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ARTICLES

THE SISKEL AND EBERT OF FINANCIAL MARKETS?: TWO THUMBS DOWN FOR THE CREDIT RATING AGENCIES

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“There are two superpowers in the world today in my opinion. There’s the United States and there’s Moody’s Bond Rating Service. The United States can destroy you by dropping bombs, and Moody’s can destroy you by downgrading your bonds. And believe me, it’s not clear sometimes who’s more powerful.”¹

“The most that we can safely assert about the evolutionary process underlying market equilibrium is that harmful heuristics, like harmful mutations in nature, will die out.”²

I. INTRODUCTION

Is a AAA³ rating of an institution’s bonds any different from a five-star Morningstar⁴ rating of a mutual fund, or a four-diamond American Automobile

1. *The News Hour with Jim Lehrer: Interview with Thomas L. Friedman* (PBS television broadcast, Feb. 13, 1996) (transcript on file with author).

2. Merton H. Miller, *Debt and Taxes*, 32 J. FIN. 261, 273 (1977).

3. A credit rating of “AAA” generally is regarded as the highest quality rating; a credit rating of “D” (signifying default) is the lowest. The various rating systems are described in detail *infra* at Part II.C. Credit rating agencies provide ratings for credit instruments, typically bonds, although they also rate more complex investments, including derivatives, whose value is based on or derived from some other underlying financial instrument or index. *See* discussion *infra* at Part III.B.

4. Morningstar Inc., the Chicago-based publisher of mutual fund information, has a “star” rating system of from one to five stars. Mutual fund managers and analysts whose funds earn the coveted “Five Star” ratings from Morningstar earn the highest, seven-figure salaries. *See* Charles Gasparino, *Mutual Funds Show Managers The Money, Seeking Big Returns*, WALL ST. J., March 7, 1997, at C1. There are only about 100 Five Star managers out of approximately 8,000 U.S. mutual funds. To gain a Five Star

Association rating of a hotel, or a three-star Michelin rating of a restaurant, or a “two-thumbs-up” Siskel and Ebert rating of a film, or a single UL⁵ symbol on a blender?⁶ And if bond ratings differ from ratings of mutual funds, hotels, restaurants, films, and appliances, to what extent have legal rules caused those differences? To what extent should legal rules operate to minimize differences? This article addresses these questions.

Credit ratings pose an interesting paradox. On one hand, credit ratings purport to provide investors with valuable information they need to make informed decisions about purchasing or selling bonds;⁷ credit rating agencies seem to have impressive reputations and most bond issues are rated by multiple agencies. On the other hand, particularly since the mid-1970s, the informational value of credit ratings has plummeted;⁸ credit rating agencies, faced with the challenges of globalized, technologically innovative markets and with competition from providers of more current, detailed, and accurate information, have become reactive rather than proactive, and some evidence indicates they have maintained accurate credit ratings (*i.e.*, ratings correlated with actual default experience) due more to after-the-fact corrections than to predictive power.⁹

rating, a fund must place within the top 10 percent of its peer group for at least three years, based on its performance and a measure of its risk versus return. *See id.* at C23. Some top mutual fund managers have been compared to professional sports stars. *See id.*

5. I analyze the Underwriters Laboratories (UL) rating system *infra* at 685-86.

6. Institutions, not individuals, provide most ratings, presumably because institutions are better able to capture economies of scale in gathering and providing information. Nevertheless, a few individuals have thrived as raters, including the late Gene Siskel and Roger Ebert, the well-known film critics from Chicago; Robert Parker, the international wine connoisseur; and numerous celebrity endorsers. Although an individual, John Moody, invented and first issued credit ratings, and although some individual stock analysts acquire a kind of “brand equity” due to their prominent, public role in rating securities (*e.g.*, Abby Joseph Cohen, a partner of Goldman, Sachs & Co.), the financial market—and this article—are centered on raters as institutions, not individuals.

7. Numerous studies conducted by both rating agencies and independent groups have demonstrated that credit ratings have a high correlation with actual default experience. *See discussion infra* at 647-48.

8. There have been multiple unexpected defaults and sudden credit downgrades in recent years, involving major issuers such as Orange County, Mercury Finance, and the governments and banks of numerous countries in Latin American and Southeast Asia. *See discussion infra* at 658-62.

9. Many recent credit downgrades occurred after the rated entity already had disclosed substantially increased risk. For example, the recent near-collapse of Long-Term Capital Management, the Greenwich, Connecticut, hedge fund that reported losses of \$4 billion in September 1998, prodded Standard and Poor’s (“S&P”) and Moody’s to review the credit quality of all major U.S. and European banks, and to downgrade the senior debt of one of them, Bankers Trust. *See CNN Moneyline News Hour with Lou Dobbs*, at 10 (CNN Television Broadcast, Sept. 25, 1998) (*available in* LEXIS-NEXIS, Curnews database; transcript on file with author) (addressing credit issues related to Long-Term Capital Management); *see also* Frank Partnoy, *Playing Roulette with the Global Economy*, N.Y. TIMES, Sept. 30, 1998, at A17 (describing role of derivatives and hedge funds in the near-collapse of Long-Term Capital Management). Such evidence supports arguments by economists that rating agencies’ claims that

This paradox—continuing prosperity of credit rating agencies in the face of declining informational value of ratings—has generated extensive debate both in the popular press and among financial economists.¹⁰ Since John Moody introduced his clever and simple rating system for railroad bonds in 1909,¹¹ credit ratings have played a critical role in the development of modern financial markets. Oddly, during two key time periods—the 1930s and the mid-1970s through 1990s—despite the declining informational value of credit ratings, such ratings became more, not less, important to financial market participants.¹² Particularly since the mid-1970s, credit ratings have assumed elevated status. Not only do credit rating agencies now rate the vast majority of all new public

ratings correlate with default rates are seriously flawed, both logically and empirically, because (1) ratings often are simply a response to negative information (*i.e.*, correlation does not mean causation), and (2) ratings changes tend to influence market prices (*i.e.*, rating downgrades are partially self-fulfilling because they cause price declines). *See* discussion *infra* at Part III.A. The credit crunch of late 1998 is additional evidence in support of these views. In October 1998, the credit quality and liquidity of most bonds and swaps plummeted, yet most credit ratings remained constant. *See* Thomas J. Sowanick, MERRILL LYNCH FIXED INCOME WKLY., Nov. 13, 1998, at 3 (copy on file with author).

10. A sample of articles from *The Economist* is representative. *See, e.g., Credit-Rating Agencies. AAArggh!*, ECONOMIST, Apr. 6, 1996, at 80; *Credit-Rating Agencies; Beyond the Second Opinion*, ECONOMIST, Mar. 30, 1991, at 80; *Rating the Rating Agencies*, ECONOMIST, July 15, 1995, at 53; *Room for Improvement: Ratings Agencies*, ECONOMIST, July 15, 1995, at 54; *Sovereign Debt; The Ratings Game*, ECONOMIST, Oct. 30, 1993, at 88; *The Use and Abuse of Reputation*, ECONOMIST, Apr. 6, 1996, at 18.

Legal commentators typically have assumed ratings are valuable due to their information content. Perhaps as a result, legal scholars have focused on questions ancillary to the core issue of why rating agencies continue to prosper, and have shied from analyzing the substantial volume of finance literature addressing the predictive value of ratings. *See* discussion *infra* at 647-48. In contrast, while finance theorists have focused on core economic issues related to the informational value of ratings, they have not addressed in detail the effects of regulation or law on ratings. *See* discussion *infra* at Part IV.C.

Regulators have expressed mixed views. Richard Roberts, then a Commissioner of the Securities and Exchange Commission, first discussed the use of credit ratings in federal securities regulations in 1992. *See* K. Susan Grafton, *The Role of Ratings in the Federal Securities Laws*, INSIGHTS, Aug. 1992, at 22; *Roberts Says SEC Needs Oversight Authority of Credit Rating Services*, SEC. WK., Apr. 13, 1992, at 3. Soon thereafter, the Securities and Exchange Commission requested comment on the use of ratings in a release proposing a new Rule 3a-7 under the Investment Company Act of 1940. *See* 57 Fed. Reg. 23,980 (1992). A series of releases and comments followed, but as of November 1999 no decision had been made. *See* discussion *infra* at note 386.

11. I describe the evolution of rating agencies, including Moody's scale of classification, in greater detail at Part II.B.

12. Today, credit ratings are of paramount importance to debt issuers. A poor rating can drive up an issuers borrowing costs or even put it out of business. For example, in February 1991, when S&P and Moody's downgraded a \$1.1 billion debt issue by Chrysler, its interest costs jumped by \$38 million a year. *See Credit-Rating Agencies: Beyond the Second Opinion, supra* note 10, at 80. Issuers of debt have complained about the power of the rating agencies, and analysts from at least one large American institution have called the concentration of power at Moody's and S&P "dangerous." *Id.* More recently, credit downgrades of the Japanese government and Japanese banks (which occurred months after market prices already had reflected information about bad loans and debts) caused huge increases in borrowing costs. *See, e.g.,* Gillian Tett, *Moody's Downgrades Sovereign Debt*, FIN. TIMES, Nov. 18, 1998, at 6.

bond issues, but rating changes are important public events, even front-page news. Both the press and the public now follow ratings very closely, which, some scholars assert, shows the social value of the ratings.¹³

In this article, I argue that the paradox of rating agencies is best explained by the practice of linking substantive securities regulation to private credit ratings. I argue that, from the mid-1970s until today, the Securities and Exchange Commission (SEC) and other regulatory bodies, by promulgating rules that depend substantively on credit ratings, have given the handful of approved credit rating agencies—dubbed Nationally Recognized Statistical Ratings Organizations (NRSROs)—a substantial degree of market power. In particular, these rules permit NRSROs to grant “regulatory licenses,” a term I use to describe the valuable property rights associated with the ability of a private entity, rather than the regulator, to determine the substantive effect of legal rules. Such regulatory licenses have benefitted rating agencies to varying degrees since the 1930s.¹⁴

I argue that the recent increase in the scope of these regulatory licenses not only has caused substantial deadweight loss due to the agencies’ ensuing oligopoly, but also has encouraged the rating agencies to shift from the business of providing valuable credit information to the far more lucrative business of selling regulatory licenses. The new regulatory scheme has had dramatic effect,¹⁵ not only causing a decline in the informational value of credit ratings,

13. Professor Kenneth Lehn has argued credit ratings must have substantial informational content because of the hundreds of stories that appear in the financial press about bond rating changes issued by the major rating agencies. See Letter from Kenneth Lehn, Professor of Business Administration, University of Pennsylvania, to Jonathan G. Katz, Secretary, SEC 4 (Dec. 5, 1994) (available at SEC office headquarters, file no. S7-23-94; copy on file with author). Similarly, finance scholars have argued that higher-rated debt instruments have lower default rates. In particular, W. Braddock Hickman—whose study later served as the scholarly basis for the development of the junk bond market during the 1980s—found that Moody’s Aaa-rated debt had a default rate of 10 percent during 1900-43, while Ba-rated debt had a default rate of over 40 percent during the same period. See W. BRADDOCK HICKMAN, NAT’L BUR. ECON. RESEARCH, CORPORATE BOND QUALITY AND INVESTOR EXPERIENCE (1958).

In recent years, the credit rating business has generated astonishing revenues and profits. Several of the rating agencies are either privately held or are divisions of companies that do not separately report the agencies’ financial results. However, there is evidence that the rating agencies have been able to maintain very high profit margins. See discussion *infra* at 654. Yet, at the same time, the number of bankruptcies, financial fiascos, and defaults that rating agencies have failed to anticipate has skyrocketed. I discuss several of the recent shortcomings of credit ratings in Part III.

14. See discussion *infra* at Part IV.C.

15. As Thomas J. McGuire, then Executive Vice President and Director-Corporate Development of Moody’s Investors Service, perhaps the premier credit rating agency, put it: “[T]he weight of government regulators on private institutions can be enormous. Eight hundred pound gorillas should be careful where they sit.” Thomas J. McGuire, Ratings in Regulation: A Petition to the Gorillas, Delivered to the SEC Fifth Annual International Institute for Securities Market Development, at 17 (April 28, 1995) (copy on file with author).

but also creating incentives for the agencies to provide inaccurate ratings and for market participants to pay for regulatory entitlements stemming from the agencies' ratings, instead of paying for the informational content of the ratings. The result is a bewildering array of dysfunctional financial behavior as well as substantial financial market distortion and inefficiency. One prominent market participant aptly labeled these phenomena a "chronic sickness" in the financial markets.¹⁶

The solution I offer for this problem is simple, perhaps bitter, medicine. The SEC and other regulatory agencies should remove each of these regulatory licenses by excising the portions of their rules that depend substantively on credit ratings. Regulators also should resist the temptation to include such regulatory licenses in new regulation. For example, regulators and market participants (especially rating agencies) recently have argued that a rating system similar to the bond rating system should be adopted for mutual funds.¹⁷ The findings in this article raise serious questions about the wisdom of institutionalizing any such rating system for mutual funds.

In place of ratings-dependent regulation, I recommend a replacement: simply substitute credit spreads,¹⁸ the market risk measure of bonds, for credit ratings. Credit spreads are more accurate than credit ratings, and by definition credit spreads reflect the market price of credit, which should reflect at minimum the information contained in credit ratings.

This article and its recommendations are a contribution to the recent shift in

16. Mr. McGuire of Moody's expressed this view:

I should tell you up-front that the prognosis is not good. My comments today are intended, very deliberately, to be a serious warning to you of a chronic sickness that is affecting the rating agency business. The cause of that sickness is the use by regulators of ratings as instruments of financial market regulation.

McGuire, *supra* note 15, at 11. It is odd that a senior official of a leading rating agency would be leading the charge against regulations that, as I argue here, preserve the agencies' oligopoly power. In fact, officials from Moody's seem not to be worried about competition from the other members of the oligopoly, and may be confident in the belief that Moody's would be better off under a competitive regime. Moody's also seems to fear additional regulation. Whether Moody's could acquire monopoly power absent ratings-dependent regulation is a question beyond the scope of this article, but I should note that arguments of some legal scholars about learning-related externalities could be applied to the market for bond ratings. See, e.g., Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting*, 83 VA. L. REV. 713 (1997); Marcel Kahan & Michael Klausner, *Path Dependence and Comparative Corporate Governance: Path Dependence in Corporate Contracting, Increasing Returns, Herd Behavior and Cognitive Biases*, 74 WASH. U. L.Q. 347 (1996).

17. See *Mutual Funds: X-Rated*, ECONOMIST, August 22, 1998, at 58 (describing proposals by regulators outside the U.S. to require that all mutual funds be rated).

18. I discuss credit spreads in detail *infra* at Part V.A.

legal scholarship on the financial markets,¹⁹ in tandem with recent shifts by economists, finance theorists, and market participants, away from stocks and “securities”²⁰ to other credit and derivative instruments. Following the passage of the securities laws in 1933 and 1934, there was very little criticism of stock (or bond) market regulation for nearly 30 years. In 1964, George Stigler began the debate about the efficiency of federal securities regulation with a study demonstrating there was very little difference between the return performance of unregistered and registered stocks.²¹

Since Stigler’s study, much of the debate among legal scholars in this area has addressed stocks and information.²² Equity securities have occupied the core of corporate and securities law: stocks carry ownership rights, which are the subject of fundamental questions about the separation of ownership and control of corporations and the market for corporate control; stocks are thought to carry greater risk and therefore greater expected returns, and have proved more susceptible to manias, panics, and crashes, than other instruments; new stock issues, in particular initial public offerings, have generated concerns, regulation, and commentary related to fraud and mispricing; stocks and stock options are the primary focus of insider trading enforcement efforts and historically have

19. I use the term “financial markets” to describe the markets (both on organized trading exchanges and through private over-the-counter transactions) for transactions in financial instruments, such as stocks, bonds, foreign exchange, commodities, and more sophisticated instruments. I label these markets “financial” rather than “capital” because although they necessarily involve the former concept, they need not involve the latter; in particular, numerous markets in financial derivatives cannot be said to involve any type of claim on capital.

20. The term “security” is defined to include certain credit instruments, namely “bonds,” see 15 U.S.C. § 77b(1) (1994), and other investment contracts, see, e.g., *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946), but it does not include trillions of dollars of other financial instruments, including derivatives. See Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211, 249-52 (1997).

21. See George J. Stigler, *Public Regulation of the Securities Markets*, 37 J. BUS. 117 (1964). Stigler studied a sample of new issues of common stock covering two periods, 1923-28 and 1949-55, and concluded that “investors in common stocks in the 1950’s did little better than [investors] in the 1920’s, indeed clearly no better if they held the securities only one or two years.” *Id.* at 121. A more thorough review of Stigler’s work by Gregg Jarrell found that although the pre-1933 market for new equity issues was, for the most part, efficient, the default risk and risk premia of bonds has fallen from pre- to post-SEC regulation. See Gregg A. Jarrell, *The Economic Effects of Federal Regulation of the Market for New Security Issues*, 24 J.L. & ECON. 613, 666-67 (1981).

22. See, e.g., John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717 (1984); Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669 (1984); Jeffrey N. Gordon & Lewis A. Kornhauser, *Efficient Markets, Costly Information, and Securities Research*, 60 N.Y.U. L. REV. 761 (1985); Jarrell, *supra* note 21; Marcel Kahan, *Securities Law and the Social Costs of “Inaccurate” Stock Prices*, 41 DUKE L.J. 977 (1992); Paul G. Mahoney, *Mandatory Disclosure as a Solution to Agency Problems*, 62 U. CHI. L. REV. 1047 (1995); Thomas A. Smith, *Institutions and Entrepreneurs in American Corporate Finance*, 85 CAL. L. REV. 1 (1997).

been susceptible to manipulation by traders; and perhaps most importantly, in the 1970s and 1980s, economists and finance theorists focused on stocks, and scholarship from that era has served as the backbone for much related, yet often belated, legal scholarship.

In contrast, financial economists have shifted much attention to the credit and derivative markets.²³ The growth in credit markets and instruments has been both rapid and elemental.²⁴ Since the 1970s, credit markets have been the driving force in finance, and have generated huge trading volumes, massive profits, and a potpourri of fascinating legal and regulatory issues.²⁵ In the past decade or so, the bond trading floor, far more than the New York Stock Exchange (or any other equity exchange), has been the center and focus of financial intermediation.²⁶ In 1996, 17,614 bond deals were sold in the U.S.

23. Legal scholars' analysis of the bond market has been less thorough than that of the stock market, in part because of difficulties associated with collecting bond return data, and in part because bonds have been regarded as "uniformly low-risk securities compared with common stock." See Jarrell, *supra* note 21, at 652.

24. This growth is especially evident outside the U.S. The vast majority of financial assets in developing countries are debt, e.g., bonds and loans. For example, in Latin America, more than 90 percent of financial assets are held by commercial banks in the form of fixed income instruments. The vast majority of developing country financial assets are bonds and loans. One reason for the dominance of debt instruments in such countries is that most privately-owned corporations in these countries are either closely-held or not widely held by public shareholders. See discussion *infra* at 666-68.

25. A few legal commentators have addressed some of these issues in credit markets. Recently, Marcel Kahan and Michael Klausner have argued that certain provisions in debt contracts are inefficient due to market failures generated by the path-dependent nature of such provisions over time. See Kahan & Klausner, *Standardization and Innovation in Corporate Contracting*, *supra* note 16; Kahan & Klausner, *Standardization and Innovation in Corporate Contracting*, *supra* note 16. The broad topic of securitization has received extensive treatment, see, e.g., STEVEN L. SCHWARCZ, *STRUCTURED FINANCE: A GUIDE TO THE PRINCIPLES OF ASSET SECURITIZATION* (2d ed. 1993); Steven L. Schwarcz, *The Global Alchemy of Asset Securitization*, 1 STAN. J.L. BUS. & FIN. 133, as has the even broader topic of financial derivatives regulation, see, e.g., Henry T.C. Hu, *Hedging Expectations: "Derivative Reality" and the Law and Finance of the Corporate Objective*, 73 TEX. L. REV. 985, 996-1000 (1995); Kimberly D. Krawiec, *Derivatives, Corporate Hedging, and Shareholder Wealth: Modigliani-Miller Forty Years Later*, 1998 U. ILL. L. REV. 1039 (1998). Roberta Romano, *A Thumbnail Sketch of Derivative Securities and their Regulation*, 55 MD. L. REV. 1 (1996); Lynn A. Stout, *Betting the Bank: How Derivatives Trading Under Conditions of Uncertainty Can Increase Risks and Erode Returns in Financial Markets*, 21 J. CORP. L. 53 (1995). In each of these areas, legal scholars have contributed significantly to the debate and have been crucial in the formulation of important policy.

26. Although individual investors continue to pour money into equities through mutual fund investments, investors also have increased holdings of bonds, as evidenced by the extraordinary movements of capital from bank deposits to money market funds. Most financial advisors recommend that investors keep a significant portion of their funds in bonds or cash. As of 1997, the total market capitalizations of the U.S. public stock markets and the U.S. public bond markets were approximately equal (about \$12-13 trillion each), and were far less than the total volume of U.S. bank debt, or the total notional value of over-the-counter (OTC) derivative contracts (more than \$55 trillion). See, e.g., FRANK PARTNOY, F.I.A.S.C.O.: *BLOOD IN THE WATER ON WALL STREET* 15 (1997). Outside the U.S., stock markets occupy a much smaller fraction of total capital market size and activity.

public markets.²⁷ Financial market participants increasingly have shifted from traditional stock-related activity into new markets, capturing extraordinary profits and creating even more remarkable financial dislocation.²⁸

Finally, in this article, I hope to generalize several notions of how financial markets should be regulated, if at all. In particular, I hope to encourage debate about mandatory disclosure schemes for all financial instruments from a new perspective: how should we regulate the provision of information about credit? On a more fundamental level, I also hope to suggest a model for assessing the benefits and costs of the privatization of regulatory functions, *i.e.*, functions where the regulator remains involved in an oversight or gatekeeper role but delegates important rights and obligations to private entities.²⁹

In Part II of this Article, I examine the history of credit ratings, with a focus on the particular view of credit ratings I call the “reputational capital” view. In Part III, I raise some problems with the reputational capital view. In Part IV, I propose a new theory of credit markets and information, based on the notion of a “regulatory license.”³⁰ In Part V, I offer some recommendations for changing the regulation of credit rating agencies. Part VI concludes.

II. A “REPUTATIONAL CAPITAL” VIEW OF CREDIT RATINGS

I begin by describing one view, which I believe is the prevailing one, of the role of credit ratings in financial markets, based on the agencies’ ability to generate and retain reputational capital. First, I discuss the role of reputational

27. See Charles Gasparino, *Moody’s Bond-Rating Lead is Shrinking*, WALL ST. J., Jan. 14, 1997, at C1. In 1996, Moody’s rated the largest number of bonds, 344 more than S&P. See *id.*

28. See Partnoy, *supra* note 20, at 212. Of course, large profits from equity-related activities are not uncommon; in particular, investment banking profits from sales of equity derivatives and large block equity trades have been both increasing and astonishingly large. See, e.g., *Goldman Sachs Earns A Quick \$15 Million In Sale Of BP Shares*, WALL ST. J., May 16, 1997, at A4.

29. Such regulatory systems also present difficult questions about the constitutionality of delegations to private regulators. An analysis of this question, first presented to me by Professor Larry Alexander, is beyond the scope of this article. It is worth noting, however, that although parties in recent litigation involving the credit rating agencies have not brought such challenges, there is case law supporting an argument that the scope of the delegation of regulatory authority to the agencies would not pass constitutional muster. See, e.g., *Larkin v. Grendel’s Den, Inc.*, 459 U.S. 116 (1982) (state statute giving churches and schools the right to veto applications for nearby liquor licenses unconstitutional under the Establishment Clause); *Washington v. Roberge*, 278 U.S. 116 (1928) (zoning ordinance requiring approval of neighbors for building project unconstitutional); *Eubank v. Richmond*, 226 U.S. 137 (1912) (ordinance establishing building lines upon request of residents unconstitutional); cf. *Thomas Kusac Co. v. Chicago*, 242 U.S. 526 (1917) (upholding zoning ordinance requiring consent of neighboring property owners).

30. The core of the economic model, which applies generally outside of the credit rating context, is described in Part IV.A.

capital in markets generally, and in credit rating markets specifically. Second, I set forth certain early historical developments related to the role of credit ratings and the development of credit rating agencies, and explain how they fit (or do not fit) this view. Third, I describe the recent explosion in size and importance of credit rating agencies.

A. *Reputational Capital*

Economists since Adam Smith have noted the value of reputational capital in sustaining a self-policing society.³¹ Individuals³² acquire reputations over time based on their behavior.³³ If an individual's reputation improves, and other members of society begin to hold that individual in higher esteem, that individual acquires a stock of reputational capital, a reserve of good will, on which other parties rely in transacting with that individual. Reputational capital leads parties to include "trust" as a factor in their decision-making; trust enables parties to reduce the costs of reaching agreement. Reputational capital is especially valuable when a small number of actors interact repeatedly.³⁴ In such situations, cooperation among individuals can prevail even without a government authority, as players learn information about other players'

31. Smith described his views in a 1763 lecture, "Of the Influence of Commerce on Manners":
Of all the nations in Europe, the Dutch, the most commercial, are the most faithful to their word. The English are more so than the Scotch, but much inferior to the Dutch. . . . This is not at all to be imputed to national character, as some pretend; there is no natural reason why an Englishman or a Scotchman should not be as punctual in performing agreements as a Dutchman. It is far more reducible to self-interest, . . . [which] is as deeply implanted in an Englishman as a Dutchman. A dealer is afraid of losing his character, and is scrupulous in observing every engagement. When a person makes perhaps twenty contracts a day, he cannot gain so much by endeavouring to impose on his neighbours, as the very appearance of a cheat would make him lose. When people seldom deal with one another, we find that they are somewhat disposed to cheat, because they can gain more by a smart trick than they can lose by the injury which it does their character.

ADAM SMITH, LECTURES ON JUSTICE, POLICE, REVENUE, AND ARMS 253-54 (Edwin Cannan ed., 1896). Much of the modern study of reputational economics has involved game theory. For a description of the game theory view of the effects of reputation and repeated games, see DOUGLAS G. BAIRD ET AL., GAME THEORY AND THE LAW, 159-87 (1994); see also David M. Kreps et al., *Rational Cooperation in the Finitely Repeated Prisoners' Dilemma*, 27 J. ECON. THEORY 245 (1982); David M. Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253 (1982).

32. I include in my definition of "individuals" not only human beings, but other legal persons such as corporations, partnerships, trusts, and other entities.

33. For a more complete economic analysis of the acquisition of reputational capital by debt issuers, see Douglas W. Diamond, *Reputational Acquisition in Debt Markets*, 97 J. POL. ECON. 828 (1989).

34. F.A. Hayek has argued that such cooperation is a human instinct developed during the millions of years *homo sapiens* spent in small roving bands adapting to favor cooperation based on the "interaction of fellows known to and trusted by one another." F.A. HAYEK, THE FATAL CONCEIT: THE ERRORS OF SOCIALISM 11 (W.W. Bartley III ed., 1988).

strategies (*i.e.*, their reputations).³⁵

Reputational capital and ratings are closely related. Rating services such as Michelin or Consumer Reports survive and prosper based on their ability to acquire and retain reputational capital. Raters who invest more in their investigative and decision-making processes (and who therefore generate more accurate and valuable ratings) acquire greater reputational capital. Individuals and institutions look to a rater's accumulated reputational capital in deciding whether to rely on the assessment of the rater or, instead, to undertake independent investigation. Absent other factors, the consumer of a product will purchase a rating if the expected benefit of the rating minus the actual cost of the rating is both positive and greater than the expected benefit of an independent investigation minus the actual cost of such an investigation.³⁶

Reputational capital and *credit* ratings are even more closely related, for two reasons. First, the concept of "credit",³⁷ broadly defined as the promise to pay in the future, includes notions of trust and credibility.³⁸ In a market economy, financial markets allocate the supply of and demand for credit, and thereby determine the price of various types of credit risk. Lenders make lending

35. See, e.g., ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* 145-46 (1984). The reputation of a player typically is established by others observing the interactions of that player with other players. Axelrod describes reputation as a means of escaping the Prisoner's Dilemma, a game in which two prisoners fail to cooperate even though cooperation would be advantageous to each, or as a means of achieving deterrence, particularly for government. For example, Axelrod cites Britain's decision to take back the Falkland Islands in response to the Argentine invasion as enhancing Britain's reputation for being provokable, and the U.S.'s decision to commit major combat forces to Vietnam as enhancing the U.S.'s reputation for threatening a major war in response to a power grab by the former Soviet Union. See *id.* at 150-54.

36. Accordingly, raters should exist in those markets where the cost of investigation to the rater is less than the sum of costs of investigations to consumers, *i.e.*, in markets where there are economies of scale in rating. The difference between investigation costs to the rater and to the consumer can be thought of as "surplus" which may be divided between the rater and consumers, depending on the competitive dynamics in the market for ratings. In a competitive market, the net marginal benefit to the rater from undertaking additional investigation will equal the net marginal benefit to the consumer from undertaking additional investigation.

37. The concept of credit predates the existence of financial markets and is more fundamental than the relatively recent conceptions of stocks, bonds, and other financial instruments. Credit exists whenever there is intertemporal trade and is a necessary component of any market, financial or otherwise. Human beings have been extending credit to each other for thousands of years, and basic credit arrangements exist even where there are no financial markets to allocate credit. See Catherine Mansell-Carstens, *Popular Financial Culture in Mexico: The Case of the Tanda*, in *CHANGING STRUCTURE OF MEXICO: POLITICAL, SOCIAL, AND ECONOMIC PROSPECTS* 77 (Laura Randall ed., 1996) (describing the "tanda" or "roscos," an informal mechanism used by members of many small Mexican villages to allocate credit).

38. The following are two definitions of "credit" given by Standard & Poor's: "1. trust; credibility. 2. Confidence in the ability and the intention of a person or institution to pay, based on its solvency and probity, thereby entitling it to be trusted in borrowing or buying." *STANDARD & POOR'S DEBT RATINGS CRITERIA: INDUSTRIAL OVERVIEW* iii (1986) [hereinafter *DEBT RATINGS CRITERIA*].

decisions based on the perceived riskiness of borrowers. Both lenders and borrowers consider trust and credibility: in equilibrium, the supply of³⁹ and demand for⁴⁰ funds at a particular risk level results in an equilibrium cost of capital for the borrower. The quantity and quality of information market participants require to make such decisions varies based on the nature of the relationship with the counterparty, the availability of the information, and other, often intangible, factors. In practice, borrowers and lenders use shorthand approximations for credit. A person may be a “good” or “bad” credit risk. A bank may establish size and time limits for extension of credit, based on categories of creditworthiness. Mortgage lenders may use formulas to determine eligibility or to cap the amount of a loan. In each case, the credit risk a lender perceives depends in large part on the reputation of the borrower.

Credit ratings are closely related to reputational capital for a second, derivative, reason: the success and function of a credit rating agency also depends on trust and credibility.⁴¹ Each credit rating agency depends for its livelihood on its reputation for objectivity and accuracy.⁴² Consider the following description of the credit rating business by S&P: “Credibility is fragile. S&P operates with no governmental mandate, subpoena powers, or any other official authority. It simply has a right, as part of the media, to express its opinions in the form of letter symbols.”⁴³

If this view of the credit rating agencies is correct,⁴⁴ then credit ratings are simply opinions, not unlike a restaurant star rating from Michelin. Credit ratings respond to investors’ demand for information about risks associated with fixed income investments. By specializing in the gathering, analysis, examination, and

39. The supply of funds depends on the compensation for lending and the riskiness of the loan. The riskiness of the loan depends on future contingencies that typically cannot be specified based on past information, a predicament the rating agencies recognize. *See id.* (“*In the analytical experience, we are constantly reminded that the past is less and less prologue to the future.*”) (emphasis in original).

40. The demand for funds depends on the cost of borrowing. For example, if *A* wanted to borrow \$100 from *B* for a year, the two might agree on an interest rate of, for example, ten percent, payable in one year. This interest rate would have two components: (1) a risk-free rate, which is composed of a real interest rate plus an expected inflation component, and (2) a credit spread. With a short-term risk free rate of around five percent, the rate *B* would charge *A* likely would range from six to fifteen percent, depending on the term and security of the loan. The resulting credit spread of one to ten percent would be compensation for the chance that *A* might default on the loan. *See discussion infra* at 655-56.

41. The President of Moody’s, John Bohn Jr., recently proclaimed, “We’re in the integrity business: People pay us to be objective, to be independent and to forcefully tell it like it is.” Richard House, *Ratings Trouble*, INSTITUTIONAL INV., Oct. 1995, at 245. Similarly, an S&P publication states, “Ratings are of value only so long as they are credible.” DEBT RATINGS CRITERIA, *supra* note 38, at 3.

42. *See Credit-Rating Agencies. AAArg!*, *supra* note 10, at 80.

43. *See DEBT RATINGS CRITERIA, supra* note 38, at 3.

44. As demonstrated in Part IV, I believe S&P’s description of its business is incorrect.

dissemination of such information, credit rating agencies eliminate the duplicative and wasteful (*i.e.*, inefficient) efforts of individuals engaging in such activities.⁴⁵ According to this view, credit ratings are a competitive, reputation-driven business, and agencies will survive only to the extent they are accurate and reliable in assessing the credit risks of borrowers.⁴⁶

Financial economists have viewed bond credit ratings variously as screening mechanisms for information unavailable publicly,⁴⁷ as attempts to distinguish issuers of inferior quality and thereby avoid “average quality pricing,”⁴⁸ and as proxies for other economic variables and statistics, such as state and municipal borrowers, total net direct debt, per capita debt, unemployment rate, and median home value, that closely relate to issuer quality.⁴⁹

In the classical view of the market for financial information, there is both a supply of and a demand for information. Investors demand information about the likelihood of receiving timely payments on financial instruments. Securities law scholars have concluded that a market, efficient or not, should be in informational equilibrium. In other words, investors should not only lack incentives to change their portfolios, they should also lack incentives to change their information acquisition strategies.⁵⁰

Financial economists maintain that the value of a bond rating lies in its certification of the debt issue’s credit quality.⁵¹ For example, one study found

45. For the classic statement of how individuals may overinvest in the production of information, at substantial social cost, see Jack Hirschleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, AM. ECON. REV., June 1971, at 561.

46. According to Thomas McGuire, formerly an executive vice president at Moody’s, “[w]hat’s driving us is primarily the issue of preserving our track record. That’s our bread and butter.” House, *supra* note 41, at 246.

47. See, e.g., Joseph E. Stiglitz, *The Theory of “Screening”, Education, and the Distribution of Income*, AM. ECON. REV., June 1975, at 283.

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

49. See, e.g., Pu Liu & Anjan V. Thakor, *Interest Yields, Credit Ratings, and Economic Characteristics of State Bonds: An Empirical Analysis*, J. MONEY, CREDIT & BANKING, Aug. 1984, at 344, 345-48.

50. See Gordon & Kornhauser, *supra* note 22, at 786. Professor John Coffee has explained this equilibrium as follows:

Analysts should invest in verifying and obtaining material information about corporate securities until the marginal cost of this information to them equals their marginal return. Ordinarily, this private equilibrium should also result in allocative efficiency: social resources would be devoted to information verification until the social costs rose to meet the social benefits.

See Coffee, *supra* note 22 (arguing in part that rating agencies are few in number and have conflicts of interest that may prevent them from acting competitively).

51. See, e.g., L. Paul Hsueh & David S. Kidwell, *Bond Ratings: Are Two Better Than One?*, FIN. MGMT., Spring 1988, at 46, 47.

that the purchase of a second credit rating provided additional information and therefore reduced borrowing costs, even if the two ratings were the same.⁵² Another study found that rating agencies rated corporate tax-exempt debt backed by a standby letter of credit based primarily on the irrevocable commitment of the bank issuing the letter of credit.⁵³ This finding suggests that banks are superior to rating agencies in their certification function, although the bank's reputation for quality may not be transmitted directly to the market.⁵⁴ In other words, obtaining a standby letter of credit from a bank reduces the interest cost to the borrower, but it does so primarily because of the reaction of the rating agencies.⁵⁵

Rating agencies may exist because of information asymmetry between debt issuers and investors. Information asymmetry exists in markets where sellers have superior information to buyers about product quality, yet cannot costlessly convey this information to buyers.⁵⁶ If buyers are economically rational, prices in a market with information asymmetry will reflect the average quality of a product, and sellers with superior products will bear the cost of the information asymmetry. Consequently, sellers in such a market will have an incentive to disclose the superior nature of their product so that they can receive the highest price.⁵⁷

How can sellers in capital markets do this? One way is for sellers of capital to use credit ratings to signal to the market the credit quality of their debt issues. Under such a theory, credit ratings provide a signal about the credit quality of an issuer to potential investors in a market. Investors infer the actual credit quality of a bond from the credit rating, and price the bond accordingly. The use of a third party for signaling reduces the moral hazard problem of transferring such information directly.⁵⁸

52. Interestingly, this study also found that the reduction in borrowing cost was greater when the second rating was different from the first. *See id.* The study concluded that the second rating provided additional information to the market and reduced borrowing costs because the value of the additional information exceeded the cost of obtaining a second rating. Even though borrowers cannot predict what the second rating will be and normally apply for both ratings simultaneously, the expected savings from obtaining two credit ratings, whether identical or split, should outweigh the added rating fee expense. *See id.* at 52 n.8.

53. *See* Roger Stover, *Third-Party Certification in New Issues of Corporate Tax-Exempt Bonds: Standby Letter of Credit and Bond Rating Information*, FIN. MGMT., Spring 1996, at 62-63.

54. *See id.* at 64.

55. *See id.* at 65. This study found that the total effect of employing a standby letter of credit was a 17-basis-point-reduction in the new issue interest cost. *See id.*

56. *See* Hsueh & Kidwell, *supra* note 51, at 46.

57. *See id.* at 47.

58. Moral hazard refers to the risk that sellers may gain some advantage by exaggerating their credit

Information-gathering agencies may acquire and process information for the purpose of certifying asset quality. Three criteria must be satisfied for certification to be credible to outside investors. First, the certifying agent must have reputational capital at stake in the certification activity. In other words, the certifying agent would suffer a loss of future relationships because of reduced trustworthiness if it suggested a fair market value in excess of the offering price. Second, the loss in reputational capital must exceed the gain possible from false certification. Third, the agent's services must be costly and the cost must be related to the asymmetric information associated with the issuing firm.⁵⁹

According to the reputational capital view of credit rating agencies, these three criteria are satisfied.⁶⁰ First, credit rating agencies have reputational capital at stake in issuing ratings. Second, rating agencies would lose more in reputational capital from giving false ratings than they would gain in increased fees. Third, ratings are costly, and, if they contain valuable information, are needed to overcome information asymmetry between issuers and investors.

Of course, certifying agencies may include not only credit rating agencies, but other third-party providers of credit information, including bond analysts and industry periodicals. Third-party information providers not involved in funding bond issues as financial intermediaries are not financially accountable for the quality of information produced, and therefore are more likely to produce accurate information than are, for example, bond analysts employed by underwriters. On the other hand, even independent third-party information providers may face a "multi-period incentive contract," where future revenues depend on the quality of current information.⁶¹ According to this theory, the existence of the information provider depends on the accuracy of the information it provides, and providers attempt to persuade others to accept the information it signals about issuers.

Law journal commentary on credit ratings seems to accept many of the above arguments, which collectively present the credit rating business as competitive and reputation-driven.⁶² According to this view, S&P and Moody's

quality, and that therefore buyers may not receive accurate information about credit from sellers. *See id.*

59. *See Stover, supra* note 53, at 63.

60. I discuss reasons why, according to the regulatory license view, these three criteria may not be satisfied by modern credit rating agencies *infra* at 703.

61. *See Hsueh & Kidwell, supra* note 51, at 47 (discussing implications of this "multi-period incentive contract").

62. Consider the following examples:

In many markets, intermediaries play a certification role *without any regulatory intervention*. Standard and Poor's (S&P) and Moody's, for example, certify the credit risk of company debt.

have remained the dominant credit rating agencies for nearly a century because they have performed well in assessing credit risk, and thus have developed and sustained their reputations for quality. In short, the top rating agencies have acquired and maintained reputational capital. This view depends on the assumption that rating agencies have a comparative advantage in gathering and analyzing information, primarily because of economies of scale.

According to this view, if S&P and Moody's had not continued to generate quality information and their ratings had therefore become less accurate or reliable, they would have suffered a loss in reputation. Over time the agencies would have lost revenue, and perhaps been forced out of the rating industry.

Stephen Choi, *Market Lessons for Gatekeepers*, 92 NW. U. L. REV. 916, 934 (1998) (emphasis added).

The very value of an agency's ratings, like an accountant's opinions, lies in their independent, reliable evaluation of a company's financial data.

Gregory Husisian, *What Standard of Care Should Govern the World's Shortest Editorials?: Analysis of Bond Rating Agency Liability*, 75 CORNELL L. REV. 411, 426 (1990).

Indeed, the only reason that rating agencies are able to charge fees at all is because the public has enough confidence in the integrity of these ratings to find them of value in evaluating the riskiness of investments.

Jonathan R. Macey, *Wall Street Versus Main Street: How Ignorance, Hyperbole, and Fear Lead to Regulation*, 65 U. CHI. L. REV. 1487 (1998) (reviewing my book, *F.I.A.S.C.O.: Blood in the Water on Wall Street*, and concluding "[t]he author does not understand the important role reputation plays on Wall Street.")

Finally, credit rating agencies enhance the capital markets infrastructure by distilling a great deal of information into a single credit rating for a security. That rating reflects the informed judgment of the agency regarding the issuer's ability to meet the terms of the obligation. Such information is frequently critical to potential investors and could not be acquired otherwise, except at substantial cost.

Susan M. Phillips & Alan N. Rechtschaffen, *International Banking Activities: The Role of the Federal Reserve Bank in Domestic Capital Markets*, 21 FORDHAM INT'L L.J. 1754, 1762-63 (1998).

Rating agencies help solve this problem by processing the flow of information and distilling it into a rating useful to the investor at a much lower cost than could potentially be incurred by individual investors. In a world without rating agencies, investors' costs at the margin in conducting research would outweigh the benefits and issuers might have to pay higher interest rates to signal their ability in the market and thus encourage investors to invest in their securities. The production of securities information with rating agencies increases the efficiency of the capital markets because rating agencies have expertise, economies of scale, and can communicate distilled information quickly and effectively in the capital markets.

Amy K. Rhodes, *The Role of the SEC in the Regulation of the Ratings Agencies: Well-Placed Reliance or Free-Market Interference?*, 20 SETON HALL LEGIS. J. 293, 295-96 (1996) (citations omitted).

Information intermediaries, such as securities analysts or credit rating agencies, facilitate such conventions by decoding ambiguous signals.

George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 CAL. L. REV. 1073, 1110 (1995).

For the more general argument that third-party certification agencies prosper based on their ability to sustain a good reputation for signaling value to purchasers, see Ronald J. Gilson, *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*, 94 YALE L.J. 239, 288-93 (1984); see also Reinier H. Kraakman & Ronald J. Gilson, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 613-21 (1984)

Assuming few barriers to entry in the credit rating business,⁶³ new entrants would have displaced any agency suffering a loss of reputational capital. Such market forces would have acted continuously on credit rating agencies, especially given the technological innovation in financial markets in recent decades,⁶⁴ so that the playing field would have shifted constantly if agencies had not out-innovated and out-improved the competition. Therefore, the argument goes, Moody's and S&P must have survived because of the quality of their ratings. Again, according to this view, the top rating agencies have acquired and maintained reputational capital.

In sum, according to the "reputational capital" view, credit ratings do not differ from the numerous other ratings in financial markets, including Morningstar ratings of mutual funds; Institutional Investor ratings of securities analysts, dealers, and banks; individual bank ratings of securities;⁶⁵ and numerous other ratings of securities and funds.⁶⁶ Credit rating agencies exist in a competitive market of information providers and live or die based on their reputational capital. Credit ratings reduce information costs and therefore reduce issuers' cost of capital. In other words, the purpose of rating agencies is viewed as providing information about the amount of credit that can be extended to a party without undue risk. Supporting the investors are mountains of data, supplied primarily by credit rating agencies, that show a statistical correlation between ratings and default.⁶⁷ Public reports often support this historical view, and show

63. Although this assumption may seem reasonable as to the accumulation of research and information, substantial evidence supports the proposition that the value of a credit rating derives from information other than basic, publicly available information such as firm size, asset valuation, average interest coverage, and other debt-related statistical measures. See, e.g., Louis H. Ederington et al., *The Informational Content of Bond Ratings*, 10 J. FIN. RES. 211, 218-25 (1987); see also discussion *infra* at 639. To the extent the agencies gather information from non-obvious or non-public sources, there may be costly barriers to entry. In addition, a government-created oligopoly obviously imposes barriers to entry.

64. Merton Miller, who won the Nobel Prize in Economics in 1990 for his work in corporate finance, has both predicted and explicated the major technological advances in finance. See, e.g., Merton H. Miller, *Financial Innovation: The Last Twenty Years and the Next*, 21 J. FIN. & QUANTITATIVE ANALYSIS 459 (1986) (prediction); MERTON H. MILLER, MERTON MILLER ON DERIVATIVES 1-14 (1997) (explication).

65. For example, stocks are grouped into various categories, including growth and value. Services such as Valueline, and even major financial periodicals and newsletters, rate stocks based on performance. Stock analysts at financial intermediaries issue recommendations of buy, sell, hold, or, euphemistically, "accumulate." These recommendations can have enormous effect on the behavior of buyers even though there is evidence of systematic upward bias in ratings. Managers of stock issuers maintain close relationships with these analysts. See Husisian, *supra* note 62, at 426 n.25.

66. Some banks have developed more sophisticated benchmarks for comparing investments in stocks and mutual funds. See discussion *infra* at 707-08.

67. See, e.g., STANDARD & POOR'S RATINGS PERFORMANCE 1997: STABILITY AND TRANSITION (1998) [hereinafter RATINGS PERFORMANCE].

that investors agree that the agencies' principal function is not to influence investment decisions, but to provide an independent view of the quality of securities.⁶⁸ Ratings are mnemonics for credit quality; simply put, AAA-rated companies don't default.

B. Development of Credit Ratings

The next two sections analyze the development of credit ratings through the lens of the reputational capital view. The precursors to twentieth-century credit rating agencies were mercantile credit agencies, and their history seems to fit the above view of ratings and reputational capital. During the seventeenth and eighteenth centuries, colonial importers customarily extended up to a year of credit to their retail customers, shopkeepers, and general stores.⁶⁹ Payments were often late, and it was difficult for sellers to gather credible information about the reputation of buyers: letters of reference were faked or forged, detailed financial data were not available, and the process was tediously slow.⁷⁰ As markets and trade evolved during the nineteenth century, it became clear that there were economies of scale associated with gathering and disseminating credit information in a systematic, organized way.

One of the victims of the crisis of 1837⁷¹ was Lewis Tappan who operated a substantial silk business with his brother.⁷² Fortunately for the Tappans, they kept detailed credit information about current and prospective customers, which

68. Although many investors perform additional credit analyses, some rely on rating agencies to avoid the expense associated with engaging in independent credit review. See House, *Rating the Raters*, INSTITUTIONAL INV., Oct. 1995, Int'l Edition, at 53.

69. See J. Wilson Newman, *Dun & Bradstreet: For the Promotion and Protection of Trade, in REPUTATION: STUDIES IN THE VOLUNTARY ELICITATION OF GOOD CONDUCT* 85, 86 (Daniel Klein ed., 1997).

70. See *id.* at 86-89.

71. These are reasons why credit ratings might become increasingly popular and valuable following a major financial crisis, such as the crisis of 1837, despite the agencies' failure to anticipate the crisis. In a time of crisis, the value of information about ability or willingness to pay debts increases, as the probability increases that any individual creditor will not be able or willing to pay its debts. The crisis of 1837 fit these expectations:

With the passing of the clouds, merchants throughout the country began to realize that one of the chief contributory causes of the crash and the depression which followed was inherent in the conditions which governed credit granting in this country. . . . Thus the crisis of 1837 brought the merchants face to face with the necessity of clearer and more thorough scrutiny of credit risks. The eagerness with which information was sought by sellers of goods on time finally resulted in the establishment of the mercantile agency.

THEODORE N. BECKMAN, CREDITS AND COLLECTIONS IN THEORY AND PRACTICE 135 (1930).

72. See GILBERT HAROLD, BOND RATINGS AS AN INVESTMENT GUIDE: AN APPRAISAL OF THEIR EFFECTIVENESS 6 (1938); Rhodes, *supra* note 62, at 300.

included many large commercial enterprises.⁷³ When the silk business collapsed, that customer information proved valuable to other merchants, and in 1841, Tappan formed The Mercantile Agency, the first mercantile credit agency.⁷⁴

As Tappan and other mercantile credit raters thrived during the late 1800s, other raters began to copy Tappan's idea, particularly in rating investments in stocks and bonds. By 1890, Poor's Publishing Company (S&P's predecessor) was publishing *Poor's Manual*, an analysis of various types of investments, including bonds.⁷⁵ By the early 1900s, various American firms were classifying bonds, primarily railroad bonds, into groups according to quality, and there was at least one bond rating system in Europe.⁷⁶

John Moody, a Wall Street analyst during the early 1900s, observed the success of mercantile credit ratings and became interested in applying this simple rating methodology to bonds.⁷⁷ In his words, "[s]omebody, sooner or later, will bring out an industrial statistical manual, and when it comes, it will be a gold mine."⁷⁸ By 1907, several analysts had issued reports on the railroad

73. See HAROLD, *supra* note 72, at 7. Tappan also began extensive correspondence with business people and lawyers, who provided opinions and data regarding the standing and reputation of owners of businesses throughout the U.S. See Newman, *supra* note 69, at 89. Some sellers, especially those with poor credit, opposed the formation of rating agencies. See *id.*

74. See, e.g., HAROLD, *supra* note 72, at 7-8; Richard Cantor & Frank Packer, *The Credit Rating Industry*, FEDERAL RESERVE BOARD N.Y. Q. REV., Summer-Fall 1994, at 1. In 1859, Robert Graham Dun became the sole proprietor of the agency, renamed R.G. Dun and Company, that issued the Dun rating book containing about 20,000 names. See HAROLD, *supra* note 72, at 7-8. At the same time, John M. Bradstreet, a Cincinnati lawyer, founded a competing firm in 1849, and in 1857 began publishing the world's first commercial rating book. Newman, *supra* note 69, at 90; see also HAROLD, *supra* note 72, at 8. In 1933, the two companies merged to form Dun and Bradstreet, Inc. See *The Formation of Dun and Bradstreet, Inc.*, DUN & BRADSTREET WKLY. REV., March 4, 1933, at 3. Various other agencies also were formed throughout the 1800s. See Cantor & Packer, *supra*, at 1-2.

75. See, e.g., *In re Bartol*, 38 A. 527 (Pa. 1897) (approving of reference to *Poor's Manual* of 1890).

76. See HAROLD, *supra* note 72, at 11. According to John Moody, founder of the credit rating system:

While no one in this country had attempted such a thing as investment ratings by means of symbols, yet even in those days bonds were classified into groups according to quality and salability, especially by large investment institutions, such as insurance companies. Moreover there had existed for a considerable time, I think, a bond rating system in Vienna and also, I believe, in Berlin. These foreign systems had been developed by symbols and the *Austrian Manual of Statistics*, which carried these symbols, was quite well known in Europe, although not at all in this country.

Id. (quoting from John Moody, in a letter to Harold dated August 21, 1934). For a detailed description of the role of rating agencies outside the U.S., and especially in Europe, see Carsten Thomas Ebenroth & Thomas J. Dillon, Jr., *The International Rating Game: An Analysis of the Liability of Rating Agencies in Europe, England, and the United States*, 24 J. LAW & POL'Y INT'L BUS. 783 (1993).

77. In 1934, Moody wrote, "I cannot claim much credit for creating the idea, and certainly I think the general use of commercial and credit ratings had something to do with bringing the idea of possible bond ratings to my mind." HAROLD, *supra* note 72, at 11.

78. See L. Macdonald Wakeman, *The Real Function of Bond Rating Agencies*, in THE MODERN

industry, with elaborate statistics and detailed operating and financial data.⁷⁹ Moody believed that if he could synthesize the complex data in these reports into a single rating symbol for each bond, he could make his fortune selling such ratings to the public. Other bankers opposed Moody's plan, saying Moody could earn superior returns by using such "inside information" to trade, instead of publicly flaunting it.⁸⁰ Moody ignored these protestations,⁸¹ persevered,⁸² and in 1909 published the first rating scheme for bonds, in a book entitled *Analysis of Railroad Investments*.⁸³ Moody's Investors Service was incorporated in 1914 and created a formal rating department in 1922.⁸⁴ By 1924 Moody's ratings

THEORY OF CORPORATE FINANCE 391, 392 (Michael C. Jensen & Clifford W. Smith, Jr. eds., 1984) (quoting John Moody).

79. Moody relied heavily on reports published in 1906 and 1907 concerning the railroad industry, including "The Earning Power of Railroads" by Floyd Mundy and "American Railways as Investment" by Carl Snyder, each of which contained elaborate statistics on the railroad industry, including detailed operating and financial data. See HAROLD, *supra* note 72, at 11-12.

80. Moody and other bankers seem to have believed that Wall Street analysts could use non-public information concerning the railroad industry to earn superior profits from bond trading. See *id.* at 11-12. When Moody was considering his rating idea, one "old Wall Street buccaneer" advised him:

You young pipe dreamer, why throw away your ten years' experience of learning the rules of the game? Why give the public all the facts regarding the corporations for the price of a book? You will be showing them how to play safe and get rich, while you will make nothing yourself. Anyway, if you begin to flaunt too many facts, there won't be much inside knowledge left to work on; you will be spoiling our game. Use your information yourself; don't be a philanthropist. There's no money in it!"

JOHN MOODY, *THE LONG ROAD HOME* 91 (1933). Moreover, Moody's rationale for marketing bond ratings was that he did not have sufficient capital to benefit from using inside information directly to earn profits from trading. According to Moody, although a person with capital could take advantage of inside information in the short-run, a person without capital (such as Moody) could earn greater long-run returns by selling the information "wholesale in a book." *Id.*

81. Other bankers, who presumably had access to capital and were happy to earn short-run profits from inside information, were opposed to Moody's ratings idea. They protested ratings, and later threatened Moody and his agency; one bank reportedly offered options on stock to Moody's in exchange for a more favorable rating, and it was rumored that one agency had a bank employee on its staff (although agency managers claimed they did not know this). See HAROLD, *supra* note 72, at 16-17. Moody seems to have believed that bankers eventually supported his ratings, although it is not clear when this support was manifested. See <<http://www.moody.com/moody/mdyindex.htm>> (visited Nov. 15, 1999) (quoting John Moody as saying, "[i]n the Spring of 1909 I brought out the first edition of a new type of Railroad Manual which attempted to analyze railroad reports and rate their bond issues. While it raised a storm of opposition, not to mention ridicule from some quarters, it took hold with dealers and investment houses). In contrast, when Moody presented the idea of bond ratings to Thomas F. Woodlock, then editor and co-publisher of the *Wall Street Journal*, Woodlock enthusiastically supported Moody. See HAROLD, *supra* note 72, at 10.

82. Moody's first efforts do not seem to have been successful; he became insolvent in 1907. See *id.* at 11-12.

83. See, e.g., House, *supra* note 41, at 53; McGuire, *supra* note 16, at 2; *Rating the Rating Agencies*, *supra* note 10, at 53; Cantor & Packer, *supra* note 74, at 1-2.

84. "Moody's first ratings were assigned to the bonds of more than 250 railroads." Kenneth Pinkes, *The Function of Ratings in Capital Markets: Rating Scale, Rating Approach and Credit Topics: A Moody's Symposium*, Dec. 5, 1997, at 2 (Special Report from Moody's, transcript of speech in Vienna, Austria on Oct. 23, 1997; copy on file with author). Later, in 1918, Moody's began to rate bonds issued

covered nearly 100 percent of the U.S. bond market.⁸⁵

Within a few years after Moody published his first ratings, three other credit rating organizations entered the market. Poor's Publishing Company was the second rating agency; it began rating stocks and bonds in 1916.⁸⁶ Standard Statistics Company, Inc. followed in 1922.⁸⁷ Fitch Publishing Company began publishing ratings in 1924.⁸⁸

Such early, consecutive, entries into the credit rating market are evidence that there were no substantial barriers to entering the credit rating industry during the 1920s. The cost of accumulating the relevant statistics and data to generate a rating were not prohibitively high. Indeed, any "barriers to exit" should not have been high either, and an agency that did not generate accurate and credible ratings probably would not have expected to survive long.⁸⁹

It appears that, at least during the 1920s, rating agencies functioned in a manner consistent with the reputational capital view described above. For example, investors and analysts often would call or write the rating agencies to point out inaccuracies or to disagree with the agency's rating.⁹⁰ In this way, rating agencies served as an information intermediary. Their ratings became a pricing mechanism for information. Valuable information was incorporated in the rating; worthless or incredible information was not. In general, bond

by U.S. cities and other municipalities. *See id.*

85. *See A Century of Market Leadership* (visited Oct. 31, 1999) <<http://www.moodys.com/moodys/mdyindex.htm>>; Pinkes, *supra* note 84, at 2. Ironically, Dun and Bradstreet—with its roots in the first mercantile credit rating agency—purchased Moody's Investors Service in 1962. *See Cantor & Packer, The Credit Rating Industry, supra* note 74, at 2.

86. *See HAROLD, supra* note 72, at 13.

87. Poor's merged with Standard Statistics in 1941 to form S&P. *See Cantor & Packer, supra* note 74, at 2. S&P was an independent, publicly-owned corporation until 1966, when McGraw-Hill Inc., a major publishing company, acquired all of S&P's common stock. *See id.* Today, S&P can, and does, claim it has assigned ratings to corporate bonds since 1923, and to municipal bonds since 1940. *See DEBT RATINGS CRITERIA, supra* note 38, at 5.

88. *See HAROLD, supra* note 72, at 13. Fitch merged with IBCA, Ltd. in 1997 and is now operating as Fitch IBCA, Inc. *See* <http://www.fitchibca.com/about_us/philosophy/> (visited Nov. 15, 1999).

89. Nevertheless, the only significant new entry into the credit rating market since the 1920s has been Duff and Phelps Credit Rating Co., which began providing bond ratings for a wide range of companies in 1982. Although Duff and Phelps had researched public utility companies since 1932, it did not provide formal ratings until fifty years later. The only other entrant into the U.S. market has been McCarthy, Crisanti, and Maffei, which was founded in 1975, and was acquired by Duff and Phelps in 1991. *See id.* The Fitch-IBCA merger followed IBCA's failed attempt to obtain NRSRO status. Today, Moody's, S&P, Fitch IBCA, and Duff are the four major U.S. credit rating agencies. *See Rhodes, supra* note 62, at 301. There are several Canadian and Japanese raters of credit, and Thomson BankWatch in the United States rates the obligations of financial institutions only; similarly, A.M. Best rates only the ability of U.S. insurance companies to pay claims. *See Cantor & Packer, supra* note 74, at 2. I assess the reasons why barriers to entering these markets might have increased more recently in Part III.

90. *See HAROLD, supra* note 72, at 14.

investors supported and welcomed ratings during this period.

In contrast, bond issuers opposed the ratings, much as they had opposed the earlier commercial credit ratings. Some issuers regarded the role of the credit rating agency as an intrusion into the corporation's business. Nevertheless, such "intrusions," and even the opposition from issuers, also increased the amount and value of information flowing to the rating agencies.⁹¹ Issuers had no choice but to provide the agencies with valuable information, including non-public information.⁹² In turn, the rating agencies published accurate and reliable ratings and thereby increased their stock of reputational capital.

Rating agencies continued to accumulate reputational capital during the 1920s because they were able to gather and synthesize valuable information. During this time, ratings were financed entirely by subscription fees paid by investors,⁹³ and the rating agencies competed to acquire their respective reputations for independence, integrity, and reliability.⁹⁴ In a market with low barriers to entry, a rating agency issued inaccurate ratings at its peril. Every time an agency assigned a rating, that agency's name, integrity, and credibility were subject to inspection and critique by the entire investment community. Reputational considerations would have been especially acute in such an environment.

There is evidence that rating agencies continued to accumulate reputational capital during the 1930s. Rating agencies and ratings became much more important to both investors and issuers during this period. In the years following the stock market crash of 1929, demand for credit ratings increased, as investors became concerned about high bond default rates and credit risk.⁹⁵ By the end of the 1920s, the U.S. bond market included approximately 6,000 bond issues with

91. For example, a corporation receiving a low rating might protest and challenge the rating, saying something like, "[s]end your man around, and we'll show him a few things that will cause him to raise your rating." *Id.* at 16. Such additional information might be of value to the rating agency as well as to investors and therefore might assist the agency in accumulating reputational capital.

92. Just as the rating agencies' direct access to issuers generated opportunities for a rater to acquire non-public information, which would have been of great value to the rater, the rating agency employees' direct access to issuer employees often put agency employees in a position to receive favors, tangible or intangible, from issuers in return for assigning a higher rating than they otherwise would have assigned. There is some evidence of precisely such scenarios: "Some corporations indeed have gone so far as to assure the rating agency that if a given rating were raised the corporation or its sponsors 'could do something' for the rating agency." *Id.* at 58-59. These criticisms survive today. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80 (criticizing agency analysts for becoming too friendly with the companies they rate).

93. See McGuire, *supra* note 15, at 4.

94. See *id.* at 5.

95. See *id.* at 2.

a total face amount of more than \$26 billion; the vast majority of those bond issues were rated by the rating agencies.⁹⁶

Court decisions during this period are consistent with the view that rating agencies had been able to accumulate and retain reputational capital by the 1920s.⁹⁷ A few cases explicitly relied on ratings as evidence of the propriety of bond purchases in assessing whether fiduciaries had satisfied their duties. For example, the court in *In re Bartol*, addressing a challenge of a trustee's purchase of an electric railway bond, referred to *Poor's Manual* of 1890 in holding that "[i]t must be conceded under the evidence, that the trustees used all the care that a person of ordinary care and prudence would use in determining upon an investment of his personal funds."⁹⁸ Likewise, in *In re Detre's Estate*, the court relied on a Moody's rating in finding that a trust properly purchased certain bonds: "In *Moody's Manual* for 1914, these . . . bonds are rated: Security, very high; Salability, good; net rating, A."⁹⁹ And in *In re Winburn's Will*, the court relied on the ratings given by Moody's, holding that "[t]here is a distinction between seasoned securities of this character here involved and investments in speculative securities."¹⁰⁰

The credit ratings systems and scales were well established by 1929. Ratings were divided into categories, based on the credit quality of the rated financial instrument. Generally, a bond rating was intended to indicate the likelihood of default or delayed payment for that bond. As with many ratings, the practice was to assign the letter A or the number 1 to the highest grade, with A1 signifying a high, if not the highest, grade. Relative rankings, in descending

96. *See id.*

97. *See* Wakeman, *supra* note 78, at 393-94. In contrast, recent suits against rating agencies, most of which have been settled, reflect the failure of the credit rating agencies to anticipate defaults or other credit problems. These suits include class action litigation related to the Washington Public Power Supply System default in 1983, and the Executive Life bankruptcy in 1991. *See, e.g.*, Francis A. Bottini, Jr. *An Examination of the Current Status of Rating Agencies and Proposals for Limited Oversight of Such Agencies*, 30 SAN DIEGO L. REV. 579, 584-95 (1993); Cantor & Packer, *supra* note 74, at 4. On June 11, 1996, Orange County, California, filed a complaint in the U.S. Bankruptcy Court for the Central District of California, alleging breach of contract, professional negligence, and aiding and abetting breach of fiduciary duty by S&P. *County of Orange v. McGraw-Hill Cos.*, No. SA 94-22272 JR (June 11, 1996). On March 17, 1997, the district court upheld in part the bankruptcy court's denial of the motion to dismiss. *See* District Court Case No. SACV 96-0765-GLT (filed Mar. 18, 1997). McGraw-Hill settled the case in June 1999 by agreeing to pay Orange County \$140,000, a fraction of the \$860.7 million paid by other defendants in related litigation brought by the county. *See Orange County Litigation Ends with Settlement of McGraw Hill Suit*, PROF. LIABILITY LITIG. REP., Aug. 1999, at 11.

98. 38 A. 527 (Pa. 1897).

99. 117 A. 54 (Pa. 1922).

100. 249 N.Y. Supp. 758, 762 (1931).

order, would be *B* or 2, then *C* or 3, and so on.¹⁰¹

The agencies' scales were similar, with each agency employing both ordinal (*e.g.*, A,B,C) and cardinal (*e.g.*, Aaa, Aa, A) ratings. Each agency used three subcategories for each broad rating category (*e.g.*, three levels of "As," three levels of "Bs"). By 1930, it was possible to match each agency's rating symbols one-for-one with each of the other agency's symbols.¹⁰²

Moreover, although the agencies did not agree on every rating, ratings were loosely correlated and there was a certain amount of rating "inflation" evident in each of the agency's scales. For example, the vast majority of ratings were in the A category. Very few bonds were rated C or lower.¹⁰³

Following the stock market crash of 1929, numerous ratings were lowered,

101. The following table summarizes the various ratings as of 1929:

Symbols of the Principal Rating Agencies				
<u>Fitch</u>	<u>Moody</u>	<u>Poor</u>	<u>Standard</u>	Majority <u>Interpretation</u>
AAA	Aaa	A**	A1+	Highest
AA	Aa	A*	A1	High
A	A	A	A	Sound
BBB	Baa	B**	B1+	Good
BB	Ba	B*	B1	Fair
B	B	B	B	Somewhat speculative
CCC	Caa	C**	C1+	Speculative
CC	Ca	C*	C1	Highly speculative
C	C	C	C	Extremely speculative
DDD		D**	D1+	Low or weak
DD		D*	D1	Small or very weak
D		D	D	Practically valueless

See HAROLD, *supra* note 72, at 75.

102. The single exception to this one-for-one matching was Moody's, which did not use the D category of ratings.

103. A representative sample chosen for one study was as follows:

Distribution of Issues by Ratings, July 15, 1929				
<u>Rating</u>	<u>Fitch</u>	<u>Moody</u>	<u>Poor</u>	<u>Standard</u>
A+	147	97	68	78
A	64	63	89	93
A-	80	99	110	104
B+	40	59	61	40
B	17	25	22	26
B-	4	2	7	16
C+	3			4
C				
C-				
D+				1
Unrated	8	18	6	1

See Harold, *supra* note 72, at 90.

as the rating agencies, along with most individuals and institutions, failed to anticipate the rapid decline in the prices of hundreds of bond issues.

For example, the Chicago, Rock Island & Pacific 4s-1988, was rated Aaa, or the equivalent highest rating, by all four agencies in 1929, was only rated Aa, or the equivalent rating, for another five years thereafter, and by 1934 was in default.¹⁰⁴

Notwithstanding the large number of ratings changes (mostly downgrades) in the early 1930s and the considerable lag between the time market prices incorporated negative information about bonds and the time credit ratings incorporated such information, ratings continued to be a respected and important institution in the bond market.¹⁰⁵ The preface to Moody's 1931 Manual of Industrials stated that "[t]he fundamental thought back of the system of rating investment securities . . . has been to furnish an *authoritative* key to the relative security and stability, from an investment standpoint, of all types of bonds and stocks."¹⁰⁶ Moody's and other agencies apparently were able to retain this "authority" during the 1930s, despite the obvious decline in the accuracy of their ratings.

Although credit rating agencies continued to employ the so-called "best and brightest" during the 1930s, there is reason to doubt the agencies' ability to generate valuable information during this period.¹⁰⁷ Although rating agencies claimed their information was from "unique sources," much of it obviously was from publicly available investment news.¹⁰⁸ Moreover, most bond issues during the 1930s were not rated until after they were distributed, a sign that credit ratings were viewed as valuable only in the secondary market, not in the primary market for new issues, where the agencies' information arguably should have been of much greater value.¹⁰⁹

104. *See id.* at 46.

105. Harold provides interesting anecdotal evidence of the popularity of credit ratings during this period, as of 1934: "Hardly a bond is purchased anywhere in the United States but that the purchaser asks, 'How is it rated?'" *id.* at v; "Nearly every commercial bank, investment bank, insurance company, investment trust, and investing trustee from the Atlantic to the Pacific, from Canada to Mexico, consults them." *id.* at 3; "It is difficult, in fact almost impossible, to discover a bank that does not use bond ratings." *id.* at 20; "One banker, nicknamed 'Triple-A James' because of his insistence on buying only AAA bonds, is typical of thousands in the banking profession." *id.* at 20; "practically all" brokerage offices displayed one or more of the ratings manuals in their reading rooms and lobbies, *id.* at 21.

106. *Id.* at 48 (quoting from MOODY'S, MANUAL OF INDUSTRIALS vii (1931) (emphasis added)).

107. The agencies remained relatively small during this period, especially compared to banks and other financial institutions, and to the companies the agencies rated. Claims that agency employees possessed specialized expertise not available to other bond analysts are dubious. One example: "There is some evidence that those individuals who are engaged in the rating process are above 'normal' in intelligence. Many are college men." *Id.* at 57.

108. *See id.* at 58.

109. *See* HAROLD, *supra* note 72 at 21.

Institutions relied on credit ratings to varying degrees during this period. Large New York banks used the ratings merely as a check on their own findings, but smaller “country” banks continued to depend on ratings almost exclusively as an authoritative guide in placing values on the credit risk component of securities they owned or were considering purchasing.¹¹⁰ Large insurance companies placed less weight on ratings and relied more on their own analysts, who they believed based their opinions on more recent, higher-quality information. At large industrial companies, ratings were at least consulted, primarily because they were regarded as having some “recognized publicity value.”¹¹¹

Certain institutions regarded credit ratings as so important and accurate that they relied on ratings in formulating internal guidelines. Trust companies, in particular, placed great reliance on ratings, and some trustees were restricted by the terms of their fund to investments in securities of a stipulated rating or higher.¹¹² Some trusts limited the range of permissible investments, based on assigned credit ratings.¹¹³

One important development paralleled the increase in importance of rating agencies during the 1930s. Both academic studies and anecdotal

110. See *id.* at 20 (citing Letter from J.S. Love, Superintendent of Banking, *State of Mississippi* (Aug. 21, 1934)).

111. *Id.* at 22.

112. For a detailed description of how regulation has incorporated credit ratings, see Grafton, *supra* note 10, at 22. One example from 1934: Dillman A. Rash, of the bond department of The Louisville Trust Company, stated that as to a particular security, “[t]he AAA rating accorded (a certain security) . . . was the only way we were able to ‘sell’ it to our Trust Investment Committee.” HAROLD, *supra* note 72, at 23 (quoting Letter from Dillman A. Rash, Bond Department, *The Louisville Trust Company* (Aug. 31, 1934)).

113. For example, a 1920s agreement and declaration of trust between the United States Shares Corporation and the Chase National Bank of the City of New York specified, among other things, that:

The following conditions shall govern all reinvestments: . . .

(2) No stock shall be acquired for substitution if it is then rated lower than B in “Moody’s Manual of Investments and Security Rating Service.”

(3) Not more than ten (10%) per cent of the total investment in a unit shall by reason of such substitution be at the date thereof in stock rated lower than Ba in said *Moody’s Manual*.

(4) Not more than fifty (50%) per cent of the total investment in a unit shall by reason of such substitution be at the date thereof in stock rated lower than Baa in said *Moody’s Manual*.

(5) Not less than twenty (20%) per cent of the total investment in a unit shall by reason of such substitution be at the date thereof in stock rated A or higher in said *Moody’s Manual*.

If publication of said *Moody’s Manual* shall be discontinued, its successor, or if none, a similar reference and rating service of at least equal standing shall be used in ascertaining the ratings hereinbefore mentioned.

HAROLD, *supra* note 72, at 24 (citing LELAND REX ROBINSON, INVESTMENT TRUST ORGANIZATION AND MANAGEMENT 557-58 (New York, 1929)).

evidence indicate that changes in ratings appeared to have a non-trivial effect on the changes in the price of the rated issue.¹¹⁴ For example, Gilbert Harold studied prices of a group of 363 bonds from mid-July 1929 to mid-July 1931 to determine whether, during this period of extreme financial dislocation, the actions of the rating agencies had an effect on the market.¹¹⁵ Harold observed market action¹¹⁶ both preceding and following changes in ratings.¹¹⁷ In a separate study, Harold found that “there is a very definite tendency for the market value of specifically recommended bonds to rise within ten days after publication of the ‘buy’ advice, and, conversely, . . . there is a definite tendency for the market value of ‘sell’ bonds to decline within the same immediate period.”¹¹⁸

Anecdotal evidence from the period supports Harold’s findings. According to *The Wall Street Journal*, “[w]hen an issue appreciates substantially, and nears par, as some railroad obligations have in recent months in reflection of improved earning power, a higher rating is given at a time when such earnings may have been well discounted.”¹¹⁹ Another expert, writing in 1936, agreed that “[s]ince conditions are constantly changing, individual issues within a group will be improving, or the reverse. In time, this change will be reflected in ratings . . . but *after* the change has taken place.”¹²⁰

Reliance on the rating system during the 1930s was sufficiently widespread that higher-rated bonds enjoyed a more liquid market. Dealers purchased blocks of bonds when they anticipated an agency would be raising an issuer’s rating, because the bonds would then trade at higher prices.¹²¹

114. According to one study in the early 1930s, “market prices are frequently affected by changes in rating.” See Gustav Osterhus, *Flaw-Tester for Bond Lists*, AM. BANKERS ASSN. J., Aug. 1931, at 67.

115. Harold used Fitch ratings, which were the easiest data to obtain at the time. In addition to Harold’s 363-bond statistical study, he conducted personal interviews of all the major rating agency executives, dozens of state banking commissioners, officials from the major national and Federal Reserve regional banks, insurance company executives, and many other experts, including James M. Landis, then Chairman of the Securities and Exchange Commission. See HAROLD, *supra* note 72, at 261-65.

116. By market action, I mean an increase in value for a raised rating, or a decrease in value for a lowered rating.

117. See *id.* at 185.

118. Gilbert Harold, *Accuracy in Reading the Investment Spectrum*, AM. BANKERS ASSN. J., July 1934, at 32.

119. *Bankers Oppose Eligibility Rule for Investments*, WALL ST. J., Mar. 13, 1936, at 1.

120. HAROLD, *supra* note 72, at 186 (quoting George D. Bushnell, *Investments Join Loans*, RAND MCNALLY BANKERS MONTHLY, June 1936, at 368) (emphasis in original).

121. See *id.* at 191 (quoting Letter from *James H. Oliphant & Co.* to Gilbert Harold (Feb. 27, 1936)).

uring the 1930s, a few rating agency executives confessed to a belief that bond rating changes caused bond price changes, not the reverse, although there is not substantial evidence that investors could profit from a strategy of buying bonds immediately after a rating upgrade, or selling after a downgrade.¹²² Rating agency executives do not seem to have attempted to take advantage of this phenomenon, either.¹²³

The above evidence about the relationship between bond ratings and the bond market in the 1930s may be consistent with the reputational capital view. The fact that rating changes influenced market prices is consistent with the view that rating agencies reduced both investors' cost of information and issuers' cost of capital.¹²⁴ To the extent prices change *after* a rating agency announces a rating change, such a price change may be due to additional information the agency is imparting to the market; however, such evidence is necessary, but not sufficient, to establish that rating agencies are generating valuable information and therefore accumulating reputational capital. On the other hand, to the extent prices change *before* a rating agency announces a rating change, the later rating agency announcement cannot have caused the price change; such evidence would show rating agencies are merely parroting publicly-available information, and therefore are not accumulating reputational capital.¹²⁵

As quickly as credit rating agencies were able to accumulate reputational capital during their meteoric rise of the early 1930s, they just as quickly squandered such capital during the following years. As a result, credit rating agencies did not remain important or influential for long. Following their heyday in the 1920s and 1930s, the agencies experienced austerity and contraction during the 1940s and 1950s.¹²⁶ During this period, bond prices were not volatile, the economy was healthy, and few corporations defaulted. As a consequence, both the demand for and the supply of relevant credit information dwindled. The rating agencies were struggling when John Moody died in 1958.¹²⁷ According to the reputational capital view, the decline of the rating agencies would have been a response to their inability to generate accurate and valuable information after the early 1930s.

122. *See id.*

123. *See id.* at 191-92.

124. *See Rhodes, supra* note 62, at 294-95.

125. *See discussion infra* at 657-60.

126. *See, e.g., RATINGS PERFORMANCE, supra* note 67 (1998).

127. *See House, supra* note 68, at 245.

During the Vietnam War, bond price volatility increased somewhat, as did issuance of commercial paper, and borrowers faced a severe credit contraction.¹²⁸ Demand for credit information increased during this period, but the agencies remained relatively small and not obviously important as a source of information to issuers or investors. At the time, the rating agencies employed only a few analysts each and generated revenues primarily from the sale of published research reports.¹²⁹ The market did not place great value on those research reports, presumably, according to the reputational capital view, because rating agencies had lost a large portion of their reputational capital. Moreover, as the commercial paper market expanded rapidly during the 1960s, investors were not very precise in assessing credit quality.¹³⁰ In the fallout of the 1970 Penn Central default on \$82 million of commercial paper, investors began demanding more sophisticated levels of research.¹³¹ The rating agencies, still relatively small and without substantial reputational capital, were not in a position to satisfy this demand.

One study of 207 corporate bond rating changes from 1950 to 1972 found that rating agencies' changes generated information of little or no value; instead, such changes merely reflected information already incorporated into stock market prices of the companies whose ratings were changed approximately *one-and-one-half* years previously.¹³² In other words, the lag between the change in stock market price due to new information and the corresponding change in bond rating was more than a year.¹³³ Concern about the failure of the rating agencies to generate accurate and reliable information, especially during a time of crisis, led to public arguments for regulation of the credit rating industry.¹³⁴

128. *See id.*

129. *See id.*

130. *See* Cantor & Packer, *supra* note 74, at 4.

131. *See* House, *supra* note 68, at 245.

132. *See* George E. Pinches & J. Clay Singleton, *The Adjustment of Stock Prices to Bond Rating Changes*, 33 J. FIN. 29, 39 (1978). There were numerous studies of the effects of credit rating changes on market prices in the *Journal of Finance* during this period, in part because the performance of the rating agencies had been so abysmal. *See, e.g.*, George E. Piches & Kent A. Mingo, *A Multivariate Analysis of Industrial Bond Ratings*, 28 J. FIN. 1 (1973); Frank K. Reilly & Michael D. Joehnk, *The Association Between Market-Dominated Risk Measures for Bonds and Bond Ratings*, 31 J. FIN. 1387 (1976).

133. Not surprisingly, investors could not profit by acting upon the announcement of a change in ratings, because the market already had discounted such information. *See* Pinches & Singleton, *supra* note 132, at 38.

134. *See, e.g.*, Wakeman, *supra* note 78, at 392 (setting forth arguments made three years earlier in L. Macdonald Wakeman, *The Real Function of Bond Rating Agencies*, 1 CHASE FIN. Q. 19 (1981)).

One commentator, L. Macdonald Wakeman, found that although the rating agencies had acquired excellent reputations since the early 1900s for “accurately evaluating and reporting the risks of new bond issues,” by the 1970s, bond ratings did not actively determine, but instead simply mirrored, the market’s assessment of a bond’s risk.¹³⁵ Wakeman’s study also found that by the 1970s bond ratings generated little information not already reflected in the market price of the bonds.¹³⁶

C. The Modern Credit Rating Agency

From the mid-1970s to today, credit rating agencies have exploded in size. The modern credit rating agency¹³⁷ is more influential and more profitable than at any time this century, despite the fact that the rating system hasn’t changed in any substantial way since the 1930s.¹³⁸ The rating scales also are similar to those used during the 1930s.¹³⁹

135. *See id.* at 393 (“Hence, a rating change does not *affect*, but merely *reflects*, but market’s altered estimation of a bond’s value.”) (italics in original). Wakeman explained the paradox of the importance of rating agencies based on the agencies’ ability to attest to the quality of an issue and monitor a bond’s risk so that management did not engage in behavior to benefit shareholders at the bondholders’ expense. *See id.* However, this agency cost rationale does not explain why bondholders could not write covenants to protect themselves, or why investors or other groups could not also provide such a monitoring function, or why, if the agencies’ true purpose was monitoring management to protect bondholders, this purpose was not highlighted by the agencies or by investors or even by management as an important or relevant role.

136. For example, Wakeman found no special effect on prices, even when bonds were upgraded to or downgraded below the “investment-grade” level (Moody’s Baa or S&P’s BBB). *See id.* Wakeman also discovered that a much larger number of Moody’s rating changes occurred in May and June, shortly after most corporate annual reports were published, a discovery that belied the agency’s claims that rating changes were based on something other than publicly available information. *See id.*

137. By “modern credit rating agency” I mean to include the four major credit rating agencies: S&P, Moody’s, Duff and Phelps, and Fitch IBCA. Of these, S&P and Moody’s are by far the largest and share the vast majority of the market. S&P and Moody’s are now wholly-owned subsidiaries of much-larger information and publication corporation parents: Moody’s is a subsidiary of Dun & Bradstreet Corp; S&P is a subsidiary of McGraw-Hill Co. *See House, supra* note 41, at 245. Ironically, their status as subsidiaries means not only that S&P and Moody’s are not required to disclose detailed information about earnings, revenues, and costs, but also that they do not require credit ratings. *See Credit-Rating Agencies: Beyond the Second Opinion, supra* note 10, at 80.

138. S&P’s policies, which are representative, state as follows:

In determining a rating, both quantitative and qualitative analyses are employed. The judgment is qualitative in nature and the role of the quantitative analysis is to help make the best possible overall qualitative judgment because, ultimately, a rating is an opinion. . . . An S&P rating is not a recommendation to purchase, sell or hold a security inasmuch as it does not comment as to market price, market supply or investor preference and suitability.

DEBT RATINGS CRITERIA, *supra* note 38, at iii.

139. Today’s agency rating systems closely correspond both to each other and to the rating scales of the 1930s. The agencies have added plus and minus symbols to their ratings, to distinguish more finely among issues, but the general framework for long-term senior debt ratings has changed very little during

The number of credit rating agency employees has multiplied more than ten-fold during the past decade. In 1980, there were thirty professionals working in the S&P Industrials group; by 1986, there were only forty.¹⁴⁰ By 1995, S&P had 800 analysts and a total staff of 1,200; Moody's has expanded at a similar rate and in 1995 employed 560 analysts and a total staff of 1,700.¹⁴¹

the past 60 years. The following table of ratings is quite similar to the table of ratings from 1930. *See supra* notes 101-02 and accompanying text.

Table 1

<u>Moody's</u>	<u>S&P/Others</u>	<u>Meaning</u>	
Aaa	AAA	Highest quality	
Aa1	AA+	High quality	
Aa2	AA		
Aa3	AA-		
A1	A+	Strong payment capacity	
A2	A		
A3	A-		
Baa1	BBB+	Adequate payment capacity	
Baa2	BBB		
Baa3	BBB-		
INVESTMENT GRADE			
Ba1	BB+	Likely to repay; ongoing uncertainty	SPECULATIVE GRADE, NON-INVESTMENT GRADE
Ba2	BB		
Ba3	BB-		
B1	B+	High risk obligations	
B2	B		
B3	B-		
	CCC+	Vulnerable to default, or in default	
Caa	CCC		
	CCC-		
Ca	C	In bankruptcy, or default	
Moody's has no D rating	D		

Short-term debt, including commercial paper, is rated according to a different scale. *See* discussion *infra* at 698-700.

140. *See* DEBT RATINGS CRITERIA, *supra* note 38, at v. In 1986, those 40 professionals monitored and rated the debt of approximately 1,250 U.S.-based entities, an average of more than 30 companies per professional. *See id.* at 5.

141. *See* House, *supra* note 41, at 245.

The number of rated issuers has increased by the same order of magnitude. In 1975, 600 new bond issues were rated, increasing the number of outstanding rated corporate bonds to 5,500.¹⁴² Today, Moody's rates 20,000 public and private issuers in the U.S., and about 1,200 non-U.S. issuers, both corporations and sovereign states; S&P rates slightly fewer in each category.¹⁴³ Moody's rates \$5 trillion worth of securities; S&P rates \$2 trillion.¹⁴⁴ Moody's and S&P thus dominate the world business of rating government and corporate debt.¹⁴⁵

In the mid-1980s, credit rating agencies limited their coverage to predominantly U.S. corporations and the debt of fifteen sovereign states.¹⁴⁶ As of 1981, for example, S&P rated only thirteen countries, all AAA, and by 1993, S&P rated the debt of forty-three countries, including many so-called emerging markets countries, which received low ratings.¹⁴⁷ By 1995, half of the fifty-two countries rated by Moody's and S&P were in the emerging markets category.¹⁴⁸

Although there is substantial consensus among credit rating agencies as to the credit quality of top-investment-grade-issues, the agencies agree about less than one-third of sub-investment-grade issues.¹⁴⁹ Credit ratings are not as important or influential for lower-quality issues and investors in such issues rely

142. See Pinches & Singleton, *supra* note 132, at 31.

143. See House, *supra* note 41, at 245-46.

144. See *id.* at 246.

145. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80. A 1994 survey of Chief Financial Officers indicated that issuers preferred S&P to Moody's by more than two to one, and noted that Moody's was the slowest agency to upgrade issues and the fastest to downgrade. See *Rating the Rating Agencies*, INSTITUTIONAL INV., April 1995, at 32. By contrast, in Europe, credit ratings are not yet universal, as they are in the U.S., and the world's leading credit raters are headquartered in the U.S. See Ebenroth & Dillon, Jr., *supra* note 77, at 817. In the U.S., Moody's and S&P face competition from Fitch IBCA and Duff & Phelps. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80.

146. See House, *supra* note 68, at 53. In the past, countries did not seek a rating unless they were sure it would be AAA. See *Sovereign Debt: The Ratings Game*, *supra* note 10, at 88.

147. See *Sovereign Debt: The Ratings Game*, *supra* note 10, at 88.

148. See House, *supra* note 41, at 248. Investors seem willing to accept lower credit quality in return for higher yields, even though there have been 33 sovereign defaults since 1970. See *id.* Rating agency rules provide that the sovereign credit rating sets the upper rating limit (known as the sovereign ceiling) for all debt issuance in a country and thus is an essential precondition for opening up a country's capital markets. See *id.* Neither Moody's nor S&P typically gives a corporate issuer a higher credit rating than the country in which it is incorporated, the rationale being that the government could order the company to default. See *Sovereign Debt: The Ratings Game*, *supra* note 10, at 88.

149. See House, *supra* note 41, at 248. Moody's and S&P treat countries differently, too. Moody's tends to favor Asia over Latin America. For example, in 1993, Moody's rated China an A rating while S&P gave China a high BBB rating; Moody's rated the Philippines higher than Argentina while S&P rated the two countries the same; and S&P rated Mexico higher than Moody's did. See *Sovereign Debt: The Ratings Game*, *supra* note 10, at 88. Despite these differences, S&P and Moody's share 90 percent of the sovereign ratings market. See *id.*

on other sources of information in making their investment decisions.¹⁵⁰

The recent dominance and growth of a small number of rating agencies is not necessarily consistent with the reputational capital view. At minimum, it would have been a daunting task for Moody's and S&P to maintain both market share and high margins during a period of intense competition. Rating agency analysts have faced competition from other analysts at sophisticated financial services firms. Each rating agency analyst is responsible for tracking the credit quality of up to thirty-five companies, but is paid significantly less than equity analysts on Wall Street.¹⁵¹ Yet the agencies have acquired considerable market power during a time when they have not generated much additional valuable information.¹⁵² For the reputational capital view to make sense, Moody's and S&P must have continued to generate accurate and valuable information about tens of thousands of companies, outperforming rivals in a highly competitive market, throughout this period. Moody's and S&P must have increased their respective stocks of reputational capital very rapidly during the past decade when their respective businesses have been booming.

Moreover, the process agencies use today to generate ratings does not provide any obvious advantages over those used by competing information providers and analysts. If agency processes are not unique, one would expect the agencies to do their best to protect these processes from public view. In fact, both Moody's and S&P make rating determinations in secret. The agencies never describe their terms or analysis precisely or say, for example, that a particular rating has a particular probability of default, and they stress that the ratings are qualitative and judgmental.¹⁵³ This secretive, qualitative process is not the type of process one would expect if the agencies had survived based on their ability to withstand investor scrutiny and accumulate reputational capital. On the other hand, one might expect such processes in a non-competitive market; if the rating process had been public or quantitative (rather than qualitative), other market entrants easily could have duplicated the rating agencies' technology and methodology.

150. See House, *supra* note 41, at 248.

151. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80. Curiously, analysts at rating agencies are judged not only based on predictions of performance, but also based on predictions of how other rating agencies will change their ratings. See, e.g., *Five Stars at the Rating Agencies*, INSTITUTIONAL INV., Aug. 1993, at 80, 80-81.

152. Moody's and S&P insist they have not acquired market power, and at least one legal commentator seems to believe them. See Rhodes, *supra* note 62, at 295-96 (praising rating agencies for their role in generating information in a competitive marketplace).

153. See House, *supra* note 41, at 245.

Consider, for example, S&P's procedures.¹⁵⁴ When the agency is asked to rate a new bond, representatives of the issuer meet with the agency's analysts and disclose facts they believe are relevant to the rating. After three weeks, the analyst submits a report to a rating committee of up to ten professionals. The committee meets in secret, and then votes.¹⁵⁵ If the lead analyst's recommendation is overruled and he or she protests, the matter can be referred to an internal appeals court. The issuer can appeal if it is not satisfied with the rating.¹⁵⁶ It is difficult to imagine how such a lengthy process could generate timely, valuable information.¹⁵⁷

In addition, both S&P and Moody's have high levels of staff turnover.¹⁵⁸ Both agencies have modest salary levels and limited upward mobility.¹⁵⁹ It is questionable whether any agency could have sustained a dominant reputation for sixty years, given such a process and organizational structure.¹⁶⁰

Perhaps the most important change in the credit rating agencies' approach since the mid-1970s has been their means of generating revenue. Today, issuers, not investors, pay fees to the rating agencies. Ninety-five percent of the agencies' annual revenue is from issuer fees, typically two to three basis points¹⁶¹ of a bond's face amount.¹⁶² Moody's and S&P have aggressively

154. Moody's evaluation process is similar, and the two agencies reach the exact same results in two-thirds of all cases. See House, *Rating the Raters*, *supra* note 68, at 53. For example, in 1990, the two agencies assigned the same rating in 64 percent of approximately 1,400 cases. See *id.* Moody's and S&P differ in one important respect. Although S&P commits not to publish a rating the issuer doesn't want, Moody's alone insists on its right to issue even unsolicited ratings. Moody's claims such ratings contribute to the agency's credibility with investors. Competing agencies disagree: Fitch Investors Service has stated that Moody's uses the threat of an unsolicited rating to scare reluctant customers into requesting a rating, and a managing director from Duff & Phelps Credit Rating Co. has stated that "[u]nsolicited ratings are tantamount to blackmail." See House, *supra* note 41, at 245.

155. See House, *supra* note 68.

156. The issuer typically learns of the rating before it is issued publicly. Only five percent of issuers appeal their ratings and about 25 percent of issuers who appeal are successful, according to S&P. See House, *supra* note 41, at 246.

157. It is possible, of course, that the agencies obtain *non*-public information. See discussion *supra* at 640.

158. See House, *supra* note 41, at 245.

159. Investment banks successfully recruit top rating agency employees. See *id.*

160. Moreover, in the late 1980s, Moody's and S&P considered supplementing ratings with "event risk" numbers in response to the concern that the sudden impact of a buyout or takeover could turn a AAA bond into a non-investment grade bond overnight. Such considerations raise questions about how accurate even S&P and Moody's believe their own ratings are. See *Close Your Eyes and Say AAA*, FORBES, Jan. 9, 1989, at 16.

161. A "basis point" equals one one-hundredth of a percent (*i.e.*, 0.01%). Rating agencies began imposing charges of up to \$15,000 on each new issue they rated, beginning in the 1970s. See House, *supra* note 68, at 53. In 1989, S&P charged 2.5 basis points per issue for a long-term rating; Moody's charged \$10,000 to \$25,000, depending on the issue's size. See Wendy Cooper, *Europe Wrestles with the Triple-A Question*, INSTITUTIONAL INV., Aug. 1989, at 51. More recently, fees of \$90,000 are common

expanded and now receive most of their revenue from the corporations they rate.¹⁶³ Duff & Phelps¹⁶⁴ and Fitch IBCA¹⁶⁵ also charge fees to issuers.

Although investors are not paying directly for rating agencies to rate the securities they buy, issuers who pay for ratings pass on the costs of those ratings to investors by paying a lower return on debt issues. One reason the payment to rating agencies may have shifted from investors to issuers is that the information rating agencies generate has the characteristics of a public good. For example, an agency publishing a rating to one or more individuals, for a fee, will find it difficult to exclude other non-paying individuals from access to that rating. Consequently, the agency should be able to collect higher fees. The agency also can solve the free-rider problem associated with the provision of a public good by having the issuer pay for the rating on behalf of all investors in the issue.

Economically rational issuers will not pay more for a rating than the expected benefit of the rating. Therefore, the issuer must expect that the rating—and the informational content associated with the rating—will lower the issuer's cost of capital by at least the cost of the rating. Put another way, issuers must expect that they are able to save at least two to three basis points on an issue by having an agency rate it. Issuers also may consider the expected costs of receiving a negative unsolicited rating.

It is doubtful that issuers (and therefore investors) receive two to three basis points worth of informational value from a rating. For an issue of modest size, say \$100 million, the new information from the rating would have to be worth at least \$20,000. For the multi-trillion dollars of issues rated in aggregate, the information generated by the agencies—if it is in fact *information* that issuers (and therefore investors) are paying for—would have to be worth approximately one *billion* dollars.

for complex deals. See House, *supra* note 68, at 53.

162. See, e.g., House, *supra* note 68, at 53; McGuire, *supra* note 15, at 10 ("Rating agencies are normal profit making institutions which pay people bonuses on the basis of earnings performance. The great bulk of those earnings comes from issuer fees.").

163. See House, *supra* note 41, at 245.

164. Duff & Phelps, a Chicago financial advisory company, is even more aggressive than rivals S&P and Moody's; in 1991, it switched from paying salespeople a salary to paying straight commission and has shown a willingness to rate unusual or new products. See Matthew Schiffrin, *Hidden Asset*, FORBES, Mar. 29, 1993, at 114.

165. In the late 1980s, Fitch Investors Service, a tiny 47-employee rating firm, was on the brink of bankruptcy. Russell Fraser then purchased the firm for \$11 million, including \$1 million of his own money. Fitch became more aggressive and doubled the fees the firm charges. By 1992, rating fees paid by issuers accounted for 95 percent of Fitch's revenue. See Toddi Gutner, *Ratings Shootout*, FORBES, Feb. 17, 1992, at 89.

How could credit rating agencies generate information of such enormous value in a competitive market, given their limited resources? Credit rating agencies do not independently verify information supplied to them by issuers.¹⁶⁶ All rating agencies get the same data.¹⁶⁷ The rating agencies claim it is how they interpret such information that draws distinctions among them in how they rate debt.¹⁶⁸ These claims are dubious, given the above arguments.

Despite the fact that there are no obvious interpretive techniques unique to rating agencies, it is undeniably true that rating agency profit margins are high. Although the two largest agencies are subsidiaries of public companies and therefore do not publish separate operating results, McGraw Hill's financial services division has had an operating margin of twenty-nine percent, and Moody's numbers are thought to be similar.¹⁶⁹ Such margins should not have been sustainable over time in a competitive market.

The above discussion demonstrates two points inconsistent with the reputational capital view. First, the view of credit rating agencies as prospering based on their ability to accumulate and retain reputational capital does not explain all of the dramatic changes in the value of ratings over time; it is not plausible that four rating agencies have risen (or fallen) together in lock-step based on their collective ability (or inability) to generate valuable credit information. Second, during two critical periods—the 1930s and the mid-1970s through 1990s—credit ratings increased in importance, each instance paradoxically followed by a series of bond defaults demonstrating the rating agencies' serious mistakes in rating bonds. The next Part explores the empirical and analytical support for these points.

III. PROBLEMS WITH THE REPUTATIONAL CAPITAL VIEW

During the discussion in Part II, I introduced a few of the conceptual and theoretical difficulties associated with the reputational capital view of credit ratings. In this Part, I describe in greater detail how certain types of recent

166. See Rhodes, *supra* note 62, at 317.

167. See, e.g., James R. Kraus, *Making the Grade Its Own Way*, AM. BANKER, May 17, 1994, at 7. S&P and Moody's insist that their credit ratings are not swayed by the judgments of others. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10.

168. See Kraus, *supra* note 167, at 7.

169. See Rhodes, *supra* note 62, at 317. For the first nine months of 1999, the McGraw-Hill Companies, Inc. reported \$945 million in revenue and \$282 million in operating profit for "Financial Services" (i.e., S&P), an operating margin of almost thirty percent. See the McGraw-Hill Companies, Inc., Form 10-Q, Nov. 13, 1999 (available in <<http://quicken.elogic.com/>>, using ticker symbol MHP (visited Nov. 15, 1999).

market participant behavior are inconsistent with the reputational capital view.

In particular, I analyze three problems: (1) inaccuracies in credit spread estimation, (2) increases in ratings-driven transactions, and (3) the growth of credit derivatives. These three developments present problems for the reputational capital view because they are not consistent with the notion that credit rating agencies have survived based on their ability to accumulate and retain reputational capital. Instead, each development highlights serious flaws in the rating process and raises questions about the informational content of ratings: inaccuracies in credit spread estimation show that credit ratings do not accurately capture credit risk over time; increases in ratings-driven transactions show that market participants are engaging in transactions to obtain more favorable ratings based on factors other than improved credit quality; and the growth of credit derivatives shows how financial market innovation has generated regulatory arbitrage¹⁷⁰ opportunities which both undercut and exploit credit ratings.

These problems reveal some of the shortcomings of the reputational capital view. They also will serve as background and support for a new theory of the role of credit rating agencies in modern financial markets.

A. Credit Spread Estimation

There are serious problems associated with the estimation of credit spreads.¹⁷¹ Credit risk typically is described using the credit spread: the difference between the yield¹⁷² on a particular bond and the yield on a risk-free bond with comparable cash-flow characteristics and maturity. Thus, the credit spread is a reflection of the market's estimation of the risks associated with a particular bond compared to its risk-free counterpart. Credit risks must be distinguished from market risks. Although most market risks can be hedged with offsetting financial contracts, many credit risks simply cannot be hedged.¹⁷³

170. "Regulatory arbitrage" refers to transactions designed to eliminate or reduce regulatory or legal costs. See Partnoy, *supra* note 20, at 227.

171. Credit spreads are not the only measure of credit risk. Another measure of bond-specific risk, known as Option Adjusted Spread (OAS), also takes into account any optionality embedded in particular bonds, including, for example, a call or convertibility feature. The OAS also is a measure of the riskiness of a bond compared to its risk-free counterpart. See, e.g., Gregory R. Duffee, *On Measuring Credit Risks of Derivative Instruments*, 20 J. BANKING FIN. 805, 806 (1996).

172. By yield I mean the yield-to-maturity of the bond. See, e.g., Frank J. Fabozzi, *Bond Yield Measures and Price Volatility Properties*, in THE HANDBOOK OF FIXED INCOME SECURITIES 76-80 (3d ed. 1991).

173. However, Professor John Hull has argued that a counterparty to a financial contract can virtually

First, it is important to recognize how the rating agencies' role relates to credit spreads. Suppose Company *A* has issued bonds with five years remaining until maturity. Those bonds pay a semi-annual coupon of 8 percent, return principal at maturity, and are trading at a price of 100. The U.S. Treasury also has issued bonds with five years remaining until maturity. Those bonds pay a semi-annual coupon of 6 percent, return principal at maturity, and are trading at a price of 100. The credit spread of Company *A*'s bonds is simply the difference between the yield to maturity on Company *A*'s bonds (8 percent) minus the yield to maturity on the U.S. Treasury bonds (6 percent), *i.e.*, 2 percent. In market parlance, the credit spread is 200 basis points.

The credit spread is the market's estimate of the riskiness of the bond compared to its risk-free counterpart, based on both the probability of default and the expected recovery in the event of default. From a theoretical perspective, there are four factors relevant to the decision to lend money, *i.e.*, to extend credit: (1) the lender's cost of money, (2) the lender's anticipated¹⁷⁴ return on the loaned money, (3) the probability that the borrower will default, and (4) the lender's anticipated recovery in the event of default.

Suppose *A* wants to borrow \$100 from *B* for one year. *B* has the following information:

- (1) *B*'s cost of money for one year is 5%,
- (2) the anticipated return on the loaned money for one year is 10%,
- (3) the probability that *A* will default is 10%, and
- (4) *B*'s anticipated recovery if *A* defaults is \$50.

Should *B* make the loan? *B*'s decision should be based on an analysis of the expected profit (revenue minus cost) from the loan. *B*'s expected revenue from the loan, calculated at the end of one year, is the product of the probability of no default times the payment in full of principal and interest on the loan (90% x \$110 = \$99) plus the product of the probability of default times the recovery in

eliminate credit risk by marking-to-market the financial contract. See JOHN HULL, *OPTIONS, FUTURES, AND OTHER DERIVATIVE SECURITIES* 291 (1993). Marking-to-market refers to the daily settlement of a margin account based on the value of future contracts. See *id.* at 4-9.

174. I use the term "anticipated" rather than "expected" to distinguish the general notion of expectation from the mathematical notion of expectation. For example, if you believe you will receive a particular payment, because that amount is the payment specified in the relevant contract, then I say you "anticipate" such a payment. On the other hand, if you cannot anticipate a payment with certainty, then I say you "expect" a payment equal to the sum of the probabilities of each possible payment times the amount of that payment, *i.e.*, the mathematical expectation.

the event of default ($10\% \times \$50 = \5), for a total of \$104, or a return of \$4.¹⁷⁵ *B*'s cost of money, calculated at the end of one year, is \$5 ($5\% \times \100), so *B* should not make the loan.¹⁷⁶

In a competitive market, the borrower and lender would bargain over the anticipated return on the loaned money, and, in equilibrium, the lender's anticipated return on the loaned money would have to rise to approximately 11.1% before the lender would be willing to make the loan.¹⁷⁷ If the risk-free rate for the same maturity were 4%, then the credit spread for this particular loan would be 7.1%, or 710 basis points.

What determines the credit spread? The above example assumed the lender has perfect information about the four factors to be considered. In fact, this assumption necessarily is true as to the first two items: in every case in which a lender is deciding whether to extend credit, the lender will know its cost of money for the relevant period and the specified return on the loaned money during that period. This information is what distinguishes credit instruments from all other financial instruments. Put another way, a credit instrument is a financial instrument whose return and maturity are specified. In contrast, a purchaser of stocks would not know the amount of dividends plus capital gain for her investment.

However, a lender will almost never have perfect information about the last two items: the probability of default and the expected recovery in the event of default.¹⁷⁸ It is the uncertainty and imperfect information associated with these

175. More generally, suppose p is the probability that *A* will repay *B* a given loan amount, L , in full. Then $(1-p)$ is the probability that *A* will not repay *B* in full. Further suppose x is the future value of the amount *B* will collect if *A* does not repay *B* in full. (Put another way, x is the market value of the loan after an event of default.) Finally, suppose r is the anticipated rate of return on a loan. Then mathematically, the expected return on the loan is $p*L*(1+r) + (1-p)*x$.

176. This analysis assumes *B* is risk neutral or risk averse. If *B* is risk seeking, *B* might decide to lend *A* \$100, because *B* "overweights" the probability of *A* not defaulting.

177. The precise interest rate that solves the preceding equation is 11 1/9%. Mathematically, $0.9*100*(1+0.111) + (1-0.9)*50 = 105$. More generally, a credit loss occurs only if (1) the counterparty defaults, and (2) the credit exposure on the instrument is positive. See Jerome S. Fons, *Using Default Rates to Model the Term Structure of Credit Spreads*, FIN. ANALYSTS J., Sept./Oct. 1994, at 25. Although the model introduced by Jerome Fons provides a minimum estimate of credit spreads, its estimates are lower than actual spreads on corporate bonds because the model only takes into account credit risk and not other factors including liquidity, taxes, and capital requirements, each of which will increase credit spreads. See Leland E. Crabbe, *Estimating the Credit-Risk Yield Premium for Preferred Stock*, FIN. ANALYSTS J., Sept./Oct. 1996, at 49.

178. In the above mathematical formula, *supra* note 175, the variables L and r are observable, but p and x are not. A lender should be willing to pay an information provider for information about the values of p and/or x if the cost of that information is less than the expected net benefit from the information.

There is some empirical evidence of the expected recovery, x , in the event of default. According to

two items that generates variability in credit spreads and, therefore, the demand for credit information. Put another way, the credit spread reflects the market's best estimate of these two variables. The major rating agencies claim, and the reputational capital view argues, that credit ratings have value because they include additional information not already reflected in credit spreads.

The major rating agencies claim their ratings have informational value because ratings are highly correlated with actual credit spreads. However, this claim, even if true, does not establish that credit ratings have independent informational value. The credit spread is a reflection of all available information in the market, including the rating. The correlation between ratings and credit spreads could be a reflection that either the market is reacting to the informational content of credit ratings or credit ratings are reacting to the informational content of the market.

A more precise analysis of the informational content of credit ratings must involve the behavior of credit spreads of bonds rated in the same category over time. If credit ratings are accurate and reflect information not already reflected in the market, one would expect credit spreads of bonds given a particular rating to remain relatively constant over time. Additionally, if credit ratings are accurate, one would expect bonds with the same credit rating to have the same credit spread.

In fact, studies by financial economists and anecdotal evidence (including public statements by these economists) suggest that credit ratings have become less accurate over time, and that credit spreads of bonds in particular rating categories have changed dramatically.¹⁷⁹ James Van Horne, a professor of finance at Stanford, has concluded that “[w]hile the assignment of a rating for a new issue is current, changes in ratings of existing bond issues tend to lag behind the events that prompt the change.”¹⁸⁰ Kenneth Lehn, a professor of

one study, the trading values of various types of debt in the event of default, measured one month after the default, are as follows (as a percent of the par amount of the bond, or 100):

Senior Secured	53.3
Senior Unsecured	44.6
Senior Unsubordinated	36.0
Subordinated	28.7
Junior Subordinated	16.3
Preferred Stock	6.0

See Crabbe, *supra* note 177, at 46.

179. *See* discussion *supra* notes 132-36.

180. *See* JAMES C. VAN HORNE, FINANCIAL MARKET RATES AND FLOWS 181 (1990). There is, however, substantial evidence that equity returns are influenced by changes in credit ratings. *See, e.g.*, ILIA D. DICHEV & JOSEPH D. PIOTROSKI, THE LONG-RUN STOCK RETURNS FOLLOWING BOND RATINGS

business administration at the University of Pittsburgh (and an advisor to Moody's) has concluded that only seventy-five percent of the ratings process is based on statistical information and equations, and that twenty-five percent is subjective.¹⁸¹ Frank Packer's initial research for the Federal Reserve Bank into the movement of sovereign bond yields indicates that yields typically decline several days before the agencies act on a rating, suggesting that the agencies lag behind the market.¹⁸² Moreover, economists have criticized agency ratings because although the agencies publish volumes describing how they award ratings and the basis for their decisions, they do not describe the probability of default. According to Richard Cantor, an assistant vice president at the Federal Reserve Bank of New York, the market has never required that the agencies define their ratings more clearly.¹⁸³

The New York Federal Reserve Bank has expressed concern that ratings are not consistent over time and can be influenced by competitive pressures.¹⁸⁴ Similarly, other types of ratings that depend directly on credit ratings have exhibited similar problems and inconsistencies. Insurance regulators, in particular the Securities Valuation Office (SVO) of the National Association of Insurance Commissioners (NAIC), became concerned in 1995 that reliance on credit ratings as a trigger for more lenient regulatory treatment might inadvertently mask critical distinctions relevant for financial solvency monitoring.¹⁸⁵ Numerous professionals view the ratings as "rearview mirror" analyses. According to Professor Bruce N. Lehmann of Columbia University Business School, ratings "are lagging indicators of credit quality. I have never known a portfolio manager who goes by the ratings."¹⁸⁶

Credit estimation mistakes are especially acute with respect to sovereign

CHANGES (University of Michigan Business School Working Paper, Oct. 1998) (copy on file with author) (finding that after bond downgrades the corresponding stocks earned abnormally low returns while after bond upgrades the corresponding stocks earned normal or slightly above-normal returns for up to one year after the rating change).

181. See Lyn Perlmuth, *Is Turnabout Fair Play?*, INSTITUTIONAL INV., April 1995, at 34 (quoting University of Pittsburgh professor of business administration Kenneth Lehn); see also Letter from Kenneth Lehn, *supra* note 13, at 4.

182. See Richard Cantor & Frank Packer, *Determinants and Impacts of Sovereign Credit Ratings*, FED. RESERVE BOARD N.Y. ECON. POL'Y REV., Oct. 1996, at 45-46.

183. See House, *supra* note 68 (quoting Cantor as stating "[y]ou can bet that if this was all quantitative, others could duplicate the model and new players might be drawn into business.")

184. See *Limits Cited in Judgment of NRSROs*, 5 INS. ACCT., AM. BANKER, April 10, 1995, at 5.

185. See *id.*

186. See David Zigas, *Why the Rating Agencies Get Low Marks on the Street*, BUS. WK., Mar. 12, 1990, at 104.

ratings, a new and important line of business for the agencies.¹⁸⁷ Even AAA ratings are neither accurate, nor consistent across bonds.¹⁸⁸ Nevertheless, although the most recent and complete study of sovereign credit ratings, by Cantor and Packer, found that eight publicly-available statistics predicted eighty-six percent of the variation in ratings, the study also found that ratings directly affected corporate securities prices.¹⁸⁹ These findings that the ratings changes affect market prices are in sharp contrast to the findings from the 1970s.¹⁹⁰

Even the most sophisticated market participants are unable to generate accurate methods of estimating credit risk, despite the importance of doing so. For example, bank regulators need accurate measures of the credit risk involved in financial derivatives transactions so that capital requirements can be set optimally.¹⁹¹ Yet even the most sophisticated current methods of analyzing credit risk are seriously flawed.¹⁹² Estimates of future credit exposures generated by “Monte Carlo” simulations ignore the uncertainties in the models used to generate such estimates, and therefore can vary by as much as sixty percent.¹⁹³ Each participant has its own procedures, which vary and change quickly, and the most sophisticated techniques are proprietary.¹⁹⁴ Even

187. For example, Moody's gave its highest commercial paper rating to the Spanish bank Banco Espanol de Credito, just before it collapsed; Turkey was running a deficit equivalent to at least 15 percent of GDP yet was rated investment-grade, and the rating agencies were among the last to notice Turkey's problems and downgrade the sovereign credit rating; on the other hand, the rating agencies held firm with sub-investment grade ratings for Mexico's sovereign debt during 1993 and 1994, when the market was anticipating an upgrade and yields were trading near investment-grade levels (the rating agencies later claimed they had been correct when the Mexican peso and markets crashed on December 20, 1994). See House, *supra* note 41.

188. See, e.g., Cooper, *supra* note 161, at 51 (“Even within the charmed triple-A circle, wide price discrepancies exist depending on the type of borrower involved. One new-issues maven cites a 45-basis-point gap between a triple-A sovereign and a triple-A U.S. corporate bond issued recently on the same day.”).

189. See Cantor & Packer, *supra* note 182, at 45. For other studies finding that credit rating changes had an impact on market prices, see Jeremy Goh & Louis Ederington, *Is a Bond Rating Downgrade Bad News, Good News, or No News for Stockholders?*, 48 J. FIN. 2001 (1993); John Hand et al., *The Effect of Bond Rating Agency Announcements on Bond and Stock Prices*, 47 J. FIN. 733 (1992).

190. See discussion *supra* at 647-48.

191. See Duffee, *supra* note 171, at 806.

192. The primary difficulty with modeling credit risk is that it is non-linear, and therefore requires complex computer simulations for valuation. There have been serious criticisms, for example, of Credit Metrics, the proprietary credit risk-management system J.P. Morgan offers as a risk management tool to quantify credit exposure. See *J.P. Morgan to Launch Credit Risk Data Set*, DERIVATIVES WK., Feb. 3, 1997, at 1.

193. See Duffee, *supra* note 171, at 806. A “Monte Carlo” simulation is a valuation methodology in which a computer model simulates different price paths and then generates a valuation based on the probability of particular paths. See *id.*

194. See *id.* at 812.

sophisticated computer models don't work particularly well in estimating credit spreads. Finance theorists continue to debate whether their theoretical models are correct, and S&P's and Moody's methods of rating Derivative Product Companies (DPCs),¹⁹⁵ which engage in the most sophisticated attempts at estimating credit and credit spreads, are questionable.¹⁹⁶ Recently, finance theorists have seized on the ways in which credit changes can affect duration, a mathematical measure of the risk associated with a particular credit instrument.¹⁹⁷ The consensus of work on the topic is that credit risk shortens the effective duration of corporate bonds, yet many assessments of credit do not account for such changes.¹⁹⁸

Finally, studies of so-called "split ratings" also provide evidence of credit spread differentials which are not consistent with the reputational capital view. A split rating occurs when two rating agencies rate the same bond differently. For example, Moody's might have rated bonds Aaa, while S&P rated the same bonds AA. Split ratings do not support the conclusion that ratings reflect valuable and accurate information, because if ratings were valuable and accurate, one would expect that ratings from different agencies would not consistently agree. In fact, S&P's and Moody's ratings have a correlation of approximately ninety-seven percent.¹⁹⁹

In addition to the above financial studies, there is abundant anecdotal evidence of rating inaccuracy. Most recently, there has been a substantial increase in defaults. According to Moody's, companies defaulted on \$22 billion of bonds in 1990, the highest figure in twenty years.²⁰⁰ Only a few months before Orange County filed for bankruptcy in December 1994, both S&P and Moody's gave the county their highest short-term rating for a \$600 million taxable note issue.²⁰¹ In early 1997, several sub-prime auto lending institutions,

195. See discussion *infra* at 668-70.

196. See Charles Scheyd and Reza Bahar, *Derivative Product Company Rating Criteria*, June 6, 1994 <Error! Bookmark not defined.> (visited Oct. 1, 1998). Scheyd and Bahar set forth S&P's approach to rating DPCs, and suggest both that S&P is willing to use any computer model supplied by a private party that can adequately address the potential risks that a DPC might face, and that the approach is an unfixed, dynamic process, subject to change based on financial innovation and on changes in law. I discuss DPCs in greater detail *infra* at 668-70.

197. See Babell et al., *Default Risk, and the Effective Duration of Bonds*, FIN. ANALYSTS J., Jan./Feb. 1997, at 35.

198. See *id.* at 41.

199. See, e.g., Cantor & Packer, *The Credit Rating Industry*, *supra* note 74, at 25.

200. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80. Of course, the amount of debt rated by Moody's also has been increasing.

201. See Barry B. Burr, *Credit Raters Miss Many Danger Flags*, PENSIONS & INV., Jan. 23, 1995, at 11.

including Mercury Finance Co. and Jayhawk Acceptance Corp., announced accounting irregularities and bankruptcy filings, in part because the companies were posting earnings based on “little more than an educated guess about how much cash will flow in over three or four years.”²⁰² The rating agencies downgraded the issues only after these problems became public. There are similar, major inaccuracies in estimations of credit related to the insurance industry.²⁰³ And most recently, there have been defaults related to the Asian and Russian financial crises.²⁰⁴

Ratings increasingly are subject to political pressure. In the late 1980s, when New York State, running a large deficit and facing serious revenue shortfalls, sought ratings for its short-term borrowings, analysts expected a downgrade. However, the rating agencies, under pressure, decided not to change their top ratings; Moody’s decision came after a one-hour meeting with New York Governor Mario M. Cuomo.²⁰⁵

If ratings were accurate, these credit spreads should have remained relatively constant. This is because a particular credit spread, say 100 basis points, reflects the market’s expectation with respect to the probability of default and payment in the event of default, as well as the supply and demand for a particular issue. This market expectation includes the information associated with already-published credit ratings. Accordingly, one would expect that if credit ratings were accurate, bonds with credit spreads of 100 basis points would have the same ratings. As previously noted, bonds of a particular given credit rating should have the same credit spread.

Absent some explanation of why the market would ignore credit ratings, the fact that the credit spread for a given rating changes so much over time cannot be an indication that the *market* is not accurately pricing bonds with given credit ratings, because a bond’s market price by definition has incorporated already-published credit ratings.²⁰⁶ One would only expect that the market price would

202. See Mark Maremont & Rick Melcher, *Hard Answers for the Crisis in Easy Credit*, BUS. WK., Feb. 24, 1997, at 118.

203. Buying insurance exposes the buyer to the credit risks of the insurer. This exposure is substantial. Americans spend approximately five percent of their disposable income on life insurance. There are more than 150 million Americans covered by life insurance, and the U.S. insurance industry had \$1.4 trillion in assets, as of 1991. See Larry Light, et al., *Are You Really Insured?*, BUS. WK., Aug. 5, 1995, at 42 (warning purchasers that the insurance industry is “notoriously opaque, with its own bewildering lingo” and noting that raters failed to warn of the dangers at Executive Life and Mutual Benefit Life Insurance Co. before such dangers became public).

204. See CHARLES ADAMS ET AL., INTERNATIONAL CAPITAL MARKETS: DEVELOPMENTS, PROSPECTS, AND KEY POLICY ISSUES 49 (1998).

205. See Zigas, *supra* note 186, at 104.

206. The likelihood that credit ratings are able to generate, over several decades, substantial private

not reflect new information associated with credit ratings if such information had no new value.²⁰⁷ Therefore, the fact that credit spreads of bonds in particular rating categories change over time is strong evidence that the ratings do not contain valuable information.²⁰⁸

Moreover, the economics of the labor market in the financial services industry are not conducive to credit rating agencies attracting the most sophisticated employees, another indication that ratings may not contain valuable information. Given the difficulties of the ratings analyst's job, it is not surprising that these individuals, with their relatively low pay, level of experience, and infrastructure support, are unable to provide additional informational value beyond that provided by sophisticated financial services companies.²⁰⁹

Another particularly acute problem in the area of credit ratings historically has been the split between investment-grade and non-investment-grade bonds. Beginning in the mid-1970s, market participants began to notice (based on studies from as early as 1958) that portfolios of non-investment-grade bonds had been systematically mispriced, *i.e.*, on a risk-adjusted basis, an investor would be better off buying non-investment-grade bonds than buying virtually any other type of investment.²¹⁰

During this period, Michael Milken and the investment firm of Drexel, Burnham, Lambert began developing a client base to issue non-investment-grade bonds as part of various takeover financing strategies. One theoretical explanation for why these deals were possible was that investors could benefit

information not already reflected by other market participants is also lowered, because the credit information that credit agencies discover and disseminate has the characteristics of a public good, and therefore is immediately available to all market participants at zero cost.

207. It is possible that market prices would react to changes in credit ratings, even if the rating had no new informational value, if the ratings provided a useful mnemonic for processing information that otherwise could not be processed. Similarly, purchasers of rated bonds, including fund managers, might rely on ratings to provide some organizing principle for their investment portfolios. However, there is no evidence that bond market prices are driven by investors' reliance on credit ratings to simplify their processing of information. Instead, sophisticated market participants process the information at an earlier stage.

208. The other possibility is that rating agencies change the standards of a particular rating over time, and these changes account for the observed variation in credit spreads. However, even if this were true, the ratings still would have little or no informational value unless the agencies publicly disclosed such changes in standards. Rating agencies do not make such frequent disclosures.

209. There is, of course, the possibility that credit rating agencies have access to non-public information. *See supra* note 92. If the rating agencies have access to non-public information but do not change ratings in response to such information (because such changes might trigger the interests of regulators), then the informational value of ratings is no greater than it would be if agencies did not have access to such information.

210. *See Hickman, supra* note 13.

from high-yield bond issues, and that an acquirer could reduce its cost of financing by issuing junk bonds as part of a takeover. In the 1980s, investment funds, including hedge funds, also began to form to invest in high-yield debt, following the same rationale that a diversified portfolio of junk bonds would, on a risk-adjusted basis, outperform other bond investments.

Although the empirical evidence of the performance of high-yield debt during recent years has been mixed, one reason investors purchased such debt was that there had been few events of default during the early 1980s.²¹¹ The reputational capital view of credit ratings is contradicted by the notion that there were systematic inefficiencies in the non-investment-grade bond market allowing the owner of a diversified portfolio of corporate high-yield bonds to outperform, on a risk-adjusted basis, other fixed income investments. If credit ratings were accurate, such outperformance should not have been possible; bonds rated below Baa/BBB should have traded at credit spreads that accurately reflected the risk of those bonds, relative to less risky investments. If they in fact did not, then there are two possibilities: either (1) there was an unexplained market inefficiency which led to the mispricing of high-yield bonds and credit ratings did not correct this market inefficiency; or (2) credit ratings were inaccurate. There is little evidence to support (1), and (2) obviously contradicts the reputational capital view.

B. Ratings-Driven Transactions

Financial innovation, including structured financings, is the fastest-growing segment of the rating agencies' business.²¹² Much of that business includes transactions designed to capture particular ratings.²¹³ Several types of such

211. See Floyd Norris, *Another Try for Bond Fund Ratings*, N.Y. TIMES, Sept. 21, 1997, sec. 3, at 9.

212. See *Credit-Rating Agencies: Beyond the Second Opinion*, *supra* note 10, at 80.

213. In modern financial markets, it is possible to structure even the most basic transaction (*e.g.*, the purchase of a bond) in multiple ways that recharacterize the nature of the transaction and therefore may persuade an agency to give a better rating. For example, consider the following bond investment alternatives:

- (1) Buy and hold a B-rated bond.
- (2) Buy a B-rated bond on a forward basis (*i.e.*, for settlement at a future date) from a AAA-rated bank.
- (3) Buy a AAA-rated bond issued by a AAA-rated bank; at a future date the AAA-rated bond pays the B-rated bond's value.
- (4) Enter into a swap agreement (*i.e.*, a contractual agreement to exchange cash flows over time) with a AAA-rated bank, pursuant to which the bank receives a financing rate and pays the B-rated bond's appreciation during the life of the swap. (This is equivalent to buying the bond on a forward basis, where the forward price is set to equal the bond's current value multiplied by $1 +$ the financing rate.)
- (5) Enter into the same swap agreement as (4) except that the bank receives payment up-front. (Because

transactions demonstrate flaws in the reputational capital view. These transactions indicate that the agencies are selling something other than the information associated with a particular rating. I next describe several types of these transactions, including asset-backed securities, Derivative Products Companies, financial guarantees, and arbitrage vehicles, and I mention some of the problems of and corrections by rating agencies related to these transactions.

1. *Asset-Backed Securities*

Asset-backed securities were invented in the mid-1970s, and by 1987 the total issuance was just \$9 billion; more recently, the market for asset-backed securities has exploded in volume, and was in the \$100-150 billion range as of 1997.²¹⁴ From 1988 to 1995, the value of publicly traded asset-backed securities outstanding increased more than tenfold; in 1995 alone, total issuance rose 45 percent, to just over \$109 billion.²¹⁵

The asset-backed market includes more than two dozen assets, including trade receivables, operating leases, royalty income, mutual fund fees, aircraft leases, and utility bills.²¹⁶ Asset-backed securities typically are created through the securitization of such assets.²¹⁷ For lower-credit-quality issuers in this sector, one obvious advantage of securitization is the ability to obtain a higher rating than they would otherwise, thus reducing their cost of capital.²¹⁸

Several asset-backed lenders experienced difficulties in 1997: Jayhawk Acceptance Corp., Mercury Finance Co., Banc One Corp., Cargill Inc.'s Access Financial, and Mitsubishi Motors.²¹⁹ Credit spreads increased in 1997, and asset-backed securities underperformed government bonds for the first time since 1992.²²⁰ For example, Mercury Finance, whose debt obligations had

the up-front discounted forward price is the same as the bond's market value, this is equivalent to buying the underlying B-rated bond).

(6) Buy a Trust in which the B-rated issuer has placed its bond and given legal title.

214. See Gregory Zuckerman, *Asset-Backed Securities Face New Scrutiny*, WALL ST. J., Feb. 18, 1997, at C1; see generally Schwarcz, *Structured Finance*, *supra* note 25.

215. See Ida Picker, *The Outer Limits*, INSTITUTIONAL INV., April 1996, at 89. Structured finance has been described as the "bare-knuckle battleground" of credit rating, and the "fastest-growing and the most profitable sector for the agencies." See House, *supra* note 41, at 53.

216. See Picker, *The Outer Limits*, *supra* note 215, at 89.

217. Securitization involves the sale of financial assets through a vehicle, such as a corporation or trust. See, e.g., Schwarcz, *supra* note 25, at 30; Joseph C. Shenker & Anthony J. Colletta, *Asset Securitization: Evolution, Current Issues and New Frontiers*, 69 TEX. L. REV. 1369, 1373-75 (1991).

218. See Shenker & Colletta, *supra* note 217, at 1373-1375. Ratings also may provide a simple summary of the credit risks associated with vary complex transactions.

219. See Zuckerman, *supra* note 214, at C1.

220. See *id.*

received the highest applicable rating, failed to repay \$17 million of commercial paper borrowing that came due at the end of January 1997.²²¹ Mercury's stock price plummeted 86 percent the day after the announcement.²²²

Triple-A or double-A investment-grade issuers often structure asset-backed products in advance of issuance to meet agency requirements.²²³ Collateralized Bond Obligations (CBOs) are one example. CBOs are financial instruments issued by one or more Special Purpose Vehicles (SPVs), usually to take advantage of anomalous pricing in the high-yield debt market. Typically, the SPV purchases a portfolio of financial assets, and issues new financial obligations, which are secured by the original assets. The new obligations are of a different form than the assets—different maturity, currency, security, or interest rate—and because of this difference are more attractive to investors. The differences are often related to credit ratings. The theory of why a CBO works is that the sum of the parts is greater than the whole.

In a competitive, efficient market, CBO transactions should not be possible. Put another way, the fact that CBO structurers make money is evidence of market failure of some type.²²⁴ CBO structurers appear to be able to make money from these transactions because either (1) high-yield bonds are systematically underpriced, because market segmentation limits the demand for these bonds, or (2) the methodology the credit rating agencies use to rate bonds issued by the CBO vehicle is misguided and allows the creation of a greater whole from the sum of the parts, despite the absence of any conceivable synergy. Again, there is little empirical or theoretical support for (1), and (2) contradicts the reputational capital view.

Asset-backed securitization transactions, especially those involving

221. See Julie Creswell & Robert McGough, *Mercury Woe Nearly 'Broke the Buck' at Strong*, WALL ST. J., Feb. 4, 1997, at C1. Three money-market funds managed by Strong Capital Management, a Milwaukee mutual fund management firm, had approximately five percent of their assets invested in Mercury Finance commercial paper. Federal rules required money-market funds to invest no more than one percent of their assets in securities rated "second tier," as Mercury was rated by S&P and Moody's. See discussion *infra* at 698-700. However, Mercury was rated first-tier by two smaller agencies—Thomson BankWatch and Duff & Phelps Credit Rating Co.—and therefore was technically in full compliance with this regulation. See Creswell & McGough, *supra*, at C1.

222. See *id.*

223. See House, *supra* note 41, at 53. In 1993, investors in the Hyperion 1999 Term Trust brought a class-action suit alleging that the AAA-rating concealed large interest rate and market risks, although that suit subsequently was dismissed. See *Securities Law Class Action Alleging Fraud Dismissed*, N.Y. L.J., Oct. 29, 1996, at 25.

224. I am suggesting that this market failure is the regulatory dependence on credit ratings. See Part IV.C. CBOs may be viewed as transactions designed to arbitrage market inefficiencies. However, unlike true arbitrage, CBO transaction opportunities persist over time. See Partnoy, *supra* note 20, at 222.

international fixed income instruments, increasingly have been targeted at obtaining at least the lowest possible investment-grade rating (*e.g.*, BBB-).²²⁵ As early as 1986, companies were choosing to restructure debt and abide by S&P's view of what was prudent in order to maintain a high rating.²²⁶ Of the new capital trusts that insurance companies asked Moody's and S&P to rate in 1997, more than half received the lowest possible investment-grade rating.²²⁷ This is no coincidence. Such targeting appears to be economically rational from the issuer's perspective; that is, issuers seem to receive a much higher price (*i.e.*, a much lower financing cost) from the boost associated with an investment-grade rating.

For example, in 1993, the markets were expecting a surge in prices from an upgrade of Latin American bonds to investment grade. In June 1993, Lincoln Rathnam, a mutual fund manager at Scudder, Stevens & Clark, impressed an audience of several hundred portfolio managers with an explanation of how S&P's upgrade of Argentinian sovereign debt to BBB would push total returns in Argentina to "Buffett-like levels of 30 percent."²²⁸ Such a discrete leap in return would have been based on no new information other than an upgraded credit rating.

Cross-border securitization may even result in issuers obtaining credit ratings above the sovereign rating of the country where the issuer resides, thus overcoming the so-called "sovereign ceiling."²²⁹ Obtaining the higher credit rating has been described by prominent practitioners as the "single most important factor accounting for the growth of the international capital markets."²³⁰ Again, this "important factor" appears to be simply a change in

225. See, *e.g.*, DEBT RATINGS CRITERIA, *supra* note 38, at v ("It is commonplace for companies to structure financing transactions to reflect S&P's credit criteria so they qualify for higher ratings.").

226. See *id.* at 4.

227. See *Rating Game*, INS. FIN. & INV., Jan. 27, 1997, at 6.

228. See Alyssa A. Lappen, *Extra Lot*, INSTITUTIONAL INV., Aug. 1993, at 37. "Buffet-like levels" refers to the impressive annual returns of 30 percent or more generated by billionaire investor Warren Buffet.

229. The sovereign ceiling refers to the fact that credit rating agencies generally do not rate a company's debt higher than that of the country in which it is incorporated. See *supra* note 148; see also Marissa C. Wesely, *Securitization Techniques in International Trade and Product*, STANDARD & POOR'S REV. BANKING FIN. SVC., Apr. 10, 1996, at 61.

230. See Emil Arca & Joseph Topolski, *Cross-Border Securitization*, STANDARD & POOR'S REV. BANKING FIN. SVC., Feb. 14, 1996, at 21.

For those issuers whose sovereign/foreign currency rating limitations capped possible ratings on their conventional debt offerings at below investment grade levels, access to the capital markets was limited to those foreign investors who buy Eurobonds without a rating in the public market or to high-yield investors who buy less than investment/grade rated debt. Absent from the foregoing categories are many U.S. institutional investors who for legal, regulatory, or internal policy reasons cannot buy non-

credit rating, not any other new or independent information.

For example, the new issuance of Latin American structured securities with the lowest investment-grade rating has been strong recently.²³¹ In 1997, the volume of structured transactions rated by S&P increased to a total of \$4 billion.²³² In 1995 S&P rated only three structured transactions in Argentina; in 1997, S&P rated 41 such deals.²³³ Many of these deals employed innovative financing terms in order to capture the lowest investment-grade rating. Argentina's YPF S.A. was able to achieve a rating of Baa1/BBB for a \$400 million secured export note issue due 2002; the investment-grade rating, which was higher than the Argentine sovereign rating, was possible because YPF bought a put option on the price of oil per barrel and transferred that put option to the bondholders.²³⁴ Empresa Colombiana de Petroleos (Ecopetrol), Columbia's state-owned oil company, issued securities backed by the future sales of crude oil and thus obtained a BBB rating.²³⁵

The worldwide private market for unrated or below-investment-grade project debt in emerging markets was approximately \$12 billion in 1997, of which \$3 billion was in Latin America; in contrast, the worldwide market for investment-grade debt was approximately \$14 trillion.²³⁶ Likewise, much of Sub-Saharan Africa has small debt markets, in part because issuers are constrained in their

investment grade securities or who need to receive a significantly higher yield to compensate them for the higher capital charge or other risk-weighting consequences that become applicable when they purchase noninvestment-grade debt. This category of investor includes insurance companies that need an investment-grade rating to achieve a NAIC 1 classification on their investment.

Id.

231. The complexity of these transactions also has increased; beginning in 1998, banks were considering complex collateralized bond obligation (CBO) and collateralized loan obligation (CLO) transactions in Mexico. See Nancy Gigante Chu et al., *Strong Market for Structured Issues: Robust Economy, High Interest Rates Boost Secured Financings*, LATIN AM. FIN. & CAP. MARKETS., May 15, 1998, at 1.

232. See *id.* at 7.

233. See *id.* at 6.

234. See *YPF Uses Put, Enhances Credit Rating*, DERIVATIVES WK., Nov. 13, 1995, at 8. A put option pays the buyer of the put as the price decreases below the strike price, in this case \$14 per barrel. See *id.* Therefore, purchasers of the bonds would profit if the price of oil dropped below \$14 per barrel; thus, the put option is an additional hedge against a decline in the price of oil.

235. In this deal, for the first time in any Latin American deal, investors took on production risk, that is, the risk associated with the company not being able to pay debt service if the company is not able to produce and sell oil. Because investors were willing to take on this risk, S&P viewed the company as more able to pay and therefore rated the issuance BBB. See Chu, *supra* note 231, at 7.

236. See David Robinson, *Tapping the Markets - Municipal Bonds for Mexican Water Infrastructure*, 3 J. PROJECT FIN. 23 (1997). Several Latin American corporate deals have been structured specifically to obtain investment grade ratings, including an S&P A-rated \$366 million Pemex debt deal, a Moody's investment-grade rated \$1 billion Pedvsa bond, and numerous other deals. See Lappen, *supra* note 228, at 37.

borrowing by the speculative nature of their credit.²³⁷ Admittedly, the above examples are only anecdotal. Yet in each, the rush to enter into transactions designed to capture high credit ratings is at odds with the reputational capital view. It is unclear why rating agencies—and no other third-party information provider—must play this certification role, and why obtaining an investment-grade rating (especially the lowest investment-grade rating) is so critical.

2. *Derivative Product Companies*

A similar example of rating-driven behavior is the Derivative Product Company (DPC). The demand for top-rated counterparties to derivatives transactions provided the incentive for banks to create separate AAA-rated counterparties,²³⁸ and recently investment banks began forming AAA-rated DPC subsidiaries.²³⁹ The Comptroller of the Currency had informally dissuaded commercial banks from forming such units,²⁴⁰ and some derivatives investors (including the Federal National Mortgage Association, which is not governed by the Comptroller's position) have been motivated less by credit rating than by collateral, with regular mark-to-market and collateral posting requirements.²⁴¹

Nevertheless, several investment banks have focused on their need for a AAA rating and have formed DPCs at great effort. The banks have been able to convince credit rating agencies that it is possible to segregate market risks from credit risks through a derivatives subsidiary. The demand for DPCs was driven by the fact that many counterparties were willing to transact only with banks rated AA or higher.

237. According to S&P, "[p]oor credit quality can hinder a sovereign borrower's access to capital since credit ratings help determine the extent, pricing, and stability of capital flows." See *Weak Credit Quality Hinders African Investment, But Tide May Be Turning*, S&P RATINGS SERVICES: BREAKING NEWS, Apr. 23, 1998 <Error! Bookmark not defined.> (visited Oct. 1, 1998) (copy on file with author).

238. Most derivatives transactions involve counterparties with high ratings. According to a General Accounting Office survey of 200 companies with more than \$1 billion in interest rate and currency swaps outstanding as of the end of 1991, those companies had 97.5 percent of their credit exposure to counterparties who were rated investment grade (BBB or better). See Burkhard Varnholt, *Six Recent Reports on Financial Derivatives: A Critical Appraisal* (visited Nov. 15, 1999) <<http://Finance.Wat.ch/GenevaPapers/paper2.htm>>. It also is apparent that the relationship between credit rating and credit spread is not a straight diagonal line, but rather one that curves upwards to the right, implying that credit spreads widen at an increasing rate as credit ratings decline. See, e.g., Cantor & Packer, *supra* note 74, at 20. Although there are many possible explanations for this, the overall message seems to be that investors prefer higher-grade investment credits.

239. See Michael Peltz, *Wall Street's Triple-A for Effort*, INSTITUTIONAL INV., May 1993, at 89.

240. See *id.*

241. See *id.*

Beginning in the early 1980s, there was a general decline in the financial strength of banks, and their credit ratings dropped accordingly. Once the rating of a bank or securities house fell to single-A, it would experience a loss in business, as many firms were willing to deal only with creditors rated AA and above.²⁴² The result was that although the derivatives market expanded, the business became increasingly concentrated, with ninety percent of it conducted by just six banks.²⁴³ One remedy for lower-rated companies was to set up separately capitalized derivatives subsidiaries, which many did, beginning with Merrill Lynch and Salomon Brothers.²⁴⁴ Some weaker financial institutions began setting aside a portion of the value of derivatives contracts as collateral, imitating existing practice in the futures market, but many counterparties found these arrangements inconvenient. One solution would have been to establish a clearing house through which all over-the-counter derivatives would be settled, but there were enormous technical difficulties in designing a system that could deal with such diverse instruments.²⁴⁵ Moreover, triple-A rated firms were unwilling to support such a proposal, because it would erode their comparative advantage.

In the early 1990s, financial institutions on Wall Street began forming AAA-rated derivatives subsidiaries in response.²⁴⁶ It took Merrill Lynch seven months to persuade Moody's to accept its methodology for rating a credit-enhanced derivatives subsidiary, in part because its probabilistic approach to credit was alien to the rating agencies' more traditional, deterministic methods.²⁴⁷ Under a typical DPC arrangement, the rating agencies receive weekly reports, generated with the help of independent auditors, and the agencies review every transaction to ensure that adequate capital covers the DPC's exposure.²⁴⁸ Like regulators, the rating agencies can impose restrictions on the DPCs; for example, Merrill Lynch was not allowed to deal with counterparties rated below double-A.²⁴⁹

242. See Tracy Corrigan, *Jumping Through the Credit Ratings Hoop: Derivatives Business Squeezed*, FIN. TIMES, Aug. 3, 1993, at 15.

243. See *id.*

244. See *id.*

245. See *id.*

246. See Peltz, *supra* note 239, at 89.

247. See *The Raters as Regulators*, INSTITUTIONAL INV., May 1993, at 92.

248. See *id.*

249. To deal with the increased credit risk associated with the derivatives transactions booked through DPCs, counterparties may use several mechanisms: (1) mutual put options (at a particular date, either counterparty can terminate the swap and mark it to market by settling in cash), (2) bilateral collateral (collateral must be posted above a pre-agreed threshold; this amount is tied to the debt rating of the counterparty over time, the lower the rating, the more collateral required), and (3) recouping (the swap is marked to market and the coupon is readjusted periodically, also based on a credit matrix; the

The derivatives market involves the most sophisticated counterparties in the world. It is unclear why those counterparties cannot adequately disclose and monitor each other's credit risks.²⁵⁰ But assuming they cannot, it is even less clear why they would turn to credit rating agencies—and no other type of information provider—to assist them by acting as third-party certification agent and monitor. Based on the analysis in Part II, rating agencies do not seem to be uniquely situated to reduce agency costs associated with complex derivatives transactions.

3. Financial Guarantees

Financial guarantees pose a slightly different type of puzzle about the role of rating agencies. A financial guarantee is a promise by one party to pay a financial obligation of the other party. Guarantees of financial performance on loans and other debt contracts pervade today's financial markets.²⁵¹ There are two classes of financial guarantees: explicit and implicit. Explicit guarantees include the most obvious forms of direct guarantee, *e.g.*, a parent guaranteeing payment of a subsidiary's loan. However, there are many other types of implicit guarantees. For example, any time a loan is made, an implicit guarantee of that loan is involved.²⁵² Thus, all credit instruments can be thought of as involving guarantees.²⁵³

lower the rating, the more frequent the recouping). *See id.*

250. The near-collapse of Long-Term Capital Management in late 1997 is some evidence that even the most sophisticated banks are unable to monitor credit risk. *See* discussion *supra* note 9.

251. *See, e.g.*, Robert C. Merton and Zvi Bodie, *On the Management of Financial Guarantees*, 21 FIN. MGMT. 87 (1992).

252. *See id.* at 88.

253. The lending activity can be separated into two steps. Suppose that Borrower is seeking a loan from Bank, and that Bank in turn is seeking a guarantee of this loan from Guarantor. First, Borrower obtains a guarantee of the loan from Guarantor. Second, Borrower purchases the loan from Bank. The cost of the loan to Borrower reflects both (1) the cost of a pure default-free loan and (2) the cost of a simultaneous guarantee of that loan.

Accordingly, any lender is implicitly selling a loan guarantee. This statement is apparent from the following equation:

Risky Loan + Loan Guarantee = Default-Free Loan
or, equivalently,

Risky Loan = Default-Free Loan - Loan Guarantee. See id. (suggesting this example).

More specifically, suppose that the guarantor and lender are two distinct entities. First, Borrower pays Guarantor \$10 to guarantee the loan. Second, Borrower, using this guarantee, borrows \$100 from Lender at the default-free interest rate of ten percent for one year. Borrower thus receives \$90 in return for the promise to repay \$110 in one year. Alternatively, if the Lender and Guarantor are the same entity, Borrower simply receives \$90 from Lender/Guarantor in return for a promise to repay \$110 in one year. The effective interest rate of 22.22 percent, *i.e.*, $(\$110-\$90)/\$90$, reflects both the risk-free rate of ten percent plus the cost of the guarantee.

The role of credit ratings in the market for financial guarantees is not consistent with the reputational capital view. Perhaps the best example is Financial Security Assurance (FSA), a AAA-rated corporation which provides guarantees to lower-rated issuers.²⁵⁴ For example, a BBB-rated issuer could purchase an FSA guarantee and thereby issue AAA-rated bonds. Evidence suggests that the savings the issuer realizes from issuing lower-cost debt more than offsets the cost of FSA's premiums.²⁵⁵ In effect, the issuer is "renting" FSA's credit rating.

FSA has posted surety bonds to cover the principal and interest payments on issues it guarantees, and thus has obtained a AAA rating from both Moody's and S&P.²⁵⁶ FSA insures only obligations that already qualify as investment-grade (between BBB and AAA) and requires a second level of protection in the form of collateralized assets. As of 1988, FSA had collected premiums of \$200 million on \$6 billion of issued debt.²⁵⁷

According to the reputational capital view, the credit rating of an issue that FSA guarantees should reflect all the accurate and valuable information the rating agencies have about that issuer. Likewise, FSA's credit rating should reflect all relevant information. Along the same lines, FSA, as guarantor of a diversified portfolio of issues, should not be able to achieve a lower cost of capital (by obtaining a higher credit rating) than the weighted average cost of capital of those lower-rated issues. Moreover, assuming investors hold a diversified portfolio of bond issues, there should be no additional diversification benefits from aggregating those individual bond issues under one guarantor.

Therefore, FSA's very existence demonstrates the imperfection of credit markets, caused by the inaccuracy of credit ratings. If credit ratings contained accurate information, the cost of FSA's guarantee would equal (or exceed) the issuer's interest savings from improving its credit rating. On the other hand, one would not expect issuers to use FSA if such use generated no net benefit. Therefore, the cost of FSA's guarantee must be less than the issuer's interest savings. That means FSA's AAA credit rating is necessarily underestimating the probability that FSA will default.

FSA is analytically equivalent to a perpetual money machine: it has AAA-

254. See, e.g., John W. Milligan, *The Pioneer of Corporate Debt Guarantees*, INSTITUTIONAL INV., Apr. 1988, at 197. The Municipal Bond Insurance Association (MBIA) provides similar guarantees for municipalities, and poses some of the same problems posed by FSA.

255. See *id.*

256. See *id.*

257. See *id.*

rated liabilities and lower-rated assets, a situation which should not persist in efficient markets. A few credit analysts may have caught on to FSA's anomaly. Recently, certain analysts recognized loan quality problems at FSA that would make it more difficult for FSA to insure securitizations without calling into question its own capital adequacy and AAA rating.²⁵⁸ Nevertheless, the fact that FSA and other guarantors persist is evidence that credit ratings are not accurate.

4. *Arbitrage Vehicles*

The asset-backed securities market consists not only of financial instruments, but also of vehicles whose existence and purpose are driven by credit ratings. Like FSA, certain types of so-called "arbitrage vehicles" demonstrate that companies are purchasing credit ratings for something other than their informational value. One example is the credit arbitrage vehicle, also known as a Structured Investment Vehicle (SIV).²⁵⁹ A typical SIV is a company²⁶⁰ which seeks to "arbitrage"²⁶¹ credit by issuing debt or debt-like liabilities²⁶² and purchasing debt or debt-like assets,²⁶³ and earning the credit spread differential between its assets and liabilities. Much of an SIV's portfolio may consist of asset-backed securities.²⁶⁴

How is the SIV able to earn such an "arbitrage" spread between its assets and liabilities? If the SIV is simply a vehicle for purchasing financial assets, it should not be able to fund purchases of those assets at a lower rate than the rate on those assets. If it could, market participants with low funding rates would simply purchase the financial assets directly, and capture the spread for themselves. Put more simply, if a vehicle purchases \$100 million of asset-backed bonds, priced at par,²⁶⁵ with a coupon of seven percent,²⁶⁶ and it seeks to

258. See Zuckerman, *supra* note 214, at C1.

259. See Valerie Hart, *Structured Deals Give Rise To Investment Vehicles*, STANDARD & POOR'S CREDITWEEK, July 2, 1997, at 14.

260. The company typically is incorporated in a tax and regulatory haven, such as the Cayman Islands. See Partnoy, *supra* note 20, at 221-22.

261. Although this activity is not "true arbitrage" because it involves some risk associated with the AAA assets, it generates the type of relatively low-risk profit that, like true arbitrage, one would not expect to persist in an efficient market. *See id.*

262. SIVs typically issue debt in the U.S. and Euro medium-term note and commercial paper markets. *See Hart, supra* note 259, at 14.

263. SIVs typically purchase classes of debt and asset-backed securities; to the extent those purchases create an interest-rate or foreign-exchange-rate "mismatch" between an SIV's assets and liabilities, the SIV may enter into derivative transactions, including interest-rate and currency swaps to reduce or eliminate its exposure to interest-rate or foreign-exchange-rate risk. *See id.*

264. *See id.*

265. A bond priced at par has a price equal to 100 percent of the bond's principal amount. *See*

fund that purchase by borrowing \$100 million, it should not be able to borrow at a rate lower than seven percent.

And yet such SIVs have proliferated. The first SIVs were created in 1988 and 1989 and were named (none too creatively) Alpha Finance Corp. Ltd. and Beta Finance Corp.; S&P rated the obligations of both Alpha Finance and Beta Finance AAA even though the vehicles' assets were not required to be of U.S. government bond credit quality.²⁶⁷

More recently, several more SIVs have entered the market, including Ascot Capital Corp., Sigma Finance Corp., Asset Backed Capital Ltd., and Centauri Corp., each of which has used more sophisticated methodologies than its predecessors (and has had a more creative name).²⁶⁸ For example, Asset Backed Capital Ltd. can also issue subordinated debt rated single-A, and is thus able to arbitrage the credit of the single-A rating, as well as that of the AAA-rating.²⁶⁹

S&P has stated publicly that it is eager and ready to entertain offers to set up such vehicles, which pay hefty fees.²⁷⁰ S&P's aggressive marketing seems directed at selling ratings to issuers, rather than selling information to investors through issuers.

Paul Clarke, director and head of investment at Citibank Credit Structures, a subsidiary of Citibank International, oversees Alpha Finance, Beta Finance, and Centauri Corp.—which have a combined total of \$12 billion in fixed income assets—and has provided some insight into the role of credit ratings in SIVs.²⁷¹ Beta Finance is required to have at least twenty percent of its investments in AAA-rated debt; half of Centauri's are in AAA-rated debt.²⁷² The vehicles invest mainly in sovereign bonds, bank debt, and asset-backed securities. Clarke

FABOZZI, *supra* note 172, at 79.

266. Such a bond would have a yield-to-maturity of seven percent.

267. See Hart, *supra* note 259, at 14.

268. See *id.* The regulations applicable to such entities are increasingly friendly. The National Securities Markets Improvement Act of 1996 included changes to the federal securities laws, and in particular to the Investment Company Act of 1940 and the Investment Advisers Act of 1940, to simplify compliance with the so-called 100-Owner Limit, to create an exemption from the definition of "Investment Company" for funds owned exclusively by qualifying sophisticated purchasers, and permitted expanded use of performance fees. The entities covered by the law included hedge funds, limited partnerships, limited liability companies, business trusts, structured financings, and offshore funds. See *id.*

269. See *id.*

270. According to Fiona Gregan, S&P's Director of Derivatives Ratings in London, "[g]iven the growing demand for setting up new types of SIVs, if the criteria does not yet exist for that particular structure, Standard & Poor's is always willing to look at it to develop new criteria, in the same way as we are for new asset classes." *Id.*

271. See Paul Clarke, *Citibank Credit Structures*, BONDWEEK, Nov. 11, 1996, at 6. It is no surprise that Paul Clarke has a degree in law (from the University of Warwick, England).

272. See *id.*

has stated: “We are probably overweight in ABS, but where else can you invest in triple-A rated securities with a stable cash flow and a reasonable spread?”²⁷³ This statement and the very existence of these vehicles support the argument that credit ratings provide something other than accurate information.

5. *Other Problems and Corrections*

Recently, the proliferation of rating-driven transactions has caused the rating agencies some other difficulties, and the agencies have declined to rate certain new deals. For example, as the market for “catastrophe bonds”²⁷⁴ has expanded, with issuers, especially insurance companies, linking their liabilities to certain catastrophic events such as earthquakes and hurricanes, various “catastrophe indices” have developed to estimate such losses for particular geographic areas or for baskets of risk.²⁷⁵ However, S&P has expressed concern about rating bonds linked to such indices, because although a company would not have the ability to influence the happening of a particular catastrophic event, it might have the ability to manipulate an index of many such events; according to Alan Levin, S&P managing director, because of such concerns, “[w]e would not rate a deal based on any of the available indexes.”²⁷⁶

In mid-1994, S&P added an “r” subscript to certain of its existing ratings to note additional risk associated with those bonds.²⁷⁷ By adding an “r” rating, S&P in effect admitted that its prior ratings had not been accurate.²⁷⁸ Such “r” ratings have been applied to interest-only and principal-only mortgage securities, structured notes, notes with redemption linked to an index, and to issues already rated AAA, S&P’s highest rating.²⁷⁹

There also is evidence that some rating agencies are not issuing accurate ratings for asset-backed deals. For example, as of late 1995, Fitch (now Fitch

273. *Id.* (“[T]here seems to be very little differentiation among investors between the best and worst names. *Investors are looking at the ratings without looking at the fundamentals.*”) (emphasis added).

274. “Catastrophe bonds” refers to fixed income instruments whose value is based on the occurrence of some catastrophic event, typically a natural disaster such as an earthquake. *See* Neil A. Doherty, *Innovations in Managing Catastrophe Risk*, J. RISK & INS., Dec. 1997, at 713.

275. *See* Lauren Dermer, *Learning Curve: Catastrophe Indexes*, DERIVATIVES WK., Apr. 7, 1997, at 8.

276. *Id.*

277. *See* Tracy Corrigan, *S&P Ratings Set to Reflect Derivatives*, FIN. TIMES, July 1, 1994, at 30.

278. According to Leo O’Neill, S&P’s President, “During the 1980s, the most significant risk was credit risk; during the 1990s it is still important, but it is becoming overshadowed by the repayment risk from derivatives embedded in bond issues. To continue just to apply credit ratings would not be alerting investors to other risks.” *Id.*

279. *See id.*

IBCA) dominated ratings in the mortgage-backed market with a seventy-eight percent share.²⁸⁰ In 1990, Fitch developed a theoretical model for calculating how much overcollateralization was needed for a particular rating, and challenged S&P's assumptions from a model it had developed with Bank of America when it launched the first residential mortgage-backed securities in 1977.²⁸¹ In 1993, S&P finally followed Fitch's reduction in overcollateralization levels.²⁸²

Rating agencies' mistakes have led to aggressive behavior by banks attempting to capitalize on these mistakes.²⁸³ Perhaps the most telling evidence that rating agencies have lost credibility is that investment banks even have a sideline business advising clients about how to spruce up their presentations to rating agencies.²⁸⁴ The notion is that a careful quarterly presentation to the agencies can present a rosier picture of that issuer than is really the case. The fact that the most sophisticated market participants are formally planning quarterly "window dressing" for the agencies indicates that such agencies can be duped, and probably are. The potpourri of new rating-driven transactions supports this conclusion.

C. Credit Derivatives

The most perplexing problem related to credit ratings is even more recent: the development of credit derivatives. Credit derivatives are financial instruments whose value is based on, or derived from, some underlying credit event, statistic, or determination. Credit derivatives are among the most exotic, fastest growing, and perhaps most problematic²⁸⁵ segment of the derivatives market.²⁸⁶ As of early 1994, only \$4 to \$5 billion of credit derivatives had been

280. *See id.*

281. *See House, supra* note 68, at 53.

282. *See id.*

283. Larry Brainard, head of emerging markets fixed income research at Chase Investment Bank, has said "they [the credit rating agencies] were way behind the curve and tried to catch up on a deteriorating situation. This all creates opportunities for banks; we try to identify situations where agencies are wrong and there's mispricing." *Id.*

284. *See Credit-Rating Agencies: Beyond the Second Opinion, supra* note 10, at 80. Several bankers have told me privately that issuers, including securities firms, "cleanse" their balance sheets before presenting data to rating agencies, thereby concealing intra-month or intra-quarter risks and activities.

285. *See, e.g., Corrigan, supra* note 242, at 15 ("Of all the risks involved in derivatives trading, the one that troubles market participants most is credit risk.").

286. The derivatives market overall is the largest market in the world, financial or otherwise, at a total notional value as of 1997 of more than \$55 trillion. *See supra* note 26. More recent estimates put the size of the derivatives market in the \$80 trillion range, and perhaps much higher. *See Alan Greenspan,*

sold;²⁸⁷ the value of credit derivatives outstanding in late 1997 was approximately \$39 billion, a huge increase.²⁸⁸

Credit derivatives enable counterparties to isolate and transfer credit risk. A type of credit derivative existed prior to the 1990s in the form of bond insurance, although the market was limited and specialized.²⁸⁹ Credit derivatives allow parties to speculate only on credit risk without exposure to interest rate risk or other market risks. In the most basic sense, credit derivatives have existed as long as there have been loans, because a loan to a risky borrower can be thought of as a derivative: a risk-free loan plus a short put option²⁹⁰—a derivative—on the borrower's assets.²⁹¹

There are three basic categories of credit derivatives: credit swaps, credit options, and credit notes. As to each, credit ratings have played a significant role in providing a rationale for transactions. Again, the existence of these transactions undercuts the reputational capital view.

1. Credit Swaps

In a credit swap, two parties agree to exchange cash flows based on the cash flows of a reference asset (*e.g.*, the bonds of a risky borrower) and a reference rate (*e.g.*, a comparable government security), or on the occurrence of a particular credit event. For example, Counterparty *A* agrees to pay Counterparty *B* either (1) nothing if there is no credit event, or (2) a credit event payment if there is a credit event; Counterparty *B* agrees to pay Counterparty *A* a fee. A credit event may be defined as a particular loss or default during the life of the contract. Possible credit events include default, bankruptcy, a specified price change in the issuer's debt, or a rating downgrade. Because the transaction typically is off-balance sheet, the risk buyer can increase its exposure without increasing the size of its balance sheet.²⁹²

Chairman, Board of Governors of the Federal Reserve, Remarks to the Futures Industry Association, Boca, Raton, Florida (Mar. 19, 1999) (copy on file with the author).

287. See Janine Schultz, *Empowering Portfolio Managers*, INSTITUTIONAL INV., Feb. 1994, at 89.

288. See *Derivatives Volume Grows to \$25 Trillion in 3d Quarter; Quarterly Derivatives Revenue is Record \$2.5 Billion*, Office of the Comptroller of the Currency, Dec. 22, 1997, available in 1997 WL 784094.

289. See *Credit Derivatives*, DERIVATIVES 'R US, April 8, 1996 (visited Feb. 21, 1997) <<http://www.vt.edu:10021/business/finance/dmc/DRU/contents.html>>.

290. A put option on a loan is the right to sell the loan at a specified time and price. See Partnoy, *supra* note 20, at 218.

291. Equivalently, a risky loan can be thought of as a risk-free loan plus a guarantee. See discussion *supra* note 253.

292. See Ronit Ghose, *Basic Credit Derivatives*, DERIVATIVES WK., May 26, 1997, at 9. There also

More specifically, a credit default swap is a bilateral financial contract in which one counterparty (the protection buyer) pays a periodic fee, typically expressed in fixed basis points as a percentage of the notional amount, in return for a floating payment contingent on the default of one or more third-party reference credits. This floating payment is designed to mirror the loss incurred by creditors of the reference credit in the event of default, and usually is calculated as the fall in price of a reference security below par at some pre-designated point in time after the reference credit has defaulted.

The credit default swap is used to reallocate credit risk between the loan and bond portfolios of banks and to free lines of credit filled by loan, bond, and derivatives transactions. Using such a swap, a bank can manage its credit limits quickly and confidentially, without complex negotiations, by paying another financial institution to take over the default risk on a loan, bond, or derivatives transaction. For example, a bank wishing to free its credit lines to Italy in the five-year range could enter into a five-year default swap with a five-year Italian government bond as the reference security. The bank would pay a premium of, say, 20 basis points per year, and the counterparty would make a payment only if Italy defaulted on its debts, in which case it might pay par minus the security's final price times the notional value of the swap.

Applications of credit swaps include commercial banks seeking to change the risk profile of their loan books, investment banks managing huge bond and derivative portfolios, manufacturing companies over-exposed to a single customer, equity investors in project finance deals with unacceptably high sovereign risks, institutional investors and speculators with particular risk profiles, and even employees worried about the safety of deferred compensation. Market participants may use credit swaps to obtain leveraged exposure to high-yield or emerging markets bonds.²⁹³ Some credit swaps are linked explicitly to credit ratings.²⁹⁴

Credit swaps often are used to eliminate, at least temporarily, the credit risk of long-term bonds. The credit risk associated with rating downgrades for long-term bonds is especially great for two reasons: (1) at any given time, a company's credit rating is more likely to deteriorate than to improve, and (2) as

are more advanced credit derivatives, including credit spread trades which enable counterparties to bet on the difference between an agreed benchmark rate and the yield on the specified asset, and credit basket and index products which allow counterparties to bet on the credit events of multiple parties. *See id.*

293. *See* Schultz, *supra* note 287, at 89.

294. *See* Michael Smith & Matt Rees, *Swap Market: Chase Wants Slice of New Credit Derivatives Market*, BLOOMBERG BUSINESS NEWS, May 27, 1994, at 1-2 ("If the borrower's credit rating is cut, the value of the loan declines, because the risk of a default increases.").

a company's credit rating declines, its chances of declining even more increase, and accelerate until default.²⁹⁵ Credit swaps linked to credit ratings may reduce these risks.

Banks and non-bank financial institutions commonly enter into credit arrangements with credit triggers based on credit ratings. For example, swap counterparties may enter into bilateral collateral arrangements, where the level of collateral posted is tied to the debt rating of the company posting the collateral.²⁹⁶ Alternatively, counterparties may engage in "recouping," where the swap counterparties mark-to-market a swap's value to each party and periodically make additional cash payments for the differences in value; as with bilateral collateral arrangements, the amount of the cash payments depends in part on the counterparties' credit ratings.²⁹⁷

The incorporation of credit ratings into credit swaps also poses problems for the reputational capital view. The reputational capital view suggests that credit ratings are important sources of credit information and therefore are good proxies for changes in the credit quality of the underlying bond. However, the credit spread of the bond is determined by the market and therefore is likely to reflect at minimum the information contained in already-published ratings. The fact that credit swaps depend on ratings, not credit spreads, indicates that the market values such ratings. However, in this case credit ratings seem to matter too much, *i.e.*, for reasons other than informational value. Why would market participants in the credit swap market link transactions to credit ratings, but not to credit spreads?

2. Credit Options

Credit options first appeared in the early 1990s.²⁹⁸ The purchaser of a credit

295. See Lee Wakeman, *Managing the Credit Risk in Long-Dated Swaps*, DERIVATIVES STRATEGY, Sept. 11, 1995, at 8.

296. However, such bilateral collateral arrangements are not effective for all counterparties, including Canadian banks, because regulations may restrict the amount of collateral that can be posted. See Ray Williams, *Learning Curve*, DERIVATIVES WK., May 13, 1997, at 9.

297. Recouping allows one swap counterparty to reduce its actual credit exposure to the other counterparty, and thereby increase the amount of trading it can engage in, for a given level of credit risk. For example, although a bank might treat a 10-year currency swap as using 37 percent of the notional amount of a swap for determining the amount of credit exposure, the same swap might only use one-tenth of that amount if the counterparties marked-to-market their exposure on the swap daily, and cash settled any differences every 90 days. See *id.* Such recouping arrangements often involve credit trigger matrices, which specify for a given credit rating both the cash settlement threshold amount (the amount beyond which cash payments would be required) and the recouping period. See *id.*

298. See *Credit Derivatives*, *supra* note 289, at 2.

option pays a premium to the seller, and if default occurs the seller pays the buyer a sum of money to compensate the buyer for the loss in value of the underlying security after the default event.

The use of credit options is widespread both for insurance and for speculative purposes. The securities and options exchanges have used credit options to purchase insurance protection against defaults.²⁹⁹ For example, the London Clearing House, the clearing house for London's main derivatives exchanges, bought from a subsidiary of American International Group £150 million in credit insurance, which operates as a credit default option that pays out if the clearinghouse accumulates default losses in excess of £150 million during a three-year period.³⁰⁰ In 1997, the Board of Trade Clearing Corporation purchased \$100 million of default insurance in similar form, thereby insuring for three years against default losses in excess of \$100 million by members of the Chicago Board of Trade.³⁰¹

Credit options also are used to isolate credit risk for speculative trading. For example, one emerging market trading strategy has been to buy and sell options on the credit spreads of emerging markets bonds. Such options allow the investor to bet on the credit quality of a particular issuer without having to take a view on specific market conditions, such as interest rates. The head of the investor strategies derivatives group at Merrill Lynch has noted an additional advantage to credit options: "Here the call option is investment grade and the underlying is not."³⁰² In other words, a credit option, like a credit swap, may be a way for an investor who otherwise is not permitted, either by investment guidelines or law, to take a particular type of credit exposure, nevertheless to take such exposure through a credit option. The fact that the rating agencies would give a credit option seller a higher rating than the underlying credit is strong evidence against the reputational capital view of credit ratings.

3. *Credit Notes*

Credit notes also enable particular investors to gain exposure to credit

299. See *CBOT Clearinghouse Buys Default Insurance*, DERIVATIVES WK., May 26, 1997, at 1.

300. See Sophie Belcher, *London Clearing House Buys GBP100 Million In Credit Protection*, DERIVATIVES WK., Feb. 10, 1997, at 1, 11.

301. Lexington Insurance, a wholly-owned subsidiary of American International Group, purchased the protection. Much of the risk was passed on to double-A or triple-A rated European banks in a private placement. See *CBOT Clearinghouse Buys Default Insurance*, *supra* note 299, at 1.

302. Schultz, *supra* note 287, at 89.

instruments with ratings below permitted minimums.³⁰³ For example, in one credit note trade, the investor was paid an above-market yield on a basket of junk bonds through a trust structure; if one bond defaulted, the overall yield changed to the yield of that bond, *i.e.*, the entire deal defaulted. At first, S&P insisted that the rating of the trust should be based on the most default-prone bond in the basket, not on the issuer. This approach made sense, although it was the exception at S&P, where the general approach was to give structured notes with contingent returns a rating based on the issuer, not the market risk of the underlying asset.³⁰⁴ Nevertheless, derivatives structurers immediately discovered ways to overcome S&P's objections and obtained the higher rating.³⁰⁵

In contrast, in early 1997, holders of Hong Kong government bonds, especially banks, began engaging in credit derivative note trades to pass on the risk of default during the period just after China obtained control over Hong Kong, beginning on July 1, 1997. One Australian dealer, Intercapital Brokers, reportedly was offering an 18-month maturity structured note, secured by certain Hong Kong sovereign bonds, that paid investors an above-market rate on those bonds, but repaid only 50 percent of principal in the event of default on those bonds. Banks could hedge the political risk associated with the handover to China by issuing these notes, because the notes provided that in the event of default, the bank would retain both the Hong Kong sovereign bonds and 50 percent of the investor's principal. Assuming defaulted sovereign bonds would be worth fifty percent of their face amount—a reasonable estimate according to Moody's—the bank could expect to be made whole even in the event of default.³⁰⁶

As with other types of credit derivatives, it is puzzling that credit notes would depend on credit ratings, not on market measures of credit risk (*e.g.*, credit spreads). Even more puzzling is that while in the regulated U.S. markets, credit derivatives use credit ratings, in Hong Kong, credit derivatives use market measures of credit risk in place of credit ratings. Such differential use is

303. *See id.* As Schultz explains:

Investors not permitted to invest in securities rated below double- or triple-A can tap into credit derivatives only through a trust or note structure. That gives the rating agencies a make-or-break power over certain derivatives designs: Standard & Poor's Corp.'s skepticism about credit derivatives generally squelched one of the key initial structures.

Id. at 93.

304. *See id.*

305. *See id.*

306. *See* William Rhode, *Broker Pitches Credit-Linked Hong Kong Handover Structure*, DERIVATIVES WK., Feb. 24, 1997, at 1, 11.

contrary to the reputational capital view, which suggests that credit ratings convey valuable information in general, and therefore should be valuable not only in the U.S., but also in Hong Kong.

IV. A “REGULATORY LICENSE” VIEW OF CREDIT RATINGS

If the reputational capital view of credit ratings is flawed, as the arguments in Parts II and III suggest, does another theory better describes the role of credit ratings in financial markets? In this Part, I argue that credit ratings are valuable, not because they contain valuable information, but because they grant issuers “regulatory licenses.” In simple terms, a good rating entitles the issuer (and the investors in a particular issue) to certain advantages related to regulation. I argue that this regulatory license view of credit ratings better describes the role of credit rating agencies.³⁰⁷

In particular, the regulatory license view helps explain the increase in the importance of credit rating agencies during the 1930s and from the mid-1970s through today. According to this view, ratings are valuable, not because they are accurate and credible, but because they are the key to reducing costs associated with regulation, which increased during the above-mentioned periods. In theory, rating agencies have good reason to avoid conflicts of interest and to protect the accuracy of their ratings, because they need to preserve their reputations. However, once the ratings of a small number of credit rating agencies are enshrined by regulators who incorporate credit ratings into substantive regulation, the markets become less vigilant about the agencies’ work.³⁰⁸ The regulatory license view presented here attempts to fill the gaps in the reputational capital view by arguing that periodic regulatory expansion explains the growth and importance of rating agencies.

A. *Regulatory Licenses*

The regulatory license view is quite simple. Absent regulation incorporating ratings, the regulatory license view agrees with the reputational capital view:

307. This view is in sharp contrast to the views expressed in legal scholarship concerning credit ratings. Consider the following statement: “Federal regulatory reliance on rating agencies prevents intrusion of the government into the field of securities analysis and conserves resources of federal regulators who are not as well-equipped to analyze securities issuances. A regulatory system that relies on ratings can become fine-tuned, less costly for society, as well as simpler to apply for issuers.” Rhodes, *supra* note 62, at 297; *see also supra* note 62.

308. *See The Use and Abuse of Reputation, supra* note 10, at 18.

rating agencies sell information and survive based on their ability to accumulate and retain reputational capital. However, once regulation is passed that incorporates ratings, rating agencies begin to sell not only information but also the valuable property rights associated with compliance with that regulation.

If the applicable regulation imposes costs, and a favorable rating eliminates or reduces those costs, then rating agencies will sell regulatory licenses to enable issuers and investors to reduce their costs. Just as, according to the reputational capital view, rating agencies will sell information until the marginal cost of acquiring and transferring information exceeds the marginal benefit from issuer fees, so, according to the regulatory license view, rating agencies will sell regulatory licenses until the marginal cost of acquiring and transferring regulatory licenses exceeds the marginal benefit from issuer fees.

Moreover, if the applicable regulation enables only a few raters³⁰⁹ to acquire and transfer regulatory licenses, or if it imposes costs on new raters that raise the barriers to entry, the rating agencies will acquire market power in the sale of regulatory licenses. Unlike rating agencies selling information in a competitive market, rating agencies selling regulatory licenses under oligopolistic (or even monopolistic) conditions will be able to earn abnormal profits.

The regulatory license view can be generalized beyond credit ratings to any area in which the regulator privatizes a rating function by incorporating the ratings of a fixed number of raters into substantive regulation. To show that this concept applies generally, outside of the credit rating context, I will begin with a hypothetical example of the government's rating of meat quality.

Individuals purchasing meat are concerned about the quality of the meat. They could undertake search costs to determine the quality of each piece of meat they purchase, but it is more efficient for groups of purchasers to pay a certifier to rate meat. There is a free-rider problem associated with the nature of the certifier's meat ratings as a public good, although this problem can be solved in part by having meat sellers pay the certifier directly and then pass the cost of certification on to the meat purchaser.

Suppose a private company, Upton Sinclair, Inc., has been formed to certify meat quality. Purchasers will rely on Upton's meat ratings only to the extent they are accurate and credible. Over time, if Upton publishes accurate meat ratings, it will accumulate reputational capital, which will lead buyers to trust Upton's ratings in purchasing meat. If Upton is able to sustain the accuracy of

309. For example, regulation might incorporate the credit ratings of only a few rating agencies, thus establishing an oligopoly.

its ratings, it will increase its stock of reputational capital.

Suppose the cost to Upton of certifying meat is equal to C_U . Further suppose the expected benefit to meat purchasers from obtaining an Upton rating is equal to B , and the aggregate cost to meat purchasers of certifying meat is equal to $C_P = \sum C_p, p=1, \dots, n$ (where n = number of meat purchasers). Meat purchasers, either directly or indirectly through sellers, will pay for an Upton rating if B is greater than C_P , and Upton will provide a rating at a price between B and C_U . In a competitive market, Upton will be able to charge only C_U . If Upton is a monopolist, it will be able to charge B .

According to the reputational capital view, the quality of meat should be closely related to Upton's ratings. If it is not, B will decline, and meat purchasers will not be willing to pay for Upton's ratings (alternatively, Upton will not be able to charge a price high enough to cover its costs).

Now suppose the U.S. Department of Agriculture (USDA) promulgates a rule stating that meat purchasers can buy only meat with a Grade A seal. At first, the USDA considers supplying Grade A certifications on its own, but eventually decides that a private entity would be able to certify meat at lower cost and without the burdens of a government bureaucracy. Initially, the USDA does not impose limitations on who may provide a Grade A seal, but due to safety concerns, the USDA decides to allow only approved meat raters, including Upton, to certify meat as Grade A.

These decisions by the USDA have two effects. First, they give approved meat raters market power in providing ratings. This will result in an increase in the cost of certification, C_P (and therefore an increase in the cost of meat), which will be passed on to meat purchasers. There will be deadweight losses of the type typically associated with monopoly or market power. The severity of these losses and the magnitude of the increased costs will depend on the number of approved meat raters and the severity of the barriers to entry.

Second, the decisions by the USDA remove some of the reputational constraints on the meat rating business. Upton need not worry exclusively about its reputation, and consequently may give Grade A ratings to lower quality meat (*i.e.*, the portion of the value of B attributable to Upton providing information may decline), so long as Upton is able to retain its status as an approved meat rater. Now, the limitation on the raters' behavior is not the raters' reputation in the market, it is the raters' reputation with the USDA.³¹⁰

310. More generally, an entity will engage in reputation-harming activity if the expected profits from that activity exceed the expected losses associated with the harm to its reputation from that activity. In

Suppose meat sellers would like to begin selling meat with fat and filler. Absent regulation, Upton could not risk certifying such meat because of concerns about losing reputational capital. Now, in contrast, Upton can certify fat/filler meat as Grade A, so long as the USDA does not revoke Upton's status as an approved meat rater.³¹¹ If there are close substitutes to meat, which the USDA would be unlikely to detect, then Upton can give those products a Grade A rating, at a higher rating cost.

As the number of regulations depending on approved meat ratings grows, approved raters become both more powerful and more profitable (*i.e.*, *B* increases, despite the fact that Upton is providing little informational value). Their reputations may tarnish, so long as their approval status remains. Eventually, political pressure on regulators, perhaps from public outcry over the deterioration in meat quality, may lead to regulatory changes, although if the approved raters can earn sufficient profits to pay regulators—indirectly through campaign contributions, or even directly through bribes—raters may be able to remain in a position of profit and power indefinitely.

The above theory of regulatory licenses may explain the growth of certain types of certification agencies (*e.g.*, religious dietary certifiers), and may indicate some of the risks of privatizations in which the government remains involved in monitoring the private entities. On the other hand, the theory also is consistent with the view that certain private raters are able to accumulate and retain reputational capital and provide a valuable certification function over a long period of time without governmental regulation (*e.g.*, Consumer Reports magazine).

A full review of such raters is beyond the scope of this article, but I will mention one prominent one (other than the credit rating agency): Underwriters Laboratories, Inc. (UL). In November 1901, several insurance companies established UL to provide uniform testing of various types of appliances and to generate credible information about hazards associated with the tested products.³¹² UL began providing labels for approved products, and by the early 1920s

equilibrium, entities will continue to engage in reputation-reducing activity until the marginal benefit (increase in profits) of the activity equals the marginal loss (decrease in profits from the reputational loss) associated with the activity. To the extent market failure (*e.g.*, market power, high transaction costs, and/or informational asymmetries) exists, entities are more likely to engage in reputation-harming activity, because the benefits of such activity are more likely to outweigh the costs.

311. This is especially likely to be true if Upton is the only rater, or is one of a handful of raters.

312. See Harry Chase Brearly, *A Symbol of Safety: The Origins of Underwriters Laboratories*, in REPUTATION: STUDIES IN THE VOLUNTARY ELICITATION OF GOOD CONDUCT 75, 77-79 (Daniel B. Klein ed., 1997).

consumers were relying on these labels in assessing the safety of products. Once companies realized consumers were relying on the UL labels, they began developing products with a view to secure the UL label.³¹³

As of the 1920s, UL was non-profit, was not supported by regulation, and did not favor particular manufacturers; consequently, its labels were credible.³¹⁴ By the 1990s, UL had become a giant in safety certification, employing 3,900 people and testing 75,000 products; the UL mark appears on more than six billion new products each year.³¹⁵

On the other hand, the reputational capital view does not entirely explain UL's role, and in certain respects the regulatory license view is more accurate. In recent years, regulations have been promulgated that relate to the UL mark. For example, one incentive for manufacturers to use the UL mark is insulation against liability.³¹⁶ Another explanation is that the Occupational Safety and Health Administration (OSHA) has specified UL (and also the Factory Mutual Research Corporation (FMRC)) as authorized independent testing and certifying organizations for certain OSHA procedures. Daniel Klein has described this specification as resulting in an "OSHA monopoly" for UL and FMRC.³¹⁷ More recent OSHA guidelines have opened the business of certifying to "nationally recognized testing laboratories" and have specified how OSHA would approve such laboratories.³¹⁸ As of July 1993, there were ten such "nationally recognized testing laboratories."³¹⁹

Generally, the impetus for regulation of raters, including UL and credit rating agencies, is the same as the impetus for the flexible, market-based regulation which has contributed to the privatization of so many previously

313. Once the manufacturer of the product becomes involved in securing the rating, there is opportunity for bribery and collusion. Brearly describes one instance of an excited manufacturer giving each of four engineers a \$4,000 watch after his product passed the required tests; the engineers notified the UL President, and "[a]fter a stormy hour in the private office, the manufacturer left, carrying his four watches, and never thereafter attempted to repeat his offense." Brearly, *supra* note 312, at 82.

314. Brearly noted, "[a]s a result, the labels of Underwriters' Laboratories *mean something*. They are recognized as incontrovertible evidence that the goods which bear them really possess the qualities of their rating." *Id.* (emphasis in original).

315. See Daniel B. Klein, *Trust for Hire: Voluntary Remedies for Quality and Safety*, in REPUTATION: STUDIES IN THE VOLUNTARY ELICITATION OF GOOD CONDUCT 114,114-115 (Daniel B. Klein ed., 1997).

316. See *id.*, at 115.

317. See *id.* at 115 n.32.

318. See Safety Testing or Certification of Certain Workplace Equipment and Materials: Deletion of Specific Testing Laboratory Names; Definition of Nationally Recognized Testing Laboratory; Determination of Eligible Testing Organizations, 53 Fed. Reg. 12,102 (Dep't Labor 1988) codified at 29 C.F.R. 1907.

319. See Klein, *Trust for Hire*, *supra* note 315, at 115 n.32.

public activities and industries in the last fifteen years.³²⁰ Unfortunately, such privatization, when the regulator retains the power to approve of raters, may lead to second-order inefficiencies of greater consequence than those of the original, inefficient regime. Second-best economics suggests that privatization may be sub-optimal for various reasons. Regulators, wittingly or not, may try to assist the raters in a manner that creates market power and moral hazards for raters.³²¹ Subsidization of raters, even if indirect, may exacerbate market failure. Purchasers of ratings may face conditions of oligopoly, monopoly, or moral hazard³²² by raters. Approved raters are sheltered from new entrants and from foreign competition. This protection eliminates the incentive to maintain quality ratings. Consequently, the regulatory license view suggests that certain activities should not be privatized if markets are to function properly. Included among these activities is the rating of credit.

B. 1930s Regulation

The question remains whether, in fact, the regulatory license view better fits the historical development of credit ratings than the reputational capital view. The next two sections analyze this question. The regulatory license view is supported by evidence that regulators began incorporating credit ratings into substantive regulations in 1930, just after the informational value of ratings had plummeted due to the Great Crash, and just before rating agencies became increasingly important to market participants. The Federal Reserve Banks first began using bond ratings in their examination of the portfolios of member banks in 1930.³²³ Gustav Osterhus, of the Federal Reserve Bank of New York, devised a system for weighting a bank's entire portfolio based on credit ratings, so that the portfolio's "safety" or "desirability" could be expressed in a single number, referred to as a "desirability weighting."³²⁴

At the same time, states designated certain securities as "legal" investments for savings banks and trust funds.³²⁵ The result was that savings banks and trust

320. See McGuire, *supra* note 15, at 13.

321. For example, as to credit ratings, regulations certainly increased the revenues and profits of the rating industry and contributed to the growth of every rater.

322. The moral hazard argument is that raters may believe the government will protect them from bankruptcy, debilitating litigation, or other losses, and therefore will engage in sub-optimal rating practices under the assumption they will not bear the costs of those practices.

323. See HAROLD, *supra* note 72, at 25.

324. See Osterhus, *supra* note 114, at 68; for a detailed application of "desirability weights" to a group of 1931 investment portfolios, see HAROLD, *supra* note 72, at 160-72.

325. See HAROLD, *supra* note 72, at 18.

funds were required to invest large sums in such qualified securities, known as “legals”; conversely, savings banks and trust funds were unable to buy securities they otherwise would have purchased, including highly-rated securities, because those securities were not designated as “legal.”³²⁶

The Federal Reserve System imposed conditions of membership for state-chartered banks, including that a state bank “shall at all times conduct its business and exercise its powers with due regard to the safety of its depositors.”³²⁷ Regulation H governed the membership of state bank and trust companies in the Federal Reserve System and specified that “[i]n passing upon the application [for membership] the Federal Reserve Board will consider especially - (1) the financial condition of the applying bank or trust company and the general character of its management.”³²⁸ The Federal Reserve Board thus had virtually unlimited power to direct the character of member banks’ bond holdings.

The first formal rule incorporating ratings was enacted in 1931. The United States Treasury Department, through the Comptroller of the Currency, adopted credit ratings as proper measures of the quality of the national banks’ bond accounts. Specifically, the Comptroller ruled that bonds rated BBB (or an equivalent rating) or higher could be carried at cost, but bonds with lower ratings (including defaulted bonds) required fractional write-offs.³²⁹ This ruling received wide attention at the time, including a front-page article in *The Wall Street Journal*.³³⁰

Other rules incorporating credit ratings followed. Many state banking superintendents adopted the Comptroller’s plan during the following years.³³¹ Paragraph 7 of Section 5136 of the Revised Statutes of the U.S., as amended by Section 308 of the Banking Act of 1935, provided that national banks could purchase only securities that fit the definition of “investment securities” as

326. See *id.* at 18-19.

327. See *Conditions of Membership in the Federal Reserve System*, at 1 (mimeographed bulletin, Federal Reserve Board, Washington, 1933) (cited in HAROLD, *supra* note 72, at 26).

328. See FEDERAL RESERVE BOARD, REGULATION H, MEMBERSHIP OF STATE BANKS AND TRUST COMPANIES 5 (1930) (cited in HAROLD, *supra* note 72, at 26).

329. See HAROLD, *supra* note 72, at 26-27 (citing mimeographed ruling issued by J.W. Pole, then Comptroller of the Currency, not dated, although other references indicated that the ruling was made on September 11, 1931, see THE COMMERCIAL AND FINANCIAL CHRONICLE, Sept. 12, 1931, at 1672); *Rating the Rating Agencies*, *supra* note 10, at 53.

330. See *75% of Bank Bond Valuations Safe*, WALL ST. J., Sept. 12, 1931, at 1, 5.

331. See HAROLD, *supra* note 72, at 27-28 (citing adoptions of Montana, Mississippi, Alabama, Oregon, Ohio, and New York).

prescribed by the Comptroller of the Currency.³³² Similarly, Section 9 of the Federal Reserve Act provided that state member banks were subject to the same limitations.³³³

On February 15, 1936, the Comptroller issued the following ruling:

By virtue of the authority vested in the Comptroller of the Currency by . . . Paragraph Seventh of Section 5136 of the Revised Statutes, the following regulation is promulgated as to further limitations and restrictions on the purchase and sale of investment securities for the bank's own account, supplemental to the specific limitations and restrictions of the statute. . . . (3) The purchase of 'investment securities' in which the investment characteristics are distinctly and predominantly speculative, or 'investment securities' of a lower designated standard than those which are distinctly and predominantly speculative is prohibited.*

*The terms employed herein 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.³³⁴

The ruling had explosive effect, and the next few weeks generated flurries of protests from the banking community, and much confusion. Of the approximately 2,000 listed and publicly-traded bond issues, more than 1,000 failed the Comptroller's definition of "investment securities."³³⁵ In one day, the Comptroller had slashed in half the universe of publicly-traded bonds banks could purchase. Protests included arguments that the ruling was unfair to medium-sized and smaller companies because it placed a premium on size rather than merit, and that the ruling would lull banks into a false sense of security that they could safely buy and hold a bond, based on its credit rating, even though such ratings were based solely on past performance and were not necessarily accurate predictors of future performance.³³⁶ Even the Comptroller

332. *See id.*

333. *See id.*

334. *Id.* at 30 (citing UNITED STATES COMPTROLLER OF THE CURRENCY, PURCHASE OF INVESTMENT SECURITIES, AND FURTHER DEFINING THE TERM "INVESTMENT SECURITIES" AS USED IN SECTION 5136 OF THE REVISED STATUTES AS AMENDED BY THE "BANKING ACT OF 1935," SEC. II (Feb. 15, 1936)).

335. *See id.* at 31.

336. *See id.* at 31-32. For example, the Missouri Bankers Association voiced its concern as follows: "We further believe that the delegation to these private rating agencies of the judgment as to what constitutes a sound investment is unprecedented in our history and wholly unwarranted by their records in

seemed to recognize the potentially perverse effects of the ruling.³³⁷

Prior to the Comptroller's ruling, many banks invested in bonds rated lower than BBB. The ruling therefore eliminated a large part of the market for bonds rated below BBB, and increased the spread between the value of BBB-rated and BB-rated bonds.³³⁸

Prior to the ruling, rating agencies had not rated bonds until *after* they were issued. The ruling created incentives for bond issuers to obtain a rating *before* the bonds were issued. Bond issuers were forced to look to rating agencies as sources of authority concerning their bond issues, regardless of what information the rating agencies actually generated.³³⁹ Not surprisingly, ratings became much more common during the following years.³⁴⁰

It is no coincidence that credit ratings became more important and valuable following these changes in regulation. It is unlikely, however, that the increase in the value of credit ratings was due to new information the agencies were providing to investors. Instead, as demonstrated in section IV.A., above, credit rating-dependent regulation eliminated some of the reputational constraints on

the past." See *Resolution of the Missouri Bankers Association at its 46th annual convention, Kansas City, Mo.*, May 5, 1936 (quoted in HAROLD, *supra* note 72, at 32).

337. On May 22, 1936, J.F.T. O'Connor, then Comptroller, stated in a speech before the California Bankers Association, that "[t]he responsibility for proper investment of bank funds, now, as in the past, rests with the Directors of the institution, and there has been and is no intention on the part of this office 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." J.F.T. O'Connor, Comptroller of the Currency, Address at a convention of the California Bankers Association, Sacramento, Cal., May 22, 1936 (quoted in HAROLD, *supra* note 72, at 32).

338. Banks affected by the ruling would have been expected to have lower yielding bond portfolios. On the other hand, non-member banks could expect a windfall from the ruling because, as Gilbert Harold put it, "yields out of proportion to the character of the risks involved should for some time be available in the lower-rated issues." *Id.* at 33. This description bears a striking resemblance to the evidence from the 1980s that non-investment grade bonds were undervalued. See *supra* note 13. Harold also predicted that institutional investors who were restricted to the highest-grade bonds would be encouraged to look for other types of investments with higher potential returns, and that "[t]his may stimulate still further developments in such fields as real estate mortgages, etc." *Id.*

339. After 1936, regulations promulgated by both the Federal Reserve and SEC prohibited banks, pension funds, and insurers from holding low-rated bonds altogether and later required funds to take capital charges against any below-investment-grade bonds they held. See House, *supra* note 68, at 53.

340. See HAROLD, *supra* note 72, at 35. Within a few years after the Comptroller's ruling, Harold wrote, "It is unanimously asserted by the rating agencies that the use of bond ratings today is greater than ever before and that the use of and reliance on the ratings is growing year by year." *Id.*; see also *id.* at v ("Bankers especially are interested in the matter, for the Comptroller of the Currency on February 15, 1936, issued a ruling (as further defined and interpreted in his ruling of October 27, 1936) having a direct bearing on the use of bond ratings. It is common knowledge in bond circles that since the issuance of the Comptroller's ruling, a bond rated below that of a 'business man's investment' (BBB, Baa, B**, or B1+) can almost never be sold to a bank. Bond houses, therefore, are not out of order when they raise the question, 'How good is the rating?')").

the agencies' business.³⁴¹ The regulatory license view thus explains the problems associated with the reputational capital view during this period. Rating agencies became more important and more profitable, not because they generated more valuable information, but because they began selling more valuable regulatory licenses.

C. Post-1973 Regulation: The Creation of NRSROs

During the period from 1940 to 1973, the regulatory dependence on credit ratings did not change much; there was no major new credit rating-dependent regulation. Credit ratings did not become significantly more important during this period, when there is little reason to believe the informational value of ratings increased.³⁴²

In contrast, since 1973 credit ratings have been incorporated into hundreds of rules, releases, and regulations, in various substantive areas, including securities, pension, banking, real estate, and insurance regulation. The cascade of regulation began in 1973 when, following the credit crises of the early 1970s, the SEC adopted Rule 15c3-1,³⁴³ the first securities rule formally incorporating credit ratings and thereby approving the use of certain credit rating agencies as Nationally Recognized Statistical Ratings Organizations (NRSROs).³⁴⁴ Rule 15c3-1 set forth certain broker-dealer "haircut"³⁴⁵ requirements, and required a

341. Such regulation did not, however, grant the rating agencies market power, because it did not enumerate specific agencies as qualified for regulatory purposes. Regulatory licenses are more valuable in the long run if there are barriers to entering the licensing business. In this respect, 1930s regulation was much less harmful than the regulation from the mid-1970s to today, which specifically enumerates a handful of rating agencies as qualified for regulatory purposes. See discussion *infra* at 690-92.

342. During this period, rating agencies were able to benefit from the regulatory licenses created in the 1930s. Those licenses may explain why rating agencies became "household names" during a period when they were neither benefiting from new regulatory licenses nor generating additional valuable information. See discussion *supra* at 640-48.

343. 17 C.F.R. § 240.15c3-1 (1998).

344. See *Notice of Revision Proposed Amendments to Rule 15c3-1 under the Securities Exchange Act of 1934*, Release No. 34-10,525, 1973 SEC LEXIS 2309 (Nov. 29, 1973) ("The Commission to a limited extent has also recognized the usefulness of the nationally recognized statistical rating organizations as a basis for establishing a dividing line for securities with a greater or lesser degree of market volatility."). The term "NRSRO" is mentioned in Rule 15c3-1, but is not defined in any other regulation; other regulations simply refer to Rule 15c3-1. See, e.g., 17 C.F.R. § 270.2a-7 (1988)(Rule 2a-7, defining the term "as that term is used in Rule 15c3-1"). As the initial source of the term NRSRO, Rule 15c3-1 effectively froze the then-approved credit rating agencies (e.g., S&P, Moody's, Duff & Phelps, and Fitch) as acceptable for rating purposes, and severely limited the possibilities for new entrants. These barriers to entry have remained insurmountable.

345. Rule 15c3-1 set forth certain broker-dealer "haircut" requirements. A "haircut" is the percentage of a financial asset's market value a broker-dealer is required to deduct for the purpose of calculating its net capital requirement. Rule 15c3-1 required a different "haircut" based on the credit ratings assigned by

different haircut for securities based on credit ratings assigned by NRSROs.

Since 1973, there have been credit-rating dependent rules and regulations promulgated under the Securities Act of 1933,³⁴⁶ the Securities Exchange Act of 1934,³⁴⁷ the Investment Company Act of 1940,³⁴⁸ and various banking regulations.³⁴⁹ NRSROs even have been cited in a few federal district court

NRSROs. *See* 17 C.F.R. § 240.15c3-1 (1998).

346. Under the Securities Act of 1933, Rule 134 permits an issuer to disclose certain of its debt ratings in its "tombstone" advertisements; Rule 436 provides that the consent of the NRSRO is not required for the issuer to disclose a rating by an NRSRO, and that the NRSRO is exempt from liability as an expert under Section 11 of the Securities Act. *See* Item 10(c) of Regulation S-K. If at least one NRSRO rates an offering of nonconvertible debt or preferred stock as investment-grade, the issue may be registered using the shortened registration statement Form S-3. *See Multijurisdictional Disclosure and Modifications to the Current Registration and Reporting System for Canadian Issuers (MJDS)*, Release No. 33-6902, 56 Fed. Reg. 30,036 (1991). The same is true for foreign issuers, which may use Forms F-2 and F-3. Canadian issuers may register investment grade debt offerings using Form F-9 if, among other things, the issue has been rated in one of the four highest rating categories by at least one NRSRO. *See id.*

347. Under the Securities Exchange Act of 1934, Proposed Form 17-H, Risk Assessment Report for Brokers and Dealers, pursuant to Section 17(h) of the Exchange Act, requires that a reporting broker-dealer disclose any commercial paper rating that the firm or its affiliates has received from an NRSRO; Rule 10b-6 prohibits any person engaged in a distribution of securities from buying or bidding for any securities in that class until their participation in the distribution is completed. In 1983, the SEC adopted an exception from the rule for nonconvertible debt securities that, among other things, are rated investment-grade by at least one NRSRO. *See* Release No. 34-19,565, 48 Fed. Reg. 10,628 (1983) (the Commission stated its "belief that the fungibility of certain investment grade debt securities makes manipulation of their price very difficult").

348. Under the Investment Company Act of 1940, Rule 2a-7 uses NRSRO ratings to determine money market funds' permissible investments. Specifically, a rated security is an eligible investment if it has been rated in one of the two highest ratings for short-term debt by the required number of NRSROs. *See* Release No. 33-6,882, 56 Fed. Reg. 8113 (1991). The Securities Industry Association expressed concern at the time that ratings categories were not designed to be regulatory "tools" and that NRSROs changed their criteria, and neither used nor weighed given criteria equally. *See* Grafton, *supra* note 10, at 24 (citing Letter from Edward I. O'Brien, President of the SIA, to Jonathan G. Katz, Secretary of the Commission (Sept. 27, 1990), File No. S7-13-90). Rule 3a-7 excludes certain structured financings from the Investment Company Act if they were rated in one of the two highest rating categories by at least one NRSRO. The Commission has sought comment on this release. *See* Release No. IC-18,736, 57 Fed. Reg. 23, 980 (1992). Rule 10f-3 provides an exemption permitting investment companies to purchase municipal bonds underwritten by an affiliate during the underwriting period if the bonds were rated investment-grade by at least one NRSRO, or were rated one of the three highest ratings by at least one NRSRO if the municipality has been in existence for less than three years.

349. The term NRSRO is defined and used in numerous banking regulations. *See, e.g.*, 12 U.S.C. § 1831e (1996) (activities of savings associations); 12 U.S.C. § 4519 (1996) (authority to provide for review of enterprises by rating organization); 15 U.S.C. § 78c(41) (1996) (definition of the term "mortgage related security"). The Federal Reserve Board regulations (Reg. T) rely on NRSRO status. *See* 12 C.F.R. § 704.2, 704 App. A (1992). The Federal Reserve Board also relies on the term "bank rating agencies" in Regulation F, which permits banks to rely on such agencies to assess the financial condition of or to select a correspondent if the bank's board of directors has reviewed the assessment and selection criteria used by the rating agencies. *See* 12 C.F.R. §§ 206.3, 206.5 (1992). The Secondary Mortgage Market Enhancement Act of 1984 (SMMEA) required that a mortgage-related security be rated in one of the top two categories by at least one NRSRO. *See* 15 U.S.C. § 78c(a)(41) (1994). The Federal Deposit Insurance Act defines permissible activities of a savings association to include "investment grade" instruments, meaning an instrument rated in one of the top four categories by at least one NRSRO. *See* 12

opinions.³⁵⁰ The resulting web of regulation is so thick that a thorough review would occupy hundreds, perhaps thousands, of pages.

Nevertheless, it is possible to get a picture of the growth of credit rating-based regulation over time by analyzing the increase in the number of published regulations and other related materials in each of several substantive areas. Charts 1 through 5 depict the number of citations to NRSROs appearing in each of five LEXIS-NEXIS databases, for securities, pension, banking, real estate, and insurance regulation. The growth since the early 1970s and the sheer number of citations—more than 1,000 for securities alone—is striking.

U.S.C. § 1831e(d)(4)(A), (C) (1994). The Federal Housing Finance Board allows a regulation to be modified if an NRSRO determines that changing a bond's provisions will not result in a ratings downgrade. *See* 12 C.F.R. § 910.6 (1993). The Housing and Urban Development Housing Finance Agency Requirements include a requirement that potential Housing Finance Agencies be rated "top tier" by an NRSRO and maintain an overall "A" rating for their bonds. *See* 24 C.F.R. § 266.100 (1994). The Student Loan Marketing Association has similar rules. *See* 20 U.S.C. § 1132f-1 (1994).

350. The term NRSRO has been cited (only tangentially) in three federal cases. *See* *UBS Asset Mgmt. v. Wood Gundy Corp.*, 914 F. Supp. 66 (1996) (using term in reference to allegation of misrepresentation in sale of securities); *Heiko v. FDIC*, 1995 U.S. Dist. LEXIS 3407 (Mar. 15, 1995) (using term in definition of "mortgage-related security"); *SEC v. Drexel Burnham Lambert Inc.*, 1989 U.S. Dist. LEXIS 10383 (1989) (using term to define "below investment grade fixed income security" in constructing remedy).

These regulations effectively granted to the rating agencies hundreds of valuable regulatory licenses. As a result, agencies today stand as the gatekeepers³⁵¹ to the bond markets. In recent years, with this quantum leap in the value of regulatory licenses, the rating agencies no longer need to generate valuable information to sustain their reputations for quality over time. If fact, they no longer need much of a reputation for quality at all. As explained in the model in Part IV.A., the rating agencies have been able to profit and grow based on the value generated from selling regulatory licenses.

Although an examination of each of the regulatory licenses is not possible here, I next consider three sets of licenses as they apply to three unrelated segments of the financial markets: (1) money market mutual funds, (2) insurance companies, and (3) non-U.S. issuers. For each segment, I show that the above conclusions hold.

First, one limited³⁵² study of the effect of the SEC's amendments to Rule 2a-7—which governs investments by money market mutual funds—on the commercial paper market, is informative.³⁵³ The findings of that study support the regulatory license view articulated here.

Adopted in 1983, Rule 2a-7 permits money market funds to value portfolio securities at their cost of acquisition plus the amortization of premium or discount.³⁵⁴ Rule 2a-7 distinguishes between higher-quality “first-tier” commercial paper and lower-quality “second-tier” commercial paper.³⁵⁵

351. As used here, the term “gatekeeper” does not have the positive, efficiency-creating connotation other commentators implicitly have assumed in using the term. *See, e.g.*, Choi, *supra* note 62, at 933.

352. There are no comprehensive studies of the effects of NRSRO-based regulation on credit ratings. However, there is nothing unusual about the regulatory licenses created by Rule 2a-7, and one could reasonably expect similar results from studies of other credit rating-dependent regulation.

353. *See* Leland Crabbe & Mitchell A. Post, *The Effect of SEC Amendments to Rule 2a-7 on the Commercial Paper Market*, Finance and Economics Discussion Series, Division of Research and Statistics, Division of Monetary Affairs, Federal Reserve Board, Wash., D.C., Paper No. 199, May 1992 (copy on file with author).

354. This method is known as the “amortized cost method.” *See id.* at 6; *see also* 17 C.F.R. § 270.2a-7 (1998).

355. Rule 2a-7 divides commercial paper into two tiers based on the commercial paper's rating. The rating agencies use a slightly different rating scale for commercial paper than for other bonds. A commercial paper program is considered investment-grade if it is rated P-1, P-2, or P-3 by Moody's (its three highest ratings) or A-1, A-2, or A-3 by S&P (its three highest ratings). *See* Crabbe & Post, *supra* note 353, at 5. First-tier securities have a “1” rating from two or more NRSROs or, if only one

NRSRO rates the paper, a “1” rating from that NRSRO. For example, commercial paper rated A-1 by S&P and P-1 by Moody's is first-tier. Second-tier securities have a “1” or “2” rating from two or more

Effective in 1991, the SEC amended Rule 2a-7 to add a requirement that a money market fund invest no more than five percent of its assets in second-tier paper and at most one percent of its assets in the paper of any particular second-tier issuer. This amendment created regulatory licenses because of Rule 2a-7's dependence on NRSRO ratings, *i.e.*, whether a commercial paper issue is classified as first-tier or second-tier depends on the ratings assigned to the paper by one or more NRSROs.

In the late 1980s, money market mutual funds invested about half of their assets in commercial paper.³⁵⁶ For investors, such funds were a safe, cash-like investment that maintained a stable share price of \$1 per share. However, in 1989 and 1990 there were several major commercial paper defaults,³⁵⁷ and the SEC proposed the above amendments to Rule 2a-7 in response.³⁵⁸ By limiting money market funds' investments in second-tier commercial paper to five percent of the funds' assets, the SEC effectively placed a large premium on issuers obtaining the highest possible rating.

Crabbe and Post found that after the Rule 2a-7 amendments (1) funds reduced their investments in medium-grade commercial paper, (2) the size of the medium-grade commercial paper market declined, and (3) the yield spread between medium-grade and high-grade commercial paper increased by more than fifty percent.³⁵⁹ Specifically, Crabbe and Post found that money market funds dramatically reduced their holdings of second-tier commercial paper in 1990-91.³⁶⁰ Then, as investors stopped buying second-tier paper, second-tier

NRSROs. For example, commercial paper rated A-2 by S&P and P-2 by Moody's is second-tier. Money funds are prohibited from investing in commercial paper rated A-3/P-3 or below. *See* 17 C.F.R. § 270.2a-7 (1998).

356. *See* Crabbe & Post, *supra* note 353, at 1. The commercial paper market has grown substantially since the 1970s and is now the primary source of short-term funding for investment-grade corporations. The total amount of commercial paper outstanding in the early 1990s was more than half a trillion dollars. *See id.*

357. In 1989 three issuers defaulted, in 1990 four defaulted, and in 1991 another defaulted, on a total of \$883 million of U.S. commercial paper. *See id.* at 7 n.8. These eight issuers had high credit ratings; their serial defaults do not establish a very good track record for Moody's and S&P.

358. *See id.* at 1. The changes became effective in June 1991.

359. Crabbe and Post note that other factors may have contributed to this increase, including a recession and a higher incidence of defaults, although they conclude: "Nevertheless, the evidence suggests that the amendments to rule 2a-7 significantly reduced the supply of credit in the commercial paper market to medium-grade corporations." Crabbe & Post, *supra* note 353, at 2.

360. Recall that the SEC proposed the amendments to Rule 2a-7 in July 1990, and they became effective in 1991. The following table from Crabbe and Post shows the precipitous decline in holdings of second-tier commercial paper, beginning in 1990:

issuers decreased their borrowing.³⁶¹

Why didn't second-tier borrowers simply attract investors by offering a higher rate? If the supply of credit were elastic, then only a slight increase in the rate would have been sufficient to offset the decrease in supply of credit from money funds. In fact, the spread differential between the yields on A-1/P-1 issues and A-2/P-2 issues widened from 21 basis points in June 1990 to 47 basis points in February 1991.³⁶² The increase in spread, however, was insufficient to generate interest in second-tier commercial paper, primarily³⁶³ because money market funds no longer were permitted to hold a significant dollar amount of second-tier issues.³⁶⁴ The additional value of a high credit rating in such an environment is obvious: it could make or break an issue.³⁶⁵

A second snapshot of credit rating-based regulation which supports the regulatory license view and contradicts the reputational capital view is insurance company regulation. The use of credit ratings by insurance industry regulators is both indirect and complex. State insurance regulators created the National Association of Insurance Commissioners (NAIC) in 1871.³⁶⁶ The NAIC's Securities Valuation Office (SVO) in New York is responsible for monitoring the financial condition of insurers by examining the credit quality and value of

<u>Time</u>	<u>Money Fund Holdings of Second-Tier Paper</u>	
	<u>Billions of Dollars</u>	<u>Percent of Fund Assets</u>
First Half 1988	\$12.9	5.57%
Second Half 1988	\$16.2	7.03%
First Half 1989	\$19.6	7.66%
Second Half 1989	\$24.7	8.22%
First Half 1990	\$13.8	4.24%
December 1990	\$ 6.0	1.30%
June 1991	\$ 1.4	0.40%
September 1991	\$ 0.4	0.10%
December 1991	\$ 0.0 (\$23 million)	0.01%

Crabbe & Post, *supra* note 353, at 18.

361. *See id.* at 13-20.

362. *See id.* at 20. Regression analyzes confirmed these results. *See id.* at 22-26.

363. Another reason may have been concerns about negative publicity. *See id.* at 26-27.

364. In contrast, corporations with first-tier ratings increased their commercial paper borrowing during the same period, on average. *See id.* at 19.

365. The benefits to the agencies were real and immediate. For example, Fitch's fortunes were helped by the SEC ruling that mutual funds purchasing commercial paper must have top ratings from two agencies. That rule change brought 15 to 20 new clients to Fitch. *See* Toddi Gutner, *supra* note 165, at 89.

366. *See* A TRADITION OF CONSUMER PROTECTION, NAIC, 1995, at 1. The NAIC was established to coordinate regulation of multistate insurers by developing uniform financial reporting by insurance companies. *See id.* Today, the NAIC is enormous, with more than a dozen committees and between 1,000 and 2,000 attendees each quarterly NAIC meeting. *See id.* at 2.

insurers' investments.³⁶⁷ The primary mission of the SVO is to provide members of the NAIC with a list of "Association Values," *i.e.*, the quality ratings for an insurer's securities. State insurance regulators then require insurance companies to use these "Association Values" in preparing their annual statements.³⁶⁸

The NAIC Association Values depend directly on NRSRO credit ratings. Ratings of A3/A- through Aaa/AAA are designated NAIC 1. Baa1/BBB+ through Baa3/BBB- are designated NAIC 2. Ba1/BB+ through Ba3/BB- are designated NAIC 3. B1/B+ through B3/B- are designated NAIC 4. Caa/CCC+ through C/C- are designated NAIC 5. Any security rated "D" (or in or near default) is rated NAIC 6.³⁶⁹ Insurance companies then apply a range of risk-based capital factors to the securities they own, depending on the NAIC rating.³⁷⁰ The NAIC ratings are structured so that the riskier securities are more expensive for insurance companies to own. To discourage insurance companies from investing in privately-placed high-yield bonds, the NAIC fixes a high capital charge for non-investment-grade purchases. To avoid the capital charge, insurance companies must invest in issues with investment-grade ratings. Evidence shows that as a result issuers are willing to pay a premium to a rating agency to inflate the issuer's ratings.³⁷¹

The NAIC recently began a formal review of insurance company use of credit derivatives because of concern that some companies use the products to take on credit risk without paying risk-based capital charges.³⁷² Insurance companies have been frequent participants in the rating-driven transactions described in Part III,³⁷³ in part because insurance regulation depends

367. *See id.* at 8. The Committee on Valuation of Securities was formed in 1907 in response to allegations of abuse in reporting investments by insurance companies in New York. In 1908, the NAIC began publishing "Valuations of Securities," the primary publication of the SVO. The SVO database contains information regarding approximately 200,000 securities and 30,000 issuers. *See id.*

368. *See* Frederic P. Vigneron, NAIC SVO OVERVIEW, Dec. 11, 1997, at 4 (copy on file with author).

369. *See id.* at 6.

370. The higher the risk-based capital factor, the more capital an insurer must allocate, and accordingly the more expensive it is to own the security. For example, securities rated NAIC 1 are given a low risk-based capital factor: 0.0 percent for direct U.S. obligations, 0.3 percent for other securities. The risk-based factors for certain securities are 1.0 percent for NAIC 2, then 2.0 percent for NAIC 3, 4.5 percent for NAIC 4, 10.0 percent for NAIC 5, and 30.0 percent for NAIC 6. A risk based capital factor of 0.0 percent means that the insurer need not allocate any of its capital, for accounting purposes, to the security. *See id.*

371. *See* McGuire, *supra* note 15, at 12.

372. *See* Sophie Belcher, NAIC Puts Credit Trades Under Microscope, DERIVATIVES WK., June 2, 1997, at 1.

373. *See, e.g.*, Partnoy, *supra* note 26, at 60-61.

substantively on credit ratings. Thus, insurance company regulation has resulted in rating agencies selling entitlements to avoid costly rules rather than valuable information.³⁷⁴

Finally, the contrast between U.S. and non-U.S. regulation also supports the regulatory license view. Europeans, both investors and issuers, are not as ratings conscious as their U.S. counterparts.³⁷⁵ Ratings of international debt issues are aimed primarily at U.S. investors,³⁷⁶ despite the agencies' attempts to increase the amount of business they do outside the U.S.³⁷⁷ Absent American-style regulations that virtually oblige a company to obtain a rating, European corporations often forgo the bother and expense of obtaining a rating, especially if they borrow principally in their domestic markets.³⁷⁸

Rating agencies are particularly poor at predicting default of foreign debt issuers. For example, S&P and Moody's failed to predict the financial difficulties of two large foreign insurers (Denmark's Hafnia and Canada's

374. See McGuire, *supra* note 15, at 12-13.

By lowering its quality standards to accommodate them, the rating agency collects a fee, the investment banker who hires it collects a fee, the issuer gets to sell its debt, the insurance company is able to invest in junk bonds without inordinate capital charges—no one loses. The counterbalance to the pressures of issuer fees has been removed from the system because there is no investor discipline in the process. There is no credibility to be lost by issuing misleadingly high ratings because there is no one to be misled. The insurance companies know exactly what they are doing.

Id.

375. See Cooper, *supra* note 161, at 51. Recently, however, regulators in countries outside the U.S. have begun regulating based on credit ratings. For example, the Japanese Ministry of Finance uses ratings to determine which issuers can sell debt in its markets; the French Commission des Opérations de Bourse uses ratings to reduce disclosure requirements; and the British Securities Industry Board uses ratings to determine the capital adequacy of British securities houses. See, e.g., McGuire, *Ratings in Regulation*, *supra* note 15, at 11 (non-U.S. generally); *Rating the Rating Agencies*, *supra* note 10, at 53 (same); *The Use and Abuse of Reputation*, *supra* note 10, at 18 (same); Harris, *Inside Information for Outsiders*, FIN. TIMES, July 22, 1991, at 14 (same); *Japan Set Up Council to Study Bond Ratings*, REUTERS, Jan. 4, 1989 (Japan; copy on file with the author). Portugal has proposed legislation to allow only private companies with credit ratings to issue commercial paper. See *Portugal Plans Own Version of CP Markets; Foreigners to be Excluded Initially*, THOMSON'S INT'L BANKING REG., Mar. 16, 1992. For a general description of how countries other than the U.S. also incorporate credit ratings in their substantive financial market regulation, see Dale and Thomas, *The Regulatory Use of Credit Ratings in International Financial Markets*, J. INT'L SEC. MARKETS., Spring 1991, at 9.

376. For example, several major U.S. mutual funds indicated a willingness to increase their weighting for the Philippines in late 1996 (before the Asian collapse) if the Philippines was upgraded to investment-grade, as a few stock analysts had predicted. See *Managers Look to Boost Philippine Holdings on Upgrade*, EMERGING MARKETS WK., Dec. 30, 1996, at 3. Similarly, until the rating agencies began assigning ratings to the \$62 billion offshore market in floating rate notes, U.S. thrifts were not able to buy them, because the Federal Home Loan Bank Board required that thrifts buy debt instruments with ratings of BBB or better. See Sarah Bartlett et al., *The Big Two Bond Raters Do Battle Abroad*, BUS. WK., May 6, 1985, at 62.

377. See *id.*

378. For example, S&P rated only 35 U.K. corporations as of 1989. See *id.*

Confederation Life), two large foreign banks (Spain's Banesto and France's Credit Lyonnais), and various institutions in Mexico.³⁷⁹ Market participants recognize the failures of the rating agencies in these areas and consistently demand higher yields than the ratings would imply for other sovereign issues.³⁸⁰ On the other hand, because of U.S. regulation, rating changes dramatically affect non-U.S. issuers who sell into, or have substantial dealings in, the U.S. debt markets.

Overall, the effects of these regulations outside the U.S. on the market for credit ratings is consistent with the regulatory license view. The fact that issuers began charging for U.S. ratings when U.S. rating-dependent rules were enacted, and that U.S. rating revenues have increased along with the quantity of U.S. regulation, is direct evidence that rating agencies are selling regulatory licenses in the U.S.³⁸¹ The absence of such rules outside the U.S., and the corresponding reduction in the importance of rating agencies outside the U.S., also support the view.

By employing ratings as a tool of regulation, U.S. regulators have fundamentally changed the nature of the product rating agencies sell. Today, issuers are paying rating fees, not to purchase credibility with the investor community, but rather to purchase a license from the regulators. The web of regulation added from 1973 until today has given the rating agencies a valuable and powerful franchise in selling regulatory licenses. Those lucky few rating agencies obtaining NRSRO status before the drawbridge was pulled up now have a product to sell regardless of whether they maintain credibility with the investor community.³⁸²

In sum, the above discussion has demonstrated that the three criteria that must be satisfied for rating certification to be credible are not satisfied for credit rating agencies.³⁸³ First, rating agencies have little reputational capital at stake in the certification activity; they can maintain whatever credibility they need by parroting market price moves. Second, the gain from inaccurate certification vastly exceeds the cost of any loss in reputational capital. (This is especially

379. See *Rating the Rating Agencies*, *supra* note 10, at 54.

380. See *id.*

381. See *id.* at 53 ("The regulator has inadvertently created a very pernicious set of economic incentives for the ratings-agency industry").

382. As Mr. McGuire of Moody's put it, "[g]overnment regulation has inadvertently created a cancer which is killing the natural defenses of the rating industry." *Id.* at 10. Kenneth Raisler, a lawyer at the firm of Sullivan & Cromwell, summed it up nicely: "The ratings criteria have become a form of regulation." *Id.*

383. See discussion *infra* at 632-33.

true if agencies are able to persuade investors that ratings are valuable information because they are correlated with actual default experience.) Third, the agencies' services are not costly; it is cheap and easy to follow market events and adjust ratings after the fact. In modern financial markets, the information asymmetries that generated the need for ratings in 1909 are long gone.

V. RECOMMENDATIONS

The central recommendation offered here is simple: eliminate the regulatory dependence on credit ratings. In this Part, I briefly explain three issues related to this recommendation: first, that a proposal substituting credit spreads for credit ratings in regulation is workable; second, that a proposal incorporating market risk ratings in regulation is seriously flawed; and third, that litigation spawned by the expansion of credit ratings has merit.

A. *Substituting Credit Spreads for Credit Ratings*

First, if the argument presented here is persuasive, why not simply excise from the applicable regulations any reference to credit ratings? Of course, the rating agencies oppose this idea³⁸⁴ because they have a vested interest in their comparative advantage over non-NRSRO rating firms.³⁸⁵ Regulators, too, have a self-interest in preserving the easy-to-use credit-rating-dependent regulation.³⁸⁶ These preliminary objections notwithstanding, why not recreate a free market

384. Although at least one senior official at Moody's seems to favor the idea of eliminating regulatory dependence on credit ratings. See McGuire, *supra* note 15, at 11.

385. See *Rating the Rating Agencies*, *supra* note 10, at 53.

386. In 1992, SEC Commissioner Richard Roberts called for the SEC to have direct regulatory oversight over NRSROs. See *Roberts Says SEC Needs Oversight Authority of Credit Rating Services*, *supra* note 10, at 3. ("Due to the continued growth in the use of ratings in the commission's rules and the important role of rating agencies in the securities markets, it appears to me that the commission should pursue a course of action that will bring NRSROs within the direct regulatory oversight of the commission."). Roberts said that, in reality, the SEC receives little information from the rating agencies and obtains only informal information through business publications or from competing rating agencies; for example, the SEC learned about S&P's acquisition of J.J. Kenny Co. only after reading it in the newspaper. See *id.* Representative John Dingell responded favorably to the appeal by Commissioner Roberts and requested technical drafting assistance in writing supporting legislation in April 1992. See *Dingell Readies Bill to Give SEC More Control over Credit Rating*, SEC. WK., May 4, 1992, at 1. Later in 1992, SEC Commissioner Mary Schapiro joined forces with Commissioner Roberts to get the legislation passed. See *Schapiro and Roberts Team up to Get SEC Oversight of Rating Agencies*, SEC. WK., Aug. 17, 1992, at 2. However, the legislation was brought late in the session, and subsequently fizzled. See *Dingle Readies Bill to Give SEC More Control over Credit Rating*, *supra*, at 1. Roberts continued to call for changes in the SEC's approach to NRSRO's until Aug. 31, 1994, when the SEC finally solicited comments on a concept release on NRSROs. See *SEC Set to Issue Concept Release on Regulating Rating Agencies*, SEC. WK., Aug. 15, 1994, at 1. The focus of the legislation, however, had

in ratings?

The primary objection to a proposal to eliminate regulatory dependence on credit ratings is the perceived need for substantive financial market regulation. Without a substitute for credit ratings in regulation, creating a free market in ratings would require eliminating vast swaths of the regulatory regime as it relates to financial services companies. Many scholars or commentators may support such regulatory change, and for those who do, the argument against using credit ratings in regulation is one that can be used to support stripping much existing regulation of its teeth.³⁸⁷

However, for those who believe existing regulation is justified (or at minimum that it is better than no regulation at all), in order to eliminate credit ratings from regulation, there must be a substitute. Here it is: in place of credit ratings, simply use credit spreads.³⁸⁸ Credit spreads already incorporate the information contained in credit ratings. They are at least as accurate as credit ratings. And because credit spreads are determined by the market as a whole,

shifted from bringing the NRSROs under the SEC's direct regulatory oversight, to creating a more formal process to codify the standards that NRSROs should meet. *See id.* at 1. Roberts referred to the then-current process as "under the table." *See id.*

The SEC issued its notice of proposed rulemaking on September 7, 1994, *see* 59 Fed. Reg. 46,304 (1994), and the comment period began on December 6, 1994. On December 8, 1994, Commissioner Steven Wallman met with representatives of Moody's to discuss NRSROs, and Moody's indicated that the SEC should "reduce and ultimately eliminate its regulatory reliance on ratings and that it opposes any regulation of rating agencies by the Federal government." Memorandum from Office of Commissioner Steven Wallman, SEC, Dec. 9, 1994, Public File No. S7-23-94, Document 20. The SEC has not acted on this release or the related comments. In September 1995, the SEC sought comments on proposals that rating agencies be subject to a formal accreditation process and that issuers be required to disclose ratings in prospectuses for public offerings. As of January 1997, the SEC's notice on NRSROs still was pending on its agenda for "Long-Term Actions," although its priority was listed as "Nonsignificant" and the legal deadline given was "none." *See* 1996 SEC LEXIS 3447 at *30. The Department of Justice submitted comments to the SEC, objecting on antitrust grounds to part of the SEC's December 1997 proposal for formalizing NRSRO-designation status. *See Justice Expresses Antitrust Concerns About SEC Proposal on NRSRO Deregulation*, 30 BNA SEC. REG. & LAW. R. 411 (Mar. 13, 1998). Action on the outstanding releases was pending as of November 1999. The SEC still listed NRSROs as a "substantive, nonsignificant" priority in its semiannual regulatory agenda as of Apr. 26, 1999. *See* Regulatory Flexibility Agenda, 64 FR 22,402, 22,423 (Apr. 26, 1999).

387. In contrast, there are reasons to believe regulatory changes which merely opened NRSRO designation to competing firms would be sub-optimal. Rating agencies are corporations and have a responsibility to shareholders to earn profits. If issuers and intermediaries were encouraged to engage in rating shopping, then absent regulation they likely would search for the least demanding rating. *See* Pinkes, *supra* note 83, at 4. In contrast, investors likely would search for the most demanding rating. It is unclear whether issuers or investors would exert greater pressure, and whether rating agencies seeking to maximize profits would favor issuers or investors. However, based on today's market dynamic, there is some indication that the search for ratings would become a race to the bottom, *i.e.*, that the agency willing to inflate its ratings and offer the least expensive services would win business. *See id.*

388. Recall that the credit spread is the difference between the yield on the bond and the yield on a risk-free bond of comparable structure and maturity. *See supra* notes 171-73 and accompanying text.

not by any individual entity or entities, a credit spread-based system would not create regulatory licenses for any approved agency.³⁸⁹

Let me suggest two examples, based on the discussion in Part IV, to show how a credit spread-based regulatory regime would work. First, consider the regulation of investments by money market mutual funds. Those funds currently are permitted to purchase only those bonds with a credit rating in the top two rating categories. In place of this requirement, I suggest substituting a requirement that the funds be permitted to purchase only those bonds with a credit spread of, say, 75 basis points or less. The credit spread would be measured in an objective way³⁹⁰ at the time of purchase,³⁹¹ and perhaps periodically thereafter. Funds would be required to sell bonds whose credit spread increased above 75 basis points for some period of time.³⁹² The credit spread measure could be an average over some period (*e.g.*, 30 to 90 days) to smooth the effects of sudden market movements based on temporary supply/demand factors or liquidity constraints. It is worth noting that funds already are required to mark-to-market their investments on a daily basis, so implementing the rule would not be very costly or difficult.

As another example, consider insurance regulation, which is driven by NAIC ratings, which in turn depend on NRSRO credit ratings. I propose that the NAIC change its rating system so that it depends on credit spreads instead of credit ratings. The NAIC might adopt the following schedule of investments, and impose the same capital charges by category, simply substituting the right column (credit spreads) for the currently-used left column (credit ratings):

<u>NRSRO Rating</u>	<u>NAIC Rating</u>	<u>Credit Spread</u>
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389. There is some existing support for such a system, in certain limited contexts. For example, the Basle Supervisors Committee has suggested a revised framework for banks to use in determining market risk capital, and many of the models used by banks are based on market risk approaches, not simplistic assessments of the credit ratings of the investments they hold. See Dorothy Guo et al., *Market Risk Capital Approaches*, DERIVATIVES WK., Mar. 10, 1997, at 8.

390. Financial market participants generally agree on the methodology used to calculate credit spreads, despite the errors in credit estimation in practice. See *supra* notes 173-75. Any differences in methodology could be resolved by a requirement that bondholders obtain a valuation from more than one party, or that the valuation be reasonable.

391. It might seem that one problem with using market-based credit spreads would be that such spreads can be determined only after there is a market for the underlying bond. However, there is no reason why investors considering bond purchases could not take into account pre-issuance estimates of credit spreads (*i.e.*, "price talk"), in much the same way investors now rely on pre-issuance estimates of credit ratings, which are not issued until the bonds are issued (credit spreads are available at the same time).

392. The details of this proposal (*e.g.*, the size of the relevant spread, the applicable time period) could be set by the various regulatory entities. The proposal could be phased in over time to avoid a sudden liquidity crisis associated with forced sales of risky bonds.

AAA to A-	1	0 to 100 basis points
BBB+ to BBB-	2	101 to 200 basis points
BB+ to BB-	3	201 to 400 basis points
B+ to B-	4	401 to 1000 basis points
CCC+ to C-	5	1001 to 2000 basis points
D (default)	6	2001 basis points or greater

The above credit spreads are provided for illustrative purposes only, although they represent a close approximation to what regulators might select. Again, the relevant measure could be an average over some period of time. Obviously, input from market participants and credit rating agencies would be valuable in determining the appropriate credit spread for each category.

The same approach outlined in these two examples could be followed for each of the hundreds of regulations that currently depend on credit ratings. If there are concerns about the volatility of credit spreads (compared to credit ratings), regulators could use an average or median spread over time. If there are concerns about liquidity and the ability to determine credit spreads in illiquid markets, regulators could include provisions for multiple valuations, with an obligation for regulated entities providing values to provide a “fair valuation.” All financial market participants value bonds they own using some methodology; this proposal simply takes the best such methodology and substitutes it for credit ratings in applicable regulation. The credit spread approach is straightforward and easy to implement. At minimum, regulators should experiment with incorporating credit spreads in some portion of NRSRO-based regulation.

B. Market Risk Ratings

In contrast to the benefits a system based on credit spreads would generate, one existing proposal, for so-called “market risk ratings,” would compound existing inefficiencies by adding a new array of regulatory licenses.³⁹³ Market risk ratings are ratings for mutual funds that could be used in regulation. Although such ratings have generated much attention recently, and although numerous entities currently rate mutual funds, no such entity currently is

393. In particular, proposals that S&P and Moody’s change their credit risk ratings to market risk ratings to reflect perceived inaccuracies will not eliminate the regulatory license problem, but will simply substitute a different form of regulatory license. S&P and Moody’s have considered such proposals in the past, see *S&P, Moody’s Eye Rating Market Risk of Structured Notes*, DERIVATIVES WK., Jan. 17, 1994, at 1.

enshrined in regulation. NASD Regulation (NASDR), the regulatory arm of the National Association of Securities Dealers (NASD), has proposed excluding NRSROs from the reach of such regulation, but the issue remains hotly debated.³⁹⁴

Market risk ratings developed in 1994 as a response to the financial dislocation caused when several bond funds dropped in value following the increase in short-term interest rates in early 1994.³⁹⁵ In response to such problems, the rating agencies developed market risk ratings.³⁹⁶ Such ratings were intended to capture risks not captured by NRSRO credit ratings of individual investments.

As applied to mutual funds, such market risk ratings would differ from existing mutual fund ratings, which to date have not been incorporated into regulation. The best example of such a ratings system is Morningstar, which was founded in 1984 to provide data to mutual fund investors.³⁹⁷ Morningstar's methodology is not without its weaknesses, and there are reasons to believe such a ranking system is inherently flawed; in particular, whether a fund is ranked first or last is based on little more than the statistical properties of a probability distribution.³⁹⁸ Moreover, the Morningstar system has been criticized for its

394. See *Notice of Filing of Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to Bond Mutual Fund Volatility Ratings*, File No. SR-NASD-97-89, Release No. 34-40627, 1998 SEC LEXIS 2390 (Nov. 2, 1998) (amending proposal to exclude NRSROs); see also *supra* note 386.

395. For example, before 1994, when it nearly collapsed, the Piper Jaffray Institutional Government Income Fund was rated AAA by S&P. See Jeffrey M. Laderman, *A Nifty Yardstick That Nobody's Using*, BUS. WK., Nov. 11, 1996, at 126. This fund also was rated first among all short-term government mutual funds, according to Lipper Analytical Services, Inc., and had received five stars from Morningstar, Inc., its highest rating. See *id.* These ratings obviously proved inaccurate.

396. See *id.* According to a 1994 report, half of the mutual funds Moody's rated were designed for institutional investors, while only one in ten was designed for retail investors. The reason for the imbalance was that many institutional and trust clients could invest only in rated securities, yet another example of a regulatory license. See Kalen Holliday, *Moody's Sees a Growth Business in Rating Bank Mutual Funds*, AM. BANKER, Jan. 10, 1994, at 12.

397. See Charles Gasparino, *Morningstar Begins to Court Fund Companies and Directors*, WALL ST. J., Apr. 30, 1998, at C1. Morgan Stanley also has created a measure designed to provide a risk-adjusted rating for mutual funds. Designed by Leah Modigliani, with assistance from her grandfather, Nobel laureate Franco Modigliani, this measure, called "M-squared" (after the two Modigliani's), tweaks a fund's portfolio until the fund's volatility precisely matches the volatility of the benchmark the fund is being measured against. See Suzanne McGee, *Morgan Stanley Pitches System to Measure Mutual-Fund Risk*, WALL ST. J., Feb. 10, 1997, at C1.

398. Morningstar uses a bell curve: the top 10 percent of funds get five stars, the next 22.5 percent get four, the next 35 percent get three, the next 22.5 percent get two, and the remainder get one star. See Carole Gould, *Is There Fault in the Stars in Morningstar's Ratings?*, N.Y. TIMES, Feb. 22, 1998, Sec. 3, at 8. Such a system creates incentives for a mutual fund parent to house a large number of subsidiary funds so that at least a few funds will get five stars; the parent then can promote only those funds.

apparent bias favoring newer funds that do not have a long track record of performance, because it heavily penalizes any year of poor performance.³⁹⁹ Available evidence indicates that market risk ratings issued by credit rating agencies would be even less reliable.⁴⁰⁰ Most major fund groups are opposed to mutual fund risk ratings and fortunately such ratings are not embedded in regulation (yet).⁴⁰¹

A few regulators have recognized the dangers of incorporating into regulation the ratings of more than 10,000 mutual funds held by individual investors. For example, NASDR has prohibited the use of bond mutual fund risk ratings by its members⁴⁰² and has barred funds from using the ratings in shareholder communications because of their “predictive nature.”⁴⁰³ Still, several groups (including The Bond Investors Association and the Government Finance Officers Association) have asked NASDR to eliminate this prohibition and lobbying for regulatory use of market risk ratings is likely to increase.⁴⁰⁴

C. Recent Litigation

The flaws in the reputational capital view also lend support to recent lawsuits (and potential lawsuits) against the rating agencies. For example, the Department of Justice is investigating Moody's for unfair competition⁴⁰⁵ based

399. *See id.*

400. The Investment Company Institute (ICI) studied proposed market risk ratings and concluded that only 40 percent of investors were even able to interpret the ratings correctly. *See Rachel Witmer, Bond Fund Ratings Would Be Misunderstood, ICI Warns*, BNA SEC. REG. & L. REP., Sept. 19, 1997, at 1293.

401. *See Floyd Norris, Another Try for Bond Fund Ratings*, N.Y. TIMES, Sept. 21, 1997, at 9. Dealers also oppose market risk ratings, because of concerns that they would have to “leap over a double hurdle of credit and market risk minimums to get the deals sold to investors.” *See S&P, Moody's Eye Rating Market Risk of Structured Notes*, *supra* note 393, at 1.

402. *See NASD Regulation Seeks Comment on Use of Bond Fund Risk Ratings*, 29 SEC. REG. L. REP. at 12 (1997).

403. *See id.*

404. *See Bond Investors Association Urges NASDR to Allow Use of Bond Fund Risk Ratings*, 29 SEC. REG. & L. REP. 197 (1997); *GFAO Urges NASDR to Permit Ratings of Bond Fund Risk in Sales Literature*, 29 SEC. REG. & L. REP. 306 (1997); *see also* Witmer, *supra* note 400.

405. *See Ibrahim Warde, Rating Agencies: The New Superpowers?*, (visited Nov. 30, 1998) <<http://www.idrel.com.lb/idrel/shufimafi/archives/docs/iwarde1.htm>>. Issuers typically invite a rating agency to rate their debt, although Moody's has rated debt uninvited. For example, in September 1996, Moody's announced it was preparing to issue an unsolicited rating of Egyptian government debt. *See id.* Egypt immediately hired Goldman, Sachs to help it comply with certain requirements and ultimately received a very low rating of Ba2, behind Israel, Tunisia, and Bahrain, although ahead of Jordan. The Egyptian minister of state for economic affairs said, “[a]lthough it is better than no rating, it does not reflect the true strength or potential of the Egyptian economy. I am looking forward to soon having another rating from a different agency to put this right.” *Id.*

on Moody's practice of issuing unsolicited or "hostile" ratings, regardless of whether the borrower has requested that it be rated.⁴⁰⁶ The analysis presented here supports claims that credit rating agencies are exerting market power. Existing raters were grandfathered into the U.S. system during the mid-1970s, and then a drawbridge was pulled up to stop outsiders.⁴⁰⁷ For example, IBCA, Ltd., a British firm recognized for ratings of bank debt but not for ratings of corporate debt, battled with the SEC for full recognition from 1988 until 1997, and was subject to "interminable delay."⁴⁰⁸ Nippon Investors Service, a Japanese rating agency, and two Canadian agencies, also are seeking full U.S. entry, and have been unsuccessful thus far.⁴⁰⁹ The SEC seems to recognize that its approach to approving rating agencies as NRSROs has created an anticompetitive situation.⁴¹⁰

In addition, several lawsuits have accused credit rating agencies of fraud in misrepresenting or omitting certain facts in their ratings. The record of plaintiffs bringing such cases against the agencies has not been good. If the SEC were to extend the ratings concept to require issuers to disclose ratings in prospectuses, such disclosures likely would lead to additional claims that credit rating agencies should be liable for misstatements and omissions related to such disclosures.⁴¹¹

406. The Department of Justice has investigated the possibility of anti-competitive practices in the bond rating industry, including the use of unsolicited ratings. *See, e.g.*, Suzanne Woolley, et al., *Now It's Moody's Turn for a Review*, BUS. WK., April 8, 1996, at 116; *The Use and Abuse of Reputation*, *supra* note 10, at 18; *Credit-rating Agencies. AAArg!*, *supra* note 10, at 80. Moody's also has been sued privately on similar grounds. In October 1995, Jefferson County School District, a local authority in Colorado, filed a lawsuit accusing Moody's of "fraud, malice, and wilful and wanton conduct" for publishing a "punishment" rating on the district's bonds, because the district did not hire the agency to rate it. *See id.*

407. *See id.*

408. *See Rating the Rating Agencies*, *supra* note 10, at 53. London-based IBCA Ltd., established in 1978 as a bank credit rating firm, is the only rating agency outside the United States of international significance. After a long battle with the SEC, IBCA became one of six NRSROs in 1990. IBCA had been seeking a full upgrade for several years from its authorization to rate financial institutions only until finally, in 1997, it decided to enter the market through a merger with Fitch, one of the four NRSROs. According to Robin Monro-Davies, managing director of IBCA, "One of the oddities of ratings is that it's difficult to prove you're right or wrong unless the particular institution goes bust. But regardless of whether you're right or wrong, the rating you assign will affect people's abilities to borrow money." *Id.*

409. *See id.*

410. For example, Michael Macciaroli, associate director of the SEC's division of market regulation, has admitted the SEC "used to do all this ad hoc [and] it only became a problem when these franchises became more valuable as ratings became encapsulated into the capital-raising function." *Id.* This statement is a startling admission by a senior and respected SEC official that credit rating agencies are selling valuable regulatory licenses. One alternative to the proposal presented here, which might interest the SEC, is to allow regulated entities to use only the *better* of credit spreads or credit ratings.

411. *See House*, *supra* note 41, at 249. A few law journal comments have argued that rating agencies should not be liable in such cases. *See, e.g.*, Husisian, *supra* note 62.

The Jefferson County, Colorado, School District case against Moody's included such a claim.⁴¹² Orange County, California, filed similar claims, based on professional negligence, against S&P, and although those claims survived motions to dismiss, S&P settled the suit for \$149,000.⁴¹³ Following settlement of the Orange County suit, S&P proposed introducing a reworded client contract, to clarify that ratings are constitutionally protected free expression and should not be construed as financial advice.⁴¹⁴ This proposal is an obvious attempt to remove legal standards of fiduciary responsibility as applied to rating agencies. It is questionable whether this attempt will succeed; this article suggests it should not.

The analysis in this article supports the view that credit rating agencies should not have their cake and eat it too. Such agencies should not simultaneously benefit from ratings-dependent regulation and be insulated from lawsuits alleging negligence or misrepresentation. If the agencies truly are private entities surviving based on their reputations, they should be susceptible to the same sorts of lawsuits any similarly-situated private entity would be.

VI. CONCLUSION

In conclusion, the reputational capital view of credit rating agencies is not supported by history or economic analysis. Credit rating agencies have not survived for six decades because they produce credible and accurate information. They have not maintained good reputations based on the informational content of their credit ratings. Instead, the credit rating agencies have thrived, profited, and become exceedingly powerful because they have begun selling regulatory licenses, *i.e.*, the right to be in compliance with

412. In 1993, the district asked Fitch, rather than Moody's to rate its bond issue. Moody's issued an unsolicited, negative rating, which made the issue prohibitively expensive. Moody's defended on First Amendment grounds, an argument that has proved successful in the past. *See id.* at 1-2; *see also* Wooley et al, *supra* note 406.

413. *See supra* note 97. Judge Gary L. Taylor dismissed some of the claims on March 18, 1997, ruling that the First Amendment protected publishers from professional negligence actions. *See Professional Negligence Against Standard & Poor's Dismissed by Judge Taylor*, DERIVATIVES LITIG REP., Apr. 14, 1997, at 6. However, on March 16, 1998, Judge Taylor denied S&P's motion for partial summary judgment, holding that S&P's constitutionally protected speech was "not absolutely privileged." *See In re: County of Orange, debtor, County of Orange v. McGraw Hill Cos. Inc.*, D.C. Calif., SA CV 96-765 GLT, Bankruptcy No: SA 94-22272 JR, 3/16/98); *see also Orange County May Proceed With Claims Against Standard and Poor's*, 30 BNA 444, Mar. 20, 1998. As previously noted, S&P settled the case with a payment of \$140,000 to Orange County. *See supra* note 97.

414. *See* Dan Primack, S&P Contract Change Prompts Market Debate, Private Placement Letter, Sept. 27, 1999, at 1 (quoting chief Financial Officer of one company as saying, "They had better be experts for the fees we paid them.").

regulation. Credit ratings therefore are an excellent example of how *not* to privatize a regulatory function. Those who advocate privatizing other regulatory functions should heed this warning.

Given the existing regulatory regime and the prevalence of regulatory licenses, Thomas Friedman's statement that "we live in a two superpower world. There is the United States and there is Moody's"⁴¹⁵ seems inaccurate only in that it excludes S&P. This article is an attempt to explain why Moody's and S&P are so powerful and profitable, despite their relative inability to generate valuable information, and to suggest a remedy for problems related to their success. The agencies' dominance is demonstrated every time there is news about a bond issuer—good or bad—and such news is *followed* by an announcement from the rating agencies that the issuer is under credit review. Never has too little, too late, been so powerful.

415. See Thomas L. Friedman, *A Nation's Bond Rating Nowadays Is More Important Than Its Weapons*, THE HOUSTON CHRONICLE, Feb. 23, 1995, at A31.