The Past, Present, and a Possible Future Direction for the Credit Rating Industry

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INTRODUCTION

Since the onset of the financial crisis, credit rating agencies (CRAs) have been subject to considerable scrutiny by regulators, policymakers, investors and researchers. The criticisms centre around the neglect of due diligence in carrying out their mandate, conflicts of interest resulting in distortions in credit ratings, failure to accurately analyze risk associated with mortgage-related derivative products, opaque and questionable methodologies for assessing credit risk, and the lack of clear mechanisms to ensure accountability for their rating decisions (Partnoy, 2009; Mason and Rosner, 2007).

Over the past few years, numerous reports enquiring into the role of rating agencies in the crisis have been produced by government committees, researchers, and industry associations. The findings suggest that reforms introduced thus far by regulators and the CRAs themselves are inadequate and do not effectively address all the problems latent in the operations of CRAs which contributed to the crisis.

This paper traces the evolution of the ratings industry. We start with a synoptic view of the growth of rating institutions, and then follow the development of business models at CRAs. We examine how these changes impact incentive structures facing rating agencies, the firms they rate, and the investing public. Next we discuss the origins of the problems that arose during various corporate and sovereign crises and scandals culminating in the subprime crisis. A number of regulatory and advisory agencies have proposed reforms. We assess the effectiveness of these reforms. The concluding section considers ratings as a public good, and suggests a not-for-profit rating agency as a possible solution to the agency problems that permeate this set of institutions.

The focus is on the 3 big CRAs: Moody's, Standard and Poor's, and Fitch. These three rating agencies account for an overwhelming share of the global ratings business. Their dominance spans developed economies as well as emerging market economies, where, notwithstanding the growth of domestic rating industries, the Big 3 assume a dominant share of local markets. In the aftermath of the financial crisis economies outside the US are increasingly tightening regulation and monitoring the behavior of CRAs. The agenda for the industry as a whole is still largely defined by the Big 3, and by regulatory reforms in the

United States, and to a lesser extent in the European Union.

I. HISTORY

Records of some of the earliest bonds issued date back to the early seventeenth century, when the Dutch East India Company placed bonds to finance its operations in Southeast Asia (Vries and Woude, 1997). Subsequently the Dutch and English governments issued sovereign bonds. These treasury bonds were backed by the full might of the government and carried negligible risk of default. It was only in the latter half of the nineteenth century, when private enterprises sought to mobilize funds for large investment projects e.g. railways, shipyards, etc. through issuance of bonds, that there arose a need to assess the risk of default on the bonds.

The history of the credit rating industry coincides closely with the evolution of credit rating agencies in the United States (Table 1). CRAs bridge an information gap between bond issuers and bond investors. They offer assessments on the creditworthiness of bonds issued by various entities, including governments and corporations. Ratings do not purport to provide an audit, or validation of a firm's operations, or a recommendation to invest in the security that has been rated. In the United States the assessments or ratings are deemed 'opinions', and thus protected from legal liability as free speech under the First Amendment to the US Constitution.

An informal system of assessing bonds dates back to Dun & Bradstreet in the middle of the 19th century. Letter ratings were used for the first time in 1909 when John Moody published 'Moody's Analyses of Railroad Investments' in which he evaluated the creditworthiness of bonds issued by 200 railroad companies. These ratings were not based on complicated statistical analysis; rather they synthesized disparate information about bonds that would have been difficult for investors to analyze.

Table 1

Milestones in the Evolution of the Credit Rating Industry in the US

History
➢ 1841 Lewis Tappan established the Mercantile Agency, specializing in the provision of commercial information. Information on business standing and creditworthiness of businesses across the United States compiled by the Mercantile Agency was sold to subscribers.
➢ 1849 John Bradstreet established a similar firm in Cincinnati. By 1857 he was publishing what was arguably the world's first commercial rating book.
➢ 1859 the Mercantile Agency became R. G. Dun and Company. The company expanded rapidly, covering about 7,000 companies in the 1870s, 40,000 in the 1880s, and more than a million by the 1900s.
➢ 1860 Henry Varnum Poor published the *History of Railroads and Canals in the United States*, a precursor of modern stock reporting and analysis.
➢ 1900 John Moody & Company published Moody's Manual of Industrial and Miscellaneous Securities.
➢ 1906 Luther Lee Blake formed Standard Statistics Bureau.
➢ 1909 John Moody established Moody's Investor Services, publishing the first set of letter ratings of bonds.
➢ 1913 John Knowles Fitch registered Fitch Publishing Company, which published 'Fitch Bond Book' and 'Fitch Stock and Bond Manual'.
➢ 1914 Moody's Investors Service incorporated.
➢ 1933 Dun and Bradstreet companies merged to establish Dun & Bradstreet.
➢ 1941 Poor's Publishing and Standard Statistics merged to form Standard & Poor's Corporation.
➢ 1962 Dun & Bradstreet acquired Moody's Investors Services.
➢ 1975 SEC prescribed criteria for certification of Nationally Recognized Statistical Rating Organizations (NRSROs).
➢ 2006 Credit Rating Reform Act signed by President Bush.
➢ 2008 — Ten companies were officially recognized as NRSROs: Realpoint LLC, Kroll Bond Rating Agency, A.M. Best Company, Dominion Bond Rating Service, Egan-Jones Rating Company, Fitch, Japan Credit Rating Agency, Moody's Investors Service, Rating and Investment Information, Standard & Poor's Ratings Services.

Ratings assumed importance in the 1930s after the Great Depression when, in order to safeguard banks, the Federal Reserve mandated that banks could only invest in securities that were considered to be 'investment grade'. Regulators of pension funds, brokers and dealers and money market mutual funds followed with similar guidelines soon thereafter, stipulating that financial institutions under their supervision adhere to guidelines stating that their investments in securities meet a minimum threshold of 'investment grade' rating. The ratings were of vital importance as they helped to determine the eligibility of securities that banks could hold towards meeting their capital adequacy requirements. As capital markets grew, this development substantially increased the importance of ratings, providing issuers with access to a steadily rising reservoir of funds in capital markets.

In an effort to bring rating agencies under regulatory scrutiny, in the 1970s the United States Securities and Exchange Commission (SEC) stipulated norms for ratings institutions to be classified as Nationally Recognized Statistical Rating Organizations (NRSROs). Financial institutions could invest in securities rated by CRAs certified as NRSROs. Since then ratings assigned by NRSROs have de facto been incorporated into federal and state laws and regulations as well as into private contracts. The Basel II accord also explicitly factors in ratings for determination of capital requirements on the part of banks (BIS, 2005). Other regulators around the globe, including the Monetary Authority of Singapore, have followed a similar approach. These developments have further enhanced the importance of CRAs and extended their reach into global credit markets.

As regulatory requirements for ratings spread, CRAs transformed from information intermediaries to de facto providers of 'regulatory licenses' (Partnoy, 2006). An investment grade rating by a designated NRSRO enabled corporate entities to draw upon a vast pool of funds in credit markets. Since only NRSROs have the power to provide these ratings, it implicitly endows them with substantial quasi-governmental power.

II. STRUCTURE OF THE CREDIT RATING INDUSTRY

There are currently over 70 CRAs across the globe (Defaultrisk.com, 2011). Coinciding with economic growth and expanding capital markets in the region, the heaviest concentration of rating agencies can be found in Asia, especially in China, India and the Southeast Asian economies. However, these institutions account for a small share of the market. The credit rating industry is dominated by the 'Big 3': Standard and Poor's, Moody's and Fitch, which account for about 98% of all ratings granted (SEC, 2009). Amongst them, the first two dominate the industry. Fitch used to specialize in rating financial institutions. In recent years it has broadened its portfolio to rate non-financial corporations. The SEC has certified 10 NRSROs. Aside from the Big 3, two are in Japan, viz. Japan Credit Rating Agency and Rating & Investment Information, Inc. Dominion Bond Rating Services (DBRS) is in Canada, and three smaller agencies (Egan-Jones, Kroll Bond Rating Agency, and Realpoint) are based in the US.

Since 2003 the growth of CRAs has been fuelled by the proliferation of structured products arising from packaging of mortgages and other forms of securitization. By 2008, over 745,000 securities, floated by more than 42,000 issuers, valued at over $30 trillion and spread out over 100 countries had been rated (FCIC, 2011). The Big 3 made 'normal' profits till the advent of structured securities. Table 2 shows the dramatic increase in income earned from ratings of these products. The increase was particularly marked at Standard and Poor's and Moody's, as rating of structured products was heavily concentrated in these two companies.

Two of the three largest CRAs, Standard and Poor's and Fitch, are wholly owned subsidiaries of larger companies. Under this ownership structure, they are obliged to disclose much less information on earnings and on their business models than publicly owned corporations. This adds to the challenge of conducting a detailed investigation of their operations. The hurdle for new entrants is high. Standard and Poor's and Moody's have a legacy extending back a century. The high profit margins (Table 2) for the Big 3 reflect the absence of competition in this industry. The limited scale of operations of other recognized NRSROs reflects the high barriers to entry.

2.1 CRAs in Asia

One of the objectives of policy makers in the region is the development of bond markets. The Chiang Mai initiative, launched in 2000, sought to enhance regional financial cooperation through policy coordination and initiatives aimed at deepening and broadening regional bond markets. A core element of this strategy is developing local currency bond markets as well as domestic issues of foreign currency bonds. Development of local

Table 2
Earnings Profile of the Big 3 Credit Rating Agencies (in million of dollars)

	Total Assets	Turnover	Net Income	Operating Margin	Market Capitalization	Business Model	Corporate Governance	Number of Employees
Moody's Corporation								
2002	$630	$1023	$288	28.15%	$6899	Issuer pays	Publicly owned	2100
2007	$1714	$2259	$701	31.03%	$10063	Issuer pays	Publicly owned	3600
Standard & Poor's								
2002	n.a.	$1700	n.a.	n.a.	n.a.	Issuer pays	Private	5000
2007	n.a.	$2750	n.a.	n.a.	n.a.	Issuer pays	Private	8500
Fitch								
2002	n.a.	$505	$59.8	11.84%	n.a.	Issuer pays	Private	1502
2007	n.a.	$561	$62.1	11.06%	n.a.	Issuer pays	Private	1661

Source: *ECMI Policy Brief No. 12, February 2009*

rating agencies is deemed an essential part of the infrastructure required for nurturing bond markets.

Notwithstanding the broad heterogeneity in the development of capital markets in the region, there is a pressing need for credible CRAs that are well-versed with local conditions and rate a larger cohort of domestic firms. While capital markets have been growing across Asia, there are very few firms that mobilize funds through the issuance of bonds. Policymakers initially focused on creating the market infrastructure to facilitate bond issuance and trading. Aside from financial institutions, only a small cohort of large private sector and state owned firms have issued bonds. The secondary market is relatively shallow, though it has picked up somewhat over the past decade.

The Asian Development Bank has been proactive in facilitating the development of a regional infrastructure to develop regional bond markets. An important part of the strategy is the development of credible credit rating agencies. This was initiated with the establishment of the 'Association of Credit Rating Agencies in Asia' (ACRAA) in September 2001 at the Asian Development Bank, Manila. The association had an initial membership of 15 rating agencies from 13 countries. By March 2010 the membership had grown to 26 rating agencies from 14 countries. ACRAA seeks to facilitate cooperation and collaboration in the development of ideas and experiences (the knowledge base) with the intent to enhance the quality of ratings across the region. It was hoped this would be a catalyst for the development of regional bond markets and encourage regional financial integration through cross-border investments. While comparable data on market shares are difficult to obtain, Moody's and Standard and Poor's continue to dominate local markets, especially ratings of larger international issues. The largest local firms are in Japan, Korea, China and India. Most locally established CRAs in emerging market economies have entered into joint ventures or some other form of collaboration with the Big 3.

The subprime crisis has renewed the policy debate on the urgency of development of regional CRAs (Kawai, 2009). However, the limited, albeit growing, size of the corporate bond market has acted as a natural constraint on the growth of rating agencies. Differences in responses by regulators have also limited cross-border collaboration. The market for CRAs in most Asian economies remains fragmented, reinforcing the need for a regional rating agency that can address the shortcomings of established CRAs in a region with growing capital markets. ACRAA's role thus far has been limited. It has produced two volumes: a report on 'Harmonization under the Asian Bond Market Initiative' (ADB, 2004) and a 'Handbook on International Best Practices in Credit Ratings' (ADB, 2008). Aside from providing technical information and advice, it has had minimal direct impact on the development of CRAs. In the prevailing environment, rating agencies are competing for a share of a limited, albeit growing, domestic market.

A number of regional economies have reviewed the operations of CRAs and implemented regulations to address distortions in incentive structures and other problems affecting the reliability of ratings.

2.2 Performance of CRAs

CRAs have been repeatedly criticized for their failure to detect problems in Mexico leading to the Tequila Crisis in 1994, or the Asian Financial Crisis during 1997–98. The failure to spot nascent problems in numerous instances of spectacular corporate failures such as Parmalat, Enron and Worldcom is well documented. Since the onset of the subprime crisis, credit rating agencies have been blamed for underestimating the risk associated with structured products (IOSCO, 2008), and for being slow in adjusting ratings to changing market conditions. One of the puzzles of modern finance is how, despite their many failings, ratings retain value and CRAs continue to prosper (Partnoy, 2002).

The globalization of capital markets over the past three decades has further enhanced the importance of CRAs. The widespread holdings of fixed income securities by banks, pension funds, insurance companies and wealthy retail investors in many economies contributed substantially to the build-up of systemic risk, thereby providing one of the main channels for transmission of the crisis across the globe. The pursuit of lucrative business opportunities by CRAs led to serious compromises in the exercise of due diligence in rating these products. This was vividly evident during Congressional hearings in the US when records from the CRAs were subpoenaed (US Senate, 2010; FCIC, 2011). The result was a public uproar and widespread demands for radical reforms and regulation of CRAs.

In the aftermath of the subprime crisis, regulatory agencies in the EU as well as the US have proposed radical changes in the operation and governance of CRAs, reforms that may constitute a paradigm change in the regulation of CRAs. This is taken up in detail later in the paper. The next section traces the development of the business models used by rating agencies, followed by an examination of the critique of the operations of rating agencies.

2.3 CRA Business Models and Problems Therein

Following the publication of the Manual of Railroad Securities in 1909 by Moody's, for several decades rating agencies followed the 'investor pays' model, also referred to as the 'subscription model'. In this model investors pay rating agencies for information on the securities rated, i.e. rating agencies earn fees from users (or subscribers) of the rating information. The ratings are available only to paying subscribers, predominantly institutional investors. Thus small investors may not have access to the ratings information. This business model suffers from some drawbacks.

For it to work, it is imperative to enforce property rights on information embedded in the ratings. However, such information is hard to contain. With technological advances this information can be easily dispersed resulting in a free rider problem; investors would have little incentive to pay for it.

The 'investor pays' model allows for limited dissemination of information, thereby creating an uneven playing field in capital markets and impeding market efficiency. Ratings agencies are also likely to focus on larger enterprises which will attract a broader cohort of investors, and thus an expanded subscriber base. Smaller firms may be neglected by rating agencies.

This model also reduces incentives for issuers to provide timely information to rating agencies, as they are not obliged to do so. Prior to the issuance of bonds, investors would prefer pessimistic ratings, allowing them to earn a high yield on bonds. Once bonds have been placed, investors would be averse to downgrades. A possible solution is increased competition among rating agencies. However, as Becker and Milbourn (2009) point out, the impact of competition on the quality of ratings is contingent upon whether the rating agencies work harder to please investors (the ultimate users of ratings) or the issuers who pay the bill for ratings. Mariano's (2009) analysis shows that competition may actually be detrimental for the quality of ratings. If bolstered by reliable public information, a monopoly can produce more accurate ratings than a competitive industry. However, if the quality of private information is high or reputational concerns are weak, the effect of industrial structure on the quality of ratings may dissipate. Credit rating agencies followed the 'investor pays' model till the seventies.

In the early 1970s the agencies switched to an 'issuer pays' model, i.e. the entity issuing bonds pays a fee to the agency rating its bonds. That model continues to this day. The smaller NRSROs however follow the 'investor pays' model. A number of factors account for the switch from the 'investor pays' to 'issuer pays' model.

The unanticipated bankruptcy of Penn Central Railroad in 1970 shook confidence in bond markets, and eventually turned out to be a transformative experience for bond markets. The loss of confidence induced issuers to pay for the validation that ratings would provide. The shock of unanticipated defaults on about $80 million of commercial paper resulted in a demand for ratings of the widely used money market instrument (Hahn, 1993). The introduction of high speed photocopy machines raised concerns about loss of revenues through widespread replication and circulation of rating manuals. The ratings companies determined that issuers would be willing to pay for the certification that ratings provided — a prerequisite for selling bonds to financial institutions.

Financial markets underwent significant change during that period. The deepening of capital markets and introduction of new instruments led to demand for new services. Hitherto, investors were paying for the ratings. Financial innovation, expanding capital markets and a growing investor base gave rise to demand for the research and analysis that went into the formulation of ratings. CRAs realized that ratings were providing increasing value to issuers by facilitating market access and lowering the cost of capital. The increased demand for ancillary advisory services motivated a switch to charging issuers of securities to pay for services provided by rating agencies.

In the 'issuer pays' model, the rating is based on information that the CRA obtains from the issuer — information that may not be in the public domain. Once the rating has been compiled, the rating agency is free to disseminate this information to the market free of charge. An advantage of this model is the instantaneous dissemination of information.

If the issuer has the option of 'shopping around' for ratings, this endows it with influence over the rating agency, inducing the latter to moderate the rating. Bolton et al. (2009) find the presence of 'shopping for ratings' options impairs the quality of ratings. Contrary to other researchers, they advocate an option of a monopoly CRA supplemented by tight regulation and mandatory upfront payments for ratings services leading to the most reliable ratings.

Experiences with the 'issuer pays' model revealed the implicit conflicts of interest. The main sources of earnings for CRAs are the very entities they judge. In order to maintain market share and relationships with their clients, the agencies are under pressure to inflate ratings. This is exacerbated by the ability of issuers to solicit ratings from several different rating agencies, eventually selecting the best rating.

III. CRITIQUES OF CRAS

3.1 Conflicts of Interest and Lack of Quality in Methodology and Ratings

Until early 2008, the three major CRAs had assigned investment grade ratings to 11 big financial institutions that subsequently faced serious solvency problems or actually failed. AIG was rated 'AA,' and Lehman Brothers carried a single 'A' rating until it collapsed. This has raised serious questions about the mandate accorded to CRAs for extending regulatory licenses. Conversely investors and other market participants also neglected to monitor these securities, and seem to have outsourced this function to the CRAs.

CRAs typically take the information provided at its face value, and rate securities accordingly. The subprime crisis has brought to the forefront problems associated with the functioning of credit rating agencies. It highlighted concerns about whether CRAs exercised due diligence in evaluating the information received from the issuer. This problem was particularly acute with securitized assets where there was a lack of information about underlying assets, especially subprime mortgages (Ashcroft et al., 2009). Ironically, aside from issuers, investors and other market participants took ratings as the primary source of information about these securities, thus failing to exercise due diligence in their own operations.

The conflicts of interest in rating structured products were clearly evident. CRAs were paid only if they were retained to rate the product, thereby creating incentives to inflate ratings. The absence of competition for rating structured products and the high profits generated by this line of business further accentuated incentive problems. CRAs were also advising issuers of structured products on the design of special purpose vehicles to elicit more business. They had incentives to assign ratings that flattered the issuer and underestimated the risk of the underlying financial product. Furthermore, the lack of due diligence was reflected in the neglect of CRAs to increase their staff strength to match the rapid growth in the volume and complexity of securitized products since the early 2000s.

The paucity of data and lack of transparency in the rating process, specifically methodologies in the case of structured products and the criteria deployed to assess ratings, made it difficult for market participants to compare across securities or to assess credit risk on their own.

It is widely acknowledged that ratings reflected substantial over-optimism. The inflated ratings enabled the originators to repackage the securities and offload senior slices as AAA rated investments. This allowed the underwriters and issuers to ignore the underlying risks and make substantial profits, thereby encouraging origination of more subprime loans.

A number of reasons can be adduced for inflated ratings. The business model is rife with potential incentive problems. In this respect, CRAs are not unique. Other 'financial gatekeepers' such as accounting and auditing firms face similar conflicts of interest in demarcating their auditing business from consulting opportunities with the same entity. However, the problem is endemic among CRAs as they are also immune from legal accountability. As mentioned earlier, ratings are considered 'opinions' and are thus protected as free speech under the First Amendment to the US constitution. Amongst financial gatekeepers, this endows ratings with a unique status.

Since the rating agencies are paid by issuers, their interests are more closely aligned with issuers of rated securities than investors. Companies can solicit ratings from several different rating agencies and then select the one they find most suitable. If a company or an investment bank does not like the rating, it is not obliged to pay for it. The opportunity to 'shop' for ratings and select the most favorable one accentuates this moral hazard. The conflict of interest worsens in the case of structured products. The rating agency is paid by the firm that packages and sells the rated products. If the firm doesn't like the ratings, it can shop elsewhere. In instances where the client deems the rating 'appropriate', the payment is made subsequent to the sale of the security. The issuer has incentives to publish only the most favorable rating. CRAs also issue unsolicited ratings, rating companies even when the issuing company has not approached the rating agency.

Agency problems were also reflected in the growing volume of 'unsolicited' ratings. In order to expand their business, rating agencies started providing 'unsolicited' ratings. In this scenario firms are under no obligation to provide information to the rating agency. The rating agency then has to draw upon publicly available information to formulate a rating, thereby potentially compromising its accuracy. Poon's (2003) finding that unsolicited ratings are lower than solicited ones, signals another area of concern.

3.2 Development of Ancillary Business

In recent years CRAs have offered business services that are in direct conflict with their primary ratings business. These services include risk management and other consultancy services. CRAs provide advice to issuers and financial institutions when the transactions are structured. The agency is paid directly by the originators of structured securities. Receiving payments from the issuer creates incentives to assign high ratings to the securities. Furthermore, CRAs were slow in downgrading securities when the business environment deteriorated. There was little incentive to conduct independent assessments of the companies on an ongoing basis. Accepting such business from clients raised clear conflicts of interest. This is similar to accounting firms offering consulting services.

CRAs also offer ratings assessment services wherein, for a fee, the rating agency will offer an opinion on how the existing rating is likely to be affected by a hypothetical corporate event, e.g. a merger or an acquisition, sale of assets, a spin-off, etc. The need to solicit additional business from the client can bias the CRAs assessment. These drawbacks call out for a radical reform of internal procedures and protocols, lines of control and governance within the CRA, transparency in reporting and a clear delineation of the ratings business from the advisory activities.

3.3 Quality of Credit Ratings

It is a moot point whether credit ratings were based on faulty models or incorrect data or both. However, as a 'financial gatekeeper' the onus falls on the CRA to ascertain the veracity of information provided by its clients. At the macro level, public concerns about bubbles in the real estate market should have raised concerns about valuation and ratings. As experiences during the Asian financial crisis and the subprime crisis show, CRAs neglected concerns about systemic risk as the real estate bubble developed. Their performance was markedly worse in ratings of structured products.

Credit rating agencies seemed ill-equipped to understand the problems that could arise from the highly complicated securitized products developed from the exponentially growing volume of subprime loans. CRAs neglected the systemic risk that built up as holdings of structured products spread across financial institutions, financial markets and national boundaries. The associated liquidity risk was also neglected (CGFS, 2008). Despite widespread concerns about the quality of the underlying collateral, rating agencies clearly misunderstood and underestimated the risks associated with these complex securitized products. In general, analysts at CRAs also seem to have neglected correlations between individual risks. The liquidity risk associated with an abrupt fall in asset prices and manifestations of systemic instability was also underestimated. The widespread tendency to overrate products was reflected in the IMF's (2009) estimates of an overwhelming majority of securitized products evolving out of subprime loans being assigned AAA ratings. A concern for the future is that as financial innovation continues, similar challenges and problems are likely to arise with newer products. This reinforces the urgency of reforms in the functioning of CRAs.

3.4 Lack of Transparency in CRAs' Activity

CRAs have been deemed to be negligent in providing adequate information on the limitations and characteristics of structured products. They provide few insights into the assumptions underlying the models as well as models deployed for ratings; however, disclosure on methodologies has improved over the past few years. The lack of information about rating criteria prevents outside stakeholders from conducting informed comparisons of CRAs' performance. Of late however, in response to criticisms from regulatory authorities and other market participants, there has been some improvement in disclosure standards.

In the past, CRAs did not disclose information on the conflicts of interest or the scope of business with clients. Information on the compensation policy for the ratings or advisory business was hard to come by. As models and the underlying assumptions were not disclosed, market participants were unable to conduct any cross-checking of ratings.

In instances where the rating agencies are offering ancillary services, there is no clear-cut policy on disclosure of the range of business dealings with clients. In order to regain credibility, rating agencies need to disclose information on potential conflicts of interest, and on the nature of their compensation policies. There is a pressing need to establish a clear-cut distinction between the rating business and the consulting business. In response to severe criticisms CRAs have improved disclosure on models, the underlying assumptions as well as the ancillary business with clients.

IV. REGULATION AND REFORMS

4.1 United States

As a result of the dominance of US based rating agencies, the history of regulation of credit rating agencies largely mirrors the evolution of regulation of rating agencies in the United States. Credit rating agencies faced minimal regulation till the mid seventies. The emphasis was on self-regulation. In 1975, the Securities and Exchange Commission (SEC) established formal criteria for recognition of rating agencies. CRAs meeting the criteria were designated as Nationally Recognized Statistical Rating Organizations (NRSROs). Banks and later money market mutual funds and other financial institutions were permitted to invest only in securities rated 'investment grade' by NRSROs. Under the new framework the SEC relied on market oversight rather than specifying precise regulatory norms. Securities rated by certified NRSROs were deemed qualified to meet regulatory guidelines for determination of bank capital.

The spate of scandals in the eighties and early nineties led the SEC to initiate discussions with the International Organization of Securities Commissions (IOSCO) to establish standards of regulation. On balance, the recommendations endorsed the principle of self-regulation and market discipline. During the mid-nineties a re-evaluation of the guidelines governing NRSROs was carried out. The SEC sought comments on the role of CRAs encompassing a range of issues, such as the procedures for recognizing, monitoring and evaluating the activities of NRSROs, and for examining how the ratings were woven into federal regulation. The suggested changes, however, were not implemented. The proposed changes again placed emphasis on self-regulation by the rating industry, reinforced by market discipline.

In 2002, following a mandate arising from the Sarbanes-Oxley Act (2002), Congress asked the US SEC to produce a report on the functioning of credit rating agencies in the operation of securities markets. The report focused on the use of ratings by regulators, and the consequences thereof. Subsequent legislation required greater transparency on the part of CRAs, however it did little to challenge the latent and underlying problems.

The passing of the Credit Rating Agency Reform Act in 2006 constituted a watershed for regulation of CRAs. The main tenets of the Act formalized criteria for designation of CRAs as NRSROs, and established oversight of NRSROs by the SEC. The SEC was endowed with powers to register NRSROs. This was intended to ease entry barriers and promote competition. It was given the right to conduct on-site examinations and ensure CRAs conformed to the stipulated requirements, including public disclosure of internal standards. However, the Act prohibited the SEC from "regulating the methodologies with which the CRAs conducted their ratings". It also did not allow for 'private right of action' against CRAs. The principle of immunity from prosecution was sustained. These rules were revised in 2009 and are currently under debate (SEC, 2008, 2009). The Dodd-Frank Act sought to remove section 436(g) of the Securities Act that granted an exemption to CRAs from liability for ratings. However, this issue is yet to be resolved by Congress. Rating agencies responded by refusing to give consent to disclosure of ratings. The SEC intervened by issuing 'no action' letters stating it would not require NRSROs give consent for ratings to be used for securities, effectively insulating themselves from legal liability. The matter is yet to be resolved by Congress and the regulatory agencies.

In June 2007, principles of oversight of NRSROs were reviewed. The following year the SEC released a report highlighting serious deficiencies in the ratings process. It prescribed rules to enhance the integrity of the rating process, and provide greater clarity on rating of structured products. Oversight was further tightened in February 2009 when the SEC undertook measures to enhance transparency of methodologies deployed to rate products. NRSROs were now required to disclose performance of ratings, and manage conflicts of interest between the ratings and advisory businesses.

Following the subprime crisis, the reforms initiated in 2009 were the most comprehensive to date. NRSROs are required to disclose rating histories on their websites, albeit for a sample of 10% of securities rated. A complete disclosure of issuer-paid ratings and ratings histories is also required. However, the regulatory authorities have deferred action on whether to impose a rule requiring NRSROs to change symbols denoting ratings of structured products, and addressing the more contentious issue of immunity from prosecution.

The Accountability and Transparency in Credit Rating Agencies Act of 2009 embedded in the omnibus Dodd-Frank Wall Street Reform and Consumer Protection Act 2010 may bring about a paradigm change in the operation and regulation of CRAs. The legislation defined the broad principles while the details remain to be worked out. The SEC is designated as the principal regulator. The Credit Rating Agencies Act aims to reduce conflicts of interest, impose liability standards and curb market reliance on CRAs. It endows the SEC with powers to sanction CRA employees. The bill requires each NRSRO to have at least one-third independent directors to oversee the functioning of the organization and prevent conflicts of interest in the firm. It also addresses the revolving door policy of CRA employees moving onto the payroll of their clients; the CRAs will be obliged to place the names of such employees in the public domain. The Act mandates greater public disclosure about internal operations, procedures, rating methodologies and compensation schemes for employees.

Subtitle C of Title IX of Dodd-Frank — 'Improvements to the Regulation of Credit Rating Agencies' — aims to overhaul the framework governing and regulating credit rating agencies, including the NRSROs. The reforms will dramatically change the role played by CRAs in financial markets and are predicated on the Congressional finding that "the systemic importance of credit ratings and the reliance placed on credit ratings by individual and institutional investors and financial regulators" make the activities and performance of NRSROs "matters of national public interest, as credit rating agencies are central to capital formation, investor confidence, and the efficient performance of the United States economy."

The Dodd-Frank Act is broad in its scope and endows the SEC with substantially greater decision making authority. It established an Office of Credit Ratings (OCR) within the SEC. The Act will remove safe-harbor protection accorded to CRAs, and impose stringent disclosure requirements. Several provisions in the Act seek to minimize the impact of conflicts of interest on the integrity of credit ratings. The disclosure requirements include: details of past performance, models and methodologies deployed to obtain ratings, and enhanced disclosure on structured products and the underlying assets. One of the most far-reaching provisions of the Dodd-Frank Act is mandating that references to NRSROs be removed from federal regulation. This provision could potentially have significant ramifications for the quasi-regulatory powers wielded by the rating agencies. The SEC and the Government Accountability Office (GAO) have been given the authority to conduct further research that may result in new regulatory initiatives.

4.2 European Union

Regulatory reform outside the US has primarily been confined to the European Union. In 2003, IOSCO's technical committee published a 'Statement of Principles Regarding the Activities of Credit Rating Agencies'. The intent was to provide protection to investors, enhance fairness, efficiency, and transparency of securities markets, and reduce systemic risk. In the following year IOSCO's technical committee published a 'Code of Conduct Fundamentals for Credit Rating Agencies'. The European Parliament engaged IOSCO to focus on four major areas of concern. These were: the quality of ratings, transparency in the methodology used by rating agencies, independence and objectivity of the rating agencies, and the question of whether the concentrated market structure of the industry resulted in anticompetitive practices. IOSCO responded in 2006, stating that no further regulatory action was imperative.

In the aftermath of the subprime crisis, the EU took a more interventionist stand, urging direct regulation to address shortcomings in the operations of CRAs. In April 2009, the European Parliament published a document proposing Regulation of Credit Rating Agencies. Accordingly, all rating agencies would be required to register with the Committee of European Securities Regulators (CESR) (EC, 2009) which would later — in the course of 2011 — be replaced by the European Securities and Markets Authority (ESMA). CRAs would be supervised by CESR and the regulatory authorities in the home country. CESR would be the single entry point overseeing the registration, certification and supervision of CRAs. The intent was to preclude regulatory arbitrage by establishing common standards across the union. Rating agencies seeking to market their products within the EU's jurisdiction would need to register with the CESR. Ratings by agencies from outside the EU would be approved on a case-by-case basis.

CRAs registered with CESR would be subject to legally binding rules based on the IOSCO code. The main tenets of this regulation were restrictions on ancillary business activities, clearly enunciated differentiation in the ratings of structured products, and greater transparency and disclosure in the business model. The CESR was to establish a central repository of historical data germane to rating companies, that would be open to the public free of charge.

The European Union's approach to addressing problems with the CRAs has differed from the approach adopted by the United States. The EU has called for a centralized approach to regulation to stabilize, consolidate and restore sustainable growth in the European economy. New regulatory initiatives are intended to make CRAs operate in a much simpler supervisory environment than the existing fragmented and varied national environments. Regulators would have easier access to the information they need, and investors will have greater protection against bad ratings. The reforms proposed by the European Commission in EU Document number (EC) 1060/2009, approved by the European Commission (EC) in April 2009, are expected to result in increased competition among CRAs. The European Securities and Markets Authority (ESMA) would be endowed with exclusive supervisory powers over CRAs registered in the EU. It would be granted the power to launch *suo moto* investigations, ask for information, and carry out on site inspections at the CRAs.

The EU has strongly advocated pan-European ratings. CRAs would be required to register with the Committee of European Securities Regulators (CESR) by December 2010. The CESR college of regulators will have the authority to decide upon the application for ratings, and be engaged in the day to day functioning and supervision of CRAs. Financial instruments with inadequate information will not be allowed to obtain ratings. CRAs will be required to disclose the models, methodologies and the underlying assumptions on which they base their ratings. Structured products would have to be distinguished by distinct symbols. To preclude conflicts of interest, CRAs will not be allowed to offer advisory services. The proposed legislation seeks to ensure independence and sound internal oversight by mandating the appointment of at least two independent directors for a single term, with remuneration not tied to the performance of the rating agency. At least one of the directors would need to have expertise in structured financial products.

4.3 IOSCO

In December 2004, IOSCO published a Code of Conduct for CRAs that, among other proposals, addressed the types of conflicts of interest that CRAs face. All major CRAs have agreed to sign on to this Code of Conduct, which has been endorsed by regulators ranging from the European Commission to the US Securities and Exchange Commission. Adherence to the code is voluntary.

IOSCO has worked with the SEC, the EU and published its own reports analyzing the performance of CRAs and proffering suggestions for reform. Five CRAs responding to IOSCO's call for reform agreed to launch a series of initiatives aimed at enhancing the quality of credit ratings, providing greater transparency of the rating process and of their own business. In two widely cited reports, the 'Statement of Principles Regarding the Activities of Credit Rating Agencies' published in 2003, and the 'Code of Conduct Fundamentals for Credit Rating Agencies' brought out in 2004, IOSCO specified four categories of principles that CRAs could voluntarily comply with. These encompassed public disclosure of their operations and the business models, the quality and integrity of the rating process, independence and avoidance of conflicts of interest, and responsibilities towards issuers and the investing public.

Issues germane to regulation or enforcement mechanisms associated with the code of conduct were deemed to be beyond the scope of IOSCO. IOSCO (2009) pointed out that neither it nor any other regulatory body had the capabilities or the authority to determine if a CRA was complying with its own code of conduct.

IOSCO had recommended collaboration among the regulatory authorities to ensure uniformity in regulations across national boundaries. It suggested the development of a template for governance and supervision of CRAs, as well as revisions of the regulatory approach to facilitate periodic review of compensation policies and avoid cross-border fragmentation in regulation.

4.4 The Group of 20 (G20)

The G20 leaders meeting in the thick of the crisis reiterated the need for clear rules and procedures to prevent conflicts of interest, ensure transparency and quality in the rating process, and require mandatory registration of CRAs (G20, 2009). They suggested that national authorities collaborate with IOSCO to ensure uniform application of the principles. The Basel committee was also asked to review the role of ratings in determining capital requirements.

V. CREDIT RATINGS AS A PUBLIC GOOD

Experiences of the past two decades have reinforced the point that well-functioning CRAs are essential not only for the fundamental economic objective of striving for allocative efficiency, but also, as demonstrated by the subprime crisis, for maintaining financial stability. It is evident from repeated episodes of financial crises and corporate scandals that the adverse consequences of poor decisions at CRAs spill over into the real sector thus affecting the entire economy. The reform proposals suggested by national regulatory agencies as well as the multilateral institutions tend to overlook two important characteristics of ratings. Firstly, the public good nature of credit ratings – they generate strong externalities with costs diffused through all stakeholders in the economy. Secondly, the issue of aligning incentive structures of management at CRAs with those of investors and issuers. Our discussion of the evolution of business models at CRAs shows that this problem has persisted since ratings were first launched by John Moody early in the 20th century. Tightening of existing regulation is unlikely to be adequate for addressing the underlying problems, as enhanced disclosure by itself cannot mitigate the conflict of interest latent in the business model.

Suggestions for reform of CRAs take the existing industrial and ownership structure as given. The implicit assumption is that reforming and regulating the agencies will take care of the problems. Evidence shows that rating agencies have improved disclosure and are providing more information about the underlying loans and modeling techniques used in their ratings (Kodres and Narain, 2010). However, as experience with reforms initiatives including various voluntary codes of conduct and efforts focusing on market oversight as a tool to guide the behavior of CRAs shows, the problems stemming from misalignment of incentives between the CRAs, the issuers and investors cannot be addressed by tightening regulation alone. White (2010) makes a case that increasing regulation may engender adverse effects on ratings behavior. Instead he advocates dispensing with the regulatory license accorded to ratings and inducing bond market participants to draw upon a wider range of information sources to determine the creditworthiness of the securities. This perspective is predicated on market efficiency; more importantly, concerns about free-riding would preclude larger investing institutions from sharing information on securities in their portfolios. Addressing the issue of regulation, Stolper (2009) posits that CRAs can collude to offer inflated ratings. If the regulator is unable to break the cartel, an equilibrium with inflated ratings could be sustained.

Inderst and Ottaviani (2009) highlight the conflicts of interest that emerge when an agent is selling and advising on a product's suitability for the specific needs of a customer. In the absence of transparency in incentive structures and the design of compensation schemes, the expected outcome that will result is 'misselling' unsuitable products – this has been borne out in the market for structured products. Mathis and Robert (2008) raise a concern that as the fraction of a CRA's income from rating complex products rises, the firm's reputational concerns recede into the background. They believe that perverse incentives would be eliminated by the establishment of a platform akin to a central depository or a clearing house into which the rating fees are paid. The fees, to be transferred on to the NRSRO, would then be independent of the rating. Without anonymity in the client-rating agency relationship, it is not clear how this framework would preclude incentive problems associated with ancillary business opportunities.

In the aftermath of repeated financial crises, where rating agencies have been assigned considerable blame, there is a growing realization that credit ratings bear the characteristics of a public good, with the attendant externalities. Reliable, accurate, and timely rating changes help direct funds into efficient investments, offering risk-adjusted returns to investors. Conversely, inaccurate ratings and untimely changes in ratings create instability in financial markets, and in an era of deregulation and financial globalization, enhance systemic risk.

The credit rating initiative at the Risk Management Institute of the National University of Singapore, led by Professor J.C. Duan, is predicated on the construction of CRAs as a 'public good'. The ongoing debate on the reform of CRAs seems to miss this point. Market participants, including investors, financial institutions and regulators need a reliable independent assessment of the creditworthiness of issuing entities. The regulatory license extended to CRAs endows them with powers that shape the portfolios of financial institutions. The failure of a bank entails an expensive bailout with the burden falling on the taxpayer. The negative externalities engendered by bank failures impact the entire economy. Thus CRAs need to be closely monitored. Private sector entities may be able to carry out this function. The major CRAs are for profit institutions, they keep their rating methods proprietary, hindering methodological developments. The 'issuer pays' model has also engendered moral hazard problems noted above. The subprime crisis further revealed the reluctance of CRAs to downgrade a firm in distress. Immunity from prosecution on account of faulty ratings, high barriers to entry and conflicts of interest, all point towards the need for a publicly funded CRA.

The Risk Management Institute's credit rating initiative addresses each of these problems. The RMI model is based on scientifically sound credit rating methodologies and provides an alternative not-for-profit rating of listed firms from around the world.

Table 3
Commercial CRA Business Models vs. RMI Credit Rating Initiative

	Commercial Credit Rating Agencies	**RMI's CRI**
Conflict of Interest	Yes, commercial interests paramount, embedded in 'issuer-pays' model	Not for profit
Methodology	Poor performance; Opaque, even after reforms	State of the art methodology, completely in the public domain. Trial runs demonstrate high degree of accuracy based on publicly available information
Ancillary business interests	Significant & growing source of revenue	No commercial interests
Transparency	Range of client dealings, assumptions underlying models, render clients unable to compare across CRAs	Completely in the public domain

Table 3 provides a synopsis of my assessment on how RMI's model addresses the weaknesses latent in existing commercial CRA business models.

The RMI approach to credit rating can be viewed as a 'selective Wikipedia' approach to research. Through an open competitive call for proposals, RMI taps into the global talent pool by inviting research teams from around the world for an extended visit to develop models. If the research teams demonstrate a methodological improvement, their ideas will be integrated into the model used by the CRI system. Being a not-for-profit rating service allows RMI to have complete transparency in its rating methodology. There is no conflict of interest since RMI will not be accepting fees or funding from the firms rated. The rating results are placed on the web with open access to all.

VI. CONCLUDING REMARKS

The power wielded by CRAs is evident in the following quote. Long before the current crisis, or the Enron episodes, or the Asian Financial Crisis, the New York Times columnist Thomas Friedman opined, "*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*." Mr. Friedman's words allude to the systemic impact of ratings, a phenomenon which has been vividly evident during the current crisis.

It should be pointed out that other players bear responsibility for the recent market upheavals. Institutional investors neglected risk management and internal control measures that should have required better monitoring of risks associated with investments in structured products. Originators also adopted lax underwriting standards and failed to exercise due diligence in providing accurate information to the CRAs. Regulators themselves failed to identify the rapid growth in latent systemic and liquidity risk as these securities proliferated across the financial system and across national boundaries.

This paper provides an overview of the development of the credit rating industry. It traces the development of business models governing operations of CRAs over the past 100 years. I analyze the problems latent at CRAs, and then assess the regulatory initiatives undertaken in the aftermath of the subprime crisis. I also consider an innovative idea of treating credit ratings as a public good, and assess RMI's not-for-profit approach to formulating credit ratings that may provide a viable solution to the problems that have permeated the ratings industry over the past several decades.

Notes

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