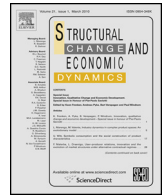




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Effects of debt mutualization in a monetary union with endogenous risk premia: Can Eurobonds contribute to debt stabilization?☆

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ABSTRACT

This paper analyses debt stabilization in a monetary union that features endogenous risk premia. In particular, debt stabilization in two diametrically opposed regimes is compared. In the first regime, the “national fiscal discipline regime”, financial markets impose sovereign risk premia based on each country’s government debt level. In the second regime, the “Eurobonds regime”, financial markets impose a risk premium based on the average debt level in the monetary union. Outcomes in both regimes are compared using simulations of a number of relevant scenarios.

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1. Introduction

In recent years, Europe in general and the euro area in particular faced a ravaging financial-, sovereign debt-, and economic growth crisis. Understanding the causes of this crisis and addressing the consequences has been top priority of politicians and economists. The impact of the crisis was also not evenly spread as Member States have differed significantly in initial conditions, the dynamics of their fiscal balance, in their growth dynamics and in risk premia imposed on sovereign debt of countries. Clearly, a combination of high fiscal deficits, low growth and high risk premia on sovereign

debt generates a high pace of government debt accumulation. In addition, there is large uncertainty about the future adjustment of these variables and if current debt levels are sustainable (or not). Several Member States risk to enter a process of unsustainable government debt accumulation if no adjustment measures are taken.

Clearly, countries not participating in a monetary union like the euro area would also risk similar debt dynamics and uncertainty when facing the same conditions. However, it has often been emphasized that countries in a monetary union like the euro area face additional constraints in reacting to a sovereign debt crisis, compared to non Member States. First of all, countries in a monetary union no longer have national monetary policy instruments at their disposal. Also they face restrictions on the use of fiscal policy in the form of deficit and debt restrictions from the Stability and Growth Pact. Moreover, the euro area entered the debt crisis without any crisis resolution mechanism or any form of debt mutualization or any other form of fiscal federalism reflecting the underlying principles of subsidiarity and the “no-bailout clause”, art 125 of the EU

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Treaty.¹ Finally, countries in a monetary union could be even more susceptible to contagion problems in sovereign debt markets, as financial markets could speculate on the spreading of sovereign debt crisis from one Member State to other Member States facing similar conditions.

The sovereign debt crisis has forced EU policy makers to implement new instruments to deal with the acute crisis situation. These measures in essence seek to remedy the weaknesses of monetary union in crisis situations, in particular the additional restrictions coming from monetary union outlined above. The actions that are most relevant for our analysis include: (i) the establishment in 2012 of a permanent institution, the European Stability Mechanism (ESM) that deals with crisis resolution by providing instant access to financial assistance programs for countries in the euro area in financial difficulty,² (ii) (De jure or de facto) negotiated haircuts on outstanding sovereign debt – in particular in the form of converting short-term debt obligations into long-term debt at reduced interest rates – were implemented in case of Greece and Cyprus e.g.³ (iii) the ECB's Outright Monetary Transaction (OMT) program that the ECB introduced in 2012 and which enables to purchase – under certain conditions – government debt issued by euro area countries. Between March 2015 and September 2016 (or even longer if necessary) the ECB intends to buy each month 60 bn euros worth of government bonds as part of its strategy to deal with the sovereign debt crisis, to stimulate the euro area economy and to stem deflation. This is clearly a sizeable monetary policy action in terms of increasing base and broad money.

Another important aspect of (announcement of) such bond-buying programmes is their potential effects on stemming default expectations: in case the turmoil in sovereign is caused by sentiment/market expectations/speculation on default on sovereign debt, “self-fulfilling debt crises” may result. In that case – a la Calvo's (1988) analysis of government debt crises – default expectations rather than fundamentals are driving outcomes: rather than the “good” fundamentals-based equilibrium, a self-fulfilling “bad” equilibrium is produced. The bond-buy programme may avoid such outcomes as it stems default expectations as financial markets anticipate that solvency will be maintained, keeping market interests at manageable levels again.

In this paper we analyse debt crises and debt stabilization strategies in a monetary union that features endogenous risk premia. Endogenous risk premia and their implications for debt stabilization are not well understood by economist and policy makers who are mostly trained to analyse debt stabilization in the linear – constant risk premium-framework (where many issues are already complicated enough). The non-linearities that endogenous risk premia introduce in the government debt dynamics complicate substantially the analysis.

In particular, we analyse debt stabilization in two diametrically opposed regimes of endogenous risk premia. In the first regime, the

¹ “The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.”

² The predecessor of the ESM, the European Financial Stability Facility (EFSF) was created as a temporary crisis resolution mechanism in June 2010. The EFSF has provided financial assistance – financed by issuing of bonds and other debt instruments in international capital markets – to Ireland, Portugal and Greece, the ESM has provided support to Spain and Cyprus.

³ In April 2012 a deal was reached to restructure 210bn Greek government debt, imposing net present value (NPV) losses of 59 percent on its creditors (Zettelmeyer et al., 2012).

“national fiscal discipline regime”, financial markets impose countries in a monetary union a sovereign risk premium based on the national government debt level. This regime reflects the conventional idea that financial markets will act to discipline countries with debt dynamics that are (considered) unsustainable. In the context of the euro area, this regime assumes that the “no-bailout clause” is fully credible. The “no-bailout” clause was added to the European Union Treaty in order to address potential moral hazard/common pool problems where undisciplined Member States could default on their debt and seek to shift in the end the consequences of their undisciplined policies to the other Member States.

In the second regime, the “Eurobonds regime”, financial markets impose on countries in the monetary union a risk premium based on the average debt level in the monetary union. The motivation of this regime is the perception that eventually the no-bailout clause may not be credible in an economically, politically and financially highly integrated area like the euro area. The Eurobonds regime assumes that there is – de facto or de jure – a form of sovereign debt mutualization or federalization. In our analysis of Eurobonds, sovereign debts of individual Member States become essentially non-distinguishable from each other in the eyes of financial markets, implying that all Member States face the same risk premium and which is related to the average debt level in the monetary union.

We use numerical simulations of a number of relevant cases and compare outcomes in both regimes. We try to evaluate the sovereign debt crisis and the institutional weaknesses of a monetary union like the euro area and the proposed remedies indicated above. Our main policy relevant insight is that in the current discussions about fiscal union and Eurobonds, the effects of non-linearities in debt dynamics are not given enough consideration. These non-linearities change substantially government debt dynamics even in our simple model. Typically debt dynamics become more unstable by the non-linearities. We also find that in the presence of non-linearities policy changes could produce win-win or lose-lose outcomes for both high and low debt countries rather than win-lose arguments that often feature in discussions like the one about Eurobonds. Initial conditions also matter crucially: at high initial debt levels the non-linearities are much stronger mechanisms than at low debt levels. Eurobonds could contribute to flatten the average risk-premium induced non-linearity in debt dynamics in a monetary union, contributing to stabilization of average government debt. Taken together, we conclude that the non-linearities are too important driving forces to be safely ignored by economists and politicians in their analysis of government debt stabilization and fiscal sustainability.

This paper is organised in as follows: Section 2 provides the analytical framework. Section 3 uses numerical simulations of a stylised example to illustrate the workings of the model and to relate the results to the context of Europe's debt crisis and the current discussions about fiscal management in the euro area. Section 4 concludes.

2. The analytical framework

To analyse sovereign debt stabilization strategies in a monetary union context, Section 2.2 constructs an analytical framework that will then be used in Section 3 for numerical analysis. First, we provide an overview of relevant literature.

2.1. Some relevant literature

Three strands of literature are of crucial importance to our analysis: (i) the emerging literature on Eurobonds, (ii) the vast literature on government debt sustainability, sovereign risk premia, debt

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