Credit Rating Agencies: An Overview

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Abstract

Credit rating agencies (CRAs) play a central role in the debt (bond) markets of many countries. CRAs have also attracted a considerable amount of public and policy attention during the past decade, especially with respect to their role in the financial crisis of 2008-2009 and their role in the more recent Eurozone difficulties. This essay will provide an overview of the CRAs: Who they are; what they do; how their centrality to the financial markets came about; what their role in the financial crisis was; and the important aspects of the policy measures that have affected the CRAs.

Keywords: Credit rating agencies; nationally recognized statistical rating organization (NRSRO); financial regulation; financial crisis; Dodd-Frank Act

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I. Introduction.¹

Credit rating agencies (CRAs) have gained a considerable amount of media attention and prominence in policy discussions since the onset of the U.S. financial crisis of 2008-2009. Attention has continued to be placed on them as the financial crisis of the Eurozone has unfolded since 2010. Almost all of the CRA-oriented focus has been on the three large U.S.-based CRAs: Moody’s; Standard & Poor’s; and Fitch.

This essay will provide an overview of the CRAs: Who are they? What do they do? How do they do it? What is their history? How and why did they gain so much notoriety? Are there alternatives to the major CRAs? What are the policy choices going forward?

Much of the focus of this essay will be on the U.S. and its CRAs and its policies. This is warranted because the three large CRAs are U.S.-based, and the U.S. policies have been influential in shaping their destiny. Where appropriate, however, the focus will be wider.

Specifically, this essay will be structured as follows: The next section will address the question of where and how CRAs fit into the larger world of finance. Next we will briefly describe the current size and structure of the three major CRAs, as well as describing some of the smaller CRAs. The fourth section will provide a brief historical review of how the CRAs began and developed. In the fifth section we summarize the housing and mortgage boom and bust and the three major CRAs’ role in that boom and bust and the financial crisis that followed. Building on the previous sections, the sixth section addresses a number of important questions concerning the CRAs, including the major policy choices that involve the CRAs. The final section will offer a brief conclusion.

¹ This essay draws heavily on White (2002, 2010). Other treatises on the credit rating industry include Cantor and Packer (1995); Partnoy (1999); Levich et al. (2002); Sinclair (2005); Langohr and Langhor (2008), and Garcia Alcubilla and Ruiz del Pozo (2012).
II. The Role of Creditworthiness Advisory Services in a Financial System.

Whenever there is a potential or actual lending/borrowing relationship between two parties, there is a natural question for the lender to ask: “Will I get paid back?”

In order to address that question, the lender will want – among other things – to gather information about the borrower, regardless of whether the borrower is a company, an individual, or a governmental unit.\(^2\) Ahead of time, when the lender is considering whether to lend to a prospective borrower, the lender would be interested in information about the borrower’s current financial position and financial prospects and the borrower’s “track record” with respect to past financial obligations, etc.; this information collection would be an effort to deal with the potential problems of adverse selection (see, for example, Stiglitz and Weiss (1981)).

In addition, once the loan has been made, the lender will want to monitor the borrower, so as to be reassured that the borrower’s financial position has not worsened – or if it is worsening, to find out early so as to be able to intervene early while some or all of the owed amount can still be salvaged. This monitoring would primarily be in the form of updates of the borrower’s financial position and prospects;\(^3\) but even the requirement of periodic payment of interest and possibly also some periodic amortization of principal (rather than relying solely on a “balloon” payment at the end of the loan period) will provide some information about the borrower’s financial health, since a failure of the borrower to make a periodic payment is surely a bad signal with respect to the borrower’s ability to repay the remaining amount of the loan.

\(^2\) Included in the other things that the lender might do would be (for example) to require collateral for the loan (as is true for most loans that are related to real estate); require third-party guarantors for the loan (as is true for many personal loans and other types of otherwise unsecured loans); require that the borrower make periodic payments of interest and possibly also amortize the principal (rather than simply require a “balloon” payment at the end of the loan term); and/or place covenants in the loan agreement that restrict what the borrower can do during the loan period.

\(^3\) For example, if a bank makes a loan to a small- or medium-size enterprise, a loan officer from the bank is likely to make periodic on-the-premises visits to the enterprise to obtain a visual impression of how the enterprise is faring, as well as talking with the enterprise’s senior executives.
Some lenders – such as banks,\(^4\) insurance companies, finance companies, and investment companies (such as bond mutual funds) – are often able to collect and analyze the requisite information themselves. In essence, these types of financial institutions are lending specialists and have developed the expertise (and often the scale) to be able to gather and assess the information that they have gathered about prospective and actual borrowers. With the development of large digital data bases about individuals’ financial histories and positions, however, even these lending specialists often turn to third-party vendors of standardized financial information (e.g., the Fair Isaac Company, which was the developer of the “FICO score”) for the gathering of information with respect to some kinds of loans, especially for loans to individuals.

Smaller financial institutions may not have the scale to gather and analyze their own information with respect to some kinds of loans. This seems to have been the case with respect to these institutions’ investments in bonds of various kinds. (Recall that a bond indenture is a loan, and thus an “investor” in a bond is in reality a lender to the issuer of the bond.) The same is surely true of almost all individuals when they act as bond investors. Accordingly, these categories of lenders – if they choose to invest in bonds – are likely to turn to third-party gatherers and analyzers of the relevant information about bond issuers. In essence, these third-party analysts are “creditworthiness advisory services”.\(^5\)

Enter the three major CRAs: These CRAs are one category – clearly an important category – of creditworthiness advisory service about bonds. They collect information about bond issuers and the bonds that they have issued, and the CRAs publish “ratings”: assessments of

\(^4\) By “banks” we will mean depository institutions more generally – i.e., commercial banks, savings institutions, and credit unions – unless otherwise indicated.

\(^5\) In an important sense, such advisory services also serve the interests of the more creditworthy bond issuers, since these services allow the better issuers more credibly to represent themselves to the lenders. Thus, such services are better described as reducing the asymmetric information frictions that are present between lenders and borrowers.
the prospects for repayment of specific bond issuances. All of the major CRAs use an alphabet-oriented rating scale that expresses their beliefs as to the relative creditworthiness of various bonds (or, equivalently, the likelihood of default). S&P, for example, uses AAA, AA, A, BBB, BB, etc., down to C and then D, with pluses and minuses also possible for all of the grades from AA to CCC. S&P describes AAA as indicating that the issuer has an “extremely strong capacity to meet financial commitments”, whereas D indicates “payment default on financial commitments”.

Within the continuum of creditworthiness assessments that are represented by a rating scale, an important distinction has grown over time with respect to bonds that are “investment grade” and those that are instead “speculative” (see Fons 2004). In the S&P continuum, bonds that are rated BBB- or better are considered to be investment grade; those that are BB+ or below are considered to be speculative. The other major CRAs have a similar dividing line in their array of ratings. We will return in subsequent sections to the importance of this distinction.

Although the three major CRAs are clearly important, they are not the only creditworthiness advisory services that are available for bond investors that want third-party advice: First, there are other, smaller advisory services that describe themselves as CRAs and that have been certified (along with Moody’s, S&P, and Fitch) by the U.S. Securities and Exchange Commission (SEC) as “nationally recognized statistical rating organizations” (NRSROs). As early 2013 there are seven such smaller certified CRAs. Next, there are other

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6 For S&P the rating is an indicator of the probability of default – i.e., that the lender will experience some loss; for Moody’s and for Fitch, the rating also encompasses the expected loss given default; see USSEC (2012a).

7 All of the major CRAs use a separate “symbology” for their ratings of “commercial paper”: the very short-term obligations that are issued by corporations. And they all also have yet different sets of symbols for other categories of ratings, such as for banks, insurance companies, and mutual funds (USSEC, 2012a).

8 These explanations can be found at: http://www.standardandpoors.com/ratings/definitions-and-faqs/en/us#def_2.

9 Since the 1980s this latter category of securities is often described as “junk bonds”.

10 The certification system has been in existence since 1975. More discussion of the NRSRO system will be offered in subsequent sections.
creditworthiness advisory firms that have not been certified by the SEC and that may or may not call themselves “rating” firms but that essentially are providing the same service: advising clients as to the creditworthiness of various bond issuers and their bond issuances. Finally, it is important to remember that almost all securities firms have a cadre of employees who usually carry the title “fixed income analysts”. Although usually less heralded than these firms’ “equity analysts”, these fixed income analysts are essentially providing a similar type of creditworthiness advisory information for the clients of their securities firm employer (as well as for the securities traders that are employed by that firm).

III. Who Are They?

This section will provide some background information on the three major CRAs, as well as some information on the seven smaller CRAs.

A. Moody’s Investors Service, Inc.

Moody’s is the only one of the major CRAs that is a freestanding, publicly traded company. It was previously a division of Dun & Bradstreet (which absorbed Moody’s in an acquisition in 1962) but was spun off as a freestanding company in 2000. As of 2011, almost 70% its revenues are derived from ratings. In calendar year 2011, Moody’s had aggregate sales of $2.3 billion, assets of $2.9 billion, and profits (“operating income”) of $0.9 billion, and its employees numbered approximately 6,500. Moody’s is an international company; it has offices

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11 These seven will be discussed in Section III. In 2009 the European Union (EU) began a similar system of registration and certification of credit rating agencies, based on registration by member states. As of early 2013, the European Securities and Markets Agency (ESMA) reported that registrants included the three large U.S.-based CRAs, three of the smaller U.S. NRSROs, and 13 additional Europe-based CRAs. A longer list can be found in Garcia Alcubilla and Ruiz del Pozo (2012, pp. 10-11); a yet longer list of CRAs worldwide can be found at http://www.defaultrisk.com/rating_agencies.htm.

12 Some examples of these smaller non-certified firms in the U.S. include: CreditSights; R&R Consulting; Rapid Ratings International; PF2 Securities Evaluations, Inc; and Institutional Risk Analytics.

13 There is a professional association of such individuals: the Fixed Income Analysts Society, Inc. (see www.fiasi.org) and even a “Fixed Income Hall of Fame” (see http://www.fiasi.org/fixed-income-hall-of-fame).
in 28 countries, and it provides ratings for issuers that are located in 110 countries. In 2011, 56% of its rating revenues came from ratings of U.S. issuers; the remaining 44% came from ratings of issuers that were located outside the U.S.

As part of the regulatory regime that was created by the Credit Rating Agency Reform Act (CRARA) of 2006, certified CRAs are required annually to file data with the SEC that specifically describe their global rating activities. Table 1 shows the relevant data from Moody’s “Form NRSRO” for 2011 (as well as the other certified CRAs’ Forms NRSRO for that year).\(^{14}\) As can be seen from Table 1, Moody’s maintained ratings on almost a million bond issues in 2011, with its analysts and supervisors numbering around 1,250. Among the reasons why the ratio of bond issues to personnel can be so high is that some issuers – such as governments – issue many different series of bonds; but the credit rating is essentially on the issuer, so that the single rating covers multiple issuances.

B. Standard & Poor’s Ratings Services

The rating business of S&P is embedded in the larger S&P financial information enterprise, which (among other things) compiles and publishes financial instrument indexes (such as the “S&P 500” index). S&P, in turn is part of the McGraw Hill Companies, which is a major textbook publisher and business book publisher.\(^{15}\) Because S&P’s ratings activities are embedded in the much larger McGraw-Hill corporate structure, much less financial information has been available about S&P ratings as a standalone unit. In 2011, S&P’s ratings unit had aggregate revenues of $1.8 billion. Like Moody’s, S&P Ratings has a major international

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\(^{14}\) These data are summarized in USSEC (2012b; 2012c), from which almost all of the data in Table 1 are directly taken.

\(^{15}\) McGraw-Hill acquired S&P in 1966. In September 2011 McGraw-Hill announced that it was planning a division of the company into two separate entities – “McGraw-Hill Education” (a education/publishing entity) and “McGraw-Hill Financial” (a business information services company) – by the end of 2012. In November 2012 it announced an agreement to sell McGraw-Hill Education to Apollo Global Management LLC; the transaction was completed in May 2013.
presence, with offices in over 20 countries. Of its 2011 revenues, slightly more than half (51.5%) came from U.S. sources; the remainder came from abroad.

From S&P’s Form NRSRO for 2011 in Table 1, we can see that S&P is approximately the same size as Moody’s in terms of ratings outstanding and rating personnel.

C. Fitch Ratings.

Fitch Ratings is part of the Fitch Group (a financial information company), which in turn is a jointly owned subsidiary of a French financial services company (Fimalac, S.A.) and the Hearst Corp. Consequently, as is true of S&P Ratings, there is little financial information about Fitch Ratings as a freestanding entity. In 2011 Fitch’s revenues from ratings came to $732 million. Fitch is somewhat more internationally focused than are the other two major CRAs. Of its 2010 revenues, only 41.9% came from North American sources.

From Fitch’s Form NRSRO for 2011 in Table 1, it can be seen that Fitch is roughly a third of the size of Moody’s or S&P when the metric is ratings outstanding, although Fitch has only a modestly smaller number of rating personnel.

D. The remaining seven certified CRAs.

As can be seen in Table 1, the remaining seven certified CRAs are considerably smaller than Moody’s, S&P, or Fitch.16 If their share of total ratings outstanding is considered, they account for only about 3.5% of the total, with DBRS accounting for over half of the smaller CRAs’ ratings; but this small percentage is largely due to the low participation of the smaller CRAs in the (very large) categories of government securities and asset-backed securities. The smaller CRAs are more prominent (a range of 10% to 25%) in the first three categories in Table

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16 There was an additional smaller NRSRO – Rating and Investment Information, Inc. (R&I), which is a Japan-based CRA – that withdrew from NRSRO registration at the end of 2011.
A few notable characteristics of the seven smaller CRAs follow:

- A.M. Best Company, Inc. tends to specialize in rating insurance companies.
- Dominion Bond Rating Services Inc. (DBRS) is a Canada-based CRA.
- Egan-Jones is the sole CRA that has maintained a business model that is based on charging only investors (“subscribers”) for the ratings that it issues; all of the other certified CRAs are paid by the issuers of the bonds that the CRA rates.17
- HR Ratings de Mexico is a Mexico-based CRA and the newest NRSRO registrant, having been certified by the SEC in November 2012.
- Japan Credit Rating Agency, Ltd (JCR). is a Japan-based CRA.
- Kroll Bond Rating Agency, Inc., became a certified CRA by acquiring a small certified CRA (LACE Financial Corp.) in 2010.
- Morningstar Credit Ratings, LLC, which is better known for its assessments and ratings of mutual funds, became a certified CRA by acquiring a small certified CRA (Realpoint LLC) in 2010.

E. A summary of the data.

It is clear that Moody’s, S&P, and Fitch well deserve the phrase “the Big 3” in the rating business. From the data in Table 1, it can be seen that Moody’s and S&P are roughly comparable in size and coverage; Fitch is somewhat smaller (and how much smaller depends on whether one uses employees, issues covered, or (from the text above) revenues; and the remaining seven certified CRAs are considerably smaller than those three.

17 The question of the business model for the CRAs will be discussed in subsequent sections.
IV. A Brief History of the Credit Rating Agencies.

“How we got here” can often be useful for helping understand the choices for “where should we go?” Accordingly, this section will offer a brief history of the credit rating agencies.\(^{18}\)

**A. The beginnings.**

Although “credit analysis” of borrowers probably began shortly before the first loan was made between a lender and a borrower in pre-historic times, the history of publicly available bond ratings began in 1909.\(^{19}\) In that year, John Moody published a “rating manual” that contained ratings of dozens of bonds that had been issued by railroad companies in the U.S. That this happened in the U.S. was no accident: The U.S. bond market was far larger than bond markets in most other countries (where lending to companies and governments more often occurred through banks). And that these were entirely railroad bonds was also no accident: Railroads were generally the largest companies in the U.S., were growing rapidly, and were generally in need of borrowed funds.

Moody sold the rating manual to investors. In modern parlance, his was an “investor-pays” business model.

Moody’s entry into the public bond rating business was followed by others: The Poor’s Publishing Company entered in 1916; the Standard Statistics began issuing ratings in 1922;\(^{20}\) and the Fitch Publishing Company began its ratings in 1924. In all instances, the ratings were sold to investors.

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\(^{18}\) A more extended history can be found in Sylla (2002).

\(^{19}\) As Sylla (2002) points out, during the nineteenth century there were local credit reporting services, a specialized financial press, and the services of investment bankers that helped lenders assess the creditworthiness of potential and actual borrowers.

\(^{20}\) The Standard Statistics Co. and the Poor’s Publishing Co. merged in 1941 to form S&P.
In an important sense, this pattern of entry showed that the rating business was clearly meeting a “market test”. This is not surprising, since this pre-1930s period was prior to the mandated financial disclosures that occurred only after the establishment of the SEC in 1934. Voluntary financial disclosures by companies were more scanty in this pre-SEC period. Bond investors – especially smaller institutional investors, as well as individual investors – would be expected to seek third-party specialist help in assessing the creditworthiness of bonds.

B. The 1930s through the 1970s.

The 1930s marked an important watershed for the CRA business.\(^{21}\) In the early 1930s, regulators of commercial banks started introducing the use of ratings for the required accounting practices of their regulated banks: e.g., bonds that commercial banks had bought and were holding in their portfolios could be valued at their purchase cost if the bonds were investment grade, but would have to be marked to market if the bonds were speculative. However, the big change occurred in 1936, when federal bank regulators told their regulated banks that – if they bought and held (i.e., invested in) bonds – those bonds could not be “speculative”; i.e., the bonds could only be “investment grade”. These determinations would be according to “recognized rating manuals”.\(^{22}\) In the “clubby” world of the 1930s, these “recognized rating manuals” were surely understood to be the ratings of Moody’s, Poor’s, Standard, and Fitch.\(^{23}\)

It is easy to understand why the federal bank regulators might have come to the decision to make this change. A central regulatory function of bank regulation is “prudential regulation”:

\(^{21}\) The discussion in this section draws heavily on Hickman (1958) and Partnoy (1999).

\(^{22}\) It was the U.S. Office of the Comptroller of the Currency (OCC) – the federal regulator of nationally chartered commercial banks – that first issued the regulation, which was quickly adopted by the other federal bank regulators. The OCC added: “… and where there is doubt as to the eligibility of the security for purchase, such eligibility must be supported by not less than two rating manuals.”

\(^{23}\) The bank regulators have since then considerably expanded their inclusion of CRAs’ ratings in regulations. For recent summaries, see USFDIC (2011); USOCC (2011); and USFederal Reserve Board (2011).
the effort to keep banks solvent. If banks were investing in bonds, the prudential regulator would want them to be “safe” bonds, rather than “speculative” (i.e., high-risk) bonds, just as the prudential regulator would want the banks’ other loans and investments to be safe rather than speculative. If the federal bank regulators believed that the major CRAs’ judgments as to bond creditworthiness were reliable, then “outsourcing” the safety decision to the CRAs made a certain amount of sense.

However, this regulatory change was a watershed for the following reason: Prior to this regulatory change, the use of ratings on the part of bond investors was entirely a voluntary matter; there was no mandate for any investor to use ratings for bond investment decisions. With the regulatory change, there was now a mandate for commercial banks (as bond investors) to heed the ratings that were provided in the “recognized rating manuals”. The CRAs – specifically the four (soon to be three) CRAs – now had a guaranteed audience for their ratings. Further, because commercial banks were major participants in the bond markets, the other participants in the bond markets – even if they did their own analysis – would want to know the levels of those CRAs’ ratings as well, so as to know what one major category of participant could or could not buy. Consequently, the market for those CRAs’ ratings was yet broader than just the banks.

In addition, as was discussed above, this change meant that the federal bank regulators had essentially delegated or “outsourced” to these third-party private entities the decision as to what constituted safe bonds. Equivalently, these third-party judgments had acquired the force of law.

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24 In the U.S., a common term for this function is “safety and soundness” regulation; outside of the U.S., “prudential” regulation is the more common term.
25 Modern prudential regulation would generally take a more nuanced approach and require more capital for higher-risk assets.
26 Apparently, objections to this placement of authority in private-party hands were raised at the time, and in 1938 the language of “recognized rating manuals” was eliminated from the regulation (Hickman 1958, p. 145). But since the language of “speculative” and “investment grade” remained in the regulation, de facto the major CRAs’
In the following decades, the state regulators of insurance companies\textsuperscript{27} also began to incorporate the major CRAs’ ratings into their prudential regulation of their respective insurance companies.\textsuperscript{28} The guaranteed audience for the CRAs’ ratings had widened further. And in the mid 1970s, as federal prudential regulation was extended to defined benefit pension plans, through the Employee Retirement Income Security Act (ERISA) of 1974, again CRAs’ ratings were put to use.

A major reinforcing action in this area occurred in 1975: As part of its revision of its “net capital” rule for broker-dealers (i.e., securities firms) – essentially, prudential regulation of these firms – the SEC decided that (similar to the state insurance regulators) it wanted securities firms’ capital levels to be sensitive to the riskiness of the bonds that the firms were holding in their portfolios; and, again like the state insurance regulators, the SEC decided to use CRAs’ ratings as the indicators of the riskiness of those bonds. However, the SEC was concerned about the potential vagueness of exactly which CRAs’ ratings could be used by a securities firm in determining its needed capital.

As a consequence, the SEC created a new category – “nationally recognized statistical rating organization” (NRSRO) – as the category of CRAs, the ratings of which would be the appropriate ones for the securities firms to use in the determination of their needed capital. And it immediately certified Moody’s, S&P, and Fitch as NRSROs. Subsequently, the bank,

\textsuperscript{27} In the U.S. the regulation of insurance companies – prudential regulation, as well as rate regulation and information regulation – has historically been (and continues to be) the domain of the individual states.

\textsuperscript{28} Rather than ban speculative bonds, the insurance regulators adopted a more nuanced approach, in which an insurance company that held bonds that had lower CRA rankings was required to have higher levels of capital.
insurance, and pension regulators adopted the NRSRO category as the one for which their (expanding) regulatory use of CRAs’ ratings would apply.\textsuperscript{29}

Over the 25 years that followed its creation of the NRSRO category in 1975 the SEC certified only four additional CRAs as NRSROs.\textsuperscript{30} In essence, the SEC had become a serious barrier to entry\textsuperscript{31} for firms that might be interested in providing creditworthiness information about bonds and their issuers, since it would be hard to attract the attention of regulated financial institutions (in their role as investors in bonds) without the NRSRO designation; and without the ability to gain the attention of those regulated institutional buyers, a would-be creditworthiness advisory firm would have difficulty attracting the attention of issuers (if the firm wanted to gain additional insight into an issuer’s operations).

As an exacerbation of the problem of comparatively few NRSRO designations, mergers among these new entrants and between them and Fitch caused the number and identity of certified NRSROs to shrink back to the original three – Moody’s, S&P, and Fitch – by year-end 2000.

One other major set of events for the CRAs occurred in the late 1960s and early 1970s. Recall that the original business model that John Moody adopted in 1909 was to sell the ratings to investors. All of the subsequent entrants followed the same business model. In the late 1960s and early 1970s, however, the industry gradually switched to a business model whereby the bond issuers were charged for the ratings, which were then distributed to the general public at no

\textsuperscript{29} Also, in the early 1990s, when the SEC decided that money market mutual funds should hold predominantly high-quality short-term obligations as their assets, it was the NRSROs’ determination of quality on which the SEC relied. The SEC has also employed NRSRO ratings in other regulatory contexts. For an inventory, see USSEC (2011).

\textsuperscript{30} They were Duff & Phelps in 1982; McCarthy, Crisant & Maffei in 1983; IBCA in 1991; and Thomson BankWatch in 1992.

\textsuperscript{31} In addition, the SEC was extraordinarily opaque with respect to its decisions as to which firms could become NRSROs. It never established formal criteria for what would qualify a firm to become a NRSRO; it never established a formal application and assessment process; and it never explained why it had bestowed the NRSRO designation on some firms and not on others.
charge. Thus, the CRAs’ business model had become one of “issuer pays,” which is the model that has persisted since then.

The reasons for this switch have never received a thorough historical analysis. However, it seems likely that at least two forces were at work: First, this was the period during which high-speed, low-cost photocopying became a well-established phenomenon, and the CRAs may have feared that low-cost photocopying would undermine their revenues (much as digital copying undermined the recorded music business 30 years later); it is clear from news reports at the time that the CRAs felt constrained in their ability to expand their revenues from their existing (investor) customer base. Second, the expanded regulatory use of ratings may have driven home to the CRAs that bond issuers really did need the CRAs’ ratings if the issuers wanted to get their bonds into the portfolios of the regulated institutions (banks and insurance companies) that were clearly important on the “buy side” of the bond markets.32

The issuer-pays business model created a new source of potential conflicts of interest: The issuer might try to elicit a favorable rating from a candidate CRA, by threatening to take its bond issuance to a different CRA unless it received the favorable rating from the first CRA. As a variant on this potential conflict, a CRA might threaten an issuer with an unfavorable “unsolicited”33 rating of its bond issuance unless the issuer agreed to hire the CRA and pay its fees.

It is clear that one or both of these potential conflicts were recognized at the time of the switch in business models, as is revealed by this excerpt from a 1968 New York Times news

32 In addition, the creditworthiness information business can be seen as a “two-sided market”, where the CRA is a “platform” and has customers/clients on both the issuer side and the investor side. From which side a two-sided platform gains its revenues can be idiosyncratic. For a more general discussion of two-sided markets, see, e.g., Rysman (2009).
33 I.e., a rating that was issued by the CRA without the CRA’s having been engaged by the issuer. For a model of issuer-pays CRAs that includes both solicited and unsolicited ratings, see Fulghieri et al. (2012).
story about S&P’s decision to begin charging municipal bond issuers for ratings: “Asked whether the payment of fees [by issuers] might create a conflict of interest, Brenton W. Harries, S&P vice president, said not.”34

C. The 2000s and 2010s.

During the 1980s and the 1990s, the CRAs attracted little attention one way or the other. Despite the potential for conflicts that the switch to the issuer-pays business model presented, there were no noticeable lapses. Indeed, the general reputation of the CRAs was as tough-minded analysts that were to be feared by issuers, rather than as entities that could be swayed by issuers, as is indicated by the following characterization: “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.”35

The NRSRO system attracted even less attention. Few individuals in Washington (except for employees of the SEC and the NRSROs themselves, of course) appear to have been aware of it.

This “hiding-in-plain-sight” position of the NRSRO system changed in the wake of the bankruptcy of the Enron Corp. in November 2001. This bankruptcy attracted a considerable amount of media attention, partly because of that company’s size and partly because the company had been prominent before the bankruptcy. One branch of the post-bankruptcy attention focused on the fact that Enron’s bonds had been rated as “investment grade” by all

35 Thomas L. Friedman, PBS “News Hour,” February 13, 1996. See also Blume et al. (1998) and Baghai et al. (2011) for evidence that, if anything, the CRAs’ standards became more stringent (i.e., “tougher”) from the 1970s through the 2000s.
three major CRAs until five days before the bankruptcy.\textsuperscript{36} This attention eventually led to congressional hearings, in which the CRAs were asked why they were so slow to recognize Enron’s weakened financial condition and the SEC was asked about the NRSRO system, how the SEC had managed it, and why there were only three certified NRSROs.

Feeling the Congressional pressure, the SEC certified a fourth NRSRO in 2003 (DBRS) and a fifth in 2005 (A.M. Best). The SEC did not, however, make its processes with respect to certifying NRSROs any less opaque.

Unsatisfied with the SEC’s actions, the Congress passed (and President Bush signed) the Credit Rating Agency Reform Act (CRARA) of 2006. The CRARA instructed the SEC to cease being an opaque barrier to entry: The Act specified the criteria that the SEC should use in designating new NRSROs, insisted on transparency and due process in the SEC’s certification decisions, and provided the SEC with information-gathering powers and limited oversight powers vis-à-vis the NRSROs. However, the CRARA specifically forbade the SEC from influencing the ratings or the business models of the NRSROs.

In response, the SEC certified three additional NRSROs in 2007 (one of which withdrew from NRSRO registration in 2011), two more in 2008, and one in 2012. Thus, as of early 2013 there are ten NRSROs.

D. A summing up.

The importance of the three major CRAs has surely been enhanced by their having been thrust into playing a major role in the prudential regulation of financial institutions in the U.S., starting in the 1930s. Their position was further enhanced in 1975 by the SEC’s creation of the

\textsuperscript{36} The issue of the CRAs’ sluggishness in changing ratings will be discussed below.
NRSRO designation and the SEC’s subsequent maintenance of a high barrier to entry into the NRSRO category.  

V. The Housing and Mortgage Boom and Bust of the 2000s.

The public policy attention to the CRAs was greatly heightened by the three major CRAs’ role in the housing boom and bust of the 2000s and the financial crisis of 2008-2009 that followed. Some background is in order.

A. The boom.

Starting in the late 1990s, the U.S. economy experienced a major housing boom (which is now, with hindsight, recognized to have been a bubble). Annual housing starts increased, home ownership rates rose, and (most important) housing prices rose substantially above the general rate of inflation in the U.S.: Between 1997 and 2006, the S&P/Case-Shiller Index of house prices rose by about 125%, while the U.S. Consumer Price Index rose by only 28%. By the early 2000s there was a widespread belief that housing prices could only go up.

Helping to fuel this housing boom was the securitization of residential mortgages and especially the spread of this securitization to “private label” mortgage securities: Residential mortgage securitization – the pooling of mortgages into securities that could be sold to investors – began in the U.S. in 1970. Until the late 1990s, almost all mortgage securitization was conducted by a government entity (Ginnie Mae, which is a part of the U.S. Department of

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37 Other countries have also included ratings in the prudential regulation of their financial institutions, though not as extensively and at later times (Sinclair, 2005, pp. 47-49; Langohr and Langohr, 2008, pp. 431-434); ECB (2009); BIS (2009); Coffee (2011); Garcia Alcubilla and Ruiz del Pozo (2012); and Rousseau (2012). Also, the Basel Capital Accord, which is an international agreement that is intended to harmonize the prudential regulation of financial institutions internationally, continues to employ ratings in the determination of some capital requirements.

38 The U.S. was not alone in this regard: Other countries – such as the U.K., Ireland, and Spain – experienced similar housing booms at about the same time.

39 See, for example, Frame and White (2012). As Goetzmann and Newman (2010) have documented, securitization of commercial real estate mortgages stretched back at least to the 1920s.
Housing and Urban Development) and by two government-sponsored enterprises (GSEs): Fannie Mae and Freddie Mac. 40 In all instances, the mortgage-backed securities (MBS) carried the guarantees of these government or quasi-government securitizers that the investors in the securities would receive payment from the guarantor in the event that the underlying mortgage borrowers defaulted on the mortgages, thereby allaying investors’ concerns about the credit risks by mortgage borrowers about whom the investors had little direct information or control. These guarantees were credible because they were issued by a U.S. Government agency (Ginnie Mae) or by the two GSEs (which the financial markets believed would be highly likely to be backed by the U.S. Government).

The securitizations of mortgages that did not go through Ginnie Mae or the GSEs – i.e., “private label” securitizations by MBS issuers (typically, banks) that were not government entities – were more difficult to arrange. Investors needed to be reassured about the credit risks of the underlying borrowers; but direct guarantees by the (non-government) securitizers were infeasible for at least two reasons: Investors were likely to find these private-issuer guarantees less credible than the government securitizers’ guarantees; and the private-issuer securitizers did not want to have to maintain the capital levels that would be required to support the guarantees.

Prior to the late 1990s, guarantees by specialized bond insurers were the method used for these securitizations. In the late 1990s, private-label securitizers increasingly turned to a different securitizing structure that appeared to work: The MBS were structured into “senior” and “junior” bonds (or “tranches”), whereby all cash flows (from the payment of principal and interest by the underlying mortgage borrowers) would go first to satisfy the claims of the senior bond holders and only after those senior claims were satisfied would the remaining cash flows be

40 For more background on the GSEs, see, for example, Frame and White (2005).
paid to the junior bond holders.\textsuperscript{41} If the remaining cash flows were insufficient to satisfy the junior bond holders’ claims – e.g., because some of the underlying mortgage borrowers had defaulted – then the junior bond holders would suffer the loss; the senior bond holders would continue to receive their full payments unless the underlying accumulated losses were so large as to reduce the flows to levels that were smaller than what was required to satisfy the senior claims (and thereby wipe out the junior bond holders’ claims entirely).

The junior bond holders were thus a protective loss-absorbing buffer for the senior bond holders of these MBS, who thereby gained an assurance that was the rough equivalent of the guarantees that were provided on Ginnie Mae and GSE MBS;\textsuperscript{42} and there presumably would be investors who (in return for a suitable interest rate premium) would be willing to invest in the more risky junior bonds.

\textbf{B. The role of the major CRAs.}

The three major CRAs\textsuperscript{43} were an important link in the private-issuer MBS chain. Investors in these bonds needed creditworthiness assurances, for at least two reasons: First, any bond investor would need information about the quality of the underlying assets – the quality/riskiness of the underlying mortgage borrowers – and the appropriateness of the percentage division between senior and junior bonds, given the quality of those underlying

\textsuperscript{41} This arrangement is often described as a “waterfall” of payments. For illustrative purposes, the text describes this tranching arrangement in terms of a simple senior/junior dichotomy. In practice, MBS were structured into many more tranches with gradated seniority; see, for example, Ashcraft and Schuermann (2008, p. 30) and USFCIC (2011, p. 116) And yet more complex securities – such as “collateralized debt obligations” (CDOs) – were formed from the tranches of various MBS plus other kinds of collateralized debt, with the CDOs in turn being structured into tranches (and even additional CDOs being formed from the tranches of other CDOs, etc.). For a discussion, see, e.g., Coval et al. (2009). We will subsequently describe all residential mortgage-based securities as “MBS”, unless otherwise indicated.

\textsuperscript{42} Changes in bank capital regulation in 2002 recognized this equivalence, by setting the same capital requirement for banks’ holdings of private-label MBS securities that were ranked AA or above – 1.6% – as applied to banks’ holdings of the GSEs’ MBS.

\textsuperscript{43} Recall that by year-end 2000 only Moody’s, S&P, and Fitch were certified as NRSROs.
assets. This information could come from the investor’s own research or from a third party; but the MBS were more complex and opaque than were “plain vanilla” corporate debt and government bonds, so many investors were more inclined to rely on third-party assurances.

Second, if the bond investor was a prudentially regulated institution, it could only buy bonds that were rated by NRSROs (and for many prudentially regulated institutions higher ratings on a bond by NRSROs would mean that less capital was needed to support the institution’s investment in the bond). Hence, the investor’s own research (or information from a third party that wasn’t a NRSRO) wouldn’t be sufficient.

Recall that by the early 2000s there was a widespread belief by participants in the housing markets that housing prices would only go up. This belief had an important implication: 

*Mortgage loans would rarely fail to be repaid!* Even if a borrower could not repay the mortgage from his/her normal income (e.g., because of an accident or illness, or just losing employment), he/she could still sell the house at a profit – because housing prices would only increase – and thereby pay off the mortgage. And, of course, if mortgages would rarely fail to be repaid, then the MBS that were based on these mortgages would be safe investments.

In turn, there was a further implication: The traditional creditworthiness criteria for a mortgage borrower – sufficient income to cover the repayment of the loan; a good credit history; the financial resources to be able to make a 20% down payment, etc. – as well as the standard monthly amortization schedule, were increasingly seen as unneeded to protect the lender in a context where housing prices would only increase and mortgages would rarely fail to be repaid. Accordingly, increased numbers of “sub-prime” mortgages were granted to borrowers with inadequate incomes and/or flawed credit histories. And the initial experience with these

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44 Fundamentally, the safer are the underlying assets, the larger can be the senior percentage that promises a given (low) likelihood of loss.
mortgages when housing prices were rising in the late 1990s and early 2000s – that defaults were indeed few, and losses to lenders were indeed small when the few defaults did occur\textsuperscript{45} – seemed to confirm that sub-prime mortgages were not as risky as had previously been believed.\textsuperscript{46}

In this context, the CRAs’ were prepared to assign high ratings to high percentages of the tranches of hundreds of billions of dollars of MBS and related securities that were issued in the 2000s through 2007. Unfortunately, these ratings turned out to be quite optimistic, especially for the securities that were issued and rated during 2005-2007, when housing price increases were slowing (and housing prices would start to fall after mid 2006) and the average quality of mortgages had deteriorated from even the looser standards of the early 2000s (Ashcroft et al., 2010). Beginning in the summer of 2007, massive downgrades – in numbers of issues, their aggregate values, and the extent of the downgrades – followed. As an illustration: As of June 30, 2009, 90% of the CDOs that were issued between 2005 and 2007 and that were rated AAA by S&P had been downgraded, with 80% downgraded below investment grade; even of the more simple MBS that were issued during those years and were originally rated AAA, 63% had been downgraded, with 52% downgraded below investment grade (IMF, 2009, pp. 88, 93).\textsuperscript{47}

The losses in value of mortgage-related securities, when held by thinly capitalized financial institutions, were at the heart of the financial crisis of 2008-2009. And it is clear that the three large CRAs’ initially excessively optimistic ratings played a role in these subsequent

\textsuperscript{45} The annual credit losses by Fannie Mae on its mortgage portfolio from 1999-2005 were only 1 basis point (i.e., 0.01%); the same was true for Freddie Mac for the years 2000-2006. Although the portfolios of the two GSEs consisted of largely prime loans at the time, these numbers are nevertheless illustrative of the low losses on mortgages at the time.

\textsuperscript{46} See Foote et al. (2012) for an analysis that is consistent with the discussion here.

\textsuperscript{47} For other data on the CRAs’ subsequent downgrades of their previously high-rated mortgage-related securities, see Ashcraft and Schuermann (2008); Ashcraft et al. (2010); Benmelech and Dlugosz (2010); and USSenate, 2011, ch. V). As Foote et al. (2012) point out, the losses were far more severe for the AAA tranches of CDOs (which were often formed primarily from the BBB tranches of simpler MBS) than for the AAA tranches of the simpler MBS themselves.
losses. Hence the three large CRAs have been seen as having played a major role in the financial crisis itself.

C. The CRAs and the Eurozone.

Starting in 2009 and starting with Greece, a number of Eurozone countries, and their banks, have experienced financial difficulties. Since the financial markets have been worried about the prospects of being repaid, the debt obligations of these countries and banks have declined in value. And the large CRAs – usually lagging behind the markets’ initial declines – have downgraded these debt obligations.

Not surprisingly, the governments of the countries that have been downgraded have been unhappy about the CRAs’ downgrades, since those downgrades are always newsworthy events and they usually bring additional declines in the downgraded securities’ prices.48 Their criticisms of the CRAs have been distinctly different from the criticisms that have been levied with respect to the financial crisis of 2008-2009: The Euro criticisms have been that the CRAs’ actions have been too precipitous – that they are being too harsh, too soon (and not that they have been too generous/lenient to the issuer).49

VI. Some Important Questions.

Building on the discussion in the previous sections, we can now address a number of important questions – including policy questions – that involve the CRAs.

A. Who are the participants in the bond markets?

Who are the major investors in bonds? This question is worth asking, because the answer can help determine the need for regulation of CRAs. If the major participants are financial

48 The reasons for the CRAs’ initial sluggishness in changing ratings, and for the additional price effects of their downgrades, will be discussed below.
49 This is despite the fact that almost all of the governments and all of the banks pay for their ratings.
institutions – banks, insurance companies, pension funds, mutual funds, hedge funds, etc. – then professional managers of these institutions’ bond portfolios should be able (or should be expected to be able) either to do their own research with respect to the creditworthiness of bonds or at least to make their own determinations of which creditworthiness advisory services are reliable and can be trusted. On the other hand, if the major participants are households, then their analytic capabilities – even for determining who is a reliable advisor – may well be considerably weaker, and there would be stronger support for regulatory intervention to help households avoid charlatans.

Table 2 provides the latest available data on the holdings of major categories of bonds, as of the third quarter of 2012. As can be seen, households constitute a small percentage of the investors in three of the four categories of bonds; the exception is municipal bonds, where households own 47% of the category. Of total bonds, households own less than a seventh; even if U.S. Treasury securities are excluded, households still own less than a sixth. By contrast, as the final column in Table 2 indicates, for corporate equities, households own over a third of the category.

Accordingly, with the exception of municipal bonds, it is fair to describe the bond markets as largely institutional in nature. And thus the typical bond “investor” is an institutional portfolio manager and not an individual or household investor.

B. What about the “issuer pays” model?

As was discussed in Section IV, in the late 1960s and early 1970s the three major CRAs switched from an “investor-pays” business model to an “issuer-pays” business model, which still prevails today. Despite the obvious potential conflict of interest that is embedded in the issuer-pays model – that the issuer can shop around and pressure candidate CRAs for a more favorable
rating\textsuperscript{50} – during the following three decades (and even during the decade of the 2000s) the CRAs did not succumb to that potential conflict of interest in their ratings of corporate bonds, municipal bonds, and sovereign debt.\textsuperscript{51}

Counteracting the potential temptation to succumb to an issuer would be a concern about the long-run reputation of the CRA: If and when that CRA’s succumbing is discovered by the financial markets, the market participants will cease (or at least reduce) their trust in the accuracy of that CRA’s future ratings; in turn, because the markets will ignore (or at least discount) the CRA’s ratings, future issuers will not want to hire that CRA. Accordingly, if the expected long-run gains from maintaining a reputation for accuracy exceed the expected short-run gains (but eventual revelation) of favoritism to one or more issuers, the CRA will strive to be accurate and will avoid the temptation of succumbing to issuers.\textsuperscript{52}

But the reputation bulwark can break down. In the area of MBS issuances, it appears that this bulwark did break down. It is clear that rating shopping and pressure on the major CRAs by issuers was going on (e.g., Adelson 2007; USSenate, 2011, ch. V). And there is econometric evidence that also points to rating shopping and its effects in inducing more favorable (higher) ratings for issuers (e.g., Morkotter and Westerfeld, 2009; Ashcraft et al., 2010; Benmelech and Dlugosz, 2010; He et al., 2011; and Griffin and Tang, 2012). Although the widespread belief

\textsuperscript{50} In the model developed by Skreta and Veldkamp (2009), optimistically biased ratings can arise even in the absence of any deliberate bias by the CRAs, along the following lines: Suppose that the CRAs’ ratings on average are accurate but also that there is a distribution of estimates around the average. Suppose also that the issuers can shop around among CRAs. Under those circumstances, the issuers will consistently choose the most optimistic ratings, and those are the ratings that will be made public. Thus, in this context, although the issuer pays model still underlies the process, it is the combination of honest-but-less-than-perfect CRAs and the ability of issuers to shop around that drives the optimistically biased ratings outcome, not any deliberate caving-in to issuers by CRAs.

\textsuperscript{51} Instead, a major complaint by critics of the major CRAs is that they are slow to change their ratings – especially downward. This will be addressed in sub-section C below. For evidence that the major CRAs have become more stringent (i.e., “tougher”) with respect to corporate bonds from the 1970s through the 2000s, see Blume et al. (1998) and Baghai et al. (2011).

\textsuperscript{52} This concern for long-run reputation lies at the heart of many models of credit rating agencies. See, for example, Mathis et al. (2009); Bolton et al. (2012); Opp et al. (2013); Bar-Isaac and Shapiro (2013), Kartasheva and Yilmaz (2013); and Kashyap and Kovrijnykh (2013). Much of the reputation modeling follows the pattern set by Klein and Leffler (1981).
during the early- and mid-2000s that housing prices would only increase would likely have meant optimistic ratings by the CRAs in any event, the optimism does seem to have been exacerbated by the pressures from issuers that were rating shopping.

It is worth considering why the issuer-pays model hasn’t broken down in the areas of “plain-vanilla” corporate, municipal, and sovereign debt but did break down in the area of MBS. In the former area, there are thousands of issuers, so no single issuer would represent a significant fraction of the revenue of a CRA; in turn, this would make it easier for a CRA to ignore any threats by an issuer to take its business elsewhere. Further, in the former area there would be plenty of publicly available information on the issuer, so outside analysts/critics might readily spot any deviation of a rating that would appear to favor unduly an issuer and thus damage the reputation of the CRA;\(^\text{53}\) again, this would make it easier for a CRA to ignore the threats of an issuer.

By contrast, for MBS the issuers were much fewer, and approximately a dozen issuers accounted for about 80-90\% of the rated MBS (USSEC, 2008, p. 32). Further, the profit margins on rating MBS were higher than on rating traditional bonds, and the aggregate flows were large. Consequently, the threat by one of the large MBS issuers to take its business elsewhere – for that MBS issuance and all future issuances – would have been much more potent. Further, the information about the underlying collateral for the MBS issuance was generally not available to the general public and was much more opaque than was true for traditional bonds (and the shopping by issuers was primarily focused on how large the AAA tranches of the MBS would be, which was a yet more arcane point for analysis).\(^\text{54}\) Consequently, any “favors” for a MBS issuer

\(^{53}\) As a related matter, Fong et al. (2012) document that the presence (or absence) of equity analysts at securities firms can be a disciplining force on the CRAs’ ratings of corporate debt.

\(^{54}\) As Fong et al. (2012) point out, the equity analysts at securities firms didn’t cover MBS. As a reaction to the problem of inadequate information with regard MBS, in 2009 the SEC mandated that structured finance issuers that
would be less likely to be discovered; and, again, this opaqueness could make the CRA more comfortable accommodating an issuer’s request for more favorable treatment.

C. Why do the CRAs lag the markets in changing their ratings?

It is a well-established phenomenon that the major CRAs tend to lag the markets in recognizing the changes in circumstances of a bond issuer and then changing their ratings; see, e.g., Altman and Rijken (2004, 2006); Loffler (2004, 2005); Beaver et al. (2006); Cantor and Mann (2007); Flandreau et al. (2009); Cheng and Neamtu (2009); Cornaggia and Cornaggia (2011, 2013); Bruno et al. (2013); and Xia (2013). Indeed, as was discussed in Section IV, it was the fact that the major CRAs had investment grade ratings on Enron’s debt securities until five days before that company declared bankruptcy in November 2001 that first brought the CRAs and the NRSRO system to policy attention in 2002; more recently, the major CRAs had investment grade ratings on Lehman Brothers debt on the morning that Lehman declared bankruptcy in September 2008.

In addition to the criticism of the CRAs’ role in the financial crisis of 2008-2009, this sluggishness has also been criticized, especially with respect to rating downgrades; and the apparent reluctance of the CRAs to downgrade has been linked to the CRAs’ issuer pays business model, since downgrades are likely to displease issuers.\(^{55}\)

However, the CRAs’ sluggishness with respect to changing ratings is a longstanding “cultural” phenomenon that extends at least as far back as the 1930s (see Flandreau et al., 2009), when the investor-pays model was the standard and thus well precedes the advent of the issuer-

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\(^{55}\) But, again, the European critique has been that the CRAs have been too precipitous in their downgrades of European government debt.
pays model. Instead, the phenomenon is best understood as follows: The major CRAs have a belief that the appropriate approach is “rating through the cycle”, which means ignoring short-run perturbations in an issuer’s financial position that are likely to be reversed. The CRAs believe that this relative stability better serves bond investors, who want accuracy but who also don’t want to incur the transactions costs of selling and then re-buying (or vice-versa) bonds based on short-term perturbations that are subsequently reversed (Cantor and Mann, 2007).

An unavoidable consequence of this approach is that the CRAs will have to wait to see if any change in an issuer’s financial status is temporary (and thus should be ignored) or is more sustained and thus should be reflected in a change in the rating of the issuer’s bonds. But this wait must mean that, in the event that the change is more sustained and deserves a rating change, the CRAs will have been slow to make the change.

D. Are there viable alternatives to the “issuer-pays” business (revenue) model for the CRAs?

With the obvious potential conflict of interest of the issuer-pays model exposed during the financial crisis of 2008-2009, there has been interest in other possible business models to support the rating function of a CRA. In the consideration of alternative models, however, one positive feature to the issuer-pays model should be mentioned: When the CRA issues its rating, the information is released publicly, so that all market participants have the same opportunity, at the same time, to use the information as they see fit; financial market efficiency is thereby enhanced.

One obvious alternative is the “investor-pays” model – or, in modern parlance, this would be a “subscriber-pays” model. (A close variant would be for a group of large investors to own the CRA itself.) As was discussed in Section IV, this was the original business model for the CRAs,

56 There have been at least three government reports on this topic: USGAO (2010, 2012) and USSEC (2012d). A larger number of possible business models are discussed in those reports than will be addressed here. See also Coffee (2011).
from John Moody’s original ratings manual in 1909 through the late 1960s. It has persisted as the business model for one of the smaller NRSROs, and it is the standard business model for the smaller creditworthiness advisory firms that are not NRSROs. However, none of the other nine NRSROs has shown any inclination toward trying to move back to the investor-pays model. Indeed, tellingly, the movement has been in the opposite direction: Two former small NRSROs – Lace Financial and Realpoint – had been investor-pays CRAs. Both were acquired in 2010 – by Kroll and by Morningstar, respectively – and both Kroll and Morningstar have been moving in the direction of the issuer-pays model (USSEC 2012b, p. 6).

It is also worth noting that the investor pays model is not free of potential conflict either. A major investor customer of a CRA might have a large position in the bonds of an issuer and would be unhappy if the CRA downgraded those bonds;\(^57\) or a major customer might be interested in buying the bonds of an issuer (or the customer has a short position in the bonds) and would like the CRA to downgrade the issuer, so that the investor can buy the bonds at a lower price. Also, a drawback to the model, from the perspective of market efficiency, is that any rating information would be released first to the CRA’s subscribers and then, only after a lag, to the general public.

Another potential model would be an advertising-based CRA; or as a variant on this, a major disseminator of financial markets information (e.g., Bloomberg, or Thomson Reuters) might offer bond ratings to its customers or even offer ratings to the general public as a “loss leader” to attract customers to its fee-based services. Thus far, however, this potential business model has not attracted noticeable interest.

\(^{57}\) As a variant on this possibility, a major customer might want the higher yield that would accompany a riskier bond but would want to mask this risk-taking (e.g., vis-à-vis prudential regulators) through having the bond receive an inflated rating.; see, e.g., Calomiris (2009), Coffee (2011), and Cornaggia and Cornaggia (2011).
One model that has intrigued some researchers – and achieved enough political notice that the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 mandated that the SEC and the Government Accountability Office (GAO) submit reports that would investigate alternative business (revenue/compensation) models for CRAs, including specifically this model – is the following.\textsuperscript{58} The selection of the first CRA to rate any bond for which the issuer wanted a rating would be made by a board that is designated by the SEC. The selection would be made randomly from a list (compiled by the board) of qualified CRAs for that issuance. The selected CRA would be paid by the issuer. Issuers would be free also to hire additional CRAs, and investor-pays CRAs could also rate the issuer.

The advantage to the model is that it eliminates the ability of the issuer to shop around for its CRA, while it keeps the instantaneous information dissemination property of the issuer-pays model.

There are, however, substantial potential drawbacks to the model: First, the determination of the quality of CRAs and their appropriateness for rating specific issuances would be a major feature of the selection process; the board would bear a major responsibility in this respect. Next, it is unclear how innovation in rating methodologies and/or technologies might be handled by the board. Finally, the board would have to determine the appropriate fee to be paid by the issuer to the chosen CRA.

Yet another possible alternative would be to have a government body as a CRA (see, e.g., Gudzowski, 2010). But all of the standard problems of providing appropriate incentives for performance would apply.

E. Why have the major CRAs been such central entities for the bond markets?.

\textsuperscript{58} This basic idea appears to have been developed independently at about the same time by Richardson and White (2009), Mathis et al. (2009), and Raboy (2009). The Dodd-Frank Act limits the potential application of the model to structured finance issuances, such as MBS; it would not apply to corporate or government bonds.
It is clear that the major CRAs have been, and continue to be, central figures in the bond markets. But it is also clear that at least part of the CRAs’ centrality has been due to the longstanding inclusion of their ratings in the prudential regulation of financial institutions – first in the U.S. and subsequently in other countries as well. This “hard-wiring” of the major CRAs’ ratings into prudential regulation has de jure forced the prudentially regulated financial institutions – and de facto the rest of the bond markets – to pay attention to the major CRAs’ ratings and thus ensured their centrality.

It is conceivable that the market for creditworthiness advisory services might have developed differently if U.S. bank regulators had not started down the path of regulatory reliance on ratings in the 1930s. Given the entrenchment of the major CRAs in today’s bond market, this “counter-factual” possibility may be difficult to imagine; nevertheless, the role that regulatory reliance may well have played should not be forgotten.

F. Are there alternatives to the major CRAs?

As the discussion in Section II illustrated, there are alternatives to the three major CRAs. These alternatives include smaller CRAs, seven of which have been designated as NRSROs in the U.S. and another 13 of which have been registered by the ESMA in Europe, as well as a yet larger number worldwide. Further, there are smaller advisory firms that may not call themselves CRAs but that provide similar creditworthiness assessments for investor clients. And there are fixed income analysts in securities firms who provide similar information for those firms’ investor clients (as well as for the securities traders and market makers of those firms).59 That

59 If “regulatory reliance” were eliminated (see the discussion below) and if thereby entry were perceived as less daunting, perhaps some of these analysts (as well as some of the more entrepreneurial analysts at the large CRAs) might decide to “hang out their own shingle” (i.e., establish their own freestanding creditworthiness advisory services firm).
this last group’s judgments can have an influence on the bond markets has been documented by Johnston et al. (2009).

G. Is the mandatory use of CRAs’ ratings (“regulatory reliance”) necessary for the prudential regulation of financial institutions?

The simple answer is “no”. As was discussed in Sections II and III, in almost any lending situation the lender will want to collect information about the borrower; and a prudential regulator will want its regulated institutions to have good information about prospective and actual borrowers, so as to make “safe-and-sound” lending decisions. But the major CRAs are not the only source of such information; and prudential regulation need not rely exclusively (or possibly at all) on their information.

Banks provide a good illustration: Most bank assets (primarily loans), liabilities (primarily deposits), and activities do not involve bonds and therefore do not involve ratings; nevertheless, banks are regulated prudentially. In essence, through a process that is frequently described as “examination and supervision”, prudential regulators strive to ensure that banks stay in a “safe and sound” condition. Periodic examinations of a bank’s financial position and activities and assessments of the bank’s procedures and managerial competence are at the heart of this process.

The prudential regulation of the bonds in a bank’s portfolio would fit readily into this pattern. Instead of the “check-the-box” delegation approach that mandatory reliance on the CRAs’ (since 1975, NRSROs’) ratings has entailed, the examination process would include the bank’s bond portfolio in the broad assessment of the safety and soundness of the bank. The onus would be on the bank, as is true of all other parts of an examination, to demonstrate the
suitability of its bond portfolio. The bank’s justifications could include its own research (which would be subject to regulatory review) and/or reliance on third-party advisors (which again would be subject to regulatory review). Such third-party advisors could surely include the major CRAs – but not on a mandatory basis – as well as also (or instead) including other advisory firms.

Although this illustration has emphasized banks, the processes described can be applied to any prudentially regulated financial institution. This move away from the “check-the-box” delegation approach and toward the more common “examination-and-supervision” process would entail more effort on the part of the regulator. But the result would be a broader base of information on which the prudential regulatory process would be based.

Finally, it is important to emphasize (because there has been widespread misunderstanding on this point) that a cessation of mandatory regulatory reliance on the NRSROs’ ratings does not mean that the prudentially regulated institution must do their bond research itself, nor does it mean that the major CRAs’ rating cannot be used by the institution. Instead, it ends the required reliance on only the NRSROs’ ratings and allows other possible sources of information to be used as a supplement or as a substitute.

H. Do the major CRAs meet a market test?

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60 This description is consistent with the approach that the Office of the Comptroller of the Currency (OCC) and the National Credit Union Administration have taken in replacing mandatory reliance on ratings with respect to the bond portfolios of nationally chartered banks, federally chartered savings associations, and credit unions. See Federal Register, Vol. 77 (June 13, 2012), pp. 35253-35259; and Federal Register, Vol. 77 (December 13, 2012), pp. 74103-74112.

61 Since a bank, in “reaching for yield”, might want to invest in more risky bonds than is commensurate with a “safe-and-sound” condition, the bank might want to skew its own research or its choice of third-party advisors so as to be able to claim that its higher yielding risky bonds are instead safe; see, e.g., Calomiris (2009), Coffee (2011), and Cornaggia and Cornaggia (2011). Thus, regulatory oversight of the research and/or the choice of third-party advisor is warranted. And, of course, if the advisor’s business model has potential conflicts of interest, the regulator should be aware of those potential conflicts – especially at times when those conflicts may be exacerbated (as appears to have been the case with respect to the major CRAs’ ratings of MBS in the decade of the 2000s).
It is clear that in the 1920s and earlier, the CRAs met a market test. John Moody apparently found enough customers for his rating manuals that he stayed in the business, and there were at least three entrants that followed. Their apparent success – they stayed in the business – is not surprising, since this was an era before the creation of the SEC and its mandated financial information disclosures by publicly traded companies.

Since the 1930s, however, the case for the major CRAs’ meeting a market test is not as clear. As was discussed in Section IV, in addition to the mandated disclosures, in the 1930s U.S. bank prudential regulators began requiring banks to pay attention to the major CRAs’ ratings, and in subsequent decades the prudential regulators of other categories of financial institutions followed suit. This “hard-wiring” of the CRAs’ ratings into prudential regulation was formalized in 1975 with the SEC’s creation of the NRSRO category. Accordingly, the prudentially regulated financial institutions have been forced to pay attention to the CRAs’ rating, regardless of whether the institutions believed that the ratings offered accurate appraisals of the creditworthiness of the bonds that they might buy or sell. And even the financial institutions that were not required to heed the CRAs’ ratings would want to be aware of them, since the ratings would directly influence the behavior of many of their counterparties.

Accordingly, it is far from clear that the ratings that were being produced by the major CRAs were really providing useful information about the creditworthiness of bond issuances to market participants. This is hardly the stuff of “meeting a market test”.

The CRAs’ defense of the value of their ratings is usually to point to their track record, in terms of the correlation between their ratings and the patterns of subsequent defaults. Typical is Moody’s statement in its Annual Report 2008: “The quality of Moody’s long-term performance is illustrated by a simple measure: over the past 80 years across a broad range of asset classes,
obligations with lower Moody’s ratings have consistently defaulted at greater rates than those with higher ratings” (Moody’s, 2009, p. 13). However, this correlation could equally well arise if the CRAs had first looked at bonds’ spreads (over comparable Treasury obligations) – with these spreads indicating (inversely) the market’s beliefs about the bonds’ default probabilities62 – and then determined their ratings on the basis of those spreads. If this were so, then the ratings would not be providing useful information to the bond markets.

A more sophisticated approach, which has been applied for over 30 years and is summarized in Jewell and Livingston (1999) and Creighton et al. (2007), is to determine if the markets react when a CRA unexpectedly changes its rating on a bond.63 If the markets do react, and in the direction that would be expected (i.e., a downgrade should cause the price of the relevant security to fall, etc.), then the ratings are providing useful information. And the overwhelming evidence is that markets do move when ratings change.

However, this market movement might be purely a reaction to the consequent changed regulatory status of the bond. As a simple example, if a CRA dropped its rating on a bond from BBB (i.e., “investment grade”) to BB (“speculative”), banks could not buy these bonds and would have to sell any of these bonds in their portfolios. Or, even if the rating change didn’t move the bond over the regulatory “cliff” but did move it closer to or farther away from the cliff (and thus changed the likelihood that the bond would cross that line in the future), the market would still be expected to react – but to the changed regulatory status of the bond and not

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62 Spreads can also reflect (inversely) the liquidity of a bond issuance.
63 These are frequently described as “event studies”; for an overview, see Kotari and Warner (2007).
necessary because the market participants had learned anything new about the default probability of the bond.\textsuperscript{64}

A few studies (e.g., Creighton, 2007; Jorion et al., 2005) have tried to determine the informational value of rating changes, aside from the regulatory status information; but it is not clear that they have controlled sufficiently for confounding influences (see the discussion in White, 2010, fn. 8). The question of what true value the major CRAs bring to the financial markets – so long as their ratings are integrated into the prudential regulatory system – remains unresolved – and difficult to resolve.

I. Is More Competition among the CRAs Desirable?\textsuperscript{65}

As has been discussed above and as is clear from Table 1, the market for creditworthiness assessment services is dominated by the three large CRAs.\textsuperscript{65} This level of seller concentration in a market would normally be described as a concentrated oligopoly. The SEC, in its annual reports on NRSROs, presents Herfindahl-Hirschman Indexes\textsuperscript{66} (HHIs) for the aggregate volume of ratings and for each major category that is found in Table 1 (USSEC, 2012b, pp. 9-10). For the aggregate, the HHI is 3655 (where a monopoly would be 10,000, and an atomistic industry would be close to zero) – which, of course, is just another representation of the high market shares of the three major CRAs.

A high level of seller concentration isn’t necessarily an indication that competition among the sellers is muted (which occurs as a consequence of the sellers’ recognition of their mutual interdependence). Nevertheless, there is a general empirical pattern that the vigor of

\textsuperscript{64} Kisgen and Strahan (2010) provide supporting evidence in this regard: They show that the certification of DBRS as a NRSRO in 2003 made a difference in the extent to which the bond markets reacted to DBRS’s ratings of corporate bonds.

\textsuperscript{65} Although Table 1 includes only NRSROs and thereby excludes the non-NRSRO providers of creditworthiness analysis services, it seems likely that their inclusion would reduce the three major CRAs’ aggregate market share only modestly.

\textsuperscript{66} Where the HHI is the sum of the squared market shares of each seller in a market.
competition – at least, for comparisons of a market with a low level of seller concentration and a market with a high level (such as is present for the NRSROs) – is inversely related to the level of seller concentration, especially where the barriers to entry (and/or the difficulties of expansion by smaller firms) are substantial. And a reduced vigor of competition is generally related to higher prices and/or worse quality performance. Social concerns about these adverse consequences are, of course, one of the foundations for the enforcement of antitrust laws.

Further, as was discussed above, the SEC had an unfortunate history of being a substantial barrier to entry, with the consequence that only the major three CRAs were present as NRSROs during the crucial early years of the decade of the 2000s, when private-label securitization was expanding rapidly. Accordingly, one of the goals of the CRARA was to reduce the barriers to entry and encourage more competition. But, even with a larger number of NRSROs (which is currently ten), expansion by the smaller NRSROs has been modest, at best – as would be expected in a business where reputation is important, and the establishment of a reputation can require a considerable amount of time.

Despite the generally favorable consequences of competition, adverse effects from competition can arise if all of the conditions for competition to be beneficial – e.g., that buyers are knowledgeable – aren’t satisfied. For a market such as creditworthiness advisory services, models have been developed that show that – if investors are naïve (or credulous), or they are mandated by regulation to rely on ratings, or lax prudential regulation motivates them to “reach for yields” – more competition by CRAs will offer more shopping-around opportunities for issuers and/or for investors and thus lead to higher (more optimistic) ratings (e.g., Skreta and Veldkamp, 2009). And empirical evidence is increasingly showing that competition has led to

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67 See, for example, summaries in “industrial organization” textbooks, such as Carlton and Perloff (2005), Pepall et al. (2008), and Tremblay and Tremblay (2012).
higher ratings, even in the “plain-vanilla” corporate bond market (e.g., Becker and Milbourn, 2011; Bongaerts et al., 2012; and Jiang et al., 2012; see also Strobl and Xia, 2012), as well as for the MBS issuances of the 2000s (e.g., Morkotter and Westerfeld, 2009; Ashcraft et al., 2010; Benmelech and Dlugosz, 2010; He et al., 2011; and Griffin and Tang, 2012).  

Although this potential drawback to competition should be kept in mind, there are important caveats to this negative view of competition: First, the empirical evidence shows only small (though statistically significant) upward effects from competition in the corporate bond area, and not the kind of large effects that clearly did arise in the MBS area, for the reasons that were discussed in sub-section B above. Second, though the directional effect of competition on ratings – upward – is clear, the empirical studies haven’t thus far been able to indicate whether this upward effect is leading to (modest) excessive optimism or is just correcting for excessive pessimism. Third, as will be discussed in sub-section J below, if the system of prudential regulatory reliance on ratings were to be unwound and professional bond managers (with prudential oversight, where warranted) are given more flexibility with respect to their choices of sources of creditworthiness information, the upward bias from competition might well cease.

Finally, the analyses – both theoretical and empirical – neglect the potential dynamic role that more competition, especially from new entrants, can play in encouraging innovation in ratings: new ideas, new methodologies, new technologies, and perhaps even new business models.

J. Should the CRAs be regulated?

68 But Doherty et al. (2012) document that S&P’s entry into insurance ratings caused A.M. Best to become more conservative.

69 Also, as Xia (2013) documents, rating competition from Egan-Jones (which employs the investor-pays business model) appears to cause S&P (which employs the issuer-pays model) to become more conservative.
In the wake of the financial crisis of 2008-2009 and the major CRAs’ role in the crisis through their initial mis-analyses of hundreds of billions of dollars of MBS, the urge to regulate them is understandable. Indeed, in the U.S., authority for limited regulation began even earlier, in 2006, with the passage of the CRARA. Added regulation was mandated by the Dodd-Frank Act of 2010; and the European Union has moved in a similar direction (Garcia Alcubilla and Ruiz del Pozo [2012]).

If ratings remain hard-wired into the prudential regulation of financial institutions, then some regulation is clearly necessary. Indeed, it was roughly this logic that led the SEC in 1975 to create the NRSRO category. There needs to be some specification of whose ratings should be the ones that are included in the prudential regulatory regime. In turn, this means that some criteria for inclusion must be specified. In principle, the criteria for inclusion should be the competency of the rating organization in making judgments about the creditworthiness of various debt instruments – and thus the relative safety of the investments of the prudentially regulated institutions in those instruments.

However, this has not been the nature of the regulation that has encompassed the CRAs. As was discussed in Section IV, from 1975 until the passage of the CRARA in 2006, the SEC never established formal criteria for a CRA to be included in the NRSRO category. The CRARA did establish some rough competency requirements: that the CRA should have been in business for at least three years and that at least 20 issuers and/or institutional investors had used its services. But the bulk of the SEC’s regulation under the CRARA and under the expanded authority of the Dodd-Frank Act has addressed the issues of the transparency of the NRSROs’ rating methodologies and their rating results and the NRSROs’ potential conflicts of interest.
Also, throughout, the SEC has been forbidden by the CRARA from influencing the NRSROs rating methodologies or their ratings.

In an important sense, this focus on transparency and conflicts of interest represents a focus on inputs into the rating process rather than a focus on outputs (i.e., a NRSRO’s competency in making creditworthiness evaluations). Again, given the major CRAs’ rating mistakes with respect to MBS, this former focus is understandable. Also, the measurement of competency in creditworthiness assessments may well be quite difficult for a regulatory process to do well, since there can be multiple dimensions to such competency. Nevertheless, the focus on inputs is, at best, an indirect method for achieving what is needed if ratings remain integrated into prudential regulation.

Further, regulation of this sort carries substantial risks that it will fall relatively more heavily on smaller CRAs, since many of the related costs are fixed and don’t vary with the size of the regulated entity, and that it will discourage innovation – and the entry that often accompanies innovation – since innovative methods may not fit well with the patterns that are established by regulation. The same holds true even for any regulatory efforts to measure the competency of CRAs’ creditworthiness assessments. As a consequence, an ironic result could be that the three major CRAs become more entrenched as a consequence of regulation. Also, excessive insistence on transparency might require the CRAs to reveal publicly proprietary information about their methodologies, which could allow copying by others and discourage investments in improved methodologies.

Most important: Is regulation of CRAs really needed if ratings are not a mandatory part of the prudential regulatory process? With respect to the CRAs, the Dodd-Frank Act is somewhat “two-minded”: Although it does expand the regulation of NRSROs, the Act also
eliminates references to NRSROs in all existing legislation, and it instructs federal regulatory agencies to review their mandatory reliance on NRSROs in their regulations and wherever possible to replace those mandatory references with alternative means of achieving the goals of the regulations. As was argued in sub-section G above, this is quite possible with respect to prudential regulation of financial institutions.

Unfortunately, as of early 2013, the responses of the important federal regulatory agencies have been mixed. Among the banking agencies, the OCC and the NCUA have achieved the most progress, substituting alternative approaches that are roughly similar to the approach that was outlined in sub-section G above. But the Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve have lagged: They have proposed appropriate regulations but have not finalized them. The SEC has proposed similar regulations and has finalized a few; but its most important regulations that reference NRSROs – its rules with respect to the net capital of broker-dealers and with respect to the types of short-term debt securities that money market mutual funds can hold – have not yet been finalized. Further, the Department of Labor (DOL), which regulates defined-benefit pension plans under the Employee Retirement Income Security Act (ERISA) of 1974, had been slow in changing its regulations. Finally, with respect to the other major mandatory prudential regulatory use of NRSROs’ ratings – the state regulation of insurance companies, which is coordinated by the National Association of Insurance Commissioners (NAIC) – the Dodd-Frank Act doesn’t cover this category of regulation, and the NAIC has shown only a modest interest in moving away from a mandatory reliance on NRSROs’ ratings.70

70 See, for example, Hunt (2011). In the fall of 2009, the NAIC engaged the Pacific Investment Management Company (PIMCO) to develop an alternative risk assessment for the residential MBS and commercial MBS that were held by insurance companies; but this appears to have been the NAIC’s only deviation from reliance on the NRSROs.
But suppose that mandatory regulatory reliance were eliminated from prudential regulation of financial institutions and were replaced with a process that is roughly along the lines of sub-section G above. In that event, a good argument can be made for the elimination of the regulation of CRAs and the elimination of the NRSRO category:

Since the bond markets are largely institutional markets, the professional bond managers of the financial institutions\textsuperscript{71} that buy and sell bonds can be expected either to develop their own information with respect to the creditworthiness of bonds or to rely on third-party advisory services (which could include the major CRAs). Even if the bond manager doesn’t have the resources to develop an in-house expertise with respect to the detailed analyses of bonds, he/she should be expected to develop in-house expertise as to who provides a reliable third-party creditworthiness advisory service. Of course, as was explained in sub-section G, if the financial institution is prudentially regulated, then the prudential regulator should still be monitoring the institution’s bond portfolio and the bond manager’s decisions with respect to the direct information and/or advisory service that is used to support the bond portfolio.

Accordingly, the kinds of regulation that were described above wouldn’t be necessary; and, because mandatory regulatory reliance was abolished, there would be no need for the NRSRO category, and it could be abolished. There would be greater opportunities for smaller advisory services to establish themselves in the marketplace, and greater opportunities for new ideas, new methodologies, new technologies, and perhaps even new business models for creditworthiness advisory services to appear.

Changes in the marketplace would likely be slow. The creditworthiness advisory market is reputation based; and despite the major CRAs’ mis-analyses of MBS securities, their reputations in the “plain vanilla” corporate, municipal, and sovereign bond areas have largely

\textsuperscript{71} This would include the endowments of universities and other non-profit institutions.
stayed intact. Nevertheless, the major CRAs would be subject to a market test for the first time in almost four decades – and, arguably for the first time in almost eight decades.

Finally, what about the individual (non-institutional) bond investor? Although a small part of the overall bond market, individual investors do hold almost half of municipal bonds. If the CRAs were not regulated, these individuals, who would be more likely to rely on third-party advisory services, would not have the SEC quality certification of NRSROs for support. Still, individuals would still be able to rely on advice from certified investment advisors and securities brokers, and perhaps other arrangements could be devised that would not require regulation of the CRAs. Also, the possibility of instead investing in bond mutual funds is always a ready alternative for the individual bond investor. And, in any event, with respect to the possibility of deregulating the CRAs, the advantages of doing so are sufficiently important that the possible problems with respect to a minority of the overall bond market should impede the progress that deregulation could bring.

K. What should be the liability standard for CRAs?

CRAs are occasionally sued by aggrieved parties that believe that they have suffered damages as a consequence of erroneous ratings. Most recently the plaintiffs have been investors who have sued as a consequence of the major CRAs’ mis-analyses of MBS during the decade of

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72 An investment advisor must register with either the SEC or a state securities regulator and has a fiduciary obligation vis-à-vis the investor; a securities broker must register with the SEC and has a “know your customer” obligation.

73 One possibility would be to limit individuals’ ability to invest in bonds – except perhaps U.S. Treasuries – to “accredited investors” (i.e., individuals with a net worth, excluding the value of the personal residence, that exceeds $1 million or an annual income that exceeds $200,000), as is done with respect to the ability of an individual to invest in hedge funds. I am indebted to Glenn Okun for his suggestion of this possibility.
the 2000s;\textsuperscript{74} but at other times issuers have sued and claimed that they were harmed by ratings that were too low.

CRAs have traditionally claimed that they were providing “opinions” and thus that they are like newspaper publishers and similarly protected by the U.S. Constitution’s First Amendment. This excerpt from the title of a Cornell Law Review Article about CRA liability aptly sums up this position: “…the World’s Shortest Editorials…” (Husisian, 1990). This protection has meant that a plaintiff would have to show that the CRA’s rating was issued “with knowledge of its falsity or with reckless disregard of whether it was true or false” (\textit{New York Times Co. v. Sullivan}, 376 U.S. 254 (1964)). This standard would appear to mean that just carelessness or negligence would not be a sufficient basis for a CRA to lose such a lawsuit. The CRAs have largely prevailed in the courts with this First Amendment defense, although the issue has never been decided by the U.S. Supreme Court.

The Dodd-Frank Act included language that attempts to change the liability standard that applies to CRAs, so as to make their liability more like that of accountants/auditors and financial advisers and less like the First Amendment standard of newspaper publishers. This seems to be a sensible direction to move; there does seem to be a difference between CRAs and newspapers. The hope, of course, is that increased liability will make the CRAs more careful going forward; however, it could also make them more cautious, in which case they might provide less useful information to the marketplace. A careful balance does have to be reached. And, in the end, the final decision as to whether the First Amendment does apply to CRAs – regardless of the language of the Dodd-Frank Act – will be made by the courts, not by the Congress.

\textsuperscript{74} In February 2013 the U.S. Department of Justice sued S&amp;P under the auspices of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989, claiming that S&amp;P’s initially optimistic ratings of private-label MBS were fraudulent.
VII. Conclusion.

The major credit rating agencies (CRAs) – Moody’s, Standard & Poor’s, and Fitch – have received and are likely to continue to receive a considerable amount of public attention. They played a major role in the financial crisis of 2008-2009; they were a major focus of the Dodd-Frank Act of 2010; and they have received widespread attention Europe in connection with the problems of a number of Eurozone countries. Extensive regulation of CRAs – and not only the three major CRAs – has followed.

The major CRAs’ centrality to the bond markets is no accident. They have been major information intermediaries; but their centrality has also been due to the hard-wiring of their ratings into the prudential regulation of financial institutions – first in the U.S. and subsequently in the most other market economies. There is a major irony with respect to the current trend of regulation of the CRAs: Although the regulation is an expression of public unhappiness over the roles that the major CRAs have played in the financial crisis and in Europe, a likely consequence of this regulation is that the major CRAs could become even more important in the market for creditworthiness information. This growth in importance would occur because the regulation will make it more difficult for smaller firms to survive and more difficult for new entrants with new ideas to challenge the major CRAs.

There are, however, alternatives to this hard-wiring of CRAs’ ratings into prudential regulation. Indeed, one of the strands of the Dodd-Frank Act instructed federal financial regulators to disconnect this wiring; unfortunately, progress in this direction has been uneven.

If more vigorous efforts were made to disconnect the wiring – to pursue the safety-and-soundness goals of prudential regulation without the mandatory use of the CRAs’ ratings – then regulation of the CRAs could also cease. Since the bond markets are largely institutional
markets, this is a reasonable goal. The market for creditworthiness information would then be truly opened to new ideas, new methodologies, new technologies, and perhaps even new business models. It is a goal that is definitely worth pursuing.

Bibliography


### Table 1: Numbers of NRSRO Credit Ratings Outstanding and Credit Analysts and Credit Analyst Supervisors, 2011

<table>
<thead>
<tr>
<th>NRSRO</th>
<th>Financial Institutions</th>
<th>Insurance Companies</th>
<th>Corporate Issuers</th>
<th>Issuers of Asset-Backed Securities</th>
<th>Issuers of Government Securities</th>
<th>Total Ratings</th>
<th>Credit Analysts</th>
<th>Credit Analyst Supervisors&lt;sup&gt;a&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>A.M. Best</td>
<td>N/R</td>
<td>4,826</td>
<td>1,910</td>
<td>56</td>
<td>N/R</td>
<td>6,792</td>
<td>82</td>
<td>41</td>
</tr>
<tr>
<td>DBRS</td>
<td>21,695</td>
<td>151</td>
<td>4,037</td>
<td>9,889</td>
<td>15,798</td>
<td>51,570</td>
<td>84</td>
<td>34</td>
</tr>
<tr>
<td>Egan-Jones</td>
<td>101</td>
<td>51</td>
<td>962</td>
<td>13</td>
<td>9</td>
<td>1,136</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fitch</td>
<td>54,586</td>
<td>4,010</td>
<td>14,427</td>
<td>58,315</td>
<td>217,198</td>
<td>348,536</td>
<td>758</td>
<td>338</td>
</tr>
<tr>
<td>HR Ratings&lt;sup&gt;b&lt;/sup&gt;</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>58</td>
<td>58</td>
<td>19</td>
<td>8</td>
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<tr>
<td>JCR</td>
<td>163</td>
<td>27</td>
<td>478</td>
<td>N/R</td>
<td>54</td>
<td>722</td>
<td>24</td>
<td>33</td>
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<tr>
<td>Kroll</td>
<td>16,127</td>
<td>52</td>
<td>1,001</td>
<td>40</td>
<td>58</td>
<td>17,278</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Moody's</td>
<td>56,486</td>
<td>3,953</td>
<td>30,439</td>
<td>93,913</td>
<td>814,087</td>
<td>998,878</td>
<td>1,124</td>
<td>128</td>
</tr>
<tr>
<td>Morningstar</td>
<td>N/R</td>
<td>N/R</td>
<td>N/R</td>
<td>16,070</td>
<td>N/R</td>
<td>16,070</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>S&amp;P</td>
<td>60,700</td>
<td>7,800</td>
<td>45,400</td>
<td>108,400</td>
<td>948,300</td>
<td>1,170,600</td>
<td>1,172</td>
<td>244</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>209,858</strong></td>
<td><strong>20,870</strong></td>
<td><strong>98,654</strong></td>
<td><strong>286,696</strong></td>
<td><strong>1,995,562</strong></td>
<td><strong>2,611,640</strong></td>
<td><strong>3,313</strong></td>
<td><strong>845</strong></td>
</tr>
</tbody>
</table>

Note: N/R indicates that the NRSRO is not registered for that category of securities; N/A indicates that the data are not available.  
<sup>a</sup> Some credit analyst supervisors may also have analytical responsibilities.  
<sup>b</sup> HR Ratings de Mexico was certified as a NRSRO in November 2012; the ratings of the company were not included in the SEC report that compiled ratings for the NRSROs; the 58 government ratings are listed in its Form NRSRO, as are its number of analysts and supervisors.  

Sources: USSEC (2012b; 2012c)
Table 2: Direct Holdings (ownership) of Securities by Broad Category, Third Quarter of 2012 ($ billions)

<table>
<thead>
<tr>
<th>Direct Holder</th>
<th>U.S. Treasury</th>
<th>GSEs and Ginnie Mae&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Municipal</th>
<th>Corporate and Foreign</th>
<th>Total</th>
<th>Total excl. U.S. Treasury</th>
<th>Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>$945</td>
<td>$8</td>
<td>$1,750</td>
<td>$1,892</td>
<td>$4,595</td>
<td>$3,650</td>
<td>$9,795</td>
</tr>
<tr>
<td>Financial institutions</td>
<td>2,625</td>
<td>5,194</td>
<td>1,840</td>
<td>7,569</td>
<td>17,228</td>
<td>14,603</td>
<td>12,364</td>
</tr>
<tr>
<td>Other&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.7686</td>
<td>2,342</td>
<td>129</td>
<td>2,580</td>
<td>12,737</td>
<td>5,051</td>
<td>3,667</td>
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<tr>
<td>Total</td>
<td>$11,256</td>
<td>$7,544</td>
<td>$3,719</td>
<td>$12,041</td>
<td>$34,560</td>
<td>$23,304</td>
<td>$25,826</td>
</tr>
<tr>
<td>Households as % of Total</td>
<td>8.40%</td>
<td>0.11%</td>
<td>47.06%</td>
<td>15.71%</td>
<td>13.30%</td>
<td>15.66%</td>
<td>37.93%</td>
</tr>
</tbody>
</table>

<sup>a</sup> Includes MBS as well as straight debt; includes Federal Home Loan Banks, Farmers Home Administration, and Tennessee Valley Authority.

<sup>b</sup> Includes governments, non-financial business, and rest of world.

Source: Federal Reserve, Flow of Funds.