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## Monetary-fiscal interactions and the euro area's vulnerability

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*When monetary and fiscal policy are conducted as in the euro area, self-fulfilling expectations of economic agents can lead to undesirable fluctuations in output, inflation and government bond spreads. An alternative policy arrangement would enable more effective macroeconomic stabilisation.*

In the wake of the global financial crisis of 2008, the euro area experienced a period of malaise, with weak economic activity, inflation persistently short of the European Central Bank's objective of "below, but close to, 2%", ECB policy rates near zero, and swings in government bond spreads. This article, based on Jarociński and Maćkowiak (2017), highlights the link between these outcomes and constraints on monetary and fiscal policy: the lower bound on nominal interest rates and the risk of public debt restructuring or default in the euro area. It explains how these features can make the economy prone to undesirable outcomes, and discusses a possible remedy.

### Macroeconomic outcomes driven by self-fulfilling expectations

With multiple equilibria, the expectations of economic agents can be self-fulfilling. Pessimistic expectations can lead to bad outcomes while optimistic expectations can lead to good outcomes, for the same economic fundamentals. A lower bound on nominal interest rates and the risk of public debt restructuring or default make multiple equilibria possible. Jarociński and Maćkowiak (2017) consider a simple, non-linear, dynamic general equilibrium model with a lower bound on the central bank's policy rate and with multiple fiscal authorities, as in the euro area, issuing debt subject to the risk of default. In this model, multiple equilibria arise for output and inflation. If economic agents are optimistic, output recovers in the wake of a recession and inflation returns to the central bank's objective. If economic agents are pessimistic, a double-dip recession can result, with inflation persistently below the central bank's objective. Thus, the model can explain the post-2008 euro area outcomes for output and inflation. Government bond spreads in the model are also subject to multiple equilibria. If economic agents are optimistic, they attach a low probability to debt restructuring or default, implying that spreads are low. If agents become pessimistic, they demand high spreads, pushing up the stock of debt and raising the probability of debt restructuring or default. According to the model, the surge in government bond spreads in 2011-12 can be explained by agents' pessimism, while the decline in spreads can be explained by their renewed optimism, possibly generated by the ECB's announcement of Outright Monetary Transactions. When the model is parameterised to match the euro area economy, a simulation of the effects of a recessionary disturbance replicates the main features of the post-2008 data (see Figure 1): the double-dip recession, the inflation rate persistently below the ECB's objective, the spike and subsequent fall in government bond spreads, and the ECB policy rates close to zero (not shown in the figure).

### Effective macroeconomic stabilisation

The model implies that effective macroeconomic stabilisation would have been possible under an alternative arrangement for monetary and fiscal policy. Public debt typically rises at the start of a recession. Fiscal policy must decide when to shift attention from business cycle stabilisation to debt sustainability. If debt is perceived as being subject to the risk of restructuring or default, debt sustainability can become an overriding concern at the expense of business cycle stabilisation. By contrast, suppose that a centrally operated fund could purchase national public debt of euro area countries and issue its own nominal bonds (for simplicity called "eurobonds"), as proposed by Sims (2012), for example. The eurobonds would be

non-defaultable, i.e. the fund and the ECB would agree that maturing eurobonds, issued as part of a concerted policy intervention, would be convertible into currency at par, in the same way as maturing reserve deposits at the ECB. In this set-up, the present value of the primary surplus of each national fiscal authority would have two components: a part flowing to the fund and a part flowing to other creditors. After a recessionary disturbance, the primary surpluses flowing to the fund could decrease until a full recovery had been achieved. A fall in the primary surpluses relative to the value of the eurobonds would imply an increase in agents' wealth at a given price level. Output and inflation would be stimulated as agents spent the extra wealth. Jarociński and Maćkowiak (2017) consider a scenario in which the primary surpluses flowing to the fund decline by 5% in the long run. In Figure 1, the thick line with diamonds represents a simulation of this policy experiment. In this simulation, in 2009 output is 4% higher than in the baseline and inflation is 1% higher. Throughout the period considered, output is much higher than in the baseline and inflation is closer to the ECB's objective. There is now a unique equilibrium for output and inflation, as a result of fiscal policy becoming stimulative when the central bank's policy rates are at the lower bound. Furthermore, the scope for multiple equilibria in the national government bond markets is reduced, as debt-to-GDP ratios decline, driven by the improved outcomes for output and inflation.<sup>[2]</sup>

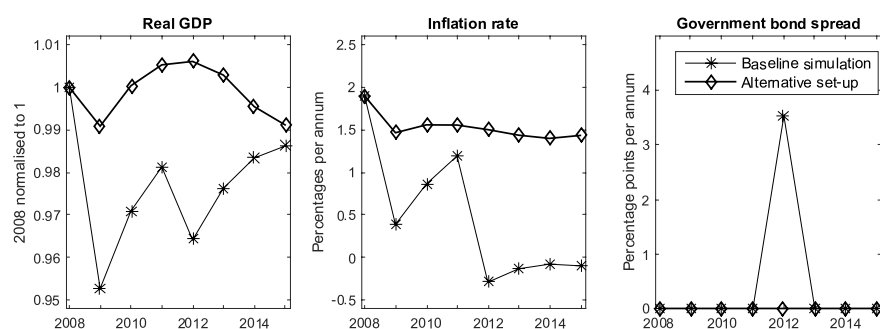


Figure 1. Simulations from two versions of the model: real GDP, the inflation rate and the government bond spread. The spread is the difference between the one-year government bond yield of Italy and Spain (a weighted average) and of France, Germany and the Netherlands (a weighted average).

## Final remarks

In an economy with its own fiat currency, the monetary authority and the fiscal authority can ensure that public debt denominated in the national fiat currency is non-defaultable, i.e. maturing government bonds are convertible into currency at par. With this arrangement in place, fiscal policy can focus on business cycle stabilisation when monetary policy hits the lower bound constraint. However, the fiscal authorities of the euro area countries have given up the ability to issue non-defaultable debt. As a consequence, effective macroeconomic stabilisation has been difficult to achieve. Coordinating the fiscal policy of the individual countries around a common euro area, non-defaultable debt instrument would improve business cycle outcomes. Corsetti et al. (2016) describe this proposal in greater detail and discuss possible challenges, including the risk of a restructuring of national public debt.

## References

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those of the authors and do not necessarily represent the views of the European Central Bank and the Eurosystem.

[2] Jarociński and Maćkowiak (2017) assume that the fund would stand ready to purchase a country's public debt so long as the national fiscal authority satisfied predefined criteria, and they analyse the macroeconomic outcomes assuming that i) the criteria are satisfied and ii) the criteria have been violated.

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