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Economic policy uncertainty and risk spillovers in the Eurozone

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ABSTRACT

This paper focuses on the impact of economic policy uncertainty on risk spillovers within the Eurozone and contributes to these two growing literatures. To this end, we adapt the two-step procedure developed by Adrian and Brunnermeier (forthcoming) in the framework of financial systemic risk to the sovereign bond market. Accordingly, we attempt (i) to measure the extent to which distress affecting one given country's sovereign spreads can affect the Eurozone's bond market as a whole and then (ii) to identify the determinants of risk spillovers by estimating a panel data model with macroeconomic state variables and economic policy uncertainty (EPU) indices introduced by Baker et al. (2013) as regressors. EPU indices considered concern the four largest Eurozone countries, i.e. Germany, France, Italy and Spain, as well as the United States. The model is estimated with quarterly data for ten countries representing the bulk of debt issuances within the Eurozone over a period ranging from Q4/2008 to Q2/2013, which is characterized by historically high dispersion of sovereign bond spreads either across time or across countries. Our results support the idea that economic policy uncertainty in the core economies of the Eurozone, i.e. Germany and France, as well as in the largest periphery countries, i.e. Italy and Spain, can create an environment likely to exacerbate the transmission of risk arising from abnormal developments of individual countries' sovereign spreads to the Eurozone bond market as a whole. In this respect, our results plead for larger effort of Eurozone "leaders" to reduce the uncertainty surrounding their economic policy in

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periods of crisis not only to avoid adverse effects on their own economies but also to reduce the risk of a destabilization of the Eurozone sovereign bond market as a whole.

1. Introduction

The financial crisis of 2008 was exceptional by its magnitude and the speed with which its effects transmitted from one country to another. In just a matter of months, the failure of Lehman Brothers almost led to the collapse of the international financial system and triggered the deepest global recession since WWII. In the context of highly interconnected economies, responding in an appropriate way, i.e. in a way likely to restore the proper functioning of financial markets and to promote economic growth, proved to be a major challenge for political authorities all over the world.

Europe was no exception in this respect and fears of a possible Eurozone break-up that started to increase when Greece and Ireland followed by Portugal and Spain requested for international support. The absence of a crisis resolution mechanism added to these fears as well as the fact that the European governments failed to coordinate their action to the point that Jean-Claude Trichet, the European Central Bank (ECB) chairman at that time, stressed on July 18, 2011 the "*absolute need to improve verbal discipline*" asking governments "*to speak with one voice on such complex and sensitive issues as the crisis*." The disagreement among European countries on the opportunity to implement fiscal austerity measures to counter the sovereign debt crisis illustrates this coordination failure, as pointed out by Panico and Purificato (2013).

Furthermore, political authorities of leading Eurozone countries were left by the criticality of the situation with no clear view on how to properly respond to the crisis raised concerns that uncertainty surrounding economic policy eventually adds up to uncertainty in financial markets (Ehrmann et al., 2014) and foster risk spillovers and contagion effects between the highly-interconnected Eurozone sovereign bond markets (see Antonakakis and Vergos, 2013; Arghyrou and Kontonikas, 2012; Baum et al., 2014; Caceres et al., 2010 or Afonso et al., 2012). Echoing these concerns is the work of Fahrholz and Wójcik (2013) who evidenced that fiscal problems occurring in the Eurozone periphery have the potential to spread out and to create negative externalities for the rest of the Eurozone. Supporting this view is the important work of Bernanke et al. (1996) who suggest that changes in credit conditions in one country can trigger flight-to-quality movements that will result in recessionary forces that may be amplified, i.e. the financial accelerator.

In this respect, the main objective of this paper is to bridge the literature examining the impact of economic policy uncertainty with the literature on risk spillovers between sovereign bond markets in the Eurozone. The question that we attempt to answer is whether or not economic policy uncertainty matters to understand risk spillovers on sovereign bond markets. We conjecture that high economic policy uncertainty, i.e. unclear political guidelines from governments of leading or/and largest Eurozone countries, increases the risk that a stress in a member country propagates to the rest of the zone, particularly in periods of economic turmoil. To answer this question, we transpose the Adrian and Brunnermeier (forthcoming)'s two-step approach to the context of sovereign bond spreads. Accordingly, risk spillovers are measured by applying the so-called $\Delta CoVaR$ methodology to sovereign bond spreads similar to what is done in the literature focusing on systemic risk (see for example Bernal et al., 2014; Castro and Ferrari, 2014; Girardi and Ergün, 2013 or López Espinoza et al., 2012) to capture the extent to which abnormal sovereign spreads' developments in one country affect the Eurozone bond market as a whole. Next, a panel model is estimated with macroeconomic state variables along with the economic policy uncertainty indices introduced by Baker et al. (2013) as determinants for risk spillovers on sovereign bond markets. Economic policy uncertainty indices considered in this paper concern the largest Eurozone countries, i.e. Germany, France, Italy and Spain, as well as the United States.

The remainder of this paper is structured as follows. Section 2 gives a literature review. Section 3 describes the data and our empirical methodology. Section 4 reports empirical findings and Section 5 concludes.