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Fiscal consolidation and its cross-country effects[☆]

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ABSTRACT

We build a new Keynesian DSGE model consisting of two heterogeneous countries in a monetary union. We study how public debt consolidation in a country with high debt (like Italy) affects welfare in a country with solid public finances (like Germany). Our results show that debt consolidation in the high-debt country benefits the country with solid public finances over all time horizons, while, in Italy, debt consolidation is productive in the medium and long term. All this is with optimized feedback policy rules. On the other hand, fiscal consolidation hurts both countries and all the time, if it is implemented in an ad hoc way, like an increase in taxes. The least distorting fiscal mix from the point of view of both countries is the one which, during the early phase of pain, Italy cuts public consumption spending to address its debt problem and, at the same time, reduces income tax rates, while, once its debt has been reduced in the later phase, it uses the fiscal space to further cut income taxes.

1. Introduction

Since the global shock of 2008, several eurozone periphery countries have been in a multiple crisis. In view of debt sustainability concerns and loss of confidence, these countries have been forced, among other things, to take restrictive fiscal policy measures which have further dampened demand in the short term. It is thus not surprising that fiscal consolidation has been one of the most debated policy areas over the past years. On the other hand, fiscal policy in eurozone center countries, like Germany, has been neutral. Nevertheless, the debt crisis in the periphery countries has also affected the German economy, which is another reminder of the importance of spillovers in an integrated area like the euro area.[1]

In this paper, we study how public debt consolidation in a country with high debt and sovereign premia affects welfare in other countries with solid public finances. In particular, we study how public debt consolidation in a country like Italy

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[1] For the debt problem in the euroarea and fiscal policy in various member countries, see e.g. the EEAG Report on the European Economy (2012–2017) by CESifo and EMU Public Finances (2011–2016) by the European Commission.

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affects welfare in a country like Germany and how these cross-border effects depend on the fiscal policy mix chosen to bring public debt down.[2]

The setup is a new Keynesian DSGE model consisting of two heterogeneous countries forming a currency union. An international asset market allows private agents across countries to borrow from, or lend to, each other and the same market allows national governments to sell their bonds to foreign private agents. Regarding macroeconomic policy, being in a monetary union, there is a single monetary policy. On the other hand, the two countries are free to follow independent or national fiscal policies. Following most of the literature on debt consolidation (see below), we follow a rules-based approach to policy. Policy is conducted via "simple, implementable and optimized" feedback rules (see e.g. Schmitt-Grohé and Uribe, 2007). This means that the union-wide monetary policy is conducted via a standard Taylor rule for the nominal interest rate, while all the main national fiscal instruments (government consumption spending, government investment spending, transfer payments, and the tax rates on labor income, capital income and consumption) can respond to the gap between public debt and target public debt as shares of output, as well as to the output gap. The values of feedback (monetary and fiscal) policy coefficients are computed optimally, so as to maximize a weighted average of households' expected discounted lifetime utility in the two countries; this can be thought of as a cooperative policy at international level. We will experiment with various public debt policy targets depending on whether national policymakers aim just to stabilize the economy around its status quo (defined as the solution consistent with the recent data), or whether they also want to move the economy to a new reformed steady state (defined as a solution with lower public debt than in the recent data). For comparison, we will also study exogenous fiscal consolidation scenarios resembing those recently observed in Italy.

We solve the above model numerically employing commonly used parameter values and fiscal policy data from Germany (called the domestic country) and Italy (called the foreign country). The steady state solution of this model can mimic relatively well the key features of the two countries over the euro years and, more importantly, the current account deficits in Italy financed by current account surpluses in Germany over the period 2001–2011. It is useful to stress that this is achieved simply by allowing for differences in fiscal policy and the degree of patience; the latter means that Italians have been less patient than Germans during the euro period. In turn, we use this solution as a point of departure to study the dynamic evolution of endogenous variables in response to policy reforms, focusing on debt consolidation in the high-debt country, namely, Italy.

Our main results are as follows. First, as perhaps expected, had tax-spending policy in Italy remained unchanged as in the data averages over 2001–2011, the model would be dynamically unstable. In other words, some type of fiscal reaction (spending cuts and/or tax rises) to public debt imbalances was necessary for restoring dynamic stability.

Second, debt consolidation in the high-debt country (Italy) benefits the country with solid public finances (Germany) over all time horizons. By constrast, in Italy, namely the country that takes the consolidation measures, such a policy is productive only in the medium and long term. Thus, in Italy, although the benefits outweigh the costs when the criterion is lifetime utility, debt consolidation comes at a short-term pain relative to non-consolidation. To put it differently, fiscal consolidation in a high debt country is a common interest over longer horizons but, in shorter horizons, there seems to be a conflict of national interests. It is interesting to add that the medium- and long-term benefits from fiscal consolidation become more substantial for both countries when debt reduction is such that sovereign premia are also eliminated in the new reformed steady state; but such elimination requires an equalization of time discount factors, meaning an equal degree of patience, across countries in the new reformed steady state (see Section 2.1 for details). All this holds with optimized feedback policy rules.

Third, the least distorting fiscal policy mix from the point of view of both countries is the one where, during the early phase of pain, Italy cuts government consumption spending to address its public debt problem and, at the same time, reduces (labor and capital) income tax rates to mitigate the short-term recessionary effects of these spending cuts, while, once its public debt has been reduced in the later phase, it uses the fiscal space created to further cut capital taxes. In other words, regarding the early phase of pain, Italy's public debt should be brought down by cuts in government consumption spending only (and not by cuts in government investment and transfer payments or by rises in various taxes), while, regarding the later phase of fiscal gain, the anticipation of cuts in capital taxes in the future, once debt consolidation has been achieved, plays a key role even in the short term. Use of public consumption spending is also recommended in Germany, where the policy aim is just cyclical stabilization. It is also interesting to report that, to the extent that policy reactions are chosen cooperatively, the higher the say of Germany in policy setting, the stronger the fiscal consolidation in Italy should be during the early period of pain. Again, all this holds with optimized feedback policy rules.

The fourth result is about exogenous data-mimicking policies, so it is a positive result. The implications of such policies are very different from the normative implications listed above. In particular, we experiment with an exogenous scenario of debt consolidation that resembles the policy actually implemented between 2012 and 2015; this means that, in Italy, the tax revenue to GDP ratio rises by around two percentage points, while the spending ratio remains practically unchanged, and, in Germany, fiscal policy is kept neutral. In this case, debt consolidation in Italy is harmful for both countries and across all time horizons, always relative to non-consolidation. Therefore, the way public debt is brought down is important.

[2] Italy's (public and foreign) debt position, although sizeable in absolute terms, is not one of the worst in the euroarea. Greece, Portugal, Spain, Ireland and Cyprus, have been in a worse position; see e.g. the EEAG Report on the European Economy (2012–2017) by CESifo. However, since these countries have received financial aid from the EC-ECB-IMF, we prefer to use Italy as our euro area periphery country.