Do credit rating agencies provide valuable information in market evaluation of sovereign default risk? 

Mahir Binici a,*, Michael Hutchison b

a International Monetary Fund, United States
b University of California, Santa Cruz, United States

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A B S T R A C T

We assess the marginal information value of credit rating announcements on market pricing of sovereign risk as measured by CDS spreads. We demonstrate that accurate assessment of the effect of credit rating changes must be conditioned on relevant information known prior to the rating change. To this end, we include macroeconomic conditions and the watch or outlook status of the bond immediately prior to the rating change in our information set. The empirical work employs a dynamic panel macroeconomic model with 56 countries using monthly data from January 2004 through August 2012. We find that watch/outlook status plays a critical role in accurately determining the information value of credit rating changes, with point estimates in some cases changing by a factor of eight. CDS spreads respond most strongly to credit rating changes when bonds are on stable status, but also respond significantly when bonds are on outlook status. The least response is found for bonds on watch status at the time of the downgrade—the downgrades in these cases are largely anticipated, and the information value incorporated at the time of the negative watch announcements.

1. Introduction and overview

In theory, credit rating agencies provide valuable information to investors about the riskiness of sovereign bonds. This information provision may work through several channels.1 Credit rating agencies (CRAs) may add valuable information to markets in a world of asymmetric information, where payoffs depend on noisy ex post monitors of information quality.2 CRAs also provide certification services in many countries. In particular, ratings are often used to classify securities as either investment or non-investment grade, which influences institutional demand and market liquidity, and serve as triggers in investment decisions and regulatory oversight.3 Finally, CRAs may serve as monitors and help coordinate investors’ beliefs in situations where the possibility of multiple equilibria is present.4

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* Corresponding author.

E-mail addresses: mbinici2@imf.org (M. Binici), hutch@ucsc.edu (M. Hutchison).

1 See Kiff and Nowak (2012) for a review of the literature.
2 See Millon and Thakor (1985).
3 Ratings are also frequently employed to calculate Basel II risk-based capital requirements and serve other regulatory functions.
4 See Boot et al. (2006).
Despite the potential value of CRAs, critical views of the agencies are commonplace – especially following the conflicts of interest and mispricing of risk on mortgage backed securities and other derivatives that contributed to the 2007–08 Global Financial Crisis (GFC) and in the context of the European Sovereign Debt Crisis since 2009. Indeed, the International Organization of Securities Commissions (IOSCO) revised the Code of Conduct Fundamentals for credit Rating Agencies in 2008 to address issues of independence, conflict of interest, transparency and competition.

To address some of these concerns, a new government entity was set up in the United States, the Office of Credit Ratings (OCR; an office in the Securities and Exchange Commission), as part of the Dodd–Frank Act, to monitor and regulate credit rating agencies. In the Eurozone, Greece, Ireland and Portugal have been particularly affected by credit downgrades, with one or more CRAs rating their bonds “junk” status at some point since spring 2010. Many officials publicly stated that these downgrades accelerated a burgeoning Eurozone sovereign debt crisis and, partly in response to this criticism, several new regulations and rules on CRAs have been put in place in the European Union. A European Commission memo explaining new rules states: “CRAs have a major impact on today’s financial markets, with rating actions being closely followed and impacting on investors, borrowers, issuers and governments: e.g. sovereign ratings play a crucial role for the rated country, since a downgrading has the immediate effect of making a country’s borrowing more expensive.” (European Commission, 2013). The legislation requires CRAs operating in Europe to register with the Committee of European Securities Regulators (CESR), and the regulation of CRAs is under the European Securities and Markets Authority (ESMA).

It is not clear, however, that credit rating agencies play a pervasive role in the pricing of sovereign risk. CRAs may primarily gather publically available information from various sources, incorporating this into a single measure of default risk. Markets in this case would most likely have already incorporated the same information used by CRAs into risk pricing, such as macro fundamentals, with little value added by the agencies and resulting in only a small price effect from rating changes. Moreover, market response to credit rating changes should be affected by whether a sovereign bond had already been placed on watch or outlook status by the CRA – a signal designed to forewarn market participants of changing economic and political conditions, rating reviews and possible future rating changes.

In this paper we assess the extent to which macroeconomic developments and watch/outlook status, information known prior to rating changes, influences marginal information value of CRAs’ announcements. If rating agencies mainly follow existing market-pricing of sovereign risk in assigning credit ratings or are simply reacting to macroeconomic information that is already publically available, then actual announcements should have little or no effect on prices, especially when taking into account existing watch and outlook status of the bonds. The latter consideration also motivates us to separately measure the information value of outlook and watch announcements from credit ratings to determine whether they are systemically incorporated into market pricing of sovereign default risk once macroeconomic factors and existing pricing of default risk are taken into account.

We employ a panel framework with monthly data in this study, departing from most previous work focusing on event studies using daily data, allowing us to explore macroeconomic and dynamic effects as well as to measure longer-term adjustments. A generic downside of event studies typically employed in this literature is that they are neither informative regarding the longer-term adjustments induced by rating changes nor capture macroeconomic controls. To assess market assessments of sovereign default risk, we employ credit default swaps (CDS) spreads on sovereign bonds. These spreads are closely related to expectations, as reflected in market prices, of the probability of sovereign default. Our sample spans 56 advanced and emerging market economies, using from January 2004 to August 2012, defined by countries with functioning CDS markets over the period and with sovereign bonds rated by the CRAs. E.g. CDS transactions on sovereigns have been severely regulated in the EU in recent years, virtually eliminating the market on CDS for sovereign bonds.

We start with a brief overview of the background literature (Section 2) and discussion of the credit rating agency announcements with some examples (Section 3). We then discuss the hypotheses and methodology (in Section 4), and present data and our basic results (Section 5). We conclude in section.

2. Literature review

Most studies investigating credit rating agencies and financial asset prices are event studies using daily data. Some of the earliest papers investigate the impact of credit rating changes on corporate asset prices are Weinstein (1977), focusing on bond prices, and Pinches and Singleton (1978) focusing on stock prices. In terms of sovereigns, Cantor and Packer (1996) model the determinants of government bond ratings and ask the question of whether ratings add to public information. Their study, based on sovereign bond spreads for advanced and emerging economies, finds that the single rating variable explains 92% of the cross-country variation in spreads. While most of the correlation appears to reflect similar interpreta-

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5 However, the 2015 OCR report documented continued problems with how CRAs function and that in many instances they have failed to follow regulator rules See Gretchen Morgenson, “Still Missing the Mark on Ratings”, New York Times, January 10, 2016; and 2015 Section 15E Examinations Summary Report (published December 2015): “On numerous occasions, two larger NRSROs and one smaller NRSRO failed to adhere to their ratings policies and procedures, methodologies, or criteria, or to properly apply quantitative models.” p. 11.

6 These are commonly referred to as CRA I Regulation and CRA II regulation. New rules were also adopted in early 2013: http://ec.europa.eu/internal_market/securities/agencies/index_en.htm.

7 As pointed out in Alsakka and Gwilym (2013), many other G-20 countries have introduced or are in the process of introducing new regulatory oversight for CRAs and the Basel Committee of the Bank for International Settlements reviewed the role of external ratings in the capital adequacy framework, mainly to incorporate the IOSCO Code into the committee’s eligibility criteria.
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