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Some implications of EU membership on
Baltic monetary and exchange rate policies

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Some implications of EU membership on Baltic monetary and exchange rate policies

Abstract

This paper examines possible effects of EU membership and the shift to the euro on the monetary and exchange rate policies of Estonia, Latvia, and Lithuania. The Baltics, which have extensive economic integration with euro-area states, all apply monetary policies based on fixed exchange rates. Estonia's kroon is pegged directly to the euro. The external value of the Latvian lats is determined by a currency basket with a heavy euro weighting. Lithuania is currently shifting its peg of the litas from the US-dollar to a euro-dominated basket. The switch to the euro as the Baltics' anchor currency has compelling practical reasons. Euro-area countries now provide a significant share of foreign direct investment into the Baltics and they collectively comprise the Baltics' largest trading partner. The Baltic financial sectors are also extensively integrated with the euro area. Finally, the Baltic economies are natural candidates for fixed exchange rates, due to their small size and openness. Nevertheless, fixed exchange rate regimes always involve risks. Two of the biggest challenges facing the Baltic states are finding ways to keep productivity growth in line with real wage growth and increasing the flexibility of labor markets.

JEL classification numbers E5, P2

1 Introduction

While membership in the European Union can affect an applicant country in many ways, this study confines itself to possible effects of EU membership on monetary and exchange rate policies in the case of the Baltic states. In their preparations for full participation in the euro area, we also examine what Stage Three of Economic and Monetary Union (EMU) might mean for the conduct of monetary policy and exchange rate policies in the Baltics. While there is most certainly a political dimension to all this, I confine the analysis to economics.¹

The start of Stage Three of EMU at the beginning of 1999 changed the global environment for monetary and exchange rate policies. Obviously, those countries with the most extensive trade and investment ties with the euro area feel this change strongest. Among the most affected are the transition economies of Central and Eastern Europe (CEECs), including the Baltics. The Estonian kroon, once pegged to the D-Mark, is now pegged to the euro. The Latvian lats is now valued according to a currency basket with a heavy euro weighting. Lithuania is currently in the process of abandoning its currency board arrangement, and evidently will peg the litas directly to the euro or to a currency basket in which the euro figures significantly.

The choice of an appropriate exchange rate arrangement in pre-accession countries poses a range of hard choices. Some of the larger transition economies in Eastern Europe have opted for relatively free-floating exchange rates. In Poland's case, for example, such an arrangement is feasible due to the size of the Polish economy and the liquidity of Poland's foreign exchange market.

The exchange rate arrangements chosen by the Baltic states essentially determine the type of monetary policy their central banks can pursue. Presently, all Baltic countries use fixed exchange rate regimes. Estonia and Lithuania continue to use a currency board, an arrangement whereby the country's foreign currency reserves are maintained at a level sufficient to cover the monetary base at all times. Lithuania is abandoning its currency board, but has announced that the external value of litas will remain fixed.

Because the Baltic economies are small and open to foreign trade, they are excellent candidates for a fixed exchange rate regime. Since the euro-area bloc constitutes the largest single trading partner for the Baltics, the euro is also the natural anchor currency for the Baltic countries. Moreover, because of the thinness of Baltic capital and foreign exchange markets, free-floating regimes could expose these countries to large swings in the external value of their currencies.

Whatever regime is used, the Baltics still need to keep a close watch on the development of the real value of their currencies. Most economists agree that the Baltic currencies were considerably undervalued when they were introduced. However, real effective exchange rates have appreciated so much in recent years that overvaluation is the issue today. In the cases of Estonia and Latvia, brisk growth in labor productivity has apparently staved off severe overvaluation, even in the face of large external imbalances. In Lithuania, however, labor productivity growth has clearly failed to keep pace with real wages.

Under the EU's principle of *acquis communautaire*, Baltic economic policies officially become a common EU concern when the Baltics are granted EU membership. In the case of exchange rate and monetary policies, the principle probably needs to be invoked even before the Baltics join the Exchange Rate Mechanism 2 (ERM2). Countries should probably join the ERM2 only when they are ready to join the monetary union. This would happen at the point when the needed real appreciation of the currencies (because of positive developments in productivity) has to a large extent already taken place. If a country is a member of the ERM2,

and its productivity growth is much larger than that in the euro area, then its inflation must also be clearly higher than in the euro area, because the real appreciation of the currency cannot happen through changes in the nominal exchange rate. This in turn could threaten the Maastricht criterion on inflation.

The paper is structured as follows. Chapter two reviews the historical developments of the exchange rate and monetary policy in the three Baltic countries since regaining independence. We also look briefly at the development of Baltic banking systems, as they are very important to the conduct of monetary policy. Chapter three explores the possible and probable consequences of the introduction of the euro in the Baltic countries. In addition to monetary and exchange rate policies, we consider integration of the Baltic countries with the euro area in terms of foreign trade, capital flows, and financial systems. Chapter four examines exchange rate and monetary policy options in the period leading up to EU membership.

2 A brief history of Baltic monetary and exchange rate arrangements

Starting with Lithuania, the three Baltic countries declared their independence from the Soviet Union in the latter half of 1991. The process of economic reform started in the Soviet Union at the end of the 1980s included the three Baltic republics. The first commercial bank in the Soviet Union was in fact established in Estonia in 1989 (Korhonen, 1996b).

This chapter discusses economic development in the Baltic countries during this decade. The section on currency reforms and exchange rate arrangements draws heavily on Lainela & Sutela (1994), as well as Korhonen (1996a), Korhonen & Pautola (1997) and Pautola (1998). The main reference for the section on banking sectors is Korhonen (1996b).

2.1 Currency reforms and exchange rate arrangements

Currency reform was an important component in the economic reforms of the Baltic countries. When prices in Russia were freed at the start of 1992, monthly inflation quickly jumped to over 30% as prices rose to eliminate the monetary overhang.² After this first initial change in the price level, monthly inflation ran at approximately 10% during the first half of 1992. In June 1992, monthly inflation jumped to almost 30% and stayed there for nearly five months. Naturally, the external value of the ruble depreciated strongly during this period. In the Baltic countries, which were still part of the ruble area during the first half of 1992, the instability of the ruble prompted monetary authorities to seek alternative monetary arrangements. The three newly independent countries also wanted to assert their independence from the old regime in the monetary sphere.

2.1.1 Estonia

Estonia was the first Baltic country to introduce its own currency. Eventually, the Estonian authorities decided to adopt perhaps the most rigid and credible form of currency peg, a currency board system, whereby a central bank's outstanding liabilities would always be backed 100% by its foreign currency reserves. Under the strictest possible currency board, variations in currency reserves would translate immediately into changes in the monetary base. In practice, countries that adopt currency boards usually retain some discretion over the monetary base.

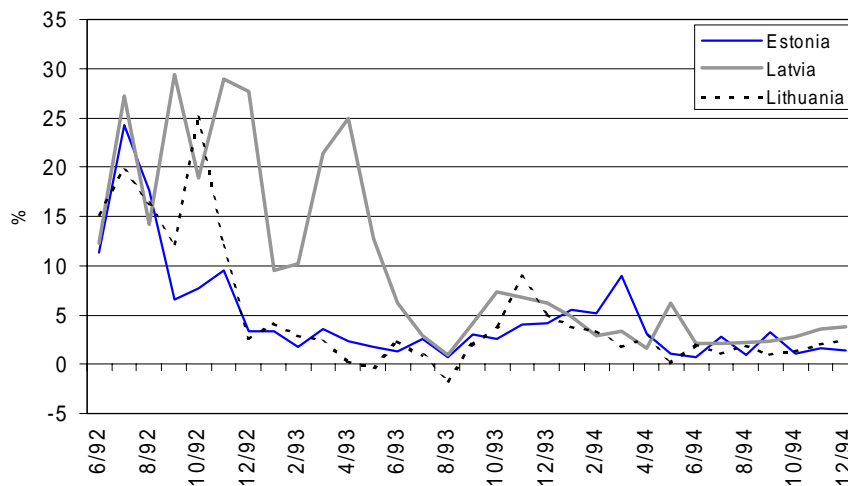
Nevertheless, the common feature of such arrangements is that the monetary base must be backed *at least* 100% by foreign currency reserves. A currency board also presupposes free movement of capital and precludes central bank lending to the public sector, so in effect adopting a currency board means giving up independence in monetary policy altogether. Money supply is wholly endogenous and dependent on capital flows. In return for this loss of independence, the currency board offers a quick way to gain confidence in a currency. This consideration apparently weighed heavily in the case of Estonia, which successfully launched a new currency in the midst of a complex political situation. Estonia's monetary regime, generally regarded as highly credible, has benefited specifically from the fact that its currency board arrangement is so rigid and immutable. In addition, other components of Estonia's economic policy have supported the currency board arrangement. For example, the Estonian government is prevented under the constitution from running substantial budget deficits. This consistent adherence to chosen policies during the transition process has conferred credibility on Estonia's monetary arrangements and its economic policies in general.

In May 1992, the Estonian parliament passed three laws regarding monetary and exchange rate policy: a currency law, a law on the backing of the Estonian kroon, and a foreign exchange law (Eesti Pank 1992). Estonia balked at the strictest possible version of a currency board as the Bank of Estonia retained some discretion as to the amount of capital inflows allowed to boost the monetary base. In addition, the Bank of Estonia retained its right to set minimum reserve requirements for commercial banks, which again is not in accordance with orthodox definitions of a currency board system.³ Even so the Bank of Estonia has never wavered from the guiding rule that the country's foreign currency reserves must at all times cover the currency in circulation and the deposits of commercial banks at the central bank. In practice, reserve coverage has averaged around 110%. The Estonian kroon was pegged to the D-Mark at a rate of eight to one (i.e. DEM 1 = EEK 8). The currency reform was implemented in June 1992 with the kroon totally convertible for current account purposes from the start of monetary reform. While the Bank of Estonia required exporters to surrender their export earnings within two months, it remains unclear how strictly this rule was applied in the early years. Foreign currency deposits were allowed, but no new accounts were allowed to be opened. This regulation was repealed in March 1994. Since then the kroon has been fully convertible and the movement of capital virtually free.⁴ The exchange rate arrangement was quite successful in initially bringing inflation down, especially when compared to other countries of the former Soviet Union, including the other two Baltic countries. Chart 1.1 shows the monthly inflation rates for the three Baltic countries from June 1992 to December 1994. Note that Latvia and Estonia succeeded in bringing inflation down quickly, while Lithuania struggled considerably longer with high and variable inflation. Eventually, monthly inflation subsides in all cases. Annual inflation is currently in low single digits throughout the Baltics.

The first years of Estonia's economic transition saw declining economic activity, much as in other transition countries. In countries of the former Soviet Union, the output collapse was larger than in most CEECs. The severity of the initial drop may be largely explained by the fact that the trade ties between the republics of the Soviet Union were closer than those between independent nations in the CMEA (Council of Mutual Economic Assistance).⁵ Economic activity in Estonia bottomed in 1994-1995, and eventually revived to a rapid pace. When growth reached 10.6% in 1997 concerns about overheating of the economy were expressed. Estonia's vibrant economic growth has been associated with a deteriorating external balance. In 1997, the current account deficit reached 12% of GDP. The steadily worsening external balance and rapid growth in domestic credit (bank lending to the private sector

increased 77% from December 1996 to December 1997) further contributed to doubts about the sustainability of Estonia's exchange rate regime. In October 1997, the kroon came under speculative pressure. Nevertheless, the currency board arrangement proved resilient. Interbank interest rates went up sharply (see Chart 1.2 for the one month Tallinn interbank offered rate), but soon capital flows reversed and interest rates started to fall. During the summer of 1998, the Russian crisis sparked some speculation about the monetary arrangement of Estonia, as Estonia was expected to suffer substantially from the drop of exports to Russia. So far Estonia seems to have weathered the crisis reasonably well, and the credibility of the kroon remains strong.

Chart 1.1 Monthly inflation in the Baltics, 6/92-12/94



2.1.2 Latvia

Latvia chose to ease itself out of the ruble area by first introducing a temporary currency, the Latvian ruble, in May 1992. Like Estonia, Latvians had plans for an independent currency already 1990. From the start of the currency reform, the use of other currencies was allowed. The Latvian currency was also freely convertible for current and capital account transactions, although even today there are still restrictions on foreigners buying real estate.

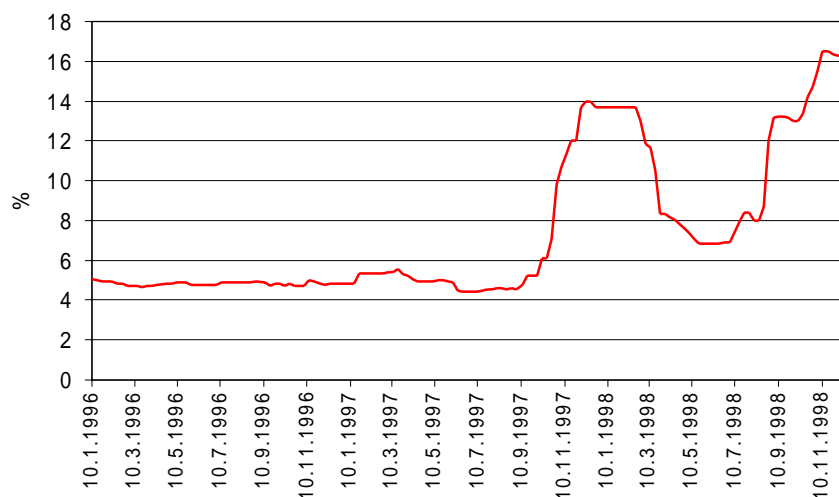
The Latvian authorities initially announced that a new permanent currency would be issued as soon as inflation had been brought under control. The introduction of the new currency, the lats, was supposed to take place in 1992, but was eventually postponed to March 1993. The switch to the lats was also gradual. In July 1993, all Latvian ruble bank deposits were converted into lats and all taxes were collected in lats. Latvian rubles were withdrawn in October 1993.

Initially the Latvian ruble and the lats were floating currencies. There has been some debate as to how freely the currencies floated, but nevertheless the Latvian ruble and the lats appreciated strongly against the US dollar from summer 1992 to spring 1994. In March 1994, the lats was pegged to the notional currency of the International Monetary Fund, the Special Drawing Right, at a rate of just under eight to one (SDR 1 = LVL 0.7997).⁶ Latvia maintains this peg rigorously. Although Latvia does not have a currency board system, the Bank of

Latvia's policy is to keep its currency reserves backing the monetary base at over 100%. The Bank of Latvia has also introduced a number of monetary policy instruments (see Section 4.2.2).

Latvia's initial contraction of output was larger than Estonia's. When the economy started to recover in 1994-1995, the country was hit by a large banking crisis. The resulting monetary contraction curtailed growth during 1995. Thereafter, growth accelerated to 8.6% in 1997. Yearly inflation, meanwhile, declined steadily to a level below 2%.

Chart 1.2 One-month Talibor



2.1.3 Lithuania

Like Latvia, Lithuania took a gradualist approach to monetary reform. Although the Lithuanian parliament accepted a law on national currency in December 1991, political debates about the new currency prevented Lithuania from leaving the ruble zone for quite some time. In May 1992, the Lithuanian authorities introduced an interim currency that lacked even an official name. It was simply called the "coupon," or *talonas* in Lithuanian. This coupon was issued at par with the Russian ruble. The authorities began to withdraw rubles from circulation in September, and forbid use of the ruble from the beginning of October. In June 1993, the authorities announced the introduction of the new currency, the litas. From August 1993, the talonas ceased to be legal tender and the use of foreign currencies was banned. The litas was convertible for current account purposes, but Lithuania retained restrictions on capital account transactions longer than its Baltic neighbors.

Lithuania also differed from the other Baltic countries at the beginning of economic reforms in its exchange rate arrangement. The country maintained a dual exchange rate system until autumn 1993. Due to Lithuania's lax monetary stance, inflation was considerably higher than in Estonia or Latvia, and was reflected in the external value of the Lithuanian currency. The talonas depreciated markedly against the dollar up to summer 1993. Tightened monetary policy eventually stopped the depreciation, and the litas even appreciated slightly. Partly because of the observed volatility of the exchange rate and the low credibility of monetary policy, debate about the appropriate exchange rate regime intensified in autumn 1993. Ultimately, Lithuania decided to adopt a currency board in March 1994. The new arrangement became

effective in April 1994. The litas was pegged to the US dollar at rate of four to one (USD 1 = LTL 4). So far the currency board arrangement has been kept in place at this rate, although the Bank of Lithuania intends to give up the currency board and adopt a monetary policy based on a more traditional central bank model.⁷ While the Bank of Lithuania has already introduced several monetary policy instruments, the country still officially has a currency board, and the monetary base is still 100% backed by foreign currency reserves.

Of all the Baltics, Lithuania suffered the largest output collapse at the beginning of transition. Growth returned in 1995. At the end of 1995 and beginning of 1996, however, Lithuania experienced a banking crisis which was less severe than in Latvia and had little impact on the real economy. By 1997, real GDP growth had recovered to 7.3%. The exchange rate stability conferred by currency board helped bring inflation down. At the beginning of 1994, annual inflation was almost 200%. Presently, inflation is close to zero. Much like Estonia, however, the economy has grown along with a deteriorating external balance. In 1997, the current account deficit was approximately 10% of GDP; in 1998, it exceeded 12% of GDP.

2.2 Development of banking systems

The number of banking institutions started to increase in all the Baltic countries even before the countries regained their political independence. The first commercial bank in the Soviet Union was founded in 1989 in Tartu, Estonia. When the Baltics regained their independence, the number of banks ballooned. By the end of 1993, there were 22 banks in Estonia, 61 in Latvia, and 32 in Lithuania. Many saw banks as a relatively easy means to earn money in the new economic environment. Banks in the Baltic countries were involved in financing foreign trade and speculating in the currency markets. The volatile economic environment following the break-up of Soviet Union presented ample opportunities in these activities. More traditional banking was not as lucrative, especially in the virtual absence of relevant laws and regulations.

When the aforementioned sources of revenue began to dry up and the authorities in the Baltic countries stepped up their efforts in banking regulation, the number of banks began to diminish dramatically as the authorities introduced new minimum capital requirements.⁸ Due to these factors the number of banks began to decrease. (In Estonia, the number of banks had already started to decrease in 1993.) Most bank failures and closures had little consequence on ordinary households or companies in spite of the lack of an official deposit insurance scheme. The consolidation and privatization of banking sectors continued from 1994 onwards, although at varying speeds in different countries. During 1996 and 1997, Baltic banks expanded their businesses rapidly. Estonian banks, especially, grew very fast with some even moving into the Latvian market. After the general uncertainty over emerging markets rocked financial markets at the end of 1997, Baltic banks curbed their lending growth. 1998 witnessed several takeovers of Baltic (mainly Estonian) banks by large foreign (mainly Swedish) banks.

Throughout the Baltics, banks were able to expand their business as inflation declined and economies stabilized. Estonian banks started by issuing short-term credits to private companies. During the past two years, bank lending to households has increased very rapidly as a mortgage market has developed and leasing operations have expanded. The average maturity of loans extended has also increased. At the end of 1998, approximately 85% of the loan stock had a maturity of more than one year. Stabilization was also associated with the emergence of a positive real interest rate. Real interest rates on short-term loans turned positive in early 1994.

Latvia's macroeconomic stabilization was characterized by an increase in both the volume of bank lending and average maturities of loans. This positive development was, however, interrupted by the closure of the largest bank in Latvia in 1995. The closure meant severe contraction in the broader monetary aggregates. After this, the development of Latvian banking sector has been on a more secure footing. During 1997, bank lending to the private sector increased by 77%. At the end of 1993, 16% of all bank lending had maturity of more than one year. At the end of 1998, the corresponding figure was 67%.

The development of Lithuania's banking sector has been somewhat slower than in the other two Baltic countries. This is reflected both in the volume of lending and maturities. The volume of loans grew 21% during 1997. At the end of 1993 only 12% of Lithuanian bank loans had maturities of over one year. By the end of 1998, this figure had risen to 46%, clearly lower than in Estonia or Latvia.

3 The effect of the Stage Three of EMU on Baltic exchange rate arrangements

The start of the Stage Three of EMU and the launch of the euro profoundly affect the economic environment of the three Baltic countries. The euro area contains almost 300 million people producing a nominal gross product worth approximately USD 6.3 trillion in 1997. The euro's arrival affects trade and financial flows and introduction has a large impact on the monetary and exchange rate policies of the Baltic countries. This chapter outlines possible effects of the euro on Baltic economies, giving special emphasis to issues related to monetary and exchange rate arrangements. Naturally, the effect on, for example, exchange rate policy depend greatly on the direction of trade and financial flows, so these cannot be ignored.

3.1 The direct effect of the euro on the exchange rate policy

The change to the euro most directly affects Estonia, which previously pegged its currency to the D-Mark. As the D-Mark as an independent currency ceased to exist at the beginning of 1999, Estonia needs to change several laws. The law on the security for Estonian kroon states that the external value of kroon is expressed in terms of the D-Mark. For the sake of practicality, however, Estonian authorities take the view that the D-Mark will exist until the beginning of 2002 when euro notes begin to circulate and national currencies are withdrawn from circulation. This gives them until the end of 2001 to change the law on the security of the Estonian kroon. Technically, Estonia continues with the currency board pegged to the D-Mark, but preparations for changing the pertinent law should begin well in advance of December 2001 if the Estonian authorities want to maintain the peg. It takes a two-thirds majority to change such a law in the Estonian parliament. Estonia could change its peg to the euro relatively easily if it wants to continue operating a currency board. However, given the large external imbalance Estonia has had and the current situation in the emerging markets, any change in the legislation concerning the kroon's peg may invite speculation about changing the peg. Thus, the cautious approach of the Estonian authorities so far in regard to changing the relevant laws is quite prudent.

In Latvia, the composition of the SDR currency basket to which the lats is pegged has changed with the introduction of the euro. Currently, the euro makes up approximately 28% of the SDR. Thus, Latvia's monetary integration into the euro area is not as tight as that of Estonia's, provided Latvia continues to peg to the SDR. The Bank of Latvia also enjoys

greater independence in deciding on an exchange rate regime than the Bank of Estonia, so in principle it would be simpler for Latvia to change its monetary regime. It remains to be seen, however, whether the Bank of Latvia wants to disrupt the continuity of its exchange rate policy. If the central bank wanted, it could keep the peg to the SDR and simply let the composition of the SDR change. The next revision of the composition of the SDR will be made at the end of 2000, and it is widely expected that at this time the euro will be given a larger share in than the current 28%. In effect, Latvia would become more integrated into the euro area in exchange rate policy even if the Latvian authorities do nothing to change their nominal exchange rate regime.

Lithuania has announced its decision to give up the currency board arrangement. According to Bank of Lithuania's original program, the currency board was to have been abandoned during the first half of 1999. Now this change is planned to take place sometime in 2000. The Bank of Lithuania has already introduced some monetary policy instruments. At the same time, the Lithuanian authorities have announced that they will continue fixing the litas to a foreign currency. In 1997, the Bank of Lithuania said the litas would be pegged to a basket consisting of the US dollar and the euro (the text is not explicit on the composition of the basket). However, some Lithuanian authorities have recently said that a direct peg to the euro might be possible. Lithuania is the only Baltic country to state its intentions to change its exchange rate policy, although this change is not a direct consequence of introduction of the euro. The Bank of Lithuania admits the need to become better integrated with the EU and prepare for EMU, but also gives other reasons such as improving its ability to react to banking crises and neutralize large capital inflows. In any case, Lithuania wants to become better integrated with the euro area in its exchange rate policy.

Lithuania's declaration of its intentions to abandon its currency board has prompted some speculation about the sustainability of the peg, especially in the light of the country's relatively large current account deficit. The recent Russian crisis may also have increased uncertainty. Presently, the Lithuanian authorities are cautious, so 2000 seems the most probable date for repegging of the litas.

3.2 Trade flows between the euro area and the Baltic countries

The eleven countries comprising the euro area are the single most important trading partner for all Baltic countries. This section looks at the trade between the Baltic countries and the euro area. Tables 3.1a-c depict the evolution of the geographical distribution of Baltic countries' foreign trade from 1994 to 1998. Note that the euro area's importance as a trading partner has grown fairly steadily for Latvia and Lithuania. Estonia's shift to Western markets happened earlier, so there is no significant upwards trend in the share of the euro area. Generally speaking, the Baltics countries were able to shift their trade quickly from the other former countries of the Soviet Union to Western European markets.⁹

There are naturally differences among the countries.¹⁰ In Estonia, the share of the euro area is significantly larger in imports than in exports. This is largely due to the predominance of Finland in exports and imports. For example, the 1998 share of Finland in total Estonian exports was 18.7%, whereas imports from Finland were 22.6% of total imports. For all Estonian foreign trade in 1998, euro-area countries accounted for 39%. The increase in trade with Sweden essentially offset the decrease in Russian trade caused by the economic crisis in Russia.

Table 3.1a Geographical distribution of Estonian foreign trade

| | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports |
| Euro area | 30.8% | 49.7% | 36.6% | 52.4% | 32.2% | 50.3% | 28.3% | 44.5% | 30.2% | 45.3% |
| Sweden | 10.8% | 8.9% | 10.9% | 8.5% | 11.6% | 8.2% | 13.5% | 9.1% | 16.5% | 9.0% |
| Denmark | 3.4% | 2.6% | 3.3% | 2.8% | 3.5% | 2.8% | 3.2% | 2.6% | 3.6% | 2.8% |
| UK | 2.8% | 2.1% | 3.3% | 2.2% | 3.5% | 3.3% | 3.7% | 3.1% | 4.2% | 3.0% |
| Russia | 23.1% | 16.7% | 17.7% | 16.1% | 16.6% | 13.6% | 18.8% | 14.4% | 13.4% | 11.1% |
| Latvia | 8.2% | 1.5% | 7.5% | 2.0% | 8.3% | 1.9% | 8.6% | 1.8% | 9.5% | 2.0% |
| Lithuania | 5.5% | 2.6% | 4.7% | 1.6% | 5.7% | 1.6% | 6.1% | 1.5% | 4.7% | 1.6% |
| Total value, USD bn | 1.3 | 1.7 | 1.8 | 2.5 | 2.1 | 3.2 | 2.9 | 4.4 | 3.2 | 4.8 |

Source: Statistical Office of Estonia and author's own calculations

Table 3.1b Geographical distribution of Latvian foreign trade

| | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports |
| Euro area | 21.0% | 29.4% | 23.6% | 36.1% | 23.3% | 34.5% | 22.3% | 38.6% | 27.6% | 41.0% |
| Sweden | 6.9% | 6.4% | 9.3% | 8.0% | 6.6% | 7.9% | 8.3% | 7.7% | 10.3% | 7.2% |
| Denmark | 1.6% | 2.3% | 2.0% | 1.4% | 3.7% | 2.3% | 3.9% | 3.5% | 5.1% | 3.8% |
| UK | 9.7% | 2.4% | 9.1% | 2.7% | 11.1% | 2.8% | 14.3% | 3.3% | 13.5% | 3.1% |
| Russia | 28.1% | 23.6% | 25.3% | 18.2% | 22.8% | 14.2% | 21.0% | 15.6% | 12.1% | 11.8% |
| Estonia | 2.6% | 3.5% | 3.1% | 5.1% | 3.7% | 5.7% | 4.2% | 6.0% | 4.5% | 6.6% |
| Lithuania | 5.5% | 5.9% | 5.5% | 5.5% | 7.4% | 6.3% | 7.5% | 6.4% | 7.4% | 6.3% |
| Total value, USD bn | 1.0 | 1.2 | 1.3 | 1.8 | 1.4 | 2.3 | 1.7 | 2.7 | 1.9 | 3.2 |

Source: Central Statistical Bureau of Latvia and author's own calculations

Table 3.1c Geographical distribution of Lithuanian foreign trade

| | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports |
| Euro area | 22.9% | 25.8% | 28.0% | 27.7% | 25.7% | 31.5% | 24.0% | 35.4% | 26.8% | 36.0% |
| Sweden | 3.1% | 2.4% | 2.5% | 2.8% | 1.7% | 3.1% | 1.9% | 3.2% | 2.5% | 3.7% |
| Denmark | 1.7% | 2.6% | 2.7% | 3.5% | 2.6% | 3.8% | 3.4% | 4.2% | 4.0% | 3.8% |
| UK | 2.3% | 1.4% | 3.1% | 3.1% | 2.8% | 3.9% | 3.2% | 3.3% | 3.4% | 3.7% |
| Russia | 28.2% | 39.3% | 20.4% | 31.2% | 24.0% | 25.9% | 24.5% | 24.3% | 16.7% | 21.1% |
| Ukraine | 6.1% | 3.0% | 7.5% | 2.3% | 7.7% | 2.6% | 8.8% | 2.0% | 8.0% | 1.9% |
| Belarus | 6.6% | 3.8% | 10.8% | 3.6% | 10.2% | 2.4% | 10.3% | 2.4% | 8.8% | 2.2% |
| Latvia | 8.4% | 2.7% | 7.1% | 3.1% | 9.2% | 3.3% | 8.6% | 3.4% | 11.2% | 1.8% |
| Estonia | 2.5% | 1.6% | 2.2% | 1.8% | 2.5% | 2.2% | 2.5% | 2.4% | 2.7% | 1.5% |
| Total value, USD bn | 2.0 | 2.3 | 2.7 | 3.6 | 3.4 | 4.6 | 3.9 | 5.6 | 3.7 | 5.8 |

Source: Lithuanian Department of Statistics and author's own calculations

In Latvia the relative importance of Russia and other CIS countries (most notably Ukraine) has been declining. Both Latvian producers and consumers have turned to the more stable markets of Western Europe. The recent economic problems in Russia (which spread to Ukraine and Belarus) have hastened this trend. Euro-area countries form the single largest trading partner (in pre-euro 1998, the share of the euro-area countries in the Latvian foreign trade was 36%). Sweden and the UK are also very important to Latvia. Exports to UK have boomed during the last two years.

Lithuania is clearly the most dependent on CIS markets, although the importance of Russia has decreased. In 1997, the CIS was still as important an export market as the eleven countries of the euro area. By 1998, the relative importance of the euro area was much larger. The euro-area countries are also by far the largest exporters to Lithuania. Their combined share of trade was 32% in 1998.

There are numerous arguments for and against fixed exchange rates, but the consensus, *ceteris paribus*, is that the advantages of fix a currency become pronounced as the country's dependence on foreign trade increases (see, for example, McCallum 1996).¹¹ Baltic countries surely qualify as countries highly dependent on foreign trade. In 1997, the ratio of foreign trade (exports and imports) to GDP was 157% for Estonia, 81% for Latvia and 104% for Lithuania. Moreover, the geographical distribution of Baltic countries' foreign trade would suggest that Baltic countries could benefit from some sort of exchange peg to the euro area. Despite the fact that Russia and several other CIS countries remain important trading partners for the Baltics, it is too much of a stretch to argue for a ruble peg. Indeed, including any currency as volatile as the ruble into a currency basket stands to degrade the credibility of a currency (although it might help to stabilize the nominal effective exchange rate).

The desirability of a fixed exchange rate depends naturally on a host of other factors (including possible political reasons). Nevertheless, it is a non-trivial task to analyze e.g. correlation of business cycles in the Baltics with those of the EU or the euro area. All transition countries have undergone profound structural adjustments, and thus the economic data covering recent years is probably of relatively little use in predicting future correlations with economic growth in other countries. For this reason, I consider intensity of trade as the most significant indicator of economic integration. I will return to these questions in Section 4.1.

The costs and benefits of fixing to the euro do not depend solely on the amount of trade the Baltic countries conduct with the euro area. Fixing to the euro is more desirable if other significant trading partners also fixed their currencies to the euro. Thus, the decision of a single Baltic country about its foreign exchange rate regime depends to some extent on what the other two decide. For example, Lithuania has the lowest share of trade with the countries of the euro area. However, if Estonia and especially Latvia decide to peg their currencies to the euro (or at least to a basket where the euro plays a major role), the argument for a similar peg for Lithuania would be stronger. It should also be remembered that Denmark, which is a reasonably large trading partner for all Baltic countries, has decided to participate in ERM2, and thus peg to the euro. Table 3.2 shows how much the foreign trade of the Baltic countries might be with the entire euro bloc (i.e. the euro area plus countries that have pegged to the euro). The first two columns use the assumption that the euro bloc consists only of the euro area and the two countries which will be members of ERM2 from the beginning, Denmark and Greece.¹² The next two columns assume that all Baltic countries peg to the euro. The last two columns assume Central and Eastern European countries (Poland, Hungary, Slovenia, Czech and Slovak Republic) also peg to the euro. Poland is quite an important trade partner for Lithuania. (Table 3.2 is based on foreign trade data from 1998.)

We can see that the exchange rate regime chosen by one or two countries may have strong externalities on others. For Latvia and Lithuania, the exchange rate arrangements of the other two Baltic countries are quite important, as a large share of their foreign trade is conducted with the other Baltic economies. For Estonia, the additional incentive from Latvia and Lithuania choosing a euro peg would be quite small. It appears that the Baltic countries have fairly similar comparative advantage in their exports to the European Union (see Kaitila & Widgrén 1999). If all Baltic countries fix their currencies, this would decrease the risk of gaining competitive advantage in EU markets through devaluations.

Table 3.2 Baltic foreign trade with the euro bloc under three assumptions

| | Euro area+ERM2 | | Euro area+ERM2+Baltic countries | | Euro area+ERM2+Baltic countries+CEECs | |
|------------------|----------------|---------|---------------------------------|---------|---------------------------------------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports |
| Estonia | 33.8% | 48.1% | 48.0% | 51.8% | 48.3% | 54.3% |
| Latvia | 32.8% | 45.0% | 44.7% | 57.9% | 47.1% | 63.9% |
| Lithuania | 30.9% | 40.0% | 44.7% | 45.8% | 48.6% | 55.3% |

The costs and benefits of monetary integration with the euro area depend not only on trade flows, but also on the currencies used in foreign trade. While data on invoicing currencies is usually more scarce than data on trade flows, Baltic central banks publish estimates about the share of different invoicing currencies. In Estonia's case, the US dollar's share is approximately a third, which is not as much as in the other Baltic countries.¹³ The Estonian specialty (reflecting the large trade and investment ties between the countries) is the large share of Finnish markka in invoicing of foreign trade, approximately one fourth. The D-Mark is used in slightly less than a fifth of foreign trade transactions, and all other foreign currencies account for five per cent of invoicing or less. In Latvia, the share of the US dollar in foreign trade has remained around 50%. The D-Mark is used in about a fifth of foreign trade transactions, and no other currency significantly exceeds the 5% level. For Lithuania, the share of the US dollar has been approximately 60% of all foreign trade for several years. The second most important invoicing currency is the D-Mark, its share is around 20% of trade. All other foreign currencies play very minor roles in the invoicing of foreign trade.

The future development of invoicing currencies in Baltic foreign trade will naturally depend on the acceptance of the euro as an international means of payment. If the euro takes a significant share in global trade from currencies joining EMU, and if CIS countries switch some of their foreign trade to the euro from the dollar, the Baltics can well be expected to conduct a significant share of their foreign trade in euros. However, this might take years.

The introduction of the euro will lower barriers to trade among the countries participating in Stage Three of EMU. This might shift some of the trade now conducted with countries outside EMU to inside new currency union. However, Temprano-Arroyo and Feldman (1998b) argue that for CEECs generally the effects from the resulting trade diversion would be small and counterbalanced by the positive effect EMU would have on growth within the euro area. De Grauwe & Skudelny (1997) estimate that eliminating exchange rate uncertainty inside EMU-11 (now the euro-11) could in the long run generate an extra 6% of trade inside the EMU-11.

If the Baltics peg their currencies to the euro or a basket in which the euro is a major component, then the movements in the value of the euro against other currencies will naturally affect foreign trade of Baltic countries. The larger the foreign trade with the euro area is, the smaller this effect. Further, the relative importance of EUR/USD and EUR/JPY cross-rates would not be considerable for the Baltic countries, because a relatively small share of their trade is with these countries or with countries that have pegged their currencies to the dollar or yen.

3.3 Capital flows between the euro area and the Baltics

The Baltics have received substantial capital inflows after regaining their independence. Indeed, Estonia is among the highest receivers of per capita FDI among all transition economies in Europe. During the last two years Latvia and Lithuania have begun to catch up as their

privatization processes have progressed. Estonia has also received large (relative to its size, of course) bank loans and portfolio investment during recent years, although the recent crises in emerging markets have affected these flows.

Countries joining the euro area have been a major source of these investments. Thus, the introduction of the euro may affect the capital flows and influence the choice of the exchange rate regime in the Baltic countries.

Table 3.3 shows the geographical distribution of the stock of foreign direct investments in the Baltics. Note the substantial differences. In Estonia's case, euro-area countries contributed approximately 35% of FDI, although here the contribution of Finland is 27% of all FDI. All in all the stock of FDI to Estonia is approximately USD 1.8 billion. This represents approximately one-third of nominal GDP. In 1997, the flow of FDI was 2.7% of GDP, but in 1998 the value of investments jumped to almost 11% of GDP. This increase in FDI was largely associated with the acquisition of the two largest Estonian banks, so in all likelihood it does not represent a permanent shift in the level of FDI.

Euro-area countries have also contributed a large amount of FDI to Lithuania, almost one third of the whole stock. In Latvia's case, the euro-area share has been reasonably small in providing FDI. Russia and Denmark have made up a significant portion of the entire investment stock. However, during the past two years investments from euro area countries have clearly increased, so that presently they constitute the largest single source of FDI to Latvia. At the end of 1998, the stock of FDI to Latvia was USD 1.1 billion (slightly more than 15% of nominal GDP); for Lithuania, USD 1.6 billion (approximately 15% of GDP). In 1998, FDI flows corresponded to 4.3% of GDP in Latvia and 8.6% of GDP in Lithuania. In Lithuania's case, the high FDI figure is mostly due to the privatization sale of Lithuanian Telecom.

Estonia's lead has in FDI stock is mostly the result of Estonia's earlier moves to privatization. Most Estonian privatizations are now completed,¹⁴ whereas Latvia and Lithuania still have a way to go. It is expected that FDI flows to Latvia and Lithuania will exceed those to Estonia during the next year or two. In the long run, of course, privatization will cease to affect FDI flows. At that point, structural characteristics of the countries and their economic policies will matter most. It also seems likely that the present geographical concentration of FDI stocks will abate in the future.

Table 3.3 Geographical distribution of FDI stocks in the Baltics, end-1998

| | Estonia | Latvia | Lithuania |
|----------------------|----------------|---------------|------------------|
| Euro area | 35.4% | 22.5% | 31.0% |
| Sweden | 32.4% | 6.9% | 16.9% |
| Denmark | 4.7% | 15.5% | 6.6% |
| Russia | 1.8% | 8.7% | 1.7% |
| United States | 5.2% | 10.7% | 18.7% |
| Norway | 4.8% | 3.8% | 4.2% |
| Estonia | - | 3.4% | 4.3% |

Sources: Bank of Estonia, Central Statistical Bureau of Latvia, Lithuanian Department of Statistics, and author's own calculations

Other capital flows into the Baltics were minor before 1997. Their absolute size and relative importance have grown, however. In 1997, Estonia received substantial inflows of capital both as portfolio investments and bank lending. In 1997, Estonia received portfolio investments worth USD 260 million (5.6% of GDP). In addition, Estonian banks borrowed USD 300 million from abroad (6.4% of GDP). In 1998, the net portfolio investments were practically zero, reflecting the difficult situation in emerging markets everywhere. Net borrowing by banks was less than USD 40 million, less than one percent of GDP.

In Latvia's case, the net flow of portfolio investments was actually negative in 1997, i.e. Latvians made more portfolio investments abroad than were invested into Latvia. The net outflow of portfolio investments was USD 600 million, or 10% of GDP. One would be tempted to conclude that Latvian banks have invested quite heavily in neighboring markets, namely to Russia. This conclusion is supported by the recent report by Bank of Latvia that approximately 8% of Latvian bank assets were invested in Russia before the crisis in August 1998. The Russian government's de facto default on state debt has meant considerable losses to many Latvian banks. Other net investments into Latvia (mainly borrowing by Latvian banks) were USD 350 million (6.1% of GDP) in 1997. In 1998, the net outflow of portfolio investments was clearly smaller, less than USD 10 million. Other investments also declined.

Lithuanian net portfolio investments were approximately USD 190 million (2% of GDP) in 1997, and other investments USD 250 million (2.6% of GDP). In 1998 the net portfolio investments into Lithuania were USD -50 million (-0.5% of GDP), but other investments USD 550 (5.1% of GDP).

Capital movements across the borders of the Baltic countries have been quite large relative to the size of the economies. Such large capital movements could be quite destabilizing in any exchange rate regime, but in a system of fixed exchange rates the authorities have to take care that large inflows do not lead to overtly inflated asset prices and encourage excessive domestic lending. A reversal of capital flows might then lead to economic contraction and endanger the stability of the domestic financial system.

3.4 Integration of Baltic financial systems into the euro area

The Baltic financial systems have progressively become more integrated into global financial markets. However, the equity and debt markets are still in a very early stage of development in all the Baltic countries (although in Estonia the equity market is somewhat more active than in Latvia or Lithuania).¹⁵ This section concentrates mainly on the integration of Baltic banking systems into the euro area and the possible effects of the euro on Baltic banking.

As noted in section 2.2, the Baltics witnessed a boom in the number of banks during the early years of transition. However, the number of banks soon started to decrease through closures and mergers. Currently¹⁶, Estonia has six banks, Latvia 28, and Lithuania 12.¹⁷ At the same time foreign ownership in large Baltic banks has increased. In October 1998, the Swedish Swedbank announced that it had acquired 48% of Estonia's largest financial institution, Hansapank. There is currently one Finnish bank operating in Estonia. Swedish SEB owns between a third and a half of the second largest bank in Estonia, the largest bank in Latvia and the second largest bank in Lithuania. Latvia has Estonian, French and German banks. French and Polish banks have set up shop in Lithuania. So on the level of ownership and operations Baltic banking systems are already somewhat integrated to EU and in particular to the euro area. However, from the viewpoint of exchange rate and monetary policy it is probably more

important that a significant share of bank balance sheets are denominated in foreign currencies. Thus, unless bank liabilities and assets in foreign currencies are equal, changes in the exchange rate will add to volatility in the net value of banks.

Table 3.4 Share of foreign-currency-denominated assets and liabilities consolidated balance sheets of Baltic banking systems, end-1998

| | Assets | Liabilities |
|-------------------|---------------|--------------------|
| Estonia | 50.0% | 43.7% |
| Latvia | 47.3% | 65.4% |
| Lithuania* | 38.0% | 30.3% |

Sources: National central banks, * end-March 1999

At the end of 1998, the Estonian banking system had both significant assets and liabilities in foreign currencies, i.e. 50.0% of consolidated assets and 43.7% of liabilities were denominated in foreign currencies. In particular, the Estonian exchange rate regime has given banks strong incentives to conduct much of their business in D-Marks. The overwhelming majority of the foreign-currency-denominated assets and liabilities are denominated in D-Marks, which is to say euros. In addition to this, many loan contracts, which are denominated in kroons also include a clause tying the principal of the loan to the external value of the kroon. This means that banks have more assets denominated in foreign currency than the aforementioned figures would suggest.¹⁸ This, in turn, would mean that the difference between the banking sector's foreign currency assets and its liabilities is more than ten percentage points of its consolidated balance sheet. Banks have more assets in foreign currencies than liabilities, meaning that if Estonian the kroon were to depreciate, Estonian banks would benefit (provided that their customers are able to service their loans, as was already mentioned).

In Latvia, the banks have an even larger share of their balance sheets in foreign currencies than in Estonia. On the liabilities side, simple demand deposits denominated in foreign currencies make up almost 45% of all foreign currency liabilities. It is noteworthy that foreign-currency-denominated assets make up 65% of all bank assets. Foreign-currency-denominated debt instruments and especially claims on foreign banks make up the bulk of these foreign currency assets. In this sense, the Latvian banking system is very much integrated into international financial system. The large share of foreign currency assets and liabilities on bank balance sheets implies that Latvian banks would be vulnerable to changes in the external value of the lats.

In Lithuania, the banking sector conducts more of its business in the domestic currency than in the other two Baltic countries. Foreign currency assets make up slightly less than 40% of all assets. Foreign-currency-denominated liabilities are less than one third of all liabilities. Lithuanian banks may have had more difficulties in attracting foreign financing because of Lithuania's lower credit rating than that of the other two Baltic countries. Lithuanian banks have had less business with Russian companies and individuals than Latvian banks. This may partly explain the somewhat lower share of foreign-currency-denominated assets and liabilities.

4 The effects of EU membership on exchange rate and monetary policies

In November 1998, the European Union started membership negotiations with six countries. Five of these (Poland, Hungary, Czech Republic, Slovenia, and Estonia) are former socialist countries that have been deemed sufficiently progressed in their economic and political transition to be able to join the EU after negotiations. Regardless of when the negotiations end and the new members join, most CEECs are eventually expected to be members of the EU. This will probably take many years. This study assumes that Latvia and Lithuania will be invited into membership negotiations at some future date and that sometime after that they will become EU members. (It is, of course, no certainty that Estonia will be the first Baltic country to join the EU).

The aim of this chapter is to first examine what effects the preparation for membership in the European Union will have on the monetary and exchange rate policies in the Baltic countries. A second, related, question (and admittedly, more distant) is how the Baltic countries might best prepare for participation in the euro area once they have become EU members. First, I will look at criteria on the desirability of a fixed exchange rate regime and how well the Baltic countries fulfill these. The choice of exchange rate regime largely determines monetary policy, but there are also some technical issues related to monetary policy that the Baltics must address before joining the EU. I will try to highlight at least some of these. The second section offers tentative speculations about the changes preparation for EMU participation will bring to the Baltics.

4.1 Monetary and exchange rate policies before EU membership

As noted in section 3.1, introduction of the euro has already meant some changes for the exchange rate policies the Baltics. The anchor currency has effectively changed in Estonia, the composition of basket currency to which the lats is pegged has also changed, and Lithuania will at least partly peg the litas to the euro. The Baltic currencies, therefore, are already extensively integrated with the euro area.

Even so, EU membership is probably years away for all Baltic countries. Therefore, Baltic monetary authorities need to decide on the type of exchange rate and monetary policy to pursue before membership. What would be the best policy for attaining sustainable long-term growth? How can monetary and exchange rate policies best help in pursuing EU membership? As mentioned in the introduction, we concentrate here on the economic issues related to the choice of exchange rate system. Countries, obviously, may peg their currencies to the euro for such political reasons as demonstrating the desire for quick integration with the EU.

4.1.1 Fixed or flexible exchange rates?

The analytical literature on the desirability of fixed exchange rates begins with Mundell (1961). As mentioned in section 3.2, most economists agree (see, e.g. Isard 1995 and references therein) that when countries are more open to foreign trade, they have more to gain from a regime of fixed exchange rates. It is usually argued that the more open an economy is, the faster changes in the exchange rate translate into changes in nominal wages and prices, thus rendering exchange rate policy less effective in maintaining external balance. At the same

time, movements in the exchange rate threaten domestic price stability. One could therefore argue that smaller countries are natural candidates for fixed exchange rate as they are more likely to be more open to international trade. The currency of a very small country may also not be very effective in the traditional functions of money, i.e. as a unit of account and medium of exchange. For the currency of a tiny country, fixing to a more widely known currency could enhance its usefulness in the aforementioned functions.

If a country has a high level of factor mobility, then the costs of maintaining a fixed exchange rate (either in terms of inflation or unemployment) will be smaller than in a case of low-factor mobility.

If a group of countries generally face dissimilar real shocks, then fixing their currencies will entail larger economic costs than letting the currencies float. A flexible exchange rate can shield a country from nominal shock originating from abroad, but a fixed regime can stabilize the effects of a domestic nominal shock. Given the brief period the Baltics have been independent and the immense structural change they have experienced, it is impossible to say even with the customary low degree of confidence how the shocks to Baltic countries will correlate with shocks to the EU and euro-area economies in the future. Further, separating nominal from real shocks is clearly impossible at this stage. Thus, we have to rely on cruder measures of integration. One could argue that as Baltic countries are highly integrated with the EU via trade links, their economic development will be closely integrated as well.

By fixing the external value of its currency, a country surrenders one tool with which to correct possible overappreciation. For example, if wage growth exceeds the growth in productivity for an extended period, domestic producers will lose their competitiveness in export markets. If nominal wages are inflexible downwards, then the fastest way to change real wages and restore international competitiveness is to devalue the currency.

Wages could rise exceptionally fast because of e.g. large capital inflows, which cause a boom in domestic lending, inflate the value of assets in the economy and create a large increase in domestic demand. When capital flows stop or perhaps even reverse, and if domestic prices and wages do not adjust downwards, the country might either adjust its exchange rate or face an economic downturn.

A rigid currency peg may also hamper a central bank's ability to act as a lender of last resort if the banking system experiences widespread difficulties. Consider a situation where the central bank would otherwise extend credit to banks it deems solvent, but illiquid in the short-term. A rigid peg may prevent the central bank from intervening if it fears that the additional liquidity would endanger the currency peg. In such a situation, it is even likely that the currency is already under speculative attack, making the situation more difficult. This danger is even more pronounced in a currency board system. Under the strictest currency board rules, the monetary authority would be forbidden from issuing liquidity credits to the banking system. However, the two Baltic countries, which have currency boards have opted for system whereby the central bank can credit the domestic banking system to the extent they have currency reserves over the required 100% backing. The Bank of Lithuania used this option during the 1995-1996 banking crisis; the Bank of Estonia did so in 1994. This option would naturally not be available to the countries as long as they continue the currency board arrangements and if they faced large capital outflows draining their excess reserves. Here, the stability of the financial system would have to be ensured by the fiscal authorities. (We assume that such authorities would be concerned about stability and perhaps willing protect depositors.) However, if a deposit insurance system is in place and it can cover the insured deposits in full, then bank runs might not take place. Of course, this would not wholly negate the danger of systemic risk to the banking sector as a whole. It might even induce excessive risk taking in banks because of the moral hazard deposit insurance systems are often thought to cause.

Stability of the banking system might actually be enhanced if a significant share of the domestic banking system consists of subsidiaries or branches of larger and well-capitalized foreign banks. Interestingly, Baltic countries seem to be moving to this direction with Estonia leading the way (the largest bank in Estonia is already half-owned by a Swedish bank and a Finnish bank is rapidly expanding its business in Estonia in retail banking). A large foreign presence in the banking sector might also be beneficial in the sense that it could promote a more arms-length relationship between the authorities and the banks. It has been observed that in many transition and developing economies close connections between banks and the political system can lead to problems, especially if these connections hinder the work of banking supervisors. Close ties between the banks and the political system might also lead to sub-optimal lending decisions under political pressure, even if a full-blown banking crisis does not materialize.¹⁹

4.1.2 What should the Baltics do?

Baltic countries fulfill many of the conditions outlined above for the desirability of a fixed exchange rate. They certainly are small and very open to international trade. In 1998, the nominal value (at the average annual market exchange rate) of Estonia's GDP was USD 5.2 billion, Latvia's USD 6.4 billion, and Lithuania's USD 10.7 billion. In total, the Baltic countries have slightly less than 8 million inhabitants and a combined GDP of slightly over USD 20 billion.

The Baltics' openness to foreign trade is easy to quantify. In 1997, for example, the ratio of combined exports and imports of goods to GDP was almost 160% in Estonia, over 80% in Latvia, and approximately 100% in Lithuania. To this one could add that international trade in services is also important. Transportation and, especially in Estonia, tourism have also become important sources of revenue. In 1998, trade in services (both exports and imports of services) amounted to almost 45% of GDP in Estonia, almost 30% in Latvia, and slightly less than 20% in Lithuania. Baltic countries have served as transportation links for the trade between Russia and Western Europe. It remains to be seen how the economic crisis in Russia affects this trade, but preliminary reports indicate that exports of raw materials from Russia have increased significantly during the recent months (as one might expect after a sizable devaluation).

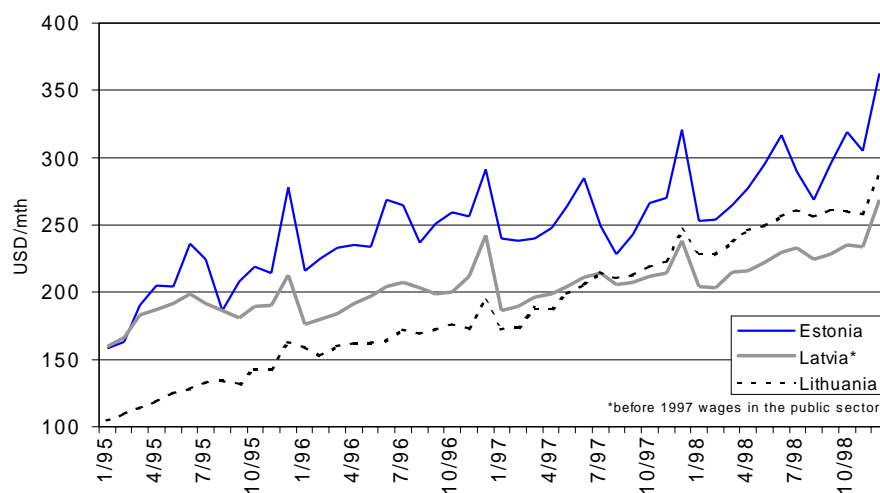
Baltic labor markets are relatively unregulated, which should provide some flexibility in dealing with various shocks that might hit the economy. In particular, one could expect flexibility in wage-setting, which is almost completely decentralized. In this sense, the Baltic countries may have the flexibility needed in a regime of fixed exchange rates.

However, it is not known how much labor mobility exists inside the countries or between sectors. It is also largely unknown how fast education systems can respond in teaching new skills to people in outmoded occupations. Here, it may be advisable to be pessimistic about the mobility of labor inside countries. For example, Kuddo (1998) argues that a large portion of labor force in the Baltic countries (as well as in other transition economies) is "functionally illiterate," i.e. lacking the skills needed in a market economy. At present, there is very little training and retraining for people in the labor force. Furthermore, Kuddo argues that vocational training does not offer skills that would be in demand in the labor market. This quite pessimistic view of the present situation in the Baltic labor markets is reinforced by Hazley and Hirvensalo (1998). They conducted a survey among Finnish companies that had made investments in the Baltic countries and/or Russia. Most companies listed lack of qualified labor as a

hindrance to their business. Thus, the flexibility of Baltic labor markets may be illusory. If the example of present EU countries is anything to go by, labor mobility to other countries would be clearly lower still, even at the future time when the Baltic countries join the EU. From the viewpoint of exchange rate policy, it could be advisable to increase various retraining programs and redesign at least parts of education system to enable people to change occupations more easily, i.e. create more factor mobility. On the other hand, flexibility in wage-setting may offset other rigidities in the labor market to a large degree.

Many commentators have argued that the large external imbalances are evidence of an already overvalued exchange rate. The Baltics face exchange rate realignments in the near future.²⁰ However, trade and current account deficits alone do not dictate whether a currency is overvalued. Countries starting from a low level of economic development will probably offer investment opportunities with reasonably high expected return. These investment opportunities would entice a capital inflow to the country, and if domestic investments exceed domestic savings, then the country will have a current account deficit as a matter of definition. It is hard to dispute that all post-socialist countries offered a great number of investment projects with a high expected return, although the associated risks, both economic and political, were also large. As risks have decreased, the investment flow into the transition economies has increased. Much of the foreign direct investment has been associated with privatization of former state-owned companies.

Chart 4.1 Monthly gross wages (USD) 1/95-12/98



High and persistent current account deficits naturally give some cause for concern. If the current account deficit is mainly financed with capital inflows that can be easily reversed, then a country and especially its financial system may face difficulties if the capital flows decrease or reverse. Presently, it seems that Estonia's current account deficit is clearly declining, but for Latvia, the Russian crisis has meant a significant widening of the deficit.

Another oft-cited piece of evidence for the eroding competitiveness of Baltic economies is the fast increase in dollar wages. Chart 4.1 shows the evolution of monthly US dollar wages in the three Baltic countries. The upward trend is apparent. However, mere wage costs do not tell us anything about competitiveness of the companies. One must also take into account changes in labor productivity. Table 4.1a shows the changes in productivity in manufacturing. (Since it is manufacturing industry which is most exposed to foreign

competition, it is appropriate to focus on its productivity.) One can see that productivity has increased during the latter half of this decade in all Baltic countries, but at diverse rates. After 1993, productivity in manufacturing has increased almost 45% in Estonia, 53% in Latvia, and 27% in Lithuania. However, these changes in productivity exhibit considerable volatility, so one should consider this evidence with caution.

Table 4.1a Changes in productivity in manufacturing

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|------------------|--------|-------|------|-------|-------|
| Estonia | 6.7% | 0.4% | 3.7% | 26.3% | 2.3% |
| Latvia | 9.5% | -1.0% | 8.6% | 28.0% | 1.9% |
| Lithuania | -12.1% | 12.0% | 8.5% | 7.6% | 11.0% |

Source: EBRD (1999)

Table 4.1b Changes in D-Mark unit labor costs

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|------------------|-------|-------|-------|-------|-------|
| Estonia | 61.7% | 35.2% | 19.2% | -5.3% | 13.6% |
| Latvia | 73.0% | 17.9% | 5.2% | 4.2% | 3.3% |
| Lithuania | 85.1% | 23.3% | 30.5% | 32.9% | 7.5% |

Source: EBRD (1999)

Table 4.1b shows the change in the annual unit labor costs in the manufacturing industries of the three Baltic countries. The general trend in Estonia and Latvia seems to be towards lower increases in the unit labor costs, although in Estonia the growth in them accelerated in 1998 somewhat. In Lithuania increases in unit labor costs have been quite large up until 1997. It is hard to explain this large difference between the development in Lithuania and the other two Baltic countries. One might claim that the restructuring of manufacturing has progressed more slowly in Lithuania than in the other countries. Lithuania has received less FDI, and foreign owners are generally thought to be better at restructuring. Aghion and Carlin (1997) claim that "Foreign-owned privatized enterprises typically displayed a deeper form of restructuring..."

This phenomenon seems to be common to practically all transition economies in Europe. It is of course impossible for all the companies to become foreign-owned, so one must not neglect the incentives for domestic-owned companies to restructure.

Halpern and Wyplosz (1998) try to determine equilibrium exchange rates in transition economies. They use the monthly dollar wage as a proxy for the real exchange rate. In general terms, dollar wages have risen in almost all European transition countries during the economic transition. However, the estimated equilibrium dollar wages do not always trend upwards.²¹ For the Baltic countries there is an upward trend in the equilibrium dollar wages that is consistent with the evidence presented on the evolution of productivity in the Baltic countries. In Estonia and Lithuania, wages had not reached their equilibrium levels by 1997, but in Latvia this happened during 1997, and thus wages may now be too high according to this model.

Given their small and very open economies, Baltic countries are natural candidates for fixed exchange rate regimes. From the beginning of 1999, the Baltics have conducted a significant portion of their foreign trade with countries in the euro area. This alone would argue for some sort of exchange rate peg to the euro. The exact form of this peg need not necessarily be the same as in the past, i.e. countries could choose somewhat looser pegs, if more flexibility in this area is deemed necessary. On the other hand, currency boards have an advantage over less strict regimes of fixed exchange rates. Full backing of the monetary base can give additional credibility to the peg and thus prevent speculative attacks against the currency.

Continuing with fixed exchange rates has its risks. If country loses external competitiveness, then rectifying this without exchange rate adjustment can be costly, especially if prices and wages are sticky downwards. Especially in Lithuania, where the development of productivity has lagged behind Estonia and Latvia, this risk is quite real. Naturally, the authorities in Estonia and Latvia also need to monitor their economies closely, especially given their large external imbalances.

Despite these caveats, the benefits of fixed exchange rates seem to outweigh the apparent risks in the case of the Baltics. It also appears that all Baltic countries are continuing with fixed exchange rates.

4.2 Monetary and exchange rate policies after EU accession, but before joining the euro area

It will likely take several years before all of the Baltic countries become EU members. Internal wrangling over money within the EU and comprehension of accession criteria have dampened predictions of speedy accession. However, even before the Baltic countries (and the other CEECs) join the EU, they need to consider the changes membership will bring to their monetary and exchange rate policies.

4.2.1 When to join the monetary union?

When new members join the European Union, they take upon themselves the commitment to fulfill the stipulations of the Maastricht Treaty. That this condition applies to the new member states is clearly stated in the conclusions of the Copenhagen Council meeting in June 1993. Among other things, membership requires “the ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.” Further – and this cannot be overstated – the Maastricht criteria for joining Economic and Monetary Union *are not* criteria for membership in the European Union (see Dixon 1998). Applicant countries must thus concentrate on structural changes in their economies for many years to come, and not on strict interpretations of the Maastricht criteria. At the same time, it should be remembered that aiming for low and stable inflation in the medium-term is desirable regardless of the Maastricht criterion on inflation. Experience over decades has shown (see, e.g. Barro 1995) that high inflation hinders economic growth.²²

Although Maastricht criteria are not membership criteria, it is of interest to see where the applicant countries stand in this regard. This sort of exercise might give at least some indication how far the countries still have to go in their nominal convergence before participation in EMU can be considered. Recent experience from Italy and Belgium illustrates how difficult it can be to lower the general government debt once it has been allowed to rise to over 100% of GDP.

Table 4.2 shows how the applicant CEECs fared in 1997 in regards to the Maastricht criteria. The interest rate criterion is omitted as there simply is no truly functioning market for domestic long-term debt instruments in any of the applicant countries. This will obviously change in most applicant countries during the coming years as their financial markets mature and develop.

Clearly, no applicant country fulfills the criteria completely, even if we do not take into account the interest rate criterion. However, there are clear differences between the countries. For Baltic countries, the fiscal criteria in particular should provide few problems in the coming years. When Soviet Union disintegrated, Russia took over its foreign assets and liabilities, and thus for example the Baltic countries started with no external debt. Latvia and Lithuania incurred quite large deficits during the first half of this decade (Lithuania for longer than Latvia), but their public debt is still quite modest. If the experience of recent years is anything to go by, then Baltic countries will not embark on the road of large budget deficits. Concerning inflation, Latvia and Lithuania have managed to push inflation lower than any other CEEC applicant country.

If one believes that the past inflation performance is useful in predicting future inflation (insofar as it reflects authorities' preference for and/or commitment to low inflation), then low inflation could also mean low long-term interest rates. Naturally, the rates will not be as low as in the current euro-area countries, because the applicant countries' debt instruments will carry a significant risk premium for many years to come.

Table 4.2 Maastricht criteria for ten CEEC applicant countries in 1997

| | Inflation, % | General government balance, % of GDP | General government debt, % of GDP |
|------------------------|---------------------|---|--|
| Bulgaria | 1082.2 | -4.4 | 105.2 |
| Czech Republic | 8.4 | -2.1 | 10.9 |
| Estonia | 11.3 | 2.1 | 5.6 |
| Hungary | 18.0 | -5.7 | 68 |
| Latvia | 8.4 | 1.3 | 10.8 |
| Lithuania | 8.8 | -1.9 | 22.2 |
| Poland | 15.1 | -3.6 | 48.2 |
| Romania | 155.0 | -3.5 | 31.3 |
| Slovak Republic | 6.1 | -4.8 | 26.7 |
| Slovenia | 9.1 | -1.8 | 24.1 |
| Criteria | | -3% | 60% |

Source: *Temprano-Arroyo & Feldman (1998a)*

The changes that preparation for EMU participation will mean for the conduct of monetary policy in the new members will be quite large. First, when the new members join European Union, the Maastricht Treaty stipulates that the economic and exchange rate policies of member countries are a matter of common concern. In a sense, discussions concerning economic policies have already started with Commission's Joint Assessments of medium term economic policy concerns (Dixon 1998). The intensity of dialogue will naturally increase as accession talks progress.

When the countries have joined European Union, they must then decide on ERM2 participation. Since no new member country is expected to opt out from joining the euro area, it is probable that they will join the ERM2. At the moment the consensus seems to be that the criterion on two year's exchange rate stability means membership in the Exchange Rate Mechanism. Of course, a country could in principle stay in ERM2 longer than two years.

When is a country ready to join the Exchange Rate Mechanism? Presumably when it is ready to peg its currency to the euro and eventually join the monetary union. When the present member countries of the monetary union were chosen, the emphasis was very much on nominal convergence between the countries. This is reflected in the criteria on inflation, long-term interest rates, and exchange rate stability. These same criteria naturally apply to the present applicant countries when they want to join the monetary union, but for them the issues related to structural adjustment are also very important. The new member countries, including the Baltics, should not join until their structural adjustment is more or less complete. Of course, it could be argued that if a country has been accepted into the EU, its structural adjustment to a functioning market economy is, by definition, complete. Otherwise, the country would be unable to compete inside the single market. If one accepts this argument, then the criteria for choosing new members for the monetary union is identical for the present members of the monetary union, i.e. the one based on the nominal convergence between the countries and the stability of their fiscal position.

CEECs have considerably lower GDP per capita than the countries currently in the monetary union. This disparity will persist for years to come, even if the current high growth continues in the more developed accession countries. However, there is a wide disparity of per capita GDP and income inside the current euro zone. In 1996, for example, per capita GDP (based on purchasing power parities) was USD 21,200 in Germany and USD 13,100 in Portugal. In other words, income disparities as such need not prevent CEECs from joining monetary union. There could be persistent inflation differentials inside the monetary union, as productivity would probably grow faster in the countries with lower levels of income. For evidence on the scope for inflation differentials in the current monetary union, see Alberola and Tyrväinen (1998). The process of catching up should naturally be advanced so far that the possible inflation differential is small enough to fall inside the Maastricht criterion on inflation. In a system of truly fixed exchange rates, the appreciation of the real exchange rate accompanying relative improvements in productivity must come in the form of higher inflation.²³

Therefore one can argue that the new member countries of the European Union could join the monetary union (and before that ERM2) when their productivity levels have risen sufficiently. A sufficient level would be one where changes in productivity no longer threaten the attainment of the inflation criterion in a regime of fixed exchange rates (ERM2). Countries could naturally participate in ERM2 for several years and use readjustments of their central parities to attain the needed appreciation of their real exchange rate. Here, the authorities must weigh the costs these readjustments might bring in form of lost credibility.

Given the aforementioned arguments, one must conclude that the lower the current income level of an accession country, the longer it should wait for a membership in the monetary union and perhaps ERM. This is especially important for the Baltic countries, because their income levels are lower than in most other applicant countries. In 1996 the per capita GDP (at purchasing power corrected exchange rates) was USD 4431 in Estonia, USD 3484 in Latvia and USD 4273 in Lithuania (OECD 1997).

4.2.2 Practical preparations for a membership in the monetary union

When Baltic countries prepare for membership in the euro area and the Exchange Rate Mechanism, they must gradually bring their monetary policy instruments in line with those used in the European System of Central Banks. As the final goal of the Baltic countries is to join euro area, it probably is a good idea to introduce similar monetary policy instruments as the ESCB uses in its operations well in advance of the actual membership so that both the central and commercial banks are adequately prepared for operations in the new environment. This point applies especially to Estonia, if it has the currency board arrangement still in place when it joins the European Union. The main instrument of monetary policy in the ESCB is the weekly reverse transaction (repo) tender (European Central Bank 1998, Table 1). This tender has a maturity of two weeks. The ESCB also provides longer term liquidity to the banks with monthly repo auctions, which have a maturity of three months. In addition to this the ESCB can engage in outright purchases and sales of debt instruments, and it can intervene in the foreign exchange market with swaps. The ESCB offers banks access to standing facilities, the marginal lending facility and the deposit facility. This is then the set-up of monetary policy instruments into which the Baltic countries should move at some point.

At the moment, the fairly strict currency board arrangement effectively limits the range of monetary policy instruments available to the Bank of Estonia. The Bank of Estonia has conducted monthly auctions of its own paper, but this has not been meant as a tool to manage liquidity. Rather it has been a way to offer Estonian banks a homogenous asset which could be used as collateral in interbank trading. Bank of Estonia naturally intervenes in the foreign exchange market as it is obliged to sell foreign currency when presented with kroons by the commercial banks.

In Latvia the main tool of monetary policy has been foreign exchange market intervention (Bank of Latvia 1998). The Bank of Latvia can make outright sales and purchases of treasury bills in the market. It can also arrange tenders both to provide (repos) and drain liquidity (reverse repos). The central bank has a standing Lombard credit facility.

In Lithuania the central bank uses infrequent repo auctions (with maturity of one week) for provision of liquidity to the banking system, and deposit auctions (with variable maturity) to drain liquidity. Naturally the Bank of Lithuania also intervenes in the foreign exchange market to support the peg of the litas.

It appears that up until now the Bank of Latvia has introduced the widest variety of monetary policy instruments. This is natural, because it has not been constrained in this sense by a currency board as Estonia and Lithuania. One could expect Lithuania to expand its arsenal of monetary policy instruments in the future, as it moves away from the currency board. The Baltic central banks have naturally many years to introduce more instruments and observe how they affect the banking sector, before they even join the European Union.

One interesting question in this regard is the fate of the Estonian currency board. Would a currency board be compatible with membership in the ERM2? The rate at which Estonian kroon is pegged to the euro would become the new central parity, and in practice there would be no need for a band around the central parity. The Bank of Estonia would be able to maintain peg in the same way as before membership in the Exchange Rate Mechanism. But in a sense membership in the ERM2 would be completely superfluous: the currency board ensures the stability of the exchange rate, not membership in the ERM2. Would this actual stability fulfill the Maastricht criterion on exchange rate stability? This would most probably be a political decision, although from an economic viewpoint actual stability should matter. Another issue is whether Estonia should exit the currency board to be able to introduce those monetary

policy instruments, which are in use in ESCB. The exit from the currency board could then coincide with membership in the ERM2. This would give the central and commercial banks time to adjust to new procedures before membership in the monetary union.

The Maastricht criteria also include provisions for the independence of the central bank and they deny the central bank financing of government deficits. In this regard the Baltic countries have very little to do. Their central bank laws grant a high degree of independence to the central banks, and the financing of budget deficits is prohibited.²⁴

5 Conclusions and policy implications

The start of Stage Three of Economic and Monetary Union has changed the economic environment of the Baltic countries to a considerable degree. Further, the prospect of the membership in the European Union promises even more changes. In this paper, I have looked at the implications these developments on monetary and exchange rate policies in the Baltics.

The introduction of the euro means that Baltic countries conduct a very significant part of their foreign trade with the countries who have a common currency. If these countries are counted as a single entity, then the euro area is the single most important trading partner for all the Baltic countries. This could also mean reorientation of the exchange rate policy, especially for Lithuania, which currently pegs the litas to the dollar. Introduction of the euro could also mean that the importance of the dollar as an invoicing currency diminishes.

The Baltic countries are also integrated to the euro area in other ways. Foreign direct investment in the Baltic countries has mainly come from the European Union. The financial systems of the Baltic countries, especially Estonia, have become very integrated into the global financial system, but naturally they have closest links with the neighboring countries.

Currently Estonia has pegged its currency to the euro (via the German mark), Latvia to the IMF's Special Drawing Right (SDR), and Lithuania to the dollar. Lithuania had previously announced that sometime during 1999 the litas will be pegged to a basket where the euro plays a significant role, but now it seems that repegging of the litas will take place in 2000. The currencies joining the euro area make up roughly one third of SDR, so the litas is also partly pegged to the euro.

The introduction of the euro does not need to change the exchange rate regimes in the Baltic countries. But when the countries are in the process of joining the European Union, it is of interest to contemplate the choice of the appropriate exchange rate regime (which then determines the conduct of monetary policy). The Baltic countries are extremely small and open to international trade. This means that they are natural candidates for a regime of fixed exchange rates. When one also considers the fact that the present exchange rate arrangements have been quite successful in reducing inflation and maintaining macroeconomic stability, and as a result of this have gained popular support and credibility, the case for maintaining fixed exchange rates is quite strong. However, this approach is not without its dangers. In a regime of fixed exchange rates the fiscal authorities need to react with sufficient speed to threatening imbalances, which is difficult even under the most benign conditions. Maintenance of a fixed exchange rate also places heavy demands on the flexibility of the markets, especially the labor market. At the moment it appears that the Baltic countries may have sufficient flexibility in their labor markets when it comes to wage setting. In this context it should be remembered that the Maastricht criteria on joining the currency union are not criteria for joining the European Union.

The form of the currency peg is also a matter of some importance. When the capital movements have been completely liberalized (as they have been in the Baltic countries), maintaining the currency peg is very difficult if the underlying economic policies are not strictly in line with the peg. Perhaps the only solution for this dilemma is a currency board, which seems to have performed reasonably well in different countries also during the recent volatility in the global financial markets (with the possible exception of Hong Kong). For Estonia this would mean continuing with the present arrangement as long as possible. From this viewpoint it is slightly worrying that Lithuania is in the process of exiting from the currency board, although it should be remembered that so far Latvia has succeeded in maintaining its currency peg without a currency board. To achieve this the central bank and other authorities must be committed to the currency peg and be ready to implement policies which can be unpopular at least in the short-run. It remains to be seen how Lithuania fares in this respect.

Once the Baltic countries are members of the European Union, they must decide when to join the monetary union. As a first step towards this they must join the Exchange Rate Mechanism 2. In the paper it is argued that the countries should have developed enough economically enough so that the inevitable²⁵ appreciation of the real exchange rate does not threaten the attainment of the criterion on inflation. This would mean that membership of the monetary union is still quite far off, especially for the Baltic countries, which have quite low per capita GDP. One could naturally join ERM2 and then use readjustment of the central parity to achieve the needed appreciation of the real exchange rate, but this could damage the credibility of the exchange rate policy and could actually be counterproductive.

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Macroeconomic variables

Estonia

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998* |
|---|-------|------|------|------|------|-------|-------|
| GDP change, % | -14.2 | -8.5 | -1.8 | 4.3 | 3.9 | 10.6 | 4.0 |
| Average inflation, % | 1076 | 89.8 | 48.0 | 29.0 | 23.0 | 11.0 | 6.5 |
| Current account balance, % of GDP | n.a. | 1.3 | -7.1 | -4.7 | -9.2 | -12.0 | -8.6 |
| General government balance, % of GDP | -0.8 | -0.7 | 1.3 | -1.2 | -1.5 | 2.3 | -0.3* |
| Nominal GDP, bn USD | 1.04 | 1.64 | 2.28 | 3.54 | 4.37 | 4.63 | 5.19 |

Sources: EBRD (1999) and national statistical authorities, * EBRD estimate (1999)

Latvia

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|-------|-------|------|------|------|------|-------|
| GDP change, % | -34.9 | -14.9 | 0.6 | -0.8 | 3.3 | 8.6 | 3.6 |
| Average inflation, % | 951.2 | 108.0 | 35.9 | 25.0 | 17.6 | 8.4 | 4.7 |
| Current account balance, % of GDP | 1.7 | 6.9 | -2.4 | -3.6 | -7.0 | -6.4 | -11.5 |
| General government balance, % of GDP | -0.8 | 0.6 | -4.1 | -3.5 | -1.4 | 1.3 | 0.1* |
| Nominal GDP, bn USD | 1.5 | 1.69 | 3.65 | 4.43 | 5.13 | 5.64 | 6.40 |

Sources: EBRD (1999) and national statistical authorities, * EBRD estimate (1999)

Lithuania

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|--------|-------|-------|-------|------|-------|-------|
| GDP change, % | -37.7 | -17.1 | -11.3 | 2.3 | 4.7 | 7.3 | 5.1 |
| Average inflation, % | 1020.5 | 410.4 | 72.1 | 39.5 | 24.7 | 8.9 | 5.1 |
| Current account deficit, % of GDP | 10.6 | -3.3 | -2.2 | -10.3 | -9.3 | -10.3 | -12.1 |
| General government balance, % of GDP | 0.5 | -4.3 | -5.4 | -4.5 | -4.0 | -2.4 | -6.0* |
| Nominal GDP, bn USD | 1.91 | 2.66 | 4.71 | 5.94 | 7.89 | 9.59 | 10.69 |

Sources: EBRD (1999) and national statistical authorities, * EBRD estimate (1999)

Notes

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¹ One could, for example, argue that the Baltic countries should fix their currencies to the euro as soon as possible to demonstrate their political will to integrate into the European Union. Interesting as such questions might be, they fall outside the scope of this paper.

² Monetary overhang is the result of forced saving during the Soviet era. Households and companies could not increase their consumption at the same rate as their money holdings increased. Prices were fixed, so excess demand could not be eliminated by raising prices, i.e. open inflation. On monetary overhang in Russia, see e.g. Rautava (1993). For a more detailed account of the early Russian reforms, see e.g. Sutela (1993) and Koen & Marrese (1995).

³ See, e.g. Hanke et al (1993).

⁴ Restrictions on foreigners buying real estate are still in force.

⁵ Much has been written on the reasons for economic downturn at the beginning of transition. While some authors blame overtly strict monetary and fiscal policies for declines in output, it is perhaps more realistic to treat transition as a structural shock that severs old trading patterns and reveals the inefficiency of many existing enterprises. In such situations, conventional demand management policies have little relevance. For an analysis along these lines, see e.g. Blanchard (1997).

⁶ The current composition of the SDR is as follows: USD 43%, EUR 28%, JPY 17%, and GBP 12%.

⁷ Details of this gradual shift are spelled out in Bank of Lithuania (1997).

⁸ Old minimum capital requirements had been rendered economically meaningless by extremely high inflation in 1992.

⁹ For an assessment of the early years of Baltic foreign trade, see Korhonen (1996c).

¹⁰ In addition to the usual problems relating to the quality of data in transition economies used in assessing the trade flows, one should bear in mind that at least some Estonian exports to Finland, the remaining Baltic countries and Ukraine have actually been targeted to Russia. The reason for this rerouting is circumvention of the high tariffs Russia applies on imports from Estonia.

¹¹ On the other hand, openness to trade might very well be influenced by the foreign exchange rate regime, see Frankel and Rose (1998).

¹² African countries with currencies pegged to the French franc are omitted as their share in Baltic foreign trade is miniscule.

¹³ Data from June 1998.

¹⁴ A few infrastructure companies are remain to be privatized. Their privatization has proven far more complicated than earlier cases.

¹⁵ In mid-1998, the market capitalization of Tallinn Stock Exchange was less than \$600 million, \$360 million in Riga Stock Exchange and \$1800 in the National Stock Exchange of Lithuania. Trading is by far most active in Tallinn Stock Exchange.

¹⁶ May 1999.

¹⁷ I have included the branches of foreign banks in all Baltic countries with the exception of the Lithuanian Development Bank and Turto Bankas, which was set up to sort out bad loans the Lithuanian banking system had incurred before the banking crisis in late-1995/early-1996.

¹⁸ Another matter is whether the clients who in effect have taken foreign currency loans would be able to service their loans in full if the external value of kroon were to change.

¹⁹ On this point, see for example Honohan (1997).

²⁰ The inertia of monetary regimes is hard to foresee. For example, Lainela and Sutela (1994) describe the Estonian currency board as “transient.”

²¹ The determinants of equilibrium dollar wages were obtained from panel data consisting of 85 countries and spanning the period 1970-95. In the final specification the determinants of monthly dollar wage were GDP per capita, age dependency ratio, government consumption (percent of GDP), openness of the economy, net foreign asset position and credit to private sector (percent of GDP).

²² Although it has been difficult to find any significant difference between the growth experience of, say, countries with average inflation of 3% and 5%.

²³ This argument relies on the Balassa-Samuelson model of real exchange rates, whereby traded and non-traded goods sectors have different productivity. The relative price of traded goods is proportional to the ratio of average labor products in the two sectors. Furthermore, it is assumed that the price of traded goods is the same in different countries, i.e. purchasing power parity holds in the traded goods sector. If the ratio of traded goods productivity to the productivity in the non-traded goods sector grows faster, for example, in Estonia than in the EU, then the relative price of non-traded goods will also rise faster in Estonia than in the EU. Because the price of traded goods is similar in Estonia and the EU, the Estonian currency will experience real appreciation as the price of Estonian output rises relative to the price of output in the EU.

²⁴ On this point, see Äimä (1998).

²⁵ Inevitable in the sense that all accession countries are expected to grow faster than the current EU members, because they start from a lower level. Of course, bad economic policies could derail growth, but one tends to be optimistic in this regard at least in the case of the Baltic countries.