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The Economics of Credit Rating Agencies

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Foundations and Trends[®] in Finance

Published, sold and distributed by:

now Publishers Inc.
PO Box 1024
Hanover, MA 02339
United States
Tel. +1-781-985-4510
www.nowpublishers.com
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Outside North America:

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PO Box 179
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The Netherlands
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The preferred citation for this publication is

F. Sangiorgi and C. Spatt. *The Economics of Credit Rating Agencies*. Foundations and Trends[®] in Finance, vol. 12, no. 1, pp. 1–116, 2017.

ISBN: 978-1-68083-381-2

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Volume 12, Issue 1, 2017
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Foundations and Trends® in Finance, 2017, Volume 12, 4 issues. ISSN paper version 1567-2395. ISSN online version 1567-2409. Also available as a combined paper and online subscription.

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The Economics of Credit Rating Agencies

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ABSTRACT

We explore through both an economics and regulatory lens the frictions associated with credit rating agencies in the aftermath of the financial crisis. While ratings and other public signals are an efficient response to scale economies in information production, these also can discourage independent due diligence and be a source of systemic risk. Though Dodd-Frank pulls back on the regulatory use of ratings, it also promotes greater regulation of the rating agencies. We highlight the diverse underlying views towards these competing approaches to reducing systemic risk. Our monograph also discusses the subtle contrasts between credit rating agencies and other types of due diligence providers, such as auditors, analysts and proxy-voting advisors. We discuss the frictions associated with paying for information in the context of credit ratings; while the issuer-pay model has been identified as a major issue because of potential conflict of interests, we argue that it has several advantages over the investor-pay model in promoting market transparency.

We develop a formal reputation model to explore the underlying nature of rating inflation and how the reputational

trade-off is affected by various aspects of the rating process such as regulatory constraints, the fee structure, asymmetric information between issuers and investors and the extent of competition among rating agencies. The monograph also uses our illustrative framework to highlight tension between rating accuracy and economic efficiency when ratings influence project value in the presence of feedback effects. We discuss how selective disclosure of ratings by the issuer distorts the distribution of observed ratings. Selection also provides an alternative explanation for why solicited (purchased) ratings exceed unsolicited (complimentary) ratings and helps interpret the greater SEC support for unsolicited ratings in recent years as illustrating the theory of the second best. We explore the impact of greater competition on welfare, building upon a variety of frameworks. Our analysis points to several ways in which ratings matter as well as techniques for documenting such effects.

Keywords: Credit rating agencies, information production, information intermediation, conflict of interest, reputation, selection, competition, regulation, systemic risk

JEL Codes: D4, D6, D8, G2, G24, L1, L5

1

Introduction

The financial crisis highlighted the central role of regulatory and market institutions for evaluating and measuring risk and the potential causes of systemic risk in the global economy. Both market participants and regulators have relied heavily upon credit rating agencies in assessing risk, which in turn focused attention upon how ratings are used by various actors and the frictions that influence the determination of ratings. The use of ratings and other public signals is an efficient response to scale economies in information production. At the same time, ensuring the payment for ratings (and other) informational services is an important friction and incentive challenge confronting rating agencies. One consequence of the rating agency framework is that the incorrect assessment of aggregate features of debt by rating agencies can be an important source of systematic and even systemic risk. This is especially significant when ratings are hardwired into the regulatory structure, i.e., when regulatory treatment is based upon ratings. Relying upon ratings for regulation, by imposing uniformity in standards both across rating agencies and also among products, can be anti-competitive and discourage innovation. Of course, even without regulatory reliance on the ratings and even in the presence of diverse

sources of information production, there is considerable potential for systemic risk when there is commonality in the underlying methods and techniques that determine the ratings. The meaning of ratings also is sensitive to the presence of feedback effects and the role of ratings as contractual triggers (e.g., Manso (2013), Kraft (2015), and Parlour and Rajan (2016)).

The issue of removing regulatory references to ratings, as mandated by the Dodd-Frank Act, raises a number of important issues. Does removing references to ratings reflect hostility to the rating agencies, as regulatory use of ratings would appear to be a source of value to the rating agencies or is that consistent with their interests?¹ The importance of consistency and comparability in the definition of ratings across contexts is highlighted when regulators rely upon ratings—and indeed, there has been renewed attention to achieving greater comparability in the aftermath of the financial crisis—this despite a push towards less reliance upon ratings for determining regulation. While many observers would have viewed removing regulatory references to ratings and heightened supervision as alternative (substitute) approaches to addressing systemic risk (or removing references to ratings and attempting to address rating shopping as alternative (substitute) approaches to addressing systemic risk), Dodd-Frank and its implementation moved in all these directions. In effect, this broad set of changes constitutes acknowledgment that the regulatory framework was not optimally designed, before and/or after the implementation of the Dodd-Frank Act. Indeed, our analysis of the U.S. Senate roll-call voting for the amendments addressing rating shopping (the Franken Amendment) and removing references to ratings in federal government regulations (the LeMieux Amendment) suggests that there is not a single-dimensional underlying preference scale among

¹On the one hand, some of the senators who voted for this amendment to Dodd-Frank felt that they were voting against the credit rating agencies and indeed, the regulatory mandates added to the value and import of ratings. On the other hand, at least some rating agencies have been supportive of not using the ratings for regulation in order to separate themselves from regulatory determinations and to highlight that their ratings are of value independent of regulation.

the senators that summarizes their views about regulation and systemic risk.²

The Dodd-Frank mandate to remove regulatory references to ratings is incomplete and hence should be interpreted with some caution; for example, while it applies to most regulations of the federal government (including the Federal Reserve and the Securities and Exchange Commission (SEC)), it does not apply to state and local governments nor directly to international regulators. Section 2 provides a broad discussion of ratings in the regulatory framework, as well as how ratings potentially crowd out private information production and the risks associated with overreliance on ratings in market pricing.

Credit rating agencies have a number of similarities (but also contrasts) to various alternative gatekeepers such as auditors, analysts and proxy voting advisors. For example, the industrial organization of the credit rating agencies and auditors is relatively similar (the markets are dominated by a small number of global players, creating considerable entry barriers), though the objects being assessed are rather different (the credit rating agencies are evaluating prospective risks, while auditors are confirming actual performance, so there is little scope for disagreement in the latter instance) and auditors face independence standards that indirectly influence the effective industrial organization of the market. Credit rating agencies have been viewed as rendering opinions (and consequently, have obtained journalistic First Amendment protection—even when they did not offer unsolicited opinions but provided opinions that were purchased), while auditors are subject to liability standards. Indeed, the attempt to use Dodd-Frank to confront credit rating agencies with liability standards was spectacularly unsuccessful. Analysts were at least indirectly part of the target of the SEC's Regulation FD (Fair Disclosure) and also subject to liability rules, while

²Among the 99 Senators voting on these two amendments, almost 2/3 voted for the Franken Amendment and almost 2/3 voted for the LeMieux Amendment (with all but four senators supporting at least one of these). A substantial minority (30 senators) supported both, though the Senate's approval of both provisions did not have voting support of a representative Senator/voter—after all only 30 of 99 Senators voted for both, see Section 2.5. Nevertheless, 61 of the Senators voted for LeMieux after voting on the Franken Amendment, pointing to considerable support for the LeMieux provision conditional on the prior passage of the Franken Amendment.

initially the credit rating agencies were exempt from Regulation FD (until the passage of Dodd-Frank).

Another interesting parallel is between credit rating agencies and proxy-voting advisers. Arguably, the presence of both these entities and underlying scale economies in information production has limited the extent to which investors engage in independent information production.³ Furthermore, the regulators have played a significant role in supporting their respective business models; for example, until the implementation of Dodd-Frank, credit ratings were viewed as necessary for many regulatory purposes; while the required disclosure of mutual fund votes (beginning in 2003) encouraged mutual funds to purchase outside services to assist in various aspects of voting and the SEC's Egan-Jones Letter (2004) provided unusually favorable treatment to investors with respect to the conflicts of interest of their proxy-voting advisor (unlike the investor's own conflicts). We contrast credit rating agencies with alternative gatekeepers, such as auditors, analysts and proxy-voting advisers in Section 3.

The problem of paying for financial information is a delicate one. As Arrow (1962) pointed out, once the seller provides the information the buyer does not have an incentive to pay for it and before the seller provides the information it would be difficult to assess its value. While the issuer-pay model for credit ratings is often criticized as promoting rating shopping and resulting in conflicts of interest, the alternative investor-pay model suffers from the classic problem of exclusion; how can one exclude those investors who are not purchasing the information from reaping its benefits? Furthermore, in the investor-pay model, the seller's incentive is to reduce the information content of prices in order to enhance the value of the information that can be sold (relative to the information being freely available through prices). This points to an advantage of the issuer-pay framework over the investor-pay approach for credit ratings in achieving price—and consequently allocational—efficiency. Section 4 describes the difficulty of selling

³This has been a key criticism of proxy-voting advisers in practice. This is formally developed by Malenko and Malenko (2016).

information and the underpinnings of the payment model for various financial information intermediaries under alternative assumptions.

Aided by a formal model, we discuss conflicts of interest in Section 5. Our formal framework highlights a number of themes such as the reputational concerns of the rating agencies potentially being an inadequate disciplining device, rating inflation (in which the rating agencies provide ratings that are artificially high in order to attract rating assignments from the issuers) being greater for relatively more complex assets, and under what circumstances the payment of rating agency fees up front can help solve the conflict of interest problem. Asymmetric information can lead to incentives to build different types of reputation with investors (e.g., tough) and issuers (e.g., lenient). Competition among rating agencies creates a concern for relative reputation (which has a disciplining effect), but also reduces rating fees (which dilutes reputational incentives). Even a rating agency that can commit to a given rating policy has incentives to distort the information it discloses. We conclude Section 5 with a discussion of rating agency analyst conflict of interest.

An important aspect of credit ratings is the feedback effect that arises when a firm's behavior (e.g., such as the firm's investment decisions) responds to the change in the cost of funding that is influenced by the rating. Because of this feedback loop, ratings not only reflect, but also affect, fundamental values. Feedback effects arise because of contractual triggers, but also through coordination and learning channels. Section 6 discusses these channels and especially, the learning channel. We develop a model that builds on the analytical framework explored in Section 5 to address several questions about rating informativeness in the presence of feedback effects. Our analysis highlights a tension between rating accuracy and economic efficiency and the extent to which the feedback effect is internalized in a socially suboptimal manner in market equilibrium.

A key aspect of the rating process is the selection of ratings that are eventually disclosed to the marketplace. For instance, the issuer's ability to "shop for ratings" and prevent low ratings from being disclosed induces a selection bias in the ratings that are made available to investors for pricing of the underlying assets. This arises even though

the individual rating assessments are themselves unbiased—unlike situations in which there is “rating inflation” by the rating agency in an attempt to attract additional rating assignments. The rating bias would be eliminated if the issuer or rating agency were required to disclose all indicative ratings. Somewhat analogously, selection leads unsolicited ratings (those ratings not purchased by the issuer) to be relatively lower than solicited (purchased) ratings. This can reflect the selectivity underlying decisions to purchase credit ratings (the issuer only purchases ratings when it anticipates relatively high ratings) as well as implicit punishment from the rating agency providing unsolicited ratings associated with the issuer not purchasing ratings. In effect, one wonders whether the unsolicited ratings are artificially low or the solicited ratings are artificially high? About 15 years ago securities regulators tried to actively discourage unsolicited ratings because they felt that these reflected an attempt to extort and force payment of rating fees by the issuer. More recently, unsolicited ratings are viewed as providing “objective ratings” and a benchmark for evaluating solicited ratings. Hence, in recent years the regulator has encouraged the use of unsolicited ratings. This is in a similar spirit to the “theory of the second best,” whereby frictions may be encouraged to help mitigate other frictions in a “second best” setting. Section 7 discusses selection issues including rating shopping and the contrast between solicited and unsolicited credit ratings.

The ratings of different products have historically been on different scales (even the ratings for municipal and corporate debt were not comparable until recent years) and of course, different rating agencies may rate the same product differently and indeed, apply somewhat different definitions in their respective ratings. In a system in which ratings are used for regulatory purposes, such differences can be quite significant and indeed, create incentives for rating agencies to rate products more generously (as their ratings would be more valuable) as well as for the issuers of favorably-rated securities to issue liberally such instruments. Indeed, Moody’s recalibrated its municipal bond rating scale in 2010 to facilitate greater comparability of its ratings—leading to real effects associated with the market responses for those securities that were upgraded. Of course, absent regulatory effects, a rational

market would be able to adjust the pricing of instruments that were rated using different scales. Section 8 discusses the contrast in ratings across products (including sovereign debt) and rating agencies.

The nature of competition is an important theme in understanding the rating agencies. For many purposes the market effectively has just three players (Moody's, Standard and Poor's and Fitch). There was a significant attempt to open up competition with a change in the regulatory framework a decade ago, but the impact was modest. Prior to that time the regulatory framework imposed a striking entry barrier in that in order to be certified by the SEC as an NRSRO (Nationally Recognized Statistical Rating Organization) one needed to be "nationally recognized" in the marketplace, which would have been extremely difficult to achieve without being certified by the SEC. To some extent the Dodd-Frank Act itself was anti-competitive by forcing emerging rating agencies to be governed by its costly standards. Indeed, the empirical evidence of the impact of reputation seems surprisingly limited in light of the extraordinary poor performance for securitizations by the major rating agencies during the financial crisis. Perhaps the best known work on the effect of changes in competition is the research of Becker and Milbourn (2011) in the context of corporate bonds, who showed that the emergence of Fitch as a serious rival implied that in contexts in which Fitch's market share was higher than Moody's and S&P offered relatively higher (lower quality) ratings—in effect, competition reduced (rather than increased) product quality. Somewhat analogously, the welfare effect of a decline in the number of major firms in auditing (such as Arthur Anderson's demise) is the focus of Gerakos and Syverson (2015). Our formal analysis highlights that competition can reinforce the disciplining role of reputation because of the potential loss of market share, but can lead to more focus by the incumbent on short-term profits leading to more inflation. The nature of competition and the role of entry and reputation in the credit rating agency space are explored in Section 9.

Ratings matter in a variety of ways, including helping to determine the cost of capital as reflecting impacts on the likelihood and severity of default and the entity's capital structure. Ratings impact not only the information in the marketplace, but also regulatory treatment and

contractual triggers. To some degree, these effects can be separated and identified with suitable empirical designs. Section 10 examines why ratings matter as well as techniques for identifying the real effects of ratings.

We offer some concluding observations and takeaways about rating agencies that emerged as a byproduct of the financial crisis in Section 11. The performance of the rating agencies was generally viewed as poor for structured finance during the financial crisis, leading to substantial modification of the credit rating agency framework, especially after the implementation of the Dodd-Frank Act. While the underlying instruments were difficult to assess, there were strong tensions with respect to the nature of systemic risk and how best to mitigate it and indeed, the absence of simple solutions.

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