Credit rating agencies: A primer for corporate treasurers

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Abstract Although the credit ratings industry originated in the 1860s, it has developed dramatically in the past two decades, driven by processes of disintermediation, globalisation, and increased proportions of debt on corporate balance sheets. This growth has continued in this century with the advent of structured finance products, which accounted for nearly half of the major rating agencies' income in 2007. Alongside these new service lines, sit a plethora of different ratings intended for different purposes. This paper describes the role of the rating agencies and their ratings, along with the structure of the industry and their developing service portfolio. The importance of ratings to corporate treasury is described, along with the implications for treasurers of seeking a rating. Regulatory aspects concerning the industry are addressed. Finally, the salient characteristics of ratings quality are described.

KEYWORDS: credit rating agency, regulation, ratings quality

THE RATING AGENCIES AND THEIR RATINGS

Credit rating agencies (CRAs) provide an independent evaluation of the probability of default on bond issues based on their assessment of an issuer's financial and non-financial characteristics. As such, they provide information to debt-market participants beyond publicly available sources.[1] The borrower's credit quality is then communicated to the market by a scale of rating letters. The rating scale ranks from AAA (very safe) to D (defaulted). An important point in the rating scale is BBB. Any rating of BBB or higher is regarded as investment grade, which indicates a reasonably safe investment; ratings below BBB are regarded as a speculative investment ('junk bonds'). By law, many regulated funds are only allowed to invest in bonds which have an investment grade rating. In addition, pricing for investment grade issues is significantly better than for non-investment grade issues.[2] Thus, receiving and maintaining an investment grade rating is crucial for most issuers. Consequently, CRAs play an important role in the functioning of credit markets for a wide range of stakeholder groups: issuers, investors, regulators and a range of other parties who make use of credit ratings.

The ratings industry is effectively an oligopoly, with two CRAs — Moody's and Standard & Poor's (S&P) — accounting for 80 per cent of the market share, while Fitch Ratings, the third largest CRA, accounts for

15 per cent.[3] In the past decade, CRAs have demonstrated significant growth in income and profitability: Moody's and Fitch have nearly tripled their revenues between 1999 and 2005, while S&P, the largest CRA, has almost doubled its revenues.[4–6] This development is driven by globalisation of credit markets, increases in disintermediation and changes in the capital structure of corporations. On a worldwide basis, issuance of rated public securities has risen at a compound annual rate of 22 per cent over the last five years.[5]

Despite this growth, CRAs have been the subject of fierce criticism from commentators, politicians, regulators and market participants, most recently because of their role in the US subprime mortgage crisis of 2007. Previous concerns included the inability to foresee the 1997 Asian financial crisis or the failure of prominent companies such as Qualcomm, Parmalat and the US energy corporation Enron in the early part of the 21st century.

Paradoxically, issuers of debt securities, investors and government regulators (ie the Securities and Exchange Commission (SEC) in the USA and the Financial Services Authority in the UK) have increased their reliance on the opinions of CRAs for corporate financing, investment decisions and risk management.[7] Van Roy[8] reports that the Basel Committee on Banking Supervision is increasing the role given to CRAs in its revised capital adequacy framework (Basel II) by basing its standardised approach for credit risk measurement on external credit ratings.

THE SERVICE PORTFOLIO OF CRAs

The CRAs' main business is rating various types of debt securities. Ratings include long and short-term issue ratings, issuer ratings and sovereign ratings. Historically the unique selling proposition of CRAs was to distil a mass of information on the borrower to create a simple rating of its credit quality. However, CRAs have moved away from simplicity of a single rating and now rate default probability, loss given default, implied state support, liquidity and insurance claims paying ability.

Alongside corporate bond ratings sit structured finance products. Demand for structured finance ratings has grown rapidly over the past few years. Due to the complexity of structured finance products, ratings have become increasingly important in this area. Structured finance ratings represented 47 per cent of Moody's global ratings income in 2006.[9] However, the subprime crisis has hit the agencies hard: the decline in the issuance of structured finance products has reduced their revenues considerably. In the first quarter of 2008, Moody's reported a decrease of 57 per cent in revenue from global structured finance (69 per cent for US structured finance), which led to an overall decline in operating income of 35 per cent compared with the same period last year.[10]

CRAs offer various ancillary business services ranging from provision of market data, ratings of funds and equities to ratings advisory services and risk management solutions. Although there is some concern that these services could influence the CRAs' independence, as yet they do not form a significant part of the CRAs' revenues. For example, in 2006, Moody's Investors Service (MIS), the ratings subsidiary of Moody's Corporation, derived approximately 86 per cent of its revenue from issuer payments for credit ratings. Nearly all of the remaining 14 per cent of its revenue came from fees paid by institutional investors and issuers for credit research and data products. Less than 0.5 per cent was received from advisory services.[11]

THE IMPORTANCE OF RATINGS

Ratings reduce the information asymmetry between the investor and the issuer as CRAs have access to non-public information. The ratings therefore provide investors with additional information, beyond that which the sophisticated investor can glean from published sources. CRAs also have the resources to cover a wide range of bonds both nationally and internationally. In today's global capital markets, the number of debt issuers and issues usually exceeds by far the resources of most investors. Ever more complex financial products such as asset-backed and derivative securities require in-depth specialist knowledge that most investors do not have. Therefore, ratings provide users with valuable information for their investment decision.[12]

Regulatory requirements have also contributed to the increased importance of ratings. Many regulators, responsible for ensuring the safety and soundness of banks, brokers, insurers and mutual funds rely on the information provided by ratings to fulfil their tasks to determine capital adequacy, or the range of bonds in which regulated funds are allowed to invest. For example, the Basel II Framework for the International Convergence of Capital Measurement and Capital Standards (Basel II) uses ratings to determine credit risk and capital adequacy.[13]

Credit ratings are also beneficial for issuers as access to most public capital markets requires a rating. Unrated securities usually have to be placed privately, meaning that the suitable investor base is much smaller. In addition, most investors adopt investment policies limiting investment in unrated debt securities. Research has shown that 88 per cent of US and 84 per cent of European investors refer to ratings in their investment guidelines. Ratings are most frequently used to establish minimum rating requirements for bond purchases. Most ratings guidelines refer specifically to ratings from S&P and Moody's. [14] Although most investor guidelines only require one rating,[15] the majority of investors like to see two or more ratings,[16] so that most issuers regard being rated by two agencies as a de facto requirement. Moreover, rated securities usually achieve a better pricing than unrated securities. Studies have shown that unrated bonds sell for higher yields than most rated bonds.[17]

Credit ratings are also the most important determinant of spreads. The higher the rating, the better the pricing. Figure 1 shows the average spreads on Eurobonds during the period 1991 to 2001.[18] Note the steep increase in spreads for bonds that fall into the

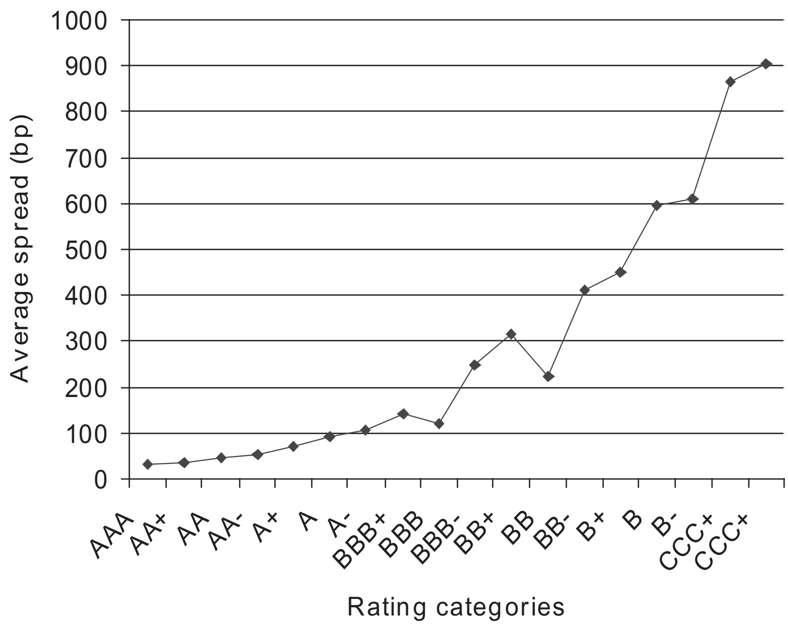

Figure 1: Average Eurobond spreads per ratings category, 1991–2001

Adapted from Gabbi, E. and Sironi, A. (2002) 'Which factors affect corporate bond pricing? Empirical evidence from Eurobonds primary market spreads', University of Bocconi working paper, available at: http://www.uni-bocconi.it/doc_mime_ view.php?doc_id = 16240&doc_seg_id = 1 (accessed 10th May, 2008).

speculative ratings category (below BBB–).

A huge cultural divide exists between investment grade and non-investment grade securities throughout the credit world. This rift is driven by what CRAs say. In particular, it has implications for what markets can be tapped for funding; the enormous pricing divide; and significant variation in covenants and security given.

IMPLICATIONS OF BEING RATED

Commissioning a rating has six principal implications for the issuing organisation:

- costs;
- impact on financial position;
- Basel II framework;
- multiple ratings;
- unsolicited ratings;
- commitment.

First, maintaining a rating requires a substantial commitment of funds and senior management time. Depending on the type and size of the issue, rating fees can be substantial. Table 1 reports the annual fee levels paid by issuers to CRAs.

In addition, commissioning a rating requires the treasurer to provide the CRA's analytic staff with considerable information about the organisation and its future plans and strategies. This process involves a considerable amount of senior management time. If, as increasingly the case, the borrower seeks to engage more than one CRA, this process will have to be repeated as CRAs' independence rules forbid analytic staff contact with other CRAs.

Table 1: Annual fees payable by issuers

Level of fees p.a. (£)	Frequency (%)
< 15,000	4
15,000–30,000	13
30,000–60,000	18
60,000–20,000	27
> 120,000	38
Total	100

Adapted from Duff, A. and Einig, S. (2007) 'Credit Rating Agencies: Meeting the Needs of the Market?', ICAS, Edinburgh, p. 69.

Secondly, issuers should be aware that changes in ratings can have a considerable impact on their financial position. Quite often credit and debt agreements contain specific clauses, so-called rating triggers, which get 'triggered' when the rating falls below a certain threshold, usually investment grade. These rating triggers range from requiring a company to pay more interest or pledge collateral to repay the loan in full. The effect of such ratings triggers can be devastating: under a worst-case scenario, once the company's debt is downgraded by a CRA, the company's loans become due in full; as the troubled company is likely incapable of paying all of these loans in full at once, it is forced into bankruptcy. In addition, research has shown that announcements of rating downgrades do not only have a negative effect on bond prices, but also on stock prices. Conversely, ratings upgrades have no effect on bond or share valuations.[19,20] A recent study investigated the effects of rating changes on credit default swaps (CDS) spreads.[21] It also observed a significant effect for negative rating events, but insignificant market reactions for positive events. Downgrades by Fitch exhibited no significant impact on the stock and CDS market whereas reviews for downgrades by S&P and Moody's were associated with a significant effect. This demonstrates that the markets regard ratings issued by the two major CRAs more highly than those of the smaller agencies.

Thirdly, credit ratings are also used to determine risk weights applied by banks in corporate lending under Basel II. Specifically, Basel II requires banks to base their risk allocations using individual borrower assessments. Consequently, a corporate borrower with a favourable credit rating will justify an advantageous probability-of-default assessment and consequently incur lower borrowing costs.

Fourthly, issuers should consider the risks and benefits of engaging more than one CRA. Each CRA has its own ratings methodology and may assess a security differently from other CRAs. While earlier research has shown that in the case of split ratings, the lower rating determines the market pricing,[22,23] more recent research has found that the pricing is set by the average of the two ratings.[24,25] Regardless of which scenario is applicable, obtaining a second rating has been shown to have a positive expected return even if the pricing is determined by the lower rating, as bond issues with two identical ratings have yields significantly lower than issues receiving such a rating from only one CRA.[26] This proves that investors perceive value when companies are rated by more than one CRA.

Fifthly, not all published ratings have been commissioned by an issuer. Some ratings utilise only information from public sources, without access to the issuer's senior management. These ratings are usually termed 'unsolicited', and are largely viewed with contempt by issuers. However, CRAs undertake such ratings to broaden their coverage of an industry, and provide investors with the benefit of additional investment information. A significant problem is that unsolicited ratings are generally not labelled as such, which makes it difficult for users of ratings information to assess whether a rating includes valuable information from an issuer's management not within the public domain.

Finally, being rated is not a one-off investment, but a long-term commitment. Although issuers can terminate their rating agreements at any time, CRAs will, in most cases, continue to rate the securities on an unsolicited basis for the life of the issue. In such an event, the rating is only based on publicly available information, with no input from the issuer side. Thus, the issuer has no opportunity to present additional information to the CRA or to correct misinterpretations. Moreover, investors expect ratings to be continued for the life of the issue. Terminating a rating relationship with rated issues outstanding might send the wrong signals to investors. Therefore, commissioning a rating creates a financial commitment, with long-term consequences beyond the short-term need to raise debt on public markets.

(SELF)-REGULATION OF CRAs

In the light of previously mentioned well-publicised corporate failures, market participants, regulators and professional bodies have become more interested in the function and operation of CRAs. In June 2003, the US Securities & Exchange Commission (SEC) issued a concept release considering the role and function of CRAs.[27] Areas of concern were the lack of competition in the CRA market, insufficient transparency of the CRAs' rating processes, potential conflicts of interest and the lack of an overseeing authority. After significant consultation, the USA has opted for formal regulation, with the Credit Rating Agency Reform Act 2006, aiming to improve the quality of ratings by fostering competition, transparency and accountability in the credit rating agency industry.

While the USA has chosen a regulatory approach, Europe and other parts of the world have opted for self-regulation. After consultation with market participants, the International Organization of Securities Commissions (IOSCO) issued a CRA code of conduct[28] with the support of the Committee of European Securities Regulators (CESR), the Financial Services Authority and the SEC. All of the major rating agencies have signed on to its provisions.[29] At the heart of the IOSCO Code is a disclosure mechanism to monitor compliance: CRAs have to disclose how they implement the various provisions of the IOSCO Code and they also have to disclose where practices deviate from the IOSCO Code.

Professional bodies of corporate treasurers have also been active in self-regulatory approaches. The UK's Association of Corporate Treasurers and its equivalents in France, the Association Française des Tresories D'Enterprises and the USA, the Association of Finance Professionals, have published a draft 'Code of Standard Practices for Participants in the Credit Ratings Process'. This extends the idea of best practice not just to CRAs but to other market participants such as issuers.

In December 2006, CESR published their

first report on the compliance of CRAs with the IOSCO Code.[30] CESR concludes that CRAs largely comply with the IOSCO Code, with the exception of their failure to identify unsolicited ratings and in some instances the lack of separation of ancillary services from ratings services. In 2007, CESR extended its consultation to examine structured finance ratings.

Despite these consultations, the effect of greater regulation on the industry is uncertain. As ratings constitute only an opinion, it is plausible that making the CRAs more accountable may induce them to be more defensive in their decisions. This is analogous to defensive medicine, whereby the practitioner undertakes a range of unnecessary treatments and examinations to immunise themselves against litigation. In the case of CRAs, the emphasis becomes on the analysis of historic financial results. So the most valuable element of the rating, the professional judgment of the analyst, is lost.

RATINGS QUALITY

Motivated by the rapid growth of the ratings industry, operating in an environment of only limited regulation, Duff and Einig[31] consider the characteristics of ratings quality. Using a series of interviews with a broad range of market participants, financial managers, institutional investors and other interested parties, and a questionnaire survey sent to 2,450 individuals representing users of CRA services, 14 characteristics of ratings quality are identified.[32] These are summarised in Table 2, along with their rank, and the level of consensus among participants.

The most important characteristics relate to external perceptions of the credibility of the CRA to the market. This might be expected as CRAs are reputational intermediaries, who risk their reputational capital by warranting borrowers' financial projections. Furthermore, as ratings quality is not directly observable, market participants' perceptions of the standing of agencies are critical. A CRA needs to

Table 2: Questionnaire results for ratings quality characteristics

Characteristics	Description	Mean	Consensus
Reputation	The credibility of the CRA to third parties	4.69	Very high
Trust	The degree of trust that exists between the CRA and issuers and investors	4.67	High
Values and norms	Those ethical values and organisational norms market participants expect in a CRA	4.36	High
Timeliness	The willingness of the CRA to upgrade/downgrade a rated security	4.15	High
Transparency	The clarity of decision making by CRAs, and quality of communication to users	4.10	Low
Expertise	The ability of the CRA to make competent and informed decisions about the probability of default	3.92	Very high
Methodology	Those processes the CRA uses to assess the probability of default	3.82	Very high
Issuer orientation	The ability to provide high levels of service to issuers	3.76	High
Cooperation	Effective communication between the CRA and issuers and investors	3.75	Very high
Investor orientation	The ability to provide high levels of service to investors	3.73	Very high
Independence	The ability of the CRA to make objective decisions about the issuer	3.70	High
Responsiveness	Affective relations between the CRA and issuers and investors	3.57	Very high
Internal process	Effective internal processes to manage staff and their work within the CRA	3.52	Very high
Service portfolio	The ability of the CRA to provide specialised, ancillary services	2.96	Very high

Mean scale from 5 (very important) to 1 (not important) operate with complete integrity to be effective in the market. This is especially the case as the CRA is privy to confidential (inside) information concerning the issuer.

Just below these characteristics, lie issues relating to the expertise of the CRAs and their ability to communicate decision making to market participants. The relationship issues play a subtle but important role in interactions between CRAs and market participants. For example, treasurers complain that CRAs seek an almost immediate response from corporates to draft credit reports and press releases that give the impression of having been drafted hurriedly and inaccurately. Communication, however, is a two-way process, and corporate management can in some instances achieve a higher rating (notching up) by providing good presentations to the CRAs, which will have a positive effect on spreads at issuance and secondary trading.

Finally, the least important characteristic relates to the service portfolio provided by CRAs. Evidently, user groups would prefer CRAs to focus their energies on corporate and structured finance ratings, and not allow themselves to be distracted by the provision of other unwanted, but potentially lucrative services.

Ratings work is essentially a labour-intensive exercise. It becomes a challenge for the major CRAs to maintain ratings quality in the face of rapid growth in the publication of ratings, an increased service portfolio, significant staff turnover, and a potential regulatory burden. For corporate treasurers, the consequences are likely to include turnover in analytic staff, which necessitates re-educating the CRA in the company's business.

CONCLUSIONS

The ratings industry has grown rapidly in recent years, and a proliferation of different ratings exist for different purposes. However, these different ratings and the methodologies employed by different CRAs are not always understood. Ratings are frequently used as a benchmark by investors and other market participants, and changes in the published rating could have unforeseen adverse circumstances for the borrower.

Increasingly, borrowers employ more than one CRA to provide an opinion of the credit quality of their debt security. This means that treasurers need to be aware of the costs of servicing several CRAs, as each will expect to be dealt with on an individual basis. In addition, staff turnover within CRAs will mean that from time to time, new analysts will need to be re-educated in the business of the issuer.

Regulation remains a contentious issue, with the US subprime mortgage crisis renewing calls for greater regulation of CRAs' work. Although regulation may sound like a panacea to the credit market's problems, it could lead to a situation of defensive ratings whereby CRAs fearing regulation cannot exercise their professional judgment. However, the operation of formal regulation in the USA will inevitably have an impact on European markets, as CRAs are pan-national entities. The effects of formal regulation on CRAs and their relationship with corporate treasury are yet to be seen.

References

1 Reiter, S. and Ziebart, D. (1991) 'Bond yields, ratings, and financial information: evidence from public utility issues', *The Financial Review*, Vol. 26, No. 1, pp. 45–73.
2 Gabbi, E. and Sironi, A. (2002) 'Which factors affect corporate bond pricing? Empirical evidence from Eurobonds primary market spreads', University of Bocconi working paper, available at: http://www.uni-bocconi.it/doc_mime_view.php?doc_id = 16240&doc_seg_id = 1 (accessed 10 May, 2008).
3 Oxford Analytica (2007) 'Credit crisis hurts rating agencies', *International Herald Tribune*, 13th August.
4 McGraw-Hill (2005) 'Annual Report', McGraw-Hill.
5 Moody's (2005) 'Annual Report', Moody's, New York.
6 Fimalac (2005) 'Annual Report', Fimalac.
7 Baker, H. K. and Mansi, S. A. (2002) 'Assessing credit rating agencies by bond issuers and institutional investors', *Journal of Business Finance and Accounting*, Vol. 29, No. 9/10, pp. 1367–1398.
8 Van Roy, P. (2005) 'Credit ratings and the standardised approach to credit risk in Basel II', European Central Bank working paper 517.
9 Moody's, ref. 5 above.
10 Moody's (2008) 'Moody's Corporation's First Quarter Results', Moody's, New York.
11 Moody's (2006) 'Moody's Investors Service Disclosure', Moody's, New York.

12 Fight, A. (2000) 'The Ratings Game', John Wiley & Sons Ltd, Chichester.
13 Van Roy, ref. 8 above
14 Cantor, R, ap Gwilym, O. and Thomas, S. (2007) 'The use of credit ratings in investment management in the US and Europe', *Journal of Fixed Income* (Fall), pp. 13–26.
15 Baker and Mansi, ref. 7 above.
16 Duff, A. and Einig, S. (2007) 'Credit Rating Agencies: Meeting the Needs of the Market?', ICAS, Edinburgh.
17 Hsueh, L. and Liu, Y. (1993) 'Should all tax-exempt borrowers with investment-grade quality acquire credit ratings?', *Journal of Business Finance and Accounting*, Vol. 20, No. 2, pp. 291–306.
18 Gabbi, and Sironi, ref. 2 above.
19 Hand, J., Holthausen, R. and Leftwich, R. (1992) 'The effect of bond rating agency announcements on bond and stock prices', *Journal of Finance*, Vol. 47, No. 2, pp. 733–752.
20 Hite, G. and Warga, A. (1997) 'The effect of bond-rating changes on bond price performance', *Financial Analysts Journal* (May/June), pp. 35–51.
21 Norden, L. and Weber, M. (2004) 'Informational efficiency of credit default swap and stock markets: the impact of credit rating announcements', *Journal of Banking and Finance*, Vol. 28, No. 12, pp. 2813–2843.
22 Liu, P. and Moore, W. (1987) 'The impact of split bond ratings on risk premia', *The Financial Review*, Vol. 22, No. 1, pp. 71–85.
23 Perry, L., Liu, P. and Evans, D. (1988) 'Modified bond ratings: further evidence on the effect of split ratings on corporate bond yields', *Journal of Business Finance and Accounting*, Vol. 15, No. 2, pp. 231–241.
24 Cantor, R., Packer, F., and Cole, K. (1997) 'Split ratings and the pricing of credit risk', *Journal of Fixed Income*, Vol. 7, No. 1, pp. 72–82.
25 Livingston, M. and Jewell, J. (1998) 'Split ratings, bond yields, and underwriter spreads', *Journal of Financial Research*, Vol. 21, No. 2, pp. 185–205.
26 Thompson, G. and Vaz, P. (1990) 'Dual bond ratings: a test of the certification function of rating agencies', *The Financial Review*, Vol. 25, No. 3, pp. 457–472.
27 Securities and Exchange Commission (2003) 'Concept Release: Rating Agencies and the Use of Credit Ratings under the Federal Securities Laws', available at: www.sec.gov (accessed 28th July, 2008).
28 International Organization of Securities Commissions (2004) 'Code of conduct: fundamentals for credit rating agencies', available at: www.iosco.org/library/pubdocs/pdf/IOSCOPD180.pdf (accsssed 28th July, 2008).
29 Tafara, E. (2005) Speech by SEC Staff: Remarks for the International Organization of Securities Commissions Annual Conference Panel on the Regulation of Credit Rating Agencies. In: SEC, editor. IOSCO Annual Conference Panel, available at: www.sec.gov (accessed 28th July, 2007).
30 Committee of European Securities Regulators (2006) 'Report to the European Commission on the Compliance of Credit Rating Agencies with the IOSCO Code', Report No.: CESR/06-545, availabsle at: www.iosco.org.
31 Duff and Einig, ref. 16 above.
32 Livingston and Jewell, ref. 25 above.