Credit Rating Agencies (CRAs), The Agency Dilemma on Wall Street, and the Global Financial Crisis

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Abstract:

In the spring of 2007, a sudden downgrade by a prominent Credit Rating Agency ("CRA") of two mortgage hedge funds eroded the value of their investment-grade subprime Mortgage Backed Securities. This caused global markets to crash, and the world spiralled into a recession. On the cusp of this meltdown, the abrupt downgrades instituted by the CRAs reflected their inability to continue to juggle the long accepted concurrent relationships on Wall Street, including their quasi-regulatory role. This paper seeks to answer the question of how the Multiple Agency Dilemma, centred about the "Big Three" CRAs, on Wall Street contributed to the global financial crisis. This investigation focusses primarily on two principal-agent relationships: The Securities Exchange Commission (the Principal) and the CRAs (the Agent); and the Issuers of securities (the Principals) and the CRAs (the Agent). While the Extended Principal Agency Model deciphers the multiple roles that the CRAs manoeuvred, the Revolving Doors Theory traces the conflicting, and the conflicts of, interests in the exchange of personnel between entities in the financial markets. This research concludes that this "ratings failure" has its origins in the multiplicity of relationships that the CRAs had to navigate, abetted by the existing permissive regulatory framework.

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List of Abbreviations

S&P	Standard and Poor's
ABS	Asset Backed Securities
MBS	
CRAs	
IOSCO	International Organization of Securities Commissions
SEC	
SPV	Special-Purpose Vehicles
NRSRO	
CDOs	
US / USA	
POGO	Project on Governmental Oversight
P-A	Principal-Agent

Introduction

"Argentine" crisis – a "debt-fed party, marked by a consumer binge on imported goods, and the strutting of an ostentatious new class of super-rich, who had invented nothing and built nothing, except intricate chains of paper claims that duller people mistook for wealth" (Morris, 2008).

In 2007, global financial markets were shaken by a series of events originating in the United States of America (US), and soon, in 2008, were teetering on the edge of a global recession. Markets everywhere crashed and foreign exchange markets too followed the downward spiral.

The spring of 2007, with the benefit of hindsight, seems like an unusually optimistic period for American financial markets. Consumer spending and the market for investment grade credit were on the rise, and premiums for risky investments were at an all-time low. In keeping with this trend, Standard and Poor's (S&P) 500 leapt 9 per cent in merely three months (March-May). However, the first signs of the times to come were when two mortgage hedge funds had the value of their investment-grade subprime Mortgage Backed Securities (MBS) eroded due to a sudden downgrade by Moody's. This meant that most of these bonds were not saleable, and as a result, the value of all subprime debt instruments fell drastically. Soon, the epidemic of subprime debt-related problems spread across the globe (Morris, 2008: xi-xiii).

The major actors in this crisis were the investment banks and other lenders of subprime mortgages, the credit rating agencies (CRAs) that rated the subprime debt related securities, and the Securities Exchange Commission (SEC), which is the regulatory body monitoring the operations of these actors in the US. Although there are numerous CRAs active on the US financial markets, this paper will focus on the role played by the so-called Big Three Credit Rating Agencies – S&P, Fitch, and Moody's – which together control approximately 90% of the global ratings industry (Bahena, 2010: 1). When the abbreviation CRAs is used in this paper, unless otherwise specified, it refers to these three agencies.

The aim of this paper is, therefore, to identify how the complex relationships between the main actors involved, entailing *conflicting*, and *conflicts of*, *interests*, with the CRAs located at the centre, intensified the crisis. The innovation of the current investigation lies in the centrality of the CRAs in the analysis of the dynamics on Wall Street. It hypothesises that the simultaneous and conflicting principal-agent relationships surrounding the CRAs came to a head, exacerbating the 2007-08 crisis. In doing so, it seeks to answer the question of how the Multiple Agency Dilemma on Wall Street contributed to the financial crisis. The focus is

primarily on two principal-agent relationships: the SEC (the Principal) and the CRAs (the Agent); and the Issuers of the MBS and the Collateralised Debt Obligations (CDOs) (the Principals) and the CRAs (the Agent).

The paper is structured in the following way: The first section introduces the governance and regulation of Wall Street, the Big Three CRAs, and the MBS and CDOs. The following section lays down the theoretical framework within which the research is based – the Extended Principal Agency Model and the Revolving Doors Theory. The subsequent section traces the crisis and how the Agency Dilemma played out. The next section analyses the multiple relationships that led to the crisis unfolding in the way it did, and the final section rounds up the paper with the authors' findings and conclusions.

1. Governance of Wall Street and the Speculative Financial Products of the Crisis

It is widely understood that the "ratings failure" of the CRAs contributed decisively to the financial crisis of 2007-08 (Mennillo and Roy, 2014: 2). It is, therefore, important to sift through the various reasons that the governance and regulation of financial markets failed to check the CRAs' overly optimistic ratings of subprime MBS and CDOs. This section will give a brief overview of the governance of financial markets in the US, an introduction to the two complex instruments that played such a pivotal role in the crisis, and finally, the relationships centring about the CRAs, which will then be discussed further in a later part of the paper.

1.1 Governance of Wall Street

Credit rating agencies are organisations that assess the creditworthiness of debtors and the instruments issued by these debtors. They play the vital role of reducing information asymmetries between investors and issuers of financial instruments in financial markets. Even though there are more than a hundred agencies specialised in rating various debt instruments, industries and even governments, three CRAs – S&P, and Moody's Corp., which are US firms, and Fitch Ratings, a British firm – dominate the ratings industry with more than 90 per cent of the global market share (Bahena, 2010: 1).

The ratings scale used by each CRA is different. The highest rating for Moody's is AAA, and anything from AAA to Baa3 is "investment grade". S&P and Fitch share a scale: AAA is the

highest, and anything between AAA and BBB is "investment grade". Instruments that are rated below "investment grade" are perceived as speculative and risky investments. Ratings also affect the cost of borrowings for the issuers because lower rated instruments must provide investors with additional incentives such as higher interest rates – in 2004, S&P data demonstrated that moving up a rating category (from BBB to BB) reduced a firm's borrowing costs by nearly 50 per cent (Bahena, 2010: 2).

Besides this function, the role of the CRAs in US financial markets has increased in importance because of certain government regulations. For instance, certain classes of investors, such as pension funds, may only invest in debt instruments that have an "investment grade" rating. The significance of the CRAs is further reinforced by their designation as Nationally Recognized Statistical Rating Organizations (NRSROs) by the SEC. The concept of NRSROs was created by the SEC in 1975 to identify agencies whose ratings could be used by broker-dealers to comply with the SEC's Net Capital Rule². Some instruments, including MBS cannot be invested in if they are not rated by an NRSRO. In this context, therefore, recognition amounts to the licensing of the CRAs by the SEC. At least forty-four SEC regulations mandate the use of ratings – for instance, regulations limit money market funds to investments in the top two rating categories (Bahena, 2010: 5). Thus, ratings by CRAs were used as an instrument of financial regulation, thus consolidating the CRAs' authoritative role in financial markets (Mennillo and Roy, 2014: 2).

CRAs in the US are regulated by the SEC, under the U.S. Credit Rating Agency Reform Act of 2006. Despite the significance of CRAs in the governance of financial markets, these entities are privately owned and subject to minimal supervisory oversight by the government. The rationale popularly accepted in mainstream financial circles for this kind of hands-off regulation is that "the market will function best if investors are informed and able to choose between CRAs" (Bahena, 2010: 6). Another argument in the same vein is that excessive supervisory controls would also have the potential to undermine the agent's (the CRAs') autonomy, and be counter-productive for the agent's ability to achieve the goals for which it was appointed (Temel-Candemir, 2005: 42).

CRAs are hired by issuers of debt instruments, banks, in the present context, to rate these instruments. They provide qualitative statements about the creditworthiness of entities and

²"The Net Capital Rule requires broker-dealers to deduct from their net worth certain percentages of the market value of their proprietary security positions when computing net capital" (Frost, 2007: 471).

their financial obligations. This information is then used by potential investors to evaluate the creditworthiness of the rated securities. The CRAs, therefore, have an obligation towards both, their clients (the issuers who pay them for the ratings) and the investors, who rely on their ratings to make their investment decisions. (Frost, 2007: 471).

Besides these abovementioned relationships and potential conflicts of interests, there are also other relationships that abound in financial markets: investors and issuers; the government (represented by the SEC) and the issuers; the government (represented by the SEC) and the investors; and the federal government and the SEC, to name but a few. However, this paper only focusses on the relationship between the CRAs and the SEC, and the CRAs and the banks issuing MBS and CDOs, to the exclusion of all others.

1.2 The Speculative Financial Products Causing the Crisis

In the financial records of banks and other lenders, loans lent are assets. However, these loan-assets are associated with varying levels of risk, due to varying expectations regarding the likelihood of their repayment. Moreover, once credit is extended money is locked up until the loans have matured and been repaid. Therefore, to both offload the risks associated with lending (especially risky loans) and to free up capital for further lending activities, banks create structured products like Asset Backed Securities (ABS) and Collateralised Debt Obligations (CDOs). Most mortgages, thus, do not remain with the first issuer, and are instead structured into complex financial instruments and sold to investors across the globe. Consequently, the ultimate holders of the mortgages do not have the opportunity to assess the creditworthiness of individual debtors (mortgage holders), and thus rely on the ratings of the MBS and CDOs by the CRAs (Bahena, 2010: 3).

A mortgage is a loan that is secured by an underlying property. MBS are derivative financial instruments, and a kind of an ABS: their value is derived from the mortgages on which they are based. That is, their cash flows depend on the cash flows of an underlying pool of mortgages. Most MBS are backed by a pool of mortgages with similar coupon rates, maturity periods and other contractual features. These securities are not risk free – they carry prepayment risks and the risk of default (Torous, 1995: 341-342).

CDOs are multiple-class financial instruments based on debt instruments, including mortgages or mortgage pass-through securities³. CDOs redirect the cash flows of the underlying pool of mortgages into bond-like classes or *tranches*. This redistribution of the cash flows of different classes of mortgages into various tranches also redistributes the risks associated with each class of mortgages over multiple tranches. Therefore, investors in CDOs do not take on the risks associated with a particular class of mortgage; instead these risks are reallocated and shared amongst the investors in all tranches of CDOs (Torous, 1995: 348). The next section will lay down the theoretical framework forming the basis of this research; and the following sections will elaborate how the abovementioned relationships affect the functioning of the various actors in the US financial markets.

2. The Extended Principal-Agent Model and the Revolving Doors Theory

2.1 From the Agency Theory to the Extended Principal-Agent Model

In the face of its rather recent development, Agency Theory has been extensively applied in the field of Business, especially in Corporate Governance, Economics, and International Relations (Candemir, 2005: 40). Following Jensen and Smith's (1983) systematisation, this theoretical approach includes both, a positive Agency theory and the principal agency literature (p.2) (Jensen and Meckling, 1976 cited in Candemir, 2005; Lambert, 2001: 1-3; Shah, 2014: 1).

The Agency theory analyses cooperative and conflicting relations, the decision-making process, and the delegation of work by one party of a contract – the Principal – to another – the Agent. This theory considers the linkages between asymmetric information systems, opposing incentives, coordination issues, and behaviour to build its argument. Both the Principal and the Agent participate in the agency relations (the contract, or the contracting process) because it fosters the converging of the interests of both parties (Temel-Candemir, 2005: 23-25; Shah, 2014: 1). In this relationship, the actors are autonomous in economic and legal aspects. The Principal supplies the resources, bears the risks, and creates incentives. The Agent is expected to make decisions on the Principal's behalf, and is responsible for their

³Mortgage pass-through securities: An investor in such an instrument would own the interest in an underlying pool of mortgages. The principal and interest components of the mortgage cash flows are passed on to the investor, with the intermediary retaining a part as commission for services rendered (Torous, 1995: 346).

repercussions (Jensen and Meckling, 1976 cited in Temel-Candemir, 2005; Kumar, 2000, 13-15). Delegated power is revocable, but not transferred power (Hodson, 2015: 575).

The basis of this theory lies in what Ferguson and Ferguson (1988) classify as the Maximisation Rationality, common in Neoclassical Economics (p. 3). That is, all individuals are rational and, thus, their actions are motivated by their own interests. Though bound by moral and legal constraints, Agents are susceptible to diverging incentives, which motivate them to deceive the Principal and carry out activities which meet their very best interest: this is the Agency Dilemma or the Principal Agent (P-A) Problem (Hartwall and Petterson, 2005: 15). In such a situation the Principal would have to bear additional costs to monitor the Agent's performance, as their incentives would now be divergent – the Moral Hazard (Poblete and Spulber, 2011: 2).

The principal agency literature goes beyond merely contractual analysis carried out by the Agency theory, and its efforts to predict a course of action. To build the P-A Model, the principal agency literature concentrates on the analysis of structure and the effects of conflicting preferences, and the general uncertainty created by asymmetric information. According to Temel-Candemir (2005), Agents' behaviour should be analysed within their socio-environmental context. Though individuals seek to make rational decisions, they are bound by their contexts, institutional affiliation, social interactions and the level of information which they retain (p.42).

Extended versions of the original model have been developed to provide an analytical framework more in consonance with the empirical evidence. For instance, to include the context of agent behaviour and the socio-environment in which the agent performs, Temel-Candemir (2005) propounded an extended relativist and contextual perspective based on the socio-environmental rationalist agent (SERA) – contrasting the self-interested rationalist (SIR) agent (p.1). Jefferies et al.'s 2002 study was another attempt to both critique the excessive focus on the maximising agent and extend the model (Jefferies et al., 2002: 1-2). In the field of finance, Hartwall and Petterson (2005) also suggested an alternative model to capture the complexity and interdependence of the relationships on Wall Street, by looking at the corporate governance system. Multiple actors might play simultaneously the role of principal and agent, in accordance to the party they are relating to. Nonetheless, they do not have equally proportionate roles. Originally, the principal and agent are asymmetric constructions (p.14-18) (Temel-Candemir, 2005: 24; Kumar, 2000: 5). In this sense, the aim of an "extended" version of the original model is to draw attention to the different (and

simultaneous) P-A relations by investigating how they interact, and further, how they impact the functioning of a given system.

According to Shah (2014), on Wall Street, the complexity of the banking industry generates a fertile ground for conflicting incentives (p.4). In this tangle, the CRAs emerge as financial intermediaries to reduce the agency cost between the investors and the issuers. Therefore, the CRAs are believed to enhance the efficiency of markets by providing investors with information at a lower cost (Hartwall and Petterson, 2005: 16-17). This extended version of the original Principal-Agent Model, combining both insights of Hartwall and Petterson (2005) and Temel-Candemir (2005), constitutes the analytical framework of the current analysis.

There have been studies which examine different aspects of the contracts between Principal and Agent (Temel-Candemir, 2005: 43). The focus of this paper is, however, not the various contexts within which the Principal-Agent relationship is established. It is rather about examining the effect of multiple principals on the behaviour of the Agent.

2.2 The Revolving Doors Theory and Wall Street

The Revolving Doors theory constitutes a complementary tool for the present investigation, and will be employed to decipher the origin of the conflicting interests emerging in the multiple relationships existing on Wall Street. It examines the relationships between 1) the CRAs and the SEC, and 2) the CRAS and the issuers in the immediate period before the 2007 financial crisis. The term "revolving doors" designates the phenomenon through which individuals move back and forth between positions in governmental bureaucracy and the private sector, playing alternatively the role of regulator, public servants, and the regulated, as businessperson. Regulators would be keen to flexibilise or bend existing rules to the benefit of their future employers, or even formulate public policies in the favour of those they are supposed to regulate – the so-called Capture Narrative. For regulators shifting from the private sector to the government, their business-like performance would be justified by their background built in the industry – where they were "socialised". Zheng (2015) claims that the empirical evidence which supports the effects of the revolving doors phenomenon is relatively limited (p. 1272-1273), in many situations, due to the restricted access to data. However, as this paper will later present, the existing (and available) evidence in specific cases – such as Wall Street – might corroborate the extent to which the revolving doors might create conflicting interests.

The adverse effects of revolving doors are highly informed by the capture theories and the traditional Public Choice theory, in which the regulatory process is ruled by interested groups (Zheng, 2015: 1272). Similarly, capture theories do not disregard other forms of capture of regulators in their recent works, such as the "social capture" (constraints coming from social networks) or the "cultural capture" (deep shared assessments of the world) (Kwak, 2014: 3-5; Davidoff, S. M., 2010).

In the American government, revolving doors between government and industry proved to be a common and controversial reality of the political arena. In the case of the SEC, revolving doors have been identified at the core of great regulatory failures, such as the British Petroleum oil spill in the Gulf of Mexico in 2010⁴ (Zheng, 2015: 1268).

This phenomenon can also be observed amongst the CRAs. Neoclassical theories suggest that companies might instead hire harsher regulators who prove their professional competence, as the example of law companies. Alternatively, the Market Expansion Theory indicates that regulators themselves attempt to expand the market to services they will be supplying when they leave the public office (Boylan, 2005: 379; Che, Y. K., 1995: 380). Hence, the Revolving Doors theory contributes to the debate on biased behaviours and procedures in the US, the core of the world financial system.

3. The way to the 2007-08 Financial Crisis and the Roots of the Agency Dilemma on Wall Street

The causes of the ratings failures of the CRAs are believed to be threefold: conflicting interests, a lack of transparency, and competition between the CRAs (Bahena, 2010: 8). In the first half of the 2000s, the growing speculative bubble in the US housing market motivated lenders to sell risky subprime mortgages in a search for removing them from their balance sheets and liberating capital for new loans⁵. Thibodeau and Goodman (2008) contend that the national average increase in housing prices disguises spatial deviation in appreciation rates (p. 117-120). This cycle was, thus, not uniform throughout the US, and did not inform the AAA ratings given by CRAs its driving force (Bahena, 2010: 8-9).

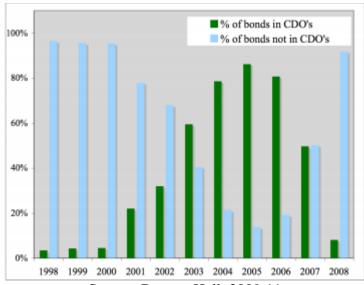
⁴ The largest oil spill disaster in the history of the petroleum industry, with a discharge of more than 4 million barrels according to the US Government (The Sun, 2017).

⁵Also, specific institutional investors are not allowed by the running regulatory system in the US to hold low-rated securities (Bahena, 2010: 9).

Between 2004 and 2006, the credit rating industry contributed to the indiscriminate dissemination of structured finance vehicles which culminated in the financial collapse. As more complex than regular bonds and securities that CRAs have been traditionally dealing with, the MBS and CDOs fall at the heart of the crisis. Through MBS and CDOs, lenders were able to transform low rated-securities, like subprime mortgages, into highly rated ones. Top private banks, such as Countrywide, JP Morgan, GMAC, Lehman Brothers, and the Citigroup, along with government-sponsored traded companies, such as Fannie Mae and Freddie Mac were the biggest issuers of MBS. These MBSs were organised in collateral pools managed by special-purpose vehicles (SPV), special companies only created to this end, with no personnel. In their hands, the mortgages were divided into senior and junior tranches to create at least one category of higher rated assets – higher priority – than the usual rating of MBS pools. Furthermore, CRAs advised issuers on how to structure and hierarchise each *tranche*. Based on the creditworthiness of the loans and the improvements in each of the tranches, they rated senior assets with AAA till the burst of the housing bubble. With tranches, issuers attempted to get the maximum financial return from MBS by enlarging the size of higher rated ones, further diluting risks and making the assets attractive for capital market investors (Bahena, 2010: 9-10; Wolfson and Crawford, 2010: 87).

Additionally, CDOs were largely issued by Merrill Lynch, Citibank and the UBS. Like collateral pools, CDOs mixed risky MBS, especially *mezzanine* tranches, with other assets, being rated with AAA by the CRAs though their perilous structure. As gatekeepers, the CRAs were important actors in building investor confidence and *feeding the snowball*. The general belief that mortgages were backed by the housing market, whose value usually presents an upward trend, prevented the issuers from taking precautions (Bahena, 2010: 12). The graph below illustrates the increasing concentration of subprime bonds in CDOs between 2003 and 2007:

Graph: Repacking of Subprime Bonds into CDOs



Source: Barnett-Hall, 2009:11

Even in the face of the declining creditworthiness of those structured finance vehicles, the CRAs hesitated to carry out downgrades due to their reluctance to foresee a default of subprime mortgages. Lehman Brothers, an example of crash, held an A rating till a month before its collapse. In fact, this market represented profitable activity for the CRAS. As the housing market deteriorated, the general insecurity moved investors away from the MBS and CDOs, which worsened the crisis. In the fall of 2007, the CRAs suddenly downgraded around US\$ 2 trillion of MBS and CDOs from an initial AAA rating to speculative – the *junk* level – reinforcing the generalised panic in the US and abroad (Bahena, 2010: 10-12; Hartwall and Petterson, 2005: 3-4; Sinclar, 2005: 9). The extent of such instability proves that financial globalisation expanded the work of the CRAs over time and made international markets more sensitive to decisions taken elsewhere. In the short run, banks, insurance firms, investors and hedge funds were the most affected by this measure (Bahena, 2010: 15).

The stark consequences of the 2007 meltdown reinforced the CRAs' position as powerful actors in the financialisation process over the decade, balancing forces on Wall Street. Under their auspices, the accumulation of *conflicting interests* and the *conflicts of interests* in the multiple principal-agent relationships on Wall Street allowed the rating miscalls, provoking the crisis, and further harming its later management.

4. The Multiple Conflicting Relationships on Wall Street

4.1 CRAs and the SEC

The efforts of the Federal Reserve and the US Treasury to secure a prominent place for financial capital have been joined by SEC's regulatory work. Ekins and Calabria (2012) argue that the government did not intend to directly regulate the CRAs, rather using the rating system created by them as a tool to oversee the financial markets. Therefore, the government propounded rules which specifically identified the CRAs, creating a regulatory apparatus conditioned to them (p.7), which aspires to: 1) reduce the potential for conflicting interests; 2) provide a legal frame for the work of the intermediaries; 3) delegate and revoke the authority given to them; and 4) restrict disproportionate profit hoarding (Harwall and Pettersson, 2005: 22-23).

In the relationship between the SEC and the CRAs, the former is regarded to be the Principal, and the CRAs act as Agents to enable the Principal's desire of maximising economic efficiency and ensuring investor protection. However, as private regulators, the CRAs rather seek to primarily guarantee their own survival in the market, keep up their leadership, and expand profits. The ends for which this quasi-governmental mechanism was created is, therefore, plagued by divergent interests, since the CRAs and the SEC are structurally different, and operate under differing incentives. This experience creates the need to "regulate the regulators" to reduce the space for conflicting interests between the two (Harwall and Pettersson, 2005: 17).

The rules imposed by the SEC structured not only the credit rating industry, but also shaped its relations with the CRAs. Conflicting interests are, thus, developed within the framework of the following three main SEC's rules: 1) the right of freedom of speech for the CRAs, 2) the exemption of the Sector 11 liability and the regulation of Fair Disclosure (2000), and 3) the NRSRO designation. The Supreme Court, in its interpretation of the First Amendment, recognises CRAs' right of free speech at an equal level with actors such as the media, as opinions and information providers. Unlike the CRAs, usual brokers can be held accountable for their actions under the Sector 11 liability of the Securities Act of 1933 as the content they produce is rather considered as recommendations. The SEC ultimately decides whether the information falls on the classification of opinion or recommendation. Such assessment contrasts with both the structure of the CRAs – which does not resemble a media company – and the very nature of their work, which ranges from credit assessments to consultancy (Harwall and Pettersson, 2005: 37; Securities Act; 1933).

Furthermore, CRAs are also exempted from the Regulation of Fair Disclosure of 2000, which establishes the immediate disclosure of information for entities that have access to private information. In this context, the SEC maintains that CRAs do not use private information for new investments, but they return it to the market through their ratings, enhancing efficiency. This perception, on the one hand, is thought to foster CRAs' credibility and offer conditions for them to better perform their tasks; on the other hand, it might lead to transparency problems. The same way, the aforementioned NRSRO recognition is responsible for creating an oligopoly with tight entry requirements, securing companies from market competition. From a principal-agent perspective, the SEC has delegated power and influence to a limited number of Agents, shrinking investor choice. Their power over the market and loose oversight provided them with enough leverage to move away from the Principal's objective (Harwall and Pettersson, 2005: 38-40; Regulation of Fair Disclosure, 2000). This way, the US Government is believed to have fed the Agency Dilemma on Wall Street through its institutional framework, serving as a major player in the crisis.

Furthermore, the Project on Governmental Oversight's (POGO) report of 2011 sheds light on five years of analysis of the revolving doors in the SEC. It does so by looking at statements of former employees who came before the SEC within two years after leaving the Commission on behalf of its clients. Between 2006 and 2011, more than two hundred former SEC officials shifted to positions in top companies – ranging from consulting, to finance and legal offices (p. 4-9; Zheng, 2015: 1273). In accordance with the SEC's statute, employees are required to follow government-wide ethics laws, demanding them to maintain "unusually high standards of honesty, integrity, impartially and conduct" (SEC Post-Employment Regulation, 2011: 735). Conflicting interests between the SEC and CRAs reflect not only their exchange of positions, but also between the SEC and top companies covered by CRA's assessments. In a search for securing post-governmental positions in either of them, SEC officials might enable loose oversight – already in place through the Commission's institutional framework – favouring future or former employers' interests to the detriment of the taxpayers'. In fact, SEC's by-law restricts the type of activity that former employees can perform once they are hired by companies overseen by the Commission. For instance, they cannot represent the company before the SEC in the matter they were dealing with while in holding public office. Nonetheless, there is no law that forbids a former SEC official from moving to a position in a regulated company promptly after leaving the Commission (POGO, 2011: p. 5-8).

Their possible *a priori* lax supervision and wrongdoing are, thus, rather difficult to prove. At a hearing in 2009, SEC's Chairman Mary Schapiro argued that the Commission must work to

reduce conflicting interests raised by former employees "walking out the door and going to a firm and leaving everybody to wonder whether they showed some favour to that firm during their time at the SEC" (Hearing before the Senate Committee on Banking, Housing, and Urban Affairs, 2009: p. 15). Cornaggia, Cornaggia and Xia (2016) highlight the existence of inflated and less responsive ratings to credit risk, given by former CRA analysts to prospective employers during their transition period (p. 402). POGO's report of 2011 indicated that Merrill Lynch, one of the biggest CDOs issuers, turned out to be the new employer of twenty-eight former SEC Employers between 2006 and 2010, approximately 9.4 per cent of the turnover from the SEC. Another example concerns the case of SEC's Enforcement Director Linda Thomsen, accused of having granted privileged information to JP Morgan's chairman and former SEC employee during the investigations on the Bear Stearns in 2008 – at that time being acquired by JP Morgen (POGO 2011, 13-16).

Besides, Gadinis (2009), in his report, indicates several biases on SEC's enforcement initiatives against banks and brokers in 1998, 2005, 2006 and 2007 – the immediate period before the crisis. Over 40 per cent of the SEC's actions ended up in charges against firms themselves, not touching their executives or employees; additionally, they seemed to target small firms more than large ones (p. 6). Based on his results, he contends that post-government positions might represent "a quid pro quo in return for favourable regulatory treatment" (p.36).

4.2 CRAs and the Issuers

The issuers of debt instruments, for the reasons enumerated below, need to obtain ratings for their instruments. They entrust the CRAs with this task of rating their instruments. This delegation embodies the Agency Theory, with the issuers as the Principals and the CRAs as the Agents. This relationship, however, is fraught with multiple conflicts of interests. CRAs use a committee process to assess issuers. There are company visits by the analysts employed at the CRAs, thereafter the rating committees meet to discuss the recommendations of the analysts, then there is a voting carried out and a rating is finalised. The issuer is notified of the decision of the committee and is allowed to bring forth additional data in response to the rating, before it is published. CRAs issue ratings of two kinds: solicited ratings and unsolicited ratings. If the conflicts of interest that are discussed in this section do indeed influence the ratings given by CRAs, unsolicited ratings should be systemically lower than solicited ratings, all other controlling factors being constant. Poon (2003) found that, in an

examination of the credit ratings of 256 issuers by S&P in fifteen countries during 1998-2000, unsolicited ratings were indeed lower than solicited ones (cited in Frost, 2007: 481). However, because of certain methodological issues, these findings should be accepted with caution (Frost, 2007: 481). Since the objective of this paper is to examine the principal agent relationship between the issuers and the CRAs respectively, the focus will be on solicited ratings, that is, ratings that are solicited and commissioned by the issuers of debt instruments.

Until the early 1970s CRAs were paid by subscriptions, but this revenue model was discarded because they had to employ increasingly large and expensive teams to issue timely and credible ratings. These teams could not be paid adequately through subscription revenues alone. Therefore, the main agencies, including the Big Three, started to charge issuers for rating their instruments, and issuers were in favour of this model because they needed these ratings (Frost, 2007: 478-379). This arrangement, however, creates the potential for conflicts of interests for the CRAs: compromise their reputation to retain paying clients by issuing biased ratings, or retain their reputation but potentially lose clients by issuing accurate ratings. As of 2005, 95 per cent of CRA revenues could be traced to fees paid by the issuers (Hartwall and Pettersson, 2005: 28), and 98 per cent of the ratings by CRAs were solicited ratings (Bahena, 2010: 18). 40 per cent of Moody's revenues in 2005 was from rating securitised debt (MBS and CDOs) (Crotty, 2009: 566). As has been mentioned earlier, ratings are only published with the consent of the issuers, and the CRAs are only paid for published ratings. Issuers are also not precluded from engaging in ratings shopping – soliciting ratings from multiple and competing CRAs (Bahena, 2010: 18) - which would have been another factor influencing the ratings given by CRAs.

Additionally, the CRAs also provide ancillary advisory and consultancy services, taking advantage of their reputations and their expertise in risk analysis and management. For instance, all the Big Three offer customised credit risk management services and quantitative tools such as probability of default and portfolio modelling to their clients. Moody's calls this service a "Ratings Assessment Service", and S&P offers "Risk Solutions" to help banks adhere to Basel II requirements⁶ (Hartwall and Pettersson, 2005: 29). The rating of issuers for

⁶ The Basel II (1999) constituted a reformulation of capital regulation guidelines, which introduced the "Internal Ratings-Based Approach" (IRB) – allowing banks with mature risk management systems to calculate capital requirements on the basis of internal risk assessment criteria (Allen & Overy, 2008: 1-3). Basel II also required changes in the measurement of operational risks and announced the three Pillars: minimum capital requirements, supervisory review and market discipline (Elizalde, 2007: 1-4).

their debt instruments, while at the same time selling data, analytics and models to improve risk management creates another potential conflict of interest. As has been noted, a CRA would be "highly unlikely to downgrade a bank's risk capabilities if the bank has bought one of its risk systems" (Frost, 2007: 480). These services are offered through departments separate from the rating departments, and documenting inappropriate behaviour and fungibility across departments would be difficult because it would require access to internal communications. The difficulty in substantiating the inappropriateness of such arrangements, however, does not preclude the presence of potential conflicts of interest. To mention but one example, at Moody's at least there is a mixture of personnel between the rating and ancillary services departments (Hartwall and Pettersson, 2005: 46).

A third potential for conflicts of interest arises from the fact that the CRAs themselves advised the issuers of MBS on how to structure and prioritise the aforementioned tranches to make the maximum profit. The CRAs were also involved in the structuring of the CDOs, which were even further removed from the underlying mortgages, and even riskier than the MBOs, to obtain the highest possible rating for the largest percentage possible (Bahena, 2010: 12).

Evidence of the CRAs' lack of due diligence in rating CDOs and MBS can be found in the fact that thousands of these subprime mortgage backed securities were rated AAA. An investigation by the Committee on Oversight and Government Reform uncovered evidence that CRA executives knew of the weakness of the subprime mortgage market before its collapse, but this knowledge was not reflected in their ratings. Examples of this complicity can be found in email conversations between CRA employees:

An email from a Moody's employee said that "some MBS ratings made it appear that Moody's was either 'incompetent at credit analysis' or that raters 'sold [their] soul to the devil for revenue." An email from an S&P employee said, "Let's hope we are all wealthy and retired by the time this house of cards falters" (Bahena, 2010: 9-10).

These conflicts of interests surrounding the functioning of CRAs are further compounded by the fact that CRAs are legally insulated from the repercussions of incorrect ratings (Hartwall and Pettersson, 2005: 26).

Besides the multiple conflicts of interests discussed above, there is also the operation of revolving doors between CRAs and the issuers. This is the possibility of CRA employees taking up employment with the very issuers whose instruments they rate: the "employment conflict" (Hartwall and Pettersson, 2005: 47). For instance, between 2000 and 2010, ex-Moody's analysts were employed by the very banks rated by the CRA. Lehman Brothers

hired ten analysts, Bear Sterns, four, and Credit Suisse, six. All three banks were ranked in the Bloomberg 20 in the year before an analyst joined them after leaving Moody's (Kempf, 2015: 48-50). As mentioned earlier, there are no regulations that prevent such changes in employment⁷.

Therefore, from the foregoing analysis of the relationship between CRAs and the issuers of debt, it may be concluded that there are many potentials for conflicts of interests for CRAs. The following section will juxtapose the two major relationships that the CRAs juggled, and attempt to further analyse how these conflicting relationships contributed to the outbreak and intensification of the 2007-2008 financial crisis.

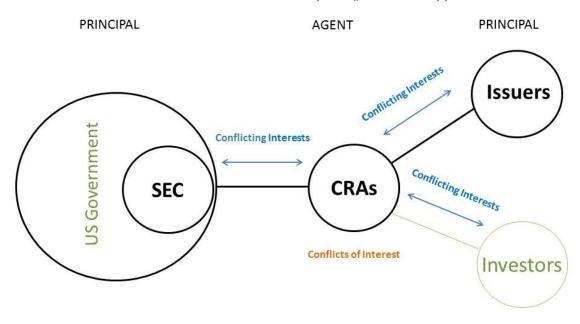
4.3 The Peak of the Agency Dilemma on Wall Street

The preceding analysis has brought to the fore the existence of multiple relationships in the US financial markets, as well as the *conflicting*, and *conflicts of*, *interests* that accompany these relationships. The following figure encapsulates this reality of Wall Street:

⁷ However, CRAs are obliged to inform the SEC when any of their employees who were part of the rating process leave to take up positions with their issuer-clients, under a 2010 Amendment to the Securities Exchange Act of 1934.

Chart. Multiple Principal - Agent Relations on Wall Street

The Extended Principal-Agent Model applied



Note: This chart does not reflect all the possible and extant principal-agent relationships on Wall Street. For instance, investors would be the principal in relation to the issuers.

Source: The authors

As the above figure demonstrates, the CRAs were the Agents both in relation with the SEC and the issuers, separately. These multiple relationships engendered conflicting interests between the actors, motivated by differing incentives. The CRAs were also vulnerable to conflicts of interests, as they had to choose between credible ratings to maintain their reputation, and ratings favourable to their clients to maximise their revenues. In the face of these fraught times, the spring of 2007 saw the housing market in the US show the first signs of a downward turn. These circumstances made the multiplicity of the conflicting relationships in the financial markets more evident. As a consequence of the housing bubble becoming apparent, and a plummeting of the values of subprime related debt, investor confidence in MBS and CDOs became weak, and there was a run on most issuers. On the cusp of a meltdown in the financial system and the housing market, the abrupt downgrades by the CRAs reflects their inability to continue to juggle the concurrent relationships long accepted on Wall Street (Bahena, 2010: 9-10; Wolfson and Crawford, 2010: 87). The optimistic ratings of the MBS and CDOs would only be sustainable as long as the veneer of the relationships mediated by the CRAs continued in place. The MBS and CDOs constituted the heart of the financialisation and securitisation of the 2000s, which is why the sudden downgrades in their ratings had such far-reaching consequences in the values of the investments held by investors worldwide, exacerbating, or even triggering, the crisis of 2007-08. Being the Agent in simultaneous relationships is, therefore, considered to be the main factor responsible for the CRAs' ratings failures.

The aftermath of the crisis saw many attempts at re-regulation to prevent the recurrence of the pre-crisis circumstances. For instance, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 was intended to increase consumer and investor protection by, amongst other things, increasing the regulation and the transparency of the derivatives and financial markets. However, the attempts to intensify and streamline the regulation of financial markets in the aftermath of the crisis have remained shallow. They did not only serve to re-legitimize financial speculation, but were also an attempt to once again recalibrate the aforementioned relationships, to ensure the smooth functioning of the financial markets.

5. Conclusion

Wall Street is sustained by a variety of relationships, and the CRAs are at the centre of most of them. This is one of the reasons that their role has been pivotal in both the building up of the bubble of the market of subprime related debt instruments, as well as the abrupt and disastrous bursting of it. These agencies were assigned a quasi-regulatory role in US financial markets by the SEC. Besides this, they were also involved in the structuring of the complex financial instruments (the MBS and CDOs) that would eventually lead to the financial crisis. To round off their complicity, the CRAs rated the very instruments that they helped structure. The disproportionate effects of the fall in value of the MBS and CDOs can be attributed to the fact that the volume of trade in these instruments increased dramatically in the 2000s, because of their favourable ratings by the CRAs.

This paper has attempted to identify and analyse the multiple relationships centring about the CRAs on Wall Street that came to a head in the middle of 2007, triggering a sudden downgrade of CDOs and MBS, and therefore, the crisis. Although the "ratings failure" of the CRAs and the conflicts of interests inherent in the structuring of the US financial markets have been extensively studied, this research has attempted to go a step further to address the dynamics between these multiple relationships. The Extended Principal Agency Model helps decipher the multiple roles that the CRAs had to juggle in the pre-crisis period. Additionally, the Revolving Doors Theory traces the conflicting interests as well as the conflicts of interests that surrounded these roles, because of the exchange of personnel between the

various entities in the financial markets. It may, therefore, be concluded that the "ratings failure" of the CRAs has its origins in these conflicting, and conflicts of, interests that they had to manoeuvre, abetted by the existing permissive regulatory framework.

In the aftermath of the crisis, there have been endeavours to re-regulate the governance of US financial markets as well as to improve the regulatory framework of derivatives and other complex financial instruments. However, as has been established above, these changes have merely scratched the surface of the problems that beset the US financial markets, and have only served to recalibrate the existing relationships in order to ensure that the markets rebound to function smoothly.

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