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An analysis of eurobonds☆

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ABSTRACT

We analyse different forms of debt mutualisation in a union of countries. One country suffers from a political distortion and may resort to (partial) debt default. We consider a debt repayment guarantee, which can be “unlimited” or ”limited”, i.e. only be invoked when the guarantee threshold is not exceeded. We also explore the ”blue–red” bonds proposal, under which blue debt is guaranteed, while red debt is not guaranteed. Only a suitably chosen limited guarantee induces the government to reduce debt and raises union welfare. This result is upheld under the time-consistent solution when there are costs to the rest of the union of not providing financial rescue. Making the guarantee also conditional on sufficient structural reform may in addition stimulate reform effort, thereby raising union welfare.

1. Introduction

According to many commentators, the recent debt crisis brought the eurozone on the verge of a break up. The situation in which some eurozone countries face high interest rates on their public debt and other countries are forced to effectively guarantee those debts through emergency funds is

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widely viewed as unviable in the long run.[2] While the ratio of aggregate public debt to GDP in the eurozone lies below that for the U.S., the latter country has faced no trouble so far in financing its debt as it can print its own money. In view of all this, a number of experts as well as politicians, such as current and former leaders of some European countries, have pleaded for the introduction of ”eurobonds” (e.g., see Juncker and Tremonti, 2010), which take some form of collectively guaranteed public debt. Also, the President of the European Commission recently installed an expert commission to investigate the desirability and feasibility of the introduction of eurobonds. Among the various proposals, there are the ”blue and red bond” proposal by Delpla and von Weizsäcker (2010), in which the EU countries pool their public debt up to at most 60% of GDP under joint and several liability as senior (blue) debt, while any debt above 60% of GDP would be issued as junior (red) debt. The proposal by Hellwig and Philippon (2011) foresees a maximum of 10% of GDP of mutually guaranteed short-term debt. De Grauwe and Moesen (2009) propose a collectively guaranteed eurobond with an interest rate that is differentiated across the participating countries on the basis of their market interest rates. Bishop et al. (2011) and Boonstra and Bruinshoofd (2012) advocate a facility for eurozone members to finance themselves with jointly guaranteed short-term debt. Further, the European Commission (2011) has issued a green paper on what it calls ”stability bonds”. Finally, Claessens et al. (2012) provide an in-depth discussion of the various proposals and the steps needed to arrive at some form of common debt issuance.

While eurobonds have their proponents, they also have their opponents. For example, Issing (2009) points to the danger of moral hazard by countries that already have a weak record in terms of budgetary discipline. The perceived danger is that these countries, knowing that at least part of their debt is guaranteed by other countries, will increase their spending and start issuing more debt, because the interest rate on the guaranteed component of the debt is (largely) insensitive to an individual debt increase. Although the European Commission (2011) and others acknowledge the potential problem of moral hazard, they believe that there are ways to work around this problem.

Most of the discussion about eurobonds takes place outside the context of a formal model, which makes it hard to trade-off its pros and cons. The purpose of this paper is to provide a formal analysis of the budgetary and welfare consequences of different debt mutualisation schemes and to explore whether such schemes can be designed that are welfare enhancing in a union of countries. We model a union of two countries, ”Core” and ”Periphery”. Periphery features a political distortion that leads to debt accumulation that is excessive from society’s perspective. We allow for (partial) default on the debt when the Periphery’s resources become too small due to unfortunate economic circumstances. The paper also gives some prominence to the alleged moral hazard problems associated with debt mutualisation. In particular, the paper will study whether debt mutualisation necessarily leads to higher debt, less economic reform effort and lower welfare, as feared by its adversaries.

One type of debt mutualisation takes the form of a guarantee provided by a financially healthy country to a financially less-disciplined country for the repayment of its public debt up to a certain maximum amount. In the case of a (partial) default, each debt holder gets the same fraction of his holdings repaid. Hence, the latter country issues a single type of debt. As a consequence, all the debt issued by this country carries the same interest rate. The guarantee can be ”unlimited” in the sense that the rest of the union provides financial support up to the guarantee level if necessary, even if debt exceeds the guarantee level. However, the guarantee can also be made ”limited”, such that any financial support from the rest of the union is lost when the government issues debt beyond the guarantee level. We also consider an alternative in which the less-disciplined country may issue senior and junior debt alongside each other. This resembles the ”blue and red bond” proposal by Delpla and von Weizsäcker (2010). Unlike the senior debt, the junior debt is not collectively guaranteed.

While the possibility of default under adverse economic circumstances in itself induces Periphery’s government to issue more debt, this effect is kept in check by the rise in the interest rate to compensate for the rising likelihood of default. Hence, debt is excessive, though to a limited extent. The introduction of a debt guarantee eliminates the response of the interest rate to an increase in debt as long as debt

[2] Lane (2012) reviews the European sovereign debt crisis, which has motivated recent analyses of sovereign default risk, e.g. see Corsetti and Dedola (2011), Hatchondo et al. (2012) and Corsetti et al. (2013).