Non-standard liquidity measures and fiscal sustainability in the euro area

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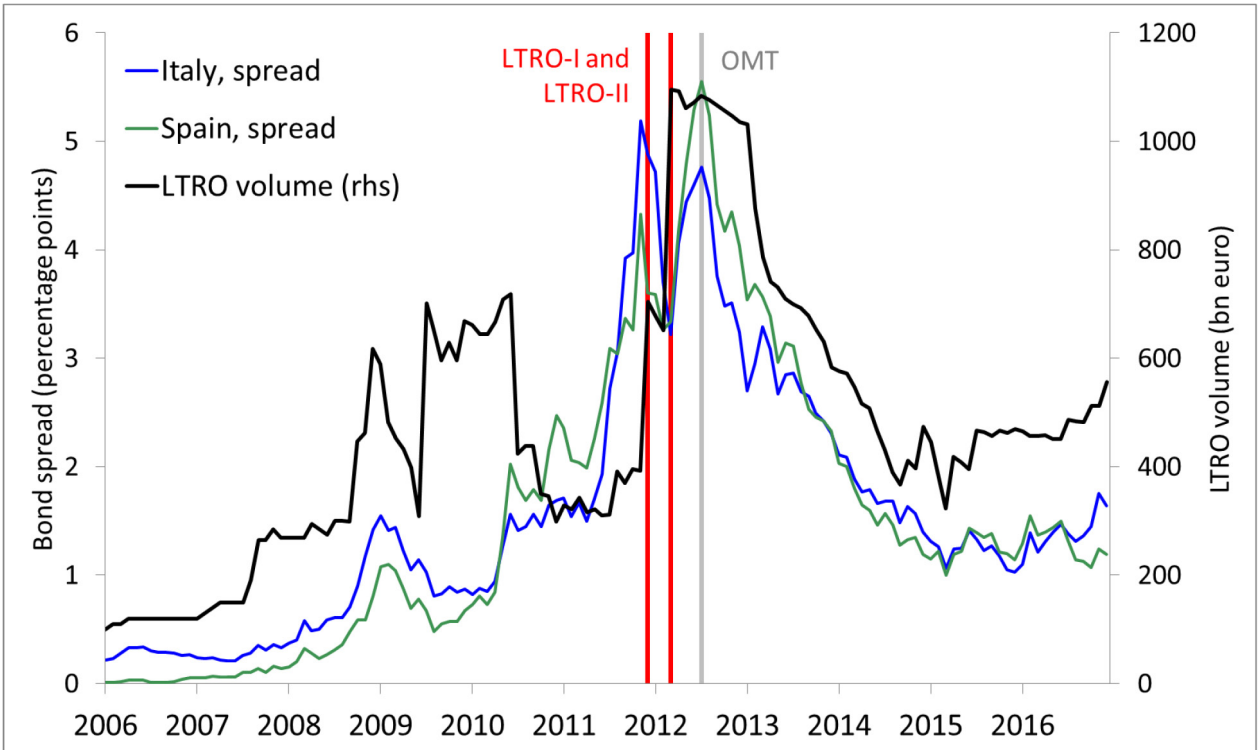
The Eurosystem provided long-term loans to banks to fight financial fragmentation during the sovereign debt crisis (2011/2012). Some critics have argued that such interventions had adverse side effects for fiscal sustainability by removing market discipline. This criticism misses a critical mitigating effect: the associated stabilisation of credit to the economy improves public debt sustainability by cushioning the drop in GDP. We show with a calibrated model that fiscal solvency is fostered through temporary access to non-standard central bank liquidity.

Figure 1: Decline in government bond spreads after the ECB's liquidity measures (LTRO)



Note. Outstanding volume of longer-term refinancing loans and the spread between 10 year benchmark bonds of Italy and Spain over German Bund. Two longer-term refinancing operations (LTRO) were launched in December 2011 and February 2012. In July, Outright Monetary Transactions (OMT) were declared as an additional policy tool for central bank interventions in sovereign bond markets. OMT has never been activated so far. *Source:* ECB.

The ECB's liquidity provision in the light of a bank-sovereign "doom loop"

Government bonds are crucial for banks because they serve as collateral in private repo markets and central bank liquidity operations. In 2011 a so-called "doom loop" between banks and sovereign risk developed as heightened fiscal tensions in some euro area countries eroded the collateral value of sovereign debt. This in turn cut off banks from secured wholesale funding markets, thereby restricting the volume of bank credit which worsened the fiscal outlook and so on (e.g. Panetta and Davies, 2011). The spread on Italian government bonds relative to German Bunds reached 500 basis points on November 2011 compared to around 20 basis points in 1999 when the euro was launched. In turn, banks had to pay a high risk premium on secured interbank markets to obtain funding against risky sovereign collateral.

In December 2011 and February 2012 in response to this stress in interbank markets, the ECB made an exceptional move by granting two longer-term refinancing operations (LTRO) to euro area banks at an unprecedented volume of around EUR 1 trillion and with a maturity of three years (Figure 1). This was done to avoid a major credit crunch and safeguard the transmission of the Eurosystem's monetary policy. Spreads on Italian and Spanish government debt fell by close to 200 basis points and 100 basis points from November 2011 to March 2012, respectively. An additional non-standard monetary policy measure, Outright Monetary Transactions, was announced in July 2012, following Mario Draghi's pledge "to do whatever it takes to preserve the euro". This curtailed the redenomination risk premium due to market fears about a possible breakup of the euro area (e.g. De Santis 2015).

The LTROs could have contributed to the reduction in sovereign default risk. By supplying liquidity to banks in distressed member states at a much lower cost than dysfunctional interbank markets, the ECB helped short-circuit the "doom loop" by restoring access to finance for the economy, and thereby improving the economic growth outlook. Crucially, this positive effect does not occur because governments can fund themselves more cheaply. The mechanism we would highlight here is the following: additional central bank liquidity indirectly reduces sovereign default risk by bolstering banks and the economy, and thus the government's capacity to service outstanding debt.

Some critics argued LTRO would create negative incentives for public finances

Critics of the LTRO policy, however, have argued that it could create negative incentives for governments and banks. Banks would borrow cheaply from the central bank and purchase more government debt issued by crisis countries, thereby contributing to an even tighter "doom loop" between the government and the banks. Furthermore, banks would pledge risky loans as collateral toward the central bank, which would thereby enter into a "trillion euro bet" (Wyplosz 2012). In the event of a sovereign default, it would be the central bank rather than private banks that would incur high losses. So governments that should have been reducing their deficits would instead have an incentive to borrow more in the wake of easier credit conditions. This would be a case of double moral hazard.

LTROs were successful in cutting the "doom loop"

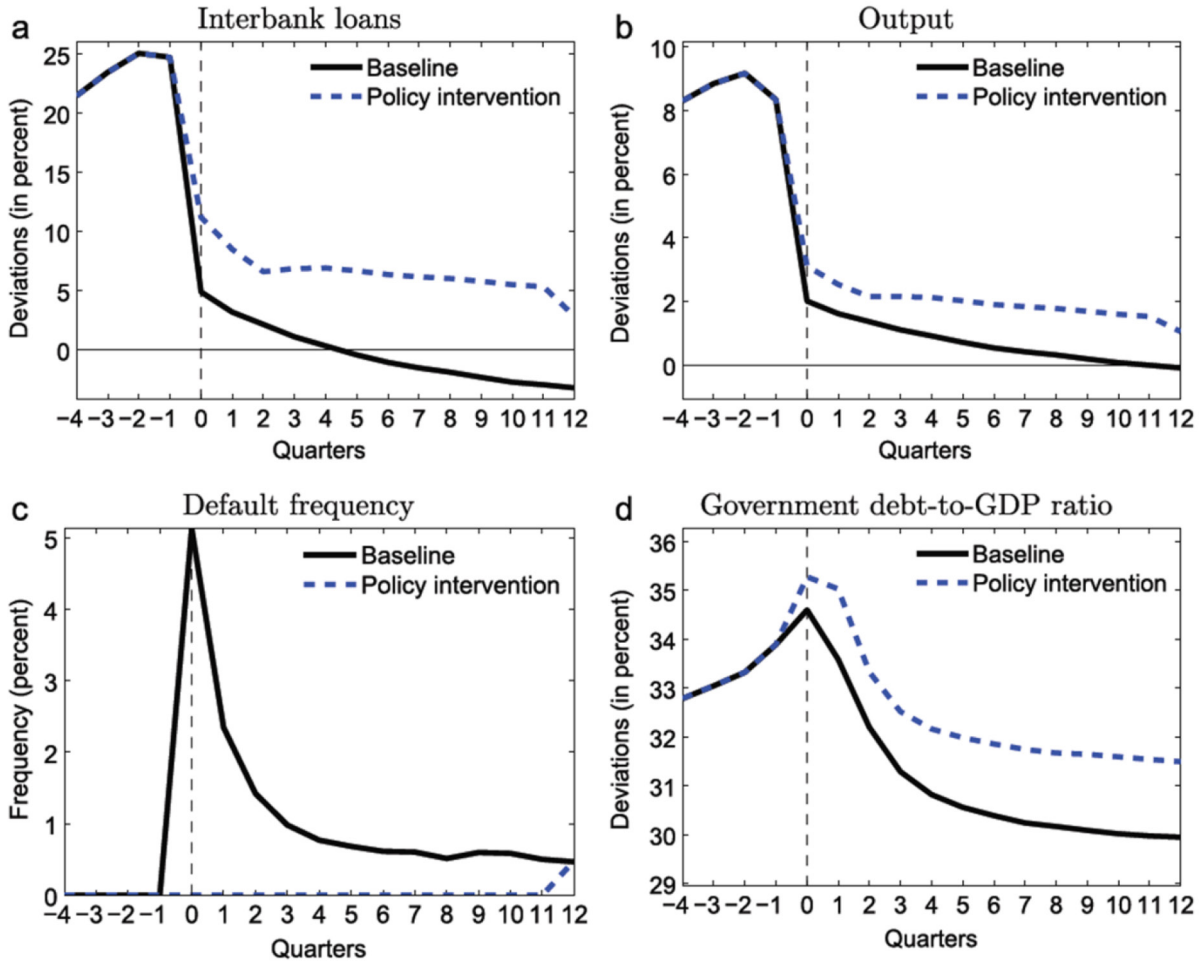
There are thus competing arguments as to whether the LTROs improved or worsened government debt sustainability. Engler and Grosse Steffen (2016) put these two arguments to the test. They design a quantitative model that contains both a stabilising role for emergency liquidity support and an incentive for governments to spend more if they can borrow more cheaply. Most importantly, the default probability is explicitly modelled in their setup, such that it allows for a feedback channel for policy interventions on fiscal decisions and default risk. The model is calibrated using data from the European debt crisis. A novel and important conclusion can be drawn from the analysis. Namely, market discipline can be fostered in the presence of emergency liquidity policies because they reduce the incentives for sovereigns to default. Therefore some of the decline in yield spreads in 2012 can be linked to the LTRO policy.

A calibrated model suggests the net effect is to strengthen public debt sustainability

Figure 2 illustrates the results of the policy intervention. For a model economy, it compares when LTROs are available (dotted line) to when they are not (solid line). The economy is initially hit by a series of positive productivity shocks, which leads to a boom situation. In line with the general property of this class of models, which feature procyclical fiscal spending, this leads to a relaxation of fiscal discipline with rising government debt-to-GDP. A potential "doom loop" is then triggered by a sudden and large negative shock. This induces fiscal stress through a strong rise in spreads over the risk-free interest rate (not shown). Without access to the LTROs, default risk rises sharply and interbank lending and output both fall dramatically. These effects are self-reinforcing through the role of government bonds as collateral in interbank lending. The lower quality of government bonds as collateral spills over to interbank borrowing costs. A higher risk premium on interbank borrowing drives intermediation and credit provision down. This further deteriorates government debt sustainability and yield spreads rise even further, reinforcing the "doom loop".

By contrast, when LTROs are provided, they have a stabilising effect. Output and interbank lending still fall after a large negative shock when the banking system has access to LTROs. This is mainly due to demand effects. But the drop is considerably muted because risk premiums for interbank loans are lowered and the collateral "doom loop" effectively attenuated. This feeds back into a higher collateral value, contributing to stabilising credit and the economy. As a result, markets' assessment of government debt sustainability improves and default risk premium recedes. Although the government debt ratio is now on a slightly higher trajectory, it is sustainable because of narrower sovereign bond yield spreads. Thus, in our simulations the benefits from smoothing out the fiscal adjustment prevail such that default risk falls.

Figure 2: Simulations of policy intervention



Note: Graphs show the simulation results around the activation of LTRO policies. The dotted line shows the average path across simulations in an economy with LTRO policies activated at time 0. The solid line shows the average path in an economy without LTRO policies in place. Deviations (in percent) are given relative to the long-run numerical steady state. *Source:* Engler and Grosse Steffen (2016)