

EC247 – Financial Instruments and Capital Markets

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To what extent were the Credit Rating Agencies (CRAs) responsible for misperceptions of risks associated with structured securities? Are there organisational reasons why CRAs might tend to misrepresent the riskiness of these financial instruments? What might be done to overcome these problems? *

*Word Count: 2994 words including footnotes

Introduction

There are two global forces in the world, the United States of America (USA) and Credit Rating Agencies (CRAs). One such universal influence is Moody's Rating Agency that can abolish you by downgrading your debt instruments (Friedman, 1995). Consequently, the impact of CRAs can be explained by the debacle which occurred during the Global Financial Crisis (GFC) that began in the USA– which will be the focus of this thesis. Structured securities were regarded as the “instrument of the future” as a means of expanding funds and producing more liquid trades than its underlying assets. The use of Securitisation has been examined in various studies to explain the risks that were rated versus the actual risk investors faced (Kothari, 2006). This thesis will discuss the role of CRAs. The extent to which CRAs specifically, the Big Three, Moody's, Standard & Poor's (S&P) and Fitch were responsible for the misperceptions of risk of securitized products. Thereafter, the main organisational reasons CRAs misrepresented the risk of financial instruments. Furthermore, this essay will discuss the potential solutions to restrict CRAs from misrepresenting the risk of financial instruments. The conclusion can be found in the last section of the essay.

The Role of Credit Rating Agencies

CRAs play a pivotal role in the financial markets. Traditionally, CRAs identified the credit risk of corporate and government borrowers– the ability of a firm to repay its debt – which Merton (1974) argues that the value of the debt is derived by the value of the underlying assets. Any miscalculation or misrepresentation of risk CRAs can cause immense effects on the financial industry. Between 2000 and 2007, the ratings¹ of Securitized products grew to astronomical levels. In Figure 1, the number of new tranches² rated by S&P grew over 35% per year which accounted for almost half of the agencies revenues. CRAs shape the securities in terms of how they are packaged, the rating given and the influence they have on the markets (Rom, 2009). Financial Regulators outsourced their own judgments to the CRAs. Their role was to help reveal the mist of asymmetric information by offering judgments (White, 2010a).

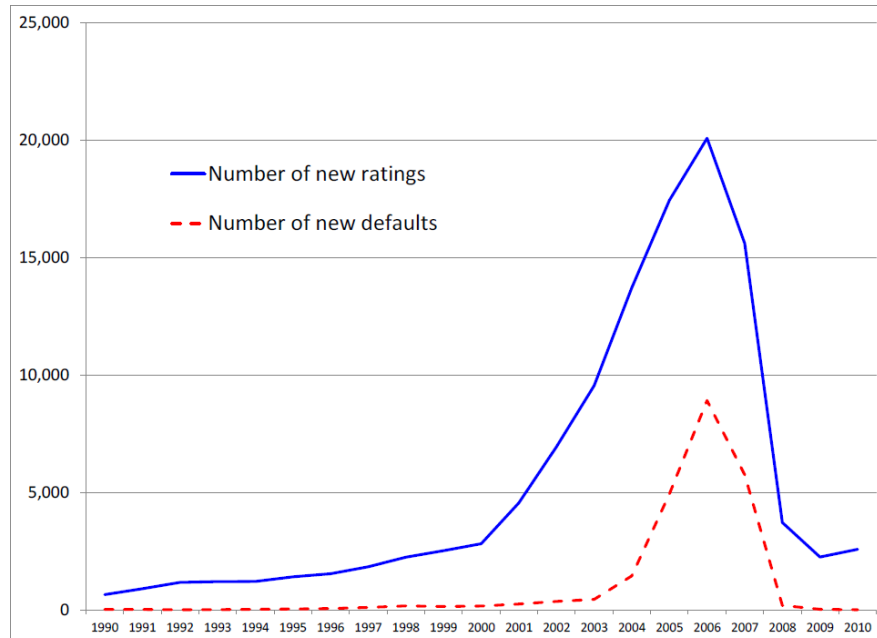
¹ A rating commonly represented a letter grade. S&Ps created a well-known scale ranging from AAA, A, BBB, BB etc that suggested the CRA judgement on the credit risk of a bond (White, 2010b)

² A tranche is one of many portions of a related structured security. Each portion is assigned a different risk and reward class. The classes are split into either Junior, Mezzanine and Senior. The more senior a tranche the less likely it should be affected by defaults and were generally rated AAA by CRAs.

Regulatory Role

CRA's were a regulatory oversight towards the financial markets to ensure transparency, accountability and safer investments, thus reducing the risk profile of investors' portfolios.

Figure 1 – Number of New Tranches Rated by S&P 1990 to 2010



Source: Hull and White (2003)

This was exemplified by the increased bank regulation which required higher capital requirements for assets in the banking book than for equivalent risk assets in the trading book. Certain investors were forced to invest only in Investment Grade³ to drive safer investments. White (2010b) claims that Banks were restricted in using information about bonds from any other useful source. This shows first-hand the market influence, authority and responsibility CRA's have on the bond market and the perceptions of risk. Further, Nationally Recognized Statistical Rating Organizations (NRSROs) were created to permit financial firms to use their ratings for investment decision making. Fitch, Moody's and S&P were the only NRSROs to act as regulatory supervisors on the financial institutions bonds. They became the judges of credit risk on bonds and securitized instruments. However, Schudde (2009) believes that CRA's behaved not as protectors, but rather, as enablers for those who were issuing securities. Due to the clear impact, the NRSROs have on the ratings a bond, it is vital they remain ethical and clear in their role to the market otherwise distortions and false risk assessments may result.

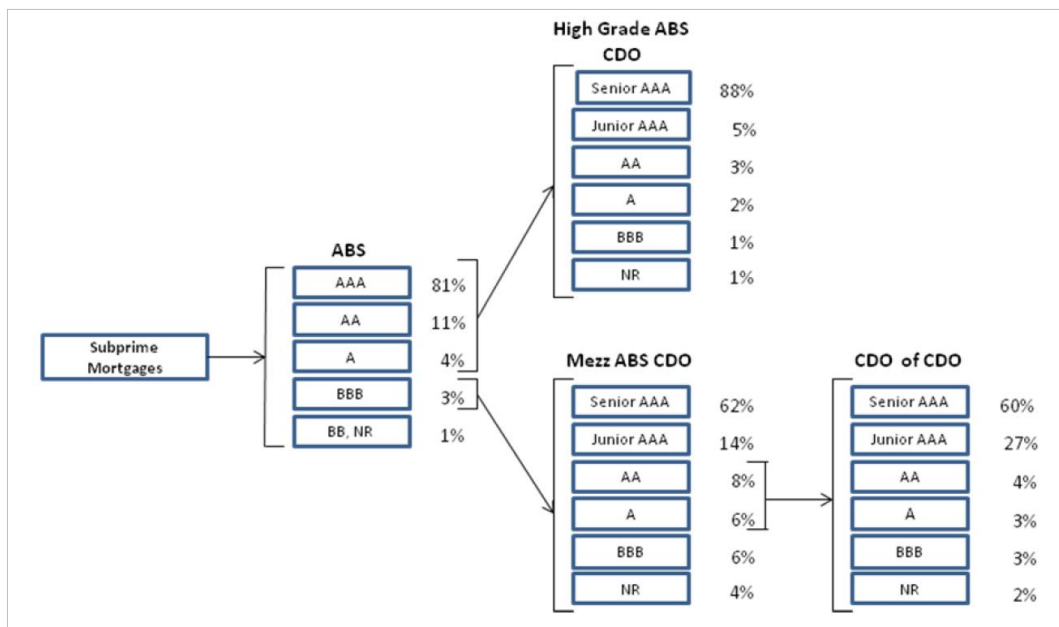
³ This is a rating given by CRA's which indicates to investors that a bond has a comparatively low level of default or risk rate. The benchmark for these graded bonds were BBB- or Baa depending on the rating agency.

The GFC created extremely negative externalities and the decisive reasons were the management and actions of the CRA during the time.

The CRAs were Responsible for Misperceptions of Risk with Structured Securities

Structured Securities also known as ‘structured finance’ (as seen in Figure 2) played a key role during the time of the GFC and how CRAs rated the risk of these instruments. Tranches and asset backed securities (ABS) were interpreted as future proof for investors. The ability of pooling and repackaging illiquid financial assets (regularly mortgage loans) into liquid securities generated financial institutions greater yields than on government or corporate bonds, but faced higher risk in return.

Figure 2 – An Example of Subprime Securitization



Source: Gorton (2009)

These Mortgage Backed Securities (MBS) were often made up of subprime⁴ and alt-A⁵ mortgages. The packages are then transferred to a separate entity called a Structured Investment Vehicle (SIV) or Special Purpose Vehicle (SPV). This became known as the originate-and-distribute model which was used by banks to sell multiple subprime mortgage backed securities (SPMBS) to other investors using Securitization. 25% of subprime mortgages in the 1990s were packaged into SIVs and sold to investors and by the mid 2000s, this figure grew to over 70% (Arnold, 2012). This shows that banks were using Securitization to benefit from the

⁴ Loans to individuals who have problems repaying their debts.

⁵ Individuals who are less risky than subprime loans.

increased generation of fees and profits from these transactions. White (2010b) claimed that these structured securities were far more complex than traditional “plain vanilla” corporate bonds and any rating errors were much less likely to be seen by arbitrageurs. This led to pressure for NRSROs to not only rate these securities quickly and accurately but rate them in a preferable way to avoid losing business.

AAA Phenomena

One of the problems NRSROs faced in rating structured securities, most notably Collateralised Debt Obligations (CDOs), was the way the tranches were often rated at AAA. CDOs are divided into different tranches in order of likelihood to default, with the senior tranche rated AAA indicating the most safe and stable, while the lower tranches representing the most risk—that were unrated by the NRSROs, who are meant to oversee the financial system. In Figure 2, the senior AAA tranches were protected by the level of lower rated tranches that would absorb any losses or by entitlement to early payments. The cut-offs between the tranches were created to ensure AAA rating by CRAs. This proves how financial institutions who were restricted by investing only in investment grade securities could now buy these highly rated securities through the approved rating of CRAs. Scalet and Kelly (2012) hold the view that CRAs had given AAA ratings to too many CDOs which subsequently defaulted. This emphasises risk for the structured securities were riskier than initially rated and implied by the NRSROs. Most notably, S&P, Fitch and Moody’s were criticized heavily for their involvement in misrepresenting the risks associated with these structured securities. One example of CRA inadequacy came when Moody’s advised AIG and Goldman Sachs⁶ on the packaging of securitized instruments. In 2008, Moody’s AAA rated structured securities defaulted at 10 times the rate of municipal bonds rated only A (Strier, 2008). This displays the failings of CRAs. This illustrated the lack of protection towards investors as Schmutte mentioned, they failed to be protectors to the market, but rather produced inaccurate ratings of these securities.

Methodologies

CRAs misrepresent the risk of structured securities as the methodologies in creating securitized securities. CRAs are paid to rate and consult in the creation of securities. As proposed by Mason and Rosner (2007), CRAs consulted with issuers specifically on what kinds of mortgages and debt would earn favourable ratings for the level of tranches of these securities. Further, it can

⁶ Scalet, S. and Kelly, T. (2012)

explain the inflated ratings given by CRAs for issuers as to ensure they receive their business. In addition, the design of these far more complex securities was rated by CRAs who had essentially no prior experience and understanding of these calculations behind these ratings. It is not surprising that the methods used by CRAs to calculate the risk of these instruments were exaggerated and inaccurate due to the financial pressures due to the levels of profits made by both parties. Foote, Gerardi & Willen (FGW) (2012) accepts that CRAs were to blame during the financial crisis, however, believes how CDOs were constructed out of lower rated BBB tranches were the issue. This is emphasised in Figure 2, with Mezzanine ABS CDO and later reconstructed and repackaged CDO of CDO (CDO Squared). CRAs misrepresented the risk associated with these securities by assuming such instruments were AAA rated despite the fact they were created by BBB rated tranches from the ABS (most notably mortgage backed securities). The senior tranches of these ABS CDO would incur large losses due to the supposed credit protection from the lower tranches defaulting at extreme rates. FGW (2012) explained how CRAs and Investors alike performed no structural modelling of the underlying mortgage assets and instead focused on historical data which stated default risk was low. CRAs blurred the risk of these securitized instruments by repackaging and pooling these instruments together to create additional AAA products to rate, publish, and profit on while skipping the required methods to give accurate risk assessments in the market.

The Organisational Reasons CRAs Misrepresent the Risk of Financial Instruments

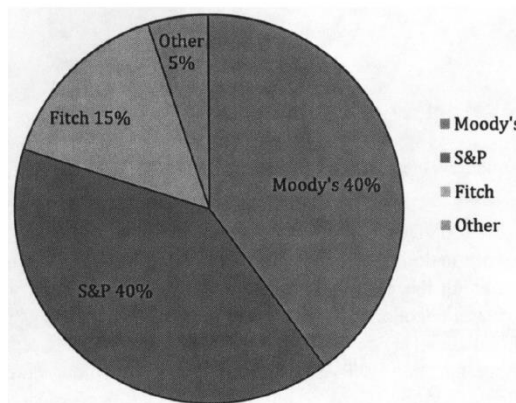
There are many organisational reasons why CRAs misrepresent the risk of financial instruments. Firstly, one reason is based on the Issuer Pays Model, which is the main source of income for CRAs. CRAs are paid by the issuers of bonds which creates a potential for conflict of interest. Due to the small number of mortgage securities packagers, any potential threat by any issuer not receiving the rating they wanted would move its business to a rival CRA. This was more effective in swaying or influencing the ratings of said instruments. Scalet and Kelly (2012) argued that rating agencies may adjust their ratings to satisfy issuers rather than producing accurate ratings. This explains how the issuer pay model of CRAs can influence the ratings and perceived risks to potential investors. If CRAs were to inflate an issuers investment to retain rating business, this would increase the pay-off for CRAs, however, it would cause an adverse effect for naive investors who look at ratings purely of its AAA rating and face value. This a huge problem in the ratings of financial instruments as CRAs alter and misrepresent the supposed risk of these structured products. CRAs offer related consulting services to issuers in creating securitized packages, for example, CDOs. The incentives involved for CRAs to rate

these ABS CDOs were typified under the issuer pay model. CRAs consulting service not only allowed them to aid from revenues in creating these products but due to issuers wanting to gain strong, supposedly low risk, ratings for their bonds, CRAs would continue in helping to create these products. Patrony (2006) displays NRSROs market pre-rating assessments and for an additional fee, an issuer could present theoretical scenarios as to how different actions in the market might affect a bonds rating. Under the CRAs service, it was in their best interest to create viable securitized products for the issuers to reap the rewards per rating and consulting session unless allow issuers to start rating shopping⁷.

Barriers to Entry

The NRSRO was created by the Securities and Exchange Commission (SEC) in 1975, to impose financial institutions accountability to investment decision making. Bolton et al (2012) explains how there were only three NRSROs (Moody’s, S&P and Fitch) who were responsible for rating securitized subprime mortgages. The prelude to the subprime lending and boom, the

Figure 3 – CRA Market Share



Source: Langohr and Langohr (2008)

three NRSROs were under intense pressure from securitizers to rate these instruments. Initially, there were seven firms that had the designation of NRSROs but eventually mergers brought them back to the three as mentioned (Bolton et al, 2012). The barrier for new CRAs to rate these securitized products can explain why the CRAs during the GFC were under such pressure to inflate the ratings of these bonds. As the oligopolistic market was so small between the three CRAs, firms could continue to benefit from rating shopping and technically force ratings from the NRSROs. Figure 3 emphasises the large barrier to entry for new CRAs. S&P issued more than 870,000 new and revised ratings while also rating over \$32 trillion in borrowings (Scalet

⁷ When an issuer chooses the rating agency which assigns them the highest rating.

and Kelly, 2012). This indicates the difficulty for new CRAs to rate the securitized products due to the barriers to entry and overall market power and share of the three NRSROs.

Reputation

Due to the low number of NRSROs rating the securitized instruments, the reputations of the NRSROs played a part in the misrepresentation of risk. CRAs have a deep history as explained earlier in producing reliable ratings in the corporate and government bond market. Hull and White (2012) contend that the sole reason investors rely on ratings is because of their reputation and if CRAs reputations hold, their business revenues will continue. This emphasises that NRSROs have an incentive to manipulate the ratings as the cost of false ratings are less than the reputation benefits they hold. If, however, CRAs were miss-selling investors they could suffer losses of retained business. Hull and White (2012) suggest that CRAs may inflate ratings when there are more naive investors in boom time (e.g. housing boom). This could explain how NRSROs misled investors on the perceived risk of structured securities as any expected reputations costs were lower for the top three CRAs. While CRAs can initially rate securities accurately, building their reputation, they can later take advantage of their new-found reputation to later misrepresent and inflate ratings to gain repeat business and revenues.

Potential Solutions to these Problem

One solution to stop CRAs misrepresenting the risk of securitized instruments by creating a service whereby issuers must pay upfront costs before any ratings and analysis. Origination rating generates far greater revenues than simply monitoring a rating (Roesch and Scheule, 2010) Allowing CRAs to rate instruments accurately in reflection to the market and not inflate the ratings to gain business. Through this model, issuers will have no incentive for CRAs to create AAA rated products. This can remove the conflicts of interest discovered between issuers and CRAs. However, this could still cause rating shopping by naive investors. As the CRA generates the exact same figure regardless of its rating, they have incentives to rate truthfully opposed to inflating their figures (BFS, 2012). This would still cause issuers to shop around to gain inflated ratings opposed from accurate, potentially lower ratings.

Regulation

Another method could be to regulate the NRSRO designation. Creating a rule to prohibit analysts to rate securitised debt they have also helped design. This would reduce the obvious conflict of interest which can arise under the Issuer Pays Model. If analysts were not rating

these products, it can increase accurate risk assessments by CRAs. This would provide greater transparent ratings and allow CRAs to repair their reputations after the GFC. White (2010b) recommends that allowing CRAs to reveal their methodologies and past constructions of ratings would aid the future ratings of the instruments. In addition, there is reason to believe that the markets can adjust without the NRSROs. Financial intuitions can insource the findings of securitized products. Removing the responsibility NRSROs have while allowing risk analysts and quantitative managers to find information on bonds would reduce rating shopping and inflated ratings in the market place. However, this could undermine CRA motivations to invest in information and perform the necessary due diligence required in rating these complex securities.

Competition

Increasing competition among the NRSROs could help reduce the market concentration and reduce the misrepresentations of risk by Fitch, S&P and Moody's. White (2010b) advises the reform that increased the number of NRSROs totalling ten. This would reduce the barriers to entry which was evident during the GFC and allow NRSROs to rate instruments more accurately. However, this may exacerbate rating shopping committed by issuers to find the most favourable rating. In addition, the purely adding new NRSROs does not stop issuers preferring to do business with agencies with the best reputation. As stated, investors rely on the reputation of CRAs, therefore, newly designated NRSROs would need to build up its reputation to gain new clients. Bolton et al (2012) suggests that increasing competition only grows rating shopping and exemplifies conflicts of interest. Due to the reputation and history of the top three CRAs, most notably Moody's and S&P who dominate 80% of the market, it could be difficult for new CRAs to not just break into the market but generate any business from these two giants.

Conclusion

In conclusion, CRAs were truly irresponsible for risks associated with securitized products due to their lack of due diligence and understanding of the complex structured securities and the risks associated with them. The misuse of the methodologies and AAA ratings of these products led to misrepresented investments for investors. The Issuer Pays Model causes significant conflicts of interest. The barriers to entry of the industry is stark and in need of reform. As seen, increasing competition could solve this but could also increase the conflicts. All things considered, the increase of regulation and competition of the CRAs may be desirable for the

financial system in reducing any conflicts of interest and ultimately discontinue any future misinformation of risk in the financial markets.

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