

Economic and financial crises have always captured the attention of scholars interested in the role that economic ideas play in policy-making. During crisis episodes, conventional instruments are often ineffective, old certainties are overthrown, and new opportunities for innovation arise. Hence, crises provide a space for new policy paradigms to be adopted, such as Keynesianism after the Second World War ([Hall 1989](#)), and neoliberalism in the 1970s ([Hall 1993](#); [Prasad 2006](#)).

The crisis of the European sovereign debt, which saw its period of greatest height in the 2010-12 period, is no exception. Two competing narratives dominated the economic debate on the euro crisis: one stressed crisis countries' fiscal laxity, whereas the other highlighted the systemic nature of the crisis.

One view identified the causes of the surge in crisis countries' sovereign bond yields in the deterioration of their fiscal fundamentals (e.g., [Attinasi et al. 2009](#); [Afonso 2010](#); [Aizenman et al. 2011](#); [Sinn 2014](#)) **and prescribed fiscal discipline as an effective tool to cope with financial stress**. Some also argued that fiscal adjustments, most notably those based on spending cuts, were an effective tool to tackle the crisis, as they may quickly reduce public debt without having negative effects on GDP growth (e.g., [Alesina and Ardagna 2009](#); [Alesina 2010a](#); [Alesina 2010b](#)). Hence, this economic narrative can be termed the “fiscal discipline” view.

The narrative on sovereign debt issues has changed from being focused on the benefits from fiscal consolidation and the risks from deteriorating fiscal fundamentals to highlighting the importance of addressing systemic risk and financial fragmentation in the EMU

Another perspective underscored the presence of structural weaknesses in the Eurozone governance ([De Grauwe 2011](#)), **and pointed to the high correlation between sovereign risk and bank risk in the Eurozone - often referred to as the “bank-sovereign vicious circle” - as the root cause of the euro crisis** ([Baldwin 2011](#);

[De Grauwe 2013](#); [Gros 2013](#)). Systemic risk was seen as the main driver of negative self-fulfilling market sentiments, which were disconnected from underlying increases in government debt and budget deficits ([De Grauwe and Ji 2013a](#)). Also, proponents of this view argued that austerity is a self-defeating strategy to restore investor confidence ([Krugman 2011](#)) and strongly advocated that the ECB should act as a lender of last resort ([De Grauwe 2011](#)). This economic narrative can be named the “systemic risk” perspective.

These two opposite narratives were given different relative weights during the euro crisis, and both informed crisis management policies carried out at the intergovernmental level and by supranational institutions. How has the communication of the most decisive and powerful supranational actor in the euro crisis – namely, the European Central Bank (ECB) – reflected these two different views?

The Battle of Ideas Inside the ECB

I resort to quantitative text analysis tools to study whether there has been variation in the way the ECB has portrayed the issues underlying the crisis of the common currency since 2009. I consider public speeches by members of the ECB Executive Board between 2009 and 2017 and focus on the way they talk about fiscal policy and sovereign debt in EMU member states. To do so, I adopt the following procedure.

First, I draw text data from the ECB website, which provides complete coverage of all the inter-meeting speeches (i.e., public speeches given outside of the Governing Council meeting) **of ECB Executive Board members. My initial corpus of texts consists of 1,619 documents.** The first challenge is to separate communication on fiscal policy and sovereign debt issues from any other topic. I proceed as follows. When parsing text data from the ECB website, I maintain the same paragraph structure as raw HTML documents. Speech subdivision into short paragraphs proves beneficial. While single sentences might miss out relevant information, full speeches typically encompass multiple themes and are not well suited for analyses focused on a single dimension. Hence, paragraphs allow maximizing the likelihood of selecting all relevant passages while minimizing the overlap with non-relevant topics. This yields a text corpus of 72,224 paragraphs.

Second, I resort to machine learning tools to identify the paragraphs of interest. After selecting a random sample of 1000 paragraphs and coding them based on whether they address issues related to fiscal policy/sovereign debt or not, I use a

Support Vector Machine model for binary classification (for another application and a technical explanation, see [Diermeir et al. 2011](#)). The text classification algorithm allows me to separate fiscal paragraphs from paragraphs related to all the other topics addressed in the communication of ECB Executive Board members and provides me with a new corpus of 3,772 paragraphs related to fiscal policy and sovereign debt issues.

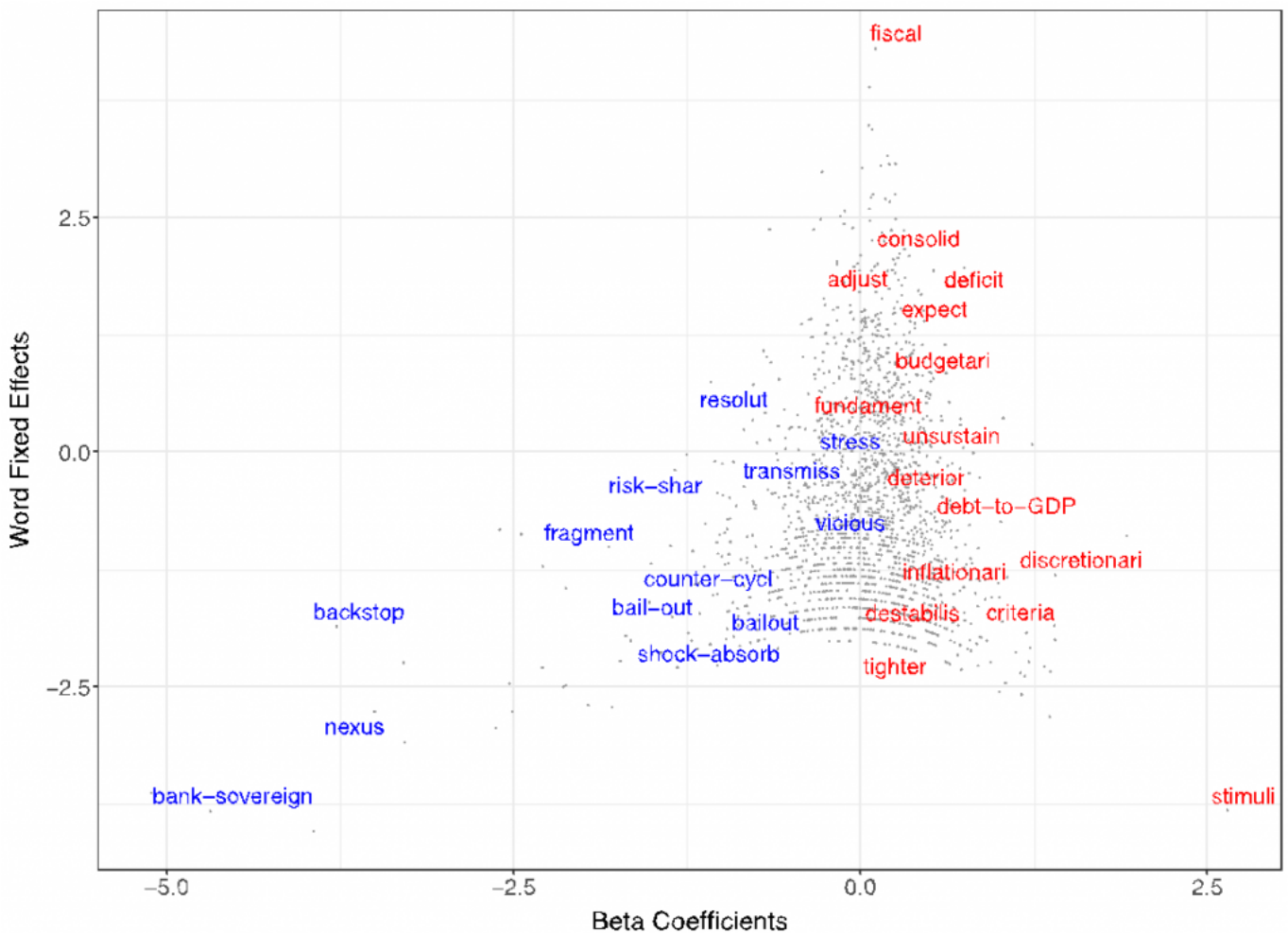


Figure 1: ECB Executive Board Members' Communication: Word Weights vs. Word Fixed Effects

Third, after standard text pre-processing (i.e., stemming and removal of stopwords), I apply the Wordfish scaling model from Slapin and Proksch (2008) to the new corpus of documents. Wordfish is an unsupervised method that measures the underlying policy dimension of a text corpus and provides estimates of policy positions by time or speaker unit. The underlying policy dimension identified in the ECB Executive Board

members' communication is showed in **Figure 1**, which plots words' beta coefficients and fixed effects. Stemmed words are distributed along the latent dimension identified by Wordfish. High-beta words (i.e., those at the extremes of the x-axis) are associated with greater weight in the computation of the policy estimates showed in the next section.

Positioning does not appear to be influenced by a North-South divide, as Southern European members Lucas Papademos, José Manuel González-Páramo, and Lorenzo Bini Smaghi talked more about fiscal discipline than Northern European members Asmussen, Sabine Lautenschläger, Yves Mersch and Peter Praet. Rather, the distribution of relative positions is characterized by a divide between old and new members of the ECB Executive Board

In **Figure 1**, terms on the left-hand side of the spectrum underscore problems of systemic risk and financial contagion stemming from the “vicious circle” between sovereign debt and banks' balance sheets. **Indeed, some of the most discriminating words clearly refer to the “sovereign-bank nexus” and “bailouts” of banks under financial stress, as well as to the need for a higher degree of “risk-sharing” to tackle financial “fragmentation” in the Eurozone.** Conversely, words at the other end point to the importance of fiscal discipline. Indeed, they underscore the negative consequences that “deterioration” in fiscal “fundamentals” and “unsustainable” measures of fiscal “stimulus” have on investor “expectations”. Moreover, they resonate with calls for fiscal “consolidation” and to respect the Maastricht “criteria”. The most frequent and median term is “fiscal”, which contributes to validating the automated procedure of corpus selection. Therefore, **Figure 1** shows that both the economic narratives outlined above are present in the ECB fiscal communication. But what have been their relative weights since the outset of the crisis?

The ECB's Ideational Turn

Figure 2 presents Wordfish estimates of ECB Executive Board members' fiscal

communication aggregated by quarter. Estimates are distributed along the latent dimension identified in Figure 1. Higher (lower) values indicate a higher degree of communication-related to fiscal discipline (systemic risk). **The graph suggests the presence of significant ideational variation occurring within the ECB Executive Board during the crisis. The narrative on sovereign debt issues has changed from being focused on the benefits from fiscal consolidation and the risks from deteriorating fiscal fundamentals to highlighting the importance of addressing systemic risk and financial fragmentation in the EMU.** Starting from high levels of austerity-focused communication and after an additional surge over 2009, there appears to be a declining trend in the weight attributed to fiscal consolidation. This change occurs entirely between the end of 2009 and the end of 2012, with central bankers' framing of fiscal communication remaining broadly stable since 2013.

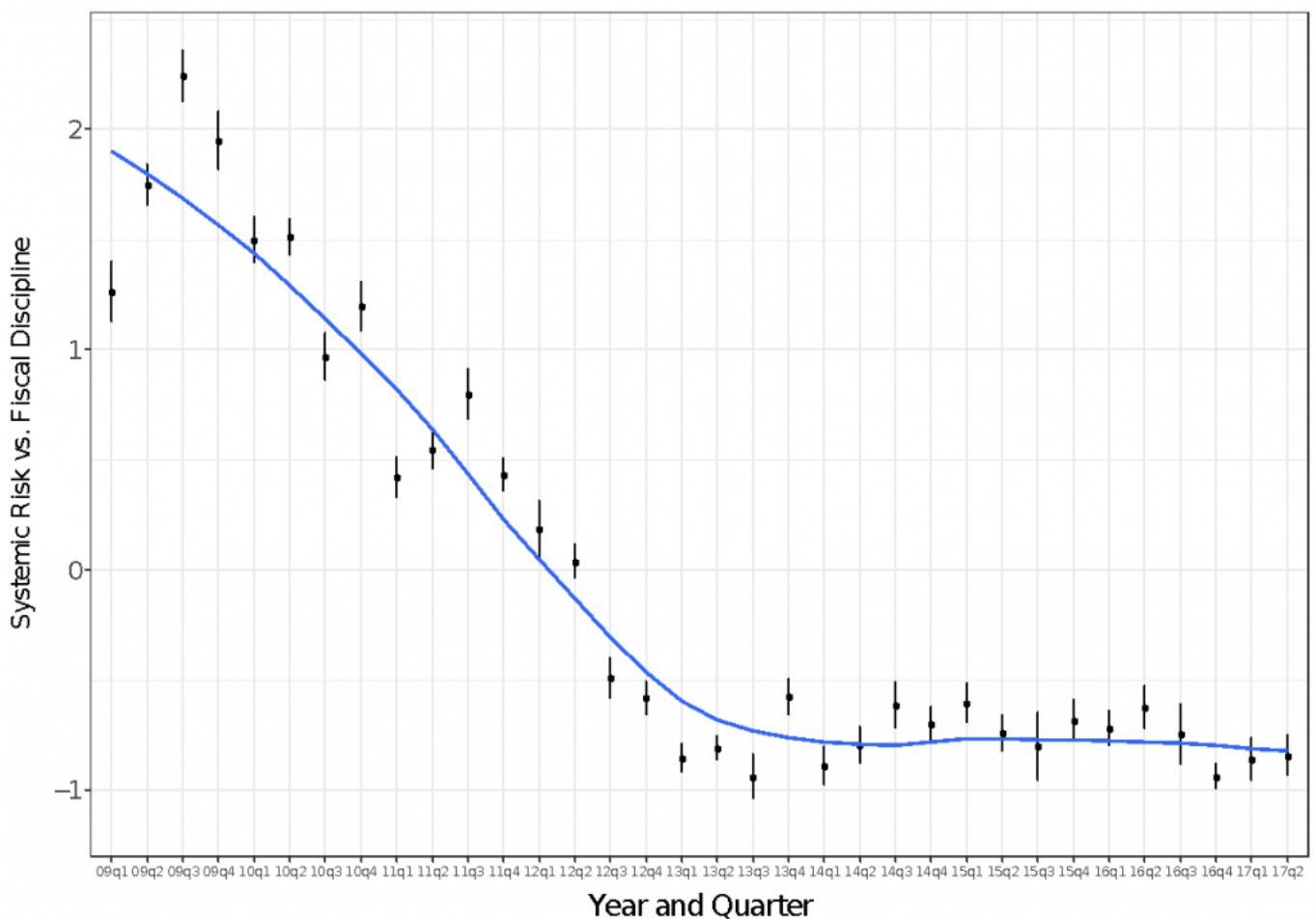


Figure 2: ECB Executive Board Members' Communication: Systemic Risk vs. Fiscal Discipline

by Quarter

Figure 3 shows Wordfish estimates by member of the Board. Interestingly, the relative position of each member along the identified dimension does not follow national lines. In particular, the difference in the relative importance attributed to systemic risk is very high between Jean-Claude Trichet and Benoit Coeuré, as well as between Jürgen Stark and Jörg Asmussen. **Furthermore, positioning does not appear to be influenced by a North-South divide, as Southern European members Lucas Papademos, José Manuel González-Páramo, and Lorenzo Bini Smaghi talked more about fiscal discipline than Northern European members Asmussen, Sabine Lautenschläger, Yves Mersch and Peter Praet. Rather, the distribution of relative positions is characterized by a divide between old and new members of the ECB Executive Board.** This is consistent with the over time variation showed in **Figure 2**, and suggests that a learning process took place within the ECB amid the crisis.

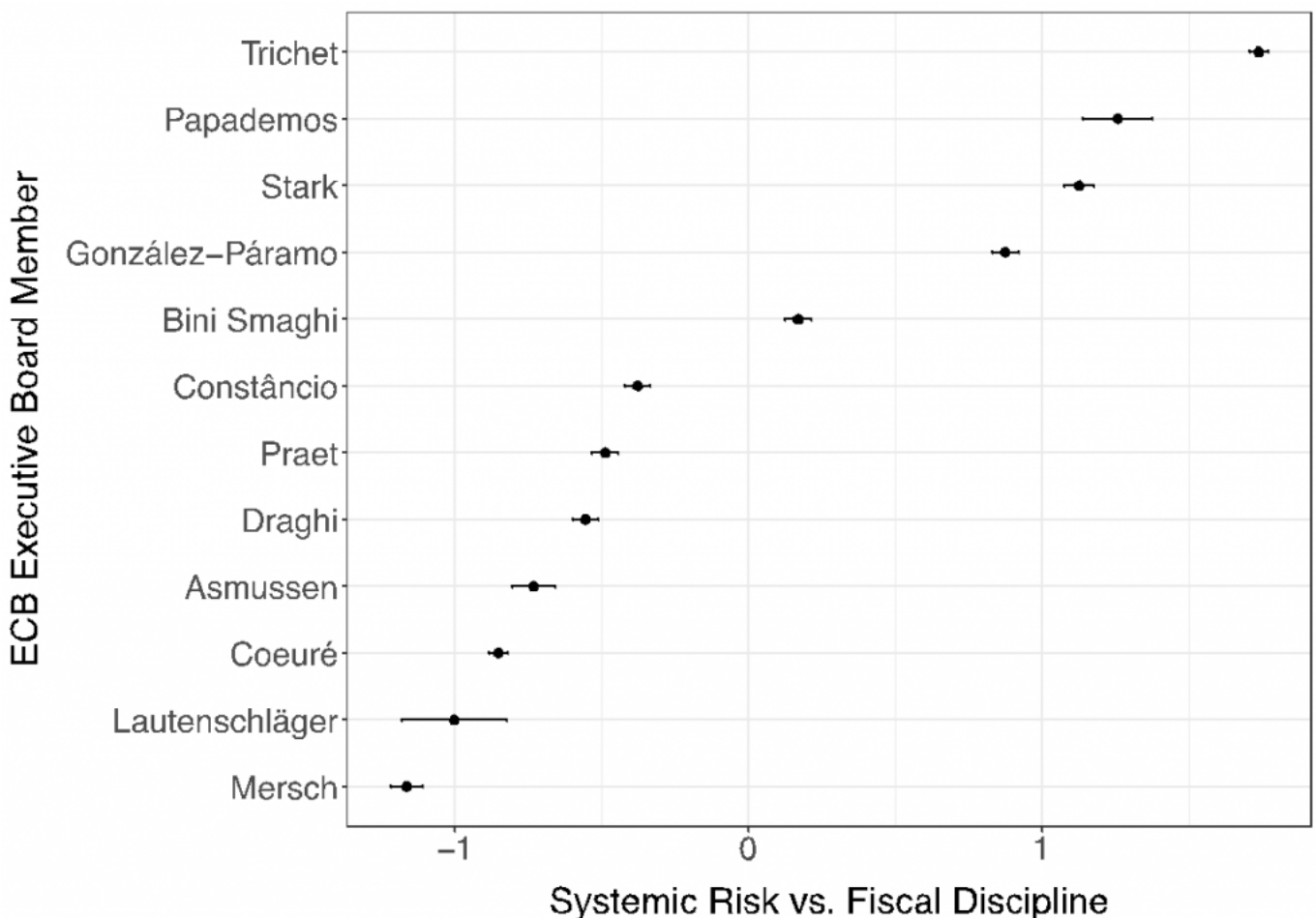


Figure 3: ECB Executive Board Members' Communication: Systemic Risk vs. Fiscal Discipline
by Member

In sum, **this analysis shows that the ECB has become more open to economic ideas that stress the systemic nature of the Eurozone crisis, while downplaying the importance of EMU member states' fiscal misconduct.** After an initial level of high support for the “fiscal discipline” view of the crisis, the communication of ECB Executive Board members has gradually shifted towards a systemic narrative. Crucially, this ideational turn anticipated and went hand in hand with major unconventional interventions by the ECB, such as the Outright Monetary Transactions (anticipated by the oft-cited “Whatever it takes” pledge) and the Quantitative Easing programme. Thus, the findings presented here invite to scrutinize in greater detail the dynamics of ideational contestation around both the ECB’s policy-making and the European crisis management policy.

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