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European monetary integration after EU enlargement

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413 KIEL DISCUSSION PAPERS

European Monetary Integration after EU Enlargement

by Klaus-Jürgen Gern, Felix Hammermann, Rainer Schweickert, and Lúcio Vinhas de Souza

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- Expectations about additional short-run gains from joining monetary union should not be too optimistic. Most of the expected gains from a monetary union are largely endogenous to credible, time-consistent domestic policies. Mere euro area membership is not a replacement for that. However, monetary integration has a role in supporting such policies and completing monetary integration, i.e., introducing the common currency can lock in the gains realized so far.
- The new member states made considerable progress with respect to the monetary and fiscal Maastricht criteria but inflation is still a concern in some countries and fiscal deficits are considerably too high for the majority of countries. However, experience with the run-up to EMU in the second half of the nineties shows that disinflation and fiscal consolidation can be achieved without major damage to growth. Additionally, structural real appreciation is unlikely to lead to an inconsistency of the inflation and the exchange rate targets.
- The experience with the currency board systems in Estonia, Lithuania, and Bulgaria reveals no evidence that the absence of an active exchange rate policy exacerbated the effects of external shocks. However, at the same time, the discipline demanded by the currency board system may have supported structural reforms. Hence, for countries which are determined to introduce the euro a currency board system may help to establish and maintain credibility within a consistent macroeconomic strategy.
- The experience with inflation targeting in Poland, the Czech Republic, and, more recently, Hungary shows that inflation targeting in general works successfully: it is not too soft because the Maastricht criteria guide the inflation target and it is not too rigid because new member states still need to establish credibility. The three countries should enhance the credibility of the inflation targeting regimes by thorough banking supervision and thorough fiscal policy.
- There is no generally superior exchange rate regime that provides a golden way to bridge the transition period to full EMU membership. While there is no reason to view monetary integration with rose-tinted glasses, there is also no reason to believe that joining the ERM II is sufficient to provide a safe haven with respect to financial stability. Even countries with sound and consistent macroeconomic policies and fulfilling all criteria—be it Copenhagen or Maastricht—will still run the risk that markets turn against them.

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1 Introduction

On May 1st, 2004, 10 countries (Cyprus, Czech Republic, Estonia, Hungary, Malta, Latvia, Lithuania, Poland, Slovenia, and Slovakia) joined the European Union (EU). Following the full integration into the Community policies, the EU institutions, and its financing system, albeit with transitional arrangements in some areas, a next step of integration will be on the monetary side. The new member states (NMS) are expected to join the second Exchange Rate Mechanism (ERM II), although not necessarily immediately, and the membership in the Economic and Monetary Union (EMU) implies the eventual adoption of the euro as a legal tender.

While the effect of EU accession on the old member states (OMS) is significant as regards the institutional set-up of the EU and the fiscal implications, the impact of monetary integration of the NMS on the conduct of monetary policy will be small. Due to the small size of the NMS economies—the combined GDP of all 10 NMS represents only less than 5 percent of EU-15 GDP and less than 6 percent of euro area GDP—diverging developments in the NMS with regard to growth or inflation will hardly be visible in EU or euro area aggregates. Even if, for example, NMS inflation were 3 percentage points above the average inflation rate in the current euro area member states—a considerable difference given the current relatively small inflation differential between most NMS and the euro area—this would lift the aggregate euro area (including NMS) inflation only by 0.2 percentage points. Therefore, significant changes in the stance of monetary policy cannot be expected as a result of accession of the NMS to the euro area, and core policy parameters such as the inflation target or the assumption about underlying potential output growth need not be revised just because of the introduction of the euro in some or all of the NMS.[1]

Consequently, in the following we will focus on the implications of European monetary integration for the NMS. The central presumption behind the pursuit of eventually introducing the single currency is that significant potential net benefits are expected to be associated with monetary integration stemming from (1) gains in trade and growth, (2) positive credibility effects, and (3) reduction in the risk of exchange rate crises. These arguments are reviewed in Section 2 of this paper. In Section 3, we briefly set out the institutional framework for monetary integration of the NMS and check the economies for the Maastricht criteria. Section 4 is devoted to a discussion of different approaches to bridging the transition to the single currency. The advantages and pitfalls of alternative strategies of monetary integration are discussed focusing on early euroization (i.e., implementation of currency boards) as the one extreme route taken by some NMS and inflation targeting regimes as the other. The paper concludes with Section 5 which summarizes the main results of the discussion.

2 Net Benefits of Joining EMU?

Integrating into a monetary union with a stable currency can have three major advantages (Backé and Wójcik 2004). First, monetary integration is expected to generate trade and growth gains, driven by lower transaction costs. Second, joining a monetary union can have positive credibility effects. Third, participation in monetary union reduces the risk of exchange rate crises, which is particularly relevant for cases of sudden shifts in sentiment leading to abrupt stops or reversals in capital flows, and consequently to a currency crisis.

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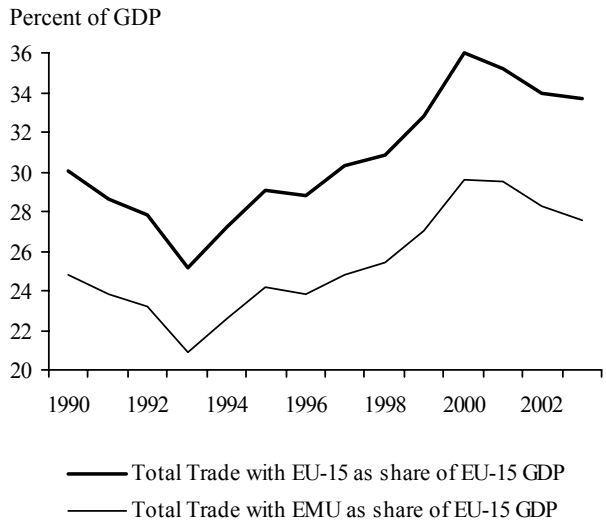
[1] This does not preclude the discussion of these issues due to other reasons, such as the composition of the ECB Governing Council with the addition of the NMS and the potential effects of this on interest rate decisions, albeit the proposed reform of the Council composition aims to address some of these potential questions.

Concerning potential trade and growth gains, Rose (2000) found that the trade effects of using a common currency are positive, statistically significant, and very high: he estimated that countries with a common currency trade over three times more than countries using different currencies. Frankel and Rose (2000) found the same and also that this additional trade has substantial positive effects on growth. However, subsequent studies came up with results that indicate either small, negative or nonsignificant trade effects from a monetary union (Nitsch 2002, 2004; Pakko and Wall 2001; Persson 2001). Looking specifically at the early euro area experience, Vinhas de Souza (2002) and De Sousa and Disdier (2002) found negative or nonsignificant trade effects, while Micco et al. (2003) found small but significant positive effects. Some of those results may suggest that participation in a monetary union could hold some potential positive trade (and, eventually, growth) effects, although there is limited knowledge concerning to what extent these effects may be distributed among the countries participating in a monetary union and also concerning the time profile of these eventual gains, i.e., how quickly these effects would take to eventually materialize.

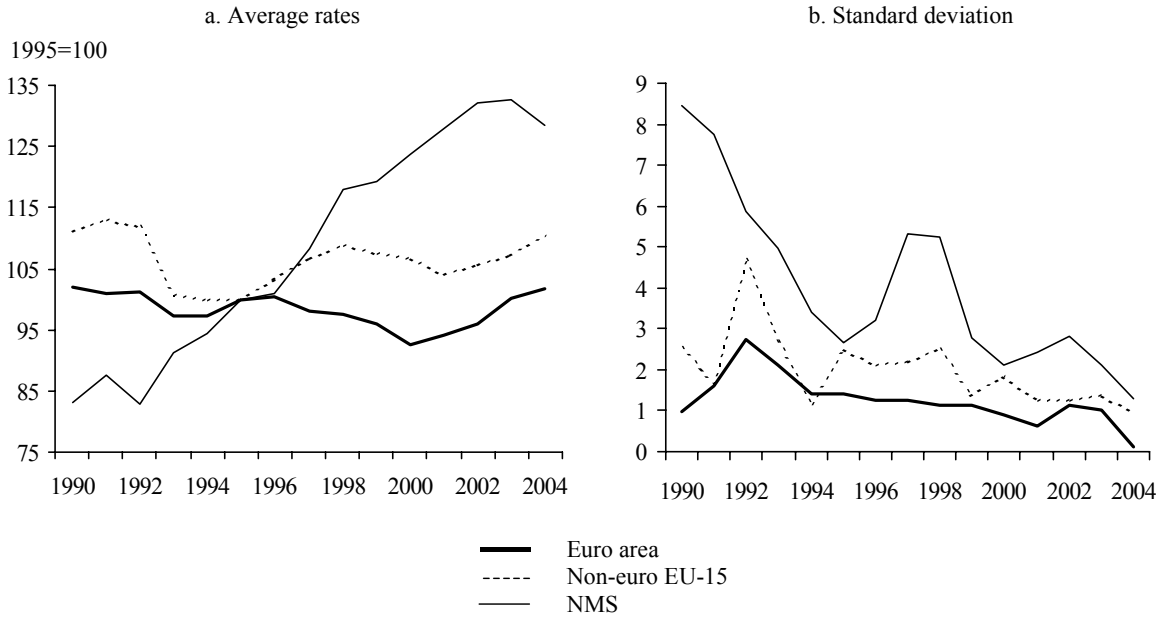
A look at trade and growth data for EU-15, i.e., the old member states (OMS), is also not encouraging. Figure 1 shows that intra-OMS trade in relation to GDP increased after the crisis of ERM I. However, the cyclical development of the trade data seems to be driven by the periodic swings in the dollar exchange rate of the DM and the euro, respectively. At least, the de facto introduction of monetary union by fixing exchange rates in 1999 did not prevent intra-EMU trade from falling. Growth data tell the same story. Real growth of the euro area (and especially of its larger economies) has also underperformed the growth in the non-euro area EU member states. Hence, no apparent growth-boosting effects from the monetary union seem to have been observed in OMS. Additionally, the OMS area is already the largest trade partner of all NMS. In 2003, the nonweighted average of exports (imports) to the OMS was 63 (61) percent of their total exports (imports). Most of the adjustment of trade flows towards the OMS took place rather quickly, and was actually mostly completed by the mid-1990s. In relative terms, trade flows seem to have already stabilized by the end of the 1990s.

Figure 1:
Intra-EU-15 and Intra-Euro Area Trade, 1990–2003



Source: IMF (2004a, 2004b); own calculations.

Figure 2:
Real Effective Exchange Rates (unweighted averages)[a], 1990–2004



[a]Annual real effective exchange rates are based on the trade-weighted nominal exchange rates, divided by a price deflator.
Source: IMF (2004b); own calculations.

One reason why positive effects from monetary union may provide a lower benchmark for the effect generally to be expected becomes evident if one looks at the underlying transmission mechanism which is mostly neglected in empirical studies. The trade gains expected from a monetary union are assumed to be related to the trading costs which, in turn, are imposed by real exchange rate instability. Figure 2a shows that real effective exchange rate changes have been rather small in the OMS and have become rather more synchronized between EMU and non-EMU after 1999. The changes for the NMS are clearly larger and dominated by an increasing trend, related to (a) the long-run catch-up process (EMU participation, obviously, should not aim to affect this long-run process driven by economic fundamentals) and (b) the recovery from their substantial "entry" devaluations in the early 1990s. Hence, real exchange rate changes were significant but rather predictable.

Figure 2b shows the yearly standard deviation of the real exchange rates as a measure of uncertainty related to the development of real exchange rates. According to this proxy, uncertainty should have been lowest in EMU countries but, again, there is no significant effect of monetary union.[2] The volatility observed among the NMS is still somewhat above the one observed for the euro area members, but has already fallen to values quite similar to those observed among the non-EMU countries, and that from much higher average values at the beginning.

Taking this eclectic evidence together implies that for the NMS, which have already borne the cost of real exchange rate adjustment, additional benefits from joining EMU are rather low. However, the whole process of adjustment was—for most of the NMS—always driven by the desire to integrate with OMS and to join the EU. At least to some extent, it was always clear that this also requires monetary integration and it is still a formidable challenge to preserve what has been achieved so far. Joining monetary union would surely help.

[2] The difference between the two groups is actually smaller after 1999. This effect, however, is essentially due to the high volatility of the non-EMU currencies in 1992, the year of the ERM I crisis.

This leads to the second expected benefit of joining the euro area: credibility gains. The argument here is that joining a monetary union solves the credibility problems of dynamically inconsistent monetary authorities, eliminating the potential inflationary bias.[3] Such credibility gains—together with the reduction of the interest risk premium, due to the elimination of the exchange rate risk—would lead to a reduction of the level and of the variability of real long-run interest rates, which, in turn, is expected to stimulate investments and, consequently, growth.

Obviously, the significance and the size of these effects depend on the degree of credibility a country's policies enjoy in the first place. Here, one must note that most of the NMS have made substantial progress towards achieving macroeconomic stability. EU accession may have played a role in this process, acting as an anchor for market expectations, as the external constraints that result from the accession process help to solve some of the commitment problems of monetary and fiscal authorities, beyond helping institution-building and structural reforms (this may be particularly true concerning central bank independence, see Vinhas de Souza and Ledrut (2004) and Cukierman et al. (2002)).

Actual European Union membership and, in particular, participation in the surveillance mechanism of the Stability and Growth Pact (SGP) framework are expected to further enhance the credibility of the NMS's macroeconomic policies (if the weakening of the mechanism caused by, particularly, the German and French repeated breaches of the SGP mandated limits on budget deficits and public debt stocks does not continue). But, again, the linkage of credibility and EMU is not straightforward, as, in essence, credibility is largely endogenous to the soundness and consistency of the overall economic policy mix over time.

The long-term interest rates volatility series (here represented by the yield on 10-year government bonds) in Figure 3a illustrate this point. The values for the OMS countries are indistinguishable, and no breaks after 1999 are observed. Here, the comparison with the NMS is complicated by the fact that most of them still do not issue comparable government instruments.[4] Nevertheless, keeping in mind those very substantial sample limitations, the level of the long-term interest rates for those NMS is already strikingly similar to the one observed among the OMS.

Figure 3b reveals that in half of the years of the sample, non-euro EU-15 countries actually show a *lower volatility* of long-term interest rates than the one observed by the euro area countries for which the SGP is, in theory at least, binding. More than that, again the difference between the pre and post EMU periods is not significant. This is possibly related to the worsening fiscal situation in several OMS participating in the euro area. Always keeping in mind the sample limitations for the NMS described above; the volatility of the NMS is also rather similar to the one observed among the OMS.

A rather intuitive conclusion is that most of the expected gains from a monetary union are actually largely endogenous to the soundness and consistency of the overall (and, therefore, also national) economic policy mix, and, therefore can be achieved by credible, time-consistent domestic policies.[5] The framework for entry into the EU and into monetary union should have helped significantly to formulate and sustain such policies. Hence, the NMS should already have reaped most of the potential gains from monetary integration. Further gains may, therefore, be rather low, but to complete mone-

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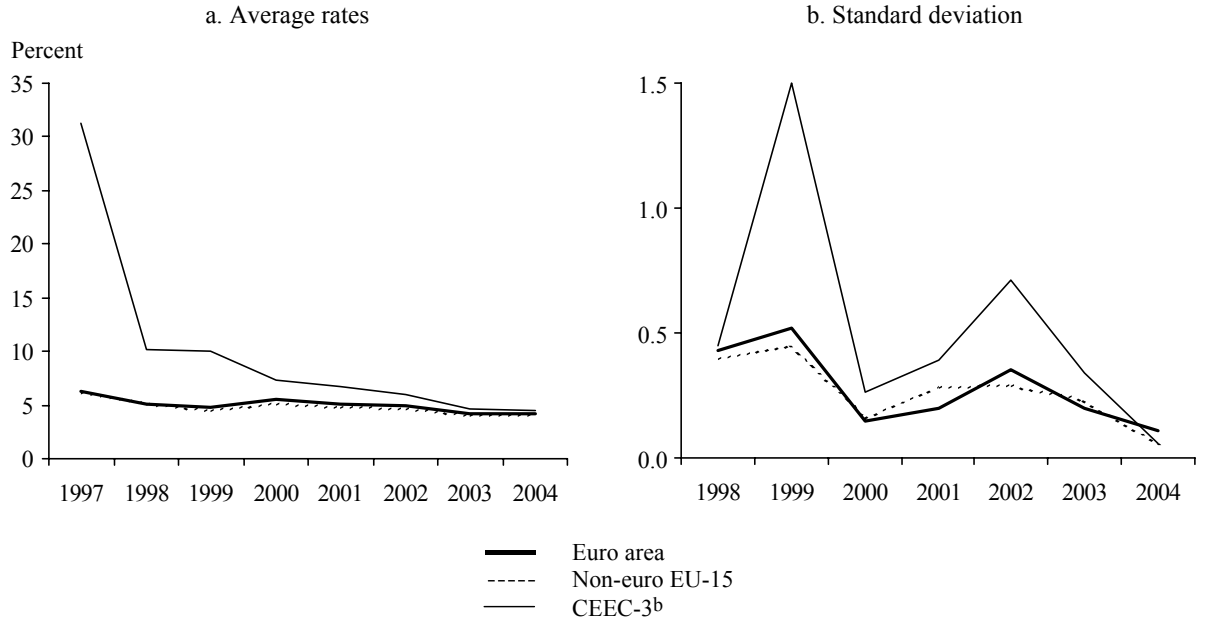
[3] This is only true if the country in question joins a monetary union that does not suffer from a dynamic inconsistency problem.

[4] Only two of them have 10-year government bonds, the yields of which are used as benchmark long-term interest rates. In the figures the candidate country Bulgaria is included in order to increase the sample size. Bulgaria, however, had its figures distorted by the 1997–1998 hyper inflationary episode when yields on government bonds, to compensate for the price increases, increased and then fell abruptly in the swift price stabilization following the introduction of the currency board.

[5] Van Foreest and de Vries (2004) provide evidence, using a panel data set of OMS and NMS, that the choice of the foreign exchange regime is not of first-order importance for achieving high output growth, as, given the forward-looking nature of the foreign exchange market, exchange rate stability hinges on the current and anticipated coherency of monetary and fiscal policies. This might explain also why some of those gains have, so far, been proved so elusive to the euro area countries: *they lack consistent domestic policies, and just euro area membership is not a replacement for that.*

Figure 3:
Long-term Interest Rates (unweighted averages)[a], 1997–2004



[a]Annual long-term interest rates are represented by the yield on 10-year government bonds. — [b]Due to data availability of 10-year government bonds, CEEC-3 is the average of Bulgaria, Czech Republic, and Slovakia.

Source: IMF (2004b); own calculations.

tary integration may, at the same time, be important in order to lock in the gains achieved so far. It could be at least doubted whether membership in the ERM II could provide such a result.

This basically relates to the reduction of the risk of currency crises, the third potential gain from monetary union. Independent from monetary union, the likelihood of excessive capital inflows and sudden capital flow reversals can be reduced by national policies like pursuing sound macroeconomic policies, by avoiding unsustainable exchange rate regimes, by measures that strengthen the domestic financial sector and its supervisory institutions.[6] Nevertheless, one must recognize that, even after such measures, the risks of exchange rate shocks unrelated to fundamentals remain.[7]

Apart from entering EMU, an alternative way for the NMS to deal with this remaining risk is to use the framework for monetary and exchange rate policy provided by the European Union without the euro area. However, the ERM II can only contain such risks *if* it were operated in a way which provides protection against speculative attacks that are not related to fundamentals or to unsustainable policies. This is clearly not the case. The European Central Bank (ECB) can always opt out from the obligation to intervene if it claims that further intervention would endanger the value of the euro. Hence, the NMS cannot rely on the ECB and still run significant risks during the transition to full EMU membership even in the case of perfectly stable economies. This raises the question of how

[6] On this point, perhaps the most visible change since the introduction of the euro is the substantial deepening of the European fixed-income markets, both government and private (Galati and Tsatsaronis 2003), with also presumed potential growth-enhancing effects at some point in the future. Nevertheless, this process was not only caused by the introduction of the euro but also by the EU's continuous efforts towards economic integration and harmonization (the recommendations arising from the Lamfalussy report (Lamfalussy 2001) being the latest in this area).

[7] One must note that the exchange rate regime can actually act as commitment device, reinforcing capital reversals that *are* based on changes in fundamentals (for instance, time-inconsistent policies): here, the currency crisis *forces* the necessary adjustment (for instance, Portugal's 1982/83 experience as opposed to the 2001/02 one).

close to heaven the NMS have already got (Section 3) and what strategies they apply in order to manage the transition (Section 4).

3 The Institutional Framework—Convergence Criteria and the ERM II

With accession to the EU, the NMS are fully integrated into the Community policies, the EU institutions, and its financing system although certain transitional arrangements apply to them, most notably concerning labor mobility and the Common Agricultural Policy. The process of integration into the regular economic policy coordination procedures—the core element being the Broad Economic Policy Guidelines—has been gradually faded in and is scheduled to be completed in autumn 2004 (Deutsche Bundesbank 2003: 17). After having published three Pre-Accession Economic Programmes which had been one important element of the dialogue on macroeconomic and financial stability launched in 2001,[8] the NMS have submitted their first convergence programs under the Stability and Growth Pact. This procedure reflects the fact that the NMS upon accession have immediately joined EMU and their central banks have become members of the European System of Central Banks (Eurosystem). However, for the time being the NMS have the status of member states with a derogation pursuant to Article 122 of the EC Treaty, i.e., the euro is still not a legal tender.

In contrast to the founding member states of EMU, the NMS *de jure* do not have the right to opt out of the euro; there will be no separate decision on the introduction of the euro. As the inclusion in the ERM II is a necessary precondition of introducing the euro and will take place only on request of the applicant country, the NMS, however, de facto have discretion to decide on the introduction of the euro. Participation in the ERM II with keeping the exchange rate within the normal fluctuation bands for two years without tensions and devaluation is the key indicator in the assessment of exchange rate stability and constitutes one of the so-called Maastricht criteria, which have to be fulfilled before introduing the euro. Unilaterally adopting the euro as a legal tender (euroization) is not acceptable from the standpoint of the Eurosystem and contradicts the "spirit of the Treaty" (Deutsche Bundesbank 2003: 19), which demands sufficient convergence in terms of nominal developments before introducing the euro.

Participation in the ERM II will have different implications for the currency regime in the NMS depending on the current exchange rate regimes (Table 1). No change will be necessary for the Estonian and Lithuanian currency board systems as the EU authorities, in their decision on the inclusion of the kroon and the tolar in the ERM II on June 27, 2004, have ruled that these are compatible with the ERM II. For Cyprus and Hungary, the consequences will be small, as they already have pegged their currencies to the euro with a corresponding fluctuation band.[9] The credibility of the exchange rate regime may rise, however, since in the ERM II the ECB is also obliged to intervene at the margin unless interventions do not interfere with the primary objective of price level stability.[10] Latvia will have to switch from IMF Special Drawing Rights (SDR) to the euro as the foreign reserve currency of its currency board system and Malta will have to peg its lira to the euro instead of the current currency basket. For the Czech Republic, Slovakia, Slovenia, and Poland the inclusion into the

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[8] For details on the dialogue see Deutsche Bundesbank (2001).

[9] Inclusion in the ERM II may, however, be associated with an adjustment of the central parity, such as recently done in the case of Slovenia where the chosen central parity in the ERM II represented a small revaluation compared to the previous target exchange rate.

[10] The potential expansion of the euro area money supply due to exchange interventions at the bottom end of the fluctuation bands is, however, probably too small to pose a serious risk to price level stability in the euro area, given the small size of the NMS—their M1 money stock is only between 0.1 percent and 1.2 percent in relation to the euro area money supply (Kontolemis 2003: Box 5).

Table 1:
Currency Regimes in New Member States and Euro Introduction Target Dates

Country	Current exchange rate system	Notes	Euro introduction target date
Cyprus	Exchange rate band	± 15 percent around central parity to the euro	No date specified
Czech Republic	Managed floating		2009–2010
Estonia	Currency board	Peg to the euro; since June 27, 2004, participation in the ERM II	2006
Hungary	Exchange rate band	± 15 percent around central parity to the euro	2008
Latvia	Peg	Peg to IMF Special Drawing Rights (SDR)	Not before 2008
Lithuania	Currency board	Peg to the euro since February 2002, peg to the US dollar before; since June 27, 2004, participation in the ERM II	2006[a]
Malta	Peg	Peg to currency basket containing 70 percent euro, 20 percent sterling, 10 percent US dollar	No date specified
Poland	Free floating		2008–2009
Slovakia	Managed floating	Euro as official anchor currency since 1999	2008–2009
Slovenia	Exchange rate band	Since June 27, 2004, ± 15 percent around a central parity to the euro within the ERM II; managed floating before	2006[a]

[a]Implied by the inclusion in the ERM II as of June 27, 2004, although officially no date is specified.

Source: Homepages of the national central banks; European Commission (2003).

ERM II will mean switching to a currency peg (although with relatively wide fluctuation bands) from a regime of managed or free floating. While Estonia, Lithuania, and Slovenia have already been included into the ERM II, the other NMS governments have generally set target dates for the introduction of the euro as a legal tender such that participation in the ERM II will not be necessary before 2006.

When the countries' currencies participate in the ERM II, in addition to the criterion of keeping the exchange rate within the "normal" fluctuation bands[11] for two years without tensions or devaluation, convergence will be evaluated at regular intervals according to four other criteria two of them relating to monetary developments and two of them relating to the fiscal position.

1. The rate of inflation in terms of the Harmonized Index of Consumer Prices (HICP) may not exceed the average rate of inflation in the three best-performing member states of the Eurosystem by more than 1.5 percentage points.
2. Long-term interest rates may not exceed long-term interest rates in those three countries by more than 200 basis points.
3. The government budget deficit in terms of the Maastricht definition may not exceed 3 percent in relation to GDP unless it is falling substantially or it is only temporarily above and still close to the level.
4. The level of public debt in relation to GDP may not exceed 60 percent unless it is falling at a satisfactory pace.

[11] It is not entirely clear what normal fluctuation bands are in this context. While the Treaty does not explicitly refer to margins narrower than ± 15 percent, some argue that keeping the exchange rate within the original ± 2.25 percent fluctuation bands of the ERM I will be necessary to qualify in terms of exchange rate stability (Euractiv 2003). The European Commission (2000: Annex D3) elaborates on the interpretation of the exchange rate criterion after the widening of the fluctuation bands and summarizes that, while maintaining the exchange rate within a fluctuation band of ± 2.25 percent should be the rule, "[h]owever, the extent to which a breach of the +/– 2.25 % fluctuation band would correspond to severe tensions would take into account a range of relevant considerations. A distinction is to be made between exchange rate movements at the upper margin and movements below the 2.25 % lower margin" (European Commission 2002: Annex D3).

In addition to these criteria which are at the center of public attention, according to the provisions of Article 121, EC Treaty, other elements such as "…the results of the integration of markets, the situation and development of the balance of payments on current account, and … the development of unit labour costs and other price indices" will be taken into account in the assessment of the quality of the achieved convergence. Some of these indicators, notably the current account balance, which displays a high deficit in the order of 5–10 percent of GDP in a number of NMS, could point to significant weaknesses, although the deficits are financed to a large extent by net foreign direct investment flows. However, the evaluation of developments in the mentioned "weak" indicators involves a complex judgment, and history suggests that they probably will not be really important in the decision on participation in the euro.[12] Therefore, in the following we will concentrate on the evaluation of the current progress with respect to the four Maastricht criteria above.

As concerns the monetary criteria, the convergence has proceeded relatively well, given the high inflation imminent in a number of countries during the early phase of transition in the nineties. In 2003, already in six out of ten NMS (Czech Republic, Estonia, Latvia, Lithuania, Malta, and Poland) HICP inflation was lower than the critical value (Table 2). That said, European Commission forecasts suggest that the proportion of the NMS complying with the Maastricht inflation criterion will decline to four and three out of ten in 2004 and 2005, respectively. This development is to some extent due to the fact that lower expected inflation in the euro area countries will reduce the critical value. More important, however, is an expected pickup in inflation in the NMS. This acceleration is partly due to rising inflationary pressures reflecting increased utilization of capacities as a result of active foreign demand as well as monetary and/or fiscal stimulus in a number of countries. Another factor, which is less problematic from the point of view of nominal convergence, are changes in the tax system and increases or deregulation of administered prices, partly related to EU accession. It has also been noted that currency devaluation in the past has been an important source of inflationary pressures, particularly in Hungary and in Slovenia (Coricelli et al. 2004). Entering the ERM II might therefore contribute to disinflation in these countries. Given that Italy, Portugal, Spain, and Greece all had similarly high inflation rates 3–5 years before the decision on their membership in the euro area, achieving an inflation rate which would qualify for introducing the euro generally seems to be within reach for the NMS. This view is supported by the development of long-term interest rates, which have converged markedly in recent years. In 2003, the criterion on interest rates was fulfilled in every NMS except Hungary.

On the fiscal side, the criterion on public debt does not seem to be critical in most NMS as the debt-to-GDP ratio in 2003 was below 60 percent in all countries except Cyprus and Malta, although only by a small margin in Hungary, and is expected to remain generally stable. As concerns the budget balance the situation is reassuring in the Baltic states and in Slovenia, where the deficit was safely below 3 percent in 2003 and is expected to remain so this year and next (Table 3).[13] However, high deficits are registered for the remaining countries.[14] As a result the European Commission launched excessive deficit procedures in the case of six countries (Cyprus, Czech Republic, Hungary, Malta, Poland, and Slovakia) under the rules of the Stability and Growth Pact. According to this, a deficit in excess of 3 percent of GDP generally has to be corrected during the following year, but it is understood that the NMS will be given more time in view of their position as countries still being in transition process (Deutsche Bundesbank 2003: 18). In any case, as EU member states with a derogation, they will not

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[12] For example, a current account deficit of more than 5 percent (and deteriorating) did not have a noticeable impact on the decision to include Portugal into the euro area.

[13] Note that all three countries that go for an introduction of the euro as early as possible and have already joined the ERM II belong to this group.

[14] The exceptionally high deficit of 12.9 percent of GDP in the Czech Republic is partly due to the inclusion of government guarantees in the deficit, which otherwise would have been 6.6 percent of GDP (ARGE 2004).

Table 2:
Indicators for Monetary Maastricht Criteria in the New Member States (percent)

	Inflation rate (HICP)					Long-term interest rate		
	2001	2002	2003	2004[a]	2005[a]	2001	2002	2003
Cyprus	2.0	2.8	4.0	2.2	2.1	7.7	5.4	4.7
Czech Republic	4.5	1.4	–0.1	2.8	2.8	6.3	4.9	3.9
Estonia	5.6	3.6	1.4	2.8	2.9	.	.	4.3
Hungary	9.1	5.2	4.7	6.9	4.6	7.9	7.1	6.6
Latvia	2.5	2.0	2.9	4.0	3.5	.	.	4.9
Lithuania	1.3	0.4	–1.1	1.0	2.2	.	.	5.3
Malta	.	.	1.3	1.8	1.9	6.1	5.7	5.0
Poland	5.3	1.9	0.7	2.3	3.0	10.7	7.3	5.6
Slovakia	7.2	3.5	8.5	8.2	4.5	10.7	7.3	5.6
Slovenia	8.6	7.5	5.7	3.6	3.2	.	.	5.5
Memorandum item:								
Euro area	2.4	2.3	2.1	1.8	1.6	5.0	4.9	4.1
Critical Maastricht value[b]	3.5	3.0	2.9	2.4	2.5	6.9	7.0	6.1

[a]Forecast. — [b]Calculated according to the respective criterion (see text).

Source: European Commission (2004); own calculations.

Table 3:
Indicators for Fiscal Maastricht Criteria in the New Member States, 2001–2005 (percent of GDP)

	General government budget balances					Gross public debt				
	2001	2002	2003	2004[a]	2005[a]	2001	2002	2003	2004[a]	2005[a]
Cyprus	–2.4	–4.6	–6.5	–4.6	–4.1	64.4	67.1	72.2	74.6	76.9
Czech Republic	–6.7	–6.4	–12.9	–5.9	–5.1	25.2	28.9	37.6	40.6	42.4
Estonia	0.3	1.8	2.6	0.7	0.0	4.7	5.7	5.8	5.4	5.3
Hungary	–4.4	–9.3	–5.9	–3.9	–4.3	53.5	57.1	59.0	58.7	58.0
Lithuania	–2.1	–1.4	–1.7	–2.8	–2.6	33.4	22.8	21.9	22.8	23.2
Latvia	–1.6	–2.7	–1.8	–2.2	–2.0	16.2	15.5	15.6	16.0	16.1
Malta	–6.4	–5.7	–9.7	–5.9	–4.5	61.8	61.7	72.0	73.9	75.9
Poland	–3.5	–3.6	–4.1	–6.0	–4.5	36.7	41.2	45.4	49.1	50.3
Slovakia	–6.0	–5.7	–3.6	–4.1	–3.9	48.7	43.3	42.8	45.1	46.1
Slovenia	–2.7	–1.9	–1.8	–1.7	–1.8	26.9	27.8	27.1	28.3	28.2
Memorandum item:										
Euro area	–1.6	–2.3	–2.7	–2.7	–2.6	69.4	69.2	70.4	70.9	70.9

[a]Forecast.

Source: European Commission (2004).

have to face sanctions. Although government programs currently do not let expect the deficit to fall below 3 percent in the foreseeable future, the correction of fiscal balances in order to comply with the Maastricht criteria seems to be achievable within the 4–5 years implied by the euro introduction target dates. In the latter half of the nineties many of the euro area member states managed to reduce their budget deficits from comparable or even higher levels without significant damage to economic growth (Table 4). Recently, Slovakia has demonstrated that cutting the budget deficit from 6 to 3½ percent within two years is possible without triggering a recession.

Table 4:
General Government Budget Balance in Euro Area States, 1994–1998 (percent of GDP)

	1994	1995	1996	1997	1998
Austria	–5.0	–5.1	–3.8	–1.9	–2.4
Belgium	–4.9	–3.8	–3.8	–2.0	–0.7
Finland	–5.7	–3.9	–3.0	–1.3	1.6
France	–5.8	–4.9	–4.1	–3.0	–2.7
Germany	–2.4	–3.3	–3.4	–2.7	–2.2
Ireland	–1.7	–2.1	–0.2	1.2	2.4
Italy	–9.2	–7.7	–7.1	–2.7	–2.8
Luxemburg	2.7	1.8	2.6	3.4	3.1
Netherlands	–3.8	–4.1	–1.8	–1.1	–0.8
Portugal	–6.0	–5.7	–4.0	–2.7	–2.6
Spain	–6.2	–6.6	–4.9	–3.2	–2.7

Source: European Commission (2004).

However, currently the political impetus towards fiscal consolidation is lacking in most NMS with an excessive deficit, and last year's suspension of the deficit procedure in the cases of Germany and France might lend support to a position of fiscal latitude. In addition, an argument can be made that the relatively high rate of nominal growth that can be expected for most of the NMS in the course of further convergence makes higher deficits more tolerable than in the original euro area countries (Gomulka 2003). The argument starts from the notion that Maastricht criteria have been deducted under the assumption of a 5 percent nominal GDP growth which, given the relationship between the deficit, the debt level, and nominal GDP growth, implies that the debt level stabilizes at 60 percent with a 3 percent deficit. Since the NMS can be expected to grow faster in the coming years, an unchanged value of 60 percent for the tolerable debt level in relation to GDP would support a higher deficit. The argument, however, ignores that the current target of fiscal policy in EMU is not defined by the Treaty of Maastricht, but by the Stability and Growth Pact which demands a balanced budget over the medium term in order to consolidate the fiscal positions in face of the future strains on the public finances associated with the aging of the population. Against this background, it seems sensible to stick to the 3 percent limit even accounting for the higher trend growth, the fact that the fiscal position is generally sounder—the average debt-to-GDP ratio is around 40 percent in the NMS compared to some 70 percent in the euro area—, and the greater needs for public investments.

Taken together, an evaluation of the current position of the NMS with respect to the Maastricht criteria leads to the conclusion that, in general, they are already relatively well positioned, albeit with some notable exceptions, mainly on the fiscal front. There is, however, the possibility of a monetary policy inconsistency, namely that the inflation criterion might be inconsistent with the exchange rate criterion. The problem is rooted in the basic macroeconomic trilemma, the so-called impossible trinity, that policy makers cannot successfully pursue at the same time three basically desirable goals: stabilize the exchange rate, engage in monetary policy oriented towards domestic goals, and enjoy free capital mobility (Fischer 2001; Obstfeld et al. 2004). Given the freedom of capital flows established with the accession to the EU and simple interest parity, monetary policy activism in an NMS in order to target an inflation rate compatible with the Maastricht inflation criterion will be defeated by open capital markets if it is necessary to drive the local interest rate away from the euro rate and the exchange rate is credibly fixed. As the ERM II has fluctuation bands allowing for fluctuations of the exchange rate within a certain margin, the NMS, with the exception of those maintaining currency boards, will have some but strictly limited degree of monetary policy discretion.

A problem of inconsistency might arise because the NMS can be expected to have structurally higher inflation—or structural real appreciation—relative to the euro area. If the structural inflation differential is large enough, it may be impossible for some NMS to simultaneously achieve both

sufficiently low inflation to comply with the Maastricht criterion and exchange rate stability in the sense of the exchange rate criterion at the same time. One prominent mechanism often cited to be responsible for the structural inflation is the so-called Balassa–Samuelson (B-S) effect, which results from relatively strong productivity and wage growth in the tradable goods sector that spills over into higher wages and higher inflation in the nontradable goods sector.[15] While empirical studies have unanimously found B-S to be relevant in the NMS,[16] there is some variance in the estimated size of the effect ranging from less than 1 to 4 percentage points, depending on the method and the countries investigated (Mihaljek and Klau 2003).[17] The relevance of B-S for the problem of monetary inconsistency seems to be limited, however, for basically two very different reasons. First, the effect is probably not large enough to compromise the achievement of sufficiently low inflation with a stable exchange rate, partly because the share of market services in the CPI is very low at around 30 percent in the NMS (compared to some 60 percent in Germany, for example), which leads to relatively small effects of productivity growth differentials on the inflation differential in terms of the CPI (Egert et al. 2003). This argument can be illustrated by the experience of very low inflation, even negative inflation, in a number of NMS in the recent past despite continued high productivity growth in the tradable goods sector. Therefore, the leeway for real appreciation might be large enough even assuming a narrow fluctuation band of ± 2.25 percent. Second, the Maastricht criterion of exchange rate stability is preoccupied with devaluation, and B-S is about revaluation and therefore much less of a concern. Even if the narrow fluctuation band were relevant on the downside, an appreciation beyond the strong edge of the narrow fluctuation band would almost certainly be tolerated. A case in point is the development of the Greek drachma in the run-up to the introduction of the euro in Greece on January 1, 2001 (Kontolemis 2003: 31). Following an initial devaluation, capital inflows threatened the attainment of the Maastricht inflation criterion as they drove down interest rates in a situation where inflationary pressures were already on the rise. In response, the central bank allowed an appreciation of the currency relative to the central parity by 7 percent on average and initiated a program of sterilization of capital flows. Finally, the central parity was even adjusted upwards (to what eventually would be the conversion rate for the adoption of the euro) within the obligatory period of two years of ERM II membership, without negatively affecting the planned introduction of the euro as a legal tender. More generally, the experience during the accession to EMU in Spain, Portugal, and Greece suggests that nominal and real convergence processes do not conflict with a successful adoption of the euro (Jarocinski 2003).

In sum, capital inflows and real appreciation in the run-up to EMU are likely to be problems of limited relevance for qualifying for the introduction of the euro. This result implies that the coexistence of structural real appreciation and the need to qualify for entry into full EMU membership does not rule out extreme exchange rate strategies during transition, which are reviewed in some detail in the next section. Neither is it to be expected that a fixed exchange rate would lead to excessive inflation (measured against the Maastricht criteria), nor would we expect an inflation targeting strategy to drive a flexible exchange rate out of the ERM II band because of structural appreciation alone. Nevertheless there is still the risk of financial markets testing the lower edge of the fluctuation bands.[18] In order to minimize the risk of a currency crisis during the ERM II membership phase,

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[15] For an exposition see Froot and Rogoff (1995), for an extended model see Fischer (2004).

[16] Studies have generally been confined to Central and Eastern European countries.

[17] The real appreciation of NMS currencies in recent years can, however, only partly be explained by B-S. Other possible influences, many of which in the meantime can be expected to have lost impact with the progress of transformation, include, as indicated in the previous section, a correction of an initial situation of currency undervaluation, a structural shift towards private and government consumption, capital inflows due to higher real interest rates and privatization, price liberalization and terms of trade improvements due to improved quality or marketing of export products (Halpern and Wyplosz 1997; Deutsche Bundesbank 2002).

[18] This risk may be greater the longer a country stay in the ERM II (De Grauwe and Schnabl 2004).

implementing a consistent and credible set of macroeconomic policies, with an orientation at achieving the Maastricht criteria, will be an important—although not necessarily sufficient—signal to the markets.

4 Alternative Strategies on the Road to the Euro

In the NMS a currency peg has in general been an important ingredient of the initial process of macroeconomic stabilization, but exchange rate strategies have evolved differently over time. Currently, the observed exchange rate regimes include a multitude of exchange rate regimes, including fixed exchange rates, exchange rate bands, managed floating and free floating (see Table 1 in the previous section). In the following the extreme options chosen are discussed in more detail, namely forgoing the possibility of an autonomous monetary policy by introducing a currency board system and the implementation of an inflation targeting regime, which requires exchange rate flexibility.

4.1 Early Euroization—the Currency Boards

New and old member states of the EU have strikingly different views on currency boards. The two Baltic countries, Estonia and Lithuania, as well as Bulgaria, use currency board systems in order to shorten the transition to EU and EMU membership, respectively. This can best be exemplified by the position of Estonia which is expressed in the countries' Pre-Accession Economic Programme 2003 (cited in Backé and Thimann 2004: 7): "Estonia will present an application to join the ERM II exchange rate mechanism immediately after EU accession in 2004… Estonia wants to keep a fixed exchange rate and the financial framework supporting the currency board system up to euro area accession and as a part of the ERM II framework, taking it as a unilaterally binding obligation to hold exchange rate stability."

On the contrary, it is only a few years ago that both the ECB and ECOFIN thought that a currency board was inconsistent with the ERM II. Although this strict position has been weakened and the official position is that it is possible for countries entering the ERM II with a currency board to keep it, the ECB still tries to slow down euroization as much as possible. The cautious view of the ECB is best exemplified by the bank's recent Occasional Paper (Backé and Thimann 2004: 60f.). Although the authors try very hard to come up with arguments against a short transition to full EMU membership, they have to admit that "acceding countries display some commonalities with the euro area that may bode well for future monetary integration" and that "monetary integration shall be facilitated in countries where fiscal deficits and public debt are limited, stability-oriented policies are fully maintained and further structural policies are implemented." Nevertheless, even if the "consistency of domestic macroeconomic policies and the sustainability of convergence in general are fully preserved … several important caveats have to be made … It would be premature to draw conclusions about the country's readiness for membership in ERM II and for a subsequent adoption of the euro. Moreover, the choice of the central parity within ERM II is a key issue … a potential misalignment in these countries is a risk that cannot be ignored … (and, finally) … the absence of significant foreign exchange market pressure in the past cannot be taken as implying an absence of such pressure in the future". Taking this rationale seriously would mean that the Maastricht criteria are meaningless. This conclusion may be right but is surely not the intention of the authors. It also implies that there would be hardly any country ever joining the club which is perfect from the insiders' point of view.

Historically, currency boards were implemented in dependent territories with the currency of the colonial power acting as the anchor currency. However, the 1990s saw a revival of the idea in

Argentina and in a number of transition countries; Estonia, Lithuania, Bulgaria, and Bosnia and Herzegovina implemented currency boards in situations of acute economic and political crisis (Hanke 2000). Estonia had just gained independence from the USSR and was still using the hyperinflating Russian ruble. Lithuania was in the grip of a collapsing real economy and very high inflation. To make matters worse, its new political institutions could not effectively control what threatened to be a runaway fiscal deficit. Bulgaria had defaulted on its international debt, narrowly escaped a revolution in late 1996 and was battling hyperinflation that had virtually wiped out its banking system and sent the real economy into a free fall.

The main characteristics of a currency board are as follows (Schuler 2004):

- A currency board maintains full, unlimited convertibility between its notes and coins and the anchor currency at a fixed rate of exchange.
- A currency board's reserves are adequate to ensure that all holders of its notes and coins can convert them into the reserve currency or a commodity.
- A currency board does not try to influence interest rates by establishing a discount rate like a typical central bank.
- A currency board has no share in the profits of banks, it has no responsibility for acting as a lender of last resort to protect them from losses.
- Due to these features, a currency board has no discretionary power because the amount of national money is regulated by reserve flows.

While the exchange rate systems in Estonia, Lithuania, and Bulgaria deviate from the orthodoxy defined above, they are in essence currency board systems.[19] Hence evaluating the pros and cons of currency board systems, one can refer to the discussion on euroization. This is because currency board systems still keep national currencies (and collect seigniorage) but the mechanisms of money supply are basically the same as in a situation where a country unilaterally introduces the anchor currency and has no influence on monetary policy. Therefore, currency boards can be interpreted as a weak form of euroization. The euroization debate is summarized by Belke and Hebler (2003). The following arguments can be put forward in favor of euroization:

- After accession to the EU and in the run-up to EMU, the ERM II countries will be attractive locations for capital inflows which bear the risk of sudden reversals and financial crisis. Because the ERM II provides no insurance against such dangers, euroization could provide a risk-minimizing strategy (Begg et al. 2001).
- Euroization can be expected to decrease real exchange rate (excess) volatility and reduce the costs of structural adjustment that fall on investment and labor markets (Belke and Gros 2001).
- Euroization could also foster the use of the euro in neighboring regions and create a European stability zone (Gros 2000).
- Potential risks for the euro area stemming from weak financial institutions in former transition countries can be expected to be either low or even lower due to euroization (Nuti 2002). Additionally, euroization strategies do not imply that the ECB has to act as a lender of last resort.

As Section 2 has shown, one should not be overly optimistic concerning the quantitative effects of euroization. However, qualitatively, all these arguments imply that a currency board or the introduction of the euro can reduce the risk of financial turmoil in the transition period compared to other fixed exchange rate regimes. Nevertheless, empirical evidence shows that fixed exchange rate regimes are more crisis-prone than flexible exchange rate regimes (Bubula and Otker-Robe 2004). Hence, it depends on the interpretation of the nature of the ERM II. At the start, a band width of ± 15 percent

[19] Apart from very small economies like the Bermudas, the Cayman Islands, the Falkland Islands, and the Faeroe Islands, only Hong Kong fulfills the definition of an orthodox currency board.

implies that the ERM II is rather a flexible exchange rate system. However, with the introduction of the euro and the decision on the conversion rate coming closer, the pressure to defend the central parity may increase and the ERM II is likely to become a de facto fixed exchange rate system. This implies that countries entering the ERM II with a currency board should definitely stick to this exchange rate regime.

For the NMS in general, the Optimum Currency Area (OCA) theory implies that they should better wait to narrow exchange rate bands until certain conditions are fulfilled. However, it is difficult to judge on critical values. This is a problem that some studies tried to circumvent by comparative indicators, which lead to a ranking of countries with respect to the optimality of fixing exchange rates to the euro. In an early study, Eichengreen and Bayoumi (1996) calculated an OCA indicator by means of regression analysis. Here, the estimated relationship between the variables that—according to the literature on optimum currency areas—measure benefits and costs of a fixed exchange rate, and the standard variation of bilateral exchange rate is used to calculate an expected variability of bilateral euro exchange rates. The lower this variability the higher the net benefits of fixing the exchange rate to the euro. Other studies use indicator approaches which aggregate a wider range of indicators including credibility arguments by means of standardization with respect to a control group of EMU member countries (Schweickert 2001a) or the average of the analyzed countries (DBResearch 2004).

Notwithstanding some significant differences and given the different sample of indicators and procedures, the general result from the three studies is strikingly similar. A first result is that it is not the small countries that appear on the top of the list. The highest net benefits are rather found for larger but at the same time more advanced countries like Slovenia and Hungary. Consequently, the three countries with currency board systems and especially Bulgaria show only relatively low net benefits of euroization (which is a sensible result, as, if one sees a currency board as a weaker form of euroization, the countries that adopt the former already derive some of the expected benefits from the later). However, a second result from the studies which include an EMU control group reveal that net benefits are also quite low for Ireland, the star performer among the current EMU member countries. For Ireland, other studies even reveal that the net benefits from dollarization would be much higher than the net benefits from euroization (Bénassy-Quéré and Lahrèche-Révil 2000). This result implies that a currency board system can make sense even in larger countries and in countries that, according to OCA criteria, derive rather low net benefits from a fixed exchange rate.

The general literature on currency boards shows that currency boards are only one element of a stabilization package which aims at reducing inflation drastically in the short run and which includes a complete and radical reform of all policy areas in order to improve the functioning of market forces. Only such a full-fledged program constitutes credibility. The currency board as a rule to restrict money supply on the basis of domestic assets needs rather than produces credibility (Schweickert 1998a). In order to preserve the viability of currency boards countries need to maintain strict policy discipline and be prepared to deal with large capital inflows and asymmetric shocks (Gulde-Wolf et al. 2000). Hence, emerging market economies with currency boards need an opt-out strategy because a flexible exchange rate system is more adequate to smooth real exchange rate adjustment and to maintain real growth of GDP which is, after successful stabilization, the primary target of macroeconomic policy (Schweickert 1996). Contrary to other countries like Argentina, EU member countries and the remaining accession countries are in the privileged position that they have a fully credible opt-out strategy, i.e., the adoption of the euro.

Over a longer period of time, this has already been exercised by Ireland (Schweickert 1998b). As was the case in the transition countries, the Irish currency board was introduced when the country became independent in 1927. The peg to the British pound was maintained until 1979 when the country entered and maintained membership in the various European exchange rate mechanisms. Finally, the macroeconomic reforms that started in the 1980s allowed the country to become an undebated founding member of the EMU. The Irish experience exemplifies that meeting OCA criteria may help

to sustain a fixed exchange rate, but the criteria are endogenous to some extent and they do not constitute necessary conditions for successful monetary integration. Success is rather determined by the credibility and consistency of the macroeconomic reforms designed around the currency board system.

The experience with the currency board systems in Estonia, Lithuania, and Bulgaria support this argument (Gulde-Wolf and Keller 2002). As shown in Figure 4, inflation has been brought to low single digits in all three countries, while the (above-average) real appreciation is based on an above-average growth performance after the deep transition crises. The macroeconomic performance was supported by a prudent fiscal stance, and even external shocks, such as the Russian crisis in 1998–1999, have not led to persistent current account imbalances if it is accounted for the fact that they have been partly or fully financed by foreign direct investment flows. At least, there is no evidence that the absence of an active exchange rate policy and the constraints placed by the currency board exacerbated the effects of external shocks or led to increasing internal or external imbalances while, at the same time, the discipline demanded by the currency board system may have supported structural reforms.

This is most evident in the case of Estonia (Schweickert 2001b). With respect to trade liberalization and fiscal consolidation Estonia figures prominently among the transition countries. Radical reforms were introduced with the start of the currency board, which was not called into question ever since its introduction. The situation was different in Lithuania, where authorities planned to opt out from the currency board as soon as stabilization would be achieved. However, the success of the currency board strategy as well as the perspective of joining the ERM together with Estonia has led Lithuania to switch from the US dollar to the euro as the anchor currency and to maintain the currency board until full membership in EMU. Bulgaria introduced the currency board even later than Lithuania but the stabilization achieved since 1997 has been remarkable as well. Implementation of complementary reforms allowed Bulgaria to outpace Romania with respect to institutional reforms and to establish its position as one of the next countries to enter the EU (Gawrich and Schweickert 2004).

Hence, more than just a currency board is necessary in order to provide stability, but for countries which are determined to introduce the euro a currency board system may help to establish and maintain credibility within a consistent macroeconomic strategy.

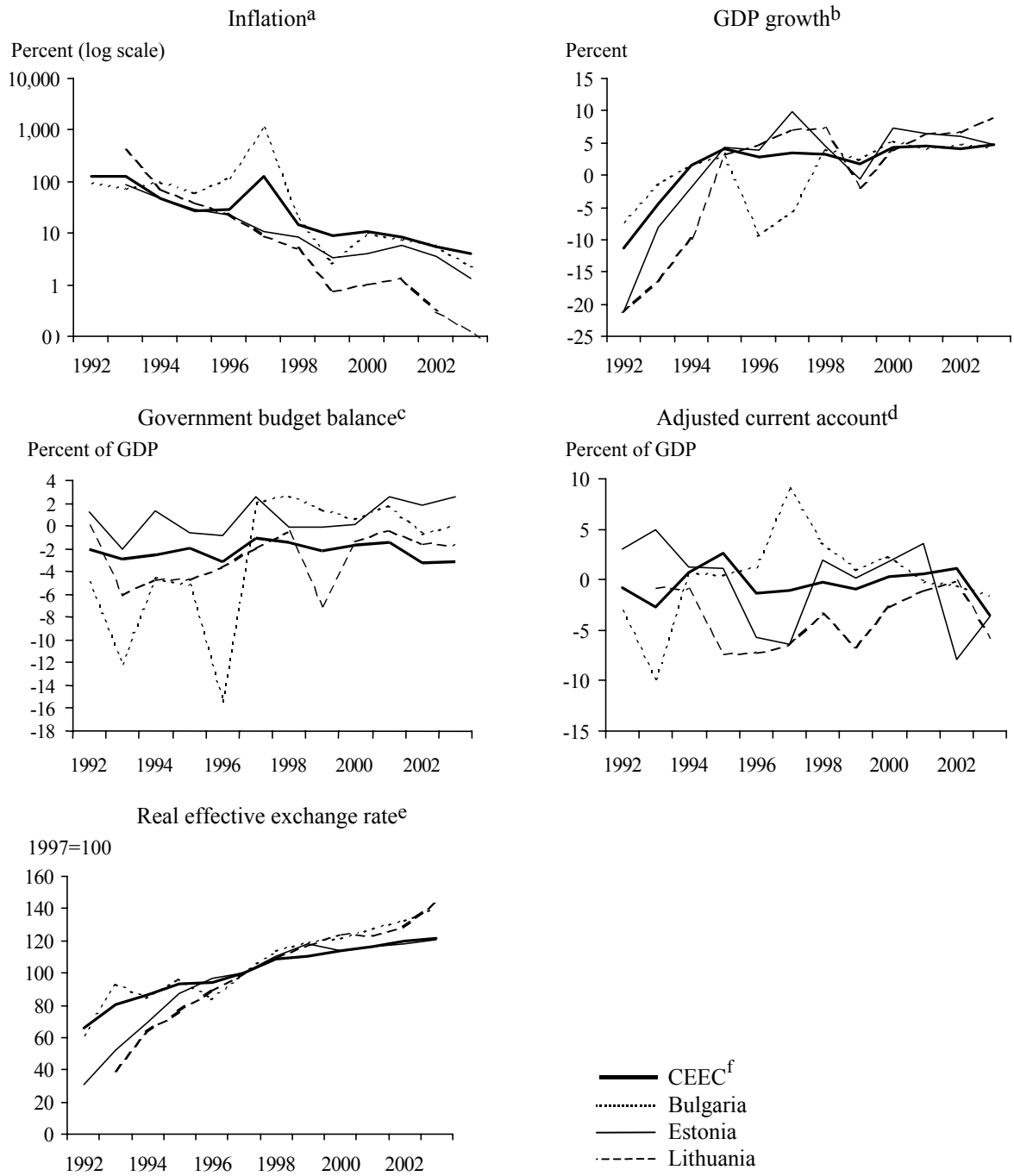
4.2 Gradual Euroization—Inflation Targeting Regimes

Inflation targeting is the announcement by the monetary authority of a formal target or target range for the inflation rate, at one or more future time horizons (due to this it is also called direct inflation targeting as it does not rely, in principle, on intermediate targets like monetary aggregates). It explicitly acknowledges that *price level stability* is the overriding goal of monetary policy, therefore eliminating the problem of potentially conflicting policy objectives. For inflation targeting to work properly, it necessarily implies increased accountability *and* transparency by the monetary authority (Rudebusch and Svensson 1999). Inflation targeting is not a fixed rule but it is better understood as a *policy framework*, whose major advantages are increased transparency, coherence of policy, and room for, in the famous Bernanke and Mishkin (1997: 104) expression, "constrained discretion" by the monetary authority.

Among the NMS, the three economically largest transition countries Poland, the Czech Republic, and Hungary preferred keeping exchange rate policy in their hands over importing monetary credibility from an advanced economy such as Germany.[20] These countries moved gradually away

[20] When one compares the list of countries that adopted currency boards in the previous section and this list of NMS that chose inflation targeting, there are indications of the so-called question of endogeneity of exchange rate regime choice on the economic features of a country (Poirson 2001).

Figure 4:
Indicators of Economic Performance in the New Member States with Currency Board Systems, 1992–2003



[a]Annual inflation of consumer price index in percent. — [b]GDP growth is the annual percentage growth rate of GDP at market prices based on constant local currency. — [c]Government budget balance is based on the central government's current and capital revenue and official grants received, less total expenditure and lending minus repayments. — [d]Adjusted current account is based on the sum of current account balance and net flows of foreign direct investment divided by GDP. — [e]Real effective exchange rate is based on the trade-weighted nominal exchange rate divided by a price deflator. — [f]Average of CEEC consists of Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

Source: DekaBank (2004); Economist Intelligence Unit (various issues); IMF (2004b); Thomson Financial Datastream, "Real effective exchange rate" of various countries accessed on September 3, 2004; World Bank (2004); own calculations.

from fixed exchange rates and introduced different types of inflation targeting frameworks as their monetary policy strategies till they join EMU. Both Poland and the Czech Republic started with a fixed exchange rate system, which became more flexible during the 1990s (Schweickert 2001b; Vinhas de Souza et al. 1999). In Poland the transition from fixed exchange rates to inflation targeting happened through a long, phased-in process that lasted from 1991 to 2000 (National Bank of Poland 1998),[21] while in the Czech Republic inflation targeting arose from an exchange rate crisis (Czech National Bank 2003; Hrnčíř 1997) and was implemented rather swiftly, roughly during the second half of 1997. In Hungary, contrary to Poland and the Czech Republic, monetary policy has been characterized by some form of pegged exchange rate over the entire period of the last 14 years (National Bank of Hungary 2001; Neményi 1997; Surányi 2002). Here, inflation targeting was implemented *in combination* with the ERM II shadowing bands from mid-2001 onwards. VAR-based estimations (Hammermann 2004b) do confirm, to different degrees, the effectiveness of a inflation targeting framework for the three countries above (as one would expect from the previous description, the weakest signs are found for Hungary, where an exchange rate stabilization component in the behavior of the monetary authority is more significant).

There is an ongoing debate on the optimality of inflation targeting regimes for emerging market economies. The critics can be classified into three groups (Truman 2003: 55–58): Inflation targeting is (1) too soft, (2) too rigid, and (3) would not work. The proponents of the "too soft" argument are afraid that a change in preferences about inflation might lead to a change in the corresponding inflation target. The inflation target is not rigid enough to fulfill the requirements of a nominal anchor, as it can be changed. The proponents of the "too rigid" argument are afraid that inflation targeting would be an unnecessary constraint. This argument is mainly limited to the currencies of advanced economies such as the US dollar, the euro, and the Japanese yen. The proponents of the "would not work" argument are afraid that implementing an inflation targeting framework might be too demanding for many countries. All three arguments do not apply to the three EMU accession countries Poland, the Czech Republic, and Hungary. In these countries inflation targeting is not "too soft." The Maastricht criteria guide the inflation target. There is no room for a change in inflation preferences. The critique that inflation targeting is "too rigid" does not apply to emerging market and transition countries. Here, a rigid framework is quite welcome to build up credibility. The last argument that inflation targeting "would not work" can also be rejected, as all three countries have managed to implement an effective inflation targeting framework, although with some limitations in the case of Hungary.

Following Jonas and Mishkin (2003: 5) and the work by Debelle (1997) and Schaechter et al. (2000) the *requirements* for a successful implementation of an inflation targeting framework comprise seven key elements: a strong fiscal position, a well-understood transmission mechanism between monetary policy instruments and inflation, a well-developed financial system, central bank independence and a clear mandate for price level stability, a reasonably well-developed ability to forecast inflation, absence of other nominal anchors, and transparent and accountable monetary policy. Surányi (2002: 185) points out that transition countries have particularly poor knowledge about the transmission mechanism, whereas Jonas and Mishkin (2003: 5) conclude that the degree of fulfillment matters for inflation targeting and that "… the Czech Republic, Hungary and Poland met these requirements to a sufficient degree to make inflation targeting feasible and useful."

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[21] Statistical break point tests show that the period between February and March 1998 is the relevant regime change (Hammermann 2004a; Wickham 2002: 22). The widening of the band in February 1998 marked the change in the regime and not the announcement of the first inflation target in September 1998 or moving to completely flexible exchange rates in April 2000. The delay between the taking office of the new Monetary Policy Council, widening of the exchange rate band, and announcing inflation targeting on the one hand and introducing de jure flexible exchange rates on the other hand can be explained by the fact that changes in the exchange rate policy had to be undertaken jointly by the Cabinet and the central bank (Kokoszczyński 2002: 201–202).

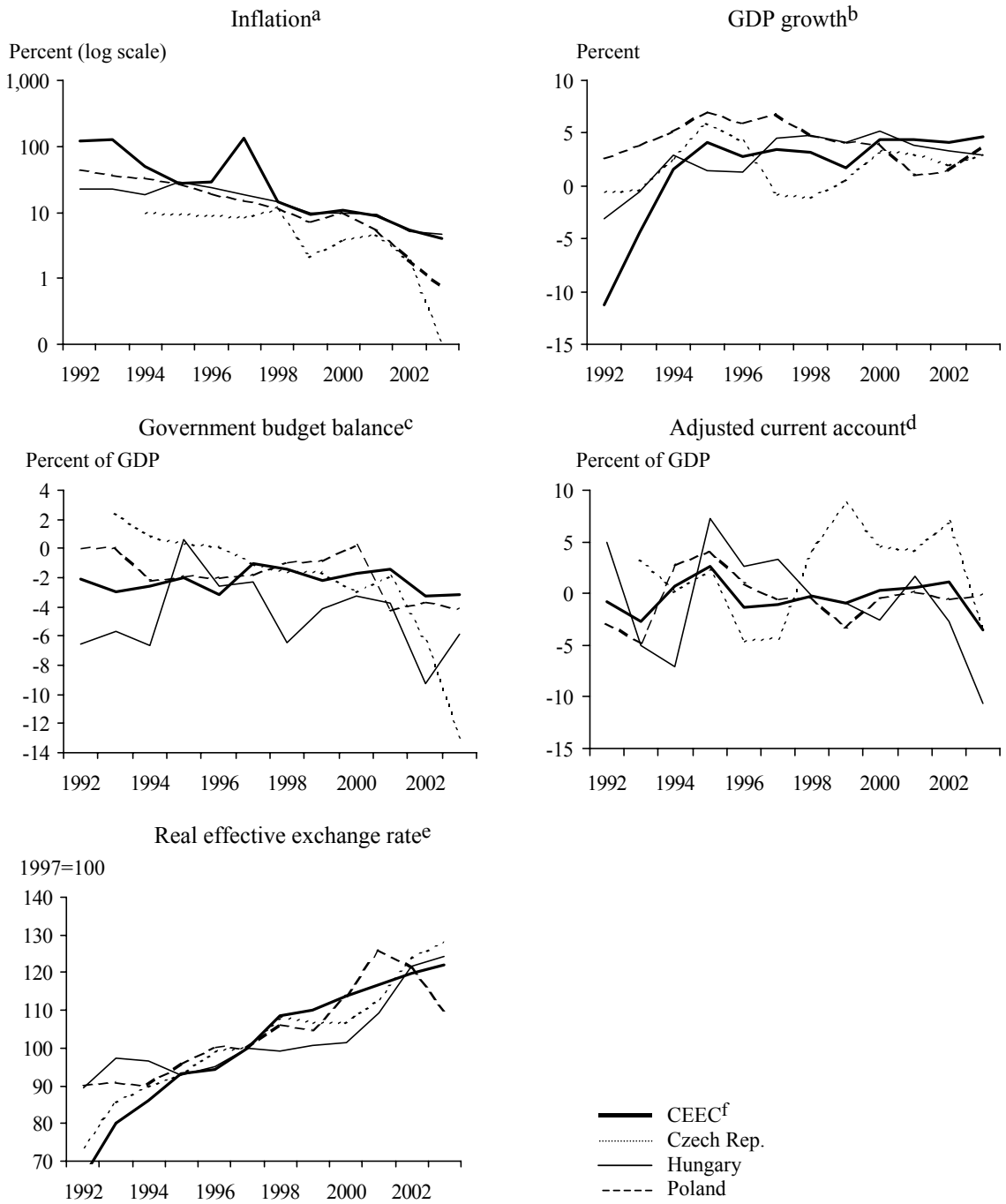
One prominent problem (beyond the fiscal position of these countries) remains: the prevailing *exchange rate arrangements* and the prerequisite that there should not be any other nominal anchors beside the inflation target. Truman (2003) devotes a whole chapter to this problem. He concludes that "… an inflation-targeting framework … does not narrowly proscribe the type of exchange rate regime inflation targeters should adopt" (2003: 189) and that "… under some circumstances, a regime that involves relatively heavy management of the exchange rate may be not only viable but also appropriate" (2003: 190). Further, Truman advocates Williamson's Band, Basket and Crawl (BBC) approach and Goldstein's Managed Floating Plus approach for inflation targeters. Williamson (2000) recommends the combination of an exchange rate crawl pegged to a basket of currencies with a band to allow for fluctuations. Till the mid-1990s such a crawl reinforced the Chilean inflation target and contributed to the disinflation process.

As inflation rates have already converged to low levels in the three EMU accession countries, Williamson's BBC approach might not be relevant for Poland, the Czech Republic, and Hungary. Instead, Goldstein's Managed Floating Plus (2002) might be more appropriate. He recommends a combination of managed floating and inflation targeting. Sterilized interventions would reduce excessive short-term fluctuations in exchange rates while the long-term trend would be fully determined by market forces (Goldstein 2002: 43). Truman (2003: 190) emphasizes that the relationship between the inflation-targeting framework and exchange rate policy needs to be clear. For the three EMU accession countries managing their exchange rates is not inconsistent with inflation targeting. The next step, i.e., joining the ERM II, indicates clearly in which direction the countries move. The previously quoted ECB work (Backé and Thimann 2004: 21) states that "… early entry into ERM II could be seen as less problematic for countries that have followed a unilateral 'ERM II shadowing' strategy …"

The adoption of inflation targeting by the NMS is also supported by empirical evidence on the overall improvement in macroeconomic performance under inflation targeting (Hu 2003). The empirical analysis of 66 countries for the period 1980–2000 revealed that inflation was reduced and growth improved. Additionally, the variability of growth is significantly reduced. Indicators of economic performance in Poland, the Czech Republic, and Hungary also point into this direction (Figure 5). All three countries converged to single-digit inflation rates. Poland and the Czech Republic, i.e., the two countries with strong commitment to the inflation target, achieved particularly low inflation rates. As was the case for the currency board countries, the average inflation rates for the inflation targeters are below the average for all CEEC. Thus, inflation targeting regimes and currency board systems seem to be superior strategies for reducing and keeping inflation low.[22] Due to the flexibility of the exchange rates the inflation targeters achieved this result with below-average real appreciation, a feature that contributes to the viability of the strategy. However, Figure 5 also reveals that, contrary to the currency board countries, economic growth was below-average in the recent years and that this was accompanied by increasing and above-average fiscal deficits. Hence, while the central banks of Poland, the Czech Republic, and Hungary are well on track to join the euro area, their governments have to contribute by meeting the fiscal requirements in order to meet the Maastricht criteria but, even more importantly, to support the credibility of their monetary strategy.

[22] The capacity of credible inflation targeting regimes to mimic the nominal stabilization properties normally associated with harder regimes had already been pointed out in Vinhas de Souza (2002).

Figure 5:
Indicators of Economic Performance in the New Member States with Inflation Targeting Regimes, 1992–2003



[a]Annual inflation of consumer price index in percent. — [b]GDP growth is the annual percentage growth rate of GDP at market prices based on constant local currency. — [c]Government budget balance is based on the central government's current and capital revenue and official grants received, less total expenditure and lending minus repayments. — [d]Adjusted current account is based on the sum of current account balance and net flows of foreign direct investment divided by GDP. — [e]Real effective exchange rate is based on the trade-weighted nominal exchange rate divided by a price deflator. — [f]Average of CEEC consists of Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

Source: DekaBank (2004); Economist Intelligence Unit (various issues); IMF (2004b); Thomson Financial Datastream, "Real effective exchange rate" of various countries accessed on September 3, 2004; World Bank (2004); own calculations.

5 Summary and Conclusions

The overview provided in this paper demonstrated that expectations about additional short-run gains from joining monetary union should not be too optimistic. Most of the expected gains from a monetary union are largely endogenous to credible, time-consistent domestic policies. Mere euro area membership is not a replacement for that. However, monetary integration has a role in supporting such policies and completing monetary integration, i.e., joining the monetary union can lock in the gains realized so far.

The inspection of the NMS status with respect to the monetary and fiscal Maastricht criteria shows that the NMS already made considerable progress in this respect. However, inflation is still a concern in some countries and fiscal deficits in relation to GDP are considerably high, when measured against the 3 percent limit, for the majority of countries. Experience in the run-up to EMU in the second half of the nineties shows that disinflation and fiscal consolidation in similar proportions have been achieved in a number of countries without major damage to growth. Because fears about structural real appreciation seem to be overblown, credible options for the transitional exchange rate system consistent with real appreciation and fulfillment of the Maastricht criteria include currency boards as well as inflation targeting.

The experience with the currency board systems in Estonia, Lithuania, and Bulgaria reveals that successful convergence towards EU stability standards is rather determined by credibility and consistency of the macroeconomic reforms that are designed around the currency board. There is no evidence that the absence of an active exchange rate policy and the constraints placed by the currency board exacerbated the effects of external shocks or led to increasing internal or external imbalances. However, at the same time, the discipline demanded by the currency board system may have supported structural reforms. Hence, more than just a currency board is necessary for economic stability, but for countries which are determined to introduce the euro a currency board system may help to establish and maintain credibility within a consistent macroeconomic strategy.

The inflation targeters Poland, the Czech Republic, and Hungary are also well on track to join the euro area. All three arguments usually put forward against inflation targeting do not apply for EMU accession countries. Inflation targeting is not "too soft" because the Maastricht criteria guide the inflation target, inflation targeting is not "too rigid" because a rigid framework is quite welcomed to build up credibility, and, finally, the inflation-targeting-"would not work" argument can also be rejected because all three countries—although with some limitations in the case of Hungary—managed to implement an inflation targeting framework and, like the currency board countries, clearly outperformed the average CEEC with respect to monetary stability. To be successful, inflation targeting has to be accompanied by thorough banking supervision and thorough fiscal policy: the governments have also to meet their fiscal requirements.

Hence, there is no generally superior exchange rate regime that provides a golden way to bridge the transition period to full EMU membership. While there is no reason to view monetary integration with rose-tinted glasses, there is also no reason to believe that the ERM II provides a safe haven with respect to financial stability. It is not evident that countries with sound and consistent macro policies and fulfilling all criteria—be it Copenhagen or Maastricht—gain anything from just participating in the ERM II. Rather, they still run the risk that market sentiment turns against them even with all the homework done. Hence, the most important value added of joining EMU is to lock in the gains from real and monetary integration that the NMS have achieved so far.

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