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Market Power in the Credit Rating Industry: State of Play and Proposal for Reforms

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I. INTRODUCTION

In recent years, the Credit Rating Agencies ("CRAs") have been in the eye of the storm. Some argue that CRA rating errors—symptomatized by rating inflation or deflation—originate in excessive competition. This paper argues that the low level of competition in credit rating is a better explanation for rating this phenomenon.

To show this, the present paper is divided in seven sections. Section II gives a brief overview of the credit rating industry. Section III describes CRAs rating errors, focusing on rating inflation and deflation. Section IV argues that the cause of rating inflation and deflation is due to CRAs' significant market power, in a sector where the process of competition by reputation fails to work. Section V looks at structural features of the industry specifically in the context of conflicts of interests. Section VI argues that more competition in credit rating services is warranted, reviews recent regulatory changes that purport to promote competition, and offers additional suggestions for reform, while Section VII concludes.

II. OVERVIEW OF THE CREDIT RATING INDUSTRY

On a daily basis, economic agents issue thousands of financial products in the form of bonds, shares, securities, etc. to fund their economic activity. Those financial products are sold to investors who expect a return on investment. Importantly, because issuers of financial products are heterogeneous, investors seek information on the former's creditworthiness to make the best possible investments. Given the ever-growing complexity of financial products, the limited expertise of many investors, and the costs of revealing information, the evaluation of issuers' creditworthiness has been delegated to specialized intermediaries² known as CRAs.

CRAs assess and provide information on one key dimension of credit worthiness, i.e. the default risk of issuers. CRAs' assessments are expressed in the form of ratings, which classify issuers and financial products in different categories of risk of default, usually from AAA to D (Default). Those ratings are subsequently disclosed to the market. Importantly, investors do not pay for ratings. CRAs are financed by issuers (and by the banks that act on their behalf), with the exception of certain products like sovereign ratings.

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² D. Diamond, Financial Intermediation and Delegated Monitoring, 51(3) REV. ECON. STUDIES 393-414 (1984).

III. CREDIT RATING ERRORS

A. Ratings Over an Economic Cycle

In recent years, policy makers have pointed finger at CRAs, criticizing their inability to anticipate major credit defaults, such as the collapse of Enron in 2001 or that of Lehman Brothers in 2008. More importantly, CRAs that are supposed to assess credit default risks through an economic cycle—on a given time horizon which spans usually three to five years—have tended to rate "over" the cycle, being over optimistic in periods of economic growth and, in contrast, over pessimistic in times of economic decline.

In sovereign ratings, CRAs rate the probability of sovereign default in the long run. In principle, those ratings should disclose public information on the debt sustainability of a particular country. They should be based exclusively on fundamental variables, thus sweeping away rumors that often trigger financial crises (for example in Thailand 1997 or in the United Kingdom in 1992). By revealing public information and, hence, reducing the degree of asymmetric information as well as transaction costs, CRAs contribute to higher financial stability.

However, since the beginning of the subprime crisis in 2008, many studies^{3,4} have observed an increase in ratings frequency—*i.e.* the number of ratings issued in a year—and, with it, a multiplication of downgrades. Frequent rating reviews conflict with the long-term perspective that CRAs should adopt, because a short time frame may mislead them in the assessment of long-term structural factors.

In this regard, several studies have documented that sovereign debt ratings appear to vary over the cycle and, even worse, to be pro-cyclical—leading to an amplification of economic cycles and contributing to deteriorating financial stability.⁵ Moreover, several papers and reports bring evidence that CRAs deliver less accurate rating of commercial bonds during booms.⁶ The IMF⁷ has documented that most of the residential MBS issued in the United States that were rated AAA before the recent financial crisis are now rated below BBB. According to White,⁸ overoptimistic ratings have exacerbated the subprime crisis.

B. Rating Errors' Costs: Financial Instability

CRA ratings may thus undermine financial stability. One of the main reasons is the so-called "over-reliance" of investors on ratings who take CRAs assessments for granted, regardless

³ R. Arezki, B. Candelon, & A. Sy, Sovereign Rating News and Financial Markets Spillovers: Evidence from the European Debt Crisis, IMF Working paper (2011).

⁴ A. Afonso, D.Furceri, & P. Gomes, Sovereign credit ratings and financial markets linkages: Application to European data, 31(3) J. INT'L MONEY & FIN. 606-638 (2012).

⁵ Of course, we can hardly imagine CRAs to be counter-cyclical as they are under a duty to disclose correct information

⁶ H. Bar-Isaac & J. Shapiro, Ratings Quality over the Business Cycle (2010).

⁷ The Uses and Abuses of Sovereign Debt Credit Ratings, IMF Global Financial Stability Report, Ch. 3, 85-122 (2010).

⁸ L. White, *The Credit Rating Agencies*, 24(2) J. ECON. PERSPECTIVES 211-226 (2010).

of whether they are sound or unsound. For sovereign debt ratings, Arezki et al.⁹ have shown that downgrades turn out to have stronger effects than upgrades.

In particular, downgrades yield two types of spillover effects across the economy: First, rating changes diffuse geographically. A downgrade in Greece may have a direct negative impact on the rating of other European countries perceived as weak (by virtue of a "contagion" effect) and a direct positive impact on other European countries perceived as strong (by virtue of a "flight-to-quality" effect).

And, second, downgrades also diffuse across financial markets through balance sheets. The downgrade of Greece may, for instance, lead to an increase in sales of Greek Credit Default Swap ("CDS"). But it also negatively impacts the situation of the financial sector; non-performing loans deteriorate the balance sheets of financial institutions, leading to a decrease of stock market indexes. Both spillovers undermine financial stability.

IV. MARKET POWER IN CREDIT RATING

Our hypothesis is that rating over the cycle is a by-product of incumbent CRAs' market power, held in an industry where competition takes place on quality, rather than on prices.¹¹ In the credit rating industry, market players compete predominantly on rating accuracy. As information goods are experience goods, investors cannot assess rating quality *ex-ante*. Furthermore, they cannot rely on rating models as a proxy, as CRAs keep their models private.

Rating quality can thus only be evaluated *ex post*, on the basis of the CRAs' track record in rating financial products. This means that *ex post* forecast accuracy and reputation should drive competition in the credit rating industry. In a hypothetically competitive industry, high forecast accuracy should build a good reputation (among investors), which, in turn, should grow market share (with issuers). By parity of reasoning, poor forecast accuracy should lead to reputational damage (among investors), which should eventually translate into loss of market share (with issuers) and possibly lead to market exit.

The market for audit services brings ample proof of this type of reputational competition. Following the Enron scandal, Arthur Andersen's reputation was so damaged that its sole option was to exit. ¹² Similarly, in Japan, the failures of PwC's subsidiary have led to a well-documented spill of clients towards rivals. ¹³

In our view, a similar process of reputational competition should take place in the credit rating industry and, in turn, limit rating errors or, to be more accurate, limit rating errors over the cycle. However, quite strikingly, CRAs' inability to provide accuracy in their forecasts during

⁹ Arezki, et al., *supra* note 3.

¹⁰ J. Aizeman, M. Binici, & M. Hutchison, *Credit ratings and the pricing of sovereign debt during the euro crisis*, 29(3) OXFORD REV. ECON. POL'Y 582-609 (2013) and Arezki et al., *supra* note 3.

¹¹ N. Petit, *Credit rating agencies, the Sovereign Debt Crisis and Competition Law*, 7(3) EUR. COMPETITION J. 587-632 (2011).

¹² S. Krishnamurthy, J. Zhou, & N. Zhou, *Auditor Reputation, Auditor Independence and the Stock-Market Impact of Andersen's Indictment on its Client Firms*, 23(2) CONTEMPORARY ACCOUNTING RES. 465-490 (2006).

¹³ D. Skinner & S. Srinivasan, Audit Quality and Auditor Reputation: Evidence from Japan, 87(5) ACCOUNTING REV. 1737-1765 (2012).

the recent economic crisis, and the ensuing reputational damage that they should have suffered vis-a-vis investors, have not translated into lower rating sales with issuers.

Our explanation for this puzzling finding is that, absent competition from actual or potential competitors, issuers have nowhere to divert ratings orders and punish incumbent CRAs. In particular, external competition from new entrants is illusory. Issuers cannot divert away rating orders towards external players, for the latter face very high and insuperable barriers to entry. Moreover, internal competition among incumbent CRAs is ineffective. Issuers cannot play one existing CRA against the other, for each incumbent CRA is bound to make the same rating errors due to conflicts of interests (see below).

The hypothesis that neither external nor internal competition is sufficiently strong to discipline incumbent CRAs is backed by market data. First, the market for credit rating services is heavily concentrated. While there are more than 70 CRAs throughout the world, the "Big Three"—Moody's, Standard & Poor's, and Fitch—account for 94 percent of the global market. Moody's and S&P each hold a 40 percent market share. Fitch, which became the third important player in the early 2000s, is reported to control 15 percent of the market. These market shares have remained remarkably stable in recent years. Moreover, the Big Three CRAs are global players covering a broad range of products and markets; the other CRAs are either regional or product-type specialists.¹⁴

Second, the credit rating market exhibits several important barriers to entry. Above all, the superior informational expertise of incumbent CRAs clearly limits entry. This is a result of (i) the time needed for prospective entrants to amass issuers' information, (ii) the availability of experienced analysts on the labor market, and (iii) the time needed to establish appropriate rating methodologies. Other barriers to entry include (i) brand loyalty towards incumbent CRAs, (ii) transaction costs savings achieved by issuers in dealing only with a few CRAs, and (iii) regulatory obstacles in the United States and Europe—where only a limited number of CRAs (respectively 10 and 37, though in Europe 16 of 37 are controlled by Moody's, S&P, and Fitch) are officially recognized as credit assessment institutions. The cost of establishing a new rating agency has been estimated in the ballpark of EUR 300-500 million over five years by the European Commission. Empirically, recent attempts to create new agencies confirm this. For instance, in 2013 the consultancy firm Roland Berger failed to raise enough capital to set up a rating agency capable of competing with the big threes.

Third, and importantly, CRAs are protected by a somewhat original barrier to exit that economists label "institutionalization." Many legal instruments (e.g. sector-specific legislation on investment funds and retirement provision institutions), but also guidelines and decisions of supervisory authorities, refer to external credit ratings. For instance, the amount of capital that banks must hold is, in some cases, determined by their external ratings. This, in turn, channels a captive demand for ratings towards CRAs, and CRAs become unavoidable trading partners for issuers (a phenomenon known as "over reliance"). Issuers no longer perform their own credit assessment, and mechanically rely on external ratings. Thanks to this, the threat of exit in a

¹⁴ IMF, supra note 7, Ch. 3.

competitive market that drives market players to provide high quality ratings becomes moot, as CRAs insulated from market entry know they will inevitably get some business.¹⁵

With this background, the case can be made that CRAs enjoy significant market power by virtue, in particular, of high barriers to entry and exit. And this market power can likely be observed empirically as CRAs achieve "extremely high profit margins" and their market shares are remarkably stable. Significant market power has weakened the competitive pressures in the credit rating market, leading to a decline in rating quality.

V. CONFLICTS OF INTERESTS

Several structural features of the industry create an observed "rating inflation" for specific complex, structured products like mortgaged-backed securities ("MBS") or credit default swaps ("CDS") that are issued by a limited number of large companies, ^{17,18} particularly during economic booms. In particular, the issuer-pays rule, *i.e.* CRAs are remunerated by issuers, not investors—combined with the discretionary possibility for issuers to withhold the disclosure of ratings produced by CRAs—gives rise to a conflict of interest which creates perverse incentives in the industry, and nurtures rating inflation.

On the one hand, issuers need good rates to sell their products and to develop the market for complex products. On the other hand, CRAs are not sanctioned if they fail to provide accurate ratings because they are protected by market power. Rating inflation is thus a (short-run) profitable strategy for both issuers and CRAs.

This is further exacerbated by the discretion left to issuers to disclose or not disclose a rating. A CRA that doesn't follow a "rating inflation" strategy would likely be sanctioned by issuers who would block the disclosure of its ratings, and turn to another incumbent CRA. As a result, such as with a Chamberlinian oligopolistic interdependence setting, each incumbent CRA understands that it makes no sense to deviate from a rating inflation strategy and issue uninflated ratings, for fear of being marginalized in the market. A more rational short-term strategy for each CRA is to follow the rating inflation strategy desired by issuers. Moreover, this conflict of interest has endured, because CRAs are protected from external competition by high barriers to entry.

Importantly, again, we want to stress that this conflict of interest is not caused by competition but rather by its absence. Rating inflation does not stem from the fact that issuers can "shop around" for the best possible rating but by the lack of competition that does not discipline CRAs that choose to inflate their ratings for a short-term benefit. If the market has the ability to sanction poor rating quality, CRAs would have no other option than to compete on the

¹⁵ J. Hörner, Reputation and Competition, 92(3) AMER. ECON. REV. 644-663 (2002).

¹⁶ P. Bolton, X. Freixas, & J. Shapiro, *The Credit Rating Game*, 67(1) J. FINANCE 85-111 (2012).

¹⁷ V. Skreta & L. Veldkamp, *Ratings Shopping and Asset Complexity: A Theory of Ratings Inflation*, 56(5) J. MONETARY ECON. 678-695 (2009).

¹⁸ J. Mathis, J. McAndrews, & J.-C. Rochet, *Rating the Raters: Are Reputation Concerns Powerful Enough to Discipline Rating Agencies?*, 56(5) J. Monetary Econ. 657-674 (2009).

¹⁹ Mathis, et al. show that rating inflation is not primarily caused by competition for rating. Even in the case of a monopolist, maintaining its reputation is not sufficient to discipline the CRA that will behave opportunistically, and opportunism by the CRA may inflate ratings particularly when rating complex products is an important source of income for the CRA, *Id.*

merits, *i.e.* on ratings accuracy. It should be noted, however, that conflicts of interest cannot explain the deterioration of sovereign debt ratings, as countries do not pay for ratings.

VI. REMEDIES

In short, the functioning of the credit rating market is suboptimal. Rating models are biased toward the short run, and exhibit pro-cyclical movements. Besides, CRAs are sheltered from competition, which has led to a decline in rating accuracy. We believe that the credit rating market would benefit from more competition, together with a series of structural reforms. In a nutshell, the regulatory framework should help establish a "competition by reputation" environment by (i) rewarding those CRAs who produce accurate ratings; and (ii) sanctioning those who fail to do so.

The below discussion is organized in three parts: first, we propose amendments to rating models; second, we recommend the disclosure of all ratings; and third, we assess recent structural amendments that seek to promote competition.

A. Forward-Looking Credit Rating Models

Given that CRAs have market power, their ratings have a strong influence on financial markets. For that reason, it is of prime importance that CRAs have a long-run rating perspective. Theoretically, this means that CRAs should use forward-looking rating models that assess the long-run refinancing capacity of the issuer/firm/country. This implies, for instance, that a country exhibiting a high public debt should not be automatically downgraded. A downgrade should only occur if the country's public debt undermines *permanently* its refinancing capacities, i.e. its sustainability.

Equally, CRAs should, by all means, avoid using backward-looking rating models, which risk annihilating the effects of stabilization plans, hence creating "double dip" recessive situations or self-fulfilling prophecies. For example, a country faced with refinancing problems at the early stage of a public stabilization program risks being strongly affected by such a downgrade event, though the rating change—which is based on information prior to the stabilization program—says nothing of the future of long-term refinancing capacity of this country.

In short, both the models used by CRAs and the time horizon of those models have critical importance. The model should take into account not only the current situation of the issuer but also the future consequences of a rate review on its refinancing capacity. For corporate ratings, there are numerous evidences of non-Markovian transition matrixes, ^{20,21} meaning that the rating itself is not sufficient to explain the transition from one grade to another but that history—especially downgrades—matters. In other words, two firms with the same rating, but with a different rating history, have different probabilities of being downgraded in the future, implying that there is additional information beyond ratings (rating history) that is useful to assess the creditworthiness of an issuer. Non-Markovian ratings mean that there is information

²⁰ D. Lando & T. Skødeberg, *Analyzing Rating Transitions and Rating Drift with Continuous Observations*, 26(2-3) J. BANKING & FIN. 423–444 (2002).

²¹ H. Frydman & T. Schuermann, *Credit Rating Dynamics and Markov Mixture Models*, 32(6) J. BANKING & FIN. 1062-1075 (2008).

that is not embedded in the current rating, precisely because the rating model does not take into account all future consequences.

To remedy both these modeling issues, we suggest the following series of measures:

1. Certification process for credit rating models

CRA ratings should be supported by adequate rating models. Of course, we are well aware that rating models are private and that they constitute the core business of CRAs (from which they are making profit). Public disclosure is thus not an option. That said, we propose, as in many other industries, a model certification process, performed by an independent body (ESMA or IMF for example). This procedure would guarantee the quality of the rating model as well as financial stability. Besides, by accepting this certification process, CRAs would gain credibility and improve their reputation. Hence, it would be in the CRAs' best interests to support (and possibly initiate) such a certification process.

2. Appeals against CRA ratings

In addition to this certification process, we also support the introduction of a possibility of "appeal" if there is disagreement between a CRA and the rated country/firm. The U.S. Treasury did just this following S&P's downgrade. But this second review was entrusted to the Securities and Exchange Commission ("SEC"). In our proposed system, the appeal should be dealt with by the organ in charge of the certification process, which could unambiguously confirm/modify the challenged rating within a reasonable timeframe.

3. Protection of issuers under stabilization plan

In addition to modeling issues, it is open to question whether all ratings should be disclosed to the market place. Of course, the public disclosure of ratings is beneficial to both investors and rated entities (so they can improve their situation). But we believe that a CRA's downgrade should nonetheless be suspended for a fixed period during stabilization programs in order to avoid arbitrage.

We do not favor a *sine die* disappearance of ratings in cases of sustainability issues, but instead a provisional suspension of ratings, in order to preserve the chances of international aid programs to yield positive effects. This would prevent the destructive consequences of a "double dip" event; i.e. a downgrade, followed by an international program, which is immediately annihilated by a second downgrade.

Our proposal is similar to the U.S. Chapter XI legislation that guarantees state protection to any firm that faces potential bankruptcy risks. In recent times, the European Union has adopted similar measures in relation to sovereign ratings: CRAs shall not issue more than three unsolicited sovereign ratings a year (before the WE, on Fridays by close of business). Moreover, they should establish *ex ante* a yearly schedule for those three ratings.

4. Benchmarking CRAs' performance in a standard and comprehensive way.

To create and stimulate competition on the merits, it is important that market players be able to evaluate the rating accuracy of the various CRAs. To date, CRAs have measured their

performance on the basis of Gini coefficients.²² In our view, performance assessments should be performed more systematically and in a standardized way, allowing issuers to compare rating quality. This is a prerequisite to promote competition on the merits.

B. Mandatory Rating Disclosure

Credit ratings are paid for by the issuers and subsequently disclosed publicly—upon agreement of the issuer—making a rating a public good. This "issuer pays rule" has created perverse incentives. In our view, it is important to expropriate the issuer from the choice of either disclosing a rating or not, and make rate disclosure mandatory. This measure, together with appropriate instruments to compare rating performance (see point 3 above) and measures to favor entry and competition (see below) will defuse incentives to inflate ratings.

C. Structural Measures to Promote Competition

In addition to modeling issues, structural reforms may also help promote competition. Earlier this year, the European Union adopted a new regulatory framework entitled the credit rating regulation (hereafter, the "rating regulation").²³ This framework contains a raft of new measures that seek to promote competition by ensuring CRAs' accountability, reducing overreliance on ratings of public and private financial institutions, and promoting competition. We review them in turn, and provide a first assessment.

1. "Enabling" competition from internal ratings: the "over-reliance" problem

The rating regulation a number of measures that seek to reduce "overreliance," in line with earlier G20 commitments. These measures try to promote ratings competition by prompting financial institutions to vertically integrate and substitute internal, or in-house, ratings for competing external ratings. The primary requirement is that financial institutions make their own credit risk assessments, and not mechanically rely on credit ratings.²⁴

In addition, EU supervisory authorities (like ESMA or the ECB) should avoid references to external ratings in official documents. Moreover, because reliance on external ratings might be imposed by the financial regulation, the EU Commission has been tasked to review—and as the case may be to purge—legal instruments that refer to external ratings.

To help investors perform their own assessments, the rating regulation additionally requests issuers to provide information on the performance and quality of the underlying assets, in order to reduce dependence on external credit rating, and help investors perform self-assessments that compete with CRAs assessments. The rating regulation explains that this may

²² The Gini coefficient measures the cumulative default rate for each rating category A relative to the number of issuers in each category. A coefficient close to 1 means that defaults are concentrated in low rating categories indicating a high rating accuracy. A low coefficient means that defaults are equally spreads across rating categories, indicating a poor performance.

²³ See Regulation (EU) 462/2013 of the European Parliament and of the Council of 21 May 2013 amending Regulation (EC) No 1060/2009 on Credit Rating Agencies.

²⁴ See Article 5b) of the rating regulation. This is also a requirement of Capital requirement directive IV requiring banks to rely on their own internal credit opinions (Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013), §§73 and 77.

also increase the competition between credit rating agencies, because it could lead to an increase in the number of unsolicited credit ratings.

2. "Promoting" competition in external ratings: the "rating inflation" problem

The new regulatory framework also seeks to promote competition in external ratings or, put differently, competition among CRAs. To that end, the rating regulation first imposes a *multi-sourcing* requirement. In so far as structured finance products are concerned, issuers must engage at least two different CRAs for the rating of financial instruments.²⁵

The rationale behind this new requirement is to improve quality by creating competition within the rating of a particular financial product. The regulation seeks to reveal possible differences in assessment, and help issuers dismiss overoptimistic ratings given by a conflicted CRA (provided that information is disclosed and that the rating model is correctly specified, as we argued above). Given the abovementioned problem of interdependence in rating inflation, however, one may actually question whether the creation of small duopolies for the rating of financial products will promote, rather than undermine, competition.

To the same end, the rating regulation provides that when an issuer appoints two agencies, he shall consider appointing a third one with no more than a 10 percent market share. This measure seeks to promote external competition by giving small CRAs the opportunity to gain market shares, thereby increasing competition in the long run. To help issuers identify small CRAs, the ESMA regularly publishes a list of CRAs accompanied with market shares. Again, however, the market share transparency mechanism could entitle incumbent CRAs to identify small cheating CRAs that do not follow a rating inflation strategy, and in turn punish them more effectively.

In the same vein, the rating regulation forbids CRAs to price discriminate. Issuers should set fees based on actual costs, to ensure "fair competition."

Finally, another regulatory measure designed to foster competition is the rotation mechanism, which forbids financial institutions to use the same CRA for more than four years, and forces them to change CRAs after the expiry of this period. The scope of this rotation rule is limited. It only applies to a subset of complex structured products called "re-securitisation." The European Union has decided to restrict the rotation rule to a limited category of products in order to do empirical testing. There will be a review of the rotation mechanism in 2016, to assess whether an extension to other financial products is warranted.

On substance, the goal of the rotation mechanism is to reduce risks of complacent ratings by conflicted CRAs, who arguably seek to build long-term relationships with issuers. To that end, the rotation mechanism artificially recreates a process of competition for the market every four years, by capping contracts and forcing issuers of re-securitization to switch. Obviously, it is not possible for an incumbent CRA to re-rate the same issuer after four years. And the rotation rule will not apply to small CRAs or issuers that use four CRAs or more.

²⁵ See Article 8c of the rating regulation. See also, §28 of the Preamble of the Regulation.

²⁶ See Article 8d of the rating regulation.

²⁷ The rating regulation additionally provides for the publication of all ratings on a European rating platform, to help small CRAs gain visibility.

The impact on competition of the rotation mechanism is debatable. If we are right that there is not enough competition in the market—in particular external competition (which is our hypothesis)—this measure may erect an additional barrier to entry, freezing the market shares of the three incumbent CRAs and institutionalizing rotation between the main players. In this scenario, CRAs will have even less need to compete on quality, for the rotation rule will automatically provide clients regardless of past performances. Thus, effective external competition is a prerequisite for this measure to work. In contrast, if there is enough competition on the market (which is not our hypothesis) one may question the need for an additional layer of competition. Issuers will simply select the best raters and the market will discipline the CRAs.

3. Miscellaneous

The rating regulation finally contains rules on shareholdings, which purport to sever structural ties between CRAs and issuers and among CRAs. These measures seek to limit risks of concerted conduct (*i.e.*, rating) between CRAs and issuers, and among CRAs. The new framework also contains rules on civil liability, which provide that CRAs should be liable for damages if they commit an infringement intentionally or with gross negligence.²⁸ Increasing the accountability of the CRAs is indeed a means to incrementally discipline agencies.

VII. CONCLUSION

There is a large consensus on the decline of external rating accuracy in recent years. However, the literature is divided on the causes of this decline. In this paper, we argue that the credit rating industry has been sheltered from effective competition by high barriers to entry. In turn, the "competition on the merits" mechanism that should have ensured rating accuracy has failed to work properly.

Given that external ratings are essential for well-functioning financial markets, increasing competition in the rating industry is of prime importance. To that end, investors and issuers should be able to sanction poor performing agencies and reward good performing ones. In addition, measures should be adopted to reduce the mechanistic reliance of financial institutions on external ratings. Regulators across the world should keep those objectives in mind when mulling options for reforms in the credit rating industry.

²⁸ See Article 35a of the rating regulation.