

THE CHALLENGE OF ENLARGEMENT OF THE EUROZONE

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1. Introduction

The introduction of the Euro is without doubt one of the greatest achievements in the process of European unification. A decade ago, few, if any, predicted that a common currency, the Euro, managed by a common central bank, the European Central Bank (ECB), would be in existence. Despite the successful launch of the Euro, important challenges still await us. They have to do with the fact that a large number of countries are expecting to join the Eurozone.

I will focus on two main themes. First, I will analyse the question of how the enlargement of the monetary union to the whole of the European Union will affect the optimality of such a union. Presumably, not all the EU members will be in the Eurozone soon, but it is not unlikely that the enlargement of the Eurozone could produce a substantially larger monetary area than the area of the present thirteen members. This enlarged eurozone will have to look at the question of whether their monetary union can be considered an 'optimal currency area'. This may seem to be an academic question, but as I will argue, such enlargement will most definitely have extensive practical implications for the functioning of the Eurozone.

Second, I will take a long-term -perspective and ask the following question. Suppose, this enlarged Eurozone turns out to be an 'optimal currency area', will it remain so in the future? The theory of optimal currency areas has a script very much influenced by the Hollywood tradition of a 'Happy End'. Arguing that all the (possible) member countries can form an optimal currency area is like adding a 'Happy End' to the analysis. There is no need to think any further about what happens after the union. Like in the Hollywood movies where lovers marry and live happily ever after, countries that form an optimal currency area will, according to the script, also live happily ever after. But is this really so? We know that many marriages are turbulent and end in divorce. Why would such misfortune not befall countries entering a monetary marriage? Surely they are not exempt from this unhappy ending. I will analyse which factors can lead to turbulence in a monetary union and to a possible 'divorce'. I will, however, end on a positive note, arguing that divorce can be avoided.

2. Is a Eurozone of twenty-five countries an optimal currency area?

In principle up to twenty-seven member countries can become member of the Eurozone. The chances that the UK enters soon, are small, but also not zero. But let us forget the UK here, and also Denmark. These countries have obtained a derogation. The others, however, are in fact obliged to enter the Eurozone provided they satisfy the convergence criteria¹. So, I will call the fully enlarged Eurozone of the future, the Eurozone-25. The challenge for ensuring a smooth functioning of the enlarged Eurozone will be daunting. The reason is that in such a large group the probability of what economists call ‘asymmetric shocks’ will increase significantly. This means that some countries may experience a boom and inflationary pressures while others experience deflationary forces. If too many asymmetric shocks occur, the ECB will be paralyzed, not knowing whether to increase or to reduce the interest rates. As a result, member countries will often feel frustrated with the ECB policies that do not (and cannot) take into account the different economic conditions of the individual member countries.

This leads us to the question whether the enlarged EMU will, in fact, be an optimal currency area. There is a great deal of literature on the factors that affect the optimality of monetary unions. Here I will concentrate on two factors, openness and asymmetry of shocks². I will first present a simple model (*Figure 1*) that has become popular in analysing the optimality of monetary union.

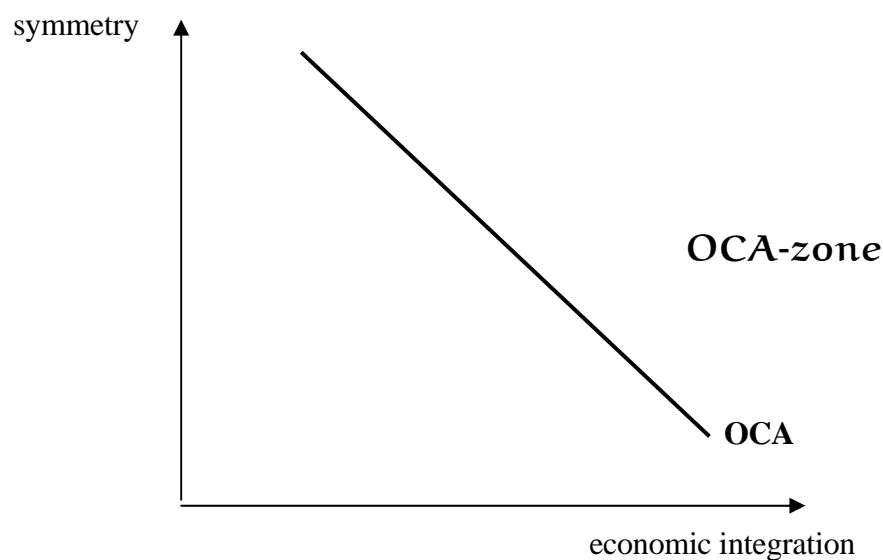
On the vertical axis, I set out the degree of symmetry between groups of countries, i.e. the degree to which countries’ economies move together. As we move up along the vertical axis countries experience less asymmetric shocks (e.g., due to the fact that business cycles are not synchronized). The horizontal axis shows the degree of trade integration between the same groups of countries. The downward sloping line (called the Optimal Currency Area or *OCA*) represents the combinations of symmetry and integration among groups of countries for which the cost and benefits of a monetary union just balance. It is downward sloping for the following reason. A decline in symmetry raises the costs of a monetary union. These costs are mainly

¹ As is well-known, Sweden has found a loophole in the Treaty, allowing it to wilfully not satisfying a convergence criterion by not fixing its exchange rate.

² There are other dimensions to the optimality of monetary unions. One important dimension is the degree of flexibility of labour markets. We return to this issue later. For the classical papers see Mundell (1961), McKinnon (1963) and Kenen (1969).

macroeconomic in nature. Integration is a source of benefits of a monetary union, i.e. the greater the degree of integration the more the member countries benefit from the efficiency gains of a monetary union. Thus, the additional (macroeconomic) costs produced by less symmetry can be compensated by the additional (microeconomic) benefits produced by more integration. Points to the right of the *OCA*-line represent groupings of countries for which the benefits of a monetary union exceed its costs. We call it the *OCA*-zone. This is the zone in which countries experience the monetary union to be optimal. Conversely, points to the left of the *OCA*-line are points where the costs of the monetary union exceed its benefits. If countries are located in that zone, it is not optimal to form a monetary union.

Figure 1. The Optimal Currency Area (OCA)



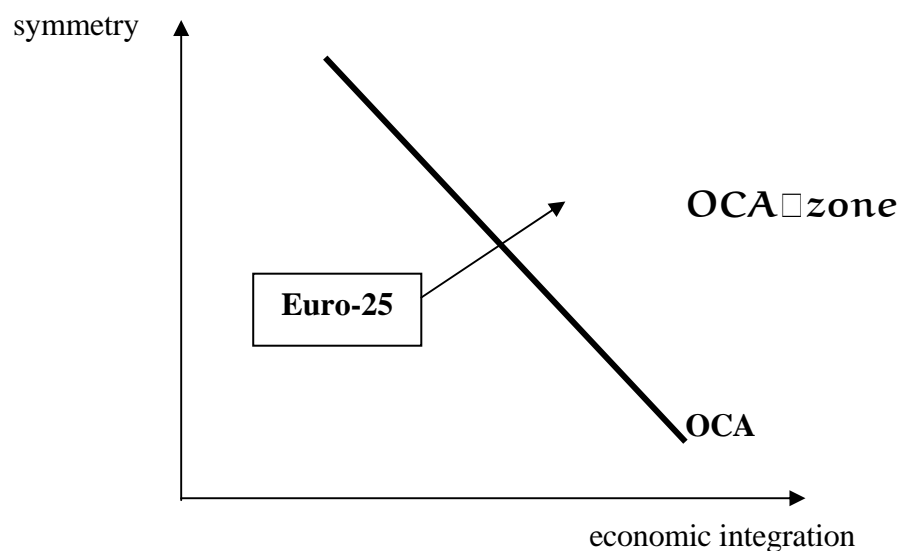
So, much of the *OCA* analysis consists in finding out where countries in a monetary union are located. If they are located in the *OCA*-zone (to the right of the *OCA*-line) (see *Figure 1*) everything is fine; we have a 'Happy End'. If, however, they are located to the left, there is a problem. So where should we locate the Eurozone-25?

Much empirical analysis has been and is still being undertaken to answer this question. One has to admit that it is very hard to come up with a precise answer. I will be brave, though, and argue that on the basis of the empirical evidence that is available today we should probably put the Eurozone-25 to the left of the *OCA*-line. The main reason is that the degree of symmetry between the countries forming the Eurozone-25 is quite low, and that for some of the members, the degree of economic integration is

insufficiently advanced (see De Grauwe (2003) for a survey; see also Korhonen and Fidrmuc (2001)). So, I will stick my neck out and put Eurozone-25 on the left hand side of the *OCA*-line.

Thus, we are faced with a problem. If my interpretation is correct, it would be unwise to go all out for an enlarged Eurozone. Fortunately, this is not the end of the story. Thanks to the so-called endogenous *OCA* theory we have an optimistic idea of what will happen to the Eurozone-25 if the twenty-five countries decide to form a union (see Frankel and Rose, 1995). The story is portrayed in *Figure 2*.

Figure 2. The good news about the Eurozone-25



The story has two components. First, the fact that twenty-five countries decide to form a monetary union sets in motion a cycle of more intense economic integration. The use of a common currency reduces transaction costs and increased price transparency leads to even more integration. Second, this integration, in turn, further increases the degree of symmetry among the member countries. (This may seem an obvious process but, in fact, it is not as I will discuss later.) The two components ensure that because the twenty-five countries are in a monetary union, they move towards the *OCA*-zone, which they will eventually reach one day. Thus, there is a self-fulfilling dimension to the optimality of a monetary union. By doing it, that is establishing a monetary union, countries create the conditions that make the union optimal.

What a nice story! Even if the member countries are not yet ready today for a monetary marriage, the decision to go ahead will create the conditions to make such a marriage successful: A 'Happy End'. In contrast to the Hollywood tradition, I want to pursue the analysis of what may happen once the Euro-25 zone has reached the monetary nirvana of the *OCA*. Before doing this, however, I want to analyze how the enlargement to a Eurozone-25 will affect the present thirteen members (see *Figure 3*).

For the sake of argument I have put this group of thirteen countries in the *OCA*-zone. (This may or may not be true, and the present Eurozone-13 may still be outside the *OCA*-zone. All I need for my argument to hold is that the Eurozone-13 is closer to the *OCA*-zone than the Eurozone-25.)³ One of the implications of such a happy state of affairs is that the members of the Eurozone-13 who face relatively few asymmetric shocks are satisfied with the monetary policies of the ECB most of the time. In contrast, as I argued earlier, the Eurozone-25 group is likely to be located outside the *OCA*-zone, reflecting the fact that the Eurozone-25 will have to deal with more asymmetric shocks than Eurozone-13.

The important insight we gain from the analysis in *Figure 3* is that the present members of the Eurozone (who are also part of Eurozone-25) have been thrown out of the *OCA*-zone. In practice, this means that since the shocks will be more asymmetric in the enlarged Eurozone, some of the members of the current Eurozone-13 will have a different inflation and output growth than the average the ECB is focusing on. As a result, these unfortunate members will perceive the policies of the ECB as having become less receptive to their national economic conditions than they were before enlargement. Some of the original members of the Eurozone-13 may then find that the cost-benefit calculus for monetary union has become less favourable. While today most members of the Eurozone-13 would find that the interest-rate decisions of the ECB almost always fit in with their national economic conditions, this may no longer be true when there is an enlarged Eurozone. It is inevitable that more and more often countries will be faced with an ECB monetary stance that is inappropriate for their specific economic situation at that moment. As a result, the perceived costs of the union will increase relative to the perceived benefits of the single currency. Such a situation is bound to produce tensions both inside the decision-making process of the

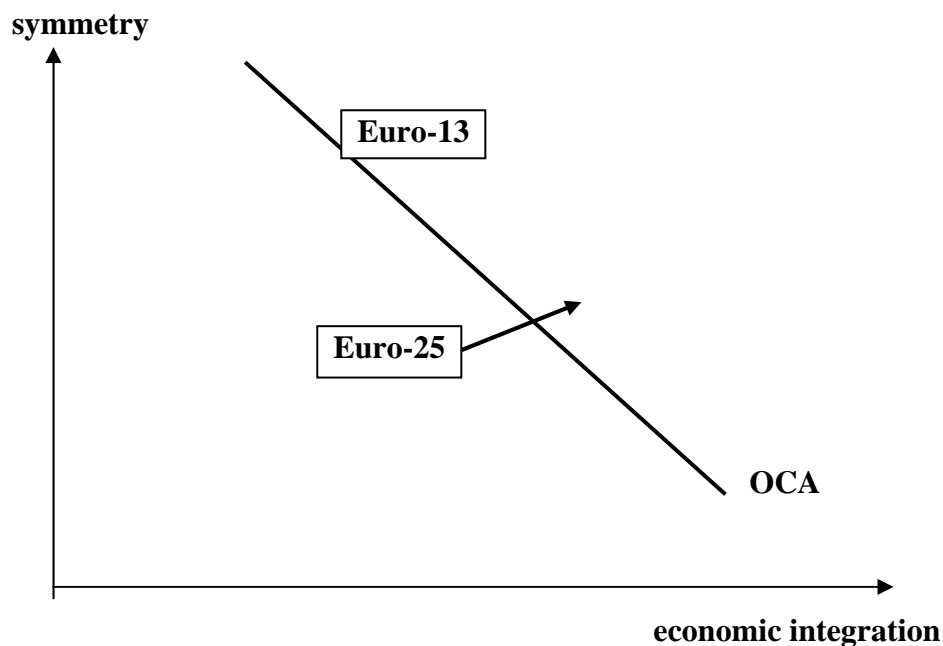
³ In the Appendix some more empirical information is provided on this issue.

Eurosystem as well as outside the system when some countries feel that their economic interests are not served well by the ECB

There is very little the ECB can do about this. By its very nature, a monetary union implies that the power to set interest rates is transferred to a common central bank which can only set one interest rate. Fine-tuning of the interest rate to cater to different national economic conditions is thus impossible. This is the price the members of the union pay for the benefits obtained from the existence of a single currency.

But as I argued earlier, this is only a temporary state of affairs. As time goes by, the increased economic integration of the Eurozone-25 will allow its members to move into the *OCA*-zone. There should eventually be a happy ending.

Figure 3. The bad news for the Eurozone-13



3. Life in an optimal currency area

What could go wrong after the Eurozone-25 reaches the *OCA*-zone, i.e. the zone of monetary happiness? As an economist I have been trained to think that if the Eurozone is an optimal arrangement, nothing can go wrong with it. Problems may

appear though. In order to analyze these it is useful to study the workings of the present Eurozone.

One of the main weaknesses of the European monetary union is its imbalance. One instrument of economic policy, the monetary one, has been fully centralized at the European level. Most of the other economic instruments have been kept in the hands of the member-states. We noted that there is no centralized budget capable of being used as an insurance system. This means that when some member states get into problem because of an asymmetric shock, the solidarity exerted by other member states is close to zero. This complete lack of solidarity means that there is no political glue that can keep the system in place in periods of crises.

The lack of political union can create havoc in a monetary union in a different way. The fact that member states maintain large parts of economic policy instruments in their own national hands creates a potential for economic divergence. Let me give an example. Wage policies and labour market institutions are completely national. This can lead to a very strong divergence within the union. I illustrate this in figures 8 and 9. I show the real effective exchange rates in the Eurozone (based on unit labour costs) since 1998 in figure 8. The striking fact is the extent to which the relative unit labour costs have tended to diverge. As a result of these trends, some countries (Portugal, Netherlands, Spain and Italy) have lost a significant amount of price and wage competitiveness. Others, like Germany and Austria have gained a significant amount of price and wage competitiveness⁴.

There can be no doubt that part of these divergent developments in prices and wages are the result of divergent national wage policies and institutions. Since 1999, Germany has followed a tight policy of wage moderation. I show some evidence in figure 9. This presents the yearly nominal wage increases in Germany and in the rest of the Eurozone (excluding Germany). I observe the strong decline of nominal wage increases in Germany. The rest of the Eurozone maintained more or less constant wage increases around 3% per year. Thus, each year Germany tended to improve its competitive position vis a vis the rest of the Eurozone. The contrast between Germany

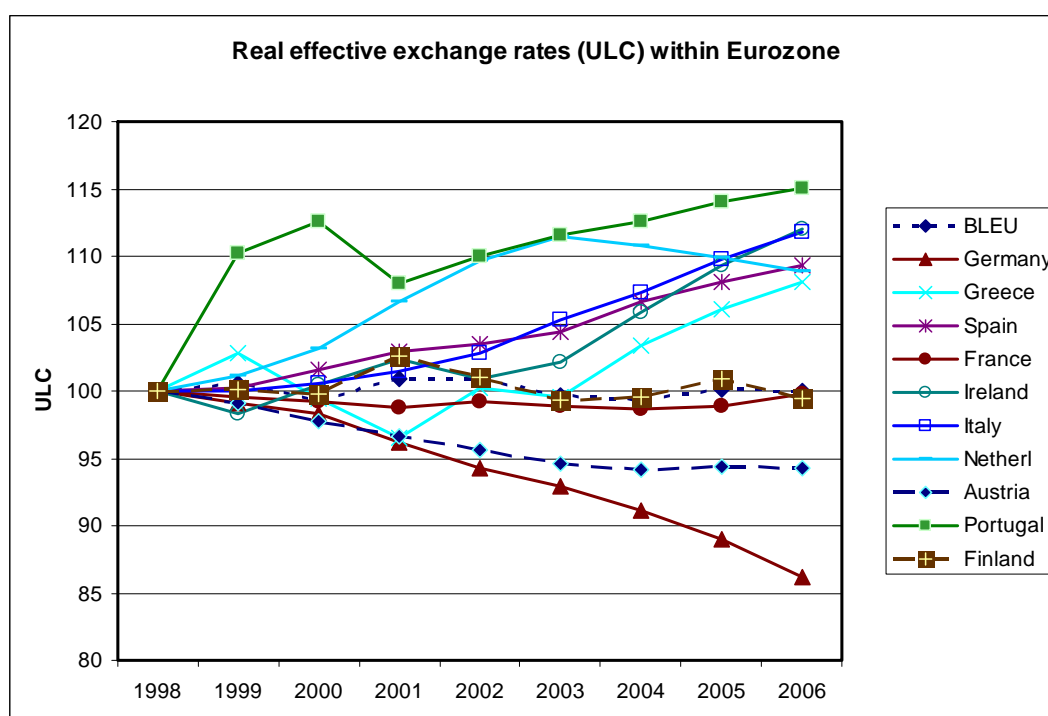
⁴ It could be argued that these trends may also be the result of different initial levels of per capita income so that they reflect a catch-up process (Balassa-Samuleson effect). Since the real effective exchange rates shown here are based on unit labour costs they take into account differences in productivity growth.

on the one hand, and the UK and the US on the other, is even stronger. The latter allowed their wages to increase by 4 or 5% per year.

This German policy of wage moderation has not been without consequences for the other Eurozone countries which have seen their competitive positions deteriorate thanks to these German wage policies. Thus the latter have worked as “beggar-thy-neighbor” policies forcing other countries in turn to also institute drastic policies of wage moderation⁵. In this sense the lack of political union is responsible for a coordination failure and the emergence of a major asymmetric shock that will have to be corrected.

The correction mechanism is likely to be painful. Other countries will be forced to intensify their policies of wage moderation, inducing the former again to restrict wage increases. All this is adding to deflationary tendencies characterized by low growth in consumption and investment and by increasing unemployment.

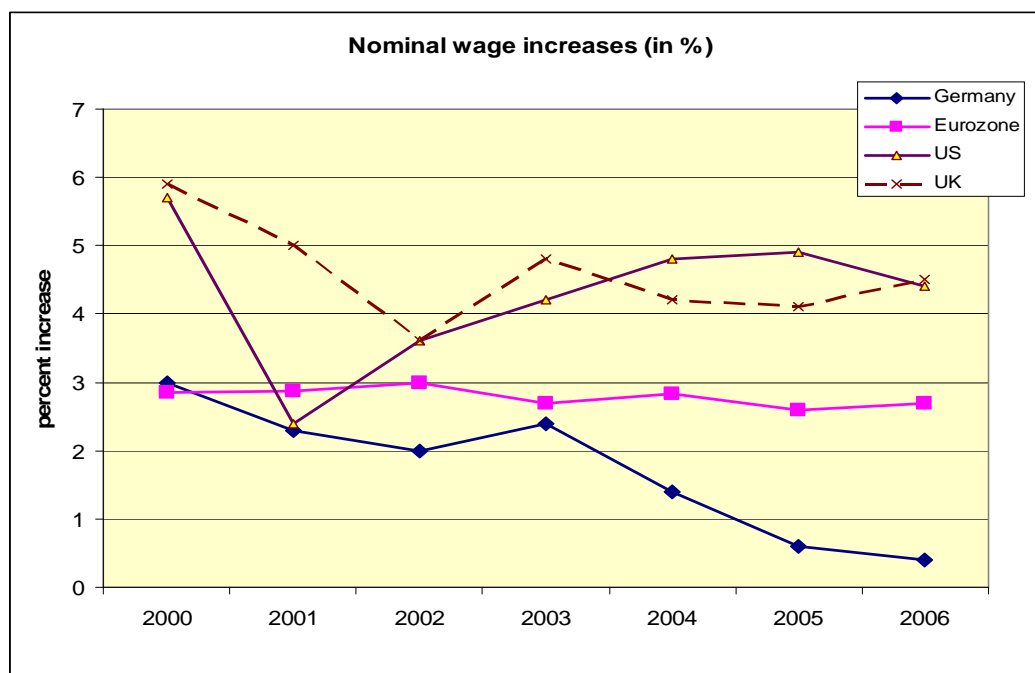
Figure 8 : Intra-euro area real effective exchange rates (based on ULC)



Source: European Commission

⁵ For a similar analysis in the context of the EMS, see Blanchard and Fitoussi(1992).

Figure 9



Source: European Commission, Statistical Annex to the European Economy

The divergent movements of competitive positions within the Eurozone are not only the result of German wage policies but also of the different speeds in the structural reform process in the member countries. The process of structural reforms (labour market reforms, liberalization of output markets) has remained a strictly national affair. Some countries, e.g. the Netherlands and Spain have gone some way in deregulating employment protection systems, while other countries, e.g. France and Italy have a long way to go. These divergent movements have much to do with differences in national political systems. They generate a potential for divergent movements in employment and output (asymmetric shocks) within the Eurozone which will necessitate adjustments in the future. As these are likely to be painful, they are bound to lead to tensions in a monetary union.

It is likely that these problems of politically induced economic divergencies will become even intense in an enlarged Eurozone. Countries will maintain their national economic instruments intact, creating a dynamics of divergence that will be difficult to contain.

4. Convergence criteria and enlargement

For the academic that I am one of the greatest surprises has been that the conditions imposed on prospective members for joining the monetary union have nothing to do with the conditions for optimality of a monetary union identified by the OCA-theory. These convergence criteria have to do with what has been called 'nominal convergence' (i.e. convergence of inflation rates and nominal interest rates) and with sustainability of budgetary policies. Low inflation and sustainable budgetary policies are desirable whether or not countries want to join a monetary union. They fail however as tests to find out whether countries will do well in a monetary union. Put differently, they fail to select those countries that constitute an optimal currency area. This failure has more than a purely academic interest. Failure means that the decisions of the ECB will systematically be felt by many member countries to be the wrong ones at the wrong time, leading to conflicts and tensions in the union.

Take the inflation convergence requirement. Passing this entry test tells us nothing about the success of the member country in the union. Some countries especially from Central Europe will have higher inflation in the union because of the Balassa Samuelson effect. But there is nothing to be worried about. These countries will continue to have structurally higher inflation in the monetary union, without this creating problems of losses of competitiveness. Others may have lower inflation in the future, and yet be hit by an asymmetric development and a lack of flexibility that makes their membership very costly. In this perspective, the recent insistence of the ECB and the European Commission to bar entry to Lithuania because of an inflation rate exceeding the reference value by a fraction of 1% appears to be ludicrous.

Similarly, countries that pass the budgetary convergence requirement have no guarantee at all that they will be successful members of the monetary union. Not only can they apply creative accounting (or worse, fraud as in the case of Greece) to pass the test. But even if the budgetary numbers are a truthful they are irrelevant to predict if countries will experience more benefits than costs from their membership in the monetary union.

As is well-known, the convergence criteria were introduced as a pacifier for Germany, a country that was reluctant to enter a monetary union with countries it did not trust. Thus, the origin of these criteria is a political one. This is also made clear by the fact that when Germany had accepted the political fact of life that countries like Belgium

and Italy would be part of the monetary union, the application of the criteria in 1998 became very lax. Many countries simply did not satisfy one or more of the convergence criteria (especially the debt criterion) and yet eyes were closed, and the union started including countries like Belgium, Greece and Italy which manifestly did not satisfy the government debt criterion. In fact, even Germany did not: its debt to DGP ratio exceeded 60% and was increasing (remember the Treaty stipulates that if the debt ratio exceeds 60% it should be declining “at a satisfactory pace”). Once the political will was present, the Maastricht numerology was set aside as a nuisance.

Today we observe that the convergence criteria again serve a political purpose. This is that the present Eurozone members want to slow down the enlargement of the Eurozone (rightly or wrongly). But this time the criteria are interpreted in the most rigorous way. They are used as instruments to keep the new member states out as long as possible.

5. Conclusion

The enlargement of the Eurozone to potentially twenty-five members creates risks for the future of the monetary union in Europe. The risks arise from the fact that such a large zone is likely to be hit by strong asymmetric shocks in the future. These could arise from the fact that most of the instruments of economic policies continue to be vested in the hands of national governments, creating a dynamics of economic divergence.

It remains uncertain, however, how severe these divergences will be. Optimists will argue that these will be limited in size. I like to be an optimist myself, but sometimes it is good to have a healthy dose of pessimism. This enables us to take the necessary steps to prevent tensions arising within the future enlarged Eurozone. There is no secret to the measures that have to be taken to minimise the risk of a future disintegration of the enlarged Eurozone. One series of measures should focus on making labour markets more flexible. Although necessary, one should not expect wonders from these structural reforms. There is a limit to what citizens in Europe will accept in terms of flexibility. Let us not forget that flexibility is a euphemism for hardship for those people subjected to its miraculous effects. If monetary union implies the need for having one's wages cut once in a while or for having to move to another country occasionally, many people will stop perceiving monetary union to be a success. Such flexibility would ultimately

destroy the monetary union. Thus, flexibility alone will not be sufficient to safeguard the continuing existence of Eurozone-25. The existence of insurance mechanisms is of great importance for the successful functioning of the enlarged Eurozone. These insurance mechanisms, however, will have to be a mix of privately and publicly provided insurances. Private insurance is likely to come about automatically by the very fact that monetary union will stimulate financial market integration. Although important, it will be insufficient and it will have to be supplemented by public ones. Unfortunately, there is very little political momentum today for creating such publicly provided insurance mechanisms. There is an integration fatigue in the European Union, which prevents the authorities from setting up such mechanisms. As a result, the European monetary union remains a fragile construction that could be endangered if shocks are sufficiently high.

Thus, my conclusion is bitter-sweet. The enlargement of the monetary union creates a new potential for welfare improvement in Europe. At the same time there are definite risks involved in such an enlargement; risks that cannot be ignored and necessitate resolute action. Let us hope that action will be taken in due time.

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Appendix. Asymmetric shocks and integration in Central Europe

In this appendix we analyse the degree of economic integration of the enlarged Eurozone and the asymmetry of shocks within the zone.

We start by comparing the degree of openness of the Central European countries towards the EU with that among already existing members. We show the results in *Figure A.1*. The most striking aspect of this *Figure* is that the Central European countries are at least as open towards the EU as the EU-countries themselves.⁶ It is also surprising to find that the Central European countries appear to be more integrated with the EU than Denmark, Sweden and the UK, which today have opted out of the monetary union. Thus, if one concentrates on openness as a criterion of optimality for a currency union, the Central European countries would fit in quite well with the existing EMU.

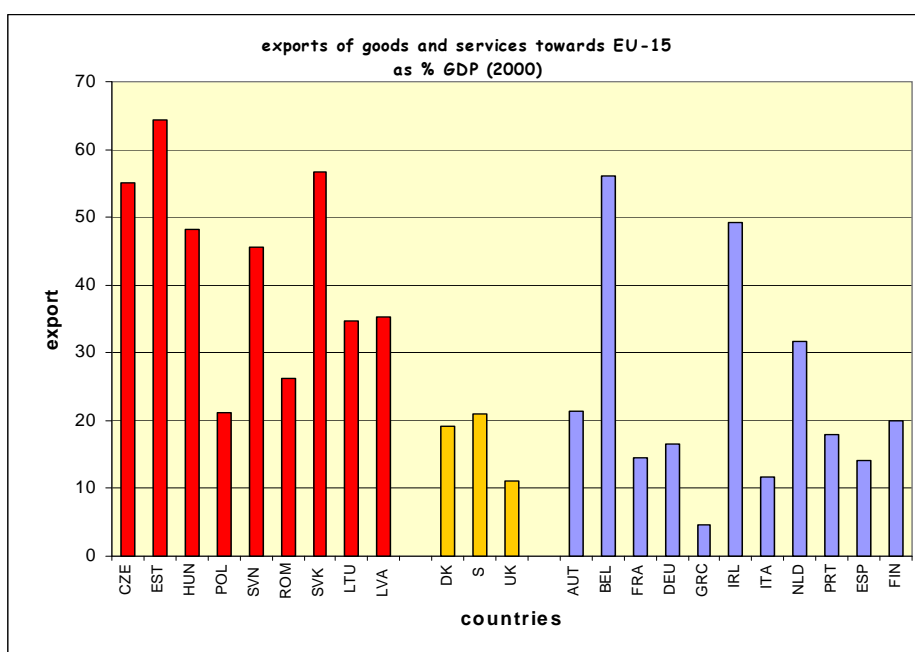
A second factor affecting the optimality of currency unions is the degree of asymmetry of shocks. We analyse the asymmetry of shocks in the enlarged EMU using a recent study by Korhonen and Fidrmuc (2001). This study applied the methodology developed by Blanchard and Quah (1989) and implemented studies by Bayoumi and Eichengreen (1993) in the context of the optimal currency areas. It consists of extracting from the price and output data the underlying demand and supply shocks.⁷ This has been done for all the prospective members of the monetary union, and the correlation of these demand and supply shocks with the average of the union is then computed. We show the result of such an exercise performed by Korhonen and Fidrmuc (2001) in *Figure A.2*. Each point represents the correlation coefficient of demand shocks (vertical axis) and supply shocks (horizontal axis) with the average demand resp. supply shocks in the Euro area. The results are quite instructive. First we find relatively high correlations of the larger countries (France, Germany and Italy) with the Euro area. This is not surprising because these larger countries make up a significant part of the Euro area. Second, although some Central European countries (Hungary and Estonia) are well correlated with the Euro area, this is much less the case with others. A large number of them have negative correlations of their demand shocks (Lithuania, Latvia, Czech

⁶ It should be pointed out that with the exception of Poland, the Central European countries are quite small. Small countries tend to be more open on average than large countries. Nevertheless, even when one compares the Central European countries to small EU-countries, (e.g. Belgium, Ireland, Finland, Denmark, Sweden) the former's openness is typically larger than the latter.

⁷ In order to do so Vector Autogressions (VAR) are estimated. In order to identify demand and supply shocks it is assumed that demand shocks have only temporary effects while supply shocks have permanent effects on prices and output. For more detail see Blanchard and Quah (1989) and Bayoumi and Eichengreen (1993).

Republic, Slovenia, Slovakia). Such negative correlations undoubtedly are partly the result of the fact that these countries pursue independent monetary policies. Once they enter a monetary union, however, this source of asymmetry will disappear. A more troublesome feature is that the correlation of the supply shocks of the Central European countries with the Euro area is rather low. This source of asymmetry is unlikely to disappear in a monetary union.

Figure A.1



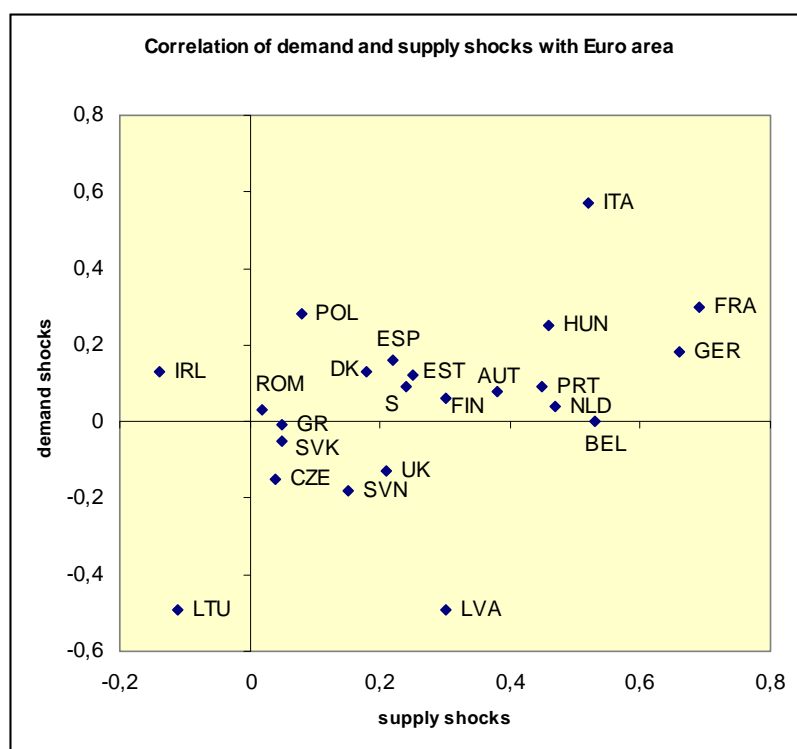
Source: European Commission (2001), and World Bank (2002)

Finally, for our analysis, the position of the UK is noteworthy. This country's correlation of demand shocks is also negative, reflecting to a certain degree the fact that it pursues its own national monetary policies quite independently from what is happening in the Euro area. At the same time the correlation of the supply shocks with the Euro area is rather low.

From these results the following can be concluded. First it is not clear that all countries in the sample are part of an optimal currency area with the rest of the European Union. This is most evident for the UK. Its trade with the Euro area is rather low (see *Figure 2*) and it seems to be subjected to more asymmetric shocks than other large members of the union. One understands the hesitation of the UK to enter EMU.

Second, despite relatively large openness of the Central European countries vis-à-vis the European Union, many of these countries are subjected to relatively large asymmetric shocks, so that it is not obvious that they would gain from entering the EMU. This conclusion should be handled with care, however. Some of these countries may still feel that entering the EMU is the best possible way to import monetary and price stability, so that the benefits of entering exceeds the costs. In addition, one should compare the degree of flexibility of labour markets in these countries to come to a final judgement on the optimality of their union with the present EMU.

Figure A.2



Source: Korhonen and Fidrmuc (2001)