Central and Eastern Europe and Its Uncertain Road to EMU

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After years of debate, European economic and monetary union (EMU) is becoming a reality with its unifying common currency the euro. Despite the varying extent of distress, it is a commonly shared notion that EMU will positively affect its member countries. On a broader scale, EMU is expected to increase macro-economic stability through lower average costs and enhanced competition, coupled with stable prices and lower interest rates, leading to higher economic growth. While EU members should enter EMU as soon as they are qualified, we suggest that the central and eastern European (CEE) candidates postpone their entry into EU and EMU. In any event, we believe that further institutional and structural changes in the CEE economies are not to be underestimated.

Economic and Monetary Union: Origins and Recapitulation

After years of debate, the European Union has made considerable progress towards unprecedented integration. At the same time, after years of anomalous economic evolution, the central and eastern European countries struggle to pass through difficulties encountered in their own transitional processes. Their aim is to eventually become equal members in the European financial structure nicknamed "Euroland." In order to evaluate the chances of success for CEE countries, it is necessary to briefly review some aspects of the quest for EMU.

The arrangement that preceded EMU was the European Monetary System

(EMS), established in March 1979 as a way to stabilize exchange rate volatility within the European Community (EC). According to the EMS, the EC countries agreed to limit fluctuations in their bilateral exchange rates through intervention by national central banks. Such behavior was achieved through an instrumental arrangement called the Exchange Rate Mechanism (ERM) that allowed bilateral exchange rates to move only within the limits of designated fluctuation bands. From the beginning, all EC countries were members of the EMS, but only eight of them initially participated in the ERM: Belgium, the Netherlands, Luxembourg, Denmark, France, Germany, Ireland, and Italy. Spain joined the ERM in 1989, followed by the United Kingdom in 1990 and Portugal in 1991. Only Greece remained "out." However, after the major exchange rate crisis in September 1992, the United Kingdom and Italy withdrew. Following another crisis in August 1993, the ERM was redesigned to allow wider fluctuation bands.

Overall, the EMS positively affected its member countries in easing the unification process, despite the varying levels of distress. Lucio Sarno found evidence of long-run convergence for both nominal and real exchange rates that was more frequent in countries that adhered to the ERM than for those that did not. This suggests that the ERM of the EMS had effectively reduced the tendency towards exchange rate misalignment, at least among its own members.[1] Evžen Kočenda and David Papell found evidence of dramatic convergence in inflation rates among the countries that adhered to the ERM. These results, therefore, suggest that a significant increase in policy convergence had been achieved within the EMS.[2]

As for the EU itself, convergence has taken place within the framework of the EMS and has accelerated with the announcement of the euro. Such progress towards convergence is expected to continue on the following schedule. On January 1, 1999, the European Commission set irrevocable exchange rates between the euro and the individual national currencies of the member states of EMU. The European Central Bank (ECB) was mandated to conduct common policy on behalf of individual member countries' central banks. Subsequently, member states will convert their debts into the euro. During the transition period, new measures associated with a single currency will be introduced and will last until 2002. During 2000, the ECB will supervise and monitor the exchange of banknotes according to fixed exchange rates. National currencies and euro banknotes will be allowed to circulate together during 2001. By January 1, 2002, the transition period will have ended and member countries will have converted their public expenditures into euro. From July 1, 2002, onwards, the euro (and its fraction the cent) will become the sole legal means of payment within the member states of EMU.

Over the last few years there has been a great deal of controversy over which countries would compose Euroland. In the end it was the "Euro 11" (Austria,

Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain) that met the Maastricht criteria—detailed in 1991 by the Maastricht treaty—and wanted to be founding members of EMU. The treaty states that in order for a country to be a member of EMU, it must be a member of the EU. Membership in the EU requires the removal of trade barriers and tariffs, the streamlining of customs, the (eventual) elimination of internal passport controls, and the willingness to surrender limited political authority to a supranational body.

A further step for the EU countries was to meet the convergence criteria previously mentioned. The first criterion is based on price stability: countries must have a rate of consumer price inflation no more than 1.5 percent above that of the three countries in the EU with the lowest such inflation.[3] The second criterion concerns government budget deficits. In order to qualify for the euro, countries must have a ratio of general government borrowing to GDP no greater than 3.0 percent, or declining substantially and continually approaching 3.0 percent. The third requirement pertains to total government debt: countries must have a ratio of gross government debt to GDP no greater than 60 percent, or declining substantially and continually approaching 60 percent. The fourth criterion is related to interest rates: participants must have nominal interest rates on long-term government bonds that are no more than 2 percent above those of the three EU members with the lowest such rate.[4] The fifth criterion pertains to exchange rate stability: potential participants must have stable currencies, and therefore, countries must be members of the European Monetary System and their currencies must trade within the normal fluctuation margins of that system.

The EU created the Maastricht criteria to ensure that any country joining the monetary union would be fiscally responsible, and that participating countries would be sufficiently similar to support a single monetary policy. The inclusion of a country with high inflation, volatile exchange rates, growing interest rates, or a large budget deficit would make the euro appear risky and unstable to world financial markets. Furthermore, admitting one country in poor economic condition would make it hard to develop a single set of interest rates for the area as a whole.

Qualifying for EMU did not come easily for many countries. In 1995 the average fiscal deficit in the EU was 4.7 percent of the EU's GDP and public debt had been increasing since the 1970s. However, with much determination—and some questionable accounting methods—eleven of the twelve EU countries that wanted to adopt the Euro fulfilled the five convergence criteria. To ensure that the standards dictated by the Maastricht Treaty would be maintained in the long run, the EU drafted the Stability & Growth Pact at the 1996 Dublin Summit. The pact states that those countries that run a budget deficit exceeding 3.0 percent of their GDP must pay non–interest bearing deposits to the European Union

equivalent to 0.2 percent of their own GDP. In addition, they must pay 0.1 percent of their GDP for every percentage point of deficit beyond 3.0 percent. If the troubled country is unable to alleviate its excessive budget deficit within two years, the European Commission will consider the deposit a fine and distribute it among the other members of the euro zone. Such an arrangement is a mere instrument, though. Maurice Obstfeld argues that the long-run stability of the EMU depends on how successful the quest for alleviating internal macroeconomic tensions among the main European countries will be. These tensions are unlikely to disappear as a result of the single currency alone. Fundamental fiscal and labor-market reform in EMU member states seems to be imperative for eventually attaining stability.[5]

The previous survey of fundamental facts, related to the pursuit for EMU, revealed that it was a lengthy and enormously complicated process, requiring complex institutions, economic discipline, political determination, and lengthy maturation. The next sections of the paper will review the economic position of the CEE countries and shed some light on the future prospects of these countries in relation to EMU.

Central and Eastern Europe: Leaving the Past

The late 1980s and the early 1990s brought economic and political turmoil to central and eastern Europe. These countries embarked on an uneasy road towards political and economic transformation. In the early years of transition, policymakers overestimated the effect of economic reforms in CEE countries and understated the need for strong structural changes. The process itself has been widely analyzed. This section presents several issues inherent to the transition process that are considered important with respect to eventual accession to the EU.

Any country in transition must undergo a stage of macro-economic stabilization, which is inevitably accompanied by large shocks to macro-economic fundamentals. The nature and magnitude of these disruptions affect the progress of economic development. Due to the relative openness of and close economic relations among transition economies in central and eastern Europe, economic interactions, or the lack thereof, are likely to be revealed in the behavior of macroeconomic fundamentals. The following two tables (Tables I and II) present real GDP growth rate and consumer inflation—usually considered the two most important fundamentals—of five central European countries generally considered to be in an advanced stage of transition.

While a decline in real output is a widely assumed outcome of the transition from central planning to a market economy, there are many reasons for questioning this reported decline. Planned economies had incentives to overstate production to meet planned targets, while market economies induce underreporting

Table I. Real GDP Growth Rate (in percent, 1990–1998)

Year	Czech Republic	Slovakia	Poland	Hungary	Slovenia
1990	-1.2	-2.5	-11.6	-3.5	-4.7
1991	-11.5	-14.5	-7.0	-11.9	-8.1
1992	-3.3	-6.5	2.6	-3.1	-5.4
1993	0.6	-3.7	3.8	-0.6	1.9
1994	2.7	4.9	5.2	2.9	4.9
1995	5.9	7.4	7.0	1.5	3.5
1996	3.9	6.6	6.1	1.3	3.3
1997	1.0	6.5	6.9	4.4	3.8
1998	-2.7	5.6	5.7	4.7	4.1

Source: CESTAT, CNB, 1998 CERGE-EI estimate.

Table II. Consumer Inflation (in percent, 1990–1998)

Year	Czech Rep.		Slovakia		Hungary		Poland		Slovenia	
	a	b	a	b	a	b	a	b	a	b
1990	9.6	18.4	10.4	18.4	28.9	34.6	585.8	225.9	551.6	105.0
1991	56.6	52.0	61.2	58.3	35.0	31.0	70.3	60.3	115.0	250.0
1992	11.1	12.7	10.0	9.1	23.0	24.7	43.0	44.4	207.3	88.2
1993	20.8	18.2	23.2	25.1	22.5	21.1	35.3	37.7	32.9	22.9
1994	10.0	9.7	13.4	11.7	18.8	21.2	32.2	29.4	19.8	18.3
1995	9.1	7.9	9.9	7.2	28.2	28.3	27.8	21.9	12.6	8.6
1996	8.8	8.6	5.8	5.4	23.6	19.8	19.9	18.7	9.9	8.8
1997	8.5	10.0	6.1	6.5	18.3	18.5	14.9	13.2	8.4	9.4
1998*	10.9	6.9	7.4	7.1	15.4	15.5	12.8	11.4	7.9	8.1

Source: CESTAT, IMF, * CERGE-EI estimate. a) Moving average and b) End-of-year change in CPI.

of output in order to lower taxes. Statistical organizations were not able to identify newly established private firms that often operated in the gray market. Reported inflation may overstate actual inflation, thereby underreporting real output.

It is doubtful whether statistical offices can accurately measure inflation at such high levels as observed for the CEE countries during transition. For example, between 1990 and 1997 cumulative increases in prices ranged from 200 percent in the Czech and Slovak Republics to 460 percent in Hungary, 4,600 percent in Poland, 10,000 percent in Bulgaria and 24,000,000 percent in Ukraine.

Filer and Hanousek suggest that the inflation bias in CEE countries could be at least a magnitude of 20 percent of reported inflation—a finding that is consistent with similar estimates for the United States and the United Kingdom.

The assumption that reported inflation rates were only 20 percent greater than actual inflation rates would eliminate almost all cases of reported output decline and significantly change the view of the stabilization programs in transition economies. In addition, such an adjustment would affect all estimates regarding how long it takes CEE countries to reach a certain level of output per capita.[6]

At this point, nearly a decade into the transition process, the CEE countries have completed the early stages of the process. During the ongoing transformation CEE countries launched various privatization programs and adopted an extensive range of measures to perform monetary and fiscal policies that would suit the needs of overall transformation. Aside from private investors, numerous international organizations helped to foster this process. The economic transformation among the CEE countries has shared various common features ranging from institutional changes promoting market economy to practical issues such as exchange rate regimes or promoting the inflow of foreign direct investment to industries with comparative advantage.

The overall purpose of the agreements has been to assist the CEE countries in the ultimate goal of joining the EU.

As we mentioned, CEE countries have shared several features in their transitional experiences. All of them have embarked on an uneasy journey towards privatizing state-owned companies that had to undergo critical restructuring along the way. At the same time, in order to facilitate the transition process, these countries have striven to establish a workable framework for international trade and cooperation. As early as December 1991, the former Czechoslovakia, Poland, and Hungary signed the so-called "European Agreements" (EA) with the EU; other CEE countries later followed this initiative. In addition, an arrangement regarding international trade among the CEE countries was institutionalized in March 1993 in the Central European Free Trade Agreement (CEFTA). The "Original CEFTA" group included the Czech Republic, Slovakia, Hungary, Poland, and Slovenia.

Thus the question arises of how successful the countries were in achieving a certain degree of natural economic integration among themselves. In this respect, the European Agreements have had a tremendous impact on the CEE economies. The economic reason is that the foreign trade of CEE countries together with the EU counted for more than 60 percent of their foreign trade. However, the institutional impact is at least equally important. The European Agreements aimed to help the CEE economies harmonize legislation, cooperate in several fields (including science and technology), and provide financial assistance in several different sectors. The overall purpose of the agreements has been to assist the CEE countries in the ultimate goal of joining the EU.[7]

The Unbearable Lightness of EU Enlargement

When we attempt to judge the future effects that EMU will have on the CEE countries, we have to keep in mind several specific issues. They will be discussed throughout this section and will impact the desired accession process of the CEE countries into the EU. Some of the issues originate from outside of the CEE countries and it is upon them to adjust in a proper way, while other problems come from within the CEE countries and should be regarded as such. In any event they provide information that may be helpful to somehow simplify further decision-making processes.

Advantages and Costs of the Euro

It is a commonly shared notion that the ultimate success of the euro will depend on many economic as well as political factors. Currently, many experts predict that the advantages of the euro will outweigh the disadvantages, making it a success. Although much of the drive for the euro is political, many of its advantages are economic.

One of the principal economic advantages of the euro is that it will completely eliminate exchange rate risk between participating countries. With predictable exchange rates, foreign investment is bound to grow. Another economic advantage is a reduction in transaction costs. These costs are particularly high for small firms in small countries with poor foreign exchange markets and underdeveloped banking systems.[8] Another economic advantage, which will be very apparent to Euroland's constituents, is price transparency. A single currency makes price differences between goods, services, and wages in different countries obvious, increasing competition across markets. The introduction of the euro will also improve the functioning of financial markets and promote unrestricted international trade in the money market.

On a broader scale, the euro is expected to increase macro-economic stability. The newly established European Central Bank is likely to introduce a new era of low inflation for many countries that were previously plagued by high inflation. If the euro is able to lower inflation, it will also serve to lower interest rates. Lower transaction costs and exchange rate risk, along with price transparency and a single means of payment, have increased market size in Euroland. With an increased market, Euroland's businesses will be able to benefit from economies of scale. Lower average costs and enhanced competition, coupled with stable prices and lower interest rates, are certain to lead to greater economic growth.

Although the euro definitely brings many economic advantages, it also brings many costs. Between 1999 and 2002, public and private institutions worldwide will spend billions of dollars to adjust price lists, invoices, payrolls, bank accounts, office forms, databases, keyboards, vending machines, automatic teller machines,

phone booths, and many more items to handle the new currency. Other studies place the world-wide cost at close to 1 percent of Euroland's total GDP.

Even more threatening than the euro's implementation costs are the major ongoing risks of monetary union that will threaten the sustainability of the euro for decades to come. Economic shocks constitute one of largest risks to the monetary union. Asymmetric shocks—shocks that affect different countries by varying amounts—are particularly harmful. Before the euro, Euroland countries could handle asymmetric shocks, and the recessions that often followed, with interest rate adjustments, exchange rate intervention, or fiscal adjustment. Both common monetary and fiscal policies and a single currency will remove individual countries' ability to deal with these shocks.

The Banking Sector in the CEE Countries and Its Regulation

When discussing the issue of CEE countries entering the EU and potentially EMU, there is another key aspect that one should bear in mind. One reason the CEE countries should be very realistic about joining EMU concerns the state of and further development of the banking sector in the CEE countries. The relative scales of banking activities in transition economies are well below the level of those in advanced industrial and fast-growing developing countries. Much remains to be done in the region to transform the role of government in the financial sector: a focus must be place on effective enforcement of laws and regulations, as well as on strengthening the financial institutions and markets themselves.

The transition from a centrally planned economy to a market-oriented economy is a complicated process with significant implications for the banking sector. In particular, it requires a separation of the central bank from commercial banks, the creation of a number of commercial banks from the single state bank, and the granting of licenses to new banks. The main problems facing the newly emerging banking sector are the lack of expertise in credit evaluation under free-market conditions and the tendency to favor borrowers with fixed assets as collateral. Earning potential is largely ignored due to the lack of evaluation ability and proper accounting techniques.[9] Given a problematic inherited loan book and the high uncertainty typical of transition economies, banks are faced with extremely high risks. This situation is further worsened by the lack of three important factors: (1) experienced bank management; (2) market-enforced performance; and (3) standard measures to enforce a dispersion of risk and prudent bank behavior.

Unfortunately, all countries in central and eastern Europe have experienced turbulence in their banking and financial sectors. In their efforts to stem the tide of bank failures, CEE central banks have usually opted to tighten their policies by increasing the minimum reserve requirements (MRR) and also to unify their rates. The level and speed of changes of the MRR suggest that this instru-

ment has been used quite heavily in the past as a monetary tool. It is clear that such a high level of MRR, coupled with the fact that these reserves earn no interest, has had a significant effect on the direct regulation of money in circulation. Although such a setting was useful from the standpoint of regulating monetary development, it created a substantial financial burden for commercial banks.

Governments in a number of central and eastern European countries have pursued a measured strategy to transform their role in banking by strengthening prudential regulation and supervision while recapitalizing and privatizing state banks. Further progress along this reform path will require more stringent enforcement of prudent regulations that approach Basle Committee or EU standards, along with more rapid progress in bank privatization to strengthen incentives and to attract resources necessary for the expansion of services.

Much remains to be done to transform the governmental role in the financial sector: focusing on effective enforcement of laws and regulations.

Widening and Deepening of EMU

In the growing body of economic transition literature, numerous discussions have emerged as to when the CEE countries should enter the EU and consequently EMU. Most of these discussions concentrate on the general economic situation of the CEE countries and Maastricht convergence criteria. For illustrative purpose Table III contains vital data of the five countries that were selected by the European Commission as the most likely candidates for accession to the EU in the first wave of integration.

In order to discuss the serious issue of accession, one should bear in mind the structure of the CEE economies in its broad sense, the goals of the EU, and the capacity of institutions to make decisions. Although expansion of the EU towards the east is quite complex, it has become clear that not every CEE country should became a member of the EU. In this respect, the timing of this integration process is also crucial.

As we mentioned earlier, the EU is much more than a free trade area. If it were only that, then the case for joining the EU rather than opting for worldwide free trade would be greatly weakened. Theoretically, the CEE countries could then opt for a complement to the European Agreements, such as a unilateral free trade policy against all other countries. But this is only a theoretical concept, which has not been adopted by any country. As intended, the EU is even more than a customs union: it is a single market with free capital and labor mobility and a strong common institutional and regulatory framework. Moreover, in the

next step the EU became a monetary union with its own central bank. Therefore, joining the EU also means that newcomers must be prepared for the second step—EMU.

Table III.
Basic Economic Indicators of the "First Wave Candidates" for Entering EU.

	Czech Rep.	Estonia	Hungary	Poland	Slovenia
Population (million)					
1997	10.3	1.5	10.2	38.6	2.0
GDP/capita PPP (000 USD)					
1997	11.5	4.9	7.3	6.0	11.7
Growth of GDP (real, %)					
1996	3.9	4.0	1.3	6.1	2.7
1997	1.0	6.1	4.4	6.9	3.8
1998	-2.7	5.7	4.7	5.7	4.1
Inflation (CPI, %)					
1996	8.8	23.1	23.6	19.9	9.9
1997	8.5	11.2	18.3	14.9	8.4
1998	6.9	8.9	15.5	11.4	8.1
Unemployment (%)					
1996	3.5	n.a.	10.7	13.2	14.4
1997	5.2	3.3	10.4	11.5	14.5
1998	7.2	3.5	10.0	10.0	15.0
Budget deficit (% GDP)					
1996	-0.1	n.a.	-2.0	-2.5	0.6
1997	-1.0	2.1	-4.4	1.3	-1.2
1998	-1.9	1.0	-4.2	-2.9	-2.4

Source: CESTAT, IMF, 1998 CERGE-EI estimate.

This issue opens up the question of whether a stronger degree of monetary integration is optimal for all CEE countries. In fact, a similar question of whether or not the EU is ready for monetary integration has been addressed by many authors since the early 1990s. Because all fifteen EU members are not quite homogeneous in terms of economic structure and policy preferences, a two-speed approach for EMU has been proposed. It means that the EU market size is not optimal for EMU, or for other advances in integration. As pointed out by several authors, "widening" integration should be seen as an alternative to "deepening" integration.[10]

One of the major concerns of EU policymakers is the actual cost of enlarging the EU. Estimated costs of admitting serious candidates vary significantly

depending on possible changes in the use of EU structural funds. For example, Brenton and Gros estimated that annual costs for admitting the Visegrad countries to the EU would definitely exceed 25 percent of the current EU budget.[11] Unfortunately, until recently there have not been many estimates for other costs, which the European Union and the central and eastern European countries will have to pay if enlargement goes ahead quickly. It would be interesting to analyze the expectations of the CEE economies as to what extent EU membership would boost employment and accelerate economic growth (but that is beyond the scope of this article). In fact, the failure of EU countries to create jobs, reform their pension system, and adopt a similar pension scheme across the EU suggests that there might also be high political and economic costs for the CEE countries.[12]

Aspects of Foreign Trade

EMU requires a significant deepening of European integration. From the foreign trade point of view, two countries should become a monetary union only if their trade structures are very similar. If this criterion is not satisfied it will result in severe large asymmetric shocks. It would be useful to take this view into account when considering whether or not the CEE countries should enter EMU in a relatively short time horizon.

Not surprisingly, the trade structure of the CEE countries varies significantly across countries. While Slovenia, the Czech Republic, and Slovakia have commodity export structures quite similar to the average EU member, this is not the case for Hungary and Poland, and furthermore, Romania and Bulgaria have completely different trade structures. Theory suggests that it is unlikely that those countries with a trade structure similar to the average EU country will be subject to significant asymmetric shocks. If there is a shift in demand for their products, the rest of the EU will be, in most cases, affected in a similar way.

Poorer countries, even the EU members, have a different structure of exported commodities. By this token, one can speculate that Greece is probably not part of the monetary union because (a) it did not meet the convergence criteria and (b) its trade structure is significantly different that the average EU economy. Paradoxically, those countries trading intensively with the EU and with similar trade structures should be able to bear the cost of deepening future integration, even though they are not yet members of the EU.

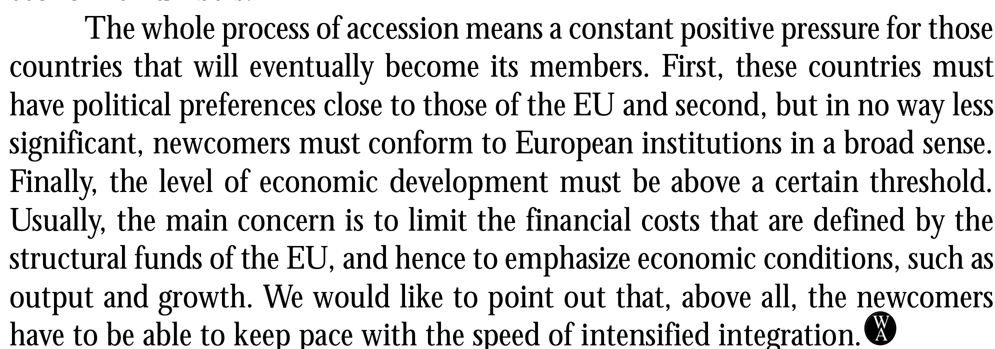
On the other hand, if joining the monetary union is the ultimate objective of every EU country, then probably the best strategy would be to join EMU as soon as they are qualified.[13] Postponing entry in order to introduce structural changes intended to facilitate membership is only likely to postpone the adoption of such structural adjustments. In addition, remaining outside EMU on a permanent basis may be in conflict with the Maastricht Treaty.

Concluding Observations

Daviddi and Ilzkovitz argue that EMU should not be an immediate target for the majority of those countries that applied for EU membership.[14] The successful conclusion of the transition calls for a certain degree of flexibility in conducting economic policy, which the adoption of too strict criteria might actually prevent. However, this does not mean that the effort to follow sound economic policies should be discontinued.

It is true that the CEE countries still represent very frail economies. The economic performance of these countries is usually cited as the main qualifying parameter with respect to EU accession. We believe that institutional changes and the creation of an institutional framework similar to that of the EU is, at this stage of the transition process, of greater importance than attaining smart macroeconomic numbers.

The whole process of accession means a constant positive pressure for those countries that will eventually become its members. First, these countries must have political preferences close to those of the EU and second, but in no way less significant, newcomers must conform to European institutions in a broad sense. Finally, the level of economic development must be above a certain threshold. Usually, the main concern is to limit the financial costs that are defined by the structural funds of the EU, and hence to emphasize economic conditions, such as output and growth. We would like to point out that, above all, the newcomers have to be able to keep pace with the speed of intensified integration.



Notes

1. Lucio Sarno, "Policy Convergence, the Exchange Rate Mechanism and the Misalignment of the Exchange Rates," Applied Economics (1997): 29, 591–605.
2. Evžen Kočenda and David Papell, "Inflation Convergence within the European Union: A Panel Data Analysis," International Journal of Finance and Economics 3 (1997): 189–198.
3. When the European Council chose the first-round euro participants in May of 1998, the benchmark inflation rate was calculated to be 2.7 percent.
4. When the first-round Euro participants were announced in May of 1998, this rate was 7.8 percent.
5. Maurice Obstfeld, "Europe's Gamble," Brookings Papers on Economic Activity 2 (1997): 241–300.
6. Randall K. Filer and Jan Hanousek "Output Changes and Inflationary Bias in Transition," CERGE Charles University, Prague Discussion Paper no. 14/98 (1998).
7. Kočenda concluded that in general the transition CEE countries were not successful in achieving a certain degree of natural economic integration among themselves so far. The tests for convergence in macroeconomic fundamentals among the CEE countries showed that a certain level of convergence occurred only for a limited number of countries at the advanced stage of the transition process. Evžen Kočenda, "Convergence of Macroeconomic Fundamentals in Transition Countries," The Economics Institute Discussion Paper, no. 12 (1998).

8. Although it is nearly impossible to predict exactly what these savings will be, the European Commission study estimates that before the Euro, European businesses converted $7.7 trillion per year from one EU currency to another, paying $12.8 billion in conversion charges.

9. Transition Report, European Bank for Reconstruction and Development, 1997.

10. See for example: Jozef M. van Brabant, "Integrating Europe: The transition economies at stake," International Studies in Economics and Econometrics 37 (Kluwer Academic: Dordrecht, 1996).

11. Paul Brenton and Daniel Gros, 1993. "The Budgetary Implications of EC Enlargement," CEPS Working Paper 78 (Brussels: Centre for European Policy Studies,1993).

12. Helen Szamuely and Bill Jamieson, A 'Coming Home' or Poisoned Chalice? (London: Centre for Research into Post-Communist Economies,1998).

13. For discussion of the Swedish case, see Hans Genberg, "Monetary and Exchange-Rate Policy Outside a European Monetary Union," Swedish Economic Policy Review 4, no. 1 (1997): 155–88.

14. Renzo Daviddi and Fabienne Ilzkovitz, "The Eastern Enlargement of the European Union: Major Challenges for Macro-economic Policies and Institutions of Central and East European Countries," European Economic Review 41, nos. 3–5 (1997): 671–80.