



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

# **Inflation differentials and euro area monetary policy**

**IN-DEPTH ANALYSIS**

## **Abstract**

The ECB has been given a mandate to maintain price stability for the euro area as a whole. As such, it does not need to concern itself directly with differences in inflation rates across its member states. However, there are occasions when differences in inflation reflect dangerous macroeconomic trends. For example, the pre-crisis differences in inflation reflected the impact on the periphery of a significant easing of credit conditions. At present, however, inflation differentials in the euro area are limited as a strong disinflationary trend has spread throughout the member states. With inflation so low, it is difficult for those member states with high debt levels to recover competitiveness without experiencing deflation. The ECB has a number of options that it can pursue to raise inflation and bring the euro area out of its slump. These include a large sovereign QE programme, targeting the euro exchange rate and changing its definition of price stability.

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## EXECUTIVE SUMMARY

- The ECB has been given a mandate to maintain price stability for the euro area as a whole. As such, it does not need to concern itself directly with differences in inflation rates across its member states.
- However, there will be occasions when these differences in inflation reflect dangerous macroeconomic trends. For example, the differences in inflation between the core and periphery of the euro area during its first eight years reflected the impact on aggregate demand in the periphery of a significant easing of credit conditions.
- At present, however, the concern about inflation differentials in the euro area should be that they are too low. The cross-sectional standard deviation of inflation rates across euro area member states is currently close to historical lows as a strong disinflationary trend has spread throughout the member states.
- With inflation rates running at extremely low levels in almost all member states, it is not possible for those member states with high debt levels to recover competitiveness without experiencing outright deflation, which causes a number of economic and financial problems.
- Fiscal policy should be used to deal with the ongoing slump in aggregate demand in the euro area, with member states that have “fiscal space” undertaking expansionary policies such as public infrastructure investment programmes.
- Ultimately, however, the current disinflationary trend is the responsibility of the ECB, which is failing to meet its goal of keeping inflation close to two percent.
- The ECB should implement a policy of purchasing asset-backed securities constructed by packaging together loans to small and medium-sized enterprises. Concerns over credit risk should not be allowed to prevent this programme from being effective.
- The ECB has a number of more radical options that it can pursue to raise inflation and bring the euro area out of its slump. These include a large sovereign QE programme, targeting the euro exchange rate and changing its definition of price stability.
- While various structural reforms are desirable, there is room for fiscal and monetary stimulus to boost the economy, even without structural reforms. It is important not to confuse those policies that are desirable in the medium- and long-term with those that are necessary in the short-term.

## 1. INTRODUCTION

Modern economic thinking has come down on the side of Milton Friedman's view that inflation is a monetary phenomenon and, as such, there has been a move over the past number of decades towards giving central banks explicit responsibility for meeting an inflation target. For many European countries, a strong motivation for joining the euro was dissatisfaction with the inflation performance that had been delivered by their national central banks during the 1970s and 1980s. With the ECB having an institutional structure that resembled that of the Bundesbank, many states joined EMU with an expectation that the ECB would deliver low and stable inflation rates to all participating member states.

Overall, the ECB has done well in delivering the promised low rates of inflation. However, it has still been the case that there are often significant deviations in the inflation rates prevailing across different euro-area countries. This is not the fault of the ECB as it has neither the mandate, nor the tools, to deliver the same inflation rate to each member state. In relation to its mandate, monetary policy can act to complement or counteract the other forces that influence aggregate demand in a region, such as fiscal policy and credit conditions. This should allow it to set monetary policy in a way that generally achieves its medium-term price stability goals in the euro area by correctly matching aggregate demand with the economy's aggregate supply capacity. However, if fiscal and financial conditions vary across member states, then it is likely that inflation rates will also vary, and this has indeed been the case since 1999, with the euro area experiencing periods of systematic variations in inflation across countries, most notably between core and periphery countries.

It should be stressed that variations in inflation across member states are not, in themselves, a bad thing. They may reflect underlying macroeconomic forces that could be either problematic or benign. The inflation divergences of the early years of the euro were driven by a negative pattern: They reflected differences in credit conditions (and to some extent fiscal policy) across member states and these differences sowed many of the seeds of the current crisis.

In contrast, the more recent trend of inflation in peripheral countries being lower than in core countries should not necessarily be a source of concern. This trend reflects a painful but necessary rebalancing in which these countries regain competitiveness, thus improving their trade balances which in turn would translate into a reduction in private and public debt burdens that are currently very high in many of these countries.

In fact, I believe it would be better if variations in inflation across the euro area were higher than they currently are, with more inflation in core countries than we are currently seeing. The low level of variation is largely due to the current very low inflation rates in the euro area. Given the empirical importance of downward nominal wage rigidity and the problems caused by debt deflation when prices fall, the process of adjustment in Europe's high-debt countries would be far healthier if the ECB was hitting its inflation target. This would allow these countries to register steady improvements in competitiveness while avoiding the difficulties associated with outright deflation.

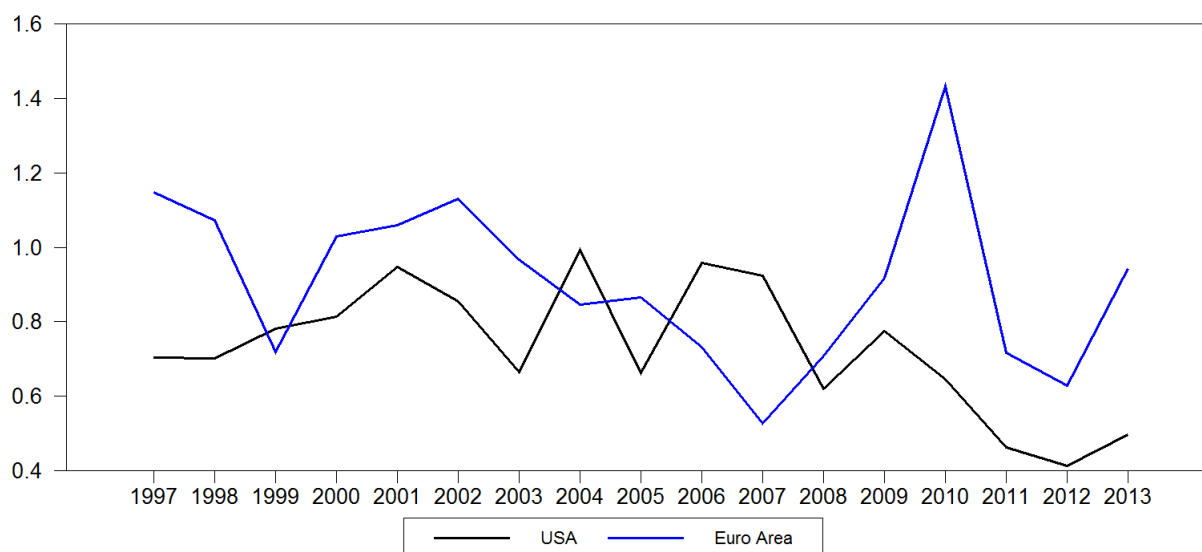
The rest of this paper discusses these points in more detail. Section 2 presents some facts on inflation differentials in the euro area. Section 3 discusses the factors underlying differences in inflation across member states prior to 2008 and Section 4 discusses the current situation and the role the ECB should be playing. Section 5 provides some concluding thought, including some points relating to the role of structural reforms in ending the euro area's slump.

## 2. SOME FACTS ON INFLATION DIFFERENTIALS

As discussed above, even within areas that share a common monetary policy, we should expect differences in local economic conditions to cause variations in inflation rates across regions. Figure 1 below plots annual data on the cross-sectional standard deviation of consumer price inflation rates for the first twelve euro area member states (the blue line) and compares these with the standard deviation of inflation rates across 27 US regions (the black line) using data obtained from the Bureau of Labor Statistics.

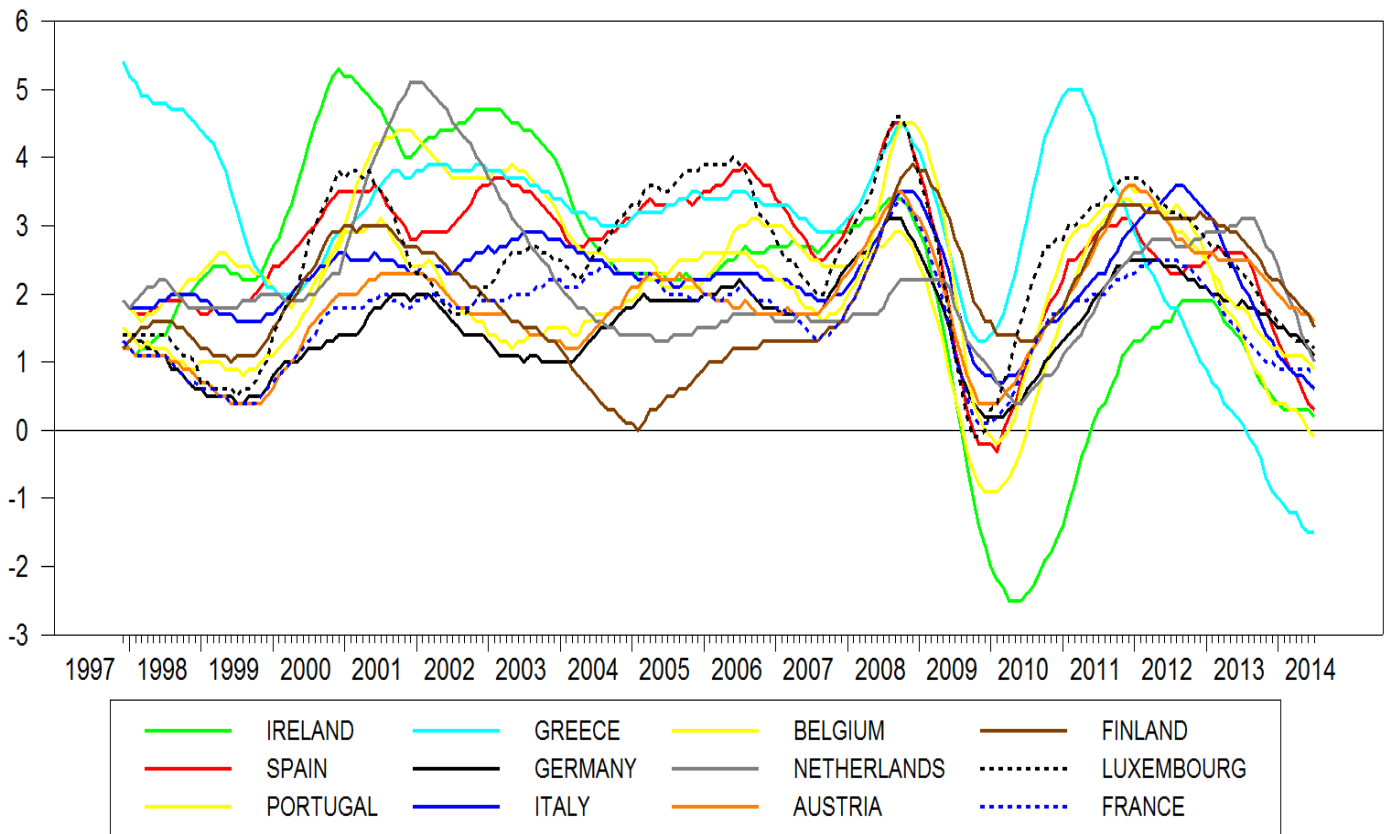
The figure shows that the standard deviation of inflation across euro area member states has generally been higher than for the United States. This would be expected given the greater differences in economic structures across the euro area as well as the significantly greater room to pursue different policies in relation to fiscal policies. However, the variation within the euro area is not that much higher than that observed in the United States. This suggests that there is nothing unnatural, *per se*, about the variation in inflation rates across euro area member states and so the ECB should not be any more concerned about these variations than the Federal Reserve

**Figure 1: Standard Deviation of Inflation Rates Across Euro Area 12 and U.S.**



**Sources:** Eurostat and Bureau of Labor Statistics

The more important question about variations in inflation is whether they represent economic factors that are desirable or undesirable. Here, it is necessary to examine each situation and relate it back to the forces generating the variations in inflation. Figure 2 illustrates the behaviour of inflation in the first twelve euro area member states since 1997.

**Figure 2: Year-Over-Year HICP Inflation Rates for Euro Area Members**

**Source:** Eurostat

Though the large number of lines in the chart makes it difficult to use this graph to discuss developments in individual countries, it does illustrate a number of trends.

- While there are clear variations in inflation rates across member states at all times, there are also some noticeable common trends. In particular, inflation was stable in most of the member states from 2002 to 2007. Most states then experienced a jump in inflation in 2008 due to oil prices and then a sharp decline in 2009 due to the global recession. After this period, there was a common pattern of rising inflation rates through 2011 and early 2012 but this has been followed a strong pattern of falling inflation across all member states since mid-2012.
- The period prior to the global recession saw euro area states such as Ireland, Spain, Portugal, Greece and Italy—all of whom have subsequently gone through debt crises—record inflation rates that were consistently higher than recorded in Germany.
- There has been a reversal of this pattern in recent years, with Ireland and Greece most notably recording lower inflation rates than Germany. However, this is mainly a recent phenomenon and the “debt crisis” countries have still had much larger increases in their consumer price levels since the beginning of EMU than core countries such as Germany.

### 3. SOURCES OF PRE-CRISIS INFLATION DIFFERENTIALS

The differences in inflation rates that were observed across the euro area in its first eight years were part of a wider pattern that saw important imbalances build up.

In the years prior to EMU, there were wide variations across countries in the interest rates at which governments, households and firms could borrow at. With monetary policy run by national central banks and limited fiscal discipline, some countries had reputations for regular devaluations and the risk of these devaluations was priced into the cost of borrowing. As the prospect of devaluations receded in the run-up to EMU and then (apparently) disappeared altogether with the euro's introduction, yields on sovereign debt across all member states—which had previously differed substantially—converged within a narrow band and remained this way until 2009. See Figure 3 for the long-term sovereign bond rates of a selected group of euro area member states over this period.

Of course, with hindsight we can see that financial markets should have been pricing in some possibility of sovereign default in various euro area member states, particularly given the failure of the Stability and Growth Pact to deliver the fiscal discipline that many had envisaged prior to the introduction of the euro. Financial markets, however, had not seen a sovereign debt default in Europe in the post-war period. Instead, they were well attuned to the risks associated with currency devaluations. Despite substantial variations across euro area member states in their underlying fiscal positions, financial markets barely priced default risk into sovereign debt yields instead focused on celebrating the end of devaluations.

Private borrowing rates in euro area member states generally tracked sovereign yields after the introduction of the new currency leading to a substantial harmonisation of private borrowing rates across the area. While most of the pre-EMU academic debate had focused on differences in trade structures as a source of asymmetric shocks, this near-harmonisation of private borrowing rates proved to be a far greater asymmetric shock than had been envisaged by most of the commentators in this debate.<sup>1</sup> Figure 3 illustrates how asymmetric this shock was. Interest rates in Germany and other "core" euro members remained at pre-EMU levels after 1999 but private borrowing rates for firms and households in many other euro area states declined dramatically.

The elimination of devaluation risk also greatly encouraged intra-EMU financial flows. With borrowing costs well down and many willing providers of this cheap credit, it is perhaps unsurprising that private debt levels in the euro area's "peripheral" member states soared. Figure 4 illustrates how current account balances deteriorated in these countries as spending increasingly outstripped income while Figure 5 shows how this increased borrowing translated into ever-worsening net debt positions relative to the rest of the world.

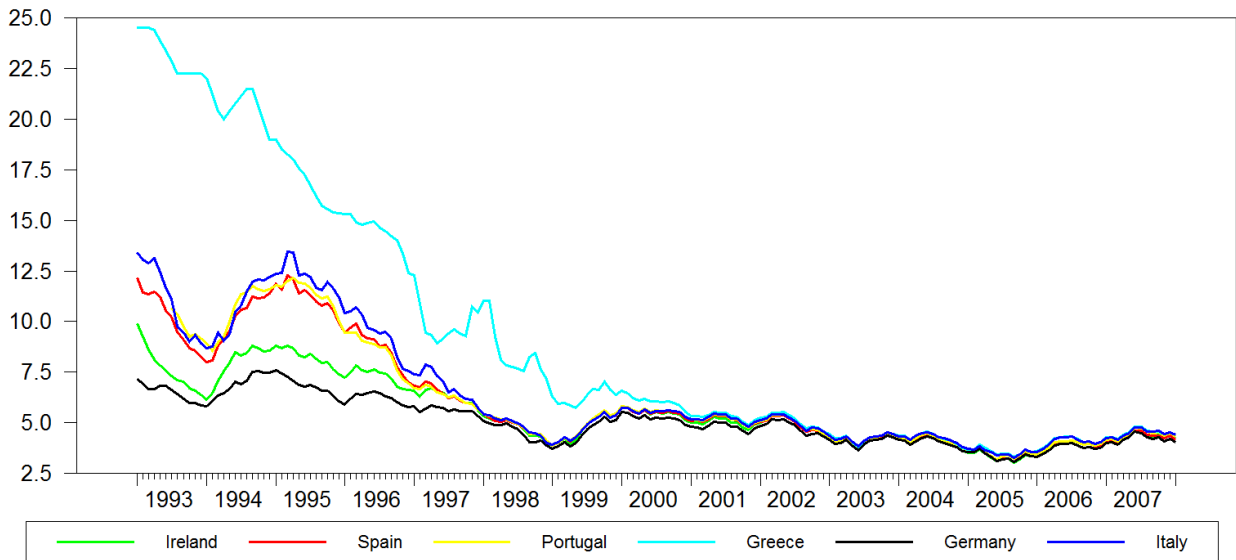
It was these imbalances – aggregate demand fuelled by cheap credit – that were responsible for the higher rates of inflation in countries such as Ireland and Spain. The loss of competitiveness associated with these higher rates of inflation proved to be particularly damaging once the global financial crisis led to a re-pricing of risk and an end to cheap credit. Re-establishing cost competitiveness has been a painful but necessary process for the peripheral countries so that they can move towards running current account surpluses and thus stabilise and then improve their net debt positions.

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<sup>1</sup> Whelan (2013) discusses the pre-EMU debate about the euro and contrasts this with the events since 1999.

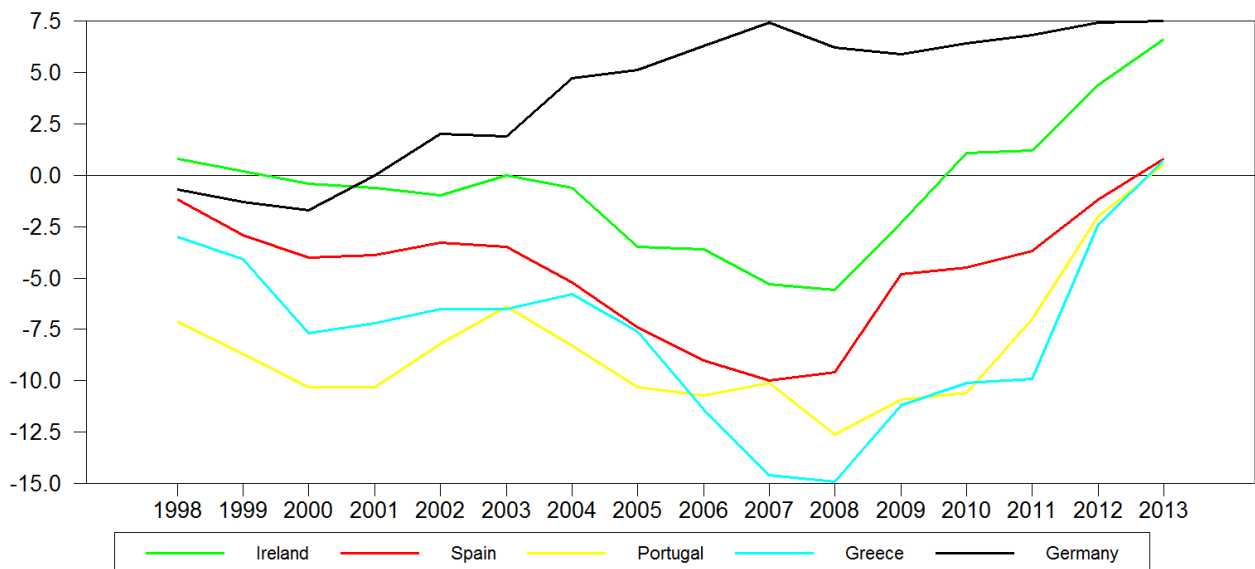


**Figure 3: Long-Term Sovereign Bond Yields for Selected Countries**



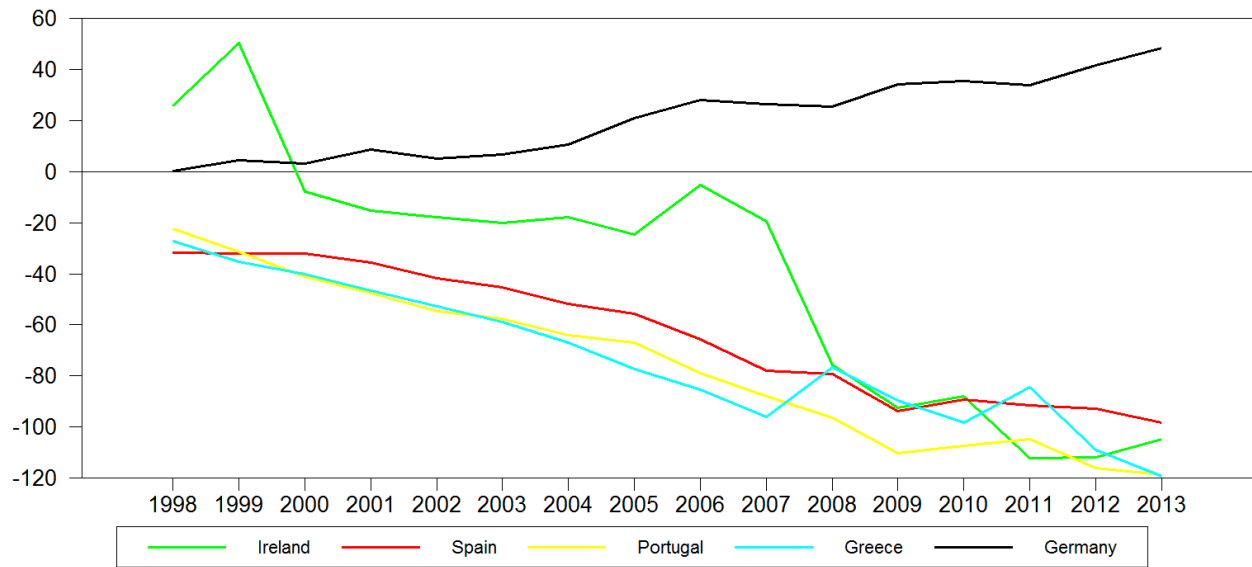
Source: ECB

**Figure 4: Current Accounts Balance as a Percent of GDP for Selected Countries**



Source: Eurostat

**Figure 5: Net International Investment Position as a Percent of GDP for Selected Countries.**



Source: Eurostat

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## 4. THE CURRENT SITUATION

This section discusses the current situation relating to inflation and macroeconomic adjustment in the euro area. It then focuses on the role that macroeconomic policy can played in improving this situation.

### 4.1. Widespread Disinflation

The previous discussion illustrated how the introduction of the euro contributed to the imbalances that fuelled a specific pattern of inflation differentials across member states in the period up to 2008. However, there is nothing innately bad about differences in inflation rates across countries and the necessary process of unwinding the pre-crisis imbalances should also be associated with inflation differentials, this time of the reverse nature.

Specifically, those countries in the euro area with large debt burdens need to move towards running current account surpluses, which will then see a decline in their net international debtor positions. This process requires a rebalancing of these economies towards higher exports and relatively lower inflation rates are part of the improved competitiveness that is required to generate this outcome.

The turnaround in peripheral current account balances has been underway for a number of years. As Figure 4 shows, the years after 2008 have seen a gradual reduction in the size of current account deficits in the highly indebted countries. However, only Ireland is currently running a large surplus, while total debt levels are stabilising at dangerously high levels.

Against this background, the current configuration of macroeconomic policies in the euro area is doing relatively little to help these member states to recover their competitiveness and tackle their debt problems.

Figure 1 had shown the standard deviation of inflation rates across the euro area's first twelve members using annual data ending in 2013. What this chart fails to capture, however, is the widespread common decline in inflation over the past twelve months, something which can be seen in Figure 2. As illustrated below in Figure 6, this means that the cross-sectional variation in inflation in the euro area is now close its historic low point. Inflation is close to zero in a number of euro area member states but since the overall inflation rate for the euro area was only 0.3 percent in July, this means these countries are only making small gains in competitiveness. Inflation in Germany is a little bit higher, standing at 1.1 percent in July, but has been falling steadily over the past two years.

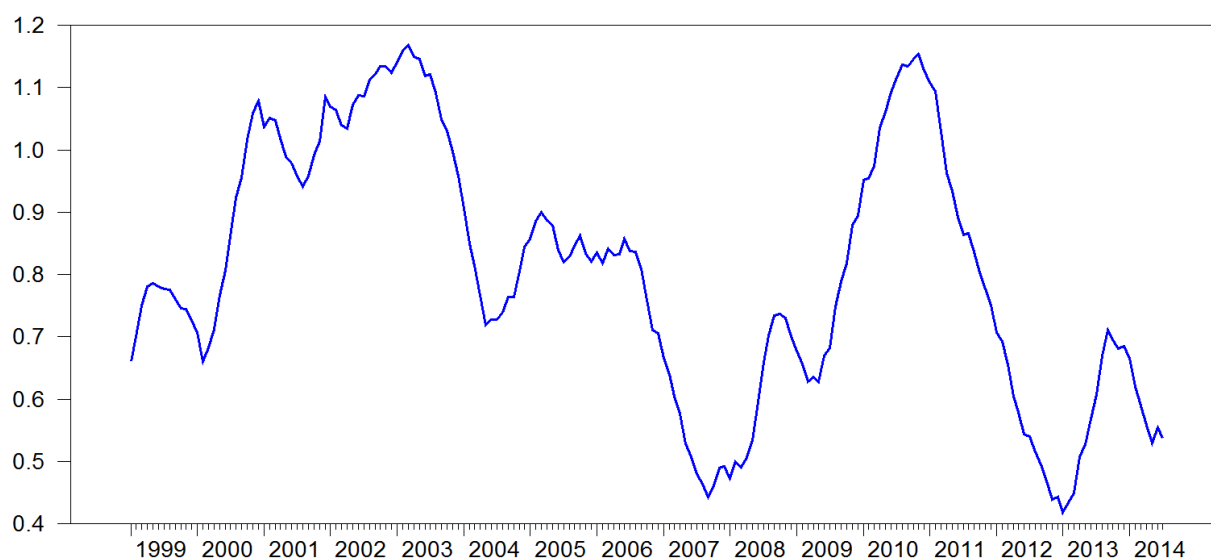
An important negative aspect of the current low inflation is the fact that the highly-indebted member states need to record negative inflation rates to make significant gains in competitiveness. This is problematic for two reasons.

First, there is an inherent resistance on the part of workers and trade unions to outright wage cuts. There is significant evidence on this phenomenon of downward nominal wage rigidity, with much of this research sponsored by the ECB.<sup>2</sup> For this reason, it is harder to improve cost competitiveness via outright wage cuts and deflation is more likely to be associated with labour market disruptions. Second, deflation generally reduces nominal income levels for workers and this raises the burden of existing private debts, thus putting more pressure on aggregate demand and on the financial system.

So, for many reasons, the euro area's process of rebalancing would be better achieved with a higher average inflation rate and, in particular, higher rates of inflation in core member states.

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<sup>2</sup> See Babecký et al (2009).

**Figure 6: Standard Deviation of Inflation for Across Euro Area 12: Monthly Data**

**Source:** Eurostat

## 4.2. The Role of Macroeconomic Policy

What lies behind the current widespread slump in inflation? Falling energy prices provide a small part of the answer, but euro area inflation excluding the energy component was still only 0.5 percent in July. Thus, the principal explanation for the ongoing decline in inflation is a widespread shortfall in aggregate demand relative to aggregate supply that is having an impact across all of the euro's member states.

Against this background, the ideal policy mix would see national governments loosening their fiscal stance, meaning slower adjustment for these countries with large stocks of public debt and a temporary fiscal expansion from those countries that have fiscal space. It would also see the ECB using all of its tools to ease credit conditions, boost aggregate demand and raise inflationary expectations.

### Credit Conditions

An important common factor underlying the current slump is the restrictiveness of credit conditions. Throughout Europe, banks are still restructuring their balance sheets to recover from the global financial crisis. Banks are taking a much stricter approach to risk-taking and are focused on boosting their capital ratios by deleveraging. While the upcoming announcement of the results of the ECB's comprehensive assessment may help in reducing uncertainty about bank fragility and in improving sentiment, European banks will be going through a process of adjustment to the Basle 3 regulations (and market-lead demands for higher capital ratios) for a few more years. As such, unless there are significant policy interventions, credit is likely to remain very tight in the euro area over the next few years.

Given these problems, there is a very strong argument for the ECB to intervene to improve the availability of credit, particularly to small and medium-sized enterprises which are highly reliant on the banking sector for access to credit. There has been some progress in recent months in this area but perhaps less than many people think.

Having written about this topic on a number of occasions, I am happy to welcome the ECB's new willingness to purchase asset-backed securities (ABS). However, it is disappointing

that progress has not yet been made on the question of which institution should bear the necessary credit risk. Despite apparently signalling a willingness to purchase ABS, the ECB's announcement had an important qualification that could severely limit the effectiveness of an asset purchase programme, namely that it would only purchase risky "tranches" of these securities if they were guaranteed by another body such as the European Investment Bank (EIB) or national governments. As of yet, however, there is no sign that national governments are willing to provide such guarantees and the EIB has already explicitly rejected the idea of playing this role.<sup>3</sup>

The absence of such guarantees could severely restrict the impact of an ECB purchase programme in generating new issuance. It is not possible to make large amounts of loans to SMEs without there being a risky element. If neither private nor public sector actors are willing to purchase sufficient quantities of the risky tranches of the ABS, then there simply may not be many new ABS issued for the ECB to purchase.

The unwillingness of various European bodies to take on this credit risk is unfortunate and short-sighted. Two points are relevant here.

First, ultimately, the creation of money by the ECB to purchase securities is a profitable activity for the euro area public sector as a whole. The credit risk associated with these securities could mean that the profits from these purchases are less than they would be if there were no defaults, but the purchases will still generate profits that will ultimately be passed back to national governments.

Second, given the revenue-sharing rule adopted by the Eurosystem, the credit risk associated with these purchases ultimately does affect national governments via variations in the rate of remittances from the Eurosystem. In this sense, the designation of which European body officially bears the brunt of this risk is arbitrary. Still, despite the lack of economic substance to this issue, it continues to be an important constraint on allowing the ECB to improve credit conditions in the euro area.

## Fiscal Policy

Fiscal policy has also contributed to the widespread slump in aggregate demand. Despite relative calm in financial markets, which are pricing most euro area sovereign debt at extremely low yields, almost all of the member states are engaging in contractionary fiscal adjustments. Unfortunately, despite the evidence of a substantial deficiency in aggregate demand (and the distinct possibility that the euro area is slipping back into recession) the debate about policy options is still extremely tentative.

In relation to this debate, ECB president Draghi's recent comments (at Jackson Hole and at the September ECB press conference) are welcome.<sup>4</sup> While Draghi's comments about using "the existing flexibility within the rules" and the usefulness of having "a discussion on the overall fiscal stance of the euro area" are sensitively phrased to avoid mentioning individual countries, it is clear that they are calling on those countries that have room for manoeuvre to help to stimulate aggregate demand. For example, with its current extremely low costs of borrowing, a German plan to borrow money to spend on public infrastructure would constitute expansionary short-term policy as well as sensible longer-term supply-side policy.

<sup>3</sup> See the comments in April of the EIB's president: <https://mninews.marketnews.com/content/eib-hoyer-not-ready-large-scale-guarantees-abs-press>

<sup>4</sup> Draghi's Jackson Hole speech "Unemployment in the Euro Area" can be found at: <http://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html>

Of course, Mister Draghi has little influence on the fiscal policy stance of individual member states and the tentative nature of his proposals (“it may be useful to have a discussion ...”) suggests little confidence that there will be much change in the overall fiscal stance of the euro area in the coming months. Draghi’s backing for the Commission President Juncker’s call for a large public European public infrastructure programme is also welcome but time will tell whether anything significant will come from this proposal.

### **Inflation Expectations**

Finally, it should be remembered that the ECB still has other tools available to it beyond those announced in September.

For example, the ECB could announce a large-scale QE-style programme of sovereign bond purchases. Based on evidence from the UK and US, a programme of this sort, focused on long-term bonds, could be expected to reduce long-term interest rates in all euro area countries.<sup>5</sup> While the macroeconomic impact of a QE programme may be relatively limited, it could play an important role in signalling that the ECB is serious about steering inflation back towards its target and thus help to raise inflation expectations and thus act to bring about the desired outcome.

A bolder policy could see the ECB announcing targets for the euro exchange rate that would see it fall in value relative to the euro area’s major trading partners. Such a programme could be implemented either in a “soft” way by simply announcing a preferred trading range for the euro or in a “hard” way by actively intervening in the foreign exchange market. This latter approach has been labelled the “foolproof way to escape from a liquidity trap” by leading monetary policy expert Lars Svensson (2003). This plan is implemented by the central bank announcing that it is willing to buy and sell unlimited amounts of foreign exchange at an announced exchange rate. This currency depreciation will make imports more expensive, which will raise inflation. It would also help the euro area’s high-debt countries to improve their current account balances with respect to countries outside the euro area.

A final radical policy would see the ECB revising its definition of price stability towards a target for the price level that would see it return to the levels consistent with two percent inflation from a particular point in the recent past onwards. In other words, the ECB could commit to reversing the shortfall in the price level due its ongoing failure to meet its inflation target. While this policy may seem radical, it would not require any constitutional change to the ECB’s mandate as the ECB has always been free to interpret its price stability mandate in whatever way it wishes.

I doubt if we will see any of these policies implemented over the next few months but it should be stressed that they are all technically and economically feasible. If it does not implement them and continues to fail to meet its inflation target, the fault should lie solely with the ECB Governing Council.

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<sup>5</sup> See, for example, D’Amico et al (2012) and Joyce et al (2010)

## 5. CONCLUSIONS

The ECB has been given a mandate to maintain price stability for the euro area as a whole. As such, it does not need to concern itself directly with differences in inflation rates across its member states.

Having said that, there will be occasions when these differences reflect dangerous macroeconomic trends. For example, the differences in inflation between the core and periphery of the euro area during its first eight years reflected the impact on aggregate demand in the periphery of a significant easing of credit conditions. Given the ECB's new role as the single supervisory of Europe's banking system and the European Commission's widened role in assessing macroeconomic imbalances, we can hope that the build-up of future imbalances will be better dealt with using appropriate regulatory and fiscal tools.

At present, however, the more appropriate concern about inflation differentials in the euro area should be that they are too low. The cross-sectional standard deviation of inflation rates across euro area member states is currently close to historical lows as a strong disinflationary trend has spread throughout the member states. With inflation rates running at extremely low levels in almost all member states, it is not possible for those member states with high debt levels to recover competitiveness without experiencing outright deflation, which causes a number of economic and financial problems.

Ultimately, these problems are the responsibility of the ECB, which is failing to meet its goal of keeping inflation close to two percent. Thus far, the ECB has not taken sufficient steps to effectively counter the disinflationary trends in the euro area and the latest indicators suggest economic conditions in the area are weakening. The ECB continues to have significant unused tools at its disposal that can raise aggregate demand and boost inflation. If the euro area remains in a disinflationary slump, it will be fair to blame the ECB for failing to use these tools.

A final word is perhaps appropriate on the topic of structural reforms. As the ECB takes a more active role in battling the ongoing slump, Mario Draghi has intensified his rhetoric about structural reforms. The transcript of his September press conferences shows fifteen uses of this phrase.<sup>6</sup> Draghi now says he has "concluded that there is no fiscal or monetary stimulus that will produce any effect without ambitious and important, strong, structural reforms."

It is hard to find a logic (at least one based on macroeconomic theory as we know it) for this argument. It is certainly the case the potential output growth in the euro area is currently low and can be improved by various policy reforms. However, it is also true that there is currently a very large shortfall between aggregate demand and the *current* supply potential of the euro area economy, a shortfall summarised in an unemployment rate of over 11 percent. So there *is room* for fiscal and monetary stimulus to boost the economy, even without structural reforms. In addition, to the extent that we are worried about deflation, the initial impact of structural reforms that boosted the supply capacity of the euro area would be to further depress inflation.

My point here is not to argue against structural reforms. There are many such reforms that can have an important positive effect over the medium- and longer-run (though we know little about the magnitude of their potential impact). But it is important for the ECB to take responsibility for its crucial role in the shorter-term macroeconomic management of the euro area and ECB officials continually placing structural reforms at the heart of discussions of this issue is unhelpful.

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<sup>6</sup> See <http://www.ecb.europa.eu/press/pressconf/2014/html/is140904.en.html>

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