

Does Reputation still Matter to Credit Rating Agencies?

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Abstract The purpose of this study is to analyze and critically review the role of credit rating agencies in financial markets. The remarkable disappointment of top-rated structured finance products in the subprime crisis has placed renewed attention on credit rating agencies. As a result of this development, the ongoing debate about whether market forces provide sufficient control of rating agencies or whether regulation is necessary has been rekindled. The discussion focuses on the argument that the reputation of a credit rating agency is sufficient to discipline them. This essay contributes to this debate by providing a behavioral perspective. The introduction provides a brief historical overview and examines the role of credit rating agencies in financial markets. The second section addresses the role of rating agencies in the subprime crisis by highlighting the conflict of interest problem, ratings quality and regulation. The next section analyzes the effects of US- and EU-based regulations. The main contribution of this paper is made in the last section, which points out the behavioral perspective on credit ratings.

1 Introduction

Some of the most notable institutions in the current global financial system are the credit rating agencies (CRAs). The CRAs possess exceptional power. The source of this power stems from the information they provide to the system. They offer judgment in the form of letter grades which they attach to debt instruments. Credit ratings basically suggest the likelihood of defaulting on a debt instrument. CRAs can declare a corporation or even a government to be “creditworthy” or to be “junk”. The key question is “How could they possibly achieve this kind of power?” We might also wonder why we need CRAs, and where and when were they first established?

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In order to answer these questions, we need to take a glimpse into the world's financial history. The roots of the modern financial system go back to 1600s Amsterdam. At the end of the seventeenth century economic and financial power shifted from the Dutch to the English. After that the United States succeeded the English in the nineteenth century. It was not until the twentieth century that we first heard about CRAs. Before the introduction of CRAs, the financial system had managed to perform its operations for centuries. Dun and Bradstreet was one of the first companies to start collecting the credit records of individuals and businesses, in the mid-1800s, but it was not until 1909 that the first publicly available bond rating was announced by John Moody. That the originator of the bond-rating agency was an American should be no surprise, because the corporate bond market can be seen as an American financial innovation which later spread to the rest of the world (Sylla 2002). In 1916, the Standard Statistics Company started assigning ratings, followed by the Fitch Publishing Company in 1924 (Neal 1990).

According to Sylla (2002) three historical developments led to the innovation of agency ratings; the emergence of credit reporting agencies, a specialized financial press and the rise of the investment banker. The need for credit reporting agencies first surfaced during the expansion stage of American businesses around the 1830s. Before that period most transactions took place between individuals who knew each other and was based on mostly trust. Considering the small size and limited number of market participants, these informal channels were satisfactory. The growth in economic activity and the increase in the number of market participants made it impossible to continue with these conventional methods. Credit reporting agencies were established as a result of the demand for extensive information. The second development was the specialized financial press, which included specialized journals containing financial information such as assets, liabilities and the earnings of specific companies. In 1868, Henry Varnum Poor started publishing statistical financial information, targeting railroad industry investors. In 1941, the Poor company merged with Standard Statistics and became Standard & Poor's (S&P). The third group of businesses that effected the creation of CRAs was investment banks. Investment banks played the role of financial intermediaries by underwriting, purchasing and distributing corporate securities. Each time they supported this kind of activity the investment banks put their reputation on risk. As a result of this, they required every kind of operational and financial information possible about the company in question. The possession of this kind of privileged information by investment banks was increasing the cause of complaints from other financial market participants. The result of this pressure was the emergence of agencies such as John Moody's and others which eventually presented publicly available information in the following years.

2 Globalization of CRAs

The CRAs actually did a decent job and built a good reputation until the 1930s. The game changing event occurred in 1936 when the US Office of the Comptroller of the Currency prohibited banks from investing in “speculative investment securities” as determined by “recognized rating manuals” (White, October 2009). The upshot of this was that banks could only invest in bonds which had “investment grade” ratings. The rating scales included the highest rating for Standard and Poor’s, and Fitch, (AAA), followed by AA, A, BBB, BB, B, CCC, CC, C and D, with D described as defaulting (Standard & Poor’s 2016; Fitch Ratings 2014). For Moody’s, the highest rating is Aaa, followed by Aa, A, Baa, Ba, B, Caa, Ca, C. “Investment grade” ratings needed to be BBB or Baa or higher (Moody’s, February 2016). The US regulators incorporated CRAs into their regulations. The effect of globalization fueled similar demands from CRAs and they became one of the largest powers in the world. As Thomas Friedman states for Moody’s (Friedman 1995):

In fact, you could almost say that we live again in a two-superpower world. There is the U.S. and there is Moody’s. The U.S. can destroy a country by leveling it with bombs; Moody’s can destroy a country by downgrading its bonds.

According to Partnoy (2002) the rapid growth of CRAs was due to the regulatory change in 1930s, not the quality of ratings. The second wave of regulatory change arrived in 1973 with the Securities and Exchange Commission (SEC), which incorporated credit ratings and designated seven CRAs, including Moody’s, S&P and Fitch as nationally recognized statistical rating organizations (NRSROs). In 2003, only Moody’s, S&P and Fitch remained after several mergers. This market structure, with only three big participants, became an oligopoly. After a recent SEC resolution, the number of NRSROs has increased to ten (SEC 2012). At this point, one might argue about SEC’s intervention regarding the increase in the number of CRAs. Becker and Milbourn (2011) studied the effect of increased competition among CRAs and found that it caused the quality of ratings to decrease, ratings levels to go up, the correlation between ratings and market-implied yields to fall, and the ability of ratings to predict default decline.

Another key issue in the globalization of CRAs is the change in their business model during 1970s. The model that was created by John Moody around 1909 was an “investor pays” model which was based on the payments made by the investors for the information provided by the CRAs. In the 1970s the model changed to an “issuer pays” system where the issuer of a security became the main revenue source. This change in the business model boosted the development of CRAs but also led to a potential conflict of interest problem. The problem was that on one hand the CRAs needed to protect their credibility and the reputation of their credit ratings and remain objective; on the other hand a CRA might be inclined to be sympathetic to keep the issuer rating of the high. A client always has the option to choose another CRA for its business. This incentive conflicts with CRA aim of collecting and assigning objective ratings.

3 Role of Rating Agencies in the Subprime Meltdown

In the subprime mortgage crisis of 2007–2008, the CRAs played a central role with their favorable ratings and by masking the true risk of “structured finance products”. When the period prior to the crisis is examined, it can be seen that a typical subprime mortgage backed security (MBS) was assigned the highest rating of AAA, which made these instruments appealing to investors. Actually, the regulatory obligations forced some fund managers to buy highly rated structured financial products. The criticisms of the problem in the credit rating process can be explained in three ways: by the conflict of interest due to the “issuer pays” model, by ratings quality and by the lack of significant regulation.

3.1 *Conflict of Interest*

One of the key concerns regarding the conflict of CRA interest is associated with the “issuer-pays” model. It is ironic that one of the reasons for the existence of the rating agencies was to help resolve the conflict of interest between the owners of the financial assets (principals) and the asset managers (agents). The idea was to prevent asset managers being tempted to invest in high risk assets and thus cause loss in value. The credit ratings system and the agencies were expected to prohibit asset managers from investing in high risk assets. The system worked for a long time and was constrained by their own reputational concerns, however, rapid structural change and innovation in the financial markets and instruments prompted dramatic change. Traditional instruments such as bonds were issued by both corporate and government debt markets and did not need to work with sophisticated models. There were fewer issuers for structured finance products such as mortgage-backed securities, but these had high volume and profit margins. The limited number of strong issuers had the ability to switch to other CRAs if they were not happy with their ratings. Twelve underwriters controlled almost 80% of the CDO and MBS issuance market. According to Mullard (2012) this shift in power from CRAs to the issuers was one of the breaking points and made it more difficult for the CRAs to walk away from a rating. Mullard (2012) also supports the argument of the Congressional Inquiries, which shows analysts were unable to question the quality of a rating and those found to be displeasing by the issuers were replaced by the CRAs. Fracassi et al. (2013) showed that the identity of the credit analysts affects a firm’s ratings significantly, at around 30% of the within variation. The authors claim that this significant variation in credit ratings can be explained by the biases of the analysts. These effects even extend to a firm’s outstanding debt and the terms of their new public debt issues. In other words, an optimistic analyst rating might provide more debt issue and decrease the need for more cash and equity finance, compared to a pessimistic analyst rating. The study also reports that the quality of ratings varies with the observable traits of analysts. Analysts with MBAs

and greater experience were found to be less optimistic and make more accurate ratings; however, ratings become more optimistic and less accurate as the tenure covering the firm increases.

Another aspect of conflict of interest is the complexity of the structured products that encourage other revenue generating business channels for CRAs, such as the security design, debt restructuring and market forecasting. Ashcraft et al. (2010) explains that during the MBS market peak between 2005 and mid-2007, the ratings increased substantially, even after the necessary risk adjustments. They also show that the opaque MBSs, which contain loans with low documentation performed worse than the rest of the MBSs. Benmelech and Dlugosz (2010) give a detailed explanation of empirical evidence that shows the impact of “ratings shopping” in the recent 2007–2008 crisis. Skreta and Veldkamp (2009) also note that competition increases “ratings shopping”. Bolton et al. (2012) find that competition between CRAs may reduce market efficiency since it facilitates ratings shopping by issuers.

Covitz and Harrison (2003), however, found contradictory results, showing that the CRAs rating decisions were not influenced by the conflict of interest due to the issuer-pay model, and instead found that rating agencies were more responsive to their reputational concerns. Mathis et al. (2009) examined the validity of the argument that reputational concerns were sufficient to discipline rating agencies and found that reputation only works when the majority of a CRA’s revenue comes from non-structured finance product ratings.

3.2 Ratings Quality

Another aspect of the problem was the quality of the ratings. Complex structured financial products were quite difficult to model. The criticisms of the quality of ratings mostly focused on flawed rating methodologies, data problems and trouble in retaining qualified staff. In his testimony before the Committee on Oversight and Government reform, Deven Sharma (2008), president of S&P, said “events have demonstrated that the historical data we used and the assumptions we made significantly underestimated the severity of what has actually occurred.”

The methodologies and the data used to evaluate complex structured financial products, especially for the home market, had serious insufficiencies. There was no track record for subprime mortgages. Even the history of home price data between 1987 and 2006 was modest compared to corporate debt data, which went back almost a century. Studies by Griffin and Tang (2012) found that methodologies and the data used to rate MBSs were inaccurate and overestimated the quality of assets. The CRA’s defense for these critiques was based on the unexpected shocks and declines in real estate markets in the US.

Another aspect of rating quality is the timeliness and accuracy of rating changes. The focus during the post-crisis regulations was especially on the timeliness of rating changes. The argument was that the CRA’s reaction to the structured

products information flow was too slow. From the CRA's perspective, however, sudden and massive rating downgrades endanger the efforts of governments, central banks or corporations by decreasing the confidence levels of investors. Reversals in ratings are quite costly due to the regulatory restrictions and transaction costs. Some studies, even prior to the crisis period, showed that the investor's perception of the slow reactions of rating agencies was due to the through-the-cycle methodology they used. This method is based on the measurement of default risk on long investment horizons and only changes when the risk profile is permanent (Altman and Rijken 2004). The accuracy of the ratings is also an important concern for CRAs. Moody's defines accuracy as the correlation between ratings and the risk of defaulting (Cantor and Mann 2006). If a rating agency frequently upgrades or downgrades a particular financial asset, the investors' level of confidence in the asset, and in the accuracy of that agency's forecasting ability, will eventually decrease. Cheng and Neamtiu (2009) found that rating agencies not only improve rating timeliness but also increase rating accuracy. The authors claim that the increased regulatory intervention and reputational concerns force CRAs to improve their methodologies. There is certainly an unavoidable tradeoff between ratings accuracy and stability.

3.3 Regulation

After the 2007–2008 subprime mortgage crisis, the credit rating agencies, which had managed to remain almost unregulated throughout their history, faced regulatory obligations both in the United States and other countries. On 21 July 2010, President Obama signed the Dodd-Frank Act, which contained a subsection titled “Improvements to the Regulation of Credit Rating Agencies”. In Europe, a legal framework for credit rating agencies was introduced for the first time by Regulation 1060/2009. The ongoing debate about whether market forces provide sufficient restraints on rating agencies or whether regulation is warranted has been examined in several studies (Schwarcz 2002).

The main argument of opponents of regulating credit rating agencies is based on the reputational concerns of CRAs. The Basle Committee on Banking Supervision (1998) defines reputational risk as “risk of significant negative public opinion that results in a critical loss of funding or customers”. Adherents of this view believe that the credit rating agencies will have enough motivation to provide accurate and efficient ratings from the threat that they will lose their reputation and accordingly lose money as well (Choi 1998). Eatwell and Taylor (2000) warn of the potential costs of regulation in general; “. . . *regulation can be expensive and oppressive or even downright wrongheaded. Overly fastidious regulation may result in risks being overpriced and hence will stifle enterprise.... A balance needs to be struck. . .*”

The proponents of regulation obviously do not believe that reputation alone can be sufficient to ensure credit rating agencies are more accurate and transparent. Over the past decade, the regulators focused their attention on promoting

competition, increasing transparency and reducing conflict of interest through measures such as forbidding the rating agencies to rate financial products that when they had helped in the structuring process, or forbidding analysts to be involved in fee negotiations (White, Credit-Rating Agencies and the Financial Crisis: Less Regulation of CRAs is a Better Response, 2010). Bolton et al. (2012) argue that regulatory intervention requiring upfront payments for rating services combined with mandatory disclosure of any rating can significantly reduce the conflict of interest between CRAs and issuers. Hunt (2008) has a more profound approach to reputational concerns, and argues that even a well-functioning reputation mechanism would not generate optimum rating quality. The solution to the incentive problem at this point could be corrected by requiring a credit rating agency to return the profits on ratings that are recognized as low quality.

4 The Aftermath of Reforms in the US and EU

In response to the financial crisis, both the United States and European governments have taken a regulative approach and major pieces of legislation have been passed. Reforms on both sides of the Atlantic took several approaches, including greater internal controls, more accessible disclosure of ratings, increased liability for CRAs and more independence for corporate governance. One of the most commonly discussed issues about the Dodd-Frank Act were the procedures dealing with the reduction of conflict of interest in credit rating agencies. Studies by Altman et al. (2011), Coffee (2011) and Marandola and Sinclair (2014) give a detailed analysis of these regulations. This paper aims to address the impact of these regulations on the quality of credit ratings after the regulations.

One of the few solid solutions proposed to the conflict of interest problem resulting from the issuer-pays model is known as the Franken-Wicker Amendment to the Dodd-Frank Act. This amendment was intended to create an independent, self-regulatory credit rating agency review board in which the initial ratings of the issuers are assigned by the board. The assignment process would be based on a CRA's capacity, expertise and track record. The structure of the board would be composed of credit rating agencies, the issuers and at least one independent member. To achieve transparency the amendment requires the assignment methodology to be publicly available. Another important element is that it only covers the initial assignments and does not include non-initial ratings or unsolicited ratings. Last but not least, it is only intended for problematic structured financial products and does not include the government or corporate bond market (Franken and Wicker 2011). Although the amendment received strong support from the Senate, with a 64-35 margin, it did not make it to the final version of the Dodd-Frank Act, although they commissioned the SEC to issue a study of the potential effects of the Board. The study was finally released more than two and a half years after the Act, in December 2012 (SEC 2012). The result mainly comprised more paperwork requirements, targeting the risk management controls of CRA past

performance. Recent US regulation examples include questionable success stories, such as the Sarbanes-Oxley Act of 2002. Despite its challenges, Dyess (2014) argues that the implementation of the Board is a viable solution to the conflict of interest problem and even encourages competition between CRAs.

Dimitrov et al. (2015) analyzed the impact of the Dodd-Frank Act on corporate bond ratings issued by CRAs and found no indication that Dodd-Frank increased the accuracy of the credit ratings. On the contrary, CRAs issue lower ratings, give more false warnings and issue downgrades that are less informative. Regarding the previous discussion about the effect of reputation on informational efficiency, these results suggest that the CRAs became more protective of their reputation in the post-Dodd-Frank period. Another study by Baghai et al. (2014) investigated the corporate bond market over the last 25 years, and showed that rating agencies have become more conservative in corporate bond ratings. The results reveal that the firms that are subject to more conservative ratings will issue less debt, have lower leverage and experience lower growth. Bedendo et al.'s (2016) recent study points out that the regulatory efforts might not have the intended effects on the information efficiency of markets, and investors expect credit rating agencies to rebuild their reputation by increasing rating quality.

Regulation 1060/2009 in the EU is the major legal framework for the regulation of credit rating agencies within the EU. Similar to events in the US, the European Commission's proposal of November 2009 for the amendment of Regulation 1060/2009 was published in the official journal of the European Union on 31 May 2013. The new legislation was mostly aimed at mitigating the risk of overreliance on credit ratings by market participants, reducing the use of credit ratings for regulatory purposes, creating additional disclosure requirements, reducing conflict of interest and enhancing competition. Amtenbrink and Heine (2013) argue that the EU regulatory framework does not succeed in effectively tackling failures in the CRA market. They offer a completely different perspective and claim that in order to fully understand the market failures and how market participants perceive credit rating, one should include insights from behavioral economics.

5 Behavioral Approach to Credit Ratings

The main contribution of this section is to introduce a behavioral perspective to the credit ratings. Reiss (2009) claims that in order to understand the financial crisis we first need to take a step back from the technical approach, listen to our "gut" and focus on the following visceral topics; lying, cheating, stealing, trust, honor and the difference between right and wrong. Walter (2008) gives these topics a more academic and measured name: "reputational risk". For financial markets, and for rating agencies in particular, one of the most important elements of reputation is that it is built on *trust* (Reiss 2009). For rating agencies, reputational harm leads to increased regulation. The question at this point is whether regulators are exempt from systematic psychological biases. Hirshleifer (2008) describes the way

irrationality on the part of participants in the political process impacts regulatory outcomes. He calls this framework the *psychological attraction* approach to regulation, because particular parties advocating increased regulation exploit psychological biases to attract attention and support. He explains the ways individual biases and social processes that may affect regulation through seven concepts:

1. *Saliency and Vividness Effects*: As discussed by Hirshleifer (2008) important events and touching stories affect regulatory decisions. There are several recent examples from US financial history; the Sarbanes-Oxley Act of 2002 is a reaction against the Enron and WorldCom scandals. The Dodd-Frank Act of 2010 is no different from the previous examples. Psychological studies show that this phenomenon could be explained by availability bias. According to availability bias, events that are easier to remember or readily available are believed to have a greater possibility of occurring. Saliency and vividness are two factors that enhance availability. One of the widely accepted definitions of saliency and vividness is made by Nisbett and Ross (1980); *saliency* is the tendency that makes a stimuli easy to notice and *vividness* is defined as the emotional interest of information, the concreteness and imaginability of information, and the sensory, spatial and temporal proximity of information. For example, extensive media coverage of the salient erroneous ratings of CRAs after the outbreak of the subprime mortgage crisis and the losses incurred as a result of these ratings helps create a negative perception of CRAs. This kind of effect increases the pressure on policy makers and regulators to impose regulations on CRAs.
2. *Omission Bias*: Ritov and Baron (1990) define omission bias as “the tendency to favor omissions (such as letting someone die) over otherwise equivalent commissions (such as killing someone actively)”. Extreme regulations imposed by governments or regulatory authorities to protect unsophisticated investors from CRAs might reduce the efficiency of financial markets.
3. *Scapegoating and Xenophobia*: According to scapegoat theory people tend to direct their anger and blame someone or a specific group for an unpleasant event. Hirshleifer (2008) claims that economic and stock market downturns increase pressure for regulation and gives the Securities Acts of 1933 and 1934 and SOX legislation as examples. The CRAs were scapegoats in the subprime mortgage crisis and the regulatory reaction was the Dodd-Frank Act of 2010. Lannoo (2008) examines the role of credit rating agencies, and whether they were scapegoats or free-riders.
4. *Fairness and Reciprocity Norms*: Hirshleifer (2008) contends that reciprocity, equality and charity are three critical behavioral norms. Reciprocity is the act of mutual giving and receiving. Equality is the equal division of resources. Charity involves actions aimed to relieve stress. In addition to Hirshleifer’s three norms, we believe that trust is also a prerequisite, and one of the most important factors, for an efficiently functioning economy.
5. *Overconfidence*: Overconfidence is a bias in which people overestimate their knowledge, ability and their access to information. Hirshleifer (2008) suggests that overconfidence might help explain the excessive activism in regulatory

strategies. Overconfidence manifests itself in other ways in addition to the faulty precision of knowledge. Many people unrealistically believe that their knowledge and skills are *better-than-average*. Regulators believe they are more skilled than the average investor. Another strain of overconfidence is called *illusion of control*, which is based on the notion that people think they have more control over outcomes than they objectively might have. Hirshleifer (2008) argues that illusion of control leads regulators to believe that they are able to avert bubbles and crashes. Schroeder (2015) presents another concern, that embedding ratings within regulations has led to overconfidence in the ability of agencies to accurately assess the risk of default. Shefrin (2009) underlines the importance of *excessive optimism* bias and defines it as the overestimation of the probability of favorable events and underestimation of the probability of unfavorable events. The analysts excessively optimistic ratings of structured products in credit rating agencies could indicate an unrealistically optimistic behavior. Shefrin (2009) also specifies *extrapolation bias*, which basically leads people to develop unwarranted forecasts that recent changes will continue into the future. Extrapolation bias could at least partially explain the analysts' continuing optimistic ratings during the real estate bubble formation period. From a different perspective, extrapolation bias might also clarify the behavior of investors during this period.

6. *Mood Effects and Availability Cascades*: A mood is an emotional state, however, the distinction between emotion and mood is important. An emotion is about something specific, whereas a mood is a general feeling that does not focus on anything particular (Ackert and Deaves 2010). Hirshleifer (2008) suggests that short-term moods even affect judgments and decisions relating to long term prospects. With the development of social media, people are more connected, and it is much easier for them to effect each other's decisions. The effect of mood can also spread to a societal level through informational cascades and might cause support for a belief in greater regulation. Informational cascades has often been considered as a theory characterizing herding behavior, where informed traders ignore their own private signals of information and trade in response to observed trades in the market (Banerjee 1992). Lugo et al. (2015) evaluate how the presence of rating actions and different credit evaluations by a competing CRA affects the timing of downgrades and the likelihood of rating convergence in the aftermath of the subprime crisis. In other words, the study centers on the role of reputation and informational cascades in explaining herding behavior for CRAs. Their results are in line with previous work about the role of reputation in explaining herding behavior among CRAs. In a European Commission public consultation on credit rating agencies (2010) one of the important findings involves the potential for credit ratings to cause herd behavior in investors and debt instruments. Ferri and Morone (2008) experimentally studied the effect of rating agencies on herding in financial markets and found that credit ratings may not prevent the herd behavior of agents. A detailed literature survey of the herd behavior of credit rating agencies can be found in the study by Amtenbrink and Heine (2013).

7. *Ideological Replicators*: Hirshleifer (2008) explains how ideologies—religious, political, and economic—shape financial regulation by word of mouth.

Avgouleas (2009) suggests product complexity, the impact of socio-psychological factors, herding and cognitive biases as the reasons for failure in the 2008 crises. Specifically, availability and representativeness heuristics helped spread overreliance on credit rating agency judgements. Financial regulation is still based on the disclosure model curing market failure, however, a recent promising development is the executive order signed by the US President, Barack Obama, organizing a group called the Social and Behavioral Sciences Team. The team aims to apply insights from behavioral economics in order to design government policies. Section 1c of the executive order underlines the regulatory benefits expected from the behavioral science: “For policies with a regulatory component, agencies are encouraged to combine this behavioral science insights policy directive with their ongoing review of existing significant regulations to identify and reduce regulatory burdens. . .” (Obama 2015).

6 Conclusion

Authorities introduced a wide range of regulatory measures for CRAs in response to the latest financial crisis. Although there is no consensus about the proper action regarding the prevention of future potential market failures, most of the measures focus on direct government regulation. Shefrin (2009) claims that regulation of financial markets is like a dynamic tug-of-war between parties, with differing views of which relative strength shifts from side to side. History tells us that people overreact by pushing government officials and legislators to impose regulations when they are fearful, and that they pull toward libertarianism when they are exuberant (Statman 2009). Beyond this regulatory perspective we need to remember that the financial markets are built on confidence and trust. Hopefully, the use of a behavioral approach to economic and regulatory decisions will improve the quality and effectiveness of future policy decisions. There is no doubt that changing a century-long tradition is challenging, and credit ratings agencies serve an important function within the financial system. However, when we go back to our initial question, “Has the reputation of CRAs been repaired after the latest financial crisis?”, the answer is “Not exactly” according to the evidence so far. The next question is “Does reputation still matter to credit rating agencies?”. The answer to this question is “Certainly, yes”. The main concern for credit rating agencies is not regulation or government interventions, the only value that matters is the trust of the market participants, which is synonymous with reputation for CRAs. Hopefully, CRAs received the necessary message from the latest crises, otherwise the market and its participants will have to move to a more independent and trustworthy method of credit ratings.

References

- Ackert LF, Deaves R (2010) Behavioral finance: psychology, decision making and markets. South-Western Cengage Learning, Mason
- Altman EI, Rijken HA (2004) How rating agencies achieve rating stability. *J Bank Financ* 28 (11):2679–2714
- Altman EI, Oncu TS, Richardson AS, White L (2010) Regulation of rating agencies, *Regulating Wall Street*. Wiley, Hoboken, NJ, pp 443–467
- Amtzenbrink F, Heine K (2013) Regulating credit rating agencies in the European Union: lessons from behavioural science. *Dovenschmidt Q* 2(1):2–15
- Ashcraft AB, Goldsmith-Pinkham P, Vickery JI (2010) MBS ratings and the mortgage credit boom. FRB of New York Staff Report, 449
- Avgouleas E (2009) The global financial crisis and the disclosure paradigm in European financial regulation: the case for reform. *Eur Co Financ Rev* 6(4):440–475
- Baghai RP, Servaes H, Tamayo A (2014) Have rating agencies become more conservative? Implications for capital structure and debt pricing. *J Financ* 69(5):1961–2005
- Banerjee AV (1992) A simple model of herd behavior. *Q J Econ* 107(3):797–817
- Basle Committee on Banking Supervision (1998) Risk management for electronic banking and electronic money activities
- Becker B, Milbourn T (2011) How did increased competition affect credit ratings? *J Financ Econ* 101(3):493–514
- Bedendo M, Cathcart L, El-Jahel L (2016) Reputational shocks and the information content of credit ratings. SSRN. doi:10.2139/ssrn.1729231
- Benmelech E, Dlugosz J (2010) The credit rating crisis. In: NBER macroeconomics annual 2009, Vol 24. University of Chicago Press, Chicago, pp 161–207
- Bolton P, Freixas X, Shapiro J (2012) The credit ratings game. *J Financ* 67(1):85–111
- Cantor R, Mann C (2006) Analyzing the tradeoff between ratings accuracy and stability. *J Fixed Income* 16:60–68
- Cheng M, Neamtiu M (2009) An empirical analysis of changes in credit rating properties: timeliness, accuracy and volatility. *J Acc Econ* 47(1):108–130
- Choi S (1998) Market lessons for gatekeepers. *Northwest Univ Law Rev* 92:916
- Coffee JC Jr (2011) Ratings reform: the good, the bad, and the ugly. *Harv Bus Law Rev* 1:231
- Congress OHT (2010) Dodd-Frank Wall Street Reform and Consumer Protection Act [Public Law 111–203—July 21, 2010]. *Publ Law* 111:203
- Covitz DM, Harrison P (2003) Testing conflicts of interest at bond rating agencies with market anticipation: evidence that reputation incentives dominate (No. 2003-68). Board of Governors of the Federal Reserve System (US)
- Dimitrov V, Palia D, Tang L (2015) Impact of the Dodd-Frank act on credit ratings. *J Financ Econ* 115(3):505–520
- Dyess CR (2014) Credit Rating Agency Review Board: the challenges and implications of implementing the Franken-Wicker Amendment to Dodd-Frank. *J Bus Enterpren Law* 8:79
- Eatwell J, Taylor L (2000) Global finance at risk: the case for international regulation. The New Press, New York
- European Commission (2010) Public consultation on credit rating agencies. Directorate General Internal Market and Services
- Ferri G, Morone A (2008) The effect of rating agencies on herd behaviour, EERI Research Paper Series EERI_RP_2008_21. Economics and Econometrics Research Institute (EERI), Brussels
- Fitch Ratings (2014, December) Definitions of ratings and other. Fitch Ratings. https://www.fitchratings.com/jsp/general/RatingsDefinitions.faces?context=5&context_ln=5&detail=507&detail_ln=500 (Accessed: 12 Jan 2016)
- Fracassi C, Petty S, Tate G (2013) Are credit ratings subjective? The role of credit analysts in determining ratings. Working Paper, SSRN 2230915

- Franken A, Wicker RF (2011) Comments on assigned credit ratings; File Number 4-629. Securities and Exchange Commission, Washington, DC
- Friedman TL (1995) Don't mess with Moodys. *New York Times* 22:A19
- Griffin JM, Tang DY (2012) Did subjectivity play a role in CDO credit ratings? *J Financ* 67(4):1293–1328
- Hirshleifer D (2008) Psychological bias as a driver of financial regulation. *Eur Financ Manag* 14(5):856–874
- Hunt JP (2008) Credit rating agencies and the 'worldwide credit crisis': the limits of reputation, the insufficiency of reform, and a proposal for improvement. *Columbia Bus Law Rev* 2009(1). Available at SSRN: <https://ssrn.com/abstract=1267625> or <http://dx.doi.org/10.2139/ssrn.1267625>
- Lannoo K (2008) Credit rating agencies: scapegoat or free-riders? CEPS ECMI Commentaries No. 20, 9 October 2008
- Lugo S, Croce A, Faff R (2015) Herding behavior and rating convergence among credit rating agencies: evidence from the subprime crisis. *Rev Financ* 19(4):1703–1731
- Marandola G, Sinclair T (2014) Credit rating agencies: a constitutive and diachronic analysis. Sheffield Political Economy Research Institute Paper No.16
- Mathis J, McAndrews J, Rochet JC (2009) Rating the raters: are reputation concerns powerful enough to discipline rating agencies? *J Monet Econ* 56(5):657–674
- Moody's (2016, February) Rating symbols and definitions. Moody's Investor Services
- Mullard M (2012) The credit rating agencies and their contribution to the financial crisis. *Polit Q* 83(1):77–95
- Neal L (1990) *The rise of financial capitalism: international capital markets in the age of reason*. Cambridge University Press, Cambridge
- Nisbett R, Ross L (1980) *Human inference: strategies and shortcomings of social judgment*. Prentice Hall, Upper Saddle River, NJ
- Obama B (2015, September 15). The White House Office of the Press Secretary. Executive Order: Using Behavioral Science Insights to Better Serve the American People. <https://www.whitehouse.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american>
- Partnoy F (2002) The paradox of credit ratings. In: Levich RM, Majnoni G, Reinhart CM (eds) *Ratings, rating agencies and the global financial system* (s 65). Springer, New York
- Standard & Poor's (2016) *Standard & Poor's Ratings Definitions*. Standard & Poors Rating Services. https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352. Accessed 20 Jan 2016
- Reiss DJ (2009) Rating agencies and reputational risk. *Md J Bus Tech Law* 4:295
- Ritov I, Baron J (1990) Reluctance to vaccinate: omission bias and ambiguity. *J Behav Decis Making* 3(4):263–277
- Sarbanes-Oxley Act (2002, July 30) H.R. 3763—107th Congress: Sarbanes-Oxley Act of 2002. Washington, DC
- Schroeder SK (2015) *Public credit rating agencies: increasing capital investment and lending stability in volatile markets*. Palgrave Macmillan, New York
- Schwarcz SL (2002) Private ordering of public markets: the rating agency paradox. *Univ Illinois Law Rev* 1:1–28
- SEC (2012) Report to Congress on assigned credit ratings: as required by Section 939F of the U.S Securities and Exchange Commission
- Sharma D (2008, October) Testimony before the Committee on Oversight and Government Reform, United States House of Representatives
- Shefrin H (2009) *Behavioralizing finance foundations and trends*. Now Publishers, Hanover
- Skreta V, Veldkamp L (2009) Ratings shopping and asset complexity: a theory of ratings inflation. *J Monet Econ* 56(5):678–695
- Statman M (2009) Regulating financial markets: protecting us from ourselves and others. *Financ Anal J* 65(3):22–31

- Sylla R (2002) An historical primer on the business of credit rating. In: Ratings, rating agencies and the global financial system. Kluwer, Boston, pp 19–40
- The European Parliament and the Council (2009, 17 November). Regulation No 1060/2009 on Credit Rating Agencies. Off J Eur Union, L 302/1
- Union TE (2013) Amending Regulation (EC) No 1060/2009 on credit rating agencies. Off J Eur Union 146:1–33
- Walter I (2008) Reputational risk and conflicts of interest in banking and finance: the evidence so far. In: Variations in economic analysis. Springer, New York, pp 75–97
- White L (2009) A brief history of credit rating agencies: how financial regulation entrenched this industry's role in the subprime mortgage debacle of 2007–2008. *Mercatus Pol* 59:1–4
- White LJ (2010) Credit-rating agencies and the financial crisis: less regulation of CRAs is a better response. *J Int Bank Law* 25(4):170

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