



DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Non-Standard Monetary Policy Measures

NOTE

Abstract

There are many types of non-standard monetary policy measures, each with different objectives. Some are structural in nature, and they have been effective alleviating pressure on particular market segments,. Other measures have been imagined to represent a new instrument when the interest rate is trapped at the zero lower bound. Their effectiveness remains in doubt.

The Eurosystem is facing a particularly daunting challenge as it faces a mix of macroeconomic and "sectoral" distress: it is sectoral in the sense that individual member countries with highly indebted governments face much higher interest rates than the other member countries. This does not just break the transmission mechanism down; it also imparts a powerful contractionary effect on the macroeconomies of the affected countries. Since it affects some countries and not others, this situation requires that the central bank transfer income across countries, exactly like it transfers resources from national taxpayers to national distressed sectors. Limited actions like the SMP and LTROs have failed to reduce the spreads. Potentially unlimited action like the OMT has succeeded but the spreads remain large and volatile.

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EXECUTIVE SUMMARY

There are many types of non-standard monetary policy measures, each with different objectives. Some are structural in nature: they are designed to alleviate pressure on particular market segments such as the mortgage market in the US or the convertible bond market in the Euro Area. They have been effective, because the resources of a central bank are effectively unbounded. Other measures have a macroeconomic objective; they are intended as a new instrument when the interest rate is trapped at the zero lower bound. Their effectiveness remains in doubt. In the US, they seem to have succeeded in lowering the long-term interest rates through a mix of forward guidance and massive securities acquisition.

The Eurosystem is facing a particularly daunting challenge as it has to deal with a mix of macroeconomic and “sectoral” distress. The macroeconomy is not growing, at least not enough to bring unemployment down and to stop the increase in non-performing loans that represents a growing threat of bank crisis. The challenge is also sectoral in the sense that individual member countries with highly indebted governments face much higher interest rates than the other member countries. As repeatedly noted by the ECB, this breaks the monetary policy transmission mechanism down, compounding the zero lower bound problem: the policy interest rate is nearly at its minimum and, yet, borrowing rates in the crisis countries are far too high. The result is that the very supportive stance of standard monetary policy is associated with a powerful contractionary effect on the macroeconomies of the affected countries.

Being structural, this situation can be treated by the central bank if it mobilizes sufficient resources. But since some countries are affected and not others, this situation requires that the central bank transfer income across countries, exactly like it transfers resources from national taxpayers to national distressed sectors such as the US mortgage market or the convertible bond market in the Euro Area. Non-standard limited actions like the SMP and LTROs have failed to reduce the spreads. Potentially unlimited action like the OMT has succeeded but the spreads remain large and volatile. More has to be done.

It has been argued that these policies have potentially adverse effects. Large liquidity injections are seen as a source of inflation. Record low interest rates are predicted to generate asset price bubbles. Both concerns are misleading. They ignore what drives inflation. A key component of the reasoning is that bank credit grows excessively fast. Not only bank credit has been and remains anaemic throughout the Euro Area, but there exist powerful instruments to slow credit growth when and if it starts rising fast.

The most serious risk at this stage is the conditional nature of the OMT programme. A bank crisis requires immediate action and, for large countries, OMT action would be needed far too urgently to allow for an agreement on a EU-IMF programme.

1. INTRODUCTION

The last few years have seen central banks venture into unknown territory. Policy actions that would have been considered impossible and dangerous before 2008 have been promptly put in place in many developed countries. As any innovative experimentation, these actions are risky and raise suspicion, even vocal criticism. Yet, these are controlled experiments rooted in knowledge accumulated since the previous massive financial crisis that followed the 1929 Wall Street crash. This does not mean that risk is absent but some of the criticism is outdated.

To start with, the expression “non-standard measures” cover several different actions, taken in response to different threats. Initially, these measures were directed at the financial system, for example TARP in the US and Covered Bonds Purchase Programme (CBPP) in the Euro Area. In the wake of the financial crisis of September 2008, most banks had lost market access and were suffering from acute funding shortages. Lehman Brothers had fallen victim to acute illiquidity. TARP in the US and CBPP in the Euro Area were designed to provide immediate and abundant liquidity to banking systems. This was not particularly novel. The innovation of the CBPP was that the Eurosystem decided to buy collateralized bank debts instead of lending to banks against collateral, a small step from usual practice.

In order to cushion an unavoidable recession, central banks did the very traditional thing: they cut interest rates. What was new was the readiness to cut them to nearly zero. Once they had brought their policy interest rates down to the zero lower bound, of very close to it, the central banks of many developed countries found themselves with no standard instrument. A premature withdrawal of fiscal policy stimulus implied that growth would not resume soon or would be lethargic. The consequence would be lost incomes, rising unemployment and a continuous weakening of already fragile banking systems. Most central banks concluded that they should take it upon themselves to try and improve this gloomy, and dangerous, outlook. To that effect, central banks had to innovate. Here again, the innovations took different forms in different countries and over time, reflecting different primary policy objectives.

2. DIFFERENT OBJECTIVES; DIFFERENT TOOLS

2.1. The US experiment

The US Federal Reserve was primarily concerned about growth and employment, as requested by its dual mandate. Its objective was to encourage more bank lending to support spending by households and firms. It adopted a three-pronged strategy.

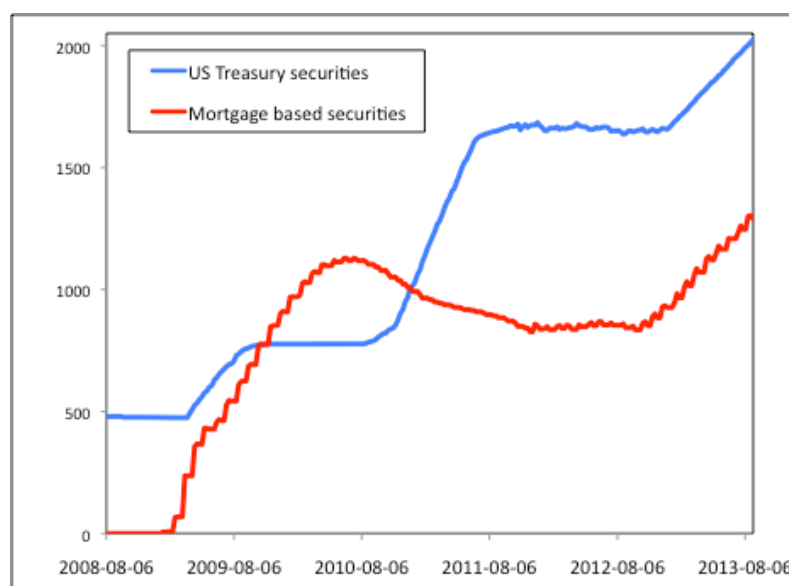
First, in line with the observation that unhealthy – or over-leveraged – banks do not lend, in addition to direct lending to the private sector, the Fed encouraged a quick, bite-the-bullet restructuring of banks hit by the crisis. This involved buying impaired – a.k.a. toxic – assets and arranging for rigorous stress tests, followed by recapitalization. By 2010, most US banks, big and small alike, were reasonably well capitalized.

Second, recognizing that the interest rate that matters most for borrowers is not the very short-term policy interest rate, but medium and long-term rates, the Fed undertook two original measures. Because long-term interest rates are driven by market expectations of what the short-term policy rate will be over the longer run, the Fed sought to affect these expectations. What is now called “forward guidance” implied repeated statements that the policy rate would remain low for one or two years and then until the unemployment would

decline enough. This marked a sharp change for a central bank that had long refused to appear committed to future actions. In effect, the Fed only made conditional commitments, making it clear that it could change its stance if conditions were to differ from prior expectations. Conditioning on the unemployment rate, the latest step to date, represents an important refinement.

Finally, the Fed departed from standard practice by attempting to directly lower longer-term interest rates. Until then, the standard view was that central banks can only affect the very short-term (overnight) interest rate because they have a monopoly on money creation, which is nearly the same as a very short-term loan. Private and public borrowers produce longer-term assets in such large amounts that, it was felt, the central bank is too small to really make a difference. Quantitative easing (QE) represents a radical departure from this view. The Fed committed to acquire very large amounts of long-term assets. Figure 1 shows the three waves of action. QE1, which started in March 2009 and lasted about one year, involved large-scale acquisitions of both public and private securities, reflecting the Fed's objectives of both bringing long rates down and relieving banks by absorbing toxic assets. The Fed absorbed about \$400 bn. of public debt and more than \$1000 bn. of mortgage based securities. Starting in September 2010, QE2 focused on the long-term interest rate (Operation Twist) and only concerned public debt instruments. The intervention netted about \$1000 bn. Finally, QE3, which started in September 2012 and is now about to end, was more like QE1. The nature and size of the exercise have no historical precedent.

Figure 1. Securities held by the Federal Reserve (US\$ billion)



Source: FRED Database, Federal Reserve Bank of Saint Louis

2.2. The Euro Area experiment

The Eurosystem's first non-standard action started in July 2009 with CBPP1 and lasted exactly one year. By end June 2010, the Eurosystem had absorbed € 60 billion of covered bonds. In comparison with the US, the scale is very small and it concentrated on one narrow segment of the market that was perceived as most affected by the financial crisis. Importantly, covered bonds are more widely used in France and, specially, Germany.

Starting in December 2011, the Eurosystem innovated with the Long Term Refinancing Operations (LTRO) expanding its money market interventions in three important ways. First, the maturity of the refinancing, which rarely exceeded one week before the crisis, was extended to three years. Second, the procedure “full allotment at fixed rate” meant that all valid requests for funding were accepted and that the interest rate was stated *ex ante*. Third, the amounts provided through LTROs were of a different order of magnitude than previous refinancing operations as the Eurosystem lent out about €1 trillion in December 2011 and March 2012. This was a major breakthrough.

During that same period, the Eurosystem conducted another programme in support of covered bonds (CBPP 2) but its size remained comparatively modest (some €120 bn.), in line with the size of the corresponding market. In February 2012 the Securities Market Programme (SMP) was directed at the purchase of private and public debt instruments issued in the countries under market pressure. When it was terminated in September 2012, the SMP had absorbed some €220 bn. of debt securities issued in Southern member countries, see Table 1. The innovation consisted in targeting crisis countries and in purchasing the debt instruments at market prices instead of using them as collateral for loans.

Table 1. SMP: Breakdown by Country

Ireland	14.2
Greece	33.9
Spain	44.3
Italy	102.8
Portugal	22.8
Total	218.0

Source: ECB

Finally, the most innovative action is the Outright Market Transactions (OMT) programme announced in June 2012 and finalized in September. This programme in effects commits the Eurosystem to buy unlimited amounts of public debt securities of member countries that face excessive interest rates. The commitment is both vague – when is the interest rate excessive? – and conditional as OMT are reserved for countries under a EU-IMF programme. Yet, it represents a massive innovation because of its *de facto* unlimited nature.

2.3. Comparison of the US and Euro Area policy actions

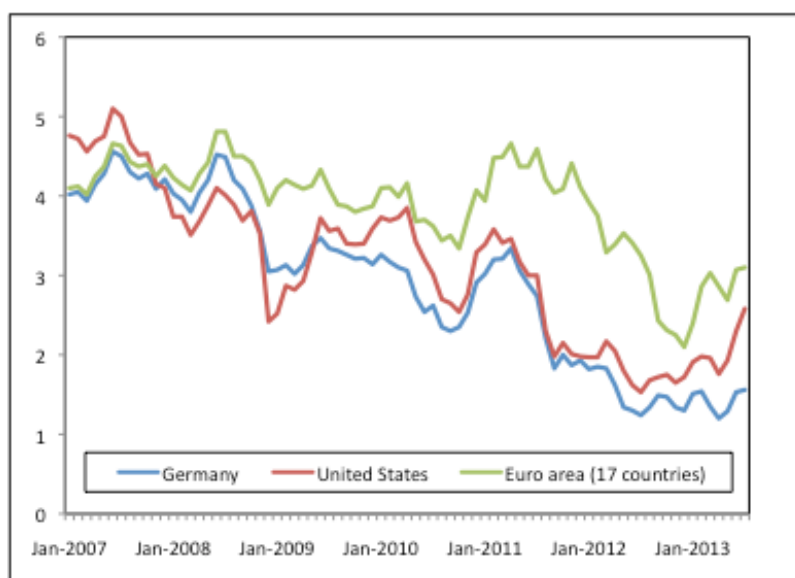
There are important differences between non-standard policies in the US and in the Euro Area. The first one is forward guidance, which was practiced fairly early on by the Fed while the ECB is only now gradually warming up to the idea. Second, the sizes of liquidity provision measures differ. The Fed absorbed some \$ 2400 bn. of assets in comparison with €1400 bn. for the Eurosystem. Third, The Fed explicitly tried to lower long-term interest rates, which the ECB did not. Fourth, the ECB insisted that its LTRO and SMP actions would be entirely sterilized, which the Fed did not do.

These differences reflect sharply different objectives. The Fed first wanted to support the financial system, hence QE1, but then shifted to try and adopt an expansionary stance while the interest rate was at the zero lower bound. The Eurosystem too wanted initially to

support the financial system but never stated any intention of using non-standard measures to conduct an expansionary policy. Once the sovereign debt crisis started, all non-standard operations were motivated by the Eurosystem's desire to "safeguard an appropriate transmission mechanism" for its standard monetary policy, i.e. via the policy interest rate.

As is well known, national interest rates started to diverge within the Euro Area. This implied that the credit conditions that represent the traditional channel transmission of monetary policy became sharply different, as Figure 2 illustrates. The figure plots the average of Euro Area interest rates and the German interest rate. It shows that the German interest rate declined in tandem with the US rate, but for the Euro Area as a whole the interest rate remained significantly higher. Obviously, the ECB was right to focus on the spread, which indeed hampered a proper transmission of its policy. It did so by increasingly focusing its non-standard actions on the crisis countries through the LTROs and SMP. The OMT was the last and most successful step.

Figure 2. Long term (10 years) interest rates



Source: *Economic Outlook*, OECD on line.

Focusing on German rates, Figure 2 also suggests that the systematic sterilization of its liquidity provision measures did not hamper the Eurosystem's ability to bring long term rates down.

3. EURO AREA ISSUES

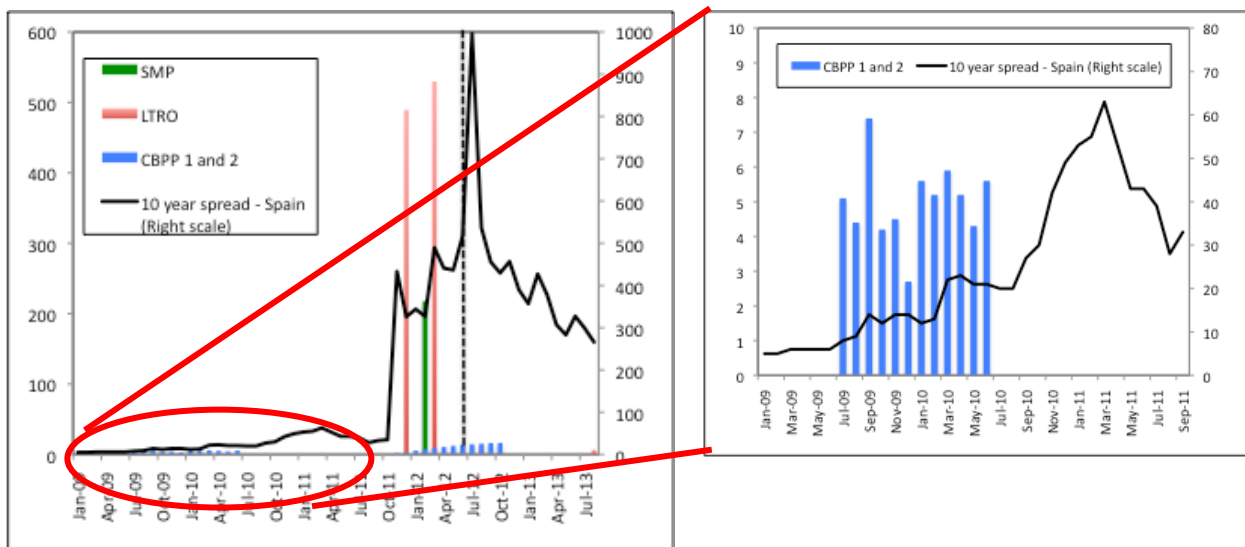
3.1. Which measures worked?

Like other central banks, the ECB has experimented with different types of non-standard measures as described in Section 2.2. These actions are shown in Figure 3. Also shown is the spread of Spanish 10 year bonds over the German 10 year bonds. Spanish bonds to

represent the deterioration of the crisis; using other spreads would not invalidate the following discussion.

The figure shows that the CBPP interventions were trivially small. They may have improved a small segment of financial markets but, clearly, they were irrelevant as far as the sovereign debt crisis is concerned. The right hand-side chart, which displays the early period using a different scale, confirms that CBPP1 was ineffective outside the narrow confines of a particular – and not very important – market segment. The SMP and LTROs were on a different scale, actually comparable to the Fed’s actions. Yet, their impact on the spreads were at best temporary; if the objective was to durably restore the channel of monetary transmission, these measures did not deliver. The OMT programme was announced informally in June 2012 and formally presented in September. The spread peaked in July and started to decline rapidly in August. So far at least, the OMT have worked.

Figure 3. Non-standard policy measures en their effect on the Spanish spread



Notes: The bars represent the amounts of liquidity, in € billion, injected by the Eurosystem in its non-standard operations. The curve describes the evolution of the spread of Spanish 10-year bonds over the corresponding German bonds, in basis points. The dotted line corresponds to June 2012, when the first indication of OMT was given.

Sources: Non-standard measures: ECB; Spreads: *Financial Times*.

It might seem illogical that € 1,400 bn. of liquidity injections failed where a mere statement by the ECB succeeded, without any expenditure so far. As argued in my Note of December 2011 (Wyplasz, 2011), this was entirely predictable (and desirable). The explanation lies in one word: unlimited. In conducting its LTRO and SMP actions, the ECB had always taken great care to indicate that they were exceptional and limited. The reactions of the financial markets were easy to anticipate: they would retreat temporarily in the face of purchases of debt securities that were large enough to move the market, but because limited actions are always smaller than the stocks of debts, it was only a matter of time until the crisis would become acute again. On the other hand, the OMT announcement meant that the Eurosystem was determined to backstop *all* of the existing debt instruments, under some conditions as noted earlier. Given the unique ability of a central bank to buy whatever

amount of securities that it wishes, the announcement was credible. In contrast, the previous insistence of the ECB that its actions were limited effectively undermined what the central bank was intending to achieve.

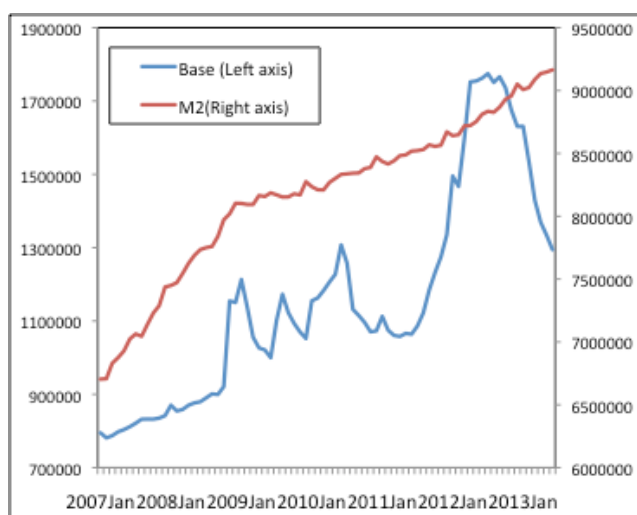
3.2. Risks

The OMT program has radically improved the situation but it remains untested – there has been no OMT intervention so far – and criticized for implying some heavy risks. Two risks are often mentioned, none of which is valid while one risk is infrequently debated.

INFLATION

If invoked in the case of large countries such as Italy and Spain, OMT could lead to large amounts of liquidity injection. The fear is that such injections would be too large to be sterilized so that the money stock would rise and produce rapid inflation. Each step of this reasoning is problematic, however. Even if liquidity creation is not sterilized so that the money base increases, the overall money stock (measured as M1, M2 or M3) does not follow passively. For any of these aggregates to rise, bank credit must grow (since bank credit is the main component of M1, for instance). Not only is bank credit generally anaemic currently, but the national authorities dispose of many regulatory instruments to keep control of bank credit, and so does the Eurosystem with reserve requirements.¹ It is true that, in normal times, overall money supply and the money base rise in tandem. But these are not normal times, as Figure 4 shows. Since the adoption of non-standard policy actions, the link between the money base and M2 has essentially dissolved. In fact, in spite of sharp increases in the monetary base since 2008, the growth rate of M2 has slowed down, precisely because banks have rarefied credit.

Figure 4 Money base and M2 in the Euro Area (€ mn.)



Source: ECB

The second step in the reasoning invokes the historical link between money growth and inflation. The link is by no means automatic, however. It operates as follows. Monetary base growth leads to credit growth, which fuels demand for goods and services, which leads to

¹ The Irish and Spanish authorities did not prevent fast credit growth in the 2000s, an oversight failure that is responsible for the subsequent crisis. Since then, the ESRB has been created precisely to avoid further failures.

more economic activity, which leads to strong demand for labour and goods, thus triggering a wage-price spiral. Once again, this is true in normal times, not in the current recessionary environment. In fact, inflation is currently low in most countries.

ASSET PRICES

Low interest rates in the 2000s produced asset price bubbles in a number of countries such as the US, the UK, Ireland or Spain. Is there a risk of this happening again and thus sowing the seeds of the next financial crisis? Once again, low interest rates, even very low ones do not mechanically lead to asset price bubbles. Once again, we need to have credit growing fast to allow investors to borrow from banks and invest in assets and houses. And once again, credit is currently not growing fast enough to sustain a strong economic recovery. As noted, instruments to prevent credit from growing excessively fast exist.

CONDITIONALITY

The OMT announcement has had a massively positive effect, but the measure has not been used and therefore tested. How do we know that, if invoked, the OMT will work, and will do so without adverse side effects?

The most worrisome aspect is the pre-announced conditionality. What happens if a country faces a bank crisis? Spreads on its public debt will promptly rise and banks will instantly lose market access, as will the government if it is already highly indebted and subject to some market pressure. If the country is large, the ECB will be the only source of urgently needed stabilizing support, as befits a lender in last resort. There will be no time to negotiate the kind of elaborate programme identified as a condition for OMT. The ECB will have to choose between breaking its conditions and lose its credibility (and therefore the OMT protection would vanish), and letting the country's banking system collapse, which would probably lead to a default of the government itself. This would be an impossible situation for the ECB to be in and, yet, it is a distinct possibility.

3.3. What else is to be done to support a recovery?

At the zero lower bound, monetary policy is largely powerless. Early studies of QE in the US accept that the Fed did affect long-term interest rates but remain ambiguous on whether it exerted a significant one on growth (Christensen and Rudebusch, 2012; Pesaran and Smith, 2012). In the Euro Area, the Eurosystem only reduced the spreads, and therefore reduced long-term rates, when it adopted the untested OMT programme.

Should the OMT programme aim at eliminating the spreads? This would require a 100% guarantee on public debts, in contrast with the current limited and vaguely formulated guarantee. The perception is that this would be a far too costly and risky for the ECB to contemplate. Pâris and Wyplosz (2013) propose a solution that would indeed eliminate the spreads and thus fully restore the transmission mechanism and provide a significant boost to growth in the crisis countries. It involves the explicit acquisition and forgiveness by the ECB of portions of excessive public debts. The mechanism is designed to amortize the losses amortized over a very long period. Of course, such an approach cannot be the ECB's own decision because it would imply a transfer from all Euro Area countries to the over-indebted governments.

The dark scenario of a bank crisis would be much less likely if Euro Area banks would have been cleansed, as in the US. In spite of official reassurances that this step has been completed, there is indirect evidence that many banks remain fragile, as noted in IMF (2013). The measures to be taken do not fall under the ECB responsibility, however.

4. CONCLUSION

There are many types of non-standard monetary policy measures, each with different objectives. Some are structural in nature, designed to alleviate pressure on particular market segments. They have been effective, if only because the resources of a central bank are effectively unbounded. Other measures have a macroeconomic objective; they are intended as a new instrument when the interest rate is trapped at the zero lower bound. Their effectiveness remains in doubt but they are well worth trying as long as adverse effects are not identified; so far, no such adverse effect has been convincingly identified.

The Eurosystem is facing a particularly daunting challenge as it faces a mix of macroeconomic and “sectoral” distress: it is sectoral in the sense that individual member countries with highly indebted governments face much higher interest rates than the other member countries. This does not just break the transmission mechanism down, it also imparts a powerful contraction effect on the macroeconomies of the affected countries. Being structural, this situation can be treated by the central bank if it mobilizes sufficient resources. But affecting some countries and not others, this situation requires that the central bank transfer income across countries, exactly like it transfers resources from national taxpayers to national distressed sectors. Limited actions like the SMP and LTROs have failed to reduce the spreads. Potentially unlimited action like the OMT has succeeded but the spreads remain large and volatile.

REFERENCES

- Christensen, Jens and Glenn Rudebusch (2012) "The Response of Interest Rates to US and UK Quantitative Easing", *The Economic Journal* 122 (564): F385-F414.
- IMF (2013) *Global Financial Stability Report*, IMF, Washington, April.
- Pâris, Pierre and Charles Wyplosz (2013) "To end the Eurozone crisis, bury the debt forever", *VoxEU*, 6 August.
- Pesaran, M. Hashem and Ron P. Smith (2012) "Counterfactual Analysis in Macroeconometrics: An Empirical Investigation into the Effects of Quantitative Easing", *CESifo Working Paper Series No. 3879*.
- Wyplosz, Charles (2011) "The ECB, the EFSF (and the ESM)", *Briefing Note, IP/A/ECON/NT/2011-04*, European Parliament, December 2011.