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Monetary and Exchange Rate Policy of Transition Economies of Central and Eastern Europe after the Launch of EMU[1]

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Abstract

The more advanced Central and Eastern European Countries (CEECs) face an evolving set of considerations in choosing their exchange rate policies. On the one hand, capital mobility is increasing, and this imposes additional constraints on fixed exchange rate regimes, while trend real appreciation makes the combination of low inflation and exchange rate stability problematic. On the other hand, the objectives of EU and eventual EMU membership make attractive a peg to the euro at some stage in the transition. The paper discusses these conflicting considerations, and considers the feasibility of an alternative monetary framework, inflation targeting.

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As the prospects for accession to the EU increase, and with the launching of the euro on January 1, 1999, monetary and exchange rate policies are likely to face new pressures for further mutation. New members of the EU will be expected to adopt the *acquis communautaire*, and this will include EMU. While no country from the current members of the EU can be forced to join EMU (and countries can deliberately avoid a formal obligation by not meeting all the criteria), it may well be expected that countries negotiating to join would make some commitment to try to become part of the euro-bloc on some mutually agreed time-table. Furthermore, they will be expected in the meantime, between joining the EU and adopting the euro, to participate in the so-called ERM2 arrangement which will limit fluctuations of non-EMU EU countries' currencies relative to the euro. Even before joining the EU, countries negotiating accession may feel that they can improve their chances of a successful outcome through showing that they are good Europeans by pegging to the euro, or in any case orienting their monetary policies around a euro-based exchange rate target.

This paper explores the implications of that choice, and discusses whether alternative monetary policy strategies—and, in particular, inflation targeting—may be more appropriate for some CEECs at this stage in their transition process. Two hazards are identified with a premature euro peg: first, that capital flows to CEECs, like those to many emerging markets, may be strong and volatile, making the defense of pegged rates difficult; and second, that faster productivity growth or a trend increase in non-traded goods prices may produce a trend real exchange rate appreciation, which would be inconsistent with a combination of nominal exchange rate stability and low inflation. It is recognized, however, that EU membership seems a likely and desirable goal for most CEECs, both because of political reasons and

because of the gains from increased trade, and hence integration with Western Europe, and adoption of the euro, are likely long-run objectives. The relevant questions are not whether, but when, such a policy should be adopted, and also how to assure a smooth convergence to EMU membership.

After a brief review of the macroeconomic performance of CEECs, the paper considers the implications of EMU for them. Data for a very simple "optimum currency area" criterion are presented in order to assess the advisability of pegging to, or adopting, the euro in the current situation. In addition, the prospects for capital flows are considered. Then, the requirements for an effective inflation targeting framework are discussed as well as the potential benefits of such a strategy. The paper concludes that inflation targeting is unlikely to be the simple answer to the dilemma, and that in practice a hybrid strategy giving a weight to both the exchange rate and inflation is likely to emerge in the transition to EMU membership. This is not necessarily incompatible with the ERM2, at least in principle; however, it is important for the latter not to take on the excessive rigidity that characterized the ERM in the early 1990s.

II. Exchange Rate Arrangements and Macroeconomic Performance to Date

After an initial period of sharp output declines (though the data are subject to measurement problems), by 1994 most CEECs had begun to see positive growth. There have also been substantial inflation reductions though, for some countries (especially Albania,

Bulgaria, and Romania), inflation rose sharply after an initial decline (Table 1).[3] By 1997, all countries except the above three were seeing robust growth, and inflation rates were in the single digits or low double digits. Thus, convergence toward EU levels was being achieved both on the real side, through higher per capita growth than in the EU, and on the nominal side, with declines of inflation toward EU levels.

This common pattern was associated with a variety of exchange rate arrangements. Though exchange rate fixity was an initial choice for Poland and Czechoslovakia, by 1998 Poland, the Czech Republic, and Slovakia had all moved to greater flexibility.[4] In Poland's case the move to a crawling peg was a deliberate policy to avoid losses of competitiveness associated with inflation that remained persistently above those in industrial countries, while in the Czech Republic, the move to greater flexibility was forced upon the authorities by an exchange rate crisis triggered by strong capital outflows. Estonia has had a long period of successful growth performance while operating a currency board, while Bulgaria has more recently introduced one after failed attempts to stabilize. Hungary has since the beginning of the transition process maintained some degree of exchange rate flexibility, either a managed float or (more recently) a crawling band, though the exchange rate has typically been at one edge of the crawling band so that de facto flexibility has been less than appears. Romania, though nominally allowing the exchange rate to fluctuate, in fact limited fluctuations during various periods of time. Table 2 summarizes current exchange rate arrangements. Depending

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[3]The experience of disinflation has been discussed in a number of articles, some of them collected in Cottarelli and Szapáry, eds. (1998).

[4] See Borensztein and Masson (1993) for a discussion of the early experience.

Table 1. Central and Eastern Europe:
Seigniorage, Inflation, and Government Balance, 1993-97
(In percent)

	1993	1994	1995	1996	1997	Average 1996-97
Seigniorage 1/						
Albania	...	...	5.3	2.7	8.7	5.7
Bulgaria	3.4	6.4	7.4	11.3	10.3	10.8
Croatia	4.9	2.9	2.1	2.0	1.4	1.7
Czech Republic	...	5.7	16.1	-3.9	5.3	0.7
Estonia	9.0	1.4	2.0	2.1	3.6	2.9
Hungary	3.7	3.4	6.2	2.1	2.8	2.5
Latvia	...	2.1	0.2	2.3	3.3	2.8
Lithuania	...	3.3	2.8	0.1	2.1	1.1
Macedonia, FYR	...	2.1	1.4	-0.2	1.2	0.5
Poland	0.7	1.7	3.1	1.6	1.8	1.7
Romania	5.8	3.6	3.0	2.8	4.5	3.7
Slovak Republic	...	2.1	5.4	1.1	2.0	1.6
Slovenia	1.0	1.6	0.9	0.6	0.9	0.8
Memo: Advanced Economies	0.4	0.3	0.2	0.4	0.3	0.4
CPI Inflation (End period) 2/						
Albania	30.9	15.8	6.0	17.4	42.1	29.8
Bulgaria	63.9	121.9	32.9	310.8	578.5	444.7
Croatia	1120.5	2.4	4.6	3.7	5.0	4.4
Czech Republic	...	9.7	7.9	8.6	10.0	9.3
Estonia	37.9	41.6	26.5	14.8	12.5	13.7
Hungary	21.1	21.2	28.3	19.8	18.5	19.2
Latvia	34.9	26.3	23.1	13.2	7.0	10.1
Lithuania	188.6	45.1	35.7	13.1	8.4	10.8
Macedonia, FYR	256.0	58.1	10.0	0.8	5.4	3.1
Poland	37.7	29.4	21.9	18.7	13.2	16.0
Romania	295.5	61.8	27.7	56.9	151.4	104.2
Slovak Republic	...	11.7	7.2	5.4	6.5	6.0
Slovenia	22.9	18.3	8.6	8.8	9.4	9.1
Memo: Advanced Economies	2.9	2.5	2.4	2.5	1.9	2.2
General Government Balance as a Ratio to GDP						
Albania	-9.1	-7.0	-6.7	-10.7	-11.7	-11.2
Bulgaria	-10.9	-5.8	-5.7	-11.0	-6.2	-8.6
Croatia	-0.8	1.5	-0.9	-0.5	-1.4	-1.0
Czech Republic	0.5	-1.2	-1.8	-1.2	-2.1	-1.7
Estonia	-0.7	1.3	-1.2	-1.5	2.4	0.5
Hungary	-8.5	-8.3	-7.1	-3.1	-4.6	-3.9
Latvia	0.6	-4.0	-3.3	-1.3	1.4	0.0
Lithuania	-5.4	-4.8	-4.5	-4.6	-1.9	-3.3
Macedonia, FYR	-13.6	-3.2	-1.3	-0.4	-0.3	-0.4
Poland	-4.0	-2.0	-2.7	-2.5	-1.7	-2.1
Romania	-0.4	-1.9	-2.6	-3.9	-4.5	-4.2
Slovak Republic	-7.0	-1.3	0.2	-1.3	-4.9	-3.1
Slovenia	0.3	-0.2	0.0	0.3	-1.2	-0.5
Memo: Advanced Economies	-4.2	-3.4	-3.3	-2.5	-1.3	-1.9

Sources: IMF, International Financial Statistics, World Economic Outlook database and staff estimates.

1/ The change in reserve money divided by GDP.

2/ From December of previous year.

on those exchange arrangements and the consequent commitments to intervene to limit fluctuations in some cases, foreign exchange reserves have on occasion exhibited large movements, but on average there has been a strong trend increase in holdings of reserves, even as a proportion of imports, which themselves have grown strongly.

Despite differences in exchange regime, a common feature of these economies has been a trend real appreciation, measured on the basis of relative consumer price indexes—at least after an initial short period of sharp and erratic price movements. Such a trend appreciation would be consistent with real wage increases associated with rapid productivity growth, but the experience of CEECs is not necessarily the result of faster productivity growth in traded than non-traded sectors, as in the standard Balassa-Samuelson story. Grafe and Wyplosz (1997) argue that in transition economies, appreciating real exchange rates, i.e., increases in non-traded vs. traded goods prices, are needed to raise wages and output in the under-developed non-traded goods sector (including services).[5] Moreover, any discussion of productivity at the early stages of transition from central planning needs to be tempered by caution, given the uncertain quality of the data and the different speeds of adjustment of output and employment to the dramatic changes occurring in these economies.

A further important feature of the transition process has been a reorientation of trade toward the West, associated with liberalization of trade restrictions, the exploitation of comparative advantage, and the collapse of CMEA markets. Access to EU markets has been

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[5] Other papers discussing the reasons for a trend appreciation of the real exchange rate include Halpern and Wyplosz (1997) and Krajnyák and Zettelmeyer (1997).

Table 2. CEECS: Exchange Rate Regimes

	Exchange Rate Regime	Basket/Target	Fluctuation Band
Albania	Independent floating		
Bulgaria	Currency Board	DM	0%
Croatia	Managed floating	De facto narrow target band vis-à-vis DM	
Czech Republic	Managed floating		
Estonia	Currency Board	DM	0%
Hungary	Crawling peg [1]	Basket: DM (70%) US$ (30%)	± 2.25%
Latvia	Fixed peg	SDR	0%
Lithuania	Currency Board	US$	0%
FYR Macedonia	Managed floating	De facto peg to DM	
Poland	Crawling peg [2]	Basket: US$ (45%) DM (35%), £stg. (10%) FF (5%), SWF (5%)	± 7%
Romania	Independent floating		
Slovak Republic	Independent floating		
Slovenia	Managed floating	De facto shadowing of DM, combined with real exchange rate rule	

Source: Temprano and Feldman (1998).

[1] Mid-point of band is devalued monthly by 0.8 percent.

[2] Mid-point of band is devalued monthly by 0.65 percent.

favored by Association Agreements of these countries with the European Union, which have eliminated EU tariffs and import restrictions, except on agricultural products. As a result, by 1997 the EU was the destination of some 58 percent of exports of CEECs, though the percentages varied widely, constituting only 33 percent of Lithuania's exports but 65 percent of Poland's (Table 3). "Other Europe," which serves as a reasonably good proxy for the countries of the former CMEA, was the destination for a declining percentage of exports of four of the five countries for which a comparison of 1997 with 1990 could be made—all except Bulgaria. However, the average proportion for all CEECs was marginally higher in 1997 than in 1993, with Bulgaria showing substantial increases, and Croatia, Poland, and Slovenia showing more moderate ones.

III. Implications of EMU for Monetary and Exchange Rate Policies of CEECs

The creation of the euro as of January 1, 1999, when 11 of 15 EU countries proceeded to stage 3 of EMU, was a major event for Europe and the international monetary system.[6] The euro became overnight the world's second most important currency, and it can be expected over time to rival the U.S. dollar in importance. For non-EU countries, the euro should be a more attractive currency peg than existing European currencies such as the deutsche mark, because it will underlie a much larger proportion of trade and capital flows, and be based on a deep and liquid capital market. For those reasons also, the euro should eventually gain

[6] For a discussion of some of the international implications of EMU, see Masson, Krueger, and Turtelboom, eds. (1997).

Table 3. CEECs: Trade with European Union and Other European Countries [1/]
(In percent of total exports and imports)

	1990		1993		1997	
	Exports	Imports	Exports	Imports	Exports	Imports
Albania						
EU	47.9	46.3	70.6	87.3	87.5	83.8
Other Europe	30.8	26.4	2.3	2.8	10.3	14.1
Bulgaria						
EU	38.5	51.7	48.0	43.3	45.0	41.9
Other Europe	32.2	17.1	16.1	40.7	39.0	41.2
Croatia						
EU	...	...	56.2	54.7	51.3	59.4
Other Europe	...	...	34.8	29.4	39.0	23.1
Czech Republic						
EU	...	...	55.5	51.1	56.1	61.9
Other Europe	...	...	34.9	37.9	33.0	27.9
Estonia						
EU	...	...	48.3	60.4	56.9	65.9
Other Europe	...	...	45.5	28.7	32.2	22.9
Hungary						
EU	45.4	48.9	57.9	54.6	68.7	64.2
Other Europe	34.2	30.4	27.1	29.8	20.1	19.6
Latvia						
EU	...	...	32.1	27.0	55.4	43.1
Other Europe	...	...	56.7	67.9	28.0	44.8
Lithuania						
EU	...	...	67.2	50.5	37.6	47.4
Other Europe	...	...	25.8	42.2	55.8	46.1
Macedonia, FYR						
EU	...	...	34.5	33.5	41.7	42.2
Other Europe	...	...	50.2	55.2	38.4	46.0
Poland						
EU	54.8	51.4	69.3	64.8	65.1	68.9
Other Europe	25.1	28.0	13.0	13.6	22.5	15.5
Romania						
EU	33.4	21.5	41.4	45.3	56.7	52.5
Other Europe	39.9	39.1	21.9	23.6	18.5	24.0
Slovak Republic						
EU	...	...	29.6	27.9	42.9	43.8
Other Europe	...	...	61.4	63.2	50.3	49.1
Slovenia						
EU	...	...	63.2	65.6	63.6	67.4
Other Europe	...	...	26.5	20.1	28.4	17.6
Averages of above countries						
EU	...	...	55.5	53.0	58.1	60.3
Other Europe	...	...	29.1	30.6	29.9	25.9

Source: IMF, *Direction of Trade Statistics*.

1/ Central and Eastern Europe, plus other countries of the former Soviet Union.

attractiveness as a reserve currency, though in proportions that are hard to gauge.[7]

For countries negotiating accession or contemplating doing so, the euro will have a more direct impact on their monetary policy options. As described in Temprano-Arroyo and Feldman (1998), EMU will have become part of the *acquis communautaire* which new members of the EU will be expected to adopt. Moreover, the EU has decided that no more opt-out clauses from EMU, such as those accorded to Denmark and the United Kingdom in the Maastricht Treaty, will be granted. Temprano-Arroyo and Feldman (1998) note that though transitional periods for joining EMU might be given to new entrants, they are unlikely. Many of the new entrants are not likely to satisfy the Maastricht convergence criteria immediately in any case, so that adoption of the euro will probably not occur until a number of years after EU membership.[8] Though general government fiscal balances are in several cases below 3 percent of GDP, these are not necessarily defined in a way consistent with Maastricht definitions. Quasi-fiscal deficits, if incorporated into the budget, could substantially inflate the figures. Inflation is well above 1.5 percentage points over the three best-performing EU countries, where inflation is currently under 2 percent (see Table 1). In addition, interest rates are considerably above those in the EU, though as recent experience of the former "high-yielding" EU countries has shown, good prospects of EMU membership bring about a virtuous circle of narrowing of spreads.

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[7] An attempt is made in Masson and Turtelboom (1997) to evaluate the risk-return characteristics of the euro, and implications for demands for reserves.

[8] Temprano-Arroyo and Feldman (1998) assess how close CEECs were to satisfying the criteria in 1996-97.

For current EU members, one of the conditions for qualification for EMU has been absence of a devaluation of their currencies for two years in the context of the exchange rate mechanism (ERM) of the European Monetary System, which stipulates that currencies need to be kept within 15 percent of central parities (the normal margins of fluctuation having been widened from 2.25 percent in mid-1993, after a generalized exchange rate crisis in the ERM). With the creation of the euro, the provisions of the ERM, which de jure, if not de facto, treat participating currencies symmetrically, have become inappropriate to a system where the euro (and the European Central Bank) have dominant roles. Hence, an asymmetric system where non-EMU central banks have the primary responsibility for maintaining the stability of their currencies relative to the euro was designed for EU countries which do not yet participate in EMU but are preparing to do so. Acceding CEECs would at some stage be expected to join the ERM2 (which will not be open to non-EU members).

In the meantime, there may also be pressures for limiting exchange fluctuations relative to the euro as countries negotiating accession want to prepare for membership in ERM2 and eventual EMU membership, and perhaps improve their chances of joining the EU by proving their willingness to take necessary measures. For instance, Bulgaria has announced that it intends to translate its currency board from a DM peg to the equivalent exchange rate against the euro, while Lithuania has expressed its intention to change gradually from a dollar to a euro exchange rate peg in the context of moving away from its currency board arrangement.

IV. Is an Early Peg to the Euro Desirable for CEECs?

There are three basic alternatives facing CEECs in their choice of exchange rate policies: 1) a currency board, 2) a band around an adjustable central parity (i.e., the ERM2), and 3) a more flexible exchange rate (such as a crawling band or managed float), perhaps augmented by another nominal anchor for monetary policy (an inflation targeting framework is discussed below). Each has its advantages and disadvantages. A complicating factor is that these must be thought of as transitional strategies, since the ultimate objective for most of these countries is EU (and EMU) membership.

In considering the desirability of establishing a currency board, the crucial factors are the gains to credibility of tying the hands of the monetary authorities and the possible costs if the country concerned is likely to face different shocks from those hitting the currency area to which it is linked. This latter question, emphasized by the literature on "optimum currency areas,"[9] has been considered in great detail for Western Europe in the run up to EMU, but much less so for CEECs.[10] In large part, the scarcity of econometric work for CEECs reflects the lack of adequate data, both because long time series do not exist and even the shorter ones are affected by structural changes associated with the transition process.

A simple measure of exposure to different real shocks would involve comparing the production structures of CEECs and the EU. Similarity would make it less likely that countries would experience very different terms of trade shocks or different world demand

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[9] This work has built on the seminal article by Mundell (1961). See Masson and Taylor (1993) for a survey of the extensive literature on this topic.

[10] A notable exception is the collection of articles in De Grauwe and Lavač, eds. (1999).

conditions for their exports. The data permit only a rough division into industry, agriculture, and "other," mainly services. Not surprisingly, many CEECs have a smaller proportion of their GDP in services, though this share is growing fast, and in 1995 over 60 percent of production was in the "other" category for Croatia, Estonia, Hungary, Latvia, Lithuania, Slovak Republic, and Slovenia. Agriculture constitutes a larger proportion of production in four of the five countries negotiating accession (all except Slovenia) than in any EU country, except Greece. Except for this, the structure of production, at least for those five economies, does not identify obvious problems of potential asymmetric shocks, though one needs to be cautious in interpreting such aggregated data. This is also the conclusion of the econometric analysis in De Grauwe and Aksoy (1999), who find evidence that shocks are correlated with those of EU countries and that business cycles are synchronized. Moreover, these structures can be expected to evolve further in the direction of those in Western Europe.

Because currency boards enhance transparency and are predicated on the maintenance of conservative financial policies, they are generally little subject to speculative pressures. In contrast, an adjustable peg may be especially vulnerable to them, as has been the case in a number of emerging market countries. While this paper is not the place to consider the causes of the crises that originated in Mexico in 1994-95 and in Thailand in 1997, both countries had initially faced strong capital inflows that were suddenly and violently reversed. Moreover, neighboring countries seem to have been subject to contagion effects, which were only partly explainable by their own economic fundamentals.[11] The tremendous expansion of capital flows from industrial to developing and transition economies, though bringing benefits, also tends to

[11] For a discussion of contagion, see Masson (1998).

make exchange rate commitments more fragile. This has led to a trend away from adjustable pegs and toward greater flexibility in exchange rate arrangements.[12]

Chart 1. Average Foreign Direct Investment, Short Term and Long Term Flows to CEE and Baltic Countries, per capita

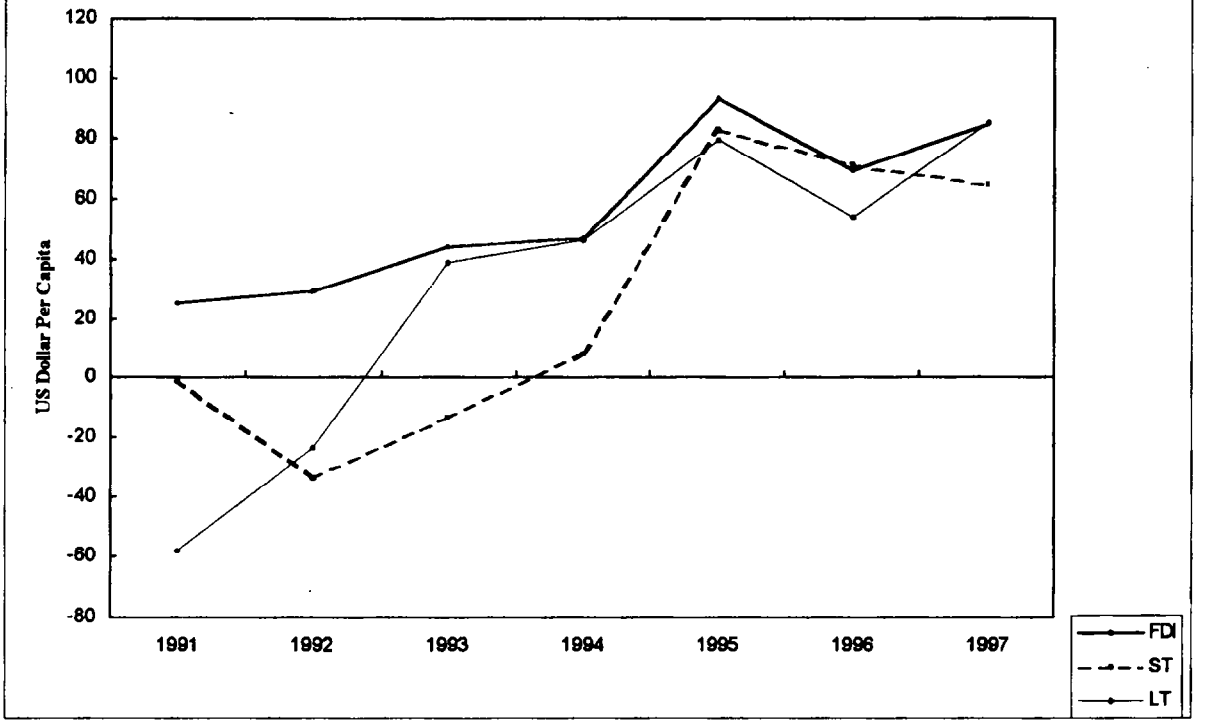

Chart 1 summarizes net capital flows to the CEECs, in per capita terms (in dollars) for the 13 countries included.[13] It can be seen that there has been a strong upward trend in these flows. After a slow start, since 1993 net inflows have exceeded 3 percent of GDP for the whole of the region. Thus, the possibility of a withdrawal, if not reversal, of those flows

[12] See Eichengreen, Masson, and others (1998).

[13] A more complete discussion is presented in Garibaldi et al. (1998).

cannot be ignored. It is true that a substantial proportion of these flows is constituted by foreign direct investment, which tends to be more stable. However, increasing integration and eventual EU membership will lead to a dismantling of capital controls, making it easy for private investors (who are accounting for an increasing proportion of flows) to take large positions against a currency if it is viewed as being vulnerable to attack.

The vulnerability of adjustable pegs suggests a clear preference for currency boards (or fixed pegs in general). But as a transitional strategy, currency boards with their significant legal and institutional commitments may be viewed as too costly if the transition is expected to be short (see Enoch and Gulde (1997) for a discussion of operational issues in setting up a currency board). Moreover, the lack of flexibility of the fixed pegs may be a problem because of different trend behavior of CEECs and advanced economies. As discussed above, transition has tended to produce real appreciation of the exchange rates of CEECs. Such trend appreciation, it is argued, is justified by rapid productivity growth, and hence is not a bad thing in itself: properly measured, competitiveness would not register a deterioration. This suggests both that monetary policy should not try to resist the appreciation, and that if it does, it will in any case not be successful. Nevertheless, the monetary policy choice can be significant because it implies different things for domestic inflation and possibly also for the behavior of real interest rates and real exchange rates over the business cycle. Even if inflation is the result of equilibrium relative price movements, it will be important for policy not to ignore it because one of the qualifying criteria for EMU membership is convergence to EU inflation.

The possible inconsistency between exchange rate stability and low inflation could be the result of faster productivity growth in the traded goods sector than in non-traded goods; this is the standard Balassa-Samuelson model for real appreciation. The Grafe and Wyplosz (1997) model produces the same implications for inflation, though in practice the size of the real appreciation may be considerably larger if it is due to a generalized change in the structure of production, as occurred in the early stages of transition. As Székely (1997) points out, the latter story becomes increasingly less relevant, and, since we are considering the period leading up to the still distant EMU membership, we choose to treat CEECs as being similar to other (fast-growing) developing countries.

The Balassa-Samuelson model implies that stability of the overall price level is only possible if the exchange rate appreciates at rate that equals the product of the share of non-traded goods in the price index and the difference in productivity growth in the two sectors. On the contrary, exchange rate stability will produce higher inflation than in foreign (i.e., EU) countries by that same amount. A rough quantification would suggest that the share of non-traded goods times the rate of technical progress in the tradable goods sector could produce extra inflation of several percentage points a year. Though in this example, such inflation is the result of equilibrium relative price movements, it may be a cause for concern because one of the Maastricht convergence criteria requires that inflation be no more than 1.5 percentage points above that of the best-performing EU members. More generally, the inflation process may also involve inertia that leads to overshooting and loss of competitiveness if left to proceed unchecked.

All three factors—concerns about asymmetric shocks, vulnerability to speculation, and the possibility of trend real appreciation—need to be taken into account in considering the desirable extent of fixity against the euro. Strong capital flows and productivity increases may make nominal exchange rate changes desirable at times, and this is difficult to achieve in the context of a currency board. The ERM crises of 1992-93 underline the dangers of a premature move to an adjustable peg system with insufficient flexibility, so that it provides easy targets for speculation. The ERM2 mechanism, which will link the euro to non-euro EU currencies, is intended to be more flexible than the ERM of the early 1990s, since bands are considerably wider. However, it needs to be recognized that in March, 1995, strong pressures within the wider bands also developed, leading to the devaluation of the peseta and escudo. In practice, well before exchange rates reach the 15 percent limit of fluctuations, strong expectations of a realignment develop, forcing changes in a crisis atmosphere.

Additional considerations include the possible disciplining role of a firm exchange rate anchor on negotiated wage increases and on domestic political pressures toward a more inflationary monetary policy. However, these issues are not discussed here.

V. An Alternative Monetary Policy: Inflation Targeting

It may therefore be useful to consider, at least in a transition period, adopting greater exchange rate flexibility supplemented by other guides or anchors for monetary policy. One obvious alternative is inflation targeting, which has been adopted by half a dozen industrial countries since the late 1980s. Such a monetary policy framework has the advantage that it does not involve trying to defend against speculative attacks, and its transparency can provide

a boost to the credibility of macro policy. Moreover, it targets an important convergence criterion, whose value needs to be close to EU levels for a country to qualify for EMU membership. Indeed, inflation targeting was at one time proposed as a better way to achieve convergence to monetary union than the ERM.[14] However, in order to generate benefits from a firm anchor for monetary policy in the context of a transparent and credible operating framework, inflation targeting (IT) needs to involve more than vague commitments to bring inflation down to EU levels.

As argued in Masson, Savastano, and Sharma (1997), an effective and credible IT framework needs to satisfy certain prerequisites. They include the freedom to carry out an independent monetary policy and a quantitative framework linking policy instruments to inflation. In particular, monetary policies in many developing countries have, at least until recently, been subject to fiscal dominance, in that budgetary deficits have dictated monetary growth. In the absence of developed domestic financial markets, treasuries are not able to finance deficit spending except by resort to the central bank. In these circumstances, central banks cannot effectively pursue any other objective, whether an exchange rate peg, a target for the inflation rate, or one for a monetary aggregate. On the second point, inflation is not controllable in the short run by monetary policy, and therefore hitting a target requires forecasting the effects of policy instruments at a one or two year horizon. Indeed, some (e.g., Svensson (1997)) have characterized IT, as carried out by those advanced countries that practice it, as inflation *forecast* targeting. It is therefore essential to have a reliable and

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[14] Persson and Tabellini (1996). Costs and benefits of the two approaches for EU countries are discussed by Canzoneri, Nolan, and Yates (1996).

generally-accepted way of making those forecasts, so as to justify raising interest rates when necessary to preempt potential inflationary pressures that may not be visible in actual inflation data.

We argued in Masson, Savastano, and Sharma (1997) that in fact most developing countries do not satisfy those prerequisites. In practice, seigniorage is significantly higher in the typical developing country than in industrial countries. Central banks are typically not independent of the fiscal authorities, and even countries announcing inflation targets (such as Israel) have other announced targets which sometimes get in the way of the inflation target. The industrial countries successfully practicing IT do not have other targets assigned to the central bank, though of course maintaining real activity is always an implicit, though deliberately downplayed, objective.

The question then arises whether CEECs satisfy the above prerequisites for successful targeting of inflation. Table 1 gives some illustrative data. It can be seen that estimated seigniorage,[15] like inflation, has declined dramatically, but for all but a few countries (Czech Republic, Macedonia, and Slovenia, where it was below 1 percent) the average for 1996-97 is still significantly higher than for industrial countries. Budget deficits are now reasonably well contained for all but a few countries, suggesting that fiscal dominance is not necessarily a problem. As for measures of central bank independence, the data compiled for instance by Cukierman (1992) already suggested that Hungary ranked with some of the successful inflation targeters, while recent changes to central bank legislation have made some CEECs

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[15]This measure is an imperfect one, in particular for countries that remunerate bank reserves. However, this measurement problem does not seriously distort the comparison of CEECs with Advanced Economies presented in Table 1.

more legally independent than many advanced economies (Cukierman et al., 1998), though one can question whether this also applies to de facto independence. Székely (1997) points out that independence of the central bank removes much of its incentive to use surprise inflation to improve the government's fiscal position.

More problematical are two other requirements of IT identified in Masson, Savastano, and Sharma (1997), namely a political consensus in favor of low inflation and the existence of a stable and predictable relationship linking monetary policy instruments to future inflation. On the first point, it may be felt in some countries that other objectives, especially structural transformations of the economy, should take priority over reducing inflation. To some extent, the crawling peg arrangements of Hungary and Poland reflect that fact. "Price stability" may also mean different things in transition economies; Škreb (1998) argues that the biases identified by the Boskin Report for the United States are undoubtedly larger in CEECs. A target of 5 percent inflation might therefore not be considered excessive. Even that target is not attained in many transition economies, he argues, because of lack of political support.

On the second point, structural changes are bound to affect the stability of relationships for forecasting inflation. Transition economies are likely to face large relative price movements, leading to higher inflation variability than in advanced countries and, in the presence of nominal rigidities, also higher average inflation. Reliable inflation forecasting tools are essential if an IT framework is to deliver inflation close to its targeted value with a reasonable degree of confidence. If not, then instead of aiding to consolidate central bank credibility (and that of macroeconomic policy generally), IT will have the opposite effect.

In sum, inflation targeting, though it has some desirable features for transition economies, also presupposes some features of those economies that are not yet present. In practice, it seems likely that some weight will be given to attaining low inflation without, however, making it the center piece of monetary policy. Over time, as inflation declines and experience with IT develops, it could be that IT would receive increasing weight, as has been the case in Israel. However, this possibility depends very much on what weights the EU wants to give, in considering EMU membership, to exchange rate and price level stability, which we have argued above may be incompatible in the case of CEECs.[16]

One can envision two sorts of transitions to EMU, one in which achieving low inflation is emphasized (and currencies are not too constrained in their fluctuations against the euro), and another in which a close currency link to the euro (e.g., a currency board) is sufficient to prove the fitness of a country to enter into monetary union (even if inflation is significantly higher than in the euro region). It will be important to choose between them in order not to set impossible tasks for acceding CEECs. Not to do so may inadvertently lengthen the transitional period, forcing CEECs to have settled down to the same productivity growth as industrial countries before they can formally enter the euro zone.

VI. Conclusions

We have attempted to present a broad overview of the monetary and exchange rate policy choices facing the transition economies of central and eastern Europe at a crucial

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[16]We have ignored the possible use of fiscal policy to make the two compatible, since typically it is aimed at other objectives and its effects on prices and exchange rates are not easily fine-tuned.

juncture—the launch by the European Union of the euro and preparations for EU accession by several of them. At present, the CEECs are pursuing a number of different monetary policy/exchange rate strategies, but in the future may face tacit pressures to orient those policies toward a fixed relationship with the euro. This paper, while not disputing that membership in the EU and EMU no doubt holds out long-run benefits, has raised two considerations—the likelihood of continuing equilibrium real appreciation and the vulnerability to reversals in capital flows—that suggest caution in attempting to peg to or shadow the euro in the short run. An alternative, inflation targeting, has some advantages over pegged rates but is also unlikely to provide in the short run the single answer to optimal monetary policy choice, given that prerequisites for successfully implementing such a framework are not yet present. In practice, a hybrid system with some weight given to both inflation and the exchange rate may emerge. Furthermore, it will be important for the EU to specify clearly that it is not necessary for CEECs to achieve both exchange rate and price level stability, and which objective should be given priority, as a fixed peg to the euro will imply higher inflation than in the EU if the currencies of the CEECs continue to appreciate in real terms.

A hybrid system would not necessarily be inconsistent with the ERM2, when the latter is put in place. In principle, the ERM2 in its current nebulous form will admit of a variety of possible exchange rate arrangements. It will be important, however, not to limit excessively the degree of flexibility, as occurred in the (narrow-band) ERM of the early 1990s. Even with the wider (15 percent) bands of the present ERM, structural differences between CEECs (should they join such an exchange rate mechanism) and western Europe may make adjustable pegs especially vulnerable to speculative attack.

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