MAKING THE GRADE:

AN INQUIRY INTO CREDIT RATING AGENCIES AND THEIR RATINGS

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1.Introduction

The credit rating business is over 100 years old and began with the grading of railroad bonds near the end of the 19th century. Today the business model is still relatively similar in spirit with credit rating agencies (CRA's) providing evaluations of the credit worthiness of investments. However the size and scope of this industry has changed dramatically. According to the Securities and Exchange Commission (SEC), the nine Nationally Recognized Statistical Rating Organizations (NRSRO's) licensed to work in this area have over 2.6 million outstanding credit ratings.[1] The same report shows that three institutions control 97% this market. The firms in question are Moody's Investor Service (Moody's), Standard & Poor's Financial Services (S&P), and Fitch Group (Fitch) with market shares of 38%, 45%, and 14% respectively[2].

What was originally an industry designed to help investors overcome asymmetric information problems with objective analysis has transformed into a cornerstone for financial markets. An investment's rating has a direct effect on its performance in the market. Performance reports filed with the SEC for many companies mention that the company's credit rating directly affects its funding capacity, sources of funds, and access to capital markets.[3] A tremendous amount of emphasis is placed on the work done by these companies but do they deserve this

[1] See "Annual Report on Nationally Recognized Statistical Rating Organizations" page 6

[2] These 3 firms as a group are also referred to as "The Big Three"

[3] Example, form 10-Q (quarterly report) for Citigroup specifically states "Citigroup's funding and liquidity, including its funding capacity, ability to access the capital markets and other sources of funds, as well as the cost of these funds, and its ability to maintain certain deposits, is partially dependent on its credit ratings." Similar statements are made in the filings of other companies

trust? It is the goal of this paper to examine and critique the role of CRA's and determine if they help or hinder financial markets.

The paper is structured as follows. Section 2 will set the background framework for the analysis by discussing the history of the credit rating business. In particular the role that government regulation has played in its development. Section 3 will provide a layout of the ratings market and its participants today with special attention given to how the market is structured and various problems that exist as a result. Section 4 examines the track record of the ratings given by these firms including a look at the financial crisis. Section 5 looks at specific examples of rating agencies abuse of market power. Section 6 discusses what improvements can be made to the current rating regime. Section 7 concludes.

2. The History of the Credit Rating Business

S&P operates as a subsidiary of the McGraw-Hill Companies Inc and dates back to 1860.[4] Besides operating as a CRA it has a number of ancillary business it operates such as Capital IQ, and S&P Indices. Similarly, Moody's is part of the larger Moody's corporation, which also offers research and risk management services under the banner of Moody's Analytics. Fitch Ratings is the smallest of the 3 companies and was founded in 1913. It grew to the size it is today through a series of mergers and acquisitions between 1997 and 2001 and is now owned by the parent company Fimalac S.A. headquartered in Paris. In the beginning these companies published statements of financial statistics, usually involving the bonds

[4] McGraw-Hill purchased S&P in 1966

of railroad companies, and provided them to customers who purchased subscriptions.

The ratings market we observe today began to take shape in 1930's with a series of laws of regulations that placed large emphasis on the ratings released by these companies. The first was in 1931 when the Office of the Comptroller of the Currency tied accounting statements to ratings.[5] The ruling stipulated that banks holding publicly traded bonds with a high investment grade (BBB or better) could report those bonds at book value but lower rated bonds should be reported at their current price in the market.[6] This gave CRA's a direct influence on the interpreted financial health of a bank.[7]

In 1936 the regulators went even further and prohibited banks from purchasing "speculative investment securities" as determined by "recognized ratings manuals."[8] Securities below investment grade are referred to as "speculative" and are considered riskier.[9] This meant that banks were forced to construct their portfolios based on ratings provided by the CRA's and possibly forced them to disregard information regarding investment risk from other sources. The government, which provided no oversight of CRA's, had decided to effectively enforce the ratings as law. State insurance regulators soon followed suit and began

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[5] This decision wouldn't have a major effect until the SEC was created in 1934 and accounting standards would become standardized

[6] See FCIC report, page 118

[7] Those familiar with the term "bank runs" know that interpreted financial health is the important determining factor in such a situation.

[8] See White, "The Credit Rating Agencies" p213

[9] Refer to Appendix for a table of credit ratings from all 3 institutions.

to peg capital requirements for insurance companies to the credit ratings of their investments.

The power of rating agencies was not fully cemented however until 1975 when the SEC created the designation "Nationally Recognized Statistical Rating Organization" (NRSRO). Only the ratings of an NRSRO could be used in conjunction with the new Net-Capital Rule. The net-capital rule affects a company that is calculating the value of its capital reserves. Under this regulation it must deduct certain percentages from the market value of its securities holdings[10]. Those percentages are tied directly to the credit rating of the securities in the portfolio and the lower an investment's rating the higher the percentage that must be deducted. This type of mechanism is implemented to create a safety buffer against market fluctuations. The idea is that an institution holding a particular total market value of low-grade investments in reserve is not as safe as another institution holding an equivalent value of highly rated investments. So when valuing these holdings for regulatory purposes the low-grade investments count for less and the firm must raise more capital until it meets the benchmark. The first 3 companies to qualify as NRSRO's were Moody's, S&P, and Fitch who together control upwards of 90% of the business in this area.

With the creation of the NRSRO designation the U.S. government now had a benchmark it could use to regulate financial activity. The term NRSRO began to

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[10] See "Report on the Role and Function of Credit Rating in the Operation for Securities Markets," page 4

appear in a large variety of legislation.[11] A specific example of this appears in the Secondary Mortgage Market Enhancement Act of 1984, which stipulates that "mortgage related securities" have a rating in one of the two highest rating categories by at least one NRSRO[12]. Another example is in the Federal Deposit Insurance Act, which rules that corporate debt securities are not investment grade unless they are rated in one of the four highest categories by at least one NRSRO.[13] It is clear then that the U.S. government began to rely even more heavily on the CRA's. Many industry professionals testified to the Financial Crisis Inquiry Commission regarding the use of NRSRO's in legislation. Lewis Ranieri (former vice chairman of Salomon Brothers) told the FCIC "Look at the original bill. It requires a rating. It put them in business forevermore" and Eric Kolchinsky (a former Moody's managing director) stated, "The rating agencies were given a blank check."[14] These decisions by the U.S. Government clearly demonstrate their willingness to rely heavily on the ratings issued by CRA's. They have legislated that institutions be dependent on the analysis of these private sector companies that are not subject to any kind of regulation. This gives the CRA's an enormous presence in the market. A traditional monopoly exerts complete control over a single market but this oligopoly of CRA's has the ability to influence almost every major financial institution and business that utilizes capital markets.

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[11] It appears in the Investment Company Act, Gramm-Leach-Bliley Act, Transportation Equity Act, Reigle Community and Regulatory Improvement Act, Department of Commerce, Justice, and State, The Judiciary, and Related Agencies Appropriations Act, Higher Education Amendments of 1992, Housing and Community Development Act and others.

[12] United States Public Law. No. 98-440, § 101, 98 Stat. 1689 (1984).

[13] Section 12 United States Code. § 1831e(d)(4)(A).

[14] See FCIC report page 119, Ranieri is referring specifically to the Secondary Mortgage Market Enhancement Act.

3. The Modern Credit Rating Market

Under the Credit Rating Agency Reform act the SEC is required to release annual reports on NRSRO's and the credit ratings market. The table below is from the most recent report and provides a snapshot of the current state of the industry.

Number of Outstanding Credit Ratings by Category of Credit Rating
Source: NRSRO Annual Certifications for the Year Ended December 31, 2011

NRSRO	Financial Institutions	Insurance Companies	Corporate Issuers	Asset-Backed Securities	Government Securities	Total Ratings
A.M. Best	N/R	4,826	1,910	56	N/R	6,792
DBRS	21,695	151	4,037	9,889	15,798	51,570
EJR	101	51	962	13	9	1,136
Fitch	54,586	4,010	14,427	58,315	217,198	348,536
JCR	163	27	478	N/R	54	722
KBRA	16,127	52	1,001	40	58	17,278
Moody's	56,486	3,953	30,439	93,913	814,087	998,878
Morningstar	N/R	N/R	N/R	16,070	N/R	16,070
S&P	60,700	7,800	45,400	108,400	948,300	1,170,600
Total	209,858	20,870	98,654	286,696	1,995,504	2,611,582

*N/R indicates the NRSRO is not registered for that category of securities.

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As mentioned earlier Moody's, S&P, and Fitch are by far the largest operators in this market controlling a roughly 97% share. The chart also breaks down the market by the type of product being issued and government securities are the most numerous accounting for 75% of outstanding ratings.

There are 5 types of agents utilizing the ratings business. They are Issuers, Buy-side firms, Sell-side firms, Regulators, and Private Contracts. Issuers are in

[15] See "Annual Report on Nationally Recognized Statistical Rating Organizations" page 6

charge of the initial sale of the security and pay CRA's to have it rated to signal prospective investors about the quality and risk level of the investment. Buy/Sell-side firms use ratings as signal of investment quality though buy-side are actually purchasing the security and sell-side are brokers and dealers representing clients. Regulators use ratings as benchmarks and to control how some public institutions invest and manage public funds. Private contracts refer to covenants or "triggers" embedded in legal agreements that are based on credit ratings. An example is a creditor requiring the company it engages in a loan with to maintain a certain credit rating throughout the life of the loan. In all cases these agents rely on the objectivity and expertise of CRA's to produce accurate assessments of the credit-worthiness and risk level of millions of investments. The fact that so few firms have the NRSRO designation means that CRA's have huge influence. This is exacerbated by the fact that 3 firms completely dominate the market. Thomas Friedman famously said

"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."[16]

The only threat regulation poses to these 3 firms currently is that they can have their NRSRO status revoked by the SEC. This is an unlikely course of action however for 2 important reasons. The first is that it would be extremely difficult for the rest of the market to pick up the slack if one of the big three CRA's lost NRSRO status. The smallest of the 3, Fitch, has almost 4 times as many outstanding ratings as all of the smaller firms combined. There are also large barriers to entry in this industry that hinder new firms from entering the market. Setting up a rating agency

[16]See Interview with Thomas L. Friedman, "THE NEWSHOUR WITH JIM LEHRER" (PBS television broadcast, Feb. 13, 1996)

would be a substantial investment and achieving the track record of credibility required for market acceptance would be difficult.

There is the counter argument however that many of ratings overlap so remaining firms would not be conducting that many new ratings but this leads to the second problem. Removing one of the big 3 leads to increased monopoly power of the remaining firms. Issuer's would have less choice when selecting which CRA to work with and this lack of competition could lead to rent extractions by the CRA's. It also lowers the incentive for CRA's to produce excellent analysis since regulators require their use in financial markets regardless analytical quality. With so many contracts and regulations tied to these ratings their accuracy plays a vital role. Maintaining every incentive for rating quality is paramount if markets are to function in a stable manner.

Since regulators possess little influence over CRA's then perhaps market forces ensure CRA's produce accurate ratings. The credit rating business began with a subscription-based model a century ago but has since moved to what is called the issuer-pays model (IP model). Instead of financial institutions paying to receive thick books of statistics from the CRA's they instead pay to have particular investments they plan to release rated by one or more of agencies. In theory, if an agency produces poor quality ratings and the investors find out then issuers and sell-side firms will have to purchase other ratings to maintain the trust of the buy-side firms and the reputation of the original rater suffers. In reality this reputation-based mechanism of quality enforcement is filled with conflict of interest and asymmetric information problems. Asymmetric information problems come into play because CRA's are essentially offering predictions about the performance of

investments. Conditions in markets can change dramatically and may be exogenous to the ratings model utilized by a CRA. As a result investment grade securities do default from time to time.[17]

The conflict of interest problem in this market is much more stark however. The issue stems from the IP model. Issuers may decide to "shop around" looking for whichever rating agency offers the highest rating for the proposed investment[18]. So to retain clients and attract new ones CRA's have an incentive to bias their ratings above what their analysis determines is the true quality of the security. There is also the potential problem related to CRA's offering business consulting and risk management services as well as credit ratings. They may offer favorable ratings to issuers in order to attract work for the business consulting side[19]. Conversely if a single client becomes a large proportion of all the consulting business they could influence a CRA to provide good ratings in exchange for continued consulting business.

The last problem concerns the disclosure of sensitive information and insider trading. In order to provide accurate ratings, CRA's are often provided with very sensitive and possibly market moving information from issuers before it becomes public record. This is possible because the SEC provided CRA's with exemption from "Regulation Full Disclosure" which was created to control insider trading. They were granted this exemption since ratings are eventually released to the public and

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[17] Enron was considered investment grade until 2 months before bankruptcy. Lehman brothers had a similar experience.

[18] See Benmelech, Dlugosz "The Credit Rating Crisis" page 31

[19] Accounting firms in the U.S. had a similar problem. Many of them looked the other way to clients cooking the books in order to maintain business-consulting relationships. This is what destroyed Arthur Anderson LLP

the SEC believed the firms "have a mission of public disclosure."[20] Agencies offer a subscription-based service where agents can pay for more in-depth analysis of a company and the rating methodology. This raises the risk inappropriate disclosure of sensitive information. This risk is given even more weight by the high rate at which CRA personnel leave to work for clients.[21] If a Moody's employee is being interviewed for a position with a client whom they are currently analyzing the burden is on the employee to notify management.[22]

CRA's have a number of mechanisms in place to minimize all these risks however, and maintain the position that it would be foolish for them risk their reputation for issuing credible ratings to please a particular issuer.[23] These mechanisms include final ratings being decided by a committee of analysts, using fixed fee schedules, and offering merit based compensation related to the accuracy of an analysts ratings rather than the level of fee's paid by the issuer. Each company also prohibits any overlap of staff between the rating side and the consulting side. Non-disclosure agreements are also utilized with issuers and former employees are prohibited from working with Moody's on any deals they participated in while employed by the firm[24]

4. Studies on Credit Rating Reliability

Rating agencies are essentially forecasting the risk associated with a wide

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[20] See "Report on the Role and Function of Credit Ratings," page 22

[21] See FCIC report page 150, a Moody's managing director testified that approximately 25% of staff in his group had left for investment and commercial banks.

[22] Ibid, P150

[23] See "Report on the Role and Function of Credit Ratings," page 23. Fee's from a single typically compose less than 1% of total revenue for a CRA

[24] See FCIC report page150, Former employee's are not banned from working on other deals with Moody's however.

variety of securities and summarizing this risk in a single rating. Since these ratings and the performance of many of the assets rated is a matter of public record a multitude of studies have been conducted to look at how well these ratings have performed overtime. CRA's themselves perform studies in this area and release them in their annual reports. The most useful statistic they release is called a transition matrix. It shows what percentage of investments with a particular rating had a different credit rating by the end of the study. The following table is an annual transition matrix for Fitch ratings over the period 1990-2012.[25]

Original Rating	New Rating								
(%)	AAA	AA	A	BBB	BB	B	CCC to C	D	Total
AAA	94.60	5.40	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.09	90.08	9.38	0.38	0.02	0.02	0.00	0.04	100.00
A	0.02	1.90	91.85	5.52	0.49	0.08	0.06	0.08	100.00
BBB	0.00	0.19	3.44	91.80	3.56	0.57	0.22	0.22	100.00
BB	0.02	0.04	0.11	8.58	81.67	6.87	1.55	1.16	100.00
B	0.00	0.00	0.25	0.43	9.18	83.65	4.28	2.22	100.00
CCC to C	0.00	0.00	0.00	0.19	2.42	18.59	50.74	28.07	100.00

Looking at this chart we see that highly rated investments have a tendency to keep their high ratings. Speculative investments also tend to stay close to their original rating but the overall movement across rating categories is more volatile for these securities. The ratings from these agencies can be considered fairly accurate in the long term.

Academics have also spent a considerable amount of time studying how accurate and therefore valuable ratings are. Katz (1974) demonstrated that bond

[25] See "Fitch Ratings Global Corporate Finance Transition and Default Study", to use this chart look at the left column for the original rating then the numbers to the right indicate what percentage of those investments with that original rating upgraded or downgraded.

prices respond to changes in credit ratings, which indicates that ratings do have some value. This is because if ratings contained no useful information and were unreliable the markets would not respond to them at all. Weinstein (1977) however argued bond prices have a stronger reaction to information released in periods prior to the rating change and contain little new information. Steiner and Henke (2001) corroborate Weinstein's work by showing that in international bond markets there are large price changes in the 100 days prior to a rating change. Perhaps ratings then are a summarization of new public information and work more as a kind of confirmation mechanism. If these ratings simply converge with public information however then rating agencies do not pose a threat to the financial system.

Recently there have been studies released which call into question the accuracy of these ratings. Bar-Isaac and Shapiro (2010) created a model to study how ratings quality might fluctuate over the business cycle. The theory is that in boom periods there is an overall lower likelihood of default and this decreases the incentive for rating agencies to pay high cost of extremely in-depth analysis. This is because it is less likely firms with undeserved high ratings will default causing CRA's to suffer reputational losses. A lower overall standard of rating quality also allows firms to issue even more ratings, further deteriorating the incentive for quality ratings since CRA's can collect more fees as a result of the increased number of ratings released. The important factor to take away from this study is that as long as there is low risk to the reputation of the CRA then the quality of the ratings is likely to be distorted. They are effectively trading short-term profits against the risk of suffering reputational loss in the future. Becker and Milbourn (2010) examine the

effect on ratings quality as a result of increased competition from Fitch gaining larger market share. Their model relied on an empirical study at industry level that looked rating quality in markets where Fitch had increased its presence. They show that due to increased competition overall rating levels increased without a coinciding change in economic risk factors for the industry. The correlation between ratings and market implied yields, and the ability for ratings to predict default also deteriorated.

In particular many of the recent studies look at the structured finance sector where a large variety of highly rated products collapsed very quickly and drastically during the recent financial crisis. From 2007 to 2008 the number of structured finance securities rated by Moody's that became impaired increased from 2,090 to 12,666.[26] This 6-fold increase in such a short period garnered lots of attention from the academic community in the aftermath of the crisis. Ashkraft, Goldsmith-Pinkham, and Vickery (2009) found that at the peak of the market for mortgage back securities (MBS) when projected default rates and credit risks were increasing dramatically there was little to no change in their associated ratings. This signifies that ratings did not accurately capture the risk associated with these securities, which would lead to distorted price as well.

Wojtowicz (2012) confirms this idea by showing that the fair spread of structured finance assets was much higher than the fair spread corporate bonds

[26] See Moody's "The Performance of Structured Finance Ratings Full Year Report" for 2007 and 2008

with a similar rating.[27] This discrepancy is due to the fact, Wojtowics argues, that fair spread prices are better at incorporating systemic risk and other parts of the risk premium that are not reflected in the credit ratings. Benmelech and Dlugosz (2009) also find some evidence of rating shopping occurring between 2005 and 2007. Of the 534 "ABS CDO" products issued in that period the ones that were rated by a single CRA were much more likely to be downgraded by January 2008.[28]

These empirical studies demonstrate that in a majority of cases CRA ratings are accurate and possess valuable information. However incentives and mechanisms exist that could lower the quality of ratings particularly in cases where the reputation of the CRA's is not at risk. The recent financial crisis shows us that the rating system is not perfect and is susceptible to flaws. The FCIC summarized its opinion on the role of CRA's in the crisis by saying:

"The three credit rating agencies were key enablers of the financial meltdown. The mortgage-related securities at the heart of the crisis could not have been marketed and sold without their seal of approval. Investors relied on them, often blindly. In some cases, they were obligated to use them, or regulatory capital standards were hinged on them. This crisis could not have happened without the rating agencies. Their ratings helped the markets soar and their downgrades through 2007 and 2008 wreaked havoc across markets and firms"[29]

So many institutions rely on the accuracy and objectivity of the ratings released by these firms yet we see evidence that if the proper incentives are present, the credit rating does not necessarily have to be so as well.

5. The Advantages of Market Power

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[27] The fair spread is the premium paid for default protection on a reference asset. This is an actual payment that is observed in the market. A higher price for protection from default infers a higher level of risk

[28] Asset-Backed-Security Credit Default Obligations

[29] See FCIC report. Page xxv

The fact that CRA's place large emphasis on maintaining credible and objective ratings is reassuring. However they have managed to find ways to take advantage of their impressive market power for their own gain without overly endangering their reputations. The first abuse of power employed by these firms is the use of "unsolicited ratings." An unsolicited rating is where a CRA releases a rating to the market without a request by the issuer. The problem comes when CRA's release unsolicited ratings with a negative connotation that can adversely affect the company being rated. Companies don't get paid for the work they do on these ratings but there are benefits to this behavior. Unsolicited ratings are a strong-arm tactic by CRA's to "encourage" clients to pay for their ratings. It is also used to punish clients who decide to use a different agency to rate their investments. For example, The Company Hannover Re, (a German insurance company) was using 2 CRA's to rate its business and thus had turned down an offer from Moody's. Moody's began releasing unsolicited ratings about Hannover anyway and those ratings became progressively bleaker as years passed.[30] Moody's continued to try to solicit Hannover's business throughout this period and Hannover continued to refuse. Despite a clean bill of health from other CRA's, Moody's eventually decided to cut Hannover's rating to junk status[31]. This downgrade cost Hannover $175 million dollars in market value as shareholders who were alarmed by the downgrade began to dump the stock.[32] This is important because we see that rating's act as a signal of quality in equity markets as well as bond markets meaning CRA's have even more

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[30] See Klein "Credit Raters' Power leads to Abuses some borrowers say"
[31] See Appendix, junk bonds are referred to as "speculative" in the industry
[32] Ibid

influence.

Another case involved a bond issue by the Jefferson County School District in Colorado in 1993. Despite having used Moody's in the past the district instead decided to have Fitch and S&P rate its new bonds. Within 2 hours of the issuing Moody's released a negative outlook on the bonds. Interested buyers cancelled their orders and the district was forced to offer higher yields, which ended up costing them an extra $769,000.[33] The district filed a lawsuit against Moody's but the case was dismissed, as was the subsequent appeal. Moody's argued that their ratings are "opinions" and thus protected under the First Amendment.[34]

This decision is important for 2 reasons. Protection under the First Amendment means that CRA's are not liable for the damage their unsolicited ratings cause. Secondly, Frank Partnoy argues that it also means CRA's will be encouraged to continue to release these kinds of ratings in order to preserve this protection[35]. Ratings that CRA's are paid to produce do not resemble protected speech as much as unsolicited ratings. Regardless, markets clearly value the opinions of CRA's whether or not the rating has been paid for by the issuer. Moody's has estimated that roughly 1% of its ratings are unsolicited.[36] It is unlikely Moody's will ever release the information regarding how much business it generates or maintains through the threat of unsolicited ratings. [37]

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[33] See Partnoy "How and Why Credit Rating Agencies Are Not Like Other Gatekeepers" page 16

[34] The First Amendment in the U.S. concerns freedom of speech and freedom of the press which are the relevant issues here.

[35] See Partnoy " Page 16

[36] Ibid page 15

[37] Many business may choose to issue with Moody's simply to avoid unsolicited ratings, meaning the 1% statistic is biased downwards

The other abusive practice that takes place in this market is a strategy called "notching." The target of this technique however is not outside companies and prospective issuers but other rating agencies. It involves the largest of the CRA's, Moody's and S&P, using their influence against the smaller firms in the market. A Press release by Fitch on the issue describes notching as "the practice of automatically adjusting downwards the ratings on bonds if they themselves do not originally rate those bonds."[38] The SEC reports that these 2 firms will also refuse to rate bonds in certain asset pools unless they also rated substantial portions of that market.[39] The purpose of this practice is to put downward pressure on the market share of the smaller CRA's by trying to signal to issuers that there will be extra costs of using a smaller rating agency. By immediately issuing negative ratings on securities rated by smaller firms they drive up borrowing costs and hurt the market value of the clients of smaller CRA's. This also happens if they refuse to rate the security at all since a single rating from a small firm does not carry as much weight as a rating from the 2 larger firms. The signal of credit quality and risk level will not be as strong, which will affect the performance of the investment in the market.

A Fitch sponsored survey found that 75% of executives in the structured finance market believe notching penalizes investors by creating artificial pricing among bonds with ratings from different agencies.[40] It is clear that in this protected market the major players are taking advantage of their size and influence to extract rents from other companies and trying to make the industry even less competitive.

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[38] See Fitch Press Release "Survey Shows a Majority of Structured Finance Executives Oppose Notching as Practiced by Moody's and S&P"
[39] See "Report on the Role and Function of Credit Ratings," page 24
[40] See Fitch Press Release

These blatant abuses cause real damage to other company's earnings and reputations and should be subject to sanctions. However, as long as this behavior remains constitutionally protected it is unlikely these practices will cease.

6. Suggestions for Reform

The credit ratings market is unlike any other in the modern world. The problems with this market are less unique however. The credit rating industry operates as a government protected oligopoly. A small number of firms carry huge influence in the market and other participants are essentially at the mercy of the larger ones. This power manifests itself through behaviors such as unsolicited ratings and notching. The business is full of conflicts of interest and was a direct cause in the worst financial crisis since the great depression. In order to address these issues there a number of measures that can be taken.

The first is to address the problem of CRA liability when malicious ratings are issued. Due to protection of the CRA's "opinions" under the first amendment, no legal action can be taken against their ratings. However no legal action is required to address this problem. Harmful ratings are effective because the markets act on the information. They do so because of the reputations that CRA's have earned in the market. If a mechanism is provided by regulators that helps markets identify which ratings are malicious then this will diminish their usefulness to CRA's. The easiest way to do this is to require CRA's to identify clearly and openly which of their ratings are unsolicited. Since they were not involved in the issuing of the security the CRA will have only had access to the same public information as markets. An

overly negative rating without evidence presents an arbitrage opportunity markets will take advantage of. This will cause reputational damage to the CRA that released the unsolicited rating since it will quickly become apparent that it is inaccurate.

The next possible solution is to make the ratings methodology used by these firms more transparent. If the marketplace has a better understanding of how ratings are generated this could remove volatility associated with the release of ratings. This type of solution will be harder to implement for 2 reasons. The first is there is a risk of running into problems with Regulation FD since CRA's often deal with non-public information. The second is that forcing CRA's to release their rating methodologies could destroy the ratings business. Their methods would quickly be copied by other firms in the industry and hurt the value of the product CRA's produce. Finding the right balance between what information to release and what to keep confidential is unlikely to be politically feasible. Despite the industry being protected by the NRSRO designation.

The last and most important reform is to remove the legislative enforcement of the use of NRSRO ratings and take away the designation all together. Requiring that firms be NRSRO designated creates an unnecessary barrier to entry. Firms cannot become NRSRO's without a good track record and market presence and these things are hard to achieve without already being an NRSRO problem.[41] Removing this barrier does not change the informational content of the ratings and allows new firms to enter and perhaps bring better more efficient rating methodologies to the market. The NRSRO designation was created as a legislated

[41] The SEC refers to this as the "chicken and egg" of ratings markets.

benchmark for certain institutions to follow when investing or valuing their capital. If we instead stipulate that they justify their financial decisions in other ways, which could still involve CRA ratings to some capacity, then we greatly reduce our dependence on a small group of companies. There is no practical reason for the NRSRO designation to exist. It protects the few at the expense of the many.

7. Conclusion

The credit rating industry is a fascinating industry of study for economists. It is filled with complex incentives and mechanisms and its ratings impact the entire global financial market. Understanding the ratings business means having a grasp of both public policy issues and complex financial markets. Public and private sector institutions rely heavily on the objectivity and accuracy of this small group of companies. Overall this oligopoly performs its duties well and has a track record of accurate performance. There are still many factors that threaten the integrity of the market however. The legislated requirement of rating use, no oversight, and constitutional protections afforded to CRA's make them immensely powerful. Behaviors like notching and unsolicited ratings are manifestations of this. It is safe for investors and other financial market operatives to rely on ratings but they must also be aware of these caveats in the industry in order to make sound investment decisions.

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9. Appendix

Moody's	S&P	Fitch	Appraisal
Investment Grade			
Aaa	AAA	AAA	Highest quality, smallest risk
Aa1	AA+	AA+	High quality, very low risk
Aa2	AA	AA	
Aa3	AA-	AA-	
A1	A+	A+	Upper-medium grade, low risk
A2	A	A	
A3	A-	A-	
Baa1	BBB+	BBB+	Moderate credit risk
Baa2	BBB	BBB	
Baa3	BBB-	BBB-	
Speculative Grade			
Ba1	BB+	BB+	Questionable credit quality
Ba2	BB	BB	
Ba3	BB-	BB-	
B1	B+	B+	High risk, generally poor credit quality
B2	B	B	
B3	B-	B-	
Caa1	CCC+	CCC	Very high risk, extremely poor credit quality
Caa2	CCC	CCC	
Caa3	CCC-	CCC	
Ca	CC	CCC	Highly speculative, potential recovery value low
D	D		