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**“Exchange rate regimes and capital mobility:  
Issues and some lessons from central and eastern European applicant  
countries”**

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**“Exchange rate regimes and capital mobility:  
Issues and some lessons from central and eastern European applicant  
countries”**

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**Abstract**

The five most advanced central and eastern European countries that aspire to join the European Union, EMU and to adopt the euro, have pursued very dissimilar exchange rate strategies up to now. Yet, there is only one instance in which a country was unable to sustain its chosen exchange rate regime. This paper explores two keys to exchange rate sustainability and argues that failure to maintain internal policy consistency and policy credibility is decisive in forced exit. The paper then relates the findings to possible policy lessons for emerging market economies in the Western Hemisphere.

**Keywords:** Exchange rate arrangements, capital mobility, currency boards, monetary union, EU accession countries, emerging market economies.

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## **Introduction**

Interest in studying the appropriateness of various exchange rate regimes has surged again in the last decade, generated by at least three major and interrelated developments:

1. The occurrence of capital surges and reversals associated with the integration of financial markets in the wake of the fast pace of liberalization of capital movements worldwide.
2. The occurrence of a number of exchange rate and payments crises (e.g., the ERM crises of 1992/1993, the Mexican crisis of 1995, the Russian crisis of 1998 and the Asian crises of 1997/1998).
3. The aspiration of central and eastern European countries to join the European Union, Economic and Monetary Union (EMU) and ultimately to adopt the euro.

The motivation of the paper is to explore issues related to the third development in fairly general terms and to elicit lessons emanating from Europe for other emerging market economies, especially those in the Western Hemisphere.

The paper is organized as follows: It commences by giving some background to the developments raised above, followed by a sketch of the initial transition phase and the first ten years of transition. Then two keys to exchange rate sustainability – internal policy consistency and policy credibility – are explored and put into the European context. In a digression, the experiences of Austria and Finland with financial market deregulation and liberalization are briefly contrasted before the relevance of the findings for (smaller) countries in the Western Hemisphere is examined and some policy conclusions are drawn.

## **Some background to the issues**

The first development involving capital surges and reversals led to a re-assessment of the vulnerability of various exchange-rate regimes under conditions of high capital mobility and to a re-examination of the optimal sequencing of the liberalization of balance of payments transactions in general and that of capital transactions in particular.

Yet, while a multitude of exchange rate regimes coexists today among reform countries and other emerging market economies, the many crises around the world involving adjustable peg systems have

led many observers to suggest that viable regimes may be limited to “corner solutions” (fixed pegs in the form of a currency board or free floating)<sup>2</sup>. This so-called Anglo-Saxon approach views hard pegs as providing a simple commitment technology that effectively constrains economic policy and contains a built-in mechanism ensuring high exit costs. This enables hard pegs to bolster credibility and to discourage speculative attacks. On the other end of the spectrum, flexible exchange rates inherently shield the economy from such attacks. However, exchange rate volatility tends to make the flexible exchange rate option very costly for smaller (emerging market) economies.

In contrast, the continental European view is less skeptical about the “intermediate” or adjustable peg systems. This view emphasizes the relative smallness of the economy, close (bilateral) trade relations with the pegging partner, consistent macroeconomic policies, microeconomic reforms and the relevance of political aspirations towards EU and EMU membership. An example for this view is Bofinger and Wollmershaeuser (2000, 22), who argue that for central European applicant countries “a flexible exchange rate target with a relatively wide band is the safest policy option”.

In any event, there is no clear-cut a priori choice for an exchange rate regime. Successful regimes take into consideration the institutional structure of the country and its economic policy environment.<sup>3</sup> In the case of small(er) countries with a history of high or very high inflation rates, unstable and weak governments, or countries undergoing systemic change, adoption of a (hard peg) corner solution can signal a fundamental and permanent change of economic policies. However, such a regime requires sufficient flexibility of wages and of markets to allow for the (real) exchange rate to be mean reverting<sup>4</sup> and to prevent the real exchange rate from drifting too far and for too long away from its (unknown) equilibrium level or from its long-run equilibrium (appreciation) path.

For small(er) countries with clear overall political goals (e.g. accession to the EU and EMU), consistent economic policies, and central banks which have already acquired (some) credibility for sustaining stability-oriented policies, a pegged exchange rate regime can be feasible even under conditions of high capital mobility.

The second development noted above initiated an intensive discussion of issues connected with the fragility of financial systems and poor financial supervision, as well as the role of exchange rate regimes in accentuating banking crises and facilitating contagion.

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<sup>2</sup> Cf. Mussa et al. (2000) or Wagner (2000).

<sup>3</sup> Cf. Frankel (1999).

<sup>4</sup> According to the PPP literature, mean reversion is a very slow process (cf. MacDonald (2000)).

In this context, there are at least two distinct issues: First, there is the need to improve the health of financial institutions by recapitalization and to strengthen their supervision. Second, and related to the vulnerability of various exchange rate regimes, is the alleged propensity of specific exchange rate regimes to deepen and to spread financial crises. Mishkin (1999; 714), for example, argues that “pegged exchange rate regimes are a very dangerous strategy for emerging market economies and can make financial crises more likely”.

The third development deals with economic and exchange rate issues of central and eastern European countries that aspire to join the EU and EMU and eventually to adopt the euro. While this is in some sense a specifically European affair, it raises the issue of adjusting the exchange rate regime as the economy passes through various stages of systemic change. In Eastern Europe, the time span covers the period beginning with the dissolution of the planned economy and ending with the adoption of the euro.<sup>5</sup>

The optimal exchange rate regime may vary over time. The current orthodoxy sees a clear need for sequencing of exchange rate regimes during the transition process. At the beginning of transition, preference goes to pegged exchange rates in order to control (hyper-) inflation, anchor relative prices and build credibility for macroeconomic stability. Later on, after inflation subsides to “low” levels, a more flexible exchange rate regime may be in order. The argument is that more flexibility leaves room for improving government finances, strengthening the financial sector, accommodating asymmetric shocks and of facilitating relative price adjustments. Finally, when these goals have been reached a return to a hard peg of some kind is recommended.<sup>6</sup> The latter includes the option of adopting a foreign currency (“dollarization”/“euroization”) or the formation of a monetary union. In the case of the European applicant countries it means joining an existing monetary union, i.e., EMU with the ultimate goal of adopting the euro.

Such regime issues are of relevance to other emerging market economies, including those in the Western Hemisphere. Hence, the (smaller) emerging market economies in the Western Hemisphere might benefit from evaluating the continental European experiences, both in industrialized and applicant countries, when deciding on moving ahead with their own exchange rate strategies.

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<sup>5</sup> The process of enlargement of the European Union was launched on March 30, 1998. Negotiations are currently underway with the following twelve applicants: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia (“the central and eastern European applicant countries”) as well as Cyprus and Malta. The basic principle of the negotiations is that all the applicant countries must accept existing EU law. See also Oesterreichische Nationalbank (1999), 11ff.

<sup>6</sup> For an exposition of this kind of sequencing see Rosati (1997).

In this context, the experience of Austria, a small and open industrialized European country, might also be instructive. Until the adoption of the euro on January 1, 1999, Austria had pursued a policy of fixing the exchange rate of the Austrian schilling to the Deutsche Mark.<sup>7</sup> The point of interest is to inquire whether, at the time of embarking on a “quasi-monetary union” with Germany by means of the so-called hard currency strategy, Germany and Austria satisfied the optimum currency area conditions for a (fixed) peg. Hochreiter and Winckler (1995) have shown that in Austria the optimum currency area conditions with Germany initially did not exist. That conclusion is based on the dominance of asymmetric real shocks during the 1970s and 1980s.

Why then, was the fixed peg nevertheless sustainable? The key point and important lesson is straight forward. In the Austrian case, the fixed exchange rate between the Austrian schilling and the Deutsche Mark could be maintained over time because real wages were sufficiently flexible. This flexibility emerged in the 1980s, mainly as a consequence of the Austrian system of social partnership and the central bank’s determination to maintain the peg. The social partners reacted in a flexible way to the central bank’s hard currency policy signals, thereby supporting the real economy. In turn, the central bank was aware that it cannot exert any longer-term influence on the real sector. In addition, the sustainability of the exchange rate link may have been facilitated by weakening of the asymmetry of shocks during the period.

## **The initial transition phase**

The starting point for transition for the centrally planned economies was fundamentally different from that of emerging market economies in the Western Hemisphere and elsewhere, because the former countries had to initiate systemic change in virtually all economic and political areas at the same time. This process was unprecedented, because initially

- no market institutions (central banks, financial system, supervisory authorities, bankruptcy laws, property rights, etc.) existed;
- (open) market mechanisms were not allowed to work. All foreign transactions were monopolized and an ever-increasing array of exchange rates governed external transactions. Prices, including exchange rates, were set according to planners intentions and did not reflect relative scarcities. Price subsidization was widespread; and
- hardly any private firms existed.<sup>8</sup>

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<sup>7</sup> Austria acceded to the EU and the EMS on January 1, 1995. In contrast to Finland and Sweden, Austria also participated in the ERM with the normal band of +/- 15 per cent upon accession (for technical reasons on January 9, 1995).

<sup>8</sup> For some stylized facts of a Centrally Planned Economy see Hochreiter (1995).

Then systemic change was introduced. Its prime aims included rectifying the relative price structure, sharply reducing or eliminating subsidies, unifying the exchange rate<sup>9</sup> (at an undervalued level), liberalizing current transactions more or less immediately, and frontloading many of the short- and long-term capital transactions.

These measures produced a surge in the general price level, which was amplified by the unification of the exchange rate at an undervalued level. In many cases, such once-and-for-all changes in the price level turned into high or very high inflation through monetization. As analyzed in Hochreiter (1995), there was pressure on some central banks to finance public deficits even in cases where such activities were severely restricted legally. At times, seigniorage was appropriated to support weak financial institutions (Hochreiter et al. (1996) and (1999)). Thus, there was an immediate need for a nominal anchor to get inflation and inflation expectations under control.

In principle, any nominal variable (money, prices, wages, exchange rate) may serve as nominal anchor. Yet, price and wage controls were out of the question, although there were attempts to introduce wage restraint as a secondary nominal anchor. Inflation targeting was not considered, as there was no technical and econometric expertise available.<sup>10</sup> Thus, policy makers were left with a choice between money supply and exchange rate targeting. Money supply targeting itself was beset with problems because financial markets and policy instruments had yet to be developed. Furthermore, for small transition countries, large short-term swings and longer-term misalignments of floating exchange rates would impede macroeconomic stabilization.<sup>11</sup> Such exchange-rate fluctuations are possible because rates are not driven by fundamentals at all times. Hence, exchange-rate pegging emerged as the preferred strategy early in the transition. Floating exchange rates were only implemented under extreme circumstances, such as in Slovenia and Bulgaria, basically because these countries lacked foreign exchange reserves.

The initial peg, whose major purpose was to get inflation and inflation expectations under control, came in a variety of ways: A peg to the U.S. dollar (Poland), a basket peg (Czech Republic, Hungary and Slovakia) and a peg to the Deutsche Mark (Estonia). Only Estonia opted for a currency board right from the start in 1992 and succeeded in maintaining it at the initial parity of eight Estonian

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<sup>9</sup> The unification of the exchange rate was required because, in the old system, the exchange rate only served the function of a unit of account to convert foreign prices into domestic prices. The proliferation of conversion factors (in some cases even for different products of the same kind) implied that there were, in fact, a myriad of different exchange rates at any given point in time. In the case of Poland, for example, the exchange rate of the Polish zloty was unified in January 1990 at the rate of 9,500 zloty per US dollar.

<sup>10</sup> Cf. Wagner (2000) in this issue.

kroon to the Deutsche Mark. In fact, Estonia would like to maintain the currency board arrangement until it can adopt the euro. All the other pegged regimes have changed over time in one way or another. There were changes in the anchor currency (-ies), moves from a fixed exchange rate to a managed float or a crawling peg, widening of bands, narrowing of preannounced devaluation steps, moves from more flexible arrangements to a currency board, switches from a crawling peg to floating, etc.<sup>12</sup>

The differences in the evolution of exchange rate regimes during the first ten years of transition reflect both the speed and the depth of institutional and microeconomic reform (or lack thereof), as well as successful macroeconomic stabilization. Important factors include the tenacity to pursue microeconomic reforms, decisions to disinflate fast or gradually, success in developing and strengthening the financial system, establishment of effective banking supervision, advances in hardening the budget constraint, securing of fiscal soundness and proper sequencing of capital account liberalization.

## **Two keys to exchange rate sustainability**

In ten years of transition, economic and institutional developments have varied considerably across countries. This is true for real GDP and other macro variables, for micro adjustment and for institution building. Some countries have been advancing much more quickly than others. Considering overall macroeconomic performance, prevalence of market institutions, and the size of microeconomic restructuring, the Czech Republic, Estonia, Hungary, Poland and Slovenia have advanced most.<sup>13</sup> Interestingly, the Czech Republic, after a good start, has encountered sizeable problems more recently, especially in terms of overall economic performance and stability in the financial sector. Indeed, as the EBRD Transition Report 1999 points out, reforms of the financial sector lagged relative to progress in privatization, trade and in the foreign exchange system. Conversely, Hungary, after a “reform pause” around the mid-1990s, has advanced rapidly thereafter (e.g., continuation of privatization, pension reform, foreign exchange liberalization, amendment of banking act, etc.).

The decisive point in our context is that the five countries under discussion pursued very dissimilar exchange rate policies, which, in three of them, were changed several times during the 1990s. Only

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11 Cf. Bofinger and Wollmershäuser (2000).

12 For a more detailed description of the evolution of exchange rate regimes in the early years of transition, see Hochreiter (1995) and for the 1990s as a whole, Backé (1999) or Tullio (1999).

13 Cf., EBRD Transition Report 1999; for the state of institutional reforms, see Table 1 in the annex.

Estonia and Slovenia have thus far stuck to the initial regime. In addition, all five countries have gone fast and far with capital account liberalization, with Estonia having removed all restrictions and Slovenia, taking a more cautious approach, being the least advanced in this respect. Finally, all five countries desire to join the European Union, EMU and to adopt the euro as early as possible.

Thus, as an empirical matter, more than one exchange rate regime seems to be compatible with high capital mobility and rapid structural and institutional change. But then, what are the most important differentiating factors?

### ***Key one: Internal consistency of policies***

One key to the sustainability of an exchange rate regime lies in the internal consistency of economic policies. Since Mundell's seminal work on the assignment of policy instruments under different exchange rate regimes, we know that the exchange rate regime determines and limits the government's and the central bank's degrees of freedom as they pursue non-inflationary growth paths. The problem of managing multiple policy goals is particularly acute in transition and emerging market economies. The (continued) need for disinflation, structurally based relative price changes, demands on public funds left over by the old system, large amounts of bad loans and the necessity for micro adjustment make adherence to internally consistent policies over extended periods a daunting task. At the same time, such consistency is required to earn the credibility and confidence needed to attract and retain domestic and international investors.

A small transitioning or emerging market economy that opts for a fixed peg cannot at the same time use monetary policy as nominal anchor and must pursue a fiscal stance which gives the growing private sector room to expand. It is thus crucial for the authorities to observe the rules of the game inherent in the chosen exchange rate strategy. For (hard) peggers this implies the acceptance of constraints on the scope of monetary policy, i.e., forsaking an active monetary policy, safeguarding macroeconomic fundamentals and implementing structural and institutional reforms. For floaters it means pursuing a monetary strategy commensurate with (near) price stability.

The policy slippages that occurred in the Czech Republic in the mid 1990s were instrumental in forcing the Czech National Bank to abandon the peg and to move to a floating exchange rate and inflation targeting in 1997. The main problems encountered were a loosening of fiscal policy,

“excessive” wage increases and a soaring current account deficit,<sup>14</sup> developments which were clearly at odds with the requirements of a fixed peg.

By comparison, the other four countries broadly respected the rules of the game inherent in their chosen exchange rate regime. Hungary, after a “reform pause” towards the mid-1990s, entered a vigorous macroeconomic stabilization and reform path which continues to the present. Poland counteracted overheating tendencies since 1995 by a restrictive monetary policy which was supported in 1998 by a contractionary fiscal policy. This policy mix succeeded to reduce the rate of growth of domestic demand and dampened the current account deficit. Poland was not forced but decided to switch from a peg to a floating exchange rate regime and inflation targeting in two steps in 1999. It did so because it felt that a floating exchange rate with inflation targeting as a nominal anchor was preferable for reasons which mirror the aforementioned “Anglo-Saxon consensus”: “Although the strategy of maintaining a stable exchange rate is easily understood by the economic environment, and it restrains excessively expansionary monetary policy of the central bank, it also has serious drawbacks: (i) it is very difficult to determine the equilibrium exchange rate, particularly in the presence of external shocks, advancing liberalization of foreign exchange transactions and accelerated structural changes in the economy; (ii) under the fixed exchange rate regime, monetary policy has a limited ability to cushion domestic market shocks; (iii) the economy becomes susceptible to adverse developments in the country to which the national currency is pegged; (iv) given the increasing openness of economies and the global nature of financial markets, the countries with fixed exchange rates are susceptible to major crises resulting in high volatility of exchange rates on a large scale. The adoption of such a system would be risky, given the extended convertibility of the zloty along with increasing destabilization of global financial markets”.<sup>15</sup> Similarly, Estonia’s and Slovenia’s exchange rate regimes were considered to be robust precisely because their economic policies were “good”, i.e., internally consistent, with a credible monetary strategy and policy makers in both countries who responded in a timely fashion to changes in the external environment. Given these experiences, we do not see a strong case that corner solutions like a hard peg and floating<sup>17</sup> are inherently better than intermediate regimes.

Yet, as we learned from the Asian crisis, good macroeconomic policies are necessary but not sufficient to secure the sustainability of an exchange rate regime. One reason for the vulnerability of countries with basically sound macroeconomic policies is found in financial sector weakness, which

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<sup>14</sup> Cf. Annual report of the Czech National Bank, various issues.

<sup>15</sup> Monetary Policy Council, Medium-Term Strategy of Monetary Policy 1999 - 2003, National Bank of Poland, Warsaw, September 1998.

<sup>17</sup> Actually, Slovenia manages its float quite heavily.

is an important feature in many transition countries.<sup>18</sup> Moreover, countries that move from a highly regulated to a liberalized financial system appear to be particularly vulnerable to speculative attacks and contagion. Thus, the sequencing of financial market deregulation and liberalization might be of importance. Finally, as noted above, the exchange rate regime itself may accentuate financial sector problems.

### ***The sequencing of financial deregulation and liberalization:***

#### ***A digression on Austria and Finland***

In this context, the very different experiences of Austria and Finland with the effects of financial market deregulation and liberalization might be of interest to emerging market economies.

Austria followed a very cautious approach to domestic financial deregulation and international capital account liberalization ever since the end of the Second World War. The step-by-step approach to domestic financial deregulation was backed by an extremely restrictive foreign exchange law. Its application, however, became more and more liberal over time. Full legal liberalization was only achieved in November 1991 in response to the drive by the EU and other international bodies to fully liberalize international capital transactions and Austria's desire to join the EU.

There are two fundamental points to be made: First, there evolved a growing disparity between the legal status of liberalization and the actual, material degree of liberalization. Second, in sequencing deregulation and liberalization measures, the Austrian authorities tried to free the domestic financial market first. A decisive step was taken with the passage of a very important new banking law in 1979 which freed domestic interest rates, liberalized the establishment of bank branches, and made other significant changes in financial practices. An amendment to this law in 1986 aimed at strengthening prudential regulation of off-balance sheet transactions.

The formal pace of liberalization of capital account transactions (current account transactions were liberalized with the acceptance of the obligations under Article VIII of the IMF Statutes in August 1962) was rather slow and as a rule, long term capital inflows were liberalized prior to outflows and transactions by financial institutions and firms were privileged over those of private citizens. In general, the existing regulations were first applied more and more liberally. Only much later was the regulation itself changed. For example, major banks had been granted licenses for foreign

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<sup>18</sup> Financial sector weakness may also be an important source of economic instability in industrial countries as was the case, for example in Finland at the beginning of the 1990s. Cf. Honkapohja and Koskela (1999).

transactions in the early 1960s. They were, thus already well integrated in the international financial market when formal liberalization was introduced.

In the 1970s, some liberalization reversals occurred in response to capital surges (early 1970s) and to capital outflows (late 1970s). But it is only in the second half of the 1980s that the final drive to formal capital transactions liberalization took place. The formal liberalization measures of November 1, 1986 focused on travel expenditures and the use of credit cards. Foreign exchange and credit card use had, however, been allowed on a fairly large scale for a long time. Similarly, the next legal step in early 1989, focusing on long-term capital movements and transactions by banks for their own account, had little effect in practice.

After January 1, 1990, all foreign exchange transactions were permitted, provided that they were effected through Austrian banks. Exceptions were the opening of foreign bank accounts by private persons and related transactions such as foreign issuance of securities by domestic borrowers and loans raised by domestic non-banks from non-residents. The liberalization process was completed on November 4, 1991.

Moreover, the final drive of capital account liberalization that began in the second half of the 1980s coincided with major tax reforms in 1989, which also included a significant reduction of personal income taxes, a halving in the number of tax brackets and a slashing of the corporate tax to a uniform rate of 30 per cent. This period also marks the beginning of a period of very strong economic expansion with real growth rates above 4 per cent per annum, which lasted until the European recession in the wake of German unification.

The reaction of the population to formal liberalization, tax reform and strong economic growth was “mute” in the sense that no exceptional behavior in bank lending, credit growth or capital flows could be detected; nor were there any signs of speculative attacks against the Austrian schilling. Up to 1979 there were, however, official attempts to disconnect Austrian interest rates from those abroad. This policy was clearly inconsistent with the requirements of a peg, it was abandoned towards the end of 1979 after the Oesterreichische Nationalbank had lost about one third of its foreign exchange reserves.

## ***Finland***

The Austrian experience is in stark contrast to that of Finland, despite a number of *formal* similarities. As in Austria, the Finnish financial sector was tightly regulated and capital controls were in place into the 1980s. Similarly, early deregulation measures took place around 1980 (1979 in Austria and 1983 in Finland), with the bulk of deregulation and liberalization taking place in the second half of the 1980s. Tightly regulated financial markets, whose regulations were flouted by enterprises and banks lead to speculative attacks on the Finnish markka, forcing a devaluation in the early 1990s and ultimately a move to floating. Nothing of the kind happened in Austria. Economic growth was strong in both countries in the second half of the 1980s, but no overheating occurred in Austria.

The Finnish economic crisis of the early 1990s has been connected to the heavy capital inflows linked with the so called stable markka policy, the problematic timing of deregulation and liberalization measures (introduction of the measures during an economic upswing), unfortunate sequencing of domestic deregulation measures, the tax treatment of interest payments and to moral hazard behavior by banks.<sup>18</sup>

These different experiences clearly are of relevance to by those applicant countries, which will have to complete the liberalization of capital transactions before EU entry<sup>20</sup>. They are also pertinent to emerging market economies. Without more research it is impossible to pinpoint precisely the main reasons for these different experiences. It is, however, most likely that the pragmatic and gradual, increasingly liberal application of formally restrictive legislation allowed Austrian financial markets and economic agents to become integrated into international markets more smoothly than those in Finland. By the time legal change came, restrictions on foreign exchange transactions were an empty shell.<sup>21</sup> Hence, formal liberalization (and deregulation) did not represent further shocks for financial institutions and monetary policy. In addition the broad consensus regarding the hard currency policy that had been generated in Austria in conjunction with the credibility the central bank had earned, made overall economic policies more consistent.

### ***Key two: Credibility***

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<sup>18</sup> For an analysis of the Finnish developments see Lehmussaari, Suvanto and Vajanne (1994), Vihilä (1997) or Honkapohja and Koskela (1999).

<sup>20</sup> In the Baltic countries capital account transactions are already liberalized

<sup>21</sup> In early 1988 Mr. Androsch, a former Federal Minister of Finance, noted that “in Austria the degree of liberalization is higher than in the majority of EC countries”(translation by the author), (Androsch, 1988, 106).

A second key to sustainability of an exchange rate regime lies in the commitment technology inherent in the regime itself. We examine this issue by comparing soft or intermediate pegs with a hard peg like a currency board.

The theoretical problem with intermediate regimes is that they offer easier escape mechanisms for the government and the central bank, allowing them to change course when the going gets rough. Intermediate regimes offer governments and central banks more (demand-side) instruments to counteract recession or external shocks, by slowing down disinflation, by raising fiscal expenditures, etc. This makes it easier to flout the rules of the game of a pegged exchange rate system. The very existence of such opportunities raises the probability of a regime shift and lifts the risk premium. It may thus be more difficult to earn credibility, even where the set of policies remains consistent, i.e., “good” policies continue.

The economics of currency boards are similar to those for a fixed peg. In both cases, the central bank cannot pursue an independent monetary policy. There is, of course, the important difference. Pure currency boards have no domestic source component. Foreign exchange transactions are the only means to influence domestic liquidity. In addition, pure currency board arrangements also do not provide for a lender of last resort function of the central bank.

The fundamental difference between a peg and a currency board can be found in their effects on expectations, i.e., on the probability of exit. It is the lack of easy exit which makes currency boards attractive for policy makers, all the more so, as the empirical evidence suggests that adjustable pegs (or pegs with narrow horizontal bands) are more prone to speculative attacks than currency boards. What could account for that?

- First, the introduction of a currency board arrangement, such as in Estonia (or Argentina), serves as the centerpiece of the government’s macroeconomic stabilization and economic reform policies.<sup>22</sup> With the introduction of a currency board, the central bank clearly and strongly signals its willingness to tie the hands of monetary policy. Similarly, the government signals its determination to tie its hands with respect to fiscal policy as well. As far as the latter is concerned, it can be argued that a currency board provides a built-in version of the European Union’s stability pact for countries outside the EU.

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<sup>22</sup> Cf. Bank of Estonia (1999).

- Second, a currency board typically has very few escape clauses. In the case of Estonia, the Bank of Estonia “has no right to devalue the Estonian kroon”.<sup>23</sup> Thus, parliament would have to decide on a devaluation (but not on a revaluation) by changing the law. If it did, it would be paramount to declaring publicly that the country is no longer able or willing to abide by the rules of the game inherent in such an arrangement. Estonia has consistently and forcefully abided by the rules of the game. As a consequence, the Bank of Estonia has earned a very high degree of credibility and reputation and Estonia by now has become the most flexible and most advanced European transition economy.
- Third, to sustain the currency board arrangement, the authorities need to underpin it by economic and institutional reforms. In Estonia, for example, privatization measures, reform of the banking sector, and measures to make the labor market more flexible were introduced rapidly and decisively and further measures will be introduced as necessary.<sup>24</sup>
- Fourth, the absence of easy exit options and the resulting high cost of a regime shift make policy makers more prudent and more willing to undertake reforms. The government’s determination to pursue reform is also aided by the (near) absence of a lender of last resort and thus the impossibility of a monetary bail-out.
- Fifth, a note of caution: While the absence of easy exit clauses may aid the government’s determination to pursue macroeconomic stabilization and economic reform, a currency board is neither a panacea nor a quick fix. In many instances, the arrangement has only been in force for a few years so that credibility remains fragile. Furthermore, apart from the Asian and Russian crises, the international economic environment has been hospitable to stabilization and reform efforts in transition countries and emerging market economies. Finally, no exchange rate system can eliminate the costs of stabilization and reform, but the currency board may reduce it. Empirical evidence provided by Ghosh et. al. (1999) indicates that currency board countries have at minimum no worse in some cases even better growth performance than countries following other exchange rate regimes.<sup>25</sup>

## **Pegs, Currency Boards and Severe External Shocks: Quit or Stay?**

The introduction of a currency board strengthens the government’s hand in building credibility for sound policies. Yet, credibility still has to be earned. And shocks may occur which severely test that credibility, as may happen when a large important neighboring country devalues its currency. That

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<sup>23</sup> See Law of the Republic of Estonia on the Security for Estonian kroon, RT 1992, 21, 300; June 5, 1992.

<sup>24</sup> Cf. 1999 Annual report of the Bank of Estonia.

<sup>25</sup> The caveats relate to the possibility that the evidence might be biased because currency boards are often introduced after a crisis when GDP is already at a low point.

happened to Argentina when Brazil in January 1999 abandoned the crawling peg to the US dollar, in favor of a float. In the aftermath, the real depreciated by 30 per cent. Such a shock also happened in the Baltic States, in the aftermath of the Russian crisis of 1998 and the even sharper depreciation of the Russian ruble.<sup>26</sup> Could Argentina or Estonia (as well as Latvia and Lithuania) have mitigated the negative effects of the respective crises on their GDP by either devaluing or introducing a more flexible exchange rate arrangement?

Theoretically, Argentina and Estonia could have attempted to shield themselves from the effects of the depreciation of the Brazilian real and the Russian ruble by devaluing in turn.<sup>27</sup> Such a course of action would have (at least partially) safeguarded their competitive positions in important third markets of the US and the EU. Given the substantial depreciation of both the real and the ruble, Argentina and Estonia would have had to allow a commensurate substantial adjustment of their exchange rate as well, if the object was to mitigate the impact on GDP. Would the gains from such strategies have been more than short-lived?

Against such gains, the potential losses from abandoning a proven exchange rate arrangement must be weighed.

- First, such a substantial exchange rate change would have had a sizeable negative impact on inflation and inflationary expectations, would have worsened the fiscal position and would have had an adverse effect on the banking system.
- Second, it would most likely have shattered the credibility of monetary policy that had been accumulated over time and investor confidence, thereby destabilizing expectations.
- Third, unsettled and de-anchored expectations would - in all likelihood - induce (sizeable) exchange rate overshooting, adding to the losses enumerated above.
- Fourth, a rise in the risk premium built into interest rates,<sup>28</sup> with negative consequences for the economy and the banking system, would also have been a likely consequence.
- Fifth, in the case of Estonia, higher inflation and a higher interest-rate differential against the Euro would also run counter to the country's goal of moving swiftly towards fulfillment of the Maastricht convergence criteria.

The main point is that replacing a credible (hard) peg by another exchange rate arrangement could prove to be very costly for a small(er) open economy. This is not to argue that any exchange rate peg

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<sup>26</sup> For some details, see Keller (2000).

<sup>27</sup> The n-1 problem is not addressed by assuming that there are other countries willing to let their currencies appreciate against the real and the ruble.

must be maintained at all cost, as for example, in cases where the exchange rate is seriously misaligned due to policy inconsistencies. But it is to argue that in cases of severe external and internal shocks, the costs and benefits of maintaining a peg versus those of a regime switch need to be very carefully evaluated. The balance of costs and benefits may vary, depending on whether a (relatively) high degree of wage and price flexibility has been achieved or not. For a small open economy, such as Estonia or Austria, the decision to forego one policy instrument by fixing the exchange rate, may, in practice, entail a net gain.

Nonetheless, economic shocks, both external and internal ones, can be so strong as to overstretch the flexibility of the economy and the maneuvering room of the government. In such cases, an otherwise sustainable exchange rate peg may collapse. This applies to industrialized and emerging market economies alike. Finland's exit from the ECU peg at the beginning of the 1990s is an example.

In 1982 Finland had adopted a hard currency approach and in 1986 pegged the Finnish markka to the ECU.<sup>29</sup> As a result of a number of external<sup>30</sup> and internal<sup>31</sup> shocks, Finnish real GDP collapsed by no less than 14% between 1991 and 1993. The relative contribution of external and internal factors to the collapse of GDP remains an open issue. Honkapohja and Koskela (1999) argue that misguided financial deregulation, especially in the second half of the 1980s, combined with a pegged exchange rate, and the failure to reform the tax system that favored debt financing of investments, were a main factor in triggering the Finnish depression at the beginning of the 1990s. This assessment is, in its own right, an important policy conclusion for emerging market economies.

For Finland, the policy issue at the time was whether the peg of the Finnish markka should be maintained or abandoned. In fact, in November 1991 the central labor market organization concluded an agreement that would have lowered nominal labor costs by 7 per cent and nominal wages by 3 per cent. In the end, such an agreement was not concluded, because two blue-collar unions refused to

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<sup>28</sup> The interest rate consequences of the "unwarranted" devaluation of the Dutch guilder vis-a-vis the Deutsche Mark in 1983 might serve as an example that such an outcome is more than hypothetical. (Cf., Hochreiter 1988).

<sup>29</sup> Cf. Hochreiter and Knöbl (1991). Between October 1982 and November 1991 when speculative pressure forced a devaluation, the exchange rate of the Finnish markka remained fixed with one official revaluation in March 1989.

In September 1992, after another speculative attack, the Finnish markka was floated. In February 1993 the Bank of Finland formally adopted direct inflation targeting. As part of the preparation for EMU, the central parity vis-à-vis the ECU was defined in October 1996.

<sup>30</sup> Collapse of the Soviet Union, whose share in Finnish exports was some 15% (1991); economic downturns in the UK and Denmark, both important Finnish trading partners; the rise of interest rates in Germany after the unification shock.

<sup>31</sup> Policy tightening in 1989 in response to the overheating of the economy, followed by high interest rates which induced speculative attacks. The devaluation and initial further weakening of the currency after the decision to float added to the cost of foreign currency denominated debt of domestic firms. Declining asset prices contributed to debt deflation.

lend their support.<sup>32</sup> Ultimately, the peg had to be abandoned in September 1992 after the Finnish markka had already been devalued by 12.3 per cent in November 1991. It was replaced by a floating exchange rate regime, where the nominal anchor was provided by an inflation target. By March 1993 the Finnish markka had depreciated by 24 per cent before appreciating again.<sup>33</sup>

Returning to Argentina and Estonia (as well as Latvia and Lithuania) these countries apparently concluded after the Brazilian and Russian crises, respectively, that the possible long term cost of a regime shift in terms of loss of credibility was higher than the loss of output in the short term and stuck to the “pre-crisis” exchange rate regime. It is noteworthy that both countries did so in spite of a quite severe economic downturn that occurred in their economies after these crises.

### **Joining a Currency Union: Does it make a difference for the sustainability of the preceding exchange rate regime?**

There is one important aspect for the central and eastern European applicant countries (and Cyprus and Malta) that emerging market economies in the Western Hemisphere and elsewhere lack. It is the desire to join the EU and to adopt the euro. Accession to the EU requires fulfillment by the candidate countries of the so-called “Copenhagen criteria”.<sup>34</sup> In their economic dimension these criteria include “the existence of a functioning market economy and the capacity to cope with the competitive pressure and market forces within the Union.” Note that the new EU members will, from the date of their accession, also participate in EMU and will assume the rights and obligations, which constitute the third stage. But, until these countries satisfy the conditions necessary to adopt the euro, they will be granted a derogation under Art. 122 of the Treaty.<sup>35</sup>

For the adoption of the euro itself, the fulfillment of the so-called “Maastricht criteria”<sup>36</sup> is required. These criteria stipulate that monetary policy satisfy the inflation and interest rate criteria, fiscal policy satisfy the criteria on budget deficits and public debt and, as currently envisaged, that the currency participates in the ERM2 for a period of two years without having requested a devaluation.

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<sup>32</sup> Bank of Finland (1991: 9-10).

<sup>33</sup> Cf. Akerholm (1994) or Lemhussaari and Suvanto (1994).

<sup>34</sup> Referred to as Copenhagen criteria due to the European Council at the level of Heads of States or Government held in Copenhagen in June 1993. In addition to the economic criteria, the Copenhagen summit defined the following criteria for EU membership for the candidate countries:

( i ) the stability of institutions guaranteeing democracy, the rule of law, human rights and respect for the protection of minorities, and

(ii) the ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.

<sup>35</sup> Cf. ECOFIN (2000).

The final decision regarding the adoption of the euro is a *multilateral* decision, which is to be taken by unanimous vote by the European Council at the level of Heads of States or Government.

The political aspiration of joining the EU and the policies required to be able to accede has an influence on the sustainability of a peg prior to EU accession. On the one hand, this decision affects market expectations and, on the other hand, raises the commitment of economic policies and hence the credibility of economic and monetary policy measures. Insofar as the strategic exchange rate decision in the phase up to EU accession (the pre-accession phase) was to peg the exchange rate, an intermediate exchange rate may be less exposed to speculative attack even in the context of high capital mobility. It is uncertain what kind of political commitment by emerging market economies in the Western Hemisphere could be a suitable substitute for accession to the EU. Perhaps a credible commitment to dollarize could exert a comparable positive influence on market expectations and policy credibility.

## **Policy lessons for the Western Hemisphere**

While one should be careful not to draw too many lessons from the experience of European transition countries mainly because of the political dimension of the European integration project, there are some basic economic policy messages regarding the sustainability of an exchange rate regime that could be useful for emerging market economies when choosing an exchange rate strategy.

### Lesson 1

More than one exchange rate regime appears to be compatible with full capital account liberalization. It is not so much the exchange rate regime that matters as the will and ability to observe the rules of the game of the given exchange rate regime. For pegged systems, *internal policy consistency* requires the rejection of independent monetary policy and the subjection of fiscal policy to appropriate constraints.

### Lesson 2:

Quite apart from the importance of securing a healthy financial system, the issue of proper sequencing of domestic financial deregulation and international financial liberalization is a weighty factor for sustaining an exchange rate peg.

### Lesson 3:

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<sup>36</sup> Cf. Protocol 5 of the Treaty for a detailed description of the convergence criteria.

For a small(er) country, a currency board may offer least cost adjustment to price stability, *provided* that the authorities can credibly commit to sound macro policies and appropriate micro adjustment. *The high cost of a regime switch adds to the credibility of the currency board.* The decisive difference between a fixed peg and a currency board is their effect on expectations.

Lesson 4:

The effects on credibility of the intention of European transition countries to *join the EU* and – later - to adopt the Euro may help make *intermediate exchange rate regimes less vulnerable* to attack even under conditions of high capital mobility.

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**Table 1: Transition Report rankings**

Country	Pop. (mln)	Private sector Share of GDP	Large-scale privatization	Small-scale privatization	Governance & Enterprise reconstruction	Price liberalization	Trade & Foreign Exchange System	Competition Policy	Exchange Rate Regime
<b>Czech Republic</b>	<b>10.3</b>	<b>75</b>	<b>4</b>	<b>4+</b>	<b>3</b>	<b>3</b>	<b>4+</b>	<b>3</b>	<b>3</b>
<b>Estonia</b>	<b>1.5</b>	<b>70</b>	<b>4</b>	<b>4+</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>3-</b>	<b>3</b>
<b>Hungary</b>	<b>10.1</b>	<b>80</b>	<b>4</b>	<b>4+</b>	<b>3+</b>	<b>3+</b>	<b>4+</b>	<b>3</b>	<b>4</b>
<b>Poland</b>	<b>38.7</b>	<b>65</b>	<b>3+</b>	<b>4+</b>	<b>3</b>	<b>3+</b>	<b>4+</b>	<b>3</b>	<b>3</b>
<b>Slovenia</b>	<b>2</b>	<b>55</b>	<b>3+</b>	<b>4+</b>	<b>3-</b>	<b>3</b>	<b>4+</b>	<b>2</b>	<b>3</b>

Progress in transition measured on a scale from 1 to 4+ with 4+ signifying standards comparable to advanced industrial economies.

SOURCE: EBRD (1999)



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