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Rating agencies – role and influence of their sovereign credit risk assessment in the euro area

Briefing Note

Abstract

Rating agencies are lagging behind markets in their judgment, as follows from the subprime crisis and from analyzing the current sovereign debt crisis. Furthermore, their business model is flawed as they face major conflicts of interest and are very opaque in their methodologies. Also, the oligopolistic structure of the ratings market provides the three large CRAs with a very strong position, while new entrants have the greatest difficulty to enter this market.

We must reduce the reliance on these bad ratings, by attaching less importance to them in prudential regulation and accounting standards. Furthermore, more competition is needed to increase the quality of ratings. To facilitate this competition, the interpretation of ratings and to improve investors' own analyses, more transparency is also needed.

Finally, several policy options to change the ratings industry have been put forward, including a network of small agencies, a European Rating Agency, or even the delegation of sovereign rating to the ECB. The first option is least preferred, because of the entry costs, coordination problems and the lack of economies of scale. The delegation of sovereign rating to the ECB would in principle be possible, but not preferable as it leads to a conflict of interest within the ECB. That leaves only the option of a European Rating Agency as a way to improve rating quality and transparency. However, it also requires high investment costs and time for reputation building.

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1. INTRODUCTION¹

Credit ratings have a huge impact on the access to and costs of funding, regardless whether the rated entity is a private enterprise or a sovereign borrower. Recent market disruptions in the sovereign debt markets, e.g. the 19 October 2011 downgrading of Spain's sovereign debt, showed again the pivotal role of credit rating agencies and the dependence of the financial markets on their judgment. Downgrading of sovereigns or even the announcement of a possible future downgrade may jeopardize the achievements of implemented austerity measures at once. Even the establishment of the amended EFSF is influenced by rating agencies, which on several occasions hinted, that the rating of participating states may depend on the amount of guarantees they provide.

Since the beginning of the financial crisis there has been a vivid and controversial debate about methods, timing and procedures used by these agencies. Both the market power of the CRAs and the obstacles to new rating agencies entering the market have been widely criticized. Regardless of the new supervisory powers of the European Securities and Markets Authority (ESMA) on rating agencies this debate continues.

The 'Report on credit rating agencies: future perspectives (2010/2302(INI))' adopted in March 2011 by the ECON Committee of the European Parliament addresses several topics on a macro- and micro-level such as over-reliance, competition in the rating sector, a European Credit Rating Foundation and sovereign debt rating. It also asks the Commission to assess alternative instruments in order to measure credit risk.

These developments raise several questions regarding the role of credit rating agencies and their regulation in Europe:

- How have rating agencies behaved and performed in the run-up to the sovereign debt crisis?
- What are the positions of the ECB on the influence of rating agencies in the euro area?
- How could over-reliance on external credit ratings be reduced?
- What would be the costs and benefits of establishing a European rating foundation? What would be the alternative proposals?
- Could the ECB or another institution (which might be already in the business of judging fiscal sustainability) take the role of an independent provider of sovereign credit ratings?

In what follows, these questions will be answered. First, we will review the recent literature, theoretical as well as empirical, to characterize the academic discussion of ratings. Then, we will compare the actions of rating agencies to the market opinion. Subsequently, we will draw some policy recommendations from the previous sections. Finally, the last section concludes.

¹ The author gratefully acknowledges the excellent research assistance of Mr Rob Nijskens, Msc.

2. LITERATURE

After the subprime crisis the literature on credit rating agencies (CRAs) has grown tremendously in size. Many authors consider critically the role CRAs have played in the run-up to this crisis, and find that there are many flaws in the current model of external credit assessment and the use of the CRAs' judgments in accounting and regulation.

De Haan and Amtenbrink (2010)² provide a critical overview of the debate on CRAs, the accompanying literature and the proposed regulatory measures at the European level. The authors first review the functioning of CRAs, and highlight the most important issues regarding the CRA business model. To start with, CRAs have an enormous influence on interest rates of bonds, sovereign as well as corporate. This is especially harmful when a rating action downgrades a bond to below investment grade, as this may trigger liquidation in the form of herd behavior by investors. Furthermore, regulatory requirements rely very heavily on credit rating agencies. This excessive reliance on rating agencies has been confirmed by, among others, Pagano and Volpin (2010)³ and White (2010)⁴ who states that "[e]ssentially, the creditworthiness judgments of these third-party raters had attained the force of law." This overreliance has also contributed to the subprime debacle. Additionally, De Haan and Amtenbrink state that central banks rely on CRA judgment for setting collateral requirements on lending.

Another severe problem with the CRA business model is the "issuer pays" construction, which can lead to conflicts of interest (as in the subprime market) and causes issuers to go "rating shopping", thereby selecting the CRA that provides the most favorable rating. Although reputational effects should mitigate this behavior by punishing rating agencies that provide too generous ratings, this effect has scarcely been observed (Mathis et al, 2009)⁵. This can be explained by another deficiency of the CRA market: the lack of competition. This is one of the main points of recent EU regulation (CRAIII), to which we will come back later.

Specific to the sovereign debt market, the CRA model also suffers from shortcomings. One is the lack of transparency in rating sovereign bonds. The three big agencies very often disagree about the rating of sovereign debt, which may follow from the fact that they all use different indicators. Although several empirical studies have tried to identify the weights that CRAs attach to the various indicators, this has provided no unambiguous results as of yet (Hill et al, 2009; Afonso et al, 2011a)^{6,7}. The main determinants turn out to be GDP per capita, GDP growth, debt history, government debt and external debt. However, the weights are not easily inferred, so replication of the CRAs' decision process is

²De Haan, J. and F. Amtenbrink (2011), "Credit Rating Agencies," DNB Working Papers 278, Netherlands Central Bank, Research Department.

³ Pagano, M. and P. Volpin (2010), "Credit ratings failures and policy options", *Economic Policy*, Wiley Online Library, 25, 401-431

⁴ White, L. J. (2011), "Markets: The Credit Rating Agencies", *The Journal of Economic Perspectives*, 24, 211-226

⁵ Mathis, J., J. McAndrews and J.-C. Rochet (2009), "Rating the raters: are reputation concerns powerful enough to discipline rating agencies?", *Journal of Monetary Economics*, Elsevier, 56, 657-674

⁶ Hill, P., R. Brooks and R. Faff (2010), "Variations in sovereign credit quality assessments across rating agencies", *Journal of Banking & Finance*, Elsevier, 34, 1327-1343

⁷ Afonso, A., P. Gomes, and P. Rother (2011), "Short- and long-run determinants of sovereign debt credit ratings", *International Journal of Finance & Economics*, Wiley Online Library, 16, 1-15

not easy. Further complications arise from the observations that rating changes concerning one country also affect spreads of other countries, CRAs interact in a nonlinear way and that CRAs try to smooth their rating changes. The last effect, although the policy is aimed at stabilizing ratings, can lead to so-called cliff effects: while the rating does not change often, a change is likely to push the bond below investment grade, leading to severe liquidation effects.

We can apply most abovementioned general problems also to the market for structured products (another very important domain of rating agencies). A problem that was more severe here than for other markets is that of the "issuer pays" model: issuers could influence the terms of their rating, and structured their subprime bonds in such a way that they just obtained an AAA rating. This so-called rating inflation, together with the coarseness of ratings (i.e. the discreteness of the rating categories) and the excessive reliance of regulation on these ratings has been an important cause of the subprime crisis⁸.

A problem related to this, and to the smoothing behavior of CRAs, is the sluggishness of rating changes: during the subprime crisis, CRAs were very late in recognizing the losses from subprime instruments⁹. In the current sovereign debt crisis we also see this effect, as will be documented in the next section. Recent empirical literature has found support for this lagging behavior of CRAs. Reinhart (2002)¹⁰ already found that the agencies are notoriously bad at predicting currency crisis (which is what the current crisis would have been without EMU) although they do predict default very well after a currency crisis has occurred. This suggests that rating agencies should also consider other vulnerability indicators next to those related to default. More recently, Afonso et al. (2011)¹¹ have investigated the financial market's reactions to sovereign rating announcements. They find that markets react mainly to negative announcements (for both rating actions and outlook communication), and that these communications are not anticipated in the 2 months beforehand. This suggests that markets do not incorporate the same information in their analyses as CRAs, and that the CRAs' procedures are not transparent. This is confirmed by Gärtner et al (2011)¹², who divide ratings into a systematic component, predicted by previously observed procedures, and an arbitrary component that cannot be explained. They find that both components affect credit spreads, but the arbitrary part becomes much larger during the recent crisis.

In an attempt to alleviate the problems with credit ratings, the European Commission has instated Regulation 1060/2009. De Haan and Amtenbrink describe the main thrust and shortcomings of this regulation. The main idea of the regulation is that there should be a legal basis and an enforcement mechanism that can decrease reliance on ratings, improve their trustworthiness (through registration and transparency) and simplify the supervision of CRAs. However, the certification of rating agencies may actually increase the reliance on their judgment, as it creates the impression that their ratings can be trusted. Furthermore, increased oversight can lead to the supervisor being responsible for the ratings, which goes against the principle of private ratings. These problems will not contribute to the increase of

⁸ Pagano and Volpin (2010), op. cit.

⁹ White (2010), op. cit.

¹⁰ Reinhart, C. (2002), "Default, Currency Crises and Sovereign Credit Ratings", NBER Working Papers, National Bureau of Economic Research, Inc

¹¹ Afonso, A., D. Furceri and P. Gomes (2011), "Sovereign credit ratings and financial markets linkages: application to European data" *Journal of International Money and Finance*, Elsevier

¹² Gärtner, M., B. Griesbach and F. Jung (2011), "PIGS or lambs? The European sovereign debt crisis and the role of rating agencies" *International Advances in Economic Research*, Springer, 1-12

due diligence by investors, at least not when capital and other requirements still rely on external ratings.

To conclude this literature section, let us focus a very recent report by Intereconomics, which has published a Forum collection of articles on credit rating agencies. The main question in this Forum is whether CRAs are part of the solution or part of the problem in the sovereign debt crisis¹³. In this collection, several authors take into account the most recent state of affairs in Europe, including new regulatory proposals. In the first piece of this collection, Günther Tichy argues that CRAs follow the market rather than lead it. This caused an overreaction to the sovereign debt crisis, as is also shown in the next section. Furthermore, CRAs did not devote enough attention to real problems; instead, they focused on financial indicators. The underlying institutional reason is that CRAs received too much regulatory power. This holds especially for ECB collateral requirements, since these are largely based on ratings by external CRAs instead of the central bank's own assessments.

Karel Lannoo follows up on this by stating that the EU, like the US, should eliminate the regulatory reliance on external credit ratings. Additionally, he argues that the increased registration requirements for CRAs restrict entry, and that CRAs should be made more accountable by exposing them to civil liability.

Owain ap Gwylim and Rasha Alsakka analyze whether recent critiques on CRAs have a sound basis, by assessing their methodologies and the resulting actions. They conclude that the agencies' practices of providing watch and outlook signals have provided a lot of information to the market, as around 90% of the rating actions during the sovereign debt crisis has been preceded by such a signal. However, they still agree that governments and investors should attach less weight to the CRAs' judgments and consider a broader range of indicators. Moreover, they criticize a few proposed regulatory measures, such as suspension of ratings during financial assistance, the setup of a European CRA and increasing the advance warning period for sovereign ratings.

Donato Masciandaro focuses on the effect that CRAs have on yield volatility, and concludes that there may be excessive volatility related to the regulatory and licensing features of credit ratings. This has to be evaluated empirically to reach a more solid conclusion. He concludes by proposing two ways to get rid of this excessive volatility: disposing of regulation that is dependent on ratings, and improving the communication policy of CRAs to increase their accountability.

Finally, Bartholomew Paudyn focuses on the question whether a quasi-public EU CRA is a good idea. He concludes that this increases the dependence of regulation and accounting standards on external ratings, as it may form an additional entry barrier for new private agencies. Together with the ESMA registration requirement this creates more instead of less reliance on external ratings, while doing nothing to improve the fallacious analytics of ratings and their poor quality.

Below, we will delve deeper into one aspect highlighted by many authors: CRAs may lag behind the market in determining credit ratings.

¹³ Intereconomics, "Credit rating agencies: Part of the solution or part of the problem?" Intereconomics Forum, Springer Berlin / Heidelberg, 46, 232-262

3. COMPARING RATINGS TO SPREADS

As mentioned above, in the Intereconomics Forum Ap Gwylim and Alsakka analyze the lagging behavior of CRAs. They are less pessimistic than most authors, as a part of the lagging problem is alleviated by outlook and watch statements. They employ a method of transforming rating actions, outlook and watch statements into numerical values. Their scale consists of 58 points, incorporating the rating, outlook and watch status, as follows: Aaa/AAA = 58, Aa1/AA+ = 55, Aa2/AA = 52, ... , Caa3/CCC- = 4, Ca/CC, C/SD-D = 1, adding "+2" for positive watch, "+1" for positive outlook, "-1" for negative outlook, "-2" for negative watch, and "0" for stable outlook and no watch/outlook assignments. The data employed are from S&P, Moody's Investor Service and Fitch Ratings, running from October 2006 to August 2011.

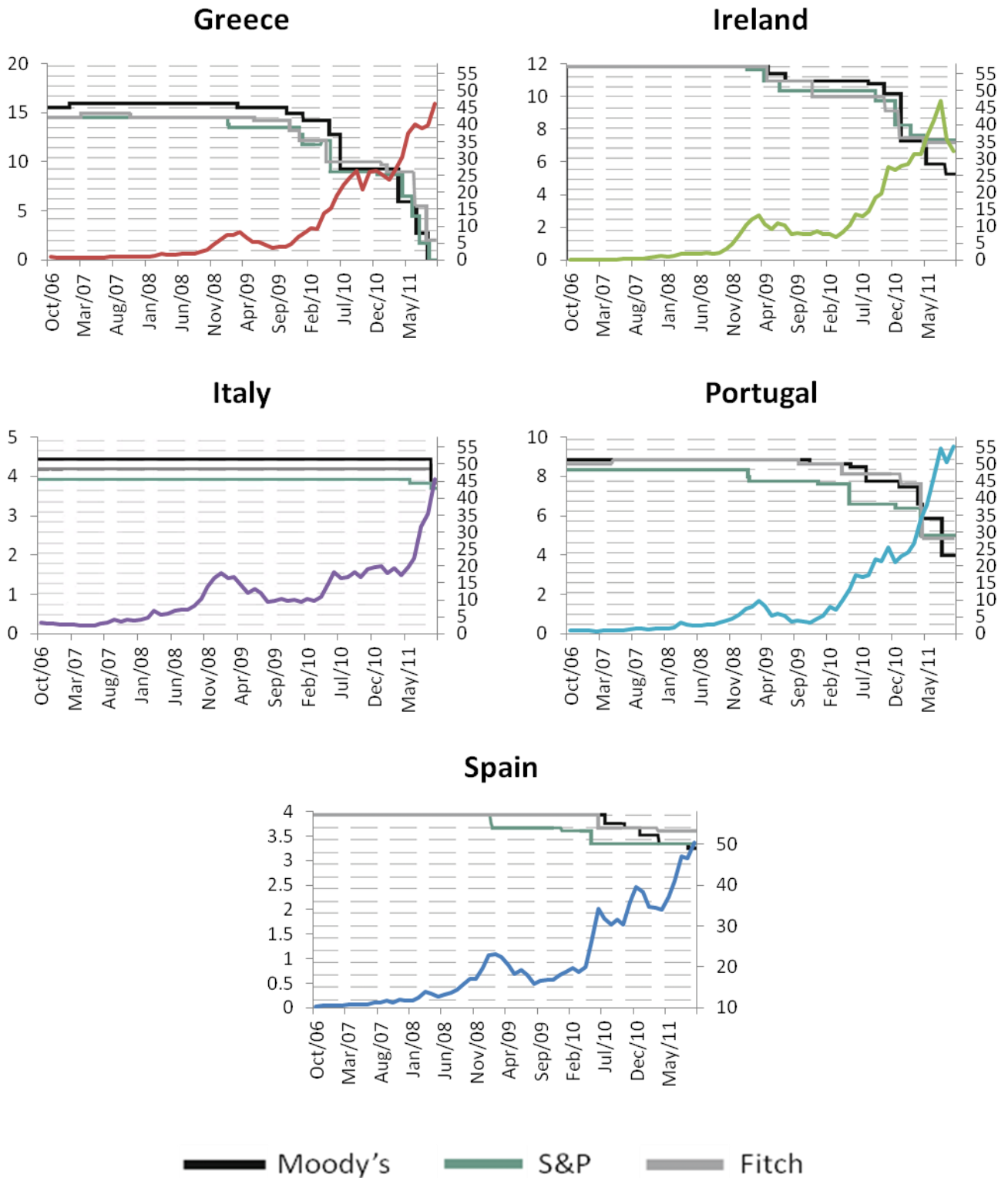
To these ratings figures, we add the 10 year government bond spreads for the key players in the sovereign debt crisis: Greece, Ireland, Italy, Portugal and Spain. The spreads are calculated relative to the German bund, and are denominated in percentages.

The results of this exercise are plotted in figure 1 below, where the left axis indicates the bond spread and the right axis the rating score. A striking observation derived from this figure is that the positive attitude of Ap Gwylim and Alsakka can hardly be justified, particularly when we consider the last 2 years. For most countries, the rating agencies lagged very much behind in adjusting their ratings, outlook or watch status. Concerning Ireland and Portugal, the agencies were quite up-to-date and also agreed on their rating downgrades. For Greece, Spain and especially Italy, however, they were significantly lagging behind the market's increase in yield spread. We can also see that S&P is the leading and most pessimistic agency, as it downgrades before the others do, and to a lower level. At the end of 2011, however, the ratings of most agencies converge, and even overshoot. This is especially severe for Greece and Ireland, who experienced very sharp downgrades to excessively low levels.

Together with the observations from the literature this leads us to the conclusion that CRAs are lagging instead of leading, that they are not very objective (they are influenced by the market) and that their methodologies are very opaque, as we have only the results of their actions to infer from. Furthermore, they are hardly accountable for their actions. The only logical conclusion from these observations is indeed that accounting standards, prudential regulation and central banks should attribute a much lower value to ratings. Instead, market participants and regulators should rely more on their internal models. This, however, requires regulation on transparency of rating methodologies and the data used, which is exactly what the European Parliament suggests.

In the next section, we will consider these suggestions and the resulting new regulation proposed by the European Commission.

Figure 1: Ratings versus spreads



Note: these figures plot the 10 year government bond yield spread over the German Bund on the left axis in percentages, and the ratings of these bonds by the big three rating agencies on the right axis according to the 58-point scale by Alsakka and ap Gwylim (2011).

4. GOING FURTHER

The European Parliament (EP) suggested several reforms to the existing regulation 1060/2009. It starts with eliminating the reliance on external ratings and increasing the ability of financial market participants to perform due diligence. Additionally, the ECBs decisions on collateral requirements should not depend on external ratings any longer. Furthermore, barriers to entry for new CRAs have to be removed. The EP wants to foster cooperation among smaller CRAs to increase their market power, and wants to consider the setting up of a European Credit Rating Foundation. Related to decreasing reliance on external ratings, the EP also advocates increasing the disclosure of information used for ratings so investors can perform their own analysis. For sovereign debt, this is already quite well possible, since the information is publicly available. Finally, the governance and accountability of CRAs has to be improved to make them more independent and thus able to provide better quality ratings.

The European Commission (EC) has adopted several of the recommendations, such as enhancing disclosure requirements, tightening reporting requirements concerning sovereign debt ratings, increasing the liability of CRAs and improving their governance. The EC has also indicated, however, that the creation of a European Credit Rating Foundation suffers from serious credibility issues; this has also been highlighted by several authors in our literature section. Instead, the EC prefers the creation of a network of rating agencies to enhance cross-border cooperation and reduce barriers to entry.

Although this is a significant step in the right direction, there are still several points to consider. First, there is still an oligopoly of CRAs who have strong market power, but are deeply flawed. An increase in competition should also increase the quality of ratings, but as of now there is not much stimulus to competition. On the contrary: the proposed regulation concerning registration and compliance creates even more (administrative) barriers to entry, as also argued by De Haan and Amttenbrink (2010)¹⁴. Second, these CRAs are not liable for their actions, i.e. they are not confronted with the consequences of their ratings and outlooks. Both these problems are partially addressed in the proposed regulation. Finally, external ratings are still relied upon to a too large extent. This is addressed in the proposed regulation by substituting them for internal ratings. However, the validity of internal models, and especially their verification by regulators, has been a point of heavy discussion.

What are the alternatives? Several suggestions have been made, such as transforming rating into a public service (i.e. by nationalizing CRAs or setting up a European Rating Agency), stimulating competition and cooperation between small rating agencies, or even delegating the task of providing (sovereign) ratings to the ECB. The first option has been proposed by the EP, but has been criticized heavily (eg. in the October 2011 Intereconomics Forum issue¹⁵) for lacking credibility. Especially during these times of crisis, a European agency rating European sovereign debt will not be taken very seriously by investors. Furthermore, by legitimizing ratings this solution creates even more reliance on external ratings instead of internal analyses. However, an intermediate solution has been

¹⁴ De Haan and Amttenbrink (2011), op. cit.

¹⁵ Intereconomics (2011), op. cit.

suggested by Welfens (2010)¹⁶, to overcome conflicts of interest and credibility issues. In his solution, bond issuers will pay their fees into a fund, whose management will then delegate the bond rating to designated agencies. If a European Rating Agency is set up in this way it will not issue ratings itself, but will function as a intermediary between issuers and raters, hereby sidestepping conflicts of interest and credibility issues.

The second option of stimulating competition seems a viable alternative, but the costs of setting up a rating agency, entering the market and building up a credible reputation are still very high. These costs are not diminished by the registration and compliance requirements suggested by the EC.

The last option, delegating the rating of sovereign debt to the ECB, has obvious advantages: the ECB has strong expertise in judging fiscal sustainability and is an independent body. This means that it can provide a credible assessment of the credit risk of sovereign debtors. However, the ECB's mandate is already quite broad, and has become even broader with the setup of the European Systemic Risk Board (ESRB). Perhaps an intermediate solution, modeled after the same ESRB, can be possible: set up an independent rating agency that makes use of the expertise of the ECB. Nevertheless, credibility considerations have to be taken into account very carefully also in this case.

5. CONCLUSION

Rating agencies are lagging behind markets in their judgment, as follows from the subprime crisis and from analyzing the current sovereign debt crisis. Furthermore, their business model is flawed as they face major conflicts of interest and are very opaque in their methodologies. Also, the oligopolistic structure of the ratings market provides the three large CRAs with a very strong position, while new entrants have the greatest difficulty to enter this market.

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¹⁶ Welfens, P. (2010), "Transatlantic banking crisis: analysis, rating, policy issues", *International Economics and Economic Policy*, Springer, 7, 3-48

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