Journal of International Money and Finance 63 (2016) 165–187

Contents lists available at ScienceDirect

Journal of International Money and Finance

journal homepage: www.elsevier.com/locate/jimf

Sub-nationals' risk premia in fiscal federations: Fiscal performance and institutional design ☆

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ARTICLE INFO

Article history:
Available online 24 February 2016

JEL Classification:
E62
E44
G12
H6
H7

Keywords:
Sub-national governments
Fiscal policy
Interest rates
Risk premia
Government debt
Fiscal federations

ABSTRACT

The recent debt crisis in Europe highlighted the importance of institutional design and, in particular, bail-out clauses in determining States' risk premia in fiscal or quasi-fiscal federations. This paper examines the determinants of sub-national governments' risk premia in fiscal federations using secondary market data for the USA, Canada, Australia and Germany. It finds that, as for central governments, fiscal fundamentals matter in the pricing of risk, and sub-national governments with higher public debt and larger deficits pay higher premia. However, this relationship is not uniform across federations and it differs with institutional arrangements. In particular, market pricing mechanisms are less effective in presence of explicit or implicit guarantees from the central government. We show that when sub-national governments depend on high transfers from the central government (i.e., when there is some form of implicit guarantee from the center), markets are less responsive to sub-national governments' fiscal fundamentals. Using primary market data, the paper also shows that high transfer dependency lowers the probability of sub-national governments to borrow on capital markets.

☆ Thanks to an anonymous referee, Santiago Acosta Ormaechea, Marcio V. Da Cruz, Mark De Broek, Xavier Debrun, Salvatore Dell'Erba, Eva Jenkner, Serhan Cevik, Sebastian Weber, and Veronika Zavacka for very useful comments and suggestions. All errors remain our own. Special thanks go to Jeta Menkulasi and Asad Zaman for discussions and the precious help in collecting data.
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http://dx.doi.org/10.1016/j.jimonfin.2016.01.009
0261-5606/

1. Introduction

The recent European debt crisis has highlighted the importance of institutional design and bailout clauses in determining states' risk yield spreads in fiscal or quasi-fiscal federations. The absence of significant pre-crisis differences in government bonds risk premia among Euro area countries and their subsequent divergence over the last few years has been stark. Such fluctuation can have different explanations. They could be due to the erroneous pricing of default risk in the years prior to the crisis, to the post-crisis worsening of fiscal fundamentals, to investors' panic, as well as to the changes in the Euro area institutional design and the clarification that, differently from what was believed by most, a no bailout clause was in place among Euro area countries. As the policy discourse around the possible creation of a fiscal union in Europe evolves, looking at how markets price sub-national governments (SNGs)' securities in federations and how these are affected by different institutional design acquire particular importance. What is the role of institutional arrangements such as transfer schemes or revenue independence at the sub national level? How much are markets willing to forego their assessment of fiscal performance of a region or province when there is a presumption of an implicit (or even explicit) bailout guarantee by the center?

Little empirical literature has, however, focused on the determinants of risk premia in fiscal federations and on the role played by their institutional design. Most of the existing studies focus on single countries and therefore ignore the role of institutional features of fiscal federations in determining risk premia of SNGs (for example, Bayoumi et al., 1995; Booth et al., 2007; Goldstein and Woglom 1992; Lemmen, 1999; Poterba and Rueben, 1999 and Schuknecht et al., 2009). Yet, there are indications that the presence of explicit or implicit guarantees by the central government in times of fiscal distress – e.g., intergovernmental transfers and tax revenue sharing arrangements such as the fiscal equalization scheme in Germany – may affect the probability of bailout by the center[1] and market perceptions of the default risk on sub-national debt.[2] For instance, Schuknecht et al. (2009) analyzed the behavior of risk premia on primary market yields paid by central governments in Europe and by sub-national governments in Germany, Spain and Canada over the period 1995–2005. They concluded that, in general, SNGs that receive more transfers from the central government tend to pay lower interest rates on their market borrowing. Their results do not, however, hold in the post-EMU Germany. More recently, Feld et al. (2013) attempted to isolate the effect of institutional design for Swiss cantons. They studied the effect of no-bailout rules on Swiss cantons toward their municipalities and showed that credible no-bailout rules tend to reduce the risk premia of cantons by about 25 basis points. In addition, the introduction of a no-bailout rule appears to break the link between risk premia of cantons and the financial situation of the municipalities. While these studies provide initial insights, the evidence about the role of institutional arrangements in shaping the pricing of sub-national risk premia remains at best not conclusive.

This paper examines the determinants of risk premia for sub-national bonds in fiscal federations focusing on the role played by macroeconomic and fiscal performance, the institutional design of federations as well as the interplay between these two factors. The analysis focuses on a panel of sub-national governments in the four fiscal federations with the most liquid markets for sub-national bonds (i.e., USA, Canada, Australia and Germany).[3] Differently from most of the existing literature, risk premia are measured using secondary market data. The role of institutional arrangements is gauged both by estimating separate models for each federation and by analyzing the role played by dependency on transfers from the central government. The idea is that transfer dependency captures the involve-

[1] Eichengreen and von Hagen (1996a, 1996b) first analyzed the interaction between vertical fiscal imbalances and bailout expectations.

[2] In theory the presence of bail-out guarantees of central governments to sub-national governments could also have the effect of increasing the yield paid by central governments. See Jenkner and Lu (2014) and Van Hecke (2013) for an analysis of this channel.

[3] Because of data availability, in our empirical analysis we focus on the first layer of sub-national governments, namely, U.S. states, Canadian Provinces, Australian Territories, German Laenders and Spanish Regions. Hence, throughout the paper we use the term "sub-nationals" or "sub-national Governments (SNGs)" to indicate our unit of analysis, which is intended to exclude local governments.