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Newswire messages and sovereign credit ratings: Evidence from European countries under austerity reform programmes

Nicholas Apergis

Curtin University, Perth, Australia

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ABSTRACT

The paper examines the role of newswire messages during the European debt crisis. In particular, this study quantifies how this news metric, revealed by statements electronically recorded, as well as by newspaper articles, affects credit ratings. Through a sample of three European countries with sovereign debt problems and under strict austerity programmes, i.e., Greece, Ireland, and Portugal, daily data spanning the period of 2009 to 2011, and parametric, nonparametric and ordered probit panel methodologies, the obtained results document that the news variable significantly affects credit ratings, particularly when news comes from market sources but less so when the news is from politicians.

1. Introduction

In recent years, there has been a surge in the role of news indicators to predict stock, corporate, and sovereign bond risk profiles. This interest in risk-driven variables can be explained by the short-term behaviour of equity and bond markets since the first jolt of the recent financial crisis and the lower relevance of long-term fundamentals in determining market movements since then. Investors keep a close eye on the spread between core and peripheral government bond yields, which is the heart of the issue of systemic risk. According to Blinder, Ehrmann, Fratzscher, De Haan, and Jansen (2008), news sentiment indicators alter market expectations due to the presence of asymmetric information between policy and market makers and the public. Although in the field of monetary economics such news mechanisms have been extensively examined (Burkhard & Fisher, 2009; Faust, Rogers, Wang, & Wrights, 2007; Gemmill & Keswani, 2011; Rosa, 2013; Siklos & Sturm, 2013; Woodford, 2005, among others), empirical knowledge on the effect of news (originated from either public statements or newspapers articles) on credit ratings is absent.

The onset and acute growth of the sovereign debt crisis in Europe has produced a new wave of debate on the role and influence of credit rating agencies and about the quality and reliability of their evaluations, especially of sovereign issuers. Therefore, in regard to credit rating agencies, questions arise regarding criteria underlying sovereign ratings and how such ratings affect borrowing costs across countries. Sovereign ratings are assessments of the relative likelihood that a borrower, in our case a country, will default on its obligations. In a sense, such ratings incorporate a type of forward-looking measure of the probability of default.

Credit rating studies, however, have ignored the fact that qualitative public information sources, such as newspapers, may complement existing types of economic variables and improve performance of credit rating models for a number of reasons. For example, news about a country may provide early warnings or clues about its deteriorating credit situation before accounting numbers are communicated to investors. In addition, such news sources may provide useful information for entities with illiquid stocks because their market prices can deviate from their true values. Media reports can influence the beliefs of market participants and may induce investors to withdraw their funds from unhealthy entities. Therefore, we need to think more deeply about the role of those agencies. Is it about how rating agencies gather information (e.g., by consulting newspaper articles) based on 'reputational capital', according to which, credit rating agencies have the ability to accumulate and retain good reputation by providing valuable information about the bonds they rate (Partnoy, 1999)? Or is it about the notion that analysts working at the rating agencies are swayed by sentiment in newspaper articles? Empirical results (mentioned below) tend to support the latter, aligned with the 'regulatory license' hypothesis, which views credit rating agencies as generating value – without providing valuable information – by

E-mail address: Nick.Apergis@curtin.edu.au.

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enabling issuers and investors to satisfy certain regulatory requirements (Partnoy, 1999). Such regulatory guidelines receive positive or negative support through the disclosure of news that explicitly notes whether sovereigns follow generally accepted regulatory standards related to sovereign fiscal issues.

Motivated by the deficiency of current related credit-rating research, this study aims at employing information in news articles to create additional predictors for credit rating changes. Our paper provides the first, to the best of our knowledge, measure and empirical test of sentiment in the area of credit ratings for sovereign countries. We measure sentiment by capturing the qualitative tone of market news from newspapers and, thus, our goal is to address the challenge of analysing the effects of newswire message indicators and statements recorded in the electronic media during the European sovereign debt crisis on the evaluations provided by credit rating agencies. The negative rating assessment received by Greece, Ireland and Portugal in 2009 sparked growing concerns not only about the sustainability of their fiscal position but also about the sustainability of the Eurozone itself. In this manner, a large number of newspaper articles could have played a decisive role in amplifying their effect on credit ratings coming from rating agencies, which in turn, could have led to a deterioration of expectations and a sharp increase of credit spreads. The richness of our newswire message dataset allows us to control for the content of news articles directly. News may report on harder-to-quantify fundamentals that we do not observe.

The motivation for undertaking this research is to assess whether newswire messages related to sovereign debt problems are a leading indicator of credit ratings, given that credit rating agencies are capable of contributing substantially to the contagion risk, i.e., negative spillover effects from one country to others. If such newswire messages are a leading indicator, they will have a significant effect on credit ratings in the announcement period. To this end, the paper considers sovereign ratings, also known as 'country ratings', wherein rating agencies assess the capacity of sovereign borrowers to service their debt, and it makes use of the methodology described by Groß-Klußman and Hautsch (2011) through which a news indicator can be constructed from a news engine. Therefore, this flow of electronic news allows us to build a consistent newswire messages indicator to be used as a leading indicator in predicting credit rating agencies' evaluations.

The empirical findings provide evidence that newswire messages have a substantial effect on credit ratings both on a panel and on a country basis. In particular, such news plays its own idiosyncratic role in driving and explaining credit ratings above and beyond fundamentals. The empirical findings also document that the effect of such wire messages news is stronger when the source is related to market experts and less strong when related to politicians. The results are expected to be useful for international financial markets, economic agents, governments, and portfolio managers because how sentiment news affects credit ratings provides important information about a country's borrowing costs, about the effects these sovereign credit ratings may have on domestic banks and firms, and about the bounds of risk that investors can assume in their portfolio investments. Section 2 presents a literature review, while Section 3 discusses the dataset. Section 4 presents methodological issues, while Section 5 reports the empirical results. Concluding remarks and policy implications are presented in Section 6.

2. Literature review

Existing studies dealing with sovereign debt ratings, which are more related to our analysis, can be broadly grouped into two areas. In addition, the existing literature on sentiment rarely provides external validations of its proxies because investor beliefs are unobservable (Baker, Bloom, & Davis, 2012; Baker, Wurgler, & Yuan, 2012). While there is a vast literature on the predictive ability of financial variables as well as of news variables for real economic activity, there is almost no literature about the role of news variables in evaluating or predicting assessments provided by credit rating agencies. The existing literature has focused on how to quantify sentiment and provide evidence of its effect on asset prices (Baker, Bloom, et al., 2012; Baker, Wurgler, et al., 2012; Edmans, Garcia, & Norli, 2007; Greenwood & Nagel, 2009; among others).

Evrensel and Kutan (2008) examine whether IMF-related news has an effect on sovereign bond yields during the Asian crisis. Their results document that such news has a substantial effect both on the bond yields of the countries related to the crisis and on capital markets. Buttner and Hayo (2010) make use of political news dummies using Interfax Business Reports. They select events or decisions that they deem to have a lasting effect on the timing and/or likelihood of euro adoption, which is considered a major event for financial markets. However, Groß-Klußman and Hautsch (2011) examine market reactions to intraday stock-specific news by using machine-related news analytics based on linguistic pattern recognition. Beetsma, Giuliodori, De Jongg, and Widijanto (2013) employ the Eurointelligence website, which contains a daily newsflash consisting of major news statements pertaining to economic and financial news across European countries and political events that tend to affect European economies. Their findings document that the quantity of news matters, as more news tends to increase sovereign bond spreads of the peripheral countries. Additionally, the content of news is found to be important, with bad news explaining upward pressures on spreads.

Mink and De Haan (2012) compile a news variable about the European sovereign debt crisis (identified by looking up the news on days that saw large changes in Greek government bond yields). Their paper finds that news about financial support measures for Greece affect bank stocks, even for banks without exposure to Greece or other peripheral euro zone countries. Kilponen, Laakkonen, and Vilumen (2012) document more than 50 policy initiatives related to the resolution of the European sovereign debt crisis and show that several of these affect government bond spreads. A related approach is followed by Baker, Bloom, et al. (2012) and Baker, Wurgler, et al. (2012), who compile a monthly index of policy-related economic uncertainty, using inter alia the frequency of news media references to economic policy uncertainty and a measure of forecaster disagreement over future government purchases and inflation. Their estimates show that an increase in policy-related uncertainty is followed by persistent and significant declines in U.S. aggregate output, employment, and private investment. This paper also relates to a study of the effect of rating agencies on financial markets. Afonso, Furceri, and Gomes (2012) find a significant response of bond yield spreads to rating changes for the case of negative announcements as well as evidence of contagion from lower-rated countries, especially when approaching non-investment grade, to higher-rated countries.

In a very recent series of papers, Buchel (2013) examines the effect of public statements from a number of European Union (EU) officials on the PIIGS' CDS and bond yield spreads over the period after 2009. His results show that such communication news has a strong effect on both types of securities only if they originate from statements in large countries and organizations. Smales (2013) provides an advanced methodology that electronically analyses textual information in news releases using linguistic pattern recognition algorithms to examine the relationship between aggregate news metrics and changes in the implied volatility index. His results document the presence of a significant negative association between changes in the volatility index and news metrics, with this association displaying asymmetries in the case whereby changes in volatility are larger following the release of negative news. Finally, Mohl and Sondermann (2013) construct variables related to politicians' statements based on the frequency of statements reported by news agencies, without differentiating their content. Their paper finds that more statements are correlated with increasing spreads and heightened conditional volatility, particularly when made by politicians from AAA-rated countries.