit user groups as more debt securities are rated with the same rating system, and thus tend to limit the number of rating firms in the market.⁷⁰

Scholarly Commentary. Scholars and policy analysts also recognize that rating systems produce network effects characteristic of multi-sided platforms:

(i) **Langohr Comments on SEC 2007 Proposed Rules (March 2007).**⁷¹ The Langohrs emphasized that network effects would cause the market for rating services to remain highly concentrated, with the possibility for successful entry arising as new financial products emerge or specialized firms in a particular segment of debt markets leverage their experience to broaden their rating profile.⁷²

(ii) **OECD Hearings, Competition and Credit Rating Agencies (2010).**⁷³ The OECD Report distills input from scholars and public officials on the economic forces that drive the

⁶⁸ See Appendix 1, Comments 3 (Fidelity), 5 (Siemens), 10 (COPERA), 13 (SIFMA), 15 (BDA), 17 (Fitch).

⁶⁹ See Appendix 1, Comments 11 (Fidelity), 15 (BDA).

⁷⁰ See, e.g., SEC March 2012 Report 20-21; SEC December 2012 Report 10-11.

⁷¹ See Appendix 1 Comment 18 (Langohr).

⁷² See also Appendix 1, Comment 6 (Ford) (“We believe that investors and issuers would prefer a manageable number of NRSRO’s, perhaps three to five agencies.”); Appendix 1, Comment 16 (BMA) (“Over time, as the agency continues to rate deals, its reputation may improve (assuming performance is adequate). We have seen this in recent years as certain smaller agencies have gained market share in specific markets. However, this is an organic process, one that cannot be forced.”).

⁷³ Organization for Economic Co-operation and Development, “Hearings, Competition and Credit Ratings” (Oct. 5, 2010), <http://www.oecd.org/regreform/sectors/46825342.pdf>.

structure of the market for rating services, including in particular network effects that benefit issuers and investors through widespread use of established rating systems.

(iii) **Ulrich Schroeter, Three Letters that Move Markets: Credit Ratings Between Market Information and Legal Regulation (2011).**⁷⁴ Schroeter rebuts the view that supply-side entry barriers have allowed leading rating firms to provide most rating services over many years. He notes that this view does not explain the failure of smaller rating firms to achieve a meaningful scale of operations, and points instead to demand-side barriers that arise due to investors' preference to use only a few rating suppliers; these choices reduce complexity by distilling information into easy-to-process rating symbols, an advantage that would be lost if investors had to assimilate and process ratings from a large number of rating systems.⁷⁵

4. Economic Implications of Rating Systems as Multi-Sided Platforms

Market Structure. Network effects are demand-side forces that affect (and benefit) both debt issuers and investors, and explain why the market for rating services evolved with a high level of concentration among a small number of long-standing rating firms. The larger the network of ratings under a particular rating system, the more valuable the ratings are to investors who compare thousands of debt securities in making portfolio decisions. Issuers who purchase ratings benefit by reducing uncertainty among investors about the issuer's relative default risk and investment quality, in particular given that most investors do not purchase a sufficient volume of any particular debt security to justify the cost and burden of directly analyzing these

⁷⁴ Ulrich G. Schroeter, "Three Letters That Move the Markets: Credit Ratings between Market Information and Legal Regulation," *Journal of Applied Research in Accounting and Finance*, 6, 1 (July 9, 2011), 14–30, 2011, <http://ssrn.com/abstract=1957435>.

⁷⁵ See also Appendix 1, Comment 21 (Coffee), Comment 22 (White).

attributes.⁷⁶ These benefits are reinforced if the rating system has a good track record for long-term rating accuracy and stability.⁷⁷

Both issuers and investors may be disinclined to adopt too many rating systems. A proliferation of rival systems may be too costly for issuers due to the time and effort involved in the rating process, and the lack of offsetting benefits. A large number of rating systems also could lead to greater variance in ratings, and in turn to disagreements over pricing and yield in market transactions, and problems in selecting debt securities that meet investment guidelines. A large number of rating systems also may lead to a “race to the bottom” (i.e., issuing unduly favorable ratings in favor of issuers), if issuers are able to play a larger number of rating firms off each other to gain more favorable ratings.⁷⁸

Market structure also may be influenced by supply-side economies of scale that reduce production costs across the entire platform. Established rating firms will develop historical information about issuers that use their services, and data and methodologies that enhance the quality and efficiency of their service.⁷⁹ New and smaller rating firms may achieve similar

⁷⁶ See Appendix 1, Comment 19 (OECD).

⁷⁷ Dittrich, 74.

⁷⁸ See, e.g., John C. Coffee, “Ratings Reform: The Good, the Bad, and the Ugly,” OECD Hearings, Competition and Credit Ratings (Oct. 5, 2010) 43, <http://www.oecd.org/regreform/sectors/46825342.pdf> Coffee (“[The top six underwriters listed above controlled over 50% of this market, and the top dozen accounted for over 80%. As a result, they possessed the ability to threaten credibly that they would take their business elsewhere – a threat that the rating agencies had not previously experienced. . . This development was exacerbated by the second major change occurring in this market in the decade prior to 2008: namely, heightened competition among the CRAs, caused by the rise of Fitch Ratings. As Becker and Milbourn have shown, Fitch's monthly share of US credit ratings between 1998 and 2006 rose from a low of 20% in 2000 to a peak of 45% in 2006 . . . For many commentators, competition is exactly what the market for credit ratings needed. But Becker and Milbourn find that it in fact led to a significant inflation in ratings. As the following diagram shows, the percentage of investment grade ratings went up with greater competition, and the percentage of noninvestment ratings went down – in both cases for every rating”) (citing Bo Becker and Todd Milbourn, Reputation and Competition: Evidence from the Credit Rating Industry, HBS Finance Working Paper 09-051 (2008)); John M. Griffin, Jordan Nickerson and Dragon Yongjun Tang, “Rating Shopping or Catering? An Examination of the Response to Competitive Pressure for CDO Credit Ratings,” (Jan. 25, 2013), <http://ssrn.com/abstract+2209358> (data analysis suggesting that rating catering by rating firms seeking business from large underwriters for structured finance debt contributed to high ratings).

⁷⁹ See, e.g., SEC March 2012 Report 18 (“Economies of scale, sunk costs, and access to a historical default distribution may be economic factors which may favor the larger, more established rating agencies. Large rating agencies can allocate the costs of, among other things, analytical software, administrative, legal, compliance,

efficiencies over time, but only if these rivals can overcome the “chicken and egg” problem of attracting business away from established firms.⁸⁰

Pricing Structure. Platform owners use pricing structures that reflect the demand characteristics and practical considerations of each user group. In the case of credit ratings, technological change in the 1970s with photocopiers allowed investors to freely share rating data purchased under a subscription service.⁸¹ This change eroded the practical ability of rating firms to rely on an investor-pays business model. Credit rating agencies also perceived that debt issuers were deriving increasing value from rating services, both at the time of issuance and over the duration of debt securities.⁸² Rating firms shifted to what is now the predominant issuer-pays compensation model. Some investors and advisors still pay subscription fees for access to detailed reports and analysis that rating firms post on secure websites, but the predominant revenue source for rating firms has been payments by debt issuers for rating services.⁸³

marketing and support staff across a wider range of ratings, providing a more efficient cost base. In addition, these rating agencies have, over the years, used substantial resources to, for example, develop ratings methodologies and procedures. A long history of providing credit risk assessment is also important in credit rating agencies’ ability to develop statistical models that rely on historical default probability distribution.”).

⁸⁰ See Lawrence J. White, “The Credit Rating Industry: An Industrial Organization Analysis” (February 2001). NYU Ctr for Law and Business Research Paper No 01-001: 30. <http://ssrn.com/abstract=267083>; SEC 2003 Report 36–37 (“The recent growth in the number of firms operating as credit rating agencies suggests a growing appetite among market participants for advice about credit quality, and that new entrants are able to develop a following for their credit judgments. At the same time, few would dispute that new entrants generally have been unable to evolve into a substantial presence in the ratings industry. Many believe this is due primarily to the longstanding dominance of the credit rating business by a few firms – essentially the NRSROs – as well as the fact that the marketplace may not demand ratings from more than two or three rating agencies.” “[W]ithout NRSRO status new entrants encounter great difficulties achieving the “national recognition” necessary to acquire the NRSRO designation. In other words, new entrants are faced with something akin to a “chicken and egg” problem in achieving NRSRO status, which they view as necessary or . . . very important for becoming a substantial presence in the credit rating industry.”).

⁸¹ See Lawrence J. White, “The Credit Rating Industry: An Industrial Organization Analysis,” NYU Ctr for Law and Business Research Paper No. 01-001:13 (Feb. 2001), <http://ssrn.com/abstract=267083>.

⁸² See *id.* (“[I]n 1970 the default by the Penn Central on \$82 million in commercial paper, followed by liquidity crises by other short-term issuers and their defaults, was a defining moment that focused both issuers and investors on the risks of such issuances. Issuers were more desirous of reassuring nervous investors of the quality of their issuances and actively sought ratings. Charging the issuers for the ratings naturally followed.”).

⁸³ See SEC 2003 Report 6 (“[T]he largest credit rating agencies rely on issuer fees for the vast majority of their revenues In general, the fees that rating agencies charge issuers are based on the size of the issuance and the nature of the instrument being rated. They typically include both a fee for the initial rating and an annual maintenance fee.”).

Much of the commentary on the issuer-pays compensation model has focused on conflicts of interest in connection with ratings on complex debt securities, but the economic principles for multi-sided platforms show that this pricing structure is a rational and efficient method to achieve broad usage of rating systems not only by debt issuers and their underwriters, but in particular by investors who are essential to maintaining a successful multi-sided platform service, but are capable of avoiding user fees due to free riding. Even if investors do not make direct purchases of ratings from credit rating agencies, they express demand for and satisfaction with a rating system through their investment decisions, and use of the rating system as a tool for pricing decisions. Absent investor confidence and widespread usage, demand by debt issuers for a rating firm's service would diminish and eventually threaten the viability of its platform.

Market Entry. Network effects and the multi-sided character of a platform market require that the platform owner achieve and maintain a critical mass of all user groups to provide a competitive service. In the case of credit ratings, a rating firm needs a critical mass of debt issuers and investors for its rating system to succeed over the long term as a benchmark of relative default risk. Issuers and investors also benefit from long-term continuity and reliability of a rating system, given that they use ratings to make many buy-and-hold investment decisions, and pricing decisions at the time of issuance and later purchases and sales. Although credit ratings and relative default risk are only one factor that weighs on such decisions, the reputation of a rating firm for overall rating accuracy and stability, and thus the predictability of its ratings as an aid to pricing and investment decisions, are attributes that new entrants may only develop through long-term usage.

These market traits are inherent in the nature of rating systems as multi-sided platforms. Some commentators view these traits as barriers to entry,⁸⁴ regardless of whether economic theory would treat them as such.⁸⁵ The challenges that new or smaller rating firms face are the product of myriad market choices by debt issuers and investors as platform users to purchase and rely on only a limited number of rating systems. These choices are not restricted by contractual obligations or exclusive dealing policies of established rating firms, but rather by efficiencies in the form of network effect that benefit all platform users. These benefits may be lost or diminished if SEC regulation seeks to artificially change how issuers and investors select and use rating systems through a program for assigned credit ratings or other similar requirements.

5. Regulators as Rating System Platform Users

The SEC, federal banking regulators, state insurance commissioners, and other financial regulators have relied on established ratings systems in various ways to determine minimum standards of capital reserves and credit worthiness for debt securities held as assets by regulated

⁸⁴ See, e.g., SEC Staff Annual Report on Nationally Recognized Statistical Rating Organizations (Dec. 2012), p. 20, available at <http://www.sec.gov/about/offices/ocr.shtml> (“Network externalities, which are often considered in connection with such products as computer operating systems or video recorders, exist when the value of a product increases as more people use it. Network externalities can create a significant obstacle to entry for a new entrant in an industry where these effects are strong.”), citing Jerome Fons, “White Paper on Rating Competition and Structured Finance” (Jan. 10, 2008), pp. 4-5, available at <http://www.fonsrisksolutions.com/Documents/Ratings%20White%20Paper.pdf> (“Where there is a market failure, however, the competitive solution may not be optimal. One type of market failure that permeates the rating industry is a network effect. An example of a network effect is a language. A specific language gains currency and, hence utility, through wide adaptation. The larger the number of speakers, the greater is the language’s usefulness. This imparts a monopoly status to an established language. Competition—that might arise from a parallel language—if anything, wastes resources through the need to employ interpreters and duplicate documents.”) Fons incorrectly describes network effect as a market failure, in that he acknowledges that established ratings systems have increased utility of the systems due in part to widespread use.

⁸⁵ See, e.g., George J. Stigler, *The Organizations of Industry*, (1968), p. 67 (“A barrier to entry may be defined as a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry.”); cf., *U.S. v. Microsoft Corp.*, 253 F.3d 34, 55 (D.C. Cir. 2001) (network effects produced “applications barrier to entry that protects a dominant operating system irrespective of quality”).

firms, and for other purposes.⁸⁶ Regulators do so either explicitly or implicitly in recognition of network effects that established rating systems provide due to widespread use, and also due to inherent difficulties that regulators face in defining excessive risk and investment grade quality for debt securities.⁸⁷ The established rating systems have provided an external and objective means for determining relative default risk for debt securities that is not the product of subjective determinations by regulated firms.⁸⁸

The plethora of such regulations has served to reinforce the network effects that rating systems provide through widespread use, but these effects benefit other platform users, in particular investors.⁸⁹ Due to the mandate in the Dodd-Frank Act, the SEC and federal banking regulators now face the difficult and perhaps intractable task of adopting regulatory proxies for ratings that do not enjoy long-standing use and widespread acceptance, and investors have expressed concerns that proposed alternatives will not achieve the objectives of the regulatory standards and may produce a range of detrimental consequences.⁹⁰

6. Lenders and Borrowers as Rating System Platform Users

Parties to a range of bank lending and investment management agreements use changes in ratings under an established rating systems as a reference tool to define events of default,

⁸⁶ See, e.g., SEC 2003 Report 6 (“NRSRO ratings are widely used for distinguishing among grades of creditworthiness in federal and state legislation, rules issued by financial and other regulators, and even in some foreign regulations.”).

⁸⁷ See, e.g., Coffee 57-58 (“Some believe that the basic error made by regulators was to grant ratings agencies a de facto regulatory role. In truth, this decision, which dates back to the 1930s in the US, was the product of the inability of financial regulators to define excessive risk themselves . . . Then, realising that financial institutions could outflank these rules by turning to new “fly-by-night” credit rating agencies, the SEC adopted rules in the mid-1970s that created a small, select club of “Nationally Recognised Statistical Rating Agencies” (or “NRSROs”).

⁸⁸ See, e.g., Dodd-Frank Act sec. 931(2) (“Credit rating agencies, including nationally recognized statistical rating organizations, play a critical “gatekeeper” role in the debt market that is functionally similar to that of securities analysts, who evaluate the quality of securities in the equity market, and auditors, who review the financial statements of firms. Such role justifies a similar level of public oversight and accountability.”).

⁸⁹ See Appendix 1, Comments 2 (BMA), 3 (Fidelity), 5 (Siemens), 10 (COPERA), 12 (ICI), 14 (Fidelity), 16 (SIFMA).

⁹⁰ See, e.g., Appendix 1, Comments 10 (COPERA), 13 (SIFMA), 14 (Fidelity), 15 (BDA), 17 (Fitch), 24 (JP Morgan Chase).

requirements for additional loan collateral, and prudent investment standards, among other uses.⁹¹ These business arrangements generate further indirect network effects (i.e., debt issues who achieve a desirable rating may face a wider array of investors who may purchase their securities; customers of investment managers may have greater certainty as to the manager’s investment standards), but also create additional barriers to entry and expansion for rating firms that are not referenced in such agreements.

V. Purpose and Scope of SEC Regulation of Credit Rating Agencies

The historical and economic background above describes specialized rating systems that evolved over many years as multi-sided platforms to fill important roles in debt markets and regulation of financial services firms. The discussion that follows describes the scope of formal SEC regulatory authority over rating firms in the wake of Enron and other corporate accounting scandals, which in turn will serve as context for the quantitative analysis in Section VI focused on the impact of SEC regulation on market structure and rating performance.

1. SEC Regulation Under the Credit Rating Agency Reform Act of 2006

The SEC did not have explicit statutory authority to regulate credit rating agencies prior to the CRA Act, even though the SEC had adopted ratings into regulatory standards in the 1970s and SEC staff had used the “no action letter” procedure to tacitly approve rating firms as qualified to issue ratings that satisfied these regulatory standards.⁹² Questions about the SEC’s regulatory authority arose in part because the SEC’s main enabling statutes did not address the

⁹¹ See SEC December 2012 Report 10 (“A wide range of private contractual agreements which reference the ratings of particular rating agencies create a potential barrier to entry for new entrants. These include, for example, minimum ratings requirements that require the ratings of specific rating agencies in the investment management contracts of institutional fund managers and the investment guidelines of fixed income mutual fund managers, pension plan sponsors, and endowment fund managers.”).

⁹² See, e.g., CRA Act sec. 2(6) (“[T]he Commission has indicated that it needs statutory authority to oversee the credit rating industry.”).

role of ratings in SEC regulation, but also because ratings have been viewed as expressions of opinion protected from prior restraint under the first amendment to the U.S. Constitution.⁹³

The CRA Act resolved the first question by providing express statutory authorization for the SEC to engage in certain forms of regulation over credit rating agencies; the second question may have shaped this authority, in that the CRA Act makes registration with the SEC voluntary and prohibits the SEC from regulating the methods used for ratings or the substance of ratings. Thus, a rating firm may choose to remain free of SEC oversight, even though its ratings would not satisfy SEC (and perhaps other) regulatory standards; and firms that do register continue to make their own decisions on rating methodology and actual ratings.

The legislative process for the CRA Act began in the wake of corporate accounting scandals involving Enron, Worldcom, and other companies, each of which ultimately filed for bankruptcy; congressional hearings that followed these scandals led first to enactment of the Sarbanes-Oxley Act, which focused primarily on financial reporting by public companies, but also directed the SEC to examine and report on credit rating agencies the role of rating firms in these scandals, and more generally in the operation of markets for debt securities.⁹⁴

A prominent policy narrative to emerge from these scandals and the ensuing legislative process was that the two major rating firms acted far too late in downgrading debt securities for the bankrupt firms due to close relationships with the companies under the issuer-pays compensation model.⁹⁵ The CRA Act authorizes the SEC to address such conflicts through

⁹³ See, e.g., U.S. Dep't of Treasury, *Constitutionality of Mandatory Registration of Credit Rating Agencies*, Letter Opinion for the Assistant Secretary for Financial Institutions U.S. Department of the Treasury (Oct. 22, 2009), <http://www.justice.gov/olc/2009/opinion-letter-treasury.pdf> (legal analysis concluding that proposed amendments to the CRA Act for mandatory registration of credit rating agencies would be constitutional if “tailored in accord with First Amendment requirements so that there would be no unconstitutional constraints imposed on the speech of registered agencies.”).

⁹⁴ See SEC 2003 Report 41 (SEC report mandated by Sarbanes-Oxley Act).

⁹⁵ See Senate Report on CRA Act 4-5 (“Following corporate scandals at Enron, WorldCom, and elsewhere Congress and the securities regulators adopted new rules governing the conduct of public companies, corporate boards and

regulation of the manner in which rating firms are paid for their services, but did not authorize the SEC to set or review prices for rating services.⁹⁶ Congress also authorized the SEC to engage in regulatory oversight of certain internal procedures of registered rating firms, and to require public disclosures of information about rating actions and the performance of ratings.⁹⁷

2. Regulation of Market Structure and Barriers to Entry

The SEC 2003 Report and congressional findings for the CRA Act focused on the structure of the market for rating services and the manner in which SEC staff had informally designated rating firms as NRSROs whose ratings could be used to meet regulatory standards.⁹⁸ The CRA Act addressed these concerns by requiring the SEC to eliminate the no-action letter process as a perceived barrier to entry. In its place, the SEC was required to adopt a formal registration program for NRSROs with defined eligibility criteria, and the SEC itself rather than staff was required to vote on applications for registration.⁹⁹ The CRA Act does not mandate registration by rating firms, and does not authorize the SEC to take other actions—such as assigning NRSROs to rate particular debt securities—that would overtly change the structure of the market for rating services. The stated goal of the formal NRSRO approval process was to remove barriers to entry and thereby promote greater competition among rating firms, which in turn was intended to improve the performance of ratings.¹⁰⁰

officers, accountants, stock research analysts, investment bankers, and attorneys. Rating agencies are not subject to similar regulation in spite of widespread criticism for failing to warn investors about several of the largest bankruptcies in U.S. history . . .”).

⁹⁶ 15 U.S.C. § 78o-7(i).

⁹⁷ 15 U.S.C. § 78o-7(a), (i).

⁹⁸ CRA Act sec. 2(6) (“the Commission has indicated that it needs statutory authority to overs the credit rating industry”); Senate Report for CRA Act, p. 7 (“The Credit Rating Agency Reform Act establishes fundamental reform and improvement of the designation process. Most importantly, the Act replaces the artificial barriers to entry created by the current SEC staff approval system with a transparent and voluntary registration system.”).

⁹⁹ 15 U.S.C. § 78o-7(a)(2)(A) (requires the SEC act promptly by order to grant an application for NRSRO registration or set a hearing on the application).

¹⁰⁰ CRA Act sec. 2(5) (“[T]he 2 largest credit rating agencies serve the vast majority of the market, and additional competition is in the public interest.”); *see also* Senate Report on CRA Act 7 (“[T]he Act replaces the artificial barriers to entry created by the current SEC staff approval system with a transparent and voluntary registration

The CRA Act retained registration criteria requiring national recognition and established experience—although the metrics for these requirements are relatively modest—and permits rating firms to register for particular classes of debt securities, which eased the requirements to achieve NRSRO registration.¹⁰¹ The CRA Act directs the SEC to perform annual inspections of NRSROs and submit annual reports to Congress on the results of inspections, the status of registration under the Act, and other specified topics.¹⁰² The Act also directs the Comptroller General to study the impact of the Act on rating quality, financial markets, competition among rating firms, conflicts of interest, and the registration process, among other topics.¹⁰³

Congress perceived that the SEC had created barriers to entry that led to undue concentration in the market for rating services, perhaps even to the point of causing inaccurate ratings that contributed to corporate accounting scandals. Yet the fact-finding process that led to the CRA Act does not detail any exclusionary conduct by the rating firms that restricted entry or forced smaller rivals from the market, and the congressional policy narrative is open to question given that up to ten NRSROs have been registered under the CRA Act but there has been little change in the structure of the market since 2007.¹⁰⁴

3. Regulation of Price Structure and Conflicts of Interest

A major focus of the CRA Act was to give the SEC regulatory authority to manage conflicts of interest. Chief among congressional concerns were the issuer-pays compensation model and ancillary business services for issuers, but the CRA Act did not prohibit either

system that favors no particular business model The Committee believes that eliminating the artificial barrier to entry will enhance competition and provide investors with more choices, higher quality ratings, and lower costs.”).

¹⁰¹ 15 U.S.C. § 78o-7(a).

¹⁰² CRA Act sec. 6.

¹⁰³ CRA Act sec. 7.

¹⁰⁴ See Appendix 2, Exhibits 1–2 (SEC charts and tables with market share data).

practice.¹⁰⁵ The SEC has issued regulations that restrict some potential conflicts and require disclosures and/or internal controls to manage others.¹⁰⁶ Use of the issuer-pays model has increased and the volume of subscriber-paid rating services is negligible.¹⁰⁷ The Dodd-Frank Act does not change this approach to managing conflicts of interest in the CRA Act.¹⁰⁸

Scholars and policy analysts offer a variety of explanations for nearly complete adoption of the issuer-pays compensation model,¹⁰⁹ but expanded use of this model after Congress and the SEC determined to leave rating compensation methods open to market choices reflects an efficient and stable outcome in a multi-sided platform market where investors are an essential user group but are able to engage in free riding and evade payment of subscription fees.

¹⁰⁵ See Senate Report on CRA Act 7–8 (“[T]he Act . . . favors no particular business model, thus encouraging purely statistical models to compete with the qualitative models of the dominant rating agencies and investor subscription-based models to compete with fee-based models.” “Debt issuers pay the rating agencies for their rating. In addition, rating agencies increasingly market ancillary, fee-based consulting services, thus exacerbating the basic conflict. The Act addresses these concerns by requiring registration form disclosure of any conflict of interest relating to the applicant’s issuance of credit ratings, and by requiring the Commission to adopt rules prohibiting conflicts of interest or requiring the management and disclosure of such conflicts.”).

¹⁰⁶ See 17 C.F.R. § 240.17g-5 (SEC conflict of interest rules for NRSROs prohibit ratings paid by an issuer if the payment comprises ten percent or more of the NRSROs total net revenue for the year; other conflicts of interest due to issuer payment for ratings require disclosure in Form NRSRO, internal control procedures, and, for structured finance ratings, posting information used for the rating on a password protected website for limited confidential access by other NRSROs for use in issuing unsolicited ratings on the debt security).

¹⁰⁷ See SEC December 2012 Report 5–6 (“Of the nine NRSROs, six operate primarily under the ‘issuer-pay’ model. Two NRSROs, KBRA and Morningstar, previously operated primarily under the ‘subscriber-pay’ model but . . . have begun issuing an increasing number of ratings under the issuer-pay model. Only EJR operates fully under the subscriber-pay model. The NRSROs operating primarily under the issuer-pay model account for almost 99% of the total NRSRO credit ratings reported by NRSROs as of December 31, 2011.”) (internal citations omitted).

¹⁰⁸ See SEC Press Release, SEC Proposes Rules to Increase Transparency and Improve Integrity of Credit Ratings (May 18, 2011), *available at* <http://www.sec.gov/news/press/2011/2011-113.htm> (“Under the proposed rule amendments, an NRSRO would be prohibited from issuing or maintaining a credit rating where an employee of the NRSRO—who participates in the sales or marketing of a product or service of the NRSRO or of a person associated with the NRSRO—also participates in determining or monitoring a credit rating or developing or approving procedures used for determining a credit rating.”).

¹⁰⁹ See, e.g., Langohr 411–12 (free riding by investors due to public availability of ratings made subscriber-pays model unsustainable; Penn Central default in 1970s led to liquidity crisis for debt issuers who sought and paid for ratings to show that they were sound credits; investors have low demand for ratings on particular debt securities due the wide range of investment options, but issuers have a high demand for a rating on the issuer’s debt); White (2010) 216 (photocopiers and fax machine made it possible by the 1970s to easily distribute ratings that were revealed privately to initial subscribers); Coffee 53 (“Because the rating agency cannot effectively prevent the communication of its ratings to non-paying investors once it discloses its ratings to its clients, it cannot capture the full value of the financial information that it creates As a result, free riders will inevitably acquire and rely on the information without compensating the creator—in effect, the standard ‘non-excludibility’ criterion that defines a public good. Indeed, some have argued that the principal CRAs encountered this free riding problem in the early 1970s, which led them to shift to the ‘issuer pays’ model.”).

4. Prohibition against Regulation of Rating Methods and Actual Ratings

The CRA Act prohibits the SEC from regulating the substance of ratings or the procedures and methodologies that NRSROs use.¹¹⁰ This prohibition may serve to avoid legal challenges to the CRA Act as a prior restraint on speech in violation of the First Amendment, or may reflect the SEC's lack of expertise to regulate the actual methodology used to rate relative default risk for debt securities.¹¹¹ The prohibition preserves competition among rating firms based on rating methodology and actual ratings, and the resulting performance of their rating systems as benchmarks of relative default risk and expected loss.¹¹²

The CRA Act does not authorize the SEC to regulate prices or cost for rating services, even though Congress may have expected that the cost of rating services would decline due to increased entry and competition.¹¹³ Although industry comments on proposed SEC regulations express a general desire for greater competition among rating firms, industry members have not raised issues with pricing conduct of the leading rating firms.¹¹⁴

¹¹⁰ 15 U.S.C. § 78o-7(c)(2) (“Notwithstanding any other provision of law, neither the Commission nor any State (or political subdivision thereof) may regulate the substance of credit ratings or the procedures and methodologies by which any nationally recognized statistical rating organization determines credit ratings.”).

¹¹¹ See, e.g., Coffee 48 (“This compromise under which the SEC can restrict conflicts of interest, require disclosure, and monitor performance, but not regulate the methodologies or models by which ratings are determined reflected a Congressional view that the SEC lacked the expertise to prescribe models to the CRAs, but could evaluate the consistency of application by each CRA. This compromise will remain in force even under the [Dodd-Frank Act].”).

¹¹² See, e.g., SEC Staff Report to Congress: Credit Rating Standardization Study 9–10 (Sept. 2012), available at <http://www.sec.gov/about/offices/ocr.shtml> (“Most commenters stated that it was neither feasible nor desirable to standardize credit rating terminology and market stress conditions or to require correspondences between ratings and default probabilities and loss expectations. Some of the commenters stated that standardization would lead to lower levels of competition and quality in the credit rating industry and would increase reliance on credit ratings. Several commenters suggested that increasing transparency through enhanced disclosure with respect to credit rating terminology and procedures would better serve users of credit ratings.”).

¹¹³ See Senate Report on CRA Act 7 (“Most importantly, the Act replaces the artificial barriers to entry created by the current SEC staff approval system with a transparent and voluntary registration system that favors no particular business model, thus encouraging purely statistical models to compete with the qualitative models of the dominant rating agencies and investor subscription-based models to compete with fee-based models. The Committee believes that eliminating the artificial barrier to entry will enhance competition and provide investors with more choices, higher quality ratings, and lower costs.”).

¹¹⁴ See, e.g., *id.* (Senate report describes Congressional testimony critical of rating accuracy and conflicts of interest but does not recite testimony on non-competitive fees for rating services); SEC 2003 Report 41 (Report mandated by Sarbanes-Oxley Act describes concerns with conflicts of interest due to issuer-pays compensation model, but not testimony or evidence of non-competitive fees for rating services: “Historically, rating agencies were financed

5. Regulatory Change under the Dodd-Frank Act

The Dodd-Frank Act authorizes or directs the SEC to undertake greater regulatory oversight of NRSROs, and to engage in studies of potentially far-reaching regulatory changes to standardize rating methodologies and assign rating firms to issue ratings on particular debt securities,¹¹⁵ but NRSRO registration continues to be voluntary, the SEC retains regulatory authority over use of the issuer-pays model and public disclosures of potential conflicts of interest, the SEC is prohibited from regulating the substance of ratings or rating methodologies, and the SEC is not authorized to regulate prices or the cost of rating services.

The most far-reaching mandate in the Dodd-Frank Act is that the SEC and federal banking regulators remove references to ratings in regulations.¹¹⁶ This mandate is not explained in legislative findings for the Act, and applies broadly to ratings on all classes of debt securities even though the legislative findings identify problems during the financial crisis only with structured finance ratings.¹¹⁷ The SEC and federal banking regulators issued proposed regulations in 2011 and 2012 to fulfill this mandate, some of which allow for continued use of ratings in conjunction with other factors.¹¹⁸ Industry members have raised a wide range of

solely by subscription fees paid by investors and other users of credit ratings. By the mid-1970s, however, the largest rating agencies began charging issuers for ratings, due to difficulties in limiting access to ratings information to subscribers, as well as to the demand for more comprehensive and resource-intensive analysis of issuers. In general, the fees that rating agencies charge issuers are based on the size of the issuance and the nature of the instrument being rated. They typically include both a fee for the initial rating and an annual maintenance fee. The fees are not regulated and vary only slightly among the larger rating agencies. In some cases, the rating agencies will discount the fees for frequent issuers or negotiate flat rate fees.”).

¹¹⁵ Dodd-Frank Act secs. 932, 939(h), 939F.

¹¹⁶ Dodd-Frank Act sec. 939A.

¹¹⁷ See Dodd-Frank Act sec. 931(5). (In the recent financial crisis, the ratings on structured financial products have proven to be inaccurate. This inaccuracy contributed significantly to the mismanagement of risks by financial institutions and investors, which in turn adversely impacted the health of the economy)

¹¹⁸ See, e.g., Securities and Exchange Commission. Proposed Rule: Removal of Certain References to Credit Ratings Under the Securities Exchange Act of 1934. Release No. 34-64352; File No. S7-15-11 (April 27, 2011), available at <http://www.sec.gov/divisions/marketreg/ratingagency.htm> (“The Net Capital Rule currently applies a lower haircut to certain types of securities held by a broker-dealer if the securities are rated in higher rating categories by at least two NRSROs, since those securities typically are more liquid and less volatile in price than securities that are rated in the lower categories or are unrated.” . . . “Under the proposed amendments, a broker-dealer, when assessing credit risk, could consider the following factors, to the extent appropriate, with respect to each security: Credit spreads . . .

practical and technical concerns with these proposals and in many cases continue to express a preference for continued use of ratings in ways that reflect network effects that rating systems provide.¹¹⁹

VI. Data Analysis on Rating Performance

The broad goals of the CRA Act, as described above, are to increase competition among rating firms by removing barriers to entry, and thereby improve the performance of ratings.¹²⁰

The policy narrative for these goals arose from dissatisfaction with rating performance in the corporate accounting scandals with Enron and other companies, even though issuers and investors continued to use the leading rating firms for most rating services.¹²¹ The CRA Act authorized the SEC to require public disclosures about rating performance, which NRSROs submit annually to the SEC in Form NRSRO and post on their websites.¹²²

Testing the effects of SEC regulation on rating performance is warranted to evaluate whether further disclosure obligations or other regulatory actions are likely to improve rating

Securities-related research . . . Internal or external credit risk assessments (i.e., whether *credit assessments developed internally by the broker-dealer or externally by a credit rating agency, irrespective of its status as an NRSRO, express a view as to the credit risk associated with a particular security*) . . . Default statistics . . . Inclusion on an index . . . Priorities and enhancements . . . Price, yield and/or volume . . . and Asset class-specific factors (e.g., in the case of structured finance products, the quality of the underlying assets)”) (emphasis added); FDIC Financial Institutions Letter, Investments in Corporate Debt Securities by Savings Associations (July 24, 2012), <http://www.fdic.gov/news/news/financial/2012/fil12034.html> (“Before acquiring a corporate debt security, and periodically thereafter, a savings association must determine that an issuer has adequate capacity to meet all financial commitments under the security for the projected life of the security; FDIC standards of creditworthiness will be satisfied if an issuer presents a low risk of default and is likely to make full and timely repayment of principal and interest; A due diligence analysis may include consideration of internal analyses, third-party research and analytics including internal risk ratings, *the default statistics of external credit rating agencies*, and other sources of information appropriate for the particular security. The range and type of specific factors an institution should consider will vary depending on the particular type and nature of the security.”) (emphasis added).

¹¹⁹ See, e.g., Appendix 1, Comments 10 (COPERA), 13 (SIFMA), 14 (Fidelity), 15 (BDA), 17 (Fitch), 28 (SIFMA).

¹²⁰ See Senate Report on CRA Act 1-2, 7 (“Over the years, the SEC has been criticized at times for not awarding more NRSRO designations and thereby perpetuating an anticompetitive industry . . .”; “Several witnesses testifying before the Committee noted that the standard [for national recognition] has served as a substantial barrier to entry for new entrants and that greater competition would benefit investors by generating more innovation and higher quality ratings at lower costs.”).

¹²¹ See Appendix 2 Exhibits 1–2 (SEC charts and tables with market share data).

¹²² See, e.g., Moody’s Investors Service, 2012 Form NRSRO, Exhibit 1, *available at* <http://www.moody.com/Pages/reg001002.aspx>.

performance or affect usage of established rating systems. A before-after analysis is used to compare rating performance after 2007, and a side-by-side analysis is used to compare the performance of corporate and structured finance ratings through the global financial crisis, and to compare the performance of corporate and market implied ratings.

1. Rating Performance Metrics

This analysis uses Moody's aggregate time series data for selected metrics that reflect general performance goals that issuers and investors, and thus the rating firms, seek to achieve with rating systems.¹²³ These goals differ somewhat for different rating systems, but for the most part focus on (i) ordinal (or relative) accuracy with which rating categories properly rank relative default risk (or expected loss on default), (ii) cardinal (or absolute) rating accuracy, and (iii) the stability or volatility of ratings over time.¹²⁴ Rating firms have issued periodic reports for many years with data and discussion of rating performance relative to these broad goals.¹²⁵

The SEC requires NRSROs to publicly report aggregate performance data beginning with 2007.¹²⁶ For rating accuracy, the data consists of tables that include default rates over one year, three years, and ten years for each rating classification and each class of debt securities. For rating stability, the data consist of tables that include rating changes (transitions) from one rating

¹²³ Moody's posts time series performance data in Excel workbooks on its public website for corporate and structured finance ratings, and Moody's, S&P, and Fitch Ratings post detailed periodic reports with tables and graphs that show some time series comparisons. Appendix 2 describes the Moody's data used for analysis, and includes copies of selected tables and charts from published reports of each of the three leading rating firms.

¹²⁴ See generally Langohr 334-343 (describing rating performance metrics used by rating firms).

¹²⁵ See, e.g., Moody's Investors Service, *The Performance of Moody's Corporate Debt Ratings December 2012 Quarterly Update* (Feb. 12, 2013), available at http://www.moody.com/research/The-Performance-of-Moodys-Corporate-Debt-Ratings-December-2012-Quarterly--PBC_149961; Moody's Investors Service, *The Performance of Moody's Structured Finance Ratings December 2012 Quarterly Update* (Feb. 20, 2013), available at http://www.moody.com/research/The-Performance-of-Moodys-Structured-Finance-Ratings--PBC_150064; Moody's Investors Service, *Annual Default Study: Corporate Default and Recovery Rates, 1920-2012* (Feb. 28, 2013), available at http://www.moody.com/research/Annual-Default-Study-Corporate-Default-and-Recovery-Rates-1920-2012--PBC_151031; Standard & Poor's Rating Services, *Annual Corporate Global Default Study and Rating Transitions* (March 18, 2013), available at <http://ratings.standardandpoors.com/capital-markets-update/GFIR.html>; Fitch Ratings, *Fitch Ratings Global Corporate Finance 2012 Transition and Default Study* (March 15, 2013), available at http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=701686.

¹²⁶ See, e.g., Form NRSRO for 2012 listed on SEC website, at <http://www.sec.gov/about/offices/ocr.shtml>.

category to another on the same basis. The SEC proposed regulations in May 2011 that would expand disclosure requirements but would not change the basic performance metrics.¹²⁷

Rating firms view ordinal (or relative) accuracy as the primary performance goal, which means more highly rated debt should experience lower default rates; cardinal (or absolute) accuracy is a secondary goal, in part because overall accuracy may shift depending on conditions in the economy, credit markets, or particular industries, and because there is no obvious absolute standard for cardinal rating accuracy.¹²⁸ Rating firms also view stable ratings as a primary performance goal because many investors buy and hold debt securities on a long-term basis and would face transaction costs, potential losses on sale, and difficulties in complying with investment standards if ratings were highly volatile.¹²⁹ Rating firms typically seek to maintain ratings that are stable even though investors may experience some losses due to defaults that might be avoided or reduced with more frequent rating changes.¹³⁰

¹²⁷ See SEC Press Release for May 2011 Proposed Regulations, at <http://www.sec.gov/news/press/2011/2011-113.htm> (proposed rules would: (i) “Standardize the way an NRSRO calculates and presents aggregate information about how its ratings change over time (the transition rate) and how often a rated entity or product subsequently defaulted; (ii) “Require the NRSRO to publicly display this information on an “easily accessible” portion of its website”; (iii) “Enhance the so-called “100% Rule.” This previously existing rule requires an NRSRO to publish information concerning its rating actions for credit ratings that the NRSRO initially determined on or after June 26, 2007”; and (iv) “Increase the number and scope of the data fields that must be disclosed about a rating action.”). The Dodd-Frank Act directed the SEC to analyze rating performance metrics as part of the study of assigned credit ratings; the report of SEC staff devotes only a brief passage to this topic without stating any conclusions or recommendations. See SEC Staff Report to Congress on Assigned Credit Ratings (December 2012), pp. 52-53, available at <http://www.sec.gov/about/offices/ocr.shtml>.

¹²⁸ See Appendix 1, Comment 25 (Moody’s); Moody’s Analytics, “Measuring the Performance of Credit Ratings” (Nov. 1, 2011), available at http://www.moody.com/research/Measuring-The-Performance-Of-Credit-Ratings--PBC_135380.

¹²⁹ See, e.g., Appendix 1, Comment 25 (Moody’s); Langohr 334 (“[I]nvestors require that ratings convey reasonably good information about the riskiness of a bond. On the other hand, inasmuch as ratings are part of the investment decision process, investors need a certain level of stability, so that decisions need not be reversed . . . incurring significant transaction costs.”); Moody’s Analytics, “Special Comment: “Measuring The Performance of Credit Ratings” (Nov. 1, 2011), p. 4, available at http://www.moody.com/research/Measuring-The-Performance-Of-Credit-Ratings--PBC_135380 (“Users of ratings systems value stability because they may sometimes take actions based in part on ratings changes, and those actions incur costs which may be unrecoverable if they need to be reversed later. . . . As a result, changes in ratings can have consequences for the users of ratings, so volatility reduces the efficiency of ratings as tools of governance.”).

¹³⁰ See, e.g., Moody’s Investors Service, “Special Comment: “Measuring The Performance of Credit Ratings” (Nov. 1, 2011), p. 4, available at http://www.moody.com/research/Measuring-The-Performance-Of-Credit-Ratings--PBC_135380 (“Moody’s limits the frequency of ratings changes to perceived changes in fundamental

Appendix 2 provides details about each data metric used for analysis and describes what the data illustrate. The performance metrics and controls used for data analysis are as follows:

Ordinal Rating Accuracy. Average Position (AP) (metric used by Moody's that ranges from 0.5 to 1.0 with higher figures reflecting greater rating accuracy).¹³¹

Cardinal Rating Accuracy. Investment-grade default rate for corporate ratings; investment grade loss rate for structured finance; median rating prior to default (both corporate and structured finance).

Rating Stability. Ratings volatility (rating upgrade and downgrade rates weighted by number of notches or rating categories for movement); rating reversal rate (percentage of rating changes that were reversed).

Market Implied Ratings. Moody's uses the same general performance metrics to compare corporate ratings to a proprietary model that computes bond implied ratings based on yield spreads, credit default swap spreads, and other market data.

Exclusionary Variables. Variables are introduced to test the effects of eliminating data that falls within overlapping time periods for macroeconomic events to assist in evaluating the effects of SEC regulation independent of these events.

2. Rating Performance before and after SEC Regulation

Appendix 2 presents data and analytical results that compare rating performance before and after SEC regulation in 2007. The regression results for Moody's corporate and structured finance metrics that include macroeconomic exclusionary variables did not produce compelling evidence that rating performance has improved since regulation. Of the 36 regression

characteristics, dampens their severity, avoids rating change reversals, dialogues with issuers, and ultimately makes decisions by committee. These actions are consistent with the desire to produce stable long-term ratings with a minimum of false default predictions. They also presumably, though not necessarily, reduce the short-term predictive content of ratings.”).

¹³¹ See Appendix 2 Exhibit 19(chart for Gini Coefficient used by S&P).

coefficients that indicate the degree and direction of the change in the performance of the metric, 26 were significant at least at the 95 percent confidence level, although of those 26, 21 were significant at the 99 percent confidence level. Of the 26 coefficients that exhibited a significant effect, only five indicated that its corresponding performance metric improved post regulation, and none of those metrics included the average position; one was the median rating before impairment (a cardinal metric) for structured finance, using an exclusionary variable for the credit cycle, and the other four coefficients correspond to corporate volatility statistics.

This data analysis does not show any apparent improvement in rating performance after SEC regulation in late 2007. Corporate and structured finance performed much differently through the financial crisis, as described below. Corporate ratings have returned to historic trend lines and do not show any short-term or long-term improvement following SEC regulation. Structured finance ratings continue to perform less favorably than historic trend lines, and thus do not show any improvement following SEC regulation. This continued unfavorable trend in rating performance may be due to continued distress in underlying housing markets as well as the relative low levels of default experience with structured finance debt in years prior to the financial crisis. In any event, the data do not show that SEC regulation has improved rating performance for either corporate or structured finance ratings.

The confluence of the global financial crisis and the beginning of SEC regulation complicates this before-after data analysis, and some rating performance metrics are measured over time periods up to ten years or more, so further analysis is warranted as more data becomes available for time periods following the financial crisis.

3. Corporate and Structured Finance Rating Performance.

Appendix 2 presents data and analytical results that compare rating performance of corporate and structured finance ratings. The results for bivariate regressions on Moody's

performance metrics, using an indicator variable for implementation of the CRA Act for both corporate and structured finance debt without exclusionary variables, show uniformly that no performance metric exhibited improvement. These regression results may be due in part to macroeconomic events that make it difficult to isolate the effects of the regulation, and further data analysis is warranted over time as the effects of these events dissipate, but the regression results do show that every structured finance metric was to some degree lower than the corresponding corporate finance metric in terms of desirable rating performance. During and after the global financial crisis, structured finance ratings were much less accurate based on both ordinal and cardinal metrics and were much more volatile compared to corporate ratings.

This comparative performance is a departure from prior time periods,¹³² and may reflect the lack of historical data that rating firms have acknowledged, with how structured finance debt and the models used to estimate default risks exposure for various layers or tranches of these debt securities would perform in a severe economic recession, in particular one that was precipitated by a nationwide decline the housing market.¹³³ Data in Appendix 2 also illustrates

¹³² See, e.g., Appendix 1, Comment 20 (Fitch) (noting divergence as of 2010 in corporate and structured finance rating performance).

¹³³ See, e.g., Moody's Investors Service, Moody's Approach to Rating SF CDOs (May 8, 2012), p 1, available at http://www.moodys.com/research/Moodys-Approach-to-Rating-SF-CDOs--PBS_SF157850 (“*Since the financial crisis we have lessened our reliance on model based methodologies and run various stressed scenarios to test the impact on the rated Notes through various events, including the following: widespread multi notch rating downgrade of all the assets in the portfolio, higher pair-wise asset correlation, lower recoveries: e.g. 0% recovery on all non-senior tranches in the portfolio and/or 25% haircut on the assumed recovery for senior tranches, higher recovery rate correlation: increase correlation assumptions for the stochastic recovery rates and various scenarios for WAL of underlying securities.*”); Moody's Investors Service, Moody's Revisits its Assumptions Regarding Structured Finance Default (and Asset) Correlations for CDOs (June 14, 2005), pp. 3, 9, http://www.moodys.com/research/Moodys-Revisits-its-Assumptions-Regarding-Structured-Finance-Default-and-Asset--PBS_SF57685 (“The actual application of the [Directional Ratings Transition Matrix] to structured finance ratings differs somewhat from that in the corporate sector. *The reason is simply the availability of data: the structured finance market is much less mature than the corporate bond market, thus providing a much shorter history of rating transitions.* Furthermore, structured finance ratings of particularly important sectors like RMBS have tended to be more stable than corporate ratings, suggesting that there have been fewer observed transitions per rated credit per year. The sparse data on structured finance rating transitions requires the application of a different technique to infer asset correlations than was applied in the corporate context.” . . . “*Given the limited history of structured finance ratings performance, the method of estimating asset correlations is also a bit different from that employed in the corporate context. This same limitation on data availability also suggests a need to revisit these assumptions as*

the rapid expansion that occurred just prior to the global financial crisis in the number of structured finance debt securities that were rated, and the rapid decline in new structured finance debt during and after the crisis. These swings in the volume of new structured finance debt make it difficult to measure changes in periods after the crisis, and by coincidence after SEC regulation, because very few new structured financed debt securities have been issued.

4. Corporate and Bond Implied Rating Performance.

Appendix 2 presents data and analytical results that compare corporate and bond implied rating performance.¹³⁴ The bond implied data used for the current analysis has many fewer observations and is reported only on an annual basis in comparison to the monthly data over longer periods that was used for other regression analysis. Difference in differences regression analysis was attempted with the bond implied data in an effort to measure differences between ordinal rating accuracy (average ratio) for Moody's corporate ratings, and the average ratio of the bond implied ratings after regulation. The annual data prevents use of a precise cut-off date to distinguish between the periods before and after regulation, so regression results are not included in Appendix 2. Further analysis is warranted to compare corporate and bond implied rating performance with more detailed data.

The annual data comparing bond implied rating performance is included and discussed in Appendix 2. The data illustrate that market implied ratings are substantially more volatile than

more data become available, particularly with respect to asset classes that currently lack a sufficient history of rating movements.") (emphasis added).

¹³⁴ Moody's does not publicly disclose details of its proprietary data models for bond implied ratings. See Moody's Analytics, *Moody's Market Implied Ratings: Description, Methodology, and Analytical Applications*, p. 8 (Sept. 2011), http://www.moodys.com/research/Moodys-Market-Implied-Ratings-Description-Methodology-and-analytical-Applications-Capital--PBC_135557 (describing main data sources as prices for credit default swaps and loan credit default swaps obtained from Markit, daily prices and option-adjusted spreads from a blend of Reuters, Markit, Market Axxess (for Europe), and TRACE, and Moody's credit ratings, using various filtering and modeling techniques). See also Jens Hilscher and Mungo Wilson. "Credit Ratings and Credit Risk." AFA 2013 San Diego Meetings Paper (March, 2013). <http://ssrn.com/abstract=1474863> (data analysis comparing accuracy of market implied ratings and credit ratings).

credit ratings, and thus may best suited for use by active traders and other short term investors.¹³⁵ Institutional investors that hold debt securities on a long-term basis may face difficulties using volatile rating benchmarks if investment guidelines require portfolio re-allocations based on implicit investment grade and speculative grade ratings that such data would imply. Market implied ratings also are not available at the time a debt security is issued, except by comparison to other similar debt securities, and may not be readily available over time if trading in a debt security is illiquid and credit default swaps are not traded for the security. These attributes raise significant concerns about proposals to use market implied ratings in place of credit ratings for regulatory capital adequacy standards.¹³⁶

VII. Legal Proceedings over Losses on Complex Debt Securities During the Global Financial Crisis

Governmental enforcement actions and private lawsuits against the Standard & Poor's Financial Services, Moody's, and Fitch Ratings, seek to place corporate responsibility on the rating firms for an alleged role in losses on structured finance debt during and after the global financial crisis. None of the pending or recently resolved claims deal with losses on corporate debt or other classes of debt securities. The essence of these claims is that the rating agencies issued unwarranted high credit ratings on structured finance debt, in particular for mortgage-backed financial investments, and that these debt securities ultimately defaulted causing catastrophic losses for investors.

The rating agencies dispute these claims and have had some past success asserting grounds for dismissal based on the Constitutional argument that their ratings are "opinions" protected by the First Amendment. Standard & Poor's has stated that it has a successful track

¹³⁵ See, e.g., Appendix 1, Comment 25 (Moody's).

¹³⁶ See, e.g., Appendix 1, Comment 10 (COPERA); Appendix 2 and Exhibit 15 (data and discussion of volatility of bond implied ratings).

record in winning dismissals for similar actions by private and public parties: of 41 such cases that have made it through courts, 31 were dismissed by judges and 10 were voluntarily withdrawn; another 30 cases are pending.¹³⁷ The plaintiffs have the ultimate burden to prove elements of their claims, which may include that it was more likely than not that the investment would have defaulted if the economy did not crash, that the rating agency knowingly issued misleading ratings, that investors reasonably relied on these ratings, and that the misleading ratings contributed to the losses.¹³⁸

Recently, in order to avoid defenses based on the First Amendment or the rating agency's lack of privity with investors (i.e., the rating is issued to the debt issuer), plaintiffs have resorted to state law claims under the Uniform Deceptive Trade Practices Act and consumer fraud acts, based on public statements other than the actual ratings. In these cases, the burden is on the plaintiff investors (or state attorney general) to prove the elements of these claims, which may include to show that the defendant made a misstatement of material fact in its business, that it did so with the intent that the plaintiff rely on the act or statement, and that actual damage to the plaintiff was proximately caused by the misstatement.¹³⁹

Appendix 3 describes examples of government and private enforcement actions against issuers, bond underwriters, broker-dealers, and rating agencies. These examples show the plaintiffs who are asserting claims, the types of claims they have asserted, and the status or disposition of the claims through court rulings or settlements.

¹³⁷ Lauren Tara LaCapra and Karen Freifeld, "Government Suit Against S&P Could Embolden Other Investors to Sue", *Insurance Journal*, February 6, 2013, <http://www.insurancejournal.com/news/national/2013/02/06/280221.htm>.

¹³⁸ Bin Zhou and Pavitra Kumar, "Economic Considerations in Litigation Against the Credit Rating Agencies", *The Brattle Group Discussion Paper*, April, 2012, http://www.brattle.com/_documents/UploadLibrary/Upload1029.pdf.

¹³⁹ See, e.g., *Illinois v. McGraw-Hill Companies, Inc.* 12-CH-2535 slip op. (Nov. 7, 2012), http://newsandinsight.thomsonreuters.com/uploadedFiles/Reuters_Content/2012/11_-_November/illinoisvstandardandpoors--MTDopinion.pdf.

Government enforcement actions for direct violations of federal securities laws have been successful against issuers, underwriters, and broker dealers. For example, the SEC enforcement actions against Mizuho, Wells Fargo, J.P. Morgan, and Credit Suisse allege traditional fraud claims and have resulted in significant financial settlements (although not admissions of liability), even where the debt securities sold to investors were sophisticated and complex.¹⁴⁰ The SEC has not (yet) asserted such claims against rating firms.

Private investors also have had some initial success asserting traditional securities fraud claims actions against underwriters and issuers. For example, in the pending Morgan Stanley Litigation and Deutsche Bank cases, in which the plaintiffs allege fraudulent conduct in connection with the sale of subprime mortgage-backed derivatives and other CDOs, courts have denied motions to dismiss the claims and the defendants are required to file answers to the claims and proceed with discovery.¹⁴¹

Private actions asserting traditional securities fraud claims against rating firms based on actual ratings for structured finance debt have had mixed results to date. Some courts have dismissed such claims based on First Amendment protection, and for failure to allege privity of contract or a special relationship,¹⁴² although at least one court has denied a motion to dismiss such claims and the case remains in active litigation, and another court denied summary judgment with respect to common law fraud claims after dismissing the other claims against rating firms.¹⁴³

¹⁴⁰ See Appendix 3, Case 1 (Mizuho), Case 2 (Wells Fargo), Case 3 (J.P. Morgan, Credit Suisse).

¹⁴¹ See Appendix 3 Case 4 (Morgan Stanley), Case 5 (Deutsche Bank).

¹⁴² See Appendix 3, Case 6 (First Equity/S&P), Case 7 (Reese/S&P), Case 11 (Abu Dhabi/Morgan Stanley, Moody's, S&P), Case 8 (CALPRS/S&P), Case 10 (King County), Case 9 (Anschutz/Merrill Lynch and Moody's).

¹⁴³ See Appendix 3, Case 12 (CALPRS/S& P, Moody's, Fitch), Case 10 (King County), and Case 11 (Abu Dhabi/Morgan Stanley, Moody's, S&P).

In an alternative attack on rating firms, state attorneys general and the Department of Justice have asserted claims under federal and state statutes other than securities laws, seeking damages and other relief due to losses on structured finance debt during the global financial crisis. These claims challenge the rating firms' independence under the issuer pays compensation model, focusing on public statements about the general accuracy of ratings or the independence of the rating firm from the issuer and underwriter.¹⁴⁴ Most of these cases are in early stages of litigation and thus do not reflect whether plaintiffs will achieve success in litigation or settlements. As of now, however, the large settlements by banks and other financial firms involved in the production and sale of structured finance debt, and the lack of any meaningful success with claims against rating firms, calls into question the policy narrative that faulted the rating firms as a primary cause of the financial crisis and used this rationale as the apparent basis to remove ratings for all classes of debt securities from regulation.¹⁴⁵

Importantly, the SEC has not commenced enforcement actions against rating firms and the statute of limitations to do so may expire soon.¹⁴⁶ The claims by the Department of Justice and the states raise potential legal conflicts with the SEC's regulatory authority over NRSROs, including compensation methods, and the rating firms have raised potential conflicts as a basis for dismissal. If the cases are not settled, fundamental questions may arise on whether the SEC or courts will control important policies about the selection and compensation of rating firms.

¹⁴⁴ See Appendix 3, Case 13 (Connecticut/S&P, Moody's, Fitch), Case 14 (Connecticut/S&P), Case 15 (Illinois/S&P), Case 16 (Department of Justice/S&P).

¹⁴⁵ See Appendix 3, Case 10 (King County, and Case 11 (Abu Dhabi/Morgan Stanley, Moody's, S&P). On April 26, 2013, the parties (including Morgan Stanley who as underwriter structured the debt securities at issues), settled remaining counts in these cases (common law fraud claims as to rating firms), on undisclosed terms and without defendants admitting any liability.

¹⁴⁶ See *Gabelli v. Securities and Exchange Commission*, 133 S. Ct. 1216 568 U.S. ____ (Feb. 27, 2013) (holding that SEC claims for securities fraud arise and the five-year statute of limitations that applies to most such claims begins to run when the fraud occurs, not when the SEC discovered the alleged fraud).

VIII. Implications for Proposed Regulatory Changes under the Dodd-Frank Act

1. Regulation of NRSROs

The SEC proposed regulations in May 2011 to implement several provisions in the Dodd-Frank Act requiring specific changes in regulation of NRSROs, but has not yet issued final regulations.¹⁴⁷ Apart from considerations of cost and burden relative to expected benefits, these proposed rules do not present material issues relevant to the analysis presented here, but the analysis does have broader implications for other regulatory actions now under consideration.

Market Structure for Rating Systems. The NRSRO registration system under the CRA Act has not changed the concentrated structure of the market for rating services, which reflects the network effects that debt market participants seek to retain by using established rating systems. Regulatory action to impose assigned credit ratings for structured finance debt would disrupt these market choices and over time would artificially change the market structure for rating systems. This regulatory intervention is not warranted, as the SEC has wide regulatory authority to manage conflicts of interest, which arise in a multi-sided market whether issuers or investors pay rating firms. Market forces may over time allow smaller firms to achieve effective scale of operations, as appears to be happening to some extent with structured finance ratings, but this process should not be forced by regulatory mandate.

Compensation for Rating Services. The issuer-pays model is a rational pricing structure in the face of free riding by investors, who are essential users of rating systems as platform

¹⁴⁷ See SEC Press Release, SEC Proposes Rules to Increase Transparency and Improve Integrity of Credit Ratings (May 18, 2011), <http://www.sec.gov/news/press/2011/2011-113.htm> (proposed regulations supplement current regulation in several respects: (i) require NRSRO reports on internal controls over the ratings process, restrict sales and marketing activities from influencing the production of ratings, and require reports to the SEC and “look-back” when an entity subject to a rating employs a person who previously worked for the NRSRO; (ii) require greater disclosure of data on rating performance; (iii) require procedures when a rating firm adopts or revises rating procedures and methodologies, and disclosure of certain information to accompany the publication of a rating; (iv) require third parties retained for due diligence related to asset-backed securities to provide a certification containing specified information to the NRSRO that is producing a rating for the security; (v) establishing training, experience and competence standards and a testing program for NRSRO analysts; and (vi) require internal policies to assure consistent use of rating symbols).

services. The SEC's May 2011 proposed regulations would not impose further restrictions on the use of this compensation method, but proposals for assigned credit ratings would likely do so. This form of direct regulatory intervention in market choices to purchase rating services would give rise to a new set of conflicts of interest,¹⁴⁸ and over time would erode the network effects that debt market participants achieve by using a limited number of established rating systems.

Standardization of Rating Systems. SEC staff issued a report recommending against regulatory action on rating standardization, and consideration of this option should not be pursued.¹⁴⁹ Rating systems compete based on rating methodology in addition to rating performance, and should continue to do so. Over time, rating systems would stagnate under regulatory mandates. Most commentators favored expanded use of the system now in place that allows rating firms to view password protected information on rating decisions for structured finance.¹⁵⁰ The analysis above shows that network effects have produced a stable and efficient, but concentrated, market structure for rating services. Regulatory mandates to eliminate competition based on rating methodology would erode competitive forces for continued innovation in rating methods and may deprive users of rating systems of the network effects derived from long-term familiarity with methodologies used in established rating systems.

¹⁴⁸ See, e.g., Coffee 65 (“The Ugly. Worse yet, there also is a dark side to reform, as the creation of a government rating agency presents special dangers. Not only might such an agency be conflicted, but there is a more ominous danger that if private [rating firms] disagree with its rating analysis, the regulator might take their disagreement as evidence of a deficiency in the procedures or methodologies of the [rating firm]. As anger against [rating firms] mounts, the prospect for retaliation for politically incorrect ratings lurks in the background.”).

¹⁴⁹ See SEC Staff, Report to Congress, Credit Rating Standardization Study (Sept. 2012), pp. 2-3, available at <http://www.sec.gov/about/offices/ocr.shtml> (“As an initial matter, several commenters argued that the Commission currently does not have the authority to require credit rating standardization because, by statute, the Commission may not regulate the methodologies NRSROs use to determine credit ratings. Regarding the subject matter of the study, commenters raised serious concerns about the feasibility and desirability of standardization and, in particular, most did not feel that standardization would lead to higher levels of accountability, transparency, and competition in the credit rating agency industry. Several commenters suggested that requiring increased transparency would be a more desirable alternative.” . . . “The staff, based on the findings above, recommends that the Commission not take any further action at this time . . .”).

¹⁵⁰ See comments on SEC website, at <http://www.sec.gov/comments/4-622/4-622.shtml>.

Disclosures on Rating Performance. Caution is warranted in imposing further regulatory disclosure requirements on rating performance given that rating performance does not appear to be any better under regulation. Rating firms in many respects have outpaced regulation through the scope and content of voluntary disclosures about rating performance. Standardization in the content and format of regulatory disclosures may aid in side-by-side comparisons among NRSROs, but regulatory mandates should not require disclosure of proprietary rating data to other NRSROs, which may stifle innovation in how rating performance is measured, which is a principal basis for competition among established rating systems.

Structured Finance Ratings. Performance of structured finance ratings declined significantly during and after the global financial crisis compared both to historic experience with these ratings and to corporate ratings. This departure from past experience may have been due to a lack of historical experience with how these debt securities would perform under stressed market conditions, but the legislative response has focused on a range of perceived misconduct by debt market participants and rating firms. The litigation process over these issues may continue for some time, but the regulatory response should focus narrowly on structured finance debt and not use perceived shortcomings with ratings on this debt during an unprecedented financial crisis to make fundamental changes in the structure of the market for rating services, or the manner in which debt market participants select rating systems.

2. Proposed Regulations to Remove Ratings as Regulatory Capital Standards

The analysis here shows that established rating systems produce network effects not only for debt market participants, but also for regulators who now are struggling to craft viable options to established rating systems that do not give rise to even greater problems than those

attributed to structured finance ratings during the global financial crisis.¹⁵¹ The data analyzed here for corporate ratings confirms commentary by others that these ratings did not perform out of character with historical expectations during the financial crisis.¹⁵² This data calls into question the regulatory mandate to replace ratings for all classes of debt as regulatory standards. The data analysis also shows that market implied ratings may be poor substitutes for credit ratings, at least for some regulatory purposes, due to much greater volatility.

Removing references to ratings is not a panacea for improving capital adequacy requirements, which is the underlying problem for regulators to manage, and the underlying problem that the Dodd-Frank Act presumably set out to address. The Dodd-Frank Act mandate may diversify the sources used to determine adequate capital for risky assets, but the alternatives regulators now are struggling to adopt will not solve the underlying problems with capital adequacy, if problems exist, and may well interfere with efficient operations in public debt market, which over time could prove to outweigh whatever perceived benefits might flow from reducing reliance on ratings as regulatory standards.

¹⁵¹ See, e.g., Appendix 1, Comment 10 (COPERA) (“[I]n haste to comply with Dodd-Frank, a credit metric which is less effective than NRSRO ratings will be inconsistently adopted by various regulators charged with oversight of their respective segments of the marketplace. COPERA is not aware of any single alternative method proposed which is robust enough to characterize risk across all types of instruments.”); Comment 13 (SIFMA) (“Indeed, the general impact of the elimination of NRSRO references in the Net Capital Rule would be the creation of what economists term ‘barriers to entry’, which will have a disproportionate impact upon smaller and/or less well capitalized broker-dealers.”); Comment 14 (Fidelity) (“The use of ratings is a clear, objective standard . . . Because this objective standard is applied consistently across all money market mutual funds, it provides protection for investors, predictability for issuers, and general stability for the money market industry.”); Comment 15 (BDA) (“The BDA believes that there is an inherent conflict of interest involved in allowing broker-dealers to establish, maintain and enforce their own written policies and procedures for evaluating the credit risk of the securities they hold and ultimately determine how much capital they must hold against those securities.”); Comment 17 (Fitch) (“The OECD has raised its own objections to the use of [Country Risk Classifications] as they are designed to indicate risks of currency convertibility, not credit risk”); Comment 24 (JP Morgan Chase) (“If the issuer is not represented in the bank’s loan, trading or investment books it is unlikely that the bank would today have any information readily available beyond the public ratings.”); Comment 27 (SIFMA) (raising a range of concerns with SEC proposals to replace ratings in Reg. M and Net Capital Rule).

¹⁵² See, e.g., Coffee 41 (“[T]he failure of the [rating firms] was almost uniquely with respect to structured financial products. Similar problems have not characterized the ratings of corporate bonds. Arguably, the necessary reforms can be safely limited to the lucrative and opaque context of structured finance.”).

New legislation may be warranted to moderate the Dodd-Frank Act mandate to remove ratings for all classes of debt securities from regulatory standards. For now, regulators have proposed a middle ground in some cases that retains some network effects that rating systems produce by including ratings among factors that can be used to establish investment grade status of debt securities.¹⁵³ By coincidence of history, this approach bears a striking resemblance to the first federal banking regulation to reference ratings during the Great Depression.¹⁵⁴

3. Conclusion

The history of NRSRO regulation and the regulatory use of ratings is marked by legislative mandates borne out of financial crises: the first use of ratings as a regulatory standards occurred during the Great Depression; Enron and other corporate accounting fraud prompted the CRA Act mandate to remove perceived barriers to entry by new rating firms; and the meltdown of the housing market and structured finance debt during the global financial crisis prompted the Dodd-Frank Act mandate to remove ratings from regulatory standards. The ambivalence of SEC staff about assigned credit ratings—which would alter market mechanisms for the selection and compensation of rating firms and over time the structure of the market for rating services—may even have prompted the Department of Justice and states to pursue high-stakes lawsuits against S&P over losses on structured finance debt that aim directly at the issuer-pays model.¹⁵⁵

¹⁵³ See, e.g., *supra* n. 118 and accompanying text (description of SEC proposed changes to Reg. M and Net Capital Rule, and FDIC change in regulatory capital standard for savings and loan associations).

¹⁵⁴ See *supra* n. 17 and accompanying text (describing OCC regulations issued in 1936).

¹⁵⁵ See, e.g., Jeanette Neumann, S&P Has Unusual Defense, *Wall Street Journal*, April 22, 2013, p. C1 (“Lawmakers, wary of the ability of rating firms to be objective and independent while rating a client’s debt deals, proposed rules in the aftermath of the financial crisis to revamp the way credit-rating firms are paid to rate securities backed by mortgages and other assets. Nothing has happened yet. The Securities and Exchange Commission is hosting a roundtable discussion on May 14 to discuss how regulators could change the payment model. One option on the table is a proposal by Sen. Al Franken (D., Minn.) to create a board that would assign rating firms to rate deals. ‘As this lawsuit unfolds, it only becomes more clear that the credit rating industry is in need of serious reform, and that the American people and our economy are still at risk as a result of the conflict of interest in the industry,’ Mr. Franken said in a statement.”).

Credit rating agencies operate at a technical intersection of banking, finance, and politics, and ratings are long-standing and efficient input for myriad market decisions in vast global debt markets. Unless policy makers and regulators are guided by economic principles that account for the network effects that explain the persistent concentrated market structure for rating services, and are informed by meaningful quantitative analysis of the effects of current regulation on rating performance, they risk wasting the opportunity presented by the financial crisis by compelling unwarranted changes that would deprive debt markets of long-standing benefits that established rating systems produce.

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Appendix 1

Comments on Proposed Regulations and Selected Scholarly Comments

1. Moody's Comment on SEC 2003 Concept Release (July 2003).¹

Ratings help level the information playing field between borrowers and lenders by providing a readily understood language for credit risk. Some of the most important attributes of credit ratings as currently made available by the major rating agencies include their independence, predictive content, broad coverage, and free dissemination to the general public. These attributes are the result of decades of evolution in line with market-based needs. But they have also caused ratings to be a "public good," which in turn has led to their adoption by various authorities for certain public policy objectives.

2. Bond Market Association Comment on SEC 2003 Concept Release (July 2003).²

In assessing the appropriate level of Commission oversight of credit rating agencies, it is useful to consider the critical role that credit rating agencies have long played in the efficient functioning of the fixed income markets. **Unlike certain factors that affect the value of a credit instrument, such as maturity, yield, call features and priority vis-à-vis other classes of creditors, issuer creditworthiness inherently cannot be measured with precision. Many of the factors that relate to a determination of issuer creditworthiness, including the capability and experience of management, the quality of risk controls, and the ability to adapt to changing market conditions, among others, require a significant degree of subjective assessment. Credit rating agencies, by aggregating factors, both objective and subjective, that form a part of credit standing give market participants an additional source of information that can help to confirm market assessments of credit risk.**

....

Ratings issued by the major rating agencies have generally proved to be a reliable source of information for the fixed income markets. The reputational and commercial interests of the agencies provide a strong motivation to maintain the credibility of their ratings. Historically, a variety of studies have demonstrated a consistent and clear correlation between long-term corporate debt ratings and the probability of default. There should not, however, be an expectation on the part of regulators or market participants that any rating agency, or ratings system, will act as a perfect evaluator of credit risk or quality. This is true because of the complexity of evaluating the various objective and subjective factors that affect creditworthiness and reflecting them in a single symbolic rating.

....

¹ Raymond W. McDaniel, Moody's Investors Service, July 28, 2003, <http://www.sec.gov/rules/concept/s71203/moodys072803.htm>. (Hereinafter, all text highlighting by boldface type has been added.)

² John M. Ramsay, Senior Vice President and Regulatory Counsel, The Bond Market Association, July 28, 2003, <http://www.sec.gov/rules/concept/s71203/bondmarket072803.htm>.

In its no-action letters granting NRSRO designation, the staff of the Division of Market Regulation has indicated that **the most important criterion for obtaining designation is that the rating agency is widely accepted in the United States as an issuer of credible and reliable ratings by the predominant users of securities ratings.**

3. Fidelity Investments Comment on SEC 2003 Concept Release (July 2003).³

By restricting purchases within money market funds to Tier One and Tier Two instruments, a safety net has been provided to investors at large. Given that the primary purpose of the SEC is to protect investors, and given the relative success of this rule, removing such a useful investor protection would seem to provide more harm than good. And while we are aware of some of the arguments for removing the NRSRO designation, we believe that none of them outweigh the usefulness of its existence in the rule. Our thoughts on some of these arguments are as follows:

....

Another claim is that the designation causes concentration of power in the hands of a few rating agencies. Would removing the designation from the rule change that? It is not clear. **It is possible that large institutional investors would insist upon certain objective standards for money market funds in which they invest. This could lead to entrenchment of specific agencies now participating in the market. Moreover, there are other ways to encourage participation by additional agencies by establishing a more clear designation process. Finally, it is the role of the SEC to protect investors. Toward this end, it is reasonable to require standards that may create some level of entry barriers, but which on balance protect the interests of the investing public.**

4. California Public Employees' Retirement System Comment on SEC 2003 Concept Release (Sept. 2003).⁴

Our second comment relates to the issue of competition. While four NRSRO's (Moody's, S&P, Fitch and DBRS) currently provide credit ratings to the marketplace, there is clearly a dominant duopoly structure within the market that now exists—Moody's and S&P wield considerable market power and dominate the other two NRSROs. **The market and most institutional investors through their respective investment policies demand ratings from two recognized agencies.** There have been instances where issuers have refused to retain or dropped retainers of NRSRO's who lowered the ratings of such issuers. This practice is clearly anti-competitive. As a result, we believe the SEC should explore ways to promote competition and reduce regulatory barriers to entry and increase opportunities to succeed. Besides raising the level of competition, these prospective new agencies and strengthened third and fourth players within the market may serve to keep rating agency fees low and keep needed pressure on dominant NRSROs to be more independent and objective.

³ Steven C. Nelson, Director of Taxable Money Market Research, Fidelity Investments Money Management, Inc., July 25, 2003, <http://www.sec.gov/rules/concept/s71203/snelson072503.htm>.

⁴ Kevin Winter, Senior Principal Investment Officer, California Public Employees Retirement System, September 15, 2003, <http://www.sec.gov/rules/concept/s71203/calpers091503.htm>.

5. **Siemens AG Comment on SEC 2003 Concept Release (July 2003).**⁵

The corporate credit rating plays a central role for an international company like Siemens, as an efficient credit rating process enables rapid, flexible and cost-effective access to the financing resources of the international capital markets.

....

Credit ratings issued by rating agencies employing high level of diligence according to standards of best practice are a valuable source of information for investors. **Use of reliable credit ratings also provide an economically expedient approach of distinguishing between securities of different grades of creditworthiness for regulatory purposes (for example the Net Capital Rule). We have yet to see any practical alternatives to the use of credit ratings for such purposes.**

6. **Ford Motor Co. Comment on SEC 2003 Concept Release (July 2003).**⁶

Although elimination of the Nationally Recognized Statistical Rating Organization (NRSRO) designation would afford the opportunity for increased competition, **it is unclear how many firms would successfully enter the business with any meaningful impact. More competition does not necessarily mean more value and may result in overall increased volatility.**

....

A limit on the total number of NRSRO's is not necessary, as **the market will continue to dictate the number of credible agencies that are meaningfully used. We believe that investors and issuers would prefer a manageable number of NRSRO's, perhaps three to five agencies.**

7. **National Association of Insurance Commissioners Comment on SEC 2003 Concept Release (July 2003).**⁷

As the NAIC SVO currently relies on the ratings issued by Commission-appointed NRSROs, the elimination of this designation would cause significant turmoil to the NAIC as well as to other federal and state legislators.

...

[O]n behalf of the NAIC SVO and the current reliance on the findings of SEC designated 'NRSROs', we would encourage the Commission to continue with the NRSRO designation. A

⁵ Mark Roemer, Finance Strategies, Siemens AG, July 28, 2003, <http://www.sec.gov/rules/concept/s71203/mroemer072803.htm>.

⁶ Malcolm S. Macdonald, Vice President–Finance and Treasurer, Ford Motor Company, July 28, 2003, *available at* <http://www.sec.gov/rules/concept/s71203.shtml>.

⁷ Gregory V. Serio, Superintendent, New York Insurance Department, Chair, NAIC Rating Agency Working Group, National Association of Insurance Commissioners, July 28, 2003, *available at* <http://www.sec.gov/rules/concept/s71203.shtml>.

significant amount of investment-grade bonds that insurance companies hold are exempted from filing with the NAIC SVO as they received high ratings from designated NRSROs. Without the outside, objective NRSRO designation, it is not clear what the NAIC would have to do to gain the same level of comfort about these security ratings.

...

The four NRSROs have a good deal of influence in the market. For insurance regulators, NRSRO ratings have become part of the financial surveillance framework in place for insurers, specifically the Securities Valuation Office of the NAIC takes into account the rating decisions of the NRSROs in its securities valuation process. Considering alternatives to the current system that has worked well for state insurance regulators could be costly and complicated.

8. Moody's Comment on SEC 2005 Concept Release (June 2005).⁸

We reiterate that we would support the elimination of the NRSRO system as a whole. As we noted in our comments to the Commission on the 2003 Concept Release, an impression exists among some market commentators that the Commission's existing NRSRO designation process has created barriers to entry and unfavorably influenced the competitive structure of the credit ratings industry. Moody's believes that such interpretations misconstrue the history of the use of credit ratings in federal securities laws. **When the SEC established the NRSRO concept in 1975, credit ratings from established rating agencies already had attributes that provided significant value to the market and, only coincidentally, also made them suitable for use in regulation. The widespread use of ratings in markets globally, many of which have neither ratings requirements nor governmental designation of rating agencies as exist in the United States, demonstrates that ratings are used where they are valued by market participants, and not solely or primarily because they are required by governmental action.** Eliminating the NRSRO designation would further transparency about the market-based role and function of ratings. We believe that, without the NRSRO designation, credit rating agencies would continue to serve their primary objectives in support of market efficiency and investor protection.

9. Bond Market Association and Securities Industry Association Comment on SEC 2005 Proposed Rule (June 2005).⁹

We do not believe that the fact that issuers often pay for ratings creates a per se conflict of interest. **Rating agencies must please a number of different constituencies, including not only issuers, but also investors and investment bankers. In addition, we believe rating agencies value their reputations for accuracy and trenchant analysis.** Consequently, we

⁸ Jeanne M. Dering, Executive Vice President, Global Regulatory Affairs & Compliance, Moody's Investors Service, June 9, 2005, *available at* <http://www.sec.gov/rules/proposed/s70405.shtml>.

⁹ Marjorie E. Gross, Senior Vice President and Regulatory Counsel, The Bond Market Association and Frank A. Fernandez, Senior Vice President and Chief Economist, Securities Industry Association, June 9, 2005, *available at* <http://www.sec.gov/rules/proposed/s70405.shtml>.

believe the disclosure of the source of any payments for the rating is sufficient to put users on notice of any potential conflict.

10. Colorado Public Employees' Retirement Association Comment on SEC March 2011 Proposed Rule on Security Ratings (March 2011).¹⁰

COPERA believes the use of a robust indicator of credit quality in industry regulations is systemically important to controlling risk in the financial system. As such, COPERA strongly opposes the removal of any such references until a robust alternative to NRSRO ratings is identified. Any effort to eliminate NRSRO credit ratings prior to the development of a substitute tool increases risk to investors, the regulatory environment of insurance companies, banking institutions, and others whose capital and reserve requirements are dependent, in part, upon credit ratings, as well as counterparty risk

COPERA is concerned that in haste to comply with Dodd-Frank, a credit metric which is less effective than NRSRO ratings will be inconsistently adopted by various regulators charged with oversight of their respective segments of the marketplace. **COPERA is not aware of any single alternative method proposed which is robust enough to characterize risk across all types of instruments. COPERA believes that any replacement approach must contain both quantitative and qualitative elements. These elements must be broad enough that: they can't be manipulated by market participants; be reflective of market factors that may vary by sector or industry; use appropriate metrics to capture the nuances of different industries; take into account corporate management and industry dynamics; as market factors may be volatile the substitute tool must prove consistent over time when an investment instrument no longer qualifies for the given rating due to an uncontrollable event other than market factors.**

11. Fidelity Comment on SEC 2007 Proposed Rules (April 2007).¹¹

The term “nationally recognized statistical rating organization” or NRSRO is critically important to money market fund regulation. Rule 2a-7 prescribes that money market funds determine whether a security is eligible for purchase on the basis of whether a security has received a rating from two NRSROs in one of the two highest short-term rating categories. **In the release for the Proposed Rules, the Commission estimates that 30 credit rating agencies may become registered as NRSROs. Assuming those 30 NRSROs provide short-term ratings, a security would be eligible for purchase by money market funds if two NRSROs provide a rating in the highest short-term rating category, even if 28 rating agencies provide a rating below the two highest short-term rating categories (“Third Tier”). Thus, the risk to money market fund shareholders is that, under the Proposed Rules, investment advisers could comply**

¹⁰ Gregory W. Smith, Chief Operating Officer and General Counsel, and Jennifer Paquette, Chief Investment Officer, Colorado Public Employees' Retirement Association (March 28, 2011), *available at* <http://www.sec.gov/comments/s7-18-08/s71808.shtml>.

¹¹ Charles S. Morrison, Senior Vice President and Money Market Group Leader, Fidelity Management & Research Company (April 4, 2007), *available at* <http://www.sec.gov/comments/s7-04-07/s70407.shtml>.

with Rule 2a-7 by filling portfolios with securities that the overwhelm[ing] majority of NRSROs believe are Third Tier.

12. Investment Company Institute Comment on SEC 2007 Proposed Rules (March 2007).¹²

By way of illustration, Rule 2a-7 limits a money market fund's investments to securities that are either rated by an NRSRO in one of its two highest short-term rating categories or, if unrated, are of "comparable quality" to an eligible rated security. Rule 2a-7 requires money market funds to take certain actions if a security is downgraded by an NRSRO. **In particular, if a money market fund's adviser becomes aware that any NRSRO has rated a security below its second highest rating category, the fund's board (or its delegate) must promptly reassess whether to continue to hold the security.**

Monitoring the ratings of NRSROs to determine if a security has been downgraded by any NRSRO may no longer be appropriate if the number of NRSROs increases. Our members report that substantial costs and resources will be required to monitor even one or two additional NRSROs. The Commission will need to balance these burdens and potential benefits in determining whether to continue to link the requirements of Rule 2a-7 to a single ratings downgrade. Other changes to Rule 2a-7 also are likely to be necessary and appropriate.

13. Securities Industry Financial Management Association Comment on SEC 2008 Proposed Rule (December 2009).¹³

[N]ot all [broker-dealers] have the resources necessary to evaluate the credit risk inherent in fixed income obligations. Accordingly, **if NRSRO references were deleted from the Net Capital Rule, some broker-dealers might need to hire outside consultants—at a potentially high cost—to analyze credit risk. This might result in different broker-dealers all analyzing the same bond coming up with a range of conclusions about the credit risk of that bond. In addition, costs may be raised for broker-dealers who make markets, as they may need to undertake an independent review of the issuers of the securities in which they make markets.** Indeed, the general impact of the elimination of NRSRO references in the Net Capital Rule would be the creation of what economists term "barriers to entry", which will have a disproportionate impact upon smaller and/or less well capitalized broker-dealers.

¹² Elizabeth Krentzman, General Counsel, Investment Company Institute (March 12, 2007), *available at* <http://www.sec.gov/comments/s7-04-07/s70407.shtml>.

¹³ Sean C. Davy, Managing Director, Corporate Credit Markets Division, Securities Industry and Financial Markets Association (December 8, 2009), *available at* <http://www.sec.gov/comments/s7-17-08/s71708.shtml>.

14. Fidelity Comment on SEC 2011 Proposed Rule (April 2011).¹⁴

The use of ratings is a clear, objective standard through which the Commission has (i) established money market fund eligibility standards and (ii) distinguished between first and second tier securities. Because this objective standard is applied consistently across all money market mutual funds, it provides protection for investors, predictability for issuers, and general stability for the money market industry.

15. Bond Dealers Association Comment on SEC 2011 Proposed Rule (July 2011).¹⁵

The BDA believes that there is an inherent conflict of interest involved in allowing broker-dealers to establish, maintain and enforce their own written policies and procedures for evaluating the credit risk of the securities they hold and ultimately determine how much capital they must hold against those securities.

...

What the SEC proposes is, essentially, that broker-dealers replicate the efforts of the credit rating agencies. Setting aside that doing so would effectively perpetuate—and multiply—the problems perceived in credit ratings, there are relatively few firms—and only the largest ones—that would have the resources to establish such a system.

...

Without use of objective criteria, certain securities held by different broker-dealers could (and most likely would) be treated differently . . . one firm may determine a security qualifies for a 9% haircut, while another might determine that the haircut for the same security is 15%.

16. Securities Industry Financial Management Association Comment on SEC 2011 Study of Assigned Credit Ratings (Sept. 2011).¹⁶

There is more to a rating agency than factors that may be measured through qualification of analysts or the specification of internal processes. Factors that the market considers at least as important and possibly more important are breadth and depth of coverage and a track record. Ratings methodologies differ from agency to agency, so the ratings of one cannot necessarily be directly compared to another, and investors and other market participants develop familiarity and comfort with specific methodologies over time. To the extent that a rating agency only rates a small proportion of a market, its analysis may be less valuable to investors who look to rating agencies that have a wide breadth of coverage, or may not be valuable to investors who are not familiar with their methodology. Over time,

¹⁴ Scott Goebel, Senior Vice President and General Counsel, Fidelity Management & Research Company (April 28, 2011), *available at* <http://www.sec.gov/comments/s7-07-11/s70711.shtml>.

¹⁵ Mike Nicholas, Chief Executive Officer, Bond Dealers of America (July 5, 2011), *available at* <http://www.sec.gov/comments/s7-15-11/s71511.shtml>.

¹⁶ Richard A. Dorfman, Managing Director, Head of Securitization, and Christopher B. Killian, Vice President, Securitization Group, Securities Industry and Financial Markets Association (SIFMA) (Sept. 13, 2011), *available at* <http://www.sec.gov/comments/4-629/4-629.shtml>.

as the agency continues to rate deals, its reputation may improve (assuming performance is adequate). We have seen this in recent years as certain smaller agencies have gained market share in specific markets. However, this is an organic process, one that cannot be forced.

17. Fitch Ratings Comment on December 2011 Federal Reserve Board Proposed Rule on Bank Capital (Feb. 2012).¹⁷

A second concern is the potential for further division of the US banking system as the largest financial institutions benefit from lower capitals resulting from their approved internal ratings approach. The changes to the standardized approach result in materially higher capital charges for counterparty credit risks and trading portfolios. Fitch's comparative analysis indicates the proposals do not sufficiently distinguish credit risks and lack a forward looking view also potentially resulting in adverse risk selection.

The use of Country Risk Classifications (CRC) published by the Office of Economic Cooperation and Development (OECD) potentially increases systemic risk for the U.S. banking system from the combination of adverse selection and the use of a single measure of risk assessment for sovereigns, municipals and financial institutions. **The OECD has raised its own objections to the use of CRCs as they are designed to indicate risks of currency convertibility, not credit risk.** The use of CRC for sovereign credit assessment may understate the risk. Comparisons between the CRC tiers and Fitch's current sovereign ratings indicate that insufficient differentiation may result. **Capital risk for sovereigns, municipals and in some cases financial institutions will be assessed based on the sovereign rating. This may increase systemic risks from the combination of adverse selection and tying many ratings to a single measure.**

The proposed corporate bond approach does not appear to provide sufficient credit differentiation for the middle and lower tiers. There appears to be greater optimism for higher credit risk issuers compared to noninvestment grade ratings assigned by Fitch. Notching differences from Fitch's credit ratings in noninvestment grade categories are visibly higher using the proposed approach of corporate tiers. Fitch believes this may result from fewer numbers of tiers as the ratios proposed generally correlate well to credit risk. The use of stock volatility provides a forward looking view that complements the use of leverage ratios. However, credit to corporations lacking public equity may be constrained given materially higher capital charges. **While the use of publicly available data is designed to prevent inconsistencies amongst bank calculations, there is no prescribed process for the valuation of assets. This introduces a potential for significant differences in the market value of assets and potential for the manipulation of capital requirements.**

¹⁷ John S. Olert, Chief Credit Officer, Fitch Ratings (Feb. 3, 2012), *available at* http://www.federalreserve.gov/SECRS/2012/February/20120217/R-1401/R-1401_021012_100675_506698373968_1.pdf.

18. **Herwig M. Langohr and Patricia T. Langohr, Comments to the SEC 2007 Proposed Rules (March 2007).**¹⁸

3.1 The number of NRSRO players, the nature of competition and ratings quality.

By doing away with the Catch 22 and leaving relatively little discretion to the SEC to grant or deny NRSRO status, the Proposed rule respects one of the key purposes of the CRA Reform Act to foster competition. The credible threat of new entrants will reinvigorate competition. This will ensure that CRAs invest ever more in quality; it will facilitate reversals of market dominance, and improve choices for issuers.

But the degree of competition should not be equated with a large number of players. **A high degree of competition can be consistent with a small number of NRSROs. In the CRA industry the equilibrium number of global or niche players in any confined segment will be small, probably around three, for the following reasons.**

However beneficial the dynamics that credible threats of new entrants create, reputation and network effects will continue to prevail in this industry, maintaining high barriers to entry and industry concentration. Ratings from the same CRA offer a common standard for interpreting risk, and the more that standard is used, the more the market will be willing to adopt it. CRAs compete for the market rather than in the market, because switching from one standard to another is costly. Issuers would need a major reason to switch agency once they have spent considerable executive time establishing initial ratings and developing a trust relationship with a CRA. **Ratings from CRAs represent different opinions about a possible future default. The quality of a particular CRA is thus only revealed over time. For investors to pay attention and for issuers to pay, they must trust the lifetime accuracy of a rating. You can only assess that using large samples, not by studying a unique event, such as the timeliness of predicting a singular default. Users thus need experience with a lot of ratings from a particular CRA to figure out how accurate they are.**

Clearly, this situation is advantageous for incumbents who occupied the field early and acquired an installed base, giving them a head start over new entrants. A small number of CRAs with the highest reputation for quality and independence will thus always dominate. This should not be a concern provided regulations do not protect incumbents artificially nor scare away new rivals. There are several strongly branded and technologically skilled infomediaries that might be keen to catch a share of CRA industry profits.

Indeed, the good news is that the ratings business is well segmented according to issuer product, industry and geography (e.g. sovereign bonds versus structured finance, insurance companies versus manufacturing, the U.S. versus emerging markets). This facilitates entry by new contenders because, once they have established their reputation in a specific segment, they can leverage that reputation as they move into nearby segments. Rapidly growing segments provide unique opportunities for agencies to invest in creating an installed base. Fast growth in a segment increases the likelihood that it will tip in favour of a new entrant, reversing the position of a

¹⁸ Herwig M. Langohr, INSEAD Business School, and Patricia T. Langohr, ESSEC Business School (March 12, 2007), *available at* <http://www.sec.gov/comments/s7-04-07/s70407.shtml>.

dominant firm. The current intense rivalry in the fast-growing structured finance segment illustrates these dynamics. The SEC should not stifle that with protective prohibitions as the Proposed rule would.

In conclusion, the animating principle of the Act is great: harness markets. In the interest of all, the SEC significantly abolishes the current Catch 22. But reassuringly for the true independence of CRAs vis à vis issuers, the industry will remain concentrated. For the better, 17g-1 relieves entrance to the industry from artificial regulatory protection, thereby stimulating innovation, improving product quality, and lowering rating costs to issuers. But the Proposed rule also, in several of its other provisions, tries to promote the public interest by administrative interference in the substance of credit rating decisions and by restricting competitive rivalry practices. Thereby it risks doing away with the benefits of 17g-1, because these other provisions obstruct the process of creative destruction and Darwinian selection. Entry and exit should be stimulated to ensure that only the very best survive. The Proposed rule should remain respectful of the nature of competition in this very particular industry. Economic history has taught that the lasting public interest is best served by respecting the natural dynamics of an industry. This suggests that administrative discretion should not obstruct the emergence of a small number of well-qualified NRSROs.

To sum up, the different provisions of the Proposed rule should consistently give precedence to ratings quality, rather than to the number of NRSRO players per se.

19. OECD Hearings, Competition and Credit Rating Agencies (Oct. 2010).¹⁹

A rating's original economic function is to objectively measure the credit risk of the issuer and to resolve the fundamental information asymmetry between issuers and investors. This assists issuers in accessing funding through markets. The second function is to provide a means of comparison across all issues of embedded credit risk and provide a consistent global rating scale to help build a portfolio. This is essential for the investor.

Finally ratings provide market participants with a common standard or language to refer to credit risk. A rating is an independent credit opinion expressed in a single contractible measure i.e. it is a measure which is observable and verifiable by all, and can therefore be included in contracts and regulations. This is essential for prescribers i.e. private contracts, investment guidelines and regulations.

These three functions together provide value to the market. They are complementary, with each function increasing the value and utility of the others. Historically these functions were separated, but fundamental ratings evolved endogenously, eventually providing all three together. The comparability and contractibility functions have important implications on the nature of competitive interaction amongst the rating agencies. The three functions historically were provided by three types of institutions: (i) specialized press and financial press which described specific business conditions, (ii) credit reporting agencies which reported on the ability

¹⁹ OECD Hearings, Competition and Credit Ratings (Oct. 5, 2010), <http://www.oecd.org/regreform/sectors/46825342.pdf>.

of merchants to pay their financial obligations, and (iii) investment bankers who put their reputations at stake each time they underwrote a security.

According to Prof. Langohr, there are a number of key intrinsic factors affecting competitive dynamics in this area. **Firstly credit ratings are experience goods i.e. the quality of the rating is only revealed ex-post using a large sample. Simply because a default does not occur it does not mean that a good rating should be given. Therefore reputation for quality built on a long track record is the crucial competitive advantage. Secondly investors value comparability and consistency of ratings across geographical segments and instruments. Ratings from a given CRA provide a common standard to interpret risk. Investors are unwilling to spend large resources to interpret many different standards, all else equal, the larger the “installed base” of ratings from a given CRA, the greater the value to investors. Finally, corporate issuers build a trust relationship with one or two CRAs but are unwilling to be rated by more. However building this relationship involves valuable executive management time. Corporate issuers will value the ratings most trusted by investors to facilitate placement and provide for the lowest spread. Hence, for all the above reasons, the CRA market is a natural oligopoly.**

20. Fitch Ratings Comment on SEC 2009 Proposed Rules (Feb. 2010).²⁰

Structured finance ratings have historically displayed aggregate default rates comparable to those shown by corporate ratings; if they do not, that is a signal for us to review the relevant criteria. For example, our default and transition studies have recently shown that comparability breaking down with respect to ratings on US RMBS and CDO securities issued in 2006 and 2007. As a result, Fitch re-examined and amended its criteria for these assets to bring future default rates back into line with the long-term averages.

We have also noticed different patterns in rating migration between structured finance and corporate finance ratings. **A greater proportion of the risk in granular structured finance pools stems from systemic or macroeconomic risks relating to an asset class-wide downturn rather than from the idiosyncratic risk of a particular borrower. This is likely to lead to the performance of different structured finance securities being more correlated than the performance of different corporate issuers.** In addition, because of this reduction in idiosyncratic risk, the propensity for an upgraded or downgraded rating to be upgraded or downgraded again in successive periods is notably stronger for structured finance ratings.

We note that the SEC makes no proposals about how to differentiate structured finance ratings from corporate finance ratings. It does, however, criticize the use of a “distinct symbol or identifier” for structured finance ratings. As the SEC and its staff are no doubt aware, **the EU Regulation requires CRAs that are registered thereunder to “ensure that rating categories that are attributed to structured finance instruments are clearly differentiated using an additional symbol with distinguishes them from rating categories used for any other entities, financial instruments or financial obligations.”** As part of our compliance with the EU Regulation, Fitch will be adding a modifier to all its structured finance ratings globally.

²⁰ Charles D. Brown, General Counsel, Fitch, Inc. (Feb. 2, 2010), *available at* <http://www.sec.gov/comments/s7-28-09/s72809.shtml>.

It would be extremely problematic for Fitch and other global NRSROs if the Commission were to take a different view than that expressed in the EU Regulation.

21. John J. Coffee, Ratings Reform: The Good, The Bad, and The Ugly (Oct. 2010).²¹

[T]his article recognizes (as does a recent study by the staff of the New York Federal Reserve Bank [citation omitted] that the [rating firms] do provide valuable information that strongly influences the cost of capital. At least in the case of complex and opaque debt securities (such as collateralized debt obligations or “CDOs”), “do-it-yourself” credit analysis, even by relatively sophisticated institutional investors, is no more feasible than “do-it-yourself” brain surgery.

...

Pursuant to the 2006 Act, the SEC has been required to admit any NRSRO applicant that can make an adequate showing of competence, and the SEC has in fact expanded the number of NRSROs to ten (with several applications pending that are likely to be successful). Still, the Big Three (Moody’s, Standard & Poor’s and Fitch Ratings) have remained dominant (with the new CRAs largely focusing on specialized market niches or rating foreign firms based in their own jurisdiction). This result suggests that the regulatory power assigned to the Big Three by the NRSRO system does not truly explain their market dominance. Even during the 1975–2006 period, a few new entrants were admitted by the SEC to the NRSRO club, but they were unable to compete successfully (and were acquired by the Big Three). Uniquely, Fitch Ratings did become competitive with Moody’s and S&P, but it had specialized in structured finance and thereby had acquired a competitive headstart over its rivals (Moody’s was in fact slow to enter the structured finance field). Overall, this pattern suggests that there are important “first mover” advantages because **reputational capital is hard to acquire and goes to the first firms in the field. If licensing power alone could explain the dominance of the Big Three, then the newer members of the SEC’s “NRSRO Club” would have joined and shared in their oligopoly.**

...

Critics assert that the NRSRO designation (and similar requirements for investment grade ratings adopted as early as the mid-1930s by the Comptroller of the Currency) gave the credit rating agencies de facto licensing power and thereby compelled investors to rely upon them for regulatory permission. Clearly, this outcome was not intended, as federal regulators were simply following the path of least resistance. For them, it would have been a regulatory nightmare to attempt to adopt comprehensive standards of creditworthiness. But intent is less important than effect, and these **critics argue that regulatory licensing power became the principal barrier to entry that excluded new entrants. This is a doubtful claim for several reasons: First, the Big Three also dominate European ratings where they enjoy no similar licensing power. Second, because Moody’s and S&P dominated the field since early in the 20th Century, well before the creation of NRSROs and similar regulatory rules, the claim that their licensing power explains their market dominance cannot explain their market power**

²¹ John. C. Coffee, “Ratings Reform: The Good, the Bad, and the Ugly,” OECD Hearings, Competition and Credit Ratings, at 43 (Oct. 5, 2010), <http://www.oecd.org/regreform/sectors/46825342.pdf>

before the time that they received any licensing power. Third, experience since 2006 shows that expanding the NRSRO club to ten firms has not eroded the dominance of the Big Three. Their supremacy thus seems more based on “first mover” advantages and the difficulty of entering the field without a proven track record. More likely, the initial firm to enter the field gains reputational capital over time, which creates a barrier to entry[.] If (as widely assumed) economies of scale characterize the production of financial information, the first entrant can operate more efficiently and exclude later entrants.

22. Lawrence White, Markets: The Credit Rating Agencies (2010).²²

In the early 1970s, the basic business model of the larger rating agencies changed. In place of the “investor pays” model . . . the credit rating agencies converted to the “issuer pays” model . . . The reasons for this change of business model have not been established definitively. Several candidates have been proposed.

...

Fourth, the bond rating business, like many information industries, involves a “two-sided market,” where payments can come from one or both sides of the market . . .”

...

Of course, the credit rating industry was never going to be a commodity business with hundreds of small-scale producers. The market for bond information is one where potential barriers to entry like economies of scale, the advantages of experience, and brand name reputation are important features.

23. Ulrich Schroeter, Three Letters That Move Markets: Credit Ratings between Market Information and Legal Regulation (July 2011).²³

The prevailing opinion in economic literature points to the high barriers to entry that new entrants to the credit rating business face, namely the challenge of having to demonstrate a sufficient track record in order to acquire credibility with investors, which again is necessary to persuade issuers to buy their rating services.

...

Against this background, there have been frequent calls for a larger number of rating competitors, based on the assumption that an increase in competition will increase the probability of high-quality ratings being produced. . . . [S]teps were taken toward the establishment of new rating agencies, either through initiatives by banks and other financial institutions or through

²² Lawrence J. White, “Markets: The Credit Rating Agencies,” *Journal of Economic Perspectives* 24: (2010) 211-226. <http://www.aeaweb.org/articles.php?doi=10.1257/jep.24.2.211>.

²³ Ulrich G. Schroeter, “Three Letters That Move the Markets: Credit Ratings between Market Information and Legal Regulation,” *Journal of Applied Research in Accounting and Finance*, 6, 1 (July 9, 2011), 14–30, 2011, <http://ssrn.com/abstract=1957435>.

support by public authorities. . . It is noteworthy that none of these projects succeeded in establishing a new credit rating agency with a relevant international market share.

...

An alternative explanation . . . rejects the theory that removable barriers to entry for rating providers are the cause for the credit rating market's long-standing oligopolistic structure, and argues that the market for credit ratings is an investor-driven natural oligopoly.

...

The prevailing theoretical explanation of the rating oligopoly assumes that new competitors cannot enter the market because they lack features necessary to gain market acceptance . . . suggesting that the barriers to entry reside on the supply side of the market. It cannot explain, however, why the oligopoly's composition has remained identical over time, although some smaller agencies have been active on the market for decades and recently also received recognition in their regulatory function.

The evidence suggests that the decisive barrier to entry rather resides on the rating market's demand-side, namely in the investors' preference for a market with only a few rating suppliers: Since a central reason for credit ratings' usefulness to investors is that they reduce complexity by distilling a wealth of information into an easy-to-process rating symbol, this advantage would be lost again had the investors to assimilate and process ratings from a large number of credit rating agencies.

24. JP Morgan Chase Comment on Federal Reserve Board June 2012 Proposed Rule on Bank Capital (Oct. 2012).²⁴

An example of the challenges faced by banks to implement an independent process is securities financing (repo style transactions). When a customer asks a bank to finance a security position through a repurchase agreement, that bank must instantaneously evaluate whether the security is investment grade or non-investment grade under the Proposals in order to know the regulatory capital requirement and to be able to price the transaction. **If the issuer is not represented in the bank's loan, trading or investment books it is unlikely that the bank would today have any information readily available beyond the public ratings. Given the timing considerations, a bank will effectively have to independently pre-evaluate every security, which it could be asked by a customer to finance. In the case of major market participants, such as JPMC, this would effectively be the investable universe comprised of hundreds of thousands of issues. Therefore, from a practical perspective, the Proposals will result in a much narrower universe of collateral that may be financed.**

²⁴ Matthew E. Zames, Co-Chief Operating Officer, JP Morgan Chase (Oct. 22, 2012) 25, http://www.federalreserve.gov/SECRS/2012/October/20121025/R-1442/R-1442_102212_109743_308150983800_1.pdf.

25. Moody's Comment on SEC Staff 2011 Study on Assigned Credit Ratings (Sept. 2011).²⁵

[R]atings accuracy encompasses not only the concept of ordinal power but also standards of absolute performance, namely that high-rated credits should default only infrequently and defaulting credits should be rated low, on average, well in advance of default. Our principal measure of ratings accuracy is the Average Position (AP) of defaulters. Bounded between 0 and 1, AP measures where in the distribution of ratings defaulters were located relative to non-defaulters. As such, AP summarizes only the ordinal power of the rating system. We augment this with cardinal or absolute measures of accuracy, notably the investment-grade default rate and the average rating of defaulters prior to default.

Stability in ratings is a valued attribute by many users. Moreover, the desire for stable ratings reflects not just an aversion to volatility, but also a view that more stable ratings are more accurate ratings with respect to the relative fundamental credit risk of the borrower. All other things being equal, a rating system that makes less frequent rating changes is a preferable system. Of course "all other things being equal" is an important restriction: some volatility is necessary to maintain accuracy. Sometimes credit ratings must change to anticipate dynamic, fluid circumstances.

We assess stability by measuring ratings volatility (essentially notch-weighted upgrade and downgrade rates) as well as the frequency of rating reversals. MIS seeks to change ratings only when relative, fundamental creditworthiness changes (subject, again, to the absolute boundaries discussed above). Since relative, fundamental credit risk generally changes quite slowly, ratings should be stable, especially when compared with other market-based risk measures. Infrequent reversals, and stability more generally, facilitate the use of ratings in connection with investment eligibility guidelines and performance benchmarks."

...

To control for changes in the economic environment, MIS also compares the accuracy and stability of its ratings to the accuracy and stability of other credit risk measures, such as market-implied ratings inferred from observed credit spreads.

We also wish to emphasize that there is a trade-off between ratings accuracy and ratings stability. It might be possible to increase the short-term correlation between credit ratings and defaults by making credit ratings more responsive to new information, regardless of whether that information reflects a transitory development or a more fundamental change. Such an increase in the responsiveness of credit ratings to all types of new information, however, likely would result in a decrease in ratings stability.

²⁵ Michel Madelain, President and Chief Operating Officer, Moody's Investors Service (Sept. 13, 2011), *available at* <http://www.sec.gov/comments/4-629/4-629.shtml>.

26. Timothy Sinclair, *The New Masters of Capital* (2005).²⁶

Rating agency outputs comprise an important part of capital market infrastructure. They are key benchmarks in the cognitive life of these markets—features of the marketplace—which form the basis for subsequent decision-making by participants.

...

The rationalist way to think about what rating agencies do is to see them as serving a function in the economic system. In this view, rating agencies solve the problems that develop in markets when banks no longer sit at the center of the borrowing process. Rating agencies serve as “reputational intermediaries . . .”

Another way to think about the agencies’ function is to suggest they establish psychological “rules of thumb” that make market decisions less costly for participants.

27. Timothy Sinclair, *Round Up the Usual Suspect: Blame and the Subprime Crisis* (March 2010).²⁷

The circumstances, including the longevity of the rating agencies, have made their particular authoritative niche more resilient than that of most other non-state institutions. Their position within capital markets provides them with considerable resources. The reputation of Moody’s and S&P has been constructed over time through a combination of serving a need by offering to solve the information problem between buyers and sellers, and by providing that information in a reliable way, generating epistemic authority for them. Even if individuals are skeptical about the rating agencies, they cannot assume that other will have the same view. Because of this risk, skeptical individuals have incentives to act based on the assumption that others will use the rating agencies as benchmarks . . . unless they know this definitely not to be the case.

...

[S]ome critics would like NRSRO status abolished, removing an reference to ratings from law. The view here is that weak competition has led to poor analysis, as the rating agencies have had few incentives to reinvest in their product. . . . This position does not acknowledge the significance of reputational assets held by Moody’s and Standard & Poor’s. If they do have reputational assets, removing or freeing up NRSRO status may have little impact on them.

28. Securities Industry Financial Management Association Comment on SEC 2011 Proposed Change in Net Capital Rule (July 2011).²⁸

²⁶ Timothy J. Sinclair, *The New Masters of Capital: The American Bond-Rating Agencies and the Politics of Creditworthiness*. Ithaca, NY: Cornell University Press, 2005.

²⁷ Timothy J. Sinclair, “Round Up the Usual Suspect: Blame and the Subprime Crisis,” *New Political Economy* 15, 1 (March 2010):. 91-107.

²⁸ Kenneth E. Bentsen, Jr., Executive Vice President, Public Policy and Advocacy, Securities Industry Financial Management Association (July 5, 2011), *available at* <http://www.sec.gov/comments/s7-15-11/s71511.shtml>.

We believed and continue to believe that credit ratings constitute a valuable component of a holistic credit risk and liquidity analysis. The input of an independent third party NRSRO provides an objective minimum floor for the subjective credit risk determinations of various market participants, thus enhancing the stability and conformity of such assessments and providing certainty to market participants as to whether their practices comply with Exchange Act rules.

...

SIFMA reiterates the concerns expressed in its prior comment letters regarding the potential impact of replacing objective rules with standards premised on the subjective determinations of market participants. Such measures could result in considerable uncertainty on the part of market participants as to whether their assessments would be deemed to comply with the new rules.

...

Regulation M Comments.

Determination of whether a security satisfies the criteria proposed in the Release is a highly subjective exercise that does not lend itself to clear answers. The absence of an objective rule would result in considerable uncertainty among market participants as to whether their subjective determinations would be deemed to comply with the new rules. The time required to conduct the subjective evaluation and obtain a third-party verification would also be inconsistent with the rapid turnaround that characterizes the modern fixed-income market. For these reasons, we do not believe persons seeking to rely on the Regulation M Exemptions would be able to demonstrate satisfaction of the standard in a sufficiently timely or certain manner. Consequently, we would expect adoption of the proposed standard to result in more offerings pursuant to Rule 144A (—Rule 144A1) under the Securities Act, and thus exempt from Regulation M, which runs contrary to the expressed goal to encourage the use of registered offerings that the Commission sought to achieve in connection with its 2005 reform of the securities offering process.

...

Market participants that exercise reasonable judgment in conducting the analysis could reach different conclusions about whether a security qualifies for the Regulation M Exemptions under the standard proposed by the Release. As each person seeking to rely on the Regulation M Exemptions would be required to make its own assessment under the proposed exemptions, it is possible that different participants in the same securities distribution could arrive at divergent conclusions as to whether the security qualifies. As a result, firms may either take a more conservative approach to the determination for fear that their analysis will be second-guessed if another firm reaches a contrary conclusion, or take a more aggressive approach to the determination in order to remain competitive. In either case, application of the standard would be influenced by factors not relevant to whether a security is susceptible to market manipulation.

In addition, SIFMA believes the added costs and administrative burdens associated with the proposal could inhibit capital formation by delaying access to the capital markets and increasing the expense of securities offerings. Under the proposal, firms would not only be obligated to devote resources to assessing whether securities satisfy the standard, they would also be required to enlist independent third parties for purposes of the verification requirement. The verification process would likely entail the provision of nonpublic information to a verifier that may be a competitor to the firm seeking to rely on the exemption. Third parties may be reluctant to provide verifications on an expedited basis for fear of liability to regulators or private party litigants arising from their role as verifiers. Moreover, because verifiers will likely charge a fee for their services, such costs would be passed on to issuers, thus increasing the cost of accessing the capital markets.

Net Capital Rule Comments.

The Release notes that a broker-dealer assessing credit risk could consider, to the extent appropriate, the following factors: Credit spreads; Securities-related research; Internal or external credit risk assessments (including by rating agencies, irrespective of NRSRO status); Default statistics; Inclusion on an index; Priorities and enhancements; Price, yield and/or volume; and Asset class-specific factors (e.g., in the case of structured finance products, the quality of the underlying assets).

...

[A] broker-dealer could reasonably design policies and procedures for determining the credit risk associated with a position in a security that are adapted not only to characteristics of the security itself (as implied by the commentary in the Release) but also to the size of the position and the purpose for which the position is acquired or held by the broker-dealer. Adopting (or enforcing) amendments to the rule that fail to recognize this fact would be inconsistent with the manner in which broker-dealers make markets in debt securities and would put smaller firms at a significant competitive disadvantage.

A significant number of large broker-dealers have sophisticated internal credit review functions. The primary purpose of such functions is, of course, to manage risk. In addition, these functions are used by broker-dealers that are subsidiaries of bank holding companies to comply with certain federal regulations applicable to such entities. **The development and implementation of a sophisticated credit review function is expensive, and likely out of reach for a small or medium-sized broker-dealer. A rule that requires the application of a sophisticated credit review of the sort used for counterparty credit risk to all fixed-income securities positions as a prerequisite for taking a reduced haircut would effectively prohibit small and medium-sized broker-dealers (that are not subsidiaries of bank holding companies) from applying the reduced haircuts, and place them at a severe competitive disadvantage.**

Even the largest broker-dealers, with greatest resources in their credit review functions, do not conduct an individualized credit review of all issuers, much less all fixed-income securities issued by all issuers. Even where a broker-dealer conducts an internal review of the credit-worthiness of a security, such review is not updated continuously, and it would be unrealistic to expect a broker-dealer's credit risk assessments to be updated each time the firm

performs Net Capital Rule compliance calculations. **A broker-dealer may not have a current internal credit risk assessment on hand at the time it is asked to make a bid for a security. Fixed-income market-makers, however, are generally expected to quote a market in a fixed-income security when requested by a customer.** While a fixed-income market maker in a large broker-dealer may, in theory, be able to submit to its credit review function any security on which it is asked to bid, the amount of time required for a thorough review in accordance with the sophisticated practices used for counterparty credit risk analysis would not be consistent with the speed of today's fixed-income marketplace.

We believe policies and procedures reasonably designed for determining whether a fixed-income security has only a minimal credit risk could base the determination solely on a small number of objectively determinable factors (e.g., internal or external credit ratings and yield spreads) under circumstances where (i) the position in the security is acquired on a short term basis (e.g., as part of an underwriting or market-making business) and is not held for a long period or (ii) the firm's position in securities of the relevant issuer is immaterial in relation to the firm's capital. Such policies and procedures would represent a reasonable allocation of the limited resources of the broker-dealer's credit review function, and they could also be implemented by small and medium-sized broker-dealers that lack the resources necessary to conduct a sophisticated credit review.

...

We believe many broker-dealers rely upon both publicly available credit ratings and trading spreads to assess the market's perception of an issuer's credit standing. It is not clear that there are readily available alternatives to credit ratings to support the market-making and underwriting businesses. In particular, the market-making business is a minute-by-minute business, and we are not aware of an alternative source of immediately available credit analysis. We do not believe reliance on these factors in the context of an underwriting or market-making business, or with respect to positions that are relatively immaterial in relation to the broker-dealer's capital should be regarded as —unusual— in these circumstances, it is reasonable for a broker-dealer to rely on a small number of objectively determinable factors.

As noted in our prior comment letter, **absent objective standards that offer both consistent application of the rules and the assurance of a stable minimum floor for risk assessments, less risk-averse broker-dealers might use their increased discretion to take an aggressive approach to credit risk determinations, thereby increasing investors' risk of loss and decreasing investor confidence.** Because the consequences of inadequate net capital include an immediate suspension of business and possible liquidation, this risk is particularly acute with respect to firms experiencing financial difficulty — the very firms for which correct application of the Net Capital Rule is most important.

Because the concept of minimal credit risk is highly dependent on the characteristics of a security and the broker-dealer that holds it, it may be difficult to create a meaningful definition of minimal amount of credit risk that accounts for the variety of contexts in which it would apply. If the Commission elects to define the term, we believe it should consider the following (among other factors) in formulating its definition: (i) the credit-worthiness of the

issuer of the security (or the counterpart to the derivative transaction), (ii) the size of a transaction and the resulting exposure to an individual issuer (in terms of the duration of the exposure and the size of the position), (iii) whether the obligation is secured or unsecured, (iv) whether the obligation is intended to be traded in the short term or held as a longer term investment and (v) whether the obligation is a corporate bond, a long term obligation or an over-the-counter derivative.

Appendix 2

Rating Performance and Market Share Data

1. Rating Performance Metrics

Aggregate time series data on rating performance used for regression analysis was obtained from Moody's Investment Service website in Excel Workbooks for corporate and structured finance debt.¹ Moody's data also was reviewed in disaggregate form at The University of Chicago's Booth School of Business, which provided privileges for Moody's performance data for this research, but disaggregate data was not used for the analysis.

After reviewing Moody's reports on how Moody's measures the performance of their ratings, A representative sample of performance metrics was selected from the many included in the Excel Workbooks, including metrics identified by Moody's as key for measuring performance. The data for these metrics were used for regression analysis and to convert into graphs for visual analysis, as discussed and set forth below. A general description of how Moody's calculates and interprets these metrics is described below.

Further analysis is warranted on comparable time series data for other rating firms, as such data becomes available.

Ordinal Metrics: Moody's and other credit rating agencies rely on ordinal metrics as a principal measure of rating performance, primarily because these metrics capture the primary goal of ratings, to predict and convey relative creditworthiness of rated debt over a fixed period of time. Ordinal accuracy measures how well ratings and defaults correlate, or rather how well the agency allocates ratings so that the highest rating class experiences the fewest number of defaults and the lowest class the greatest number of defaults, while every "notch" in between experiences losses no more than the notch directly below and no less than the notch directly above.

(i) Cumulative Accuracy Profile (CAP): This metric plots the "cumulative share of defaults accounted for by the cumulative share of ratings."² The share of credits rated equal to or lower than a given rating is plotted on the x-axis; the share of defaults of each of the credits is plotted on the y-axis. Visually speaking, the x-axis identifies the relative share of all outstanding ratings in a given rating category, while the y-axis captures the percent of total defaults that fell within each category. Every point on the CAP curve, which behaves like an attenuated exponential function, indicates the ability of a specific rating category to discriminate creditworthiness by the probability of default within that category.³

¹ The Performance of Moody's Structured Finance Ratings - Excel data supplement (Feb. 20, 2013), http://www.moodys.com/research/The-Performance-of-Moodys-Structured-Finance-Ratings-Excel-data-supplement--PBC_150065; The Performance of Moody's Corporate Debt Ratings - Excel data supplement (Aug. 2, 2012), http://www.moodys.com/research/The-Performance-of-Moodys-Corporate-Debt-Ratings-June-2012-Quarterly--PBC_144506. (log-in required).

² Moody's Investment Services. "Special Comment: Glossary of Moody's Ratings Performance Metrics," 14 (Sept. 30, 2011), http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_135451.

³ See Moody's Investors Service. "Special Comment: Measuring Ratings Accuracy Using the Average Default Position (Feb. 1, 2011), http://www.moodys.com/research/Measuring-Ratings-Accuracy-Using-the-Average-Default-Position--PBC_129451.

(ii) Accuracy Ratio (AR): The CAP is not used directly as a performance statistic, because the accuracy ratio and average position capture information of the CAP curve in a single summary statistic. This metric divides the area between a 45 degree line (A) and the CAP curve by the area above the CAP curve (B) plus (A). A perfect rating system would put every credit that will default into the lowest rating category and every credit that will not default into the highest, so that the area above the curve goes to zero and the AR goes to 1.

(iii) Average Position (AP): Much like the AR, the AP describes where in a set of ratings the average defaults occurred relative to the non-defaulting credits.⁴ The metric is calculated by taking the number of outstanding credits within a rating class and dividing them by all the outstanding credits to determine the position of the rating class, which is half that amount. This calculation is done for every rating category, and then each position is multiplied by the number of defaulting credits with that rating, summed across the rating categories, and divided by the number of defaulted credits.⁵ AR and AP have a direct linear relationship ($AR=2AP-1$).

Cardinal Metrics: Absolute or cardinal accuracy is much more difficult to define than ordinal accuracy, because there is no absolute way of determining what the default rate for all outstanding ratings or for a particular category should be. Cardinal accuracy asks the question, “what is the probability that a certain credit will default, given its rating category?” Cardinal accuracy is difficult to measure in this respect because the rating categories are assigned in a relative manner. Absolute performance can be calculated in a more general way by addressing the concerns of investors. High rated credits should default rarely and defaulting credits should be assigned lower ratings that to some degree anticipate default well in advance of actually defaulting.⁶

(i) Investment Grade Default and Loss Rates: Moody’s ratings between Aaa and Baa3 are considered investment grade. Any credit assigned an investment grade rating that defaults within one year of that assignment would increase the investment grade default rate, which is simply the number of investment grade defaults divided by all outstanding investment grade credits. The five year rate is computed in a similar manner for all credits that defaulted within five years of having an investment grade rating. The investment grade loss rate is calculated using a formula that multiplies the probability of default by $1 - R_T$ (the corresponding recovery rate for time horizon T).⁷

(ii) Median Rating Prior to Default: This metric is simply calculated by specifying a certain time period, ex post, and calculating the median rating of the defaulting credits during that period.⁸ The median rating before *impairment* is calculated in the same manner, except impaired credits are determined in a more discretionary manner, when “investors receive—or expect to receive with near certainty—less value than would be expected if the obligor were not

⁴ Moody’s Investment Services. “Special Comment: Measuring the Performance of Credit Ratings,” 1 (November 1, 2011), http://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_135380.

⁵ *Id.*, 16.

⁶ *Id.*, 9.

⁷ Moody’s Investment Services. “Special Comment: Glossary of Moody’s Ratings Performance Metrics,” 4 (Sept. 30, 2011), http://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_135451.

⁸ *Id.*, 10.

experiencing financial distress or otherwise prevented from making payments by a third party.”⁹

Volatility Metrics: Much like cardinal metrics, volatility metrics are calculated to respond to investor interest in accurate but predictive and stable ratings. For instance, if ratings were to change very frequently, experiencing both upgrades and downgrades, investors holding those credits may find little value in ratings. As market conditions change, so should ratings to reflect these changes, but high volatility, and especially rapid rating reversals, diminish the value of ratings significantly for investors, due to the cost of buying and selling debt in response to rating changes.

(i) Notch-Weighted Volatility: This metric is constructed by adding the notch-weighted downgrade rate and upgrade rate together. These metrics are computed by taking the number of notches (e.g., alphanumeric rating movement of a credit from Aaa1 to Aaa2), and dividing it by the number of outstanding ratings. Because of this construction, the volatility rate can at times exceed 100 percent.¹⁰

(ii) Rating Reversal Rate: To avoid redundant rating actions, Moody’s only considers changing ratings when there is a chance that new information relevant to a creditworthiness challenges the current rating in such a way that it does not anticipate reversing that action soon after. To determine whether a rating action was unnecessary, Moody’s looks at whether for that same credit there was an opposite action within one year, which is their standard time horizon. The rate is then calculated by dividing the number of credits that experienced rating reversals divided by the total number of outstanding credits.¹¹

2. Corporate and Structured Finance Rating Performance¹²

Exhibits 3, 4, 23: One and Five Year Average Position; Structured Finance Ratings Trend

Exhibit 3 illustrates the degree to which the one and five year AP for both rating classes maintained proximity to one another during previous contraction periods that preceded the macroeconomic events of the late 2000s. The charts show that structured finance AP diverged substantially relative historical trends for structured finance ratings, and relative to corporate ratings, throughout the post financial crisis period. This trends is more easily seen in Exhibit 4. Exhibit 23 shows the significant increase in the number of structured finance ratings in years prior to the financial crisis.¹³

⁹ Moody’s Investors Service. “Rating Symbols and Definitions,” February 2013, p. 36.

¹⁰ Moody’s Investment Services. “Special Comment: Measuring the Performance of Credit Ratings,” November, 2011, p. 10.

¹¹ Moody’s Investors Service, “Special Comment: Glossary of Moody’s Ratings Performance Metrics,” 13 (Sept. 30, 2011), http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_79004.

¹² Graphs in Exhibits 3–15 are generated by an Excel Workbook with data from the Moody’s sources listed above in notes 1 and 2, supplemented by selected Moody’s quarterly reports for data for Exhibits 13–15, which are not included in those sources.

¹³ Moody’s Investors Service, “Special Comment: Structured Finance Rating Transitions: 1983-2011,” 3 (March 23, 2012), http://www.moodys.com/research/Structured-Finance-Rating-Transitions-1983-2011--PBC_140669.

Exhibits 5 and 6: One and Five Year Investment Grade Default Rate and Investment Grade Loss Rate

These graphs further illustrate the concentration of cardinal inaccurate ratings in the structured finance debt class. Defaults in investment grade categories were extremely rare for both rating classes until the financial crisis, but corporate ratings retained their accuracy during and after the crisis while structured finance exhibited massive defaults and losses during and after the crisis.

Exhibit 7 and 8: Median Default Rate and Median Rating Before Impairment

Corporate ratings again maintained their median default rate through the crisis and subsequent recession. Structured finance ratings exhibit inflated characteristics in their low downgrade rates, which rapidly declined in 2007. The effects of regulation are not visually apparent and it appears that corporate median default rates increase through and after the recessionary period.

Exhibit 9 and 10: Rating Reversal Rate

Although this metric appears to show that corporate ratings were more volatile, this may be due to the fact that the structured finance was a relatively new class of debt security that did not experience upgrades or downgrades for some time after issuance, and then experienced mostly downgrades, but not rating reversals, during and after the financial crisis. Corporate rating reversals return to their previous rate by the end of the credit cycle period, whereas the structured finance rate finds and maintains a new and higher “normal.”

Exhibits 11 and 12: One Year and Three Month Volatility Rate

Although corporate ratings consistently maintained higher degree of volatility than structured finance, corporates maintained its degree of volatility during the latter part of the 2000s, while structured finance rating volatility saw nearly a fivefold increase in the one year volatility rate. Cardinal (absolute) rating accuracy, reported in part by overall default rates, does not seem to exhibit any positive correlation to the onset of formal SEC regulation in 2007.

3. Corporate and Bond Implied Rating Performance

Exhibits 13-15: One Year and Five Year Average Ratio and One Year Volatility

These graphs indicate that corporate rating accuracy and bond implied rating accuracy behave very similarly. Aside from the sharp drop in the one year Moody’s average ratio, this trend is maintained through the crisis and after periods. The volatility graph, however, illustrates the corporate ratings remain much more stable before and during the period of contraction.¹⁴

¹⁴ Data in Exhibits 13–15 and are not directly comparable to data in Exhibits 3–4 and 11–12: the population of ratings that Moody’s uses to compare corporate and bond implied ratings is more limited; AR is used to measure rating accuracy in Exhibits 13–14, but AP is used in Exhibits 3–4.

4. Rating Performance Before and After SEC Regulation

Exhibit 16: Without Macroeconomic Exclusionary Variables

Exhibit 16 includes the same Moody's performance metrics depicted graphically in Exhibits 3 through 12 for corporate and structured finance. Five year outlook metrics do not extend beyond 2007 due to the time period over which this metric is measured. No performance metric demonstrated statistically significant improvement post legislation at the $p < .05$ level or lower, and all regression coefficients were significant except for the corporate three month volatility statistic. These results may be inconclusive as to the effects of the regulation on credit ratings, as the prolonged macroeconomic downturn followed closely after the passage of the CRA Act on 2006, and the commencement of SEC regulation in mid to late 2007. The event of the financial crisis have an obvious impact on ratings for both classes of debt, so the additional effect of regulation, if any, is difficult to discern. Comparing the coefficients between the rating classes vertically helps illustrate the relative degree to which major macroeconomic events impacted the rating classes as opposed to any effect of the regulation. For example, the decrease in one-year average position (AP) for structured finance is nearly five times the decrease in the corporate average position.

Exhibit 17: Corporate Metrics With Macroeconomic Exclusionary Variables

Exhibit 17 includes bivariate regressions testing the effects of SEC regulation on the same primary performance metrics for corporate ratings, save any five year metrics, using the exclusionary variables for the financial crisis, recession, and credit cycle. This helps equalize the before and after periods surrounding the CRA Act, although this dramatically limits the amount data remaining for analysis after the conclusion of these events. These corporate metrics cover the same time period ('83-'12) as other exhibits discussed above. Three of the eight significant coefficients indicate improved performance after regulation, however, they are all volatility statistics; the coefficients for average position are never significant when any of the three exclusionary variables are tested, which indicates that regulation likely had little effect on the performance of Moody's corporate ratings.

Exhibit 18: Structured Finance Metrics With Macroeconomic Exclusionary Variables

The performance of Moody's structured finance ratings do not seem to exhibit any positive correlation to the onset of formal regulation. Of the 18 tested metrics, 16 were significant at the 99 percent confidence level, of which only the median rating before impairment statistic with the credit cycle exclusionary variable, the longest of the three, produced a coefficient indicating improved performance.

Exhibits 19 and 20: S&P Gini Coefficients (1, 3, 5, 7 years). One-Year Default Rates

Gini coefficient is comparable to AR and AP used by Moody's and measures ordinal rating accuracy. Exhibits 19 and 20 confirm similar results in Exhibits 3–4 (for Moody's AP), Exhibits 13–14 (for Moody's AR), and Exhibits 5–6 (for Moody's default rates), in that changes in rating accuracy appear to be much more correlated with macroeconomic cycles and do not show any apparent change due to regulation.

Exhibit 21: Moody’s Average US EDF Measures and Change in US Industrial Production, 1969-2010¹⁵

Mean US EDF is the average expected default frequency for U.S. firms. Moody’s illustrates that their EDF is generally positively correlated with the primary indicator of economic recessions, industrial production. This graph is also helpful to gain a general sense of the size, severity, and duration of recent recessionary periods. Rating fluctuations due to recessions appear to be similar both before and after the onset of formal SEC regulation in 2007.

Exhibit 22: High-Yield Bond Spreads over Time¹⁶

This graph shows one measure of the general timing of credit cycles that may affect overall rating accuracy. Bond yields are a metric that indicate the value and riskiness of different bonds relative to US Treasury bonds, measured by market outcomes in actual purchases and sales. Yields are calculated by dividing the coupon rate (number of coupon payments divided by the bond price) by the price of the bond. Investors generally favor high coupon rates and low yields. The spreads shown here are for high-yield bonds (non-investment grade). The blue line shows sharp increases during recessionary periods (see Exhibit 22) indicating the decrease in price and increase in risk of high yield bonds compared to US Treasuries bonds, which have historically been very riskless investments.

5. SEC Data on Market Shares and Inverse HHIs

Exhibit 1: HHI Inverse by Rating Class¹⁷

The HHI Inverse is a statistic that estimates the number of equally sized firms in a market. The data shows that on average the market for credit rating services supports on average three firms of equal size. The CRA Act of 2006 became effective in 2007, and since then there has only been a three percent change in the HHI Inverse, using total ratings, and the growth is heavily concentrated in ABS and financial institutions ratings. Thus far there is little evidence that the Act removed inefficient barriers to entry.

Exhibit 2: Percent of Outstanding Ratings by NRSRO¹⁸

These charts show that the market is still highly concentrated. Sector specific charts show variations, but overall concentration has yet to exhibit any change after SEC regulation in 2007.

¹⁵ Moody’s Analytics, “Modeling Methodology: Through-the-Cycle EDFTM Credit Measures,” 10 (Aug. 31, 2011), http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_135583.

¹⁶ Anthony Valeri, LPL Financial, “Bond Market Perspectives,” 2 (March 26, 2013), http://www.nvb.com/assets/1/14/3-26-13_Bond_Market_Perspectives.pdf.

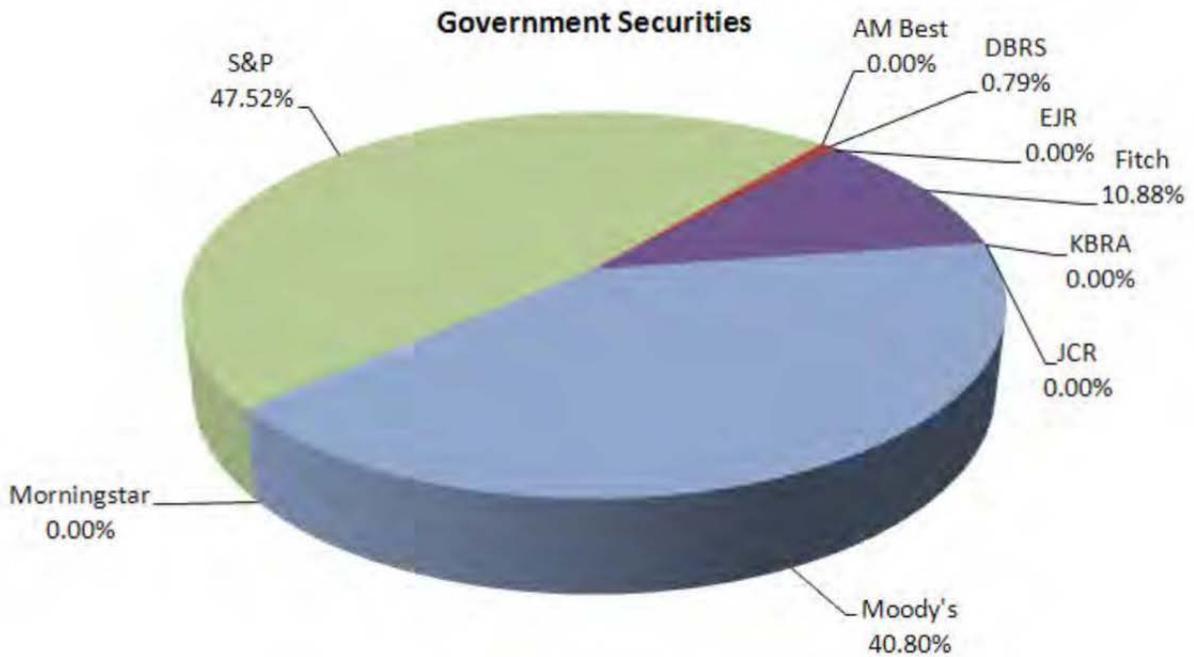
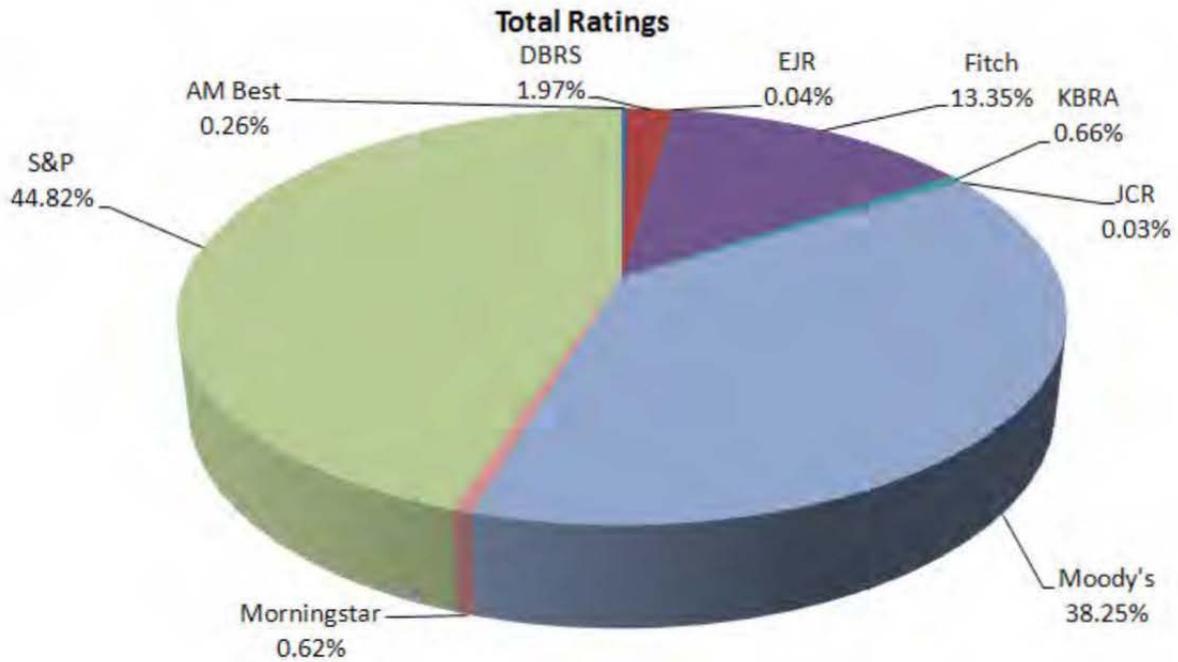
¹⁷ Data from 2008-2011 obtained from SEC “Annual Report on Nationally Recognized Statistical Rating Organizations,” December 2012, p. 8; data for 2007 obtained from “Annual Report on Nationally Recognized Statistical Rating Organizations,” January 2011, p. 8.

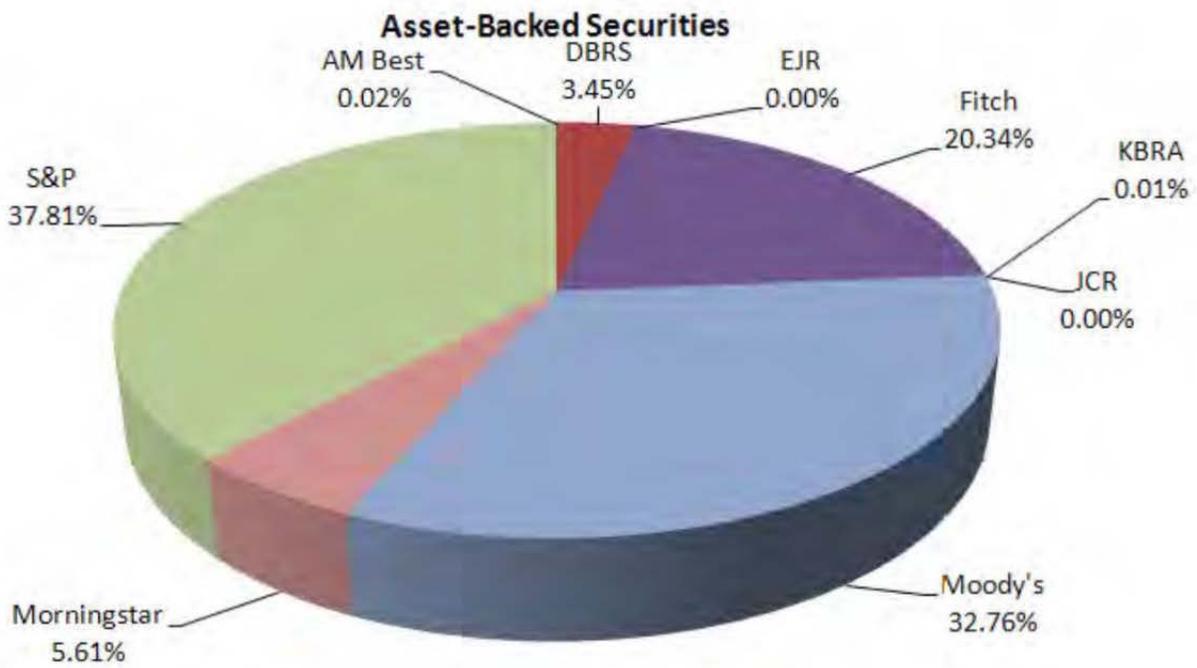
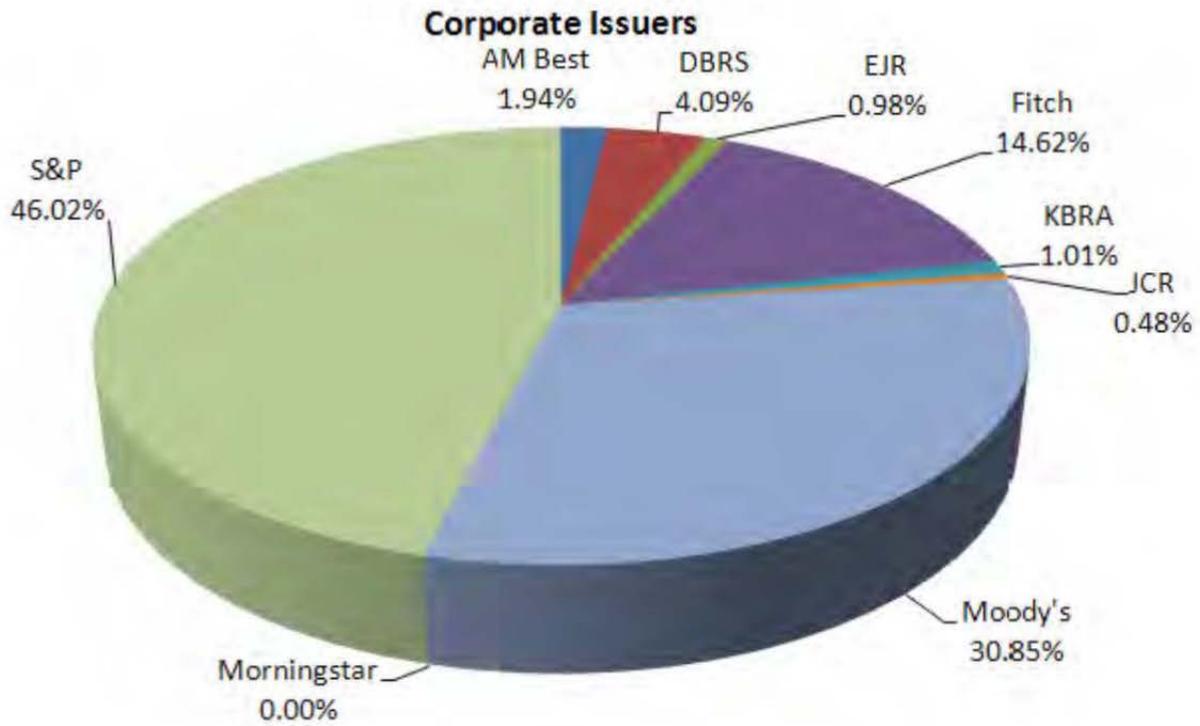
¹⁸ SEC “Annual Report on Nationally Recognized Statistical Rating Organizations,” December 2012, p. 7.

Exhibit 1: HHI Inverse Total and by Rating Class

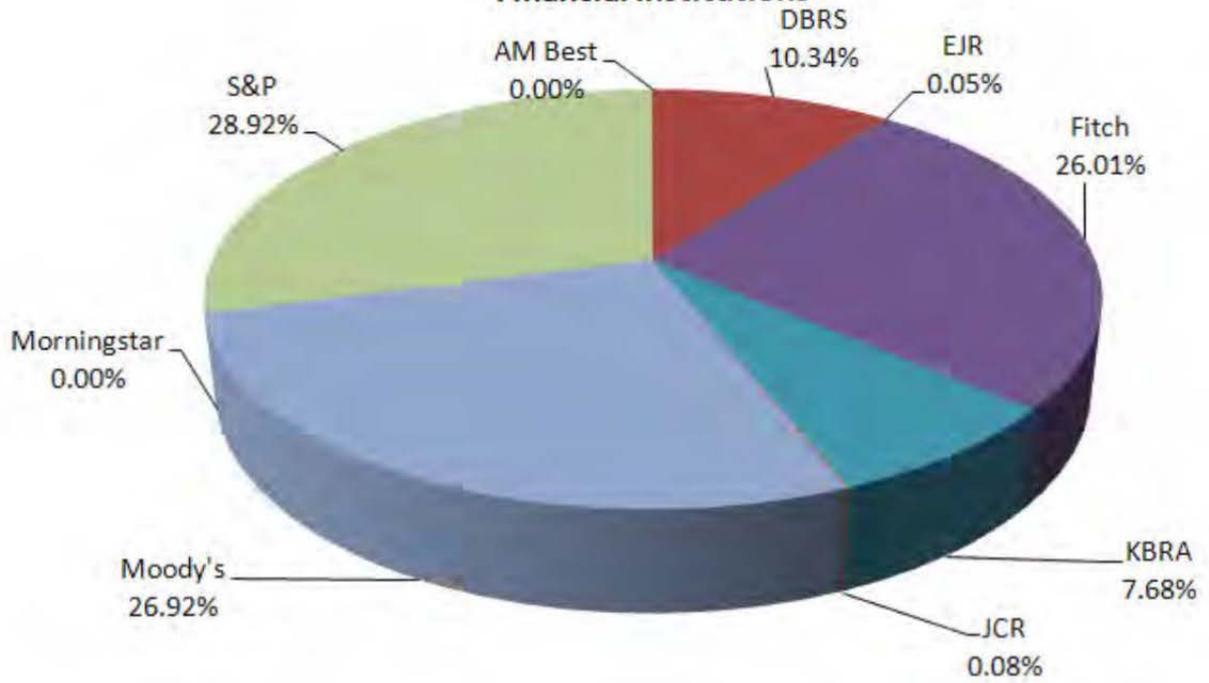
Year	Financial Institutions	Insurance Companies	Corporate Issuers	Asset-Backed Securities	Government, Municipal & Sovereign	Total Ratings
2007	3.37	4.02	3.27	2.71	2.35	2.65
2008	3.72	4.05	3.79	2.82	2.83	2.99
2009	3.85	3.84	3.18	3.18	2.65	2.86
2010	3.99	3.37	3.17	3.20	2.69	2.88
2011	4.16	3.76	3.02	3.38	2.47	2.74
07-11 Percent Change	12%	-6%	-8%	25%	5%	3%

Exhibit 2: Percent of Total Outstanding Ratings by CRA





Financial Institutions



Insurance Companies

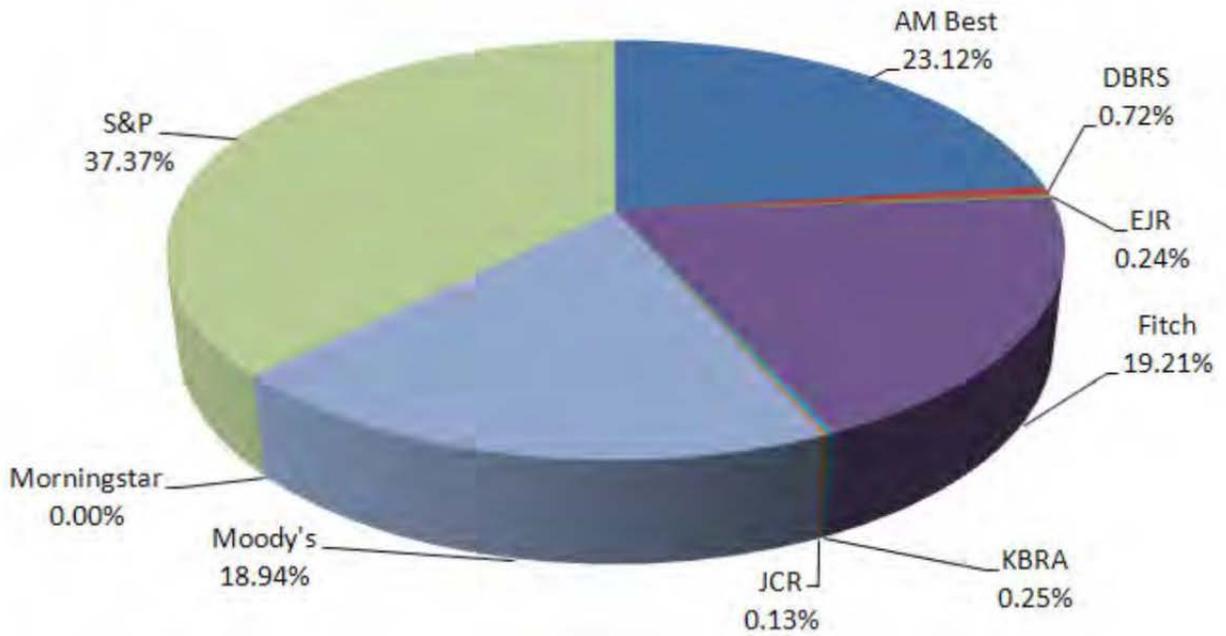


Exhibit 3: One and Five Year Average Position of Corporate and Structured Finance Ratings

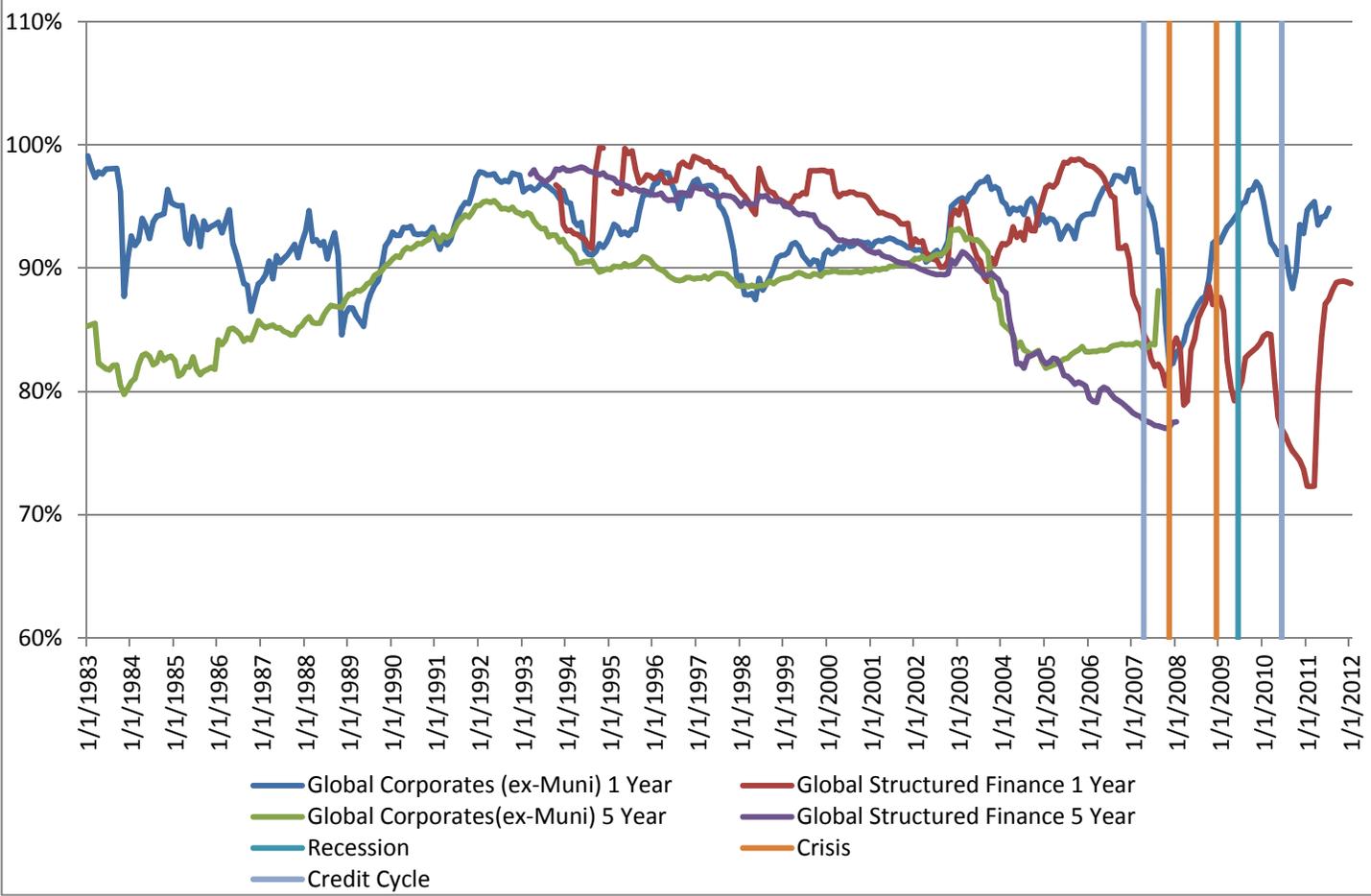


Exhibit 4: One and Five Year Average Position of Corporate and Structured Finance Ratings (1999-2012)

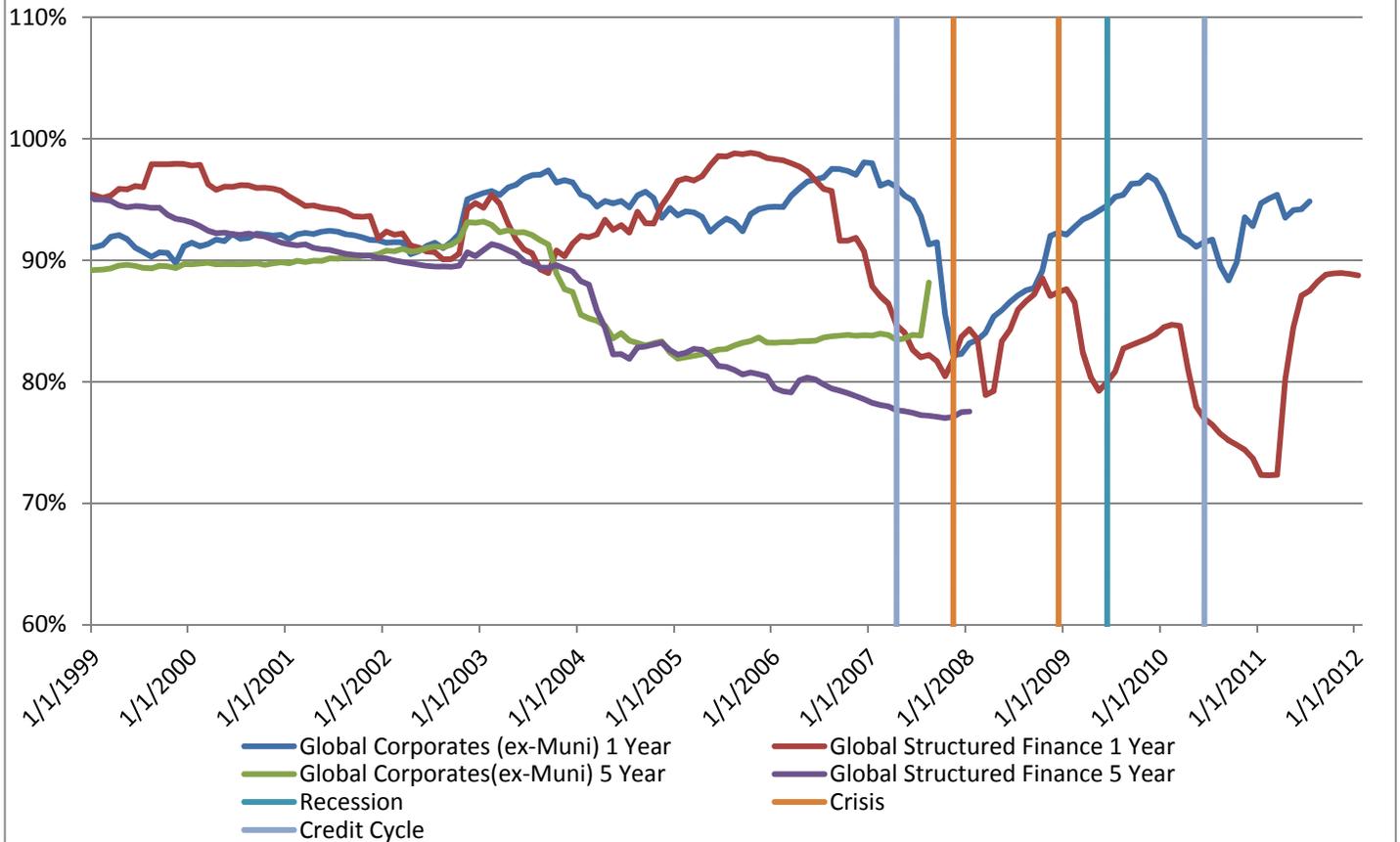


Exhibit 5: One and Five Year Investment Grade Default Rate for Corporate and Structured Finance Ratings

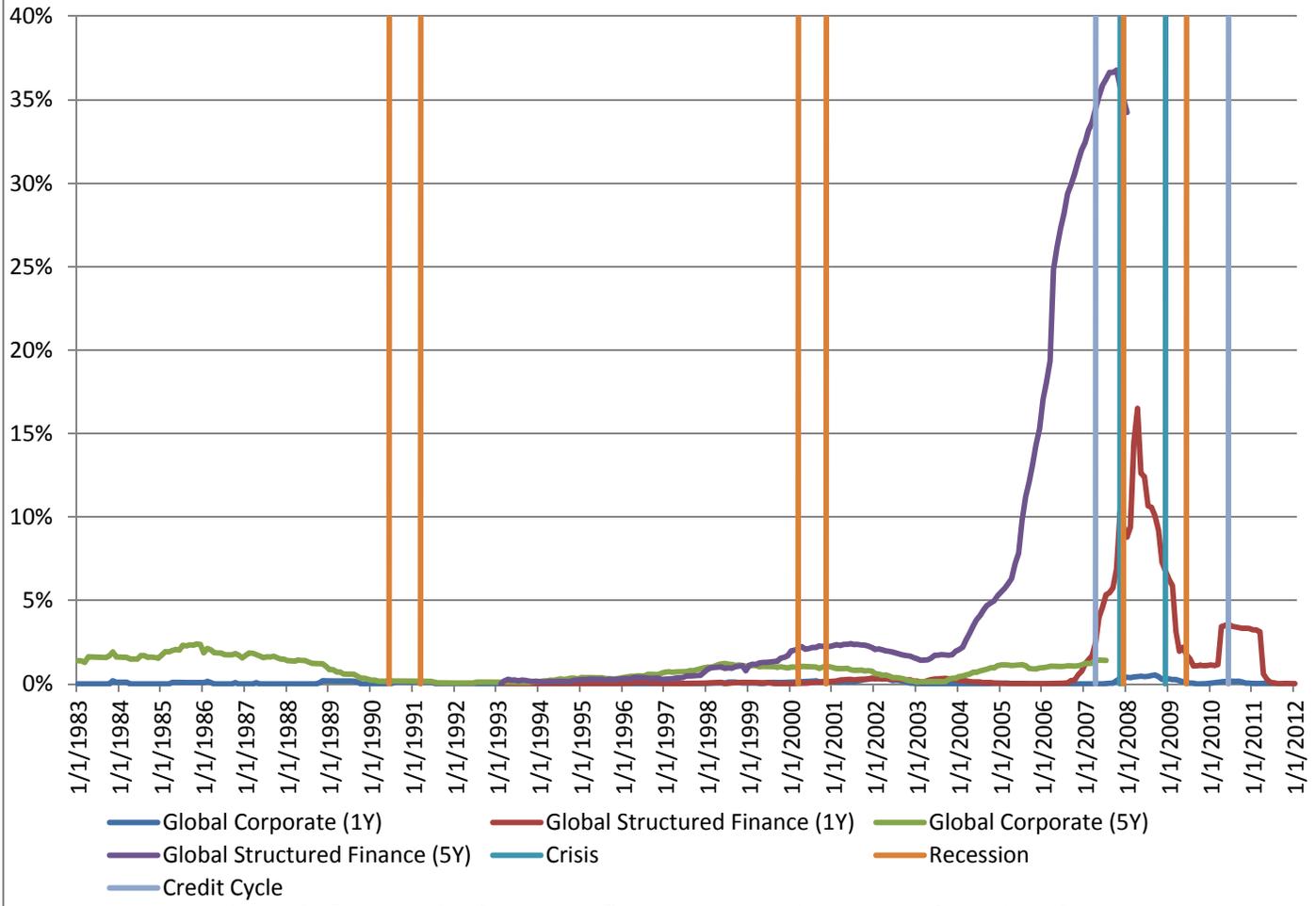
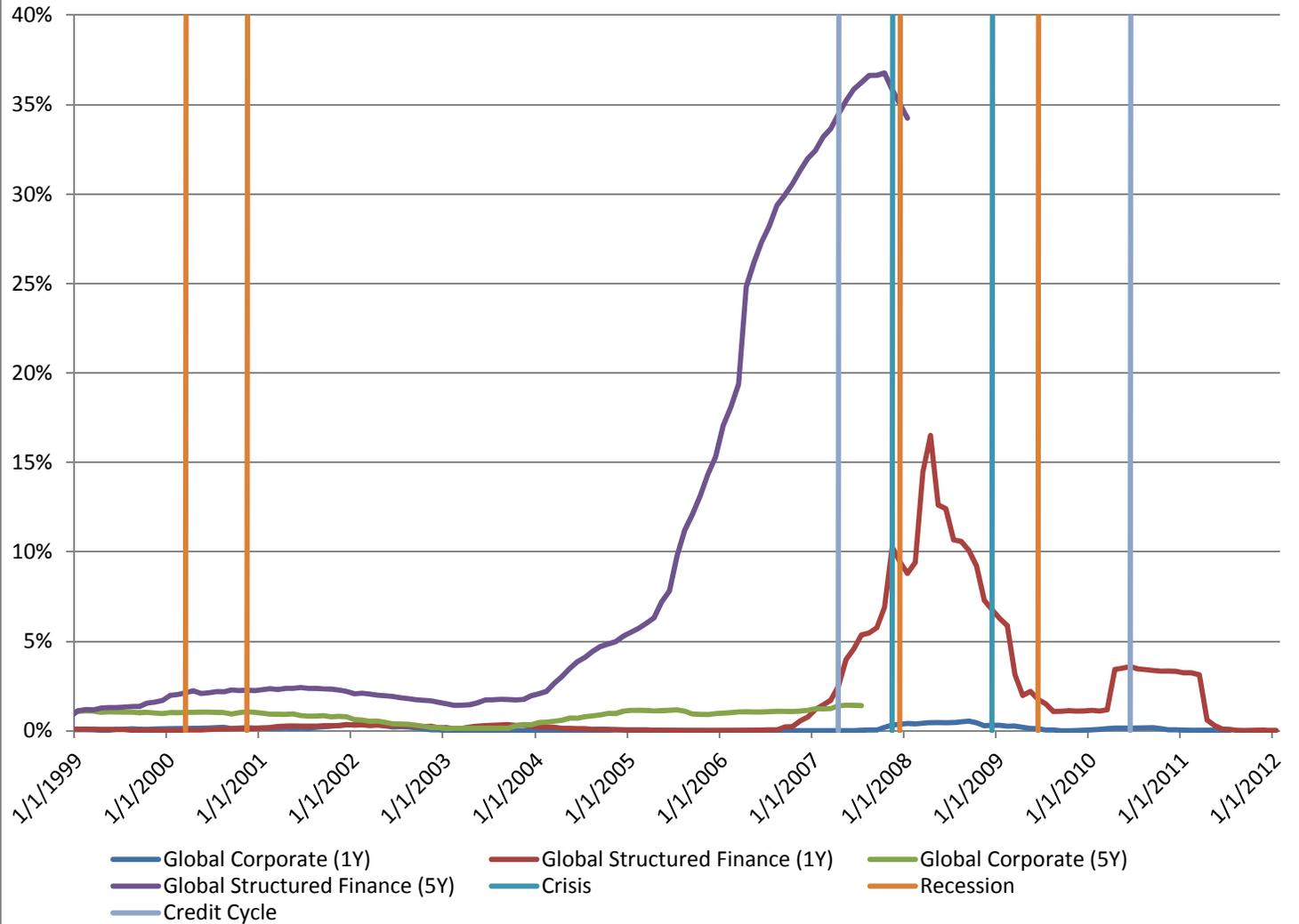


Exhibit 6: One and Five Year Investment Grade Default Rate for Corporate and Structured Finance Ratings (1999-2012)



Note: Default rate for Structured finance is actually the Investment Grade Loss Rate

Exhibit 7: Median Rating (36 Months) Before Default for Corporate and Structured Finance

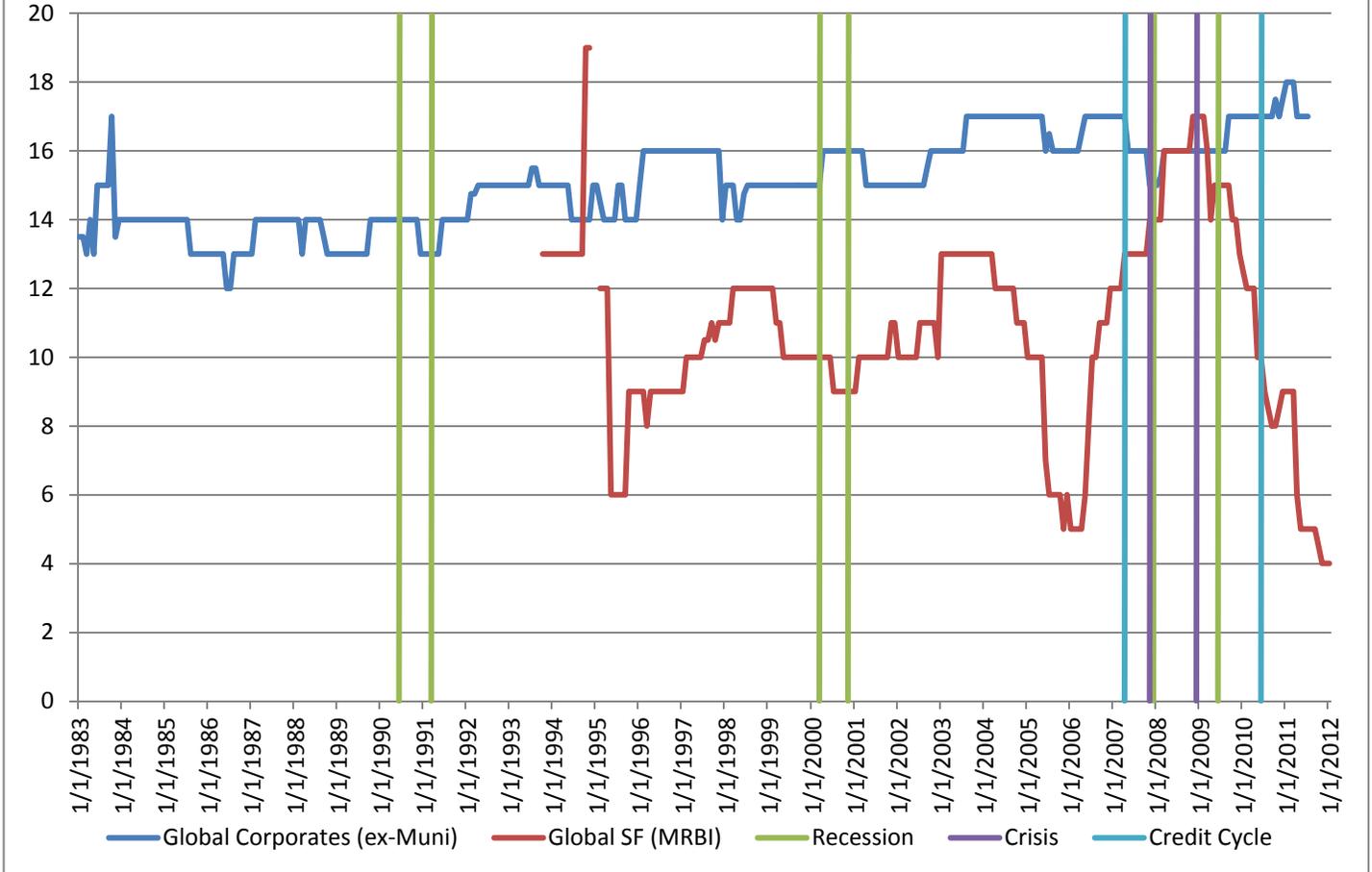


Exhibit 8: Median Rating (36 Months) Before Default for Corporate and Structured Finance (1999-2012)

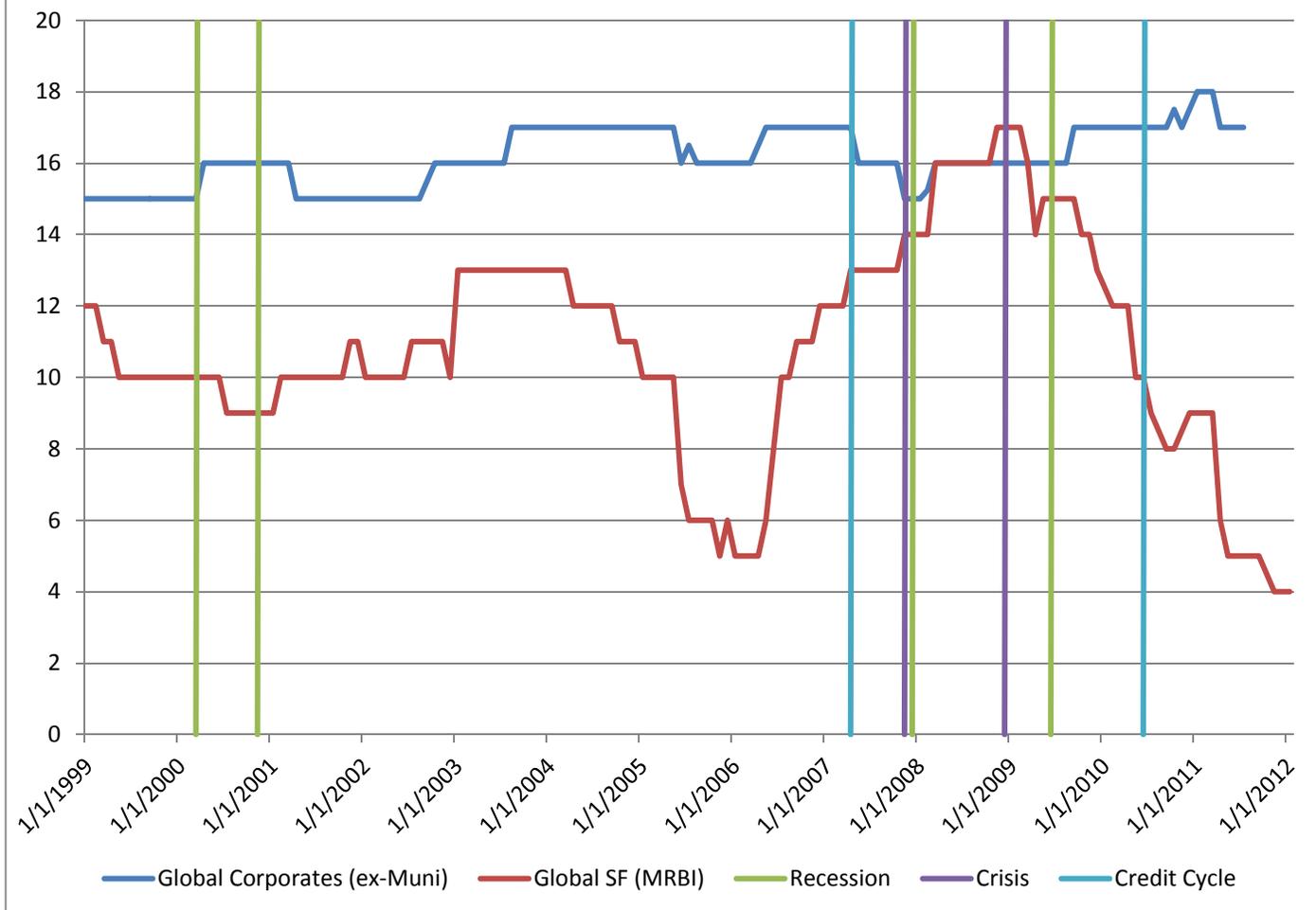


Exhibit 9: Rating Reversal Rate For Corporate and Structured Finance

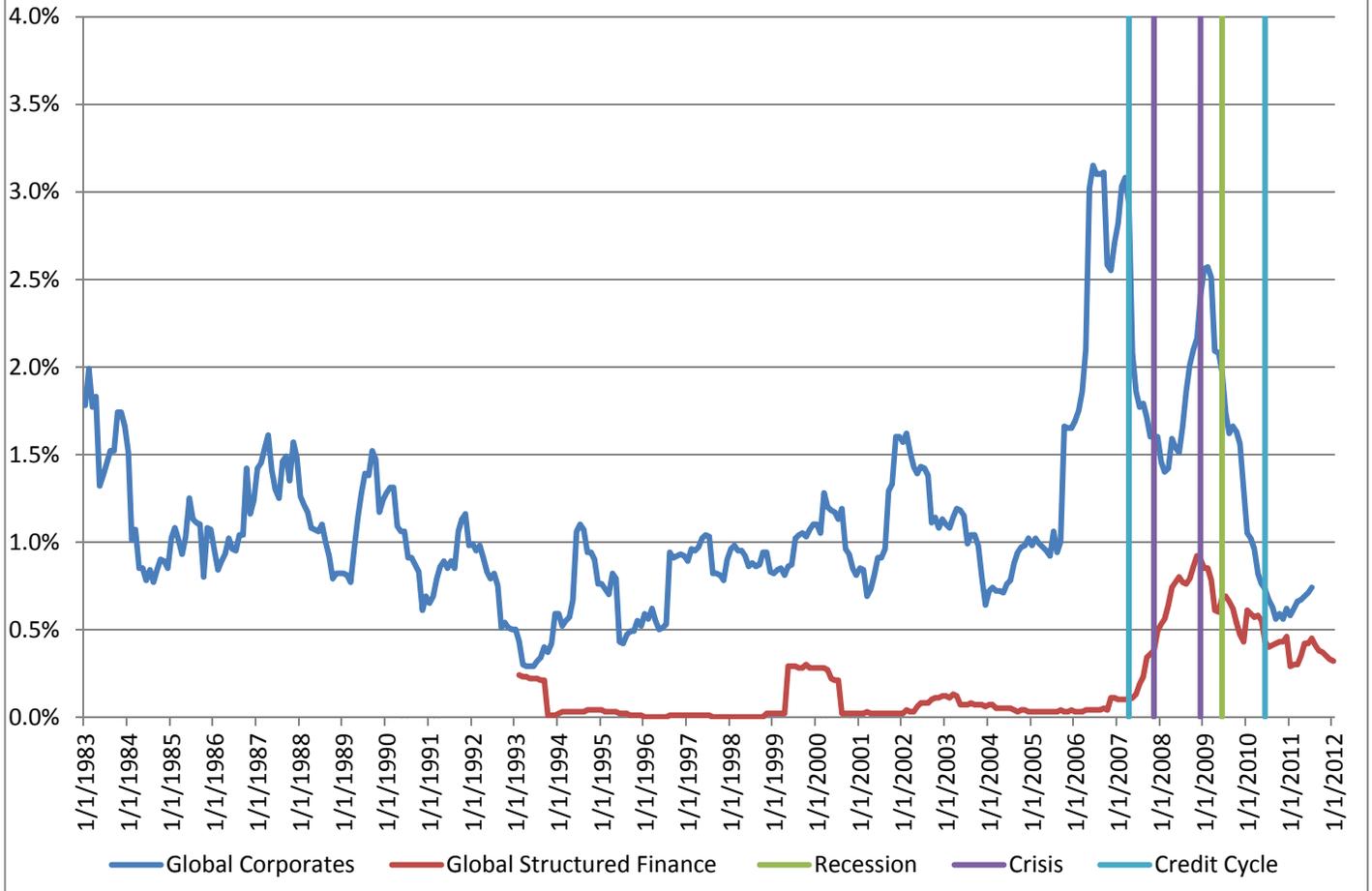


Exhibit 10: Rating Reversal Rating

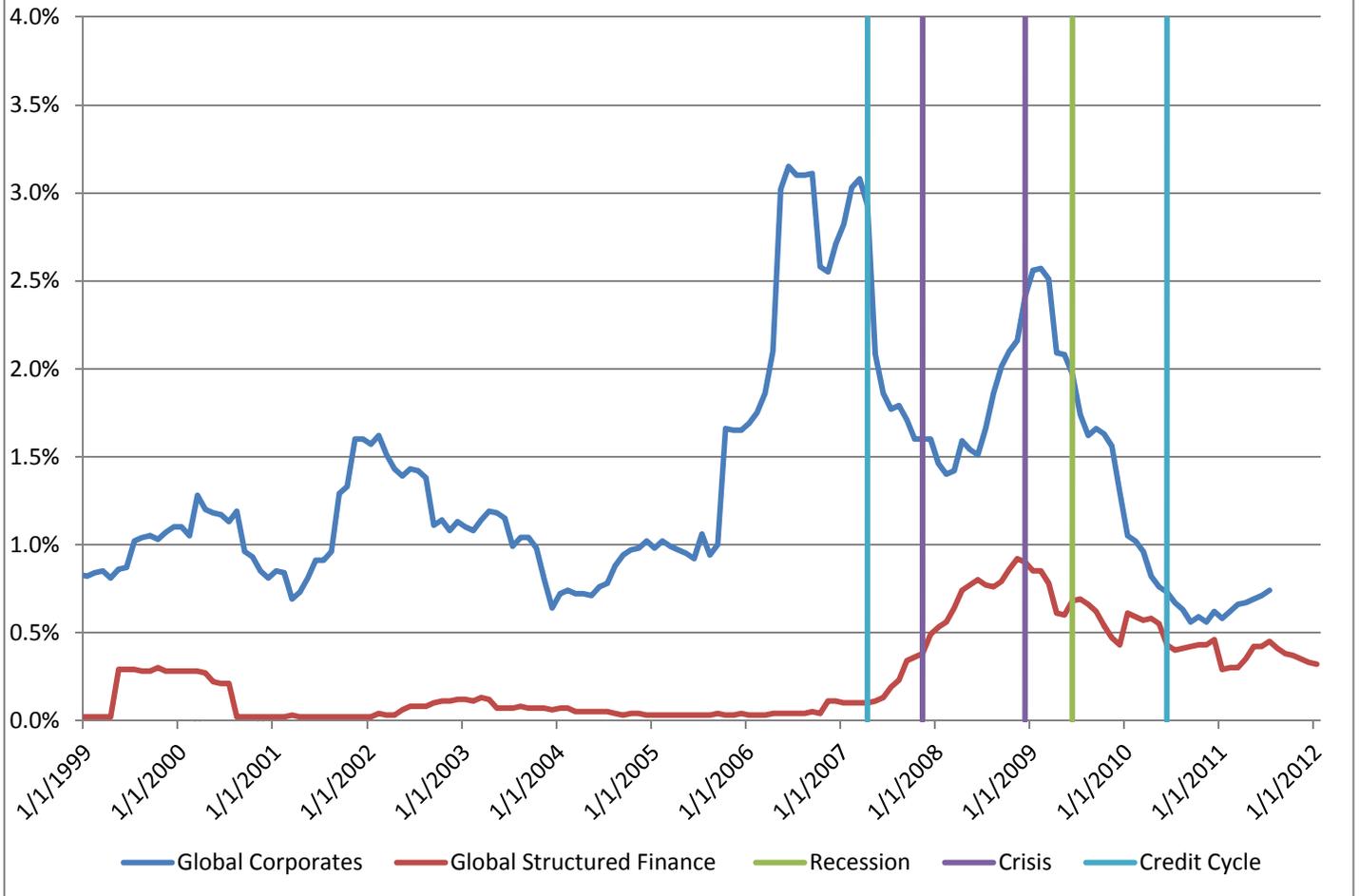


Exhibit 11: One Year and Three Month Volatility of Corporate and Structured Finance Ratings

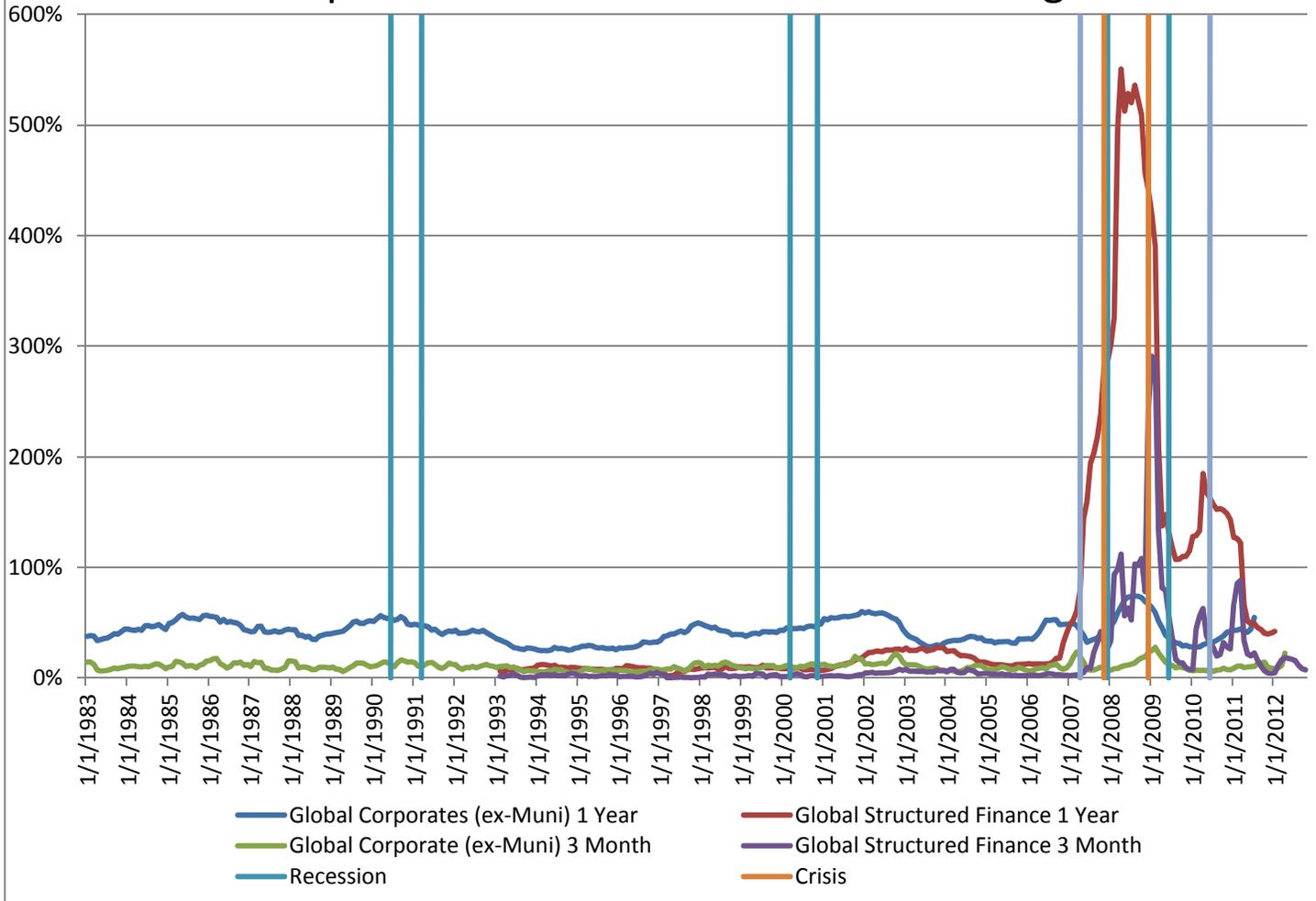


Exhibit 12: One Year and Three Month Volatility of Corporate and Structured Finance Ratings (1999-2012)

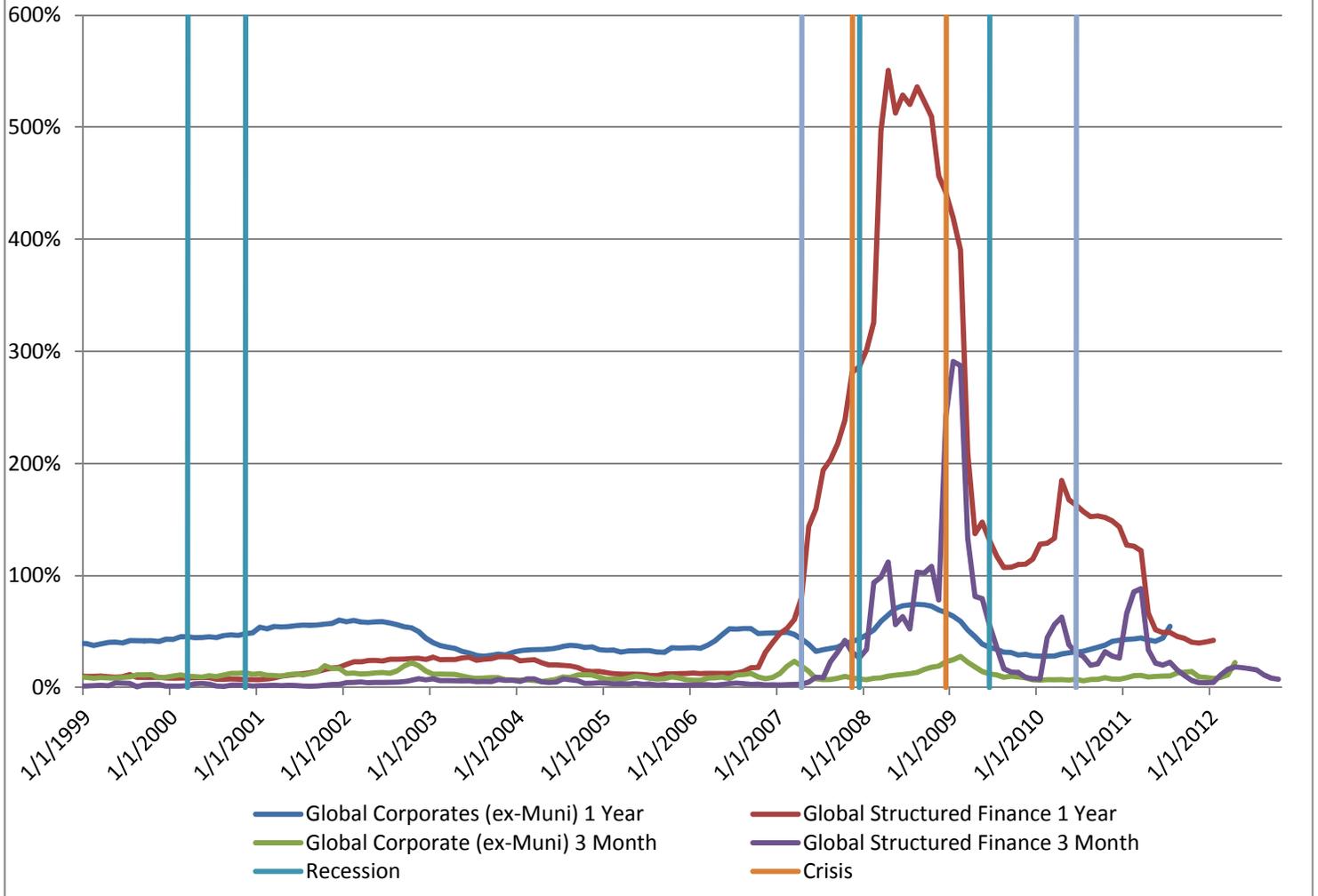


Exhibit 13: Bond Implied and Corporate One Year Average Ratio

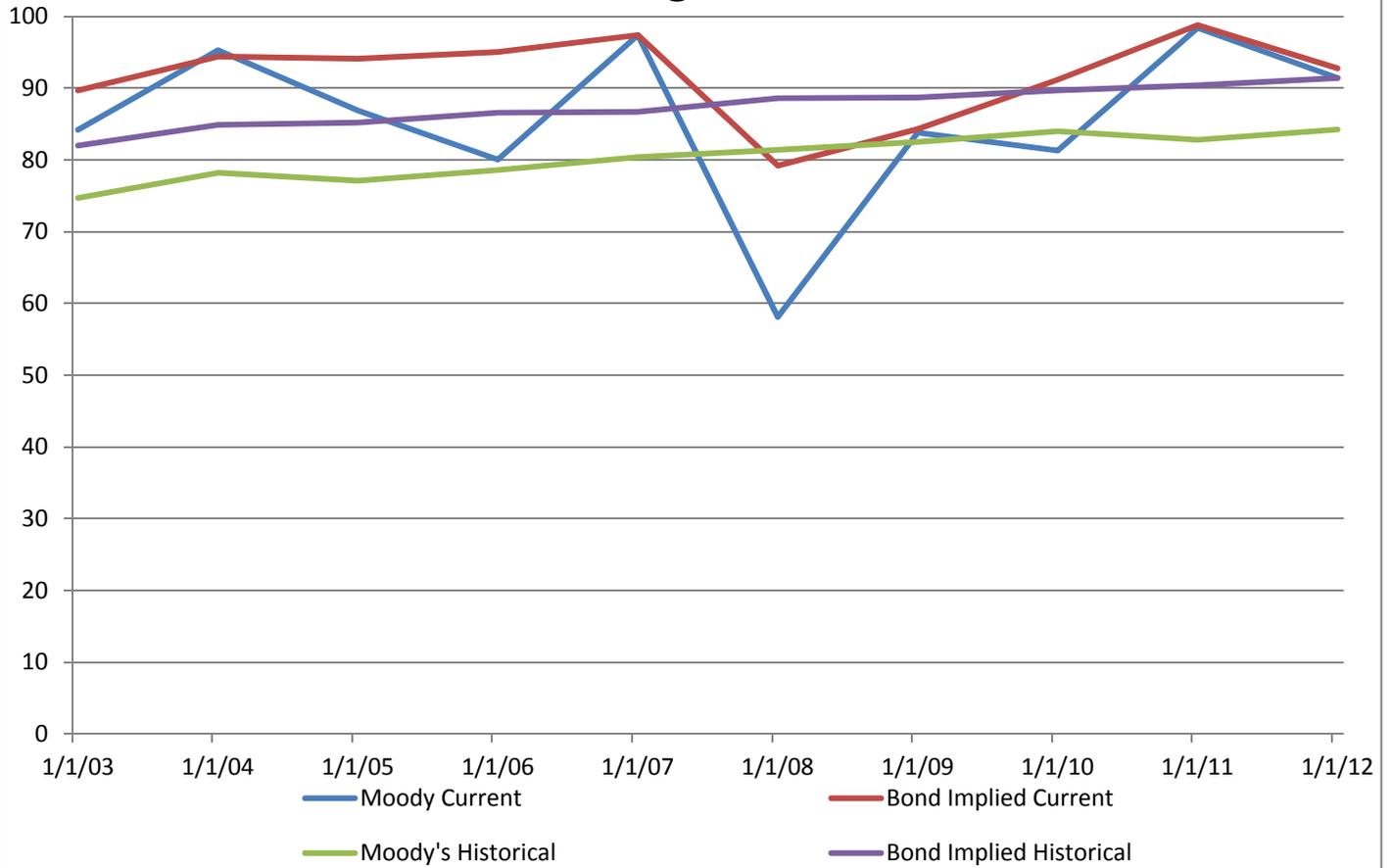


Exhibit 14: Bond Implied and Corporate Five Year Average Ratio

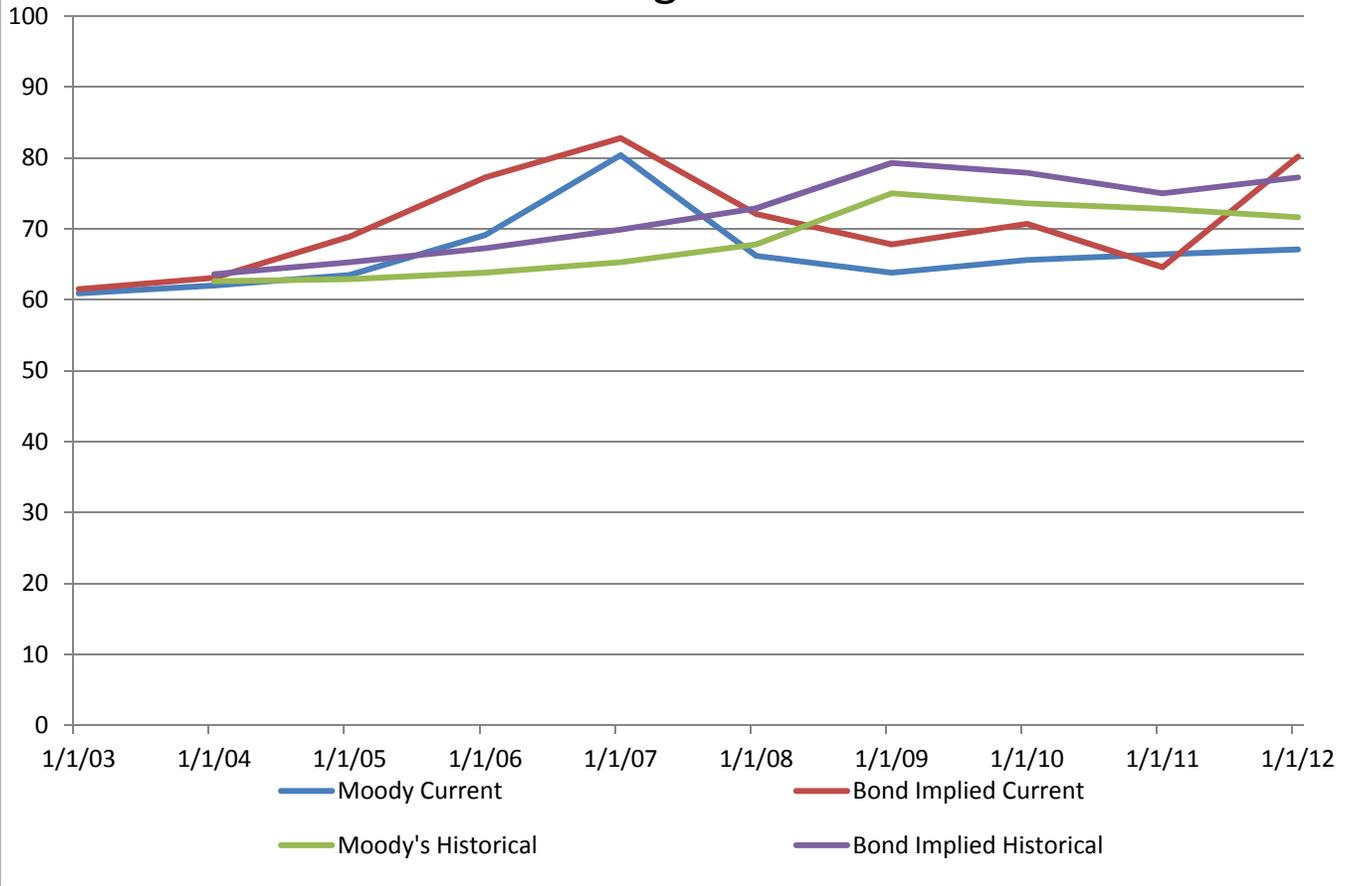


Exhibit 15: Bond Implied and Corporate One Year Rating Volatility

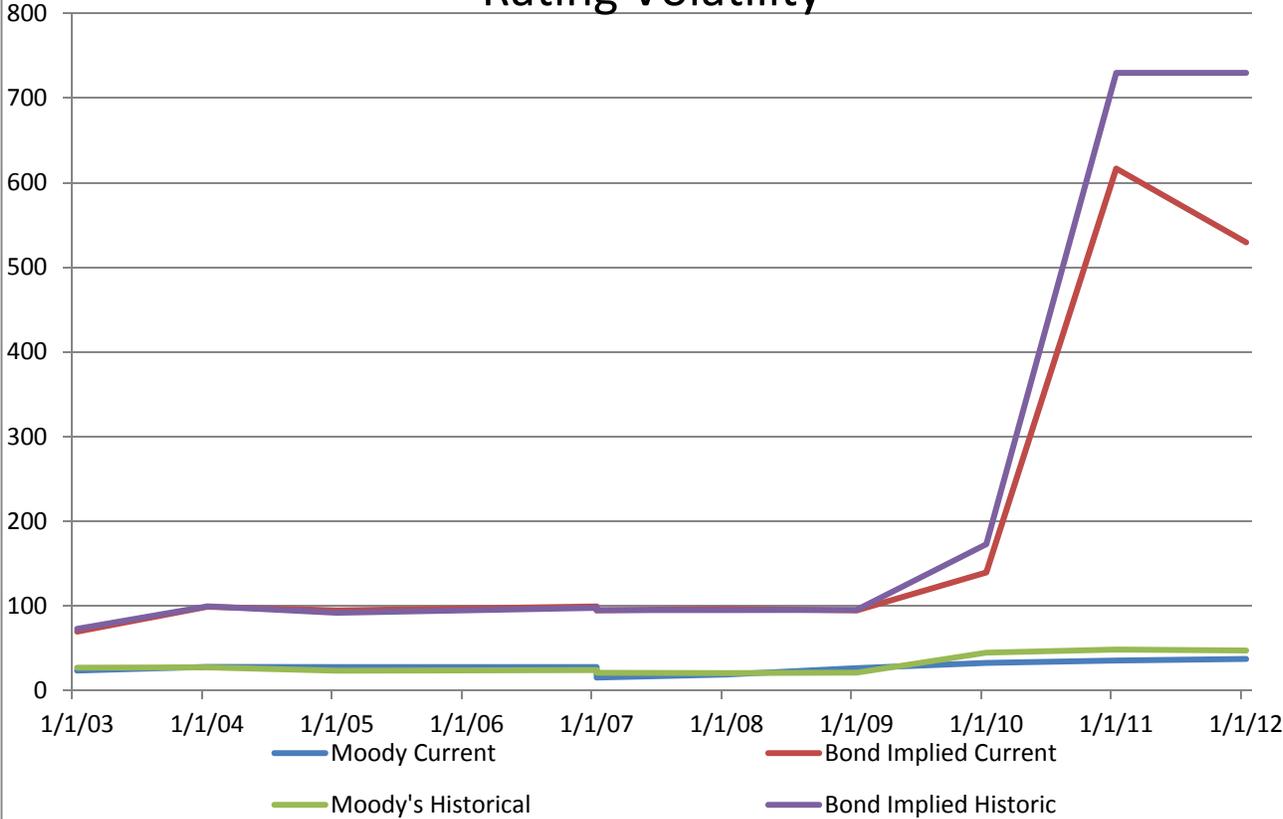


Exhibit 16: Without Macroeconomic Exclusionary Variables

Corporates (1983-2012)						
VARIABLES	Igdef	MedDef	AP	RRR	1YVol	3MonVol
indicator legislation	0.00132***	1.590***	-0.0207***	0.00319***	0.0341**	0.00645
Constant	(0.000140) 0.000456*** (5.34e-05)	(0.181) 14.87*** (0.0690)	(0.00477) 0.934*** (0.00182)	(0.000801) 0.0108*** (0.000306)	(0.0156) 0.416*** (0.00594)	(0.00535) 0.103*** (0.00204)
Observations	343	343	343	343	343	343
R-squared	0.206	0.185	0.052	0.044	0.014	0.004
Structured Finance (1993-2012)						
VARIABLES	IGLR	MRBI	AP	RRR	1YVol	3MonVol
indicator legislation	0.0430***	1.248***	-0.127***	0.00463***	2.003***	0.528***
Constant	(0.00321) 0.00156 (0.00159)	(0.448) 10.48*** (0.227)	(0.00558) 0.951*** (0.00283)	(0.000183) 0.000642*** (9.08e-05)	(0.123) 0.147** (0.0610)	(0.0472) 0.0295 (0.0234)
Observations	228	218	218	228	228	228
R-squared	0.442	0.035	0.707	0.738	0.539	0.357
Indicates Improvement (SE) *** p<0.01, ** p<0.05, * p<0.1						

Exhibit 17: Corporate Metrics With Macroeconomic Exclusionary Variables

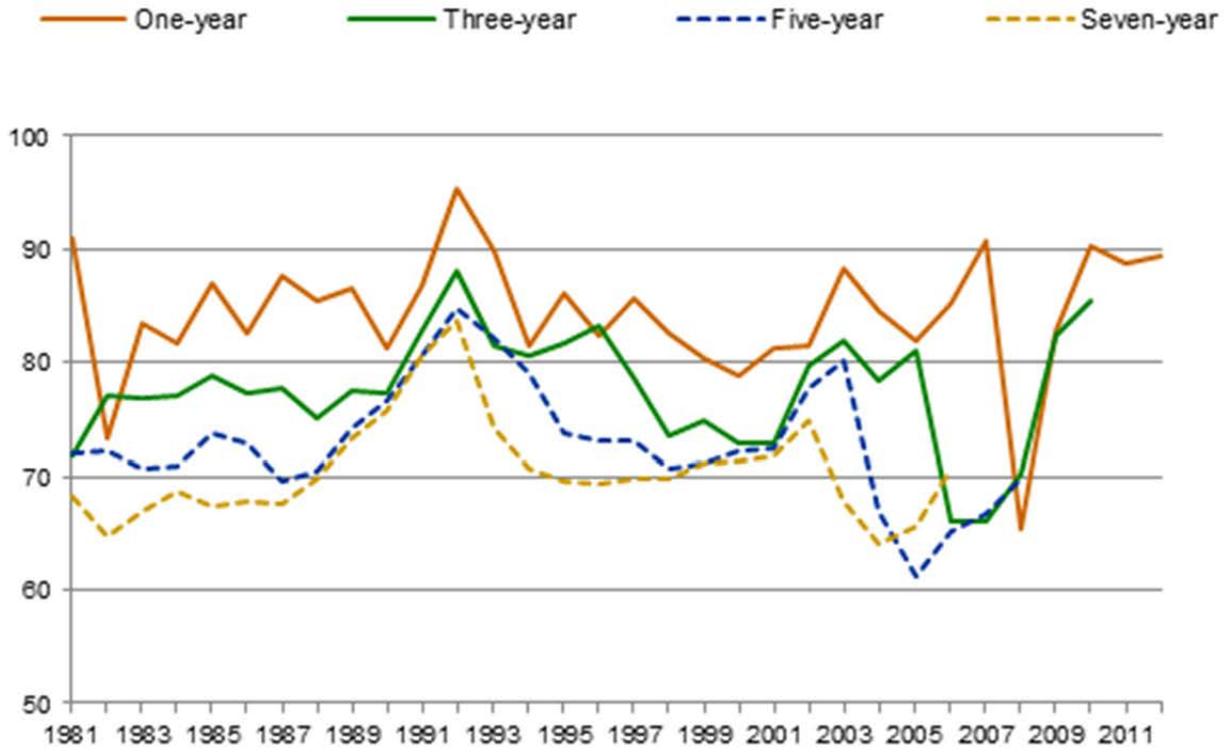
VARIABLES	Igdef	MedDef	AP	RRR	1YVol	3MonVol
EXCLUDE	Crisis	Crisis	Crisis	Crisis	Crisis	Crisis
indicator legislation	0.000411***	1.875***	-0.00129	0.00187**	-0.0357**	0.000247
Constant	(0.000128) 0.000456*** (4.24e-05)	(0.210) 14.87*** (0.0695)	(0.00507) 0.934*** (0.00168)	(0.000926) 0.0108*** (0.000306)	(0.0161) 0.416*** (0.00532)	(0.00602) 0.103*** (0.00199)
Observations	329	329	329	329	329	329
R-squared	0.030	0.196	0.000	0.012	0.015	0.000
EXCLUDE	Recession	Recession	Recession	Recession	Recession	Recession
indicator legislation	0.000250*	1.964***	-0.00516	-1.02e-05	-0.0561***	-0.0191***
Constant	(0.000135) 0.000456*** (4.18e-05)	(0.226) 14.87*** (0.0700)	(0.00558) 0.934*** (0.00172)	(0.000954) 0.0108*** (0.000295)	(0.0168) 0.416*** (0.00521)	(0.00571) 0.103*** (0.00177)
Observations	324	324	324	324	324	324
R-squared	0.011	0.190	0.003	0.000	0.033	0.034
EXCLUDE	Cycle	Cycle	Cycle	Cycle	Cycle	Cycle
indicator legislation	0.000172	2.444***	-0.00477	-0.00433***	-0.00287	-0.0147*
Constant	(0.000201) 0.000459*** (4.17e-05)	(0.344) 14.86*** (0.0711)	(0.00822) 0.934*** (0.00170)	(0.00137) 0.0107*** (0.000284)	(0.0257) 0.416*** (0.00531)	(0.00865) 0.103*** (0.00179)
Observations	304	304	304	304	304	304
R-squared	0.002	0.143	0.001	0.032	0.000	0.009
Indicates Improvement (SE)						
*** p<0.01, ** p<0.05, * p<0.1						

Exhibit 18: Structured Finance Metrics With Macroeconomic Exclusionary Variables

MIS Metric	IGLR	MRBI	AP	RRR	1YVol	3MonVol
EXCLUDE	Crisis	Crisis	Crisis	Crisis	Crisis	Crisis
indicator legislation	0.0225***	-0.0322	-0.134***	0.00402***	1.227***	0.428***
Constant	(0.00162) 0.00156** (0.000719)	(0.474) 10.48*** (0.215)	(0.00622) 0.951*** (0.00282)	(0.000177) 0.000642*** (7.85e-05)	(0.0647) 0.147*** (0.0287)	(0.0469) 0.0295 (0.0208)
Observations	214	204	204	214	214	214
R-squared	0.475	0.000	0.698	0.709	0.629	0.282
EXCLUDE	Recession	Recession	Recession	Recession	Recession	Recession
indicator legislation	0.0228***	-0.782	-0.136***	0.00358***	1.101***	0.247***
Constant	(0.00188) 0.00156** (0.000790)	(0.474) 10.48*** (0.204)	(0.00653) 0.951*** (0.00282)	(0.000165) 0.000642*** (6.92e-05)	(0.0513) 0.147*** (0.0216)	(0.0164) 0.0295*** (0.00690)
Observations	209	199	199	209	209	209
R-squared	0.416	0.014	0.687	0.695	0.690	0.524
EXCLUDE	Cycle	Cycle	Cycle	Cycle	Cycle	Cycle
indicator legislation	0.0151***	-3.848***	-0.143***	0.00317***	0.786***	0.255***
Constant	(0.00133) 0.00120*** (0.000422)	(0.550) 10.45*** (0.179)	(0.00857) 0.953*** (0.00279)	(0.000191) 0.000638*** (6.07e-05)	(0.0427) 0.136*** (0.0135)	(0.0192) 0.0294*** (0.00610)
Observations	189	179	179	189	189	189
R-squared	0.407	0.216	0.610	0.595	0.644	0.484
Indicates Improvement (SE)						
*** p<0.01, ** p<0.05, * p<0.1						

Exhibit 19: S&P Gini Coefficients (1,3,5,7 year)

Gini Coefficients By Pool Year Across Multiple Time Horizons

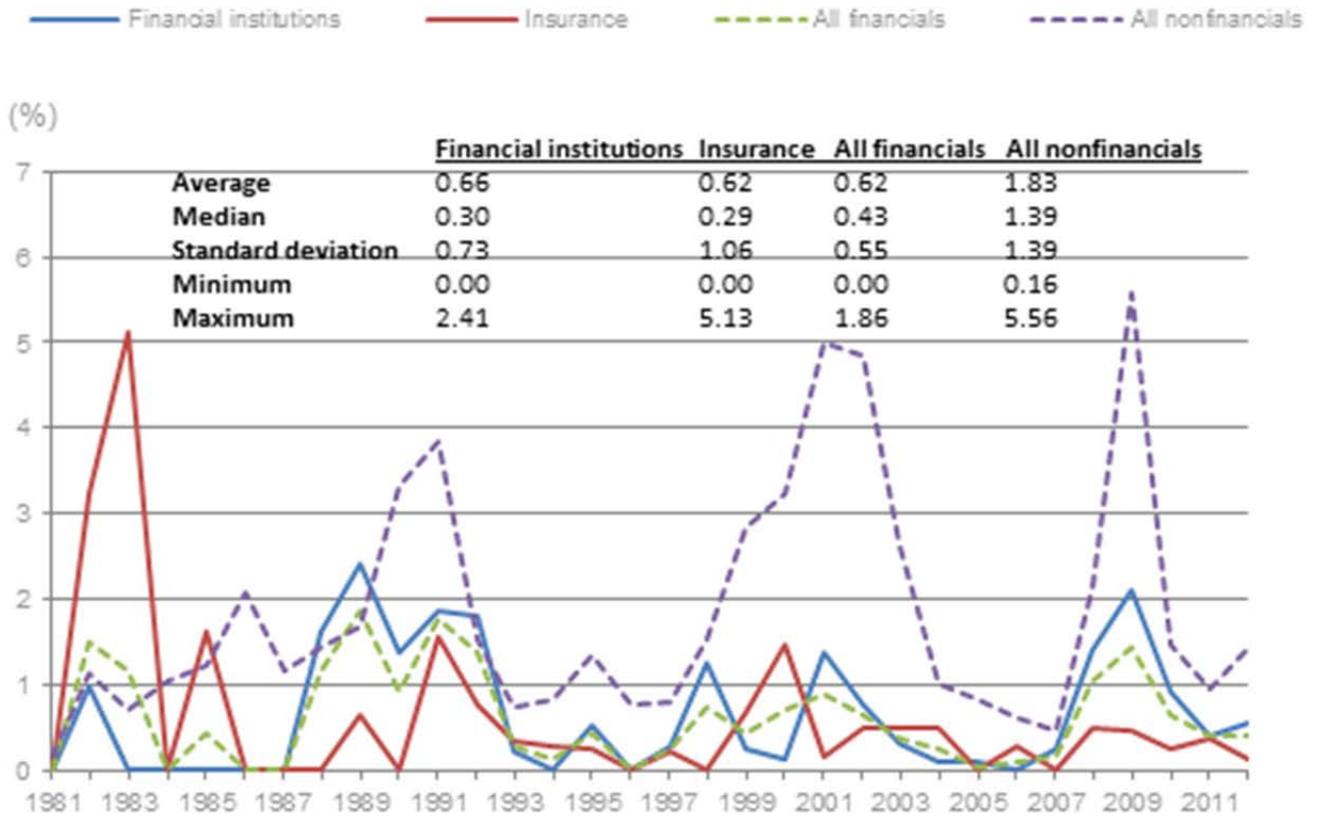


Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

© Standard & Poor's 2013.

Exhibit 20: S&P One Year Default Rate by Sector

One-Year Default Rates By Broad Sector



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®

© Standard & Poor's 2013.

Exhibit 21: Moody's Average US EDF Measures and Change in US Industrial Production, 1969-2010

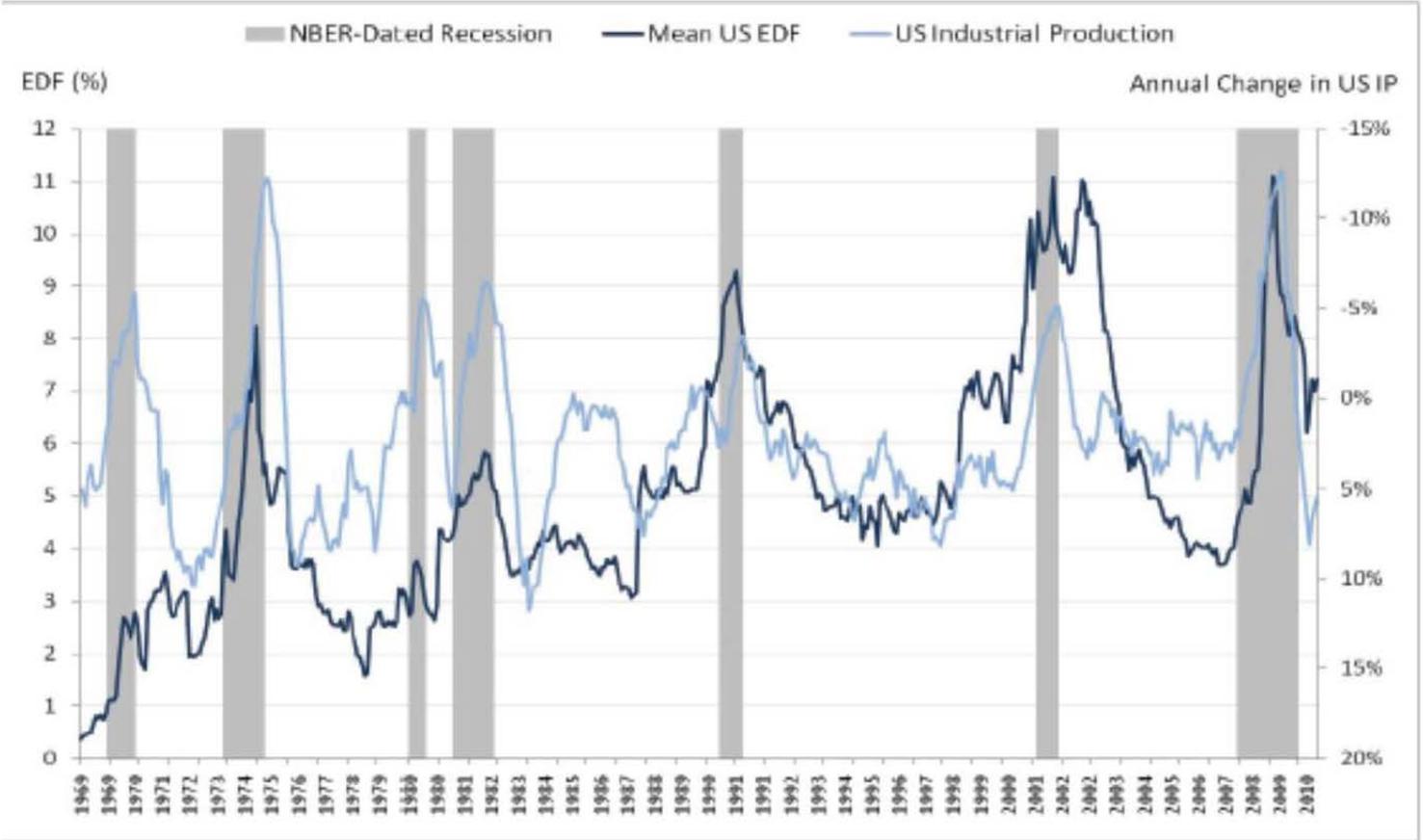
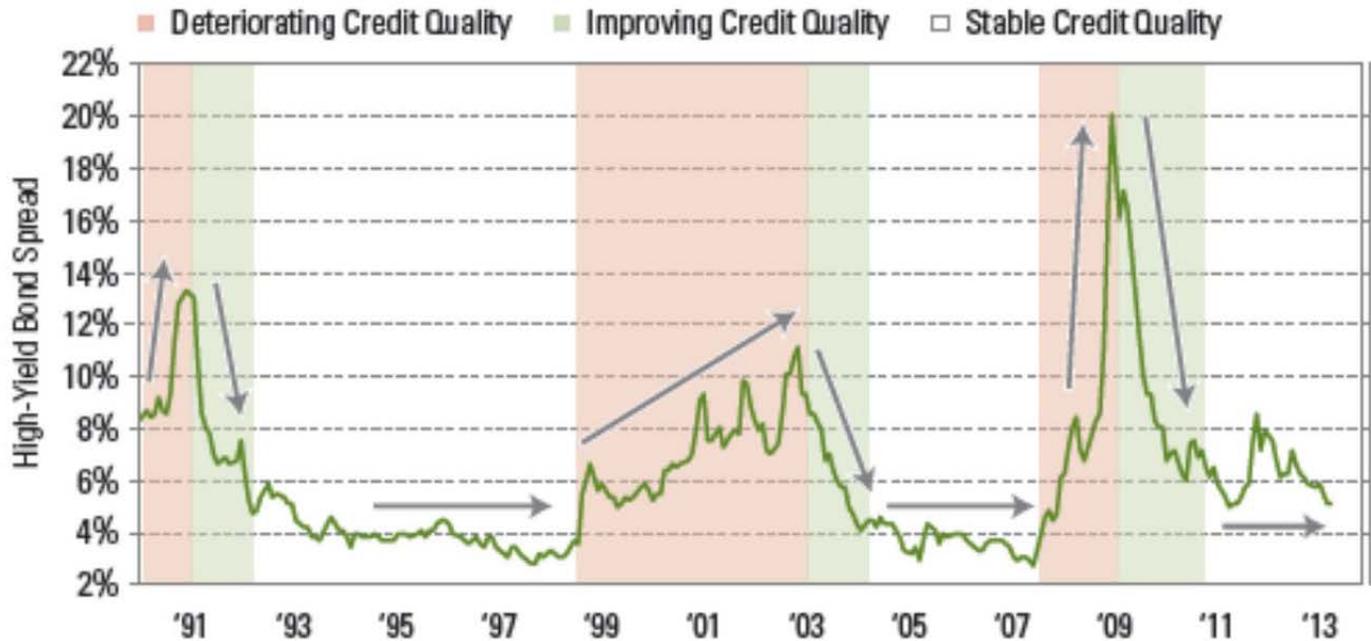


Exhibit 22: High-Yield bond Spreads over Time

1 The Credit Cycle



Source: Barclays, LPL Financial 03/22/13

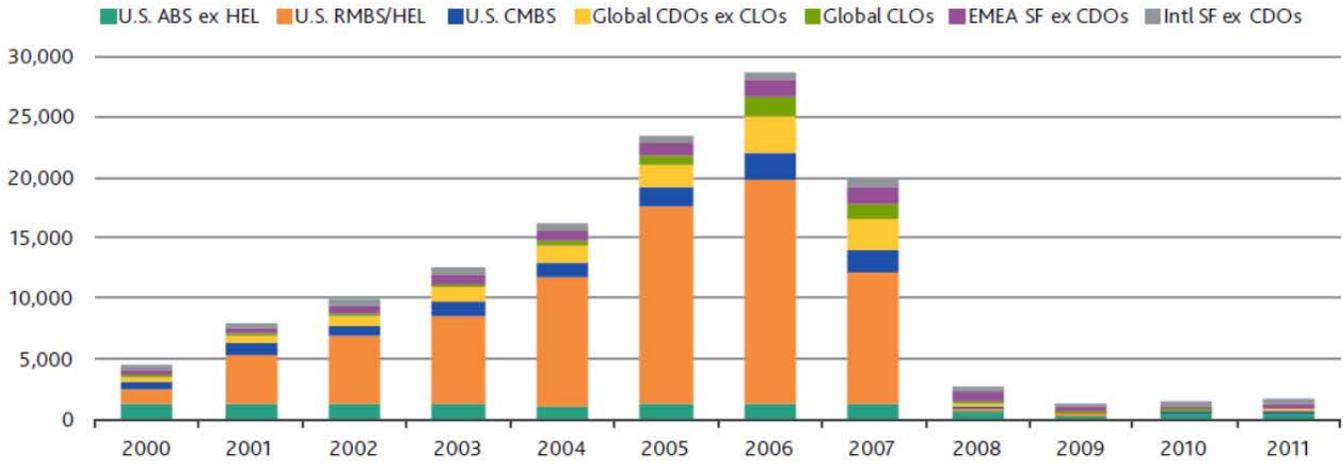
Credit Quality is one of the principal criteria for judging the investment quality of a bond or bond mutual fund. As the term implies, credit quality informs investors of a bond or bond portfolio's credit worthiness, or risk of default.

High-Yield spread is the yield differential between the average yield of high-yield bonds and the average yield of comparable maturity Treasury bonds.

Past performance is no guarantee of future results.

Exhibit 23: Data on Moody's-Rated Structured Finance Issuances

EXHIBIT 2
Structured Finance Issuance by Rating Count per Closing Year



Note: Data includes Moody's-rated securities only and excludes the Other Structured Finance category.

Appendix 3

Legal Proceedings over Losses on Complex Debt Securities During the Global Financial Crisis

Government Enforcement Actions against Bond Underwriters and Broker-Dealers

1. Mizuho¹

Claimant: SEC

Respondents: Mizuho Securities USA, Inc. and three former employees

Investment Product: Collateralized debt obligation (CDO)

Violations: Sections 17(a)(2) and (3) of the Securities Act and Section 206(2) of the Advisers Act

On July 18, 2012, the SEC charged the U.S. investment banking subsidiary of Japan-based Mizuho Financial Group and three former employees with misleading investors by using “dummy assets” to obtain the necessary credit rating after one rating agency announced new criteria (intended to protect CDO investors from the uncertainty of ratings downgrades) immediately prior to the deal closing. The SEC’s complaint against Mizuho Securities USA Inc. and several individuals states that the firm made approximately \$10 million in structuring and marketing fees in the deal. Mizuho agreed to pay \$127.5 million to settle the SEC’s charges. Everyone charged by SEC agreed to settlements without admitting or denying the charges. Mizuho consented to the entry of a final judgment requiring payment of \$10 million in disgorgement, \$2.5 million in prejudgment interest, and a \$115 million penalty. The settlement also permanently enjoins Mizuho from violating Sections 17(a)(2) and (3) of the Securities Act. The SEC had charged the individuals with violations of Sections 17(a)(2) and (3) of the Securities Act and Section 206(2) of the Advisers Act.²

2. Wells Fargo³

Claimant: SEC

Respondents: The Wells Fargo brokerage firm and former vice president

¹ See *U.S. Securities and Exchange Commission v. Mizuho Securities USA Inc.*, 12-cv-5550 (S.D.N.Y.).

² Securities and Exchange Commission, “SEC Charges Mizuho Securities USA with Misleading Investors by Obtaining False Credit Ratings for CDO” *Press Release* no. 2012-139 (July 18, 2012), <http://www.sec.gov/news/press/2012/2012-139.htm>.

³ Order Instituting Administrative and Cease-and-Desist Proceedings, *In re Wells Fargo Brokerage Services*, Securities Exchange Act of 1934 Release No. 67649 (Aug. 14, 2012), <http://www.sec.gov/news/press/2012/2012-155.htm>.

Investment Product: Asset-backed commercial paper (ABCP) structured with high-risk mortgage-backed securities and CDOs

Violations: Failure to understand complexity or disclose risks to investors

On August 14, 2012, the SEC charged Wells Fargo's brokerage firm and a former vice president with selling asset-backed commercial paper (ABCP) from January 2007 to August 2007 structured with high-risk mortgage-backed securities and collateralized debt obligations (CDOs) without fully understanding their complexity or disclosing the risks to the investors. The SEC alleged that Wells Fargo did not obtain sufficient information about these investment vehicles and relied almost exclusively on their credit ratings, and that the firm's representatives failed to understand the true nature, risks, and volatility behind these products before recommending them to investors with generally conservative investment objectives.

The SEC claimed that the former vice president and Wells Fargo violated Sections 17(a)(2) and 17(a)(3) of the Securities Act of 1933 and were, "at a minimum, negligent in recommending the relevant ABCP programs without obtaining adequate information about them to form a reasonable basis for recommending these products and without disclosing the material risks of these products." Wells Fargo agreed to pay more than \$6.5 million to settle the charges.⁴

3. J.P. Morgan, Credit Suisse⁵

Claimant: SEC

Respondents: J.P. Morgan Securities LLC and Credit Suisse Securities (USA)

Investment Product: Residential mortgage-backed securities (RMBSs)

Violations: Misstatements and omissions of fact when firms had accurate information

On November 16, 2012, the SEC in coordination with the federal and state Residential Mortgage-Backed Securities Working Group, charged J.P. Morgan Securities LLC and Credit Suisse Securities (USA) with misleading investors in offerings of residential mortgage-backed securities (RMBSs).

The SEC alleged that J.P. Morgan misstated information about the delinquency status of mortgage loans that provided collateral for an RMBS offering in which it was the underwriter, even though the firm had information showing higher delinquencies. J.P. Morgan received fees of more than \$2.7 million, and investors sustained losses of at least \$37 million on undisclosed delinquent loans. J.P. Morgan was also charged for Bear Stearns' failure to disclose its practice of obtaining and keeping cash settlements from mortgage loan originators on problem loans that Bear Stearns had sold into RMBS trusts. The proceeds from this bulk settlement practice were at least \$137.8 million. J.P. Morgan agreed to pay \$297 million to settle the SEC's charges and

⁴ U.S. Securities and Exchange Commission, *Press Release* no. 2012-155 (Aug. 14, 2012), <http://www.sec.gov/news/press/2012/2012-155.htm>.

⁵ *U.S. Securities and Exchange Commission v. JPMorgan Chase*, 12-cv-1862 (D.D.C.).

consented to entry of a final judgment permanently enjoining them from violating Section 17(a)(2) and (3) of the Securities Act of 1933.

In the related action, the SEC charged Credit Suisse with failing to accurately disclose its practice of retaining cash for itself from the settlement of claims against mortgage loan originators for problems with loans that Credit Suisse had sold into RMBS trusts and no longer owned. Credit Suisse also misrepresented when it would repurchase mortgage loans from trusts if borrowers missed the first payment due. The SEC estimated that the firm made \$55.7 million in profits and losses avoided from its bulk settlement practice, and that investors lost more than \$10 million due to Credit Suisse’s practices. Credit Suisse agreed to pay \$120 million to settle the SEC’s charges and to cease and desist from violations of Section 17(a)(2) and (3) of the Securities Act and Section 15(d) of the Securities Exchange Act of 1934.⁶

Private Actions against Bond Underwriters and Broker-Dealers

4. Morgan Stanley⁷

Plaintiff: Public Employees’ Retirement System of Mississippi

Defendants: Morgan Stanley

Investment Product: Mortgage-backed securities pass-through certificates

Violations: Securities fraud

On December 2, 2008, Plaintiff Public Employees’ Retirement System of Mississippi (“MissPERS”) filed suit in California state court, asserting securities fraud claims relating to the marketing and sale of mortgage-backed security (“MBS”) pass-through certificates issued by Morgan Stanley entities. MissPERS’ action was subsequently removed to federal court and transferred to the Southern District of New York for consolidation with another case. On January 11, 2013, the court denied defendants’ motion to stay, granted plaintiffs leave to file a fourth amended complaint, and reset the initial pre-trial conference for February 25, 2013.⁸

5. Deutsche Bank⁹

Plaintiff: IBEW Local 90 Pension Fund

Defendants: Morgan Stanley and former officers

⁶ Order Instituting Cease-and-Desist Proceedings, *In re Credit Suisse Securities (USA) LLC*, Securities Exchange Act of 1934 Release No. 68251 (Nov. 16, 2012), and Securities and Exchange Commission, “SEC Charges JPMorgan and Credit Suisse with Misleading Investors in RNBS Offerings,” *Press Release* no. 2012-233 (Nov. 16, 2012), <http://www.sec.gov/news/press/2012/2012-233.htm>.

⁷ *In re Morgan Stanley Mortgage Pass-Through Certificates Litigation*, 09-cv-2137 (S.D.N.Y.).

⁸ *In re Morgan Stanley Mortg. Pass-Through Cert.*, 810 F. Supp. 2d 650 (S.D.N.Y. Jan. 11, 2013).

⁹ *IBEW Local 90 Pension Fund v. Deutsche Bank AG*, 11 Civ. 4209 (S.D.N.Y.).

Investment Product: Residential mortgage-backed securities (RMBSs) and CDOs

Violations: Securities fraud

In 2011, the IBEW Pension fund filed a class action suit against Deutsche Bank, former CEO, former CFO and former chief risk officer along with the chairman of the bank's supervisory board alleging the bank sold risky residential mortgage-backed securities and collateralized debt obligations even as top bank executives authorized its traders to make bets against the notes. In March 2013, the bank's motion to dismiss was denied after the court found sufficient allegations to support a scheme to defraud investors.¹⁰

Private Actions against Credit Rating Agencies.

6. First Equity/S&P.¹¹

Plaintiff: First Equity Corporation of Florida

Defendants: S&P

Investment Product: Convertible securities

Violations: Negligent misrepresentation and fraud

In the mid-1980s, two Florida investors and a Florida investment advisory firm asserted claims against S&P alleging that they incurred losses exceeding \$200,000 due to reliance on a misleading summary of terms for securities in a guide published by S&P. The investors' theory of liability was "reckless disregard." The district court, applying First Amendment analysis, holding that financial information concerning public companies is of public concern and therefore entitled to First Amendment protection, dismissed the investors' complaint. The district court also held that publishers of investment information services would not be liable under Florida or New York law for negligent misstatements since the plaintiffs could not show that defendants published the description after "entertaining serious doubt" as to its truth.¹² The Second Circuit affirmed without reaching the First Amendment issue.¹³

7. Reese/S&P¹⁴

Plaintiff: Boca Raton Firefighters and Police Pension Fund

Defendants: Robert Bahash, McGraw-Hill Companies, Inc. and Harold McGraw III

¹⁰ *IBEW Local 90 Pension Fund v. Deutsche Bank AG.*, 11 Civ. 4209 (S.D.N.Y. Mar. 27, 2013), http://securities.stanford.edu/1047/DB00_01/2013327_r01o_11CV04209.pdf.

¹¹ *First Equity Corp. v. Standard & Poor's Corp.*, 88cv 5913 (S.D.N.Y.).

¹² *First Equity Corp. v. Standard & Poor's Corp.*, 690 F. Supp. 256, 258 (S.D.N.Y. 1988).

¹³ *First Equity Corp. v. Standard & Poor's Corp.*, 869 F.2d 175 (2d Cir. 1989).

¹⁴ *Reese v. Bahash*, No. 08-cv-7202 (S.D.N.Y. Mar. 30, 2012), *aff'd sub nom. Boca Raton* as at note. 15.

Investment Product: Residential mortgage-backed securities (RMBSs) and CDOs

Violations: Securities fraud

In 2007, a shareholder class action was filed against McGraw-Hill and certain officers under federal securities laws in connection with alleged misrepresentations and omissions made by the defendants relating to the company’s earnings and S&P’s business practices. The district court dismissed the case, and on December 20, 2012, the Second Circuit Court of Appeals affirmed the ruling. The court ruled that general expressions of corporate optimism are “too indefinite to be actionable under the securities laws,” and that the disclosure of accurate historical data is not actionable. The court found the complaint lacked “a strong inference the defendant acted with the required state of mind of fraudulent intent.”¹⁵

8. CALPRS/S&P¹⁶

Plaintiff: California Public Employees’ Retirement System

Defendants: S&P

Investment Product: Securities

Violations: Securities fraud and breach of fiduciary duties

On January 8, 2009, another derivative action on behalf of McGraw-Hill was filed in the District Court for the Southern District of New York asserting nine claims, including causes of action for securities fraud and breach of fiduciary duties, against the board of directors and several officers. The complaint was premised on the alleged role played by the McGraw-Hill’s directors and officers in the issuance of “excessively high ratings” by Standard & Poor’s and subsequent purported misstatements or omissions in the company’s public filings regarding the financial results and operations of the ratings business. The district court dismissed the complaint in March 2010.¹⁷

9. Anschutz/Merrill Lynch, Moody’s¹⁸

Plaintiff: King County, Washington

Defendants: Merrill Lynch and Moody’s

Investment Product: Auction rate securities (ARSs)

Violations: Negligent misrepresentations, negligence, breach of fiduciary duty, aiding and abetting

¹⁵ *Boca Raton Firefighters & Police Pension Fund v. Bahash*, No. 12-1776-cv, 2012 WL 6621391 (2d Cir. Dec. 20, 2012) (internal quotations omitted).

¹⁶ *Teamsters Allied Benefit Funds v. Harold McGraw III*, 09-cv-140 (S.D.N.Y.).

¹⁷ *Teamsters Allied Benefit Funds v. Harold McGraw III*, 09-cv-140 (S.D.N.Y. Mar. 11, 2010).

¹⁸ *Anschutz v. Merrill Lynch & Co*, No. 11-cv-1305 (2nd Cir.).

On August 14, 2012, the Second Circuit affirmed dismissal of claims against Merrill Lynch and Moody's arising from sale of auction rate securities (ARSs). When the market became illiquid during the global financial crisis, holders of some ARS securities lost money when Merrill Lynch and others stopped supporting the market for these securities. The court dismissed the claims against Merrill Lynch because the disclosures about the risk associated with these securities, and the relative sophistication of the plaintiff.¹⁹

The plaintiff also asserted a state common law claim of negligent misrepresentation against Moody's alleging, in part, that they knew or should have known that the downgraded ratings in mid-2006 and early 2007 were undeserved. The court affirmed dismissal of the claim against rating agency, after ruling that New York rather than California law applied, on the basis that there was no privity of contract or something close to this between the plaintiff and Moody's and thus no duty under the common law. The court noted that the plaintiff did not even allege any direct contact with Moody's at the time of its investment, let alone any privity of contract.²⁰

10. King County, Washington²¹

Plaintiff: King County, Washington

Defendants: Morgan Stanley, S&P, Moody's and Fitch

Investment Product: Structured investment vehicles

Violations: Negligent misrepresentations, common law fraud, negligence, breach of fiduciary duty, aiding and abetting

On October 2, 2009, King County, Washington and other institutional investors sued Morgan Stanley, Standard & Poor's, Moody's, Fitch, and others seeking to recover losses stemming from the October 2007 collapse of a structured investment vehicle. The complaint alleged negligence, breach of fiduciary duty, aiding and abetting and negligent misrepresentation and the case is pending in the Southern District of New York. On May 4, 2012 District Court Judge Scheindlin entered an Opinion and Order in dismissing plaintiffs' causes of action for negligence, breach of fiduciary duty, and aiding and abetting, but allowed plaintiffs' negligent misrepresentation claim to proceed against Morgan Stanley, as well as Moody's and Standard & Poor's (collectively, the "Ratings Agencies"). However, in September 2012 Judge Scheindlin reversed herself with respect to the Ratings Agencies. Judge Scheindlin found that there can be no special relationship without direct contact and, because plaintiffs confirmed that there is no evidence of direct contact between them and the Rating Agencies, their negligent misrepresentation claims against

¹⁹ *Anschutz v. Merrill Lynch & Co*, 690 F.3d 98 (2d Cir. Aug. 16, 2012).

²⁰ *Id.*

²¹ *King County, Washington v. IKB Deutsche Industriebank AG*, No. 09 cv 8387 (S.D.N.Y.).

the Ratings Agencies were also dismissed.²²The remaining common law fraud claims against the Rating Agencies were settled on undisclosed terms in March, 2013 and on April 26, 2013.²³

11. Abu Dhabi Commercial Bank²⁴

Plaintiff: Abu Dhabi Commercial Bank

Defendants: Morgan Stanley, Moody's and S&P

Investment Product: Structured investment vehicles

Violations: Common law fraud, negligent misrepresentation, negligence, breach of fiduciary duty, breach of contract, unjust enrichment and aiding and abetting

On August 25, 2008, Abu Dhabi Commercial Bank and other institutional investors sued Morgan Stanley, Moody's and Standard & Poor's. The plaintiffs invested in a structured investment vehicle (SIV) and sought to recover losses stemming from the liquidation of notes issued by the SIV between 2004 and 2007. They asserted numerous claims of common law fraud, negligent misrepresentation, negligence, breach of fiduciary duty, breach of contract and related contract claims, unjust enrichment, and aiding and abetting against defendants. The court dismissed all claims except common law fraud. The case was set for trial in May 2013 and settled under undisclosed terms on April 26, 2013.²⁵

12. CalPERS/S&P, Moody's, Fitch²⁶

Plaintiff: California Public Employees' Retirement System

Defendants: S&P, Moody's and Fitch

Investment Product: Structured investment vehicles

Violations: Negligent misrepresentations and negligent interference with prospective economic business advantage

On July 9, 2009, California Public Employees' Retirement System filed suit against Moody's, Standard & Poor's and Fitch in California state court alleging losses from inaccurate risk

²² *King County, Washington v. IKB Deutsche Industriebank AG*, No. 09 cv 8387 (S.D.N.Y. Sept. 28, 2012).

²³ *King County, Washington v. IKB Deutsche Industriebank AG*, 09 cv 8387 (S.D.N.Y. April 26, 2013).

²⁴ *Abu Dhabi Commercial Bank v. Morgan Stanley & Co. Incorporated*, 08-cv-7508 (S.D.N.Y.).

²⁵ *Abu Dhabi Commercial Bank v. Morgan Stanley & Co. Incorporated*, 08-cv-7508 (S.D.N.Y. April 26, 2013).

²⁶ *California Public Employees' Retirement System v. Moody's*, No. 09-490241, (Cal. Super. Ct. S.F. County filed July 9, 2009).

assessments of structured investment vehicles for risky subprime mortgages. In December 2010, the court ruled that the ratings by the three companies are a form of free speech, which may be protected under California law. In August 2011, Fitch settled without payment. In January 2012, the court denied a motion for summary judgment and found that the pension fund “produced sufficient evidence” that the ratings companies made misrepresentations “without reasonable grounds” to believe they were telling the truth.²⁷ The case is currently on appeal to the Superior Court of California, County of San Francisco, Appeals Division.

Government Enforcement Actions Against Credit Rating Agencies

13. Connecticut/S&P, Moody’s, Fitch²⁸

Plaintiff: Connecticut Attorney General

Defendants: S&P, Moody’s and Fitch

Investment Product: Municipal Bonds

Violations: Connecticut Unfair Trade Practices Act by misstatements and omissions of fact

On July 30, 2008, the Connecticut Attorney General filed suit against Standard & Poor’s, Moody’s and Fitch Rating alleging that the firms violated the Connecticut Unfair Trade Practices Act by intentionally misrepresenting and omitting material facts that caused bond issuers in Connecticut to purchase bonds at higher interest rates. The firms assert that the Connecticut suit was a case of a state attempting to use litigation to dictate what bond rating it receives. “The claims asserted by the Attorney General violate First Amendment rights—which courts around the country have repeatedly ruled apply to rating agencies and their opinions—and would result in an erosion of analytical independence and undermine investor confidence in the market by allowing ratings to be determined by governmental mandate or the threat of litigation.” This case ultimately settled in 2011 with the rating agencies agreeing to credit \$900,000 and to be more transparent in their bond rating methodology.²⁹

14. Connecticut/S&P³⁰

Claimant: Connecticut Attorney General

Respondents: McGraw-Hill Co., Inc.–S&P

²⁷ *California Public Employees’ Retirement System v. Moody’s*, No. 09-490241, (Cal. Super. Ct. S.F. County Appeals Div. filed Jan. 12, 2012).

²⁸ *State of Connecticut v. McGraw-Hill Co, Inc.*, No. HHD-CV-08-4038927-S.

²⁹ Connecticut Attorney General, “Office of the Attorney General Settles Public Finance Lawsuits against Moody’s, Standard & Poor’s and Fitch,” *Press Release*, (Oct. 14, 2011), <http://www.ct.gov/ag/cwp/view.asp?Q=488608&A=2341>.

³⁰ *Connecticut v. The McGraw-Hill Companies, Inc.*, No. HHD-CV-10-6008838-S (Conn. Super. filed Mar. 10, 2010) (complaint), <http://www.ct.gov/ag/lib/ag/antitrust/mcgraw-hillcomplaint2.pdf>.

Investment Product: Structured financial securities

Violations: Connecticut Unfair Trade Practices Act

On March 10, 2010, Connecticut was the first state to sue S&P and its parent, The McGraw-Hill Companies, Inc., for alleged misconduct by the credit rating agency involving structured finance securities, which it claimed were at the heart of the global financial crisis. The state asserted claims under the Connecticut Unfair Trade Practices Act. The case survived a motion to dismiss and an initial removal petition and was pending in Connecticut state court until February 2013. The case is now in federal court, having been removed a second time and pending a motion for remand and S&P’s request to the Judicial Panel on Multidistrict Litigation to consolidate the proceedings before one of two judges in federal court in Manhattan.³¹

15. Illinois/S&P³²

Plaintiff: Illinois Attorney General

Defendants: McGraw-Hill Co., Inc.– S&P

Investment Product: Structured finance securities and complex financial products

Violations: Illinois Uniform Deceptive Trade Practices Act and Illinois Consumer Fraud Act

On January 25, 2012, the Illinois Attorney General filed suit against Standard & Poor’s alleging that S&P misled investors into believing its ratings of structured finance securities were independent and objective. Illinois alleged that S&P failed to disclose that it altered its ratings criteria and methodology to ensure that it got issuers’ repeat business, and failed to monitor the performance of the securities after it issued the ratings, resulting in inaccurate ratings in violation of the Illinois Consumer Fraud Act and the Illinois Uniform Deceptive Trade Practices Act. According to the complaint, S&P’s “issuer pays” business model compromised its independence and objectivity, so the rating agency’s public assurances to the contrary violated the Illinois Deceptive Trade Practices Act.

S&P moved to dismiss the case on several grounds, including preemption of state law due to federal regulation of the rating agencies, and the First Amendment. On November 7, 2012, Illinois Judge Mary Ann Mason rejected every defense of S&P, including the First Amendment argument, and denied the motion to dismiss. Judge Mason noted that the Illinois lawsuit is not based on S&P’s actual ratings of publicly traded securities, but on S&P’s representations about its independence and objectivity. “These are not generalities or vague assurances; rather, they are verifiable representations regarding the manner in which S&P assures the integrity and independence central to the credibility of its ratings.”³³ The case is now stayed in federal court

³¹ *Connecticut v. McGraw-Hill Cos.*, No. 13-00311, (D. Conn.).

³² *Illinois v. McGraw-Hill Cos., Inc.*, No. 12-CH-2535 when case was pending in Illinois state court.

³³ *Illinois v. McGraw-Hill Cos., Inc.*, No. 12-CH-2535, slip op. at 6 (Nov. 7, 2012), http://newsandinsight.thomsonreuters.com/uploadedFiles/Reuters_Content/2012/11_-_November/illinoisvstandardandpoors--MTDopinion.pdf.

having been removed and pending a motion for remand and S&P’s request to the Judicial Panel on Multidistrict Litigation to consolidate the proceedings before one of two judges in federal court in Manhattan.³⁴

16. Department of Justice/S&P³⁵

Plaintiff: United States Department of Justice

Defendants: McGraw-Hill Co., Inc.–S&P

Investment Product: Structured finance securities (CDOs)

Violations: Wire fraud, mail fraud, and two counts of financial institution fraud under the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA)

On February 5, 2013, the U.S. Department of Justice joined sixteen states and the District of Columbia and announced that they had filed lawsuits against S&P for alleged misconduct by the credit rating agency involving structured finance securities. The federal and state complaints allege that, despite S&P’s repeated statements emphasizing its independence and objectivity, the credit rating agency allowed its analysis to be influenced by its desire to earn lucrative fees from its investment bank clients, and knowingly assigned inflated credit ratings to toxic assets packaged and sold by the Wall Street investment banks. This alleged misconduct began as early as 2001, became particularly acute between 2004 and 2007, and continued as recently as 2011. The case is pending in the U.S. District Court for the Central District of California, Western Division, where the parties are briefing S&P’s motion to dismiss the complaint. S&P is relying on the Second Circuit’s recent decision in *Boca Raton Firefighters and Police Pension Fund v. Bahash* (case no. 7 above) where the court found the exact same statements of S&P to be “mere puffery” “not actionable.”³⁶

³⁴ *State of Illinois v. McGraw-Hill Cos.*, No. 13-cv-01725 (N.D. Ill.).

³⁵ *United States v. McGraw-Hill Cos., Inc.*, No. 13-cv-00779 (C.D. Cal. filed Feb. 5, 2013) (complaint), <http://www.justice.gov/iso/opa/resources/849201325104924250796.pdf>.

³⁶ *Boca Raton Firefighters and Police Pension Fund v. Bahash*, No. 12-1776-cv, 2012 WL 6621391 (2d Cir. Dec. 20, 2012).