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Credit Rating Agencies: What They Do and How They Do It

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What is a Credit Rating Agency (CRA)?

- According to the Securities Exchange Commission (SEC), "Credit rating agencies are organizations that provide an assessment of the creditworthiness of a company or a financial instrument."
- Key question: what are the ability and the willingness of the borrower (obligor) to repay its debt in full and on time, i.e., not to default on its debt obligation?
- In the U.S., CRAs are known officially as "nationally recognized statistical rating organizations" or "NRSROs".
- There are ten NRSROs: A.M. Best Rating Services, Inc.; DBRS Inc.; Egan-Jones Ratings Co.; Fitch Ratings, Inc.; HR Ratings de Mexico, S.A. de C.V.; Japan Credit Rating Agency, Ltd.; Kroll Bond Rating Agency, Inc.; Moody's Investors Service, Inc.; Morningstar Credit Ratings LLC; S&P Global Ratings.
- CRAs are for-profit private enterprises:
  - ➢ Fitch Ratings is a 100% subsidiary of Hearst Communications, a privately held firm;
  - ➢ Moody's Investors Service is a division of Moody's Corporation, a listed firm (market capitalization: $30 bn);
  - ➢ S&P Global Ratings is a division of S&P Global, a listed firm (market capitalization: $47 bn);
- CRAs are regulated by the SEC in the US and by similar regulators worldwide.

Why do CRAs exist?

- CRAs are capital (credit) market "information intermediaries"; they provide useful information ("information services") to investors in bonds and other credit instruments. They help make financial markets "efficient".
- The financial system is full of information intermediaries: commercial banks, investment banks, broker-dealers, auditors, certified public accountants, independent advisory firms, management consultants, independent research

firms, and myriad active investors.

- CRAs help investors to economize on the costs of gathering and analyzing information. Rather than incur all those costs themselves, investors can rely on the “signal” of a credit rating. CRAs may also have access to some non-public information, under contractual agreement with the entities they rate.
- CRAs lower the costs of issuing debt for borrowers, which is presumably why issuers pay for credit ratings.
- CRAs must make their ratings available to the public: even though, for CRAs, credit ratings are a profit-making business activity they are like an informational “public good” for capital/credit markets.
- Credit ratings are not intended to be investment recommendations, let alone guarantees.
- CRAs rate debt, not equity. What is special about debt?
  - A debt contract is a promise to pay a fixed amount of (principal and usually interest) at a future point in time, regardless of what happens in the interim: no upside; downside limited to adverse “tail events”. This implies that the expectation of being repaid in full is not very sensitive to marginal information.
  - An equity contract is a claim on residual profits after all fixed claims have been paid: virtually unlimited upside; lots of downside (but, because of limited liability, capped by the amount invested). This implies that the returns to (and price of) equity are likely to be very sensitive to marginal information.
    - This suggests that debt holders are mainly interested in the simple question “will I get my money back?” and, specifically, “how likely is it that I will?”, whereas equity investors are interested in the more complicated question: “what is the current discounted value of all future flows of profits (residual claims) I am entitled to?”
    - Intuitively, there would appear to be much less scope for marginal information to be of interest to holders of debt compared to holders of equity.
    - A conjecture would be that this creates scope for a “natural oligopoly” to form in the market for information about credit worthiness, “oligopoly” because there are substantial economies of scale and scope in producing credit information (by reducing the duplication of information-gathering/processing costs across investors) but some

degree of competition is beneficial (to both issuers and investors).

How do CRAs operate?

- CRAs rate the creditworthiness of a wide range of issuers and debt issues.
- They do so by assigning a letter rating on a sliding scale, from AAA (the highest quality credit) to C (the lowest level, on the verge of default), to D (in default) (C for Moody's), using pluses and minuses (Fitch and S&P) between AA and CCC to differentiate credit quality further (Moody's uses a slightly different lettering system, e.g., Aa1 instead of AA+).
  - By convention, a rating of BBB- (Baa3 for Moody's) or above is considered "investment grade" and a rating below BBB- is considered "non-investment" or "speculative grade".
  - CRAs also assign "Outlooks" (Positive, Negative and Stable) to their credit ratings, to indicate the likely directionality of the next credit rating change, or may place a credit on "Credit Watch" when an event or new information calls the current rating into question.
- A credit rating is <u>not</u> a <u>cardinal</u> measure or a "probability of default". It is an <u>ordinal</u> ranking of the assessed likelihood of default. However, ex post, realized default rates over varying time frames are observed. "Ratings performance studies" or "default studies" show that, generally, realized default rates are monotonically decreasing in the credit rating, i.e., the higher the ex ante credit rating, the lower the ex post default rate for that rating category.
- Three main kinds of credit rating can be distinguished:
  - Corporate (including Financial Institutions):
    - The quintessential credit rating, the bread-and-butter of CRAs.
  - Sovereign and Public Finance:
    - A sovereign that borrows in its own currency (that is, the currency that it issues), in principle, should never have to default, because it can always issue ("print") currency.
  - Structured Finance:
    - Structured Finance Products are structured in such a way (e.g., given "credit enhancements") as to have an intended credit profile, typically a triple-A rating.
- Credit ratings are done according to well established, highly articulated and publicly available methodologies/criteria and generally are assigned by committees, not by individuals.

- CRAs (generally) are paid by issuers, not by investors. Issuers pay CRAs to rate their debt because they believe that credit ratings are useful to investors and will lower their cost of debt, by reducing the information costs investors incur.

What role did the CRAs play in the Global Financial Crisis (GFC)?

- Almost every account of the Global Financial Crisis assigns significant blame to the CRAs for helping to bring about or exacerbate the crisis by assigning triple-A ratings to many of the structured finance products (mortgage-backed securities, etc.) whose partial or total loss in value helped to trigger the drying up of liquidity and failure of major financial institutions.
  - Adam Tooze, *Crashed: How a Decade of Financial Crises Changed the World* (2018, p.393): "It was [the] AAA certifications [of the rating agencies], handed out to hundreds of billions of subprime MBS, that helped to precipitate the crisis in 2008".
  - Alan Blinder, *After the Music Stopped: The Financial Crisis, the Response, and the Work Ahead* (2013, p.79): "The credit-rating agencies … were supposed to be one of the safety rails that would prevent the financial system from running off the road. Instead, they failed us, turning out to be part of the problem rather than part of the solution".
  - Nate Silver, *The Signal and the Noise: Why So Many Predictions Fail – but Some Don't* (2012, p.20): "If we want to get at the heart of the financial crisis, we should begin by identifying the greatest predictive failure of all, a prediction [by rating agencies] that committed all these mistakes".
- CRAs were certainly "implicated" in the financial market exuberance and asset price bubbles which provided the raw material for the crisis. The extent to which they helped "cause" the crisis, as opposed to being caught up in it and speeding up its metabolic rate, is open to debate.

How has the way CRAs operate and are regulated changed since the GFC?

- Until fairly recently, CRAs were not regulated (e.g., Standard & Poor's, now S&P Global Ratings, used to be owned by a publishing house, McGraw-Hill). Since the crisis, CRAs have become subject to strict regulation in the US and in other major jurisdictions.
  - In the US, CRAs were not regulated entities until Congress passed the Credit Rating Agency Reform Act in 2006, providing the SEC with the

authority to establish a registration and oversight program for CRAs.
    - The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 enhanced the SEC's oversight and regulation of CRAs, creating an Office of Credit Ratings in June 2012.
    - CRAs are now subject to strict oversight and regulation, including stringent conflict of interest rules and exhaustive annual examinations.
- As a result of their own learning, market discipline (incentives to avoid litigation and reputational damage), and enhanced regulation, CRAs have overhauled and beefed up their internal compliance capabilities and procedures, and there has been an associated sea-change in internal culture and mindset towards recognizing that CRAs are now highly regulated entities within the financial markets, not mere purveyors of "credit opinions".
- CRAs are also now paying much more attention to the macroeconomic environment, locally, nationally and globally, and the macroeconomic factors that can influence credit performance over time. They are attempting to see the forest as well as the trees, to "connect the [micro and macro] dots".

What does the future hold for CRAs in a world of Big Data and AI?
- Advances in Big Data/Machine Learning/Artificial Intelligence would seem to imply an erosion of the informational role and advantages of CRAs.
- Yet the demand for credit ratings seems to remain high and "old fashioned" credit ratings have proved durable in the face of competition from sophisticated quantitative models and products (estimating probability of default and using market derived signals of credit quality).
- This suggests that credit ratings may be embedded in the fabric of credit markets as a common lexicon and as commonly recognized and held benchmarks, and therefore not easily displaced.

Further reading/references

Fitch Ratings, undated: *Ratings Definitions*, 57 pp.
Moody's Investor Services, 2018: *Rating Symbols and Definitions*, 35 pp.
Securities Exchange Commission, 2017: *The ABCs of Credit Ratings*
S&P Global Ratings, 2018: *S&P Global Ratings Definitions*, RatingsDirect, 54 pp.

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