# Criteria for Monetary Union Accession[1]

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**Executive Summary**

The Maastricht entry criteria were probably originally designed to ensure that entrants into monetary union possessed the political will to support a policy of low inflation. Countries are more likely to have such will if their tax systems are efficient and their labour markets are flexible. As fundamental reforms of tax systems and labour markets are difficult to quantify, the criteria are targets for more easily measured variables.

There are numerous problems with the fiscal criteria but an application of them would make a reasonable distinction between countries that are ready for monetary union and countries that are not.

The monetary criteria are unreasonable. It is not sensible to require countries to meet both an inflation and an exchange rate target. Moreover, the inflation target is too severe.

A major problem with the criteria has been their implementation; countries that have failed to undertake necessary fundamental reforms have been held to far lower standards than countries which have reformed.

Upon joining the European Union, new members must accept the *acquis*, that is, the rules of the founding treaties of the Union. As part of this, all new members are required to adopt the euro eventually. Therefore, they are expected to satisfy the criteria described in the Maastricht treaty which are a requirement for membership in the monetary union. These entrance criteria are of two types. First, there are two fiscal criteria: both a candidate country's deficit-to-GDP ratio and its debt-to-GDP ratio are to be below specified ceilings. However, an allowance is made for a deficit that exceeds the ceiling if the excess-deficit country's deficits have declined steadily and

[1] Briefing paper for the Committee on Economic and Monetary Affairs (ECON) of the European Parliament for the quarterly dialogue with the President of the European Central Bank.

substantially and their deficits are near the ceiling or if the excessive deficit is an exceptional and temporary increase above the ceiling. An allowance is also made for a debt that exceeds the ceiling if the debt is declining toward the ceiling at a fast enough rate. Second, there are three monetary criteria: the country is expected to participate in an exchange rate mechanism with the union and both its interest rates and inflation are to be below specified target levels.

The original reason for these Maastricht entry criteria was probably to ensure that candidate entrant countries possessed the political will to support a union-wide policy of low inflation. If some entrant countries possess tax systems that are less efficient than the average EU tax system, then these countries may have an optimal inflation rate that is higher than the optimal rate for the union as a whole. Even if an entrant country's optimal tax rate does not differ from that of the EU average, if the country has distorted and inflexible labour markets or an inefficient tax system it will have an incentive to create unanticipated inflation.

As a consequence, it is likely that EU policy makers wanted countries to undertake fundamental reforms of their tax systems and their labour markets prior to joining monetary union. In practice however, it was probably perceived to be impractical to specify entrance criteria in terms of these fundamental reforms: it is too difficult to describe and quantify labour market and tax system reform. Probably for this reason, the Maastricht criteria are targets for more easily measured variables such as inflation and exchange rates. The framers of the Maastricht treaty may have believed that countries would undertake the desired fundamental reforms to ensure that they would be able to satisfy the Maastricht criteria.

In this note I specify how I believe the criteria for monetary union accession should be changed. I first discuss the fiscal criteria and then the monetary criteria.

*Fiscal Criteria*

An inability or unwillingness of some member states to commit themselves to a sustainable fiscal policy is viewed as a potential cost of their membership in the Eurozone to the other member states. It is frequently believed that a country's actual or threatened insolvency might jeopardise the entire Eurozone financial system or destabilise the common currency by forcing the European Central Bank into a bail out. The ECB is prohibited from rescuing an insolvent government by buying its government debt in the primary market. However, it is indirectly able to rescue a government by purchasing its debt in the secondary market or by reducing interest rates. Thus, a monetary union has an interest in excluding countries on the verge of insolvency or countries whose fiscal and political systems are such that they might risk insolvency in the future.

Perhaps the most obvious way that a country would become insolvent is that it experiences an unfavourable economic shock and begins to run unsustainable fiscal deficits. As the situation continues the likelihood of insolvency rises and tax increases or spending cuts are required. If a country has a large cash-intensive informal sector that makes direct taxation distortionary, if tax administration is inefficient or if complicated procedures make tax compliance difficult then such painful measures will be especially tough to implement.

The size of the informal sector, the competency of the tax administrators and the complexity of the tax code are all hard to measure. As a substitute, imposing ceilings on permissible debt and deficits for candidate members of the monetary union is not an unreasonable way to lower the risk of admitting a country that is likely to

present a threat to monetary union because of its fiscal policy. It should be noted, however, that none of the current accession countries is large enough to present a systemic risk to the eurozone, except perhaps through contagion.

Another way that a country's fiscal policy can present problems for monetary union is if the country relies heavily on an inflation tax prior to joining the monetary union. Due to different abilities to collect taxes and differences in the size of the informal sector, different countries may have different optimal inflation rates. If a government is relatively poor at collecting taxes or if its taxes are particularly distortionary, then it may find it optimal to collect a significant inflation tax, either through seigniorage (revenues from base money issued by the central bank) or an erosion of the real value of domestic-currency fixed interest debt at a rate of inflation higher than was anticipated when the debt was issued. Thus, it may prefer an inflation rate which is higher than the one which is optimal for the eurozone on average. The solution to this problem is reform of the tax system. Again, as it is difficult to quantify reform, a ceiling on allowed deficits is not unreasonable.

The numbers chosen for the deficit as a percentage of GDP and debt as a percentage of GDP ceilings are three and sixty percent, respectively. The choice of these numbers may have been based on an assumption of five percent nominal GDP growth. In this case, if debt is sixty percent of GDP, then the increase in the debt-to-GDP ratio brought about by a three percent deficit is approximately offset by the decrease in the debt-to-GDP ratio brought about by a five percent increase in GDP. Nominal GDP growth in the new member states, however, is considerably higher than five percent.

There are numerous problems with implementing a test of whether a country has met the existing numerical criteria. The existence of off-budget and contingent

assets and liabilities presents accounting problems. Collecting budgetary statistics is difficult. Nevertheless, an application of these criteria at present would make a reasonable division of the countries who are ready for money union and those who are not. Most accession countries would easily pass both fiscal criteria. Only one country is in flagrant violation: Hungary with debt equal to 66 percent of GDP and a deficit of over nine percent of GDP in 2006. Poland and Slovakia satisfy the the debt criterion but have 2006 deficits of 3.9 and 3.4 percent, respectively.

The major problem with the fiscal criteria is that current union members are supposed to satisfy them as part of their adherence to the Stability and Growth Pact but many do not and never have. Debt as a percentage of GDP is 89.1 percent in Belgium, 67.9 percent in Germany, 104.6 percent in Greece, 63.9 percent in France, 106.8 percent in Italy, 62.2 percent in Austria and 64.7 percent in Portugal. Germany, Greece, France and Italy frequently exceed the three-percent deficit limit. Moreover, current members Italy, Greece and Germany were allowed to join without satisfying the debt critierion. For member countries to so extravagantly flout the rules and then deny eurozone membership to Lithuania because it failed to meet the inflation criterion by a hair's breadth makes a mockery of the process.

*Monetary Criteria*

Suppose a potential entrant to a monetary union has either a distorted labour market or a tax system that is costly to administer and comply with. The former problem causes employment to be below the socially optimal rate and the latter causes the government to want to collect an inflation tax. Fixed nominal wages ensure that employment is increasing in unexpected inflation and fixed nominal interest rates ensure that the value of the government's domestic-currency debt is decreasing in unexpected inflation. Thus, even if the government does not like actual inflation it has

an incentive to generate unexpected inflation. Rational expectations ensure that on average there is no unexpected inflation. If the marginal benefit of unexpected inflation exceeds the marginal costs of actual inflation when inflation is at its socially optimal rate, the result is excessive actual inflation on average, with no unexpected inflation and, thus, no corresponding social benefit.

If current members of a monetary union do not want future members who have such an incentive to create inflation opportunistically, then they would want the new members to reform their tax systems and labour markets. However, as such reforms are difficult to assess, it is likely that the current monetary criteria were seen as a reasonable substitute for evidence of fundamental reforms. These three monetary criteria are: (1) an interest rate criterion; long-term (ten-year) nominal interest rates on government debt are to be within two percent of the average in the three countries with the best (lowest) inflation record; (2) an inflation criterion; the annual inflation rate cannot exceed the average of the three best performing (lowest inflation) countries by more than 1.5 percent during the year prior to the formal assessment of whether a candidate has met the EMU membership criteria; (3) the exchange rate criterion; the exchange rate has to respect the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System without severe tensions for at least the last two years before the formal assessment. In particular, the Member State shall not have devalued its currency on its own initiative for the same period. The ECB and the European Commission have interpreted normal fluctuations to be within a 15 percent bands around a fixed central parity against the euro. There is also the requirement that the central bank of the candidate country must be independent.

The major theoretical objection to the monetary criteria is that it is only possible for a central bank with a single policy instrument to target a single nominal variable. Sensibly, neither the ECB nor the Bank of England attempt to do more than control their inflation rates. In practice this has caused difficulties for Estonia and Lithuania who operate remarkably successful currency boards. In pegging their exchange rates, they have given up control over inflation and it is only by chance that they can satisfy the tough inflation criterion. To have satisfied both the inflation and exchange rate criterion in January 2007 (the interest rate target was lax enough that it did not present a problem) they would have had to have either abandoned their currency boards and adopted a flexible exchange rate system – the 15 percent exchange rate bands offer more leeway than the rigorous inflation target – or they could have used fiscal policy to engineer a recession, lowering inflation in the process. Existing members were less enthusiastic about applying the monetary criteria to themselves: recognizing the economic damage attempting to satisfy both criteria might cause, Finland, Italy and Greece were not required to satisfy the exchange rate criterion.

Another problem with the monetary criteria is the severity of the inflation target. The target is unreasonably restrictive for three reasons. First, the Balassa-Samuelson effect implies that as the accession countries catch up with Euro area countries their real exchange rates will appreciate. For currency-board countries such as Estonia and Lithuania with a fixed nominal exchange rate this implies that their inflation will be higher than in Euro area countries. Short data sets and cyclical factors make it difficult to assess the size of the inflation increase due to the Balassa-Samuelson effect on the accession countries, but estimates are in the range of 1.5

percent to 2.5 percent.[2] As the Maastricht Treaty only allows for inflation to be 1.5 percent above benchmark, this creates a serious problem for Estonia and Lithuania.

Second, benchmark inflation is that of the three best-performing countries. While "best-performing" is not defined in the Treaty, the ECB and European Commission have operationalised this as being the *lowest* non-negative inflation countries. This is at odds with the ECB's own target. Recognizing that measured inflation exceeds actual inflation and that the costs of deflation probably exceed the costs of inflation, the ECB has defined price stability for itself to be inflation close to but below two percent. When challenged about this, the ECB and European Commission did not defend their methodology. Instead, they made the extraordinary argument that it should be used because it had been used in the past.

Finally, the Treaty calls for benchmark inflation to be that of the three best-performing EU member countries, not the three best-performing eurozone countries! Indeed, two of the countries used in constructing the benchmark for Cyprus and Malta were Poland and Sweden. This has the bizarre consequence that an accession country with inflation close to that of the eurozone average could be kept out because three non-eurozone countries followed excessively restrictive monetary policies.

*Suggestions for Improving the Criteria*

Perhaps the major problem with the criteria is the insistence that countries must join the exchange rate mechanism and satisfy an inflation target. It would be more sensible to allow countries to pick one or the other. As the optimal exchange rate system for a small accession country is probably either a currency board or a float, the fifteen percent fluctuation bands in the exchange rate mechanism are

[2] A discussion of this is found in Willem Buiter, "To Purgatory and Beyond: When and How should the Accession Countries from Central Europe Become Full Members of the EMU," 2004.

generous for a country that pegs its exchange rate. The inflation target is too tight, however, and should be replaced with a less restrictive one. Adding 1.5 percentage points to allow for the Balassa-Samuelson effect onto the ECB inflation target of about two percent gives a more reasonable 3.5 percent.

Just as bad as the specification of the criteria has been the implementation. Countries such as Italy and Greece, with their profligate fiscal policies and their heavily distorted markets have been exempted from the rigours of satisfying the fiscal and exchange rate criteria. Lithuania, with its disciplined fiscal policy, admirable monetary policy and flexible markets was rejected because it had inflation of 2.7 percent when the benchmark was 2.6.