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Small Countries Establishing Their Own  
Independent Monetary Systems:  
the Case of the Baltics

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The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.

## Small Countries Establishing Their Own Independent Monetary Systems: the Case of the Baltics<sup>1</sup>

### 1 Foreword

In Europe there are currently two polar developments taking place as regards regional monetary policies. On the one hand, the Western European countries are approaching a unified currency system. On the other hand, the former socialist countries, in the process of liberalization, are establishing their own national currencies and formulating their monetary policies appropriate for a market economy.

This paper discusses the options available to countries in transition from a planned economy to a market economy as they establish their own national currencies and devise mechanisms for pursuing monetary and exchange rate policies. The Baltic states are used as examples of different approaches that are available. Their experience shows that there are several ways to successfully introduce a national currency and several options available for conducting effective monetary and exchange rate policies.

In order for a country to acquire economic sovereignty, it is essential that it have a monetary unit of its own, which enables it to pursue independent monetary and exchange rate policies. Several of the former republics of the Soviet Union are now moving in this direction. The need for an own currency is all the more urgent if the monetary or exchange rate policy pursued by the currency region to which the country in question belongs is unsuccessful and if there are grounds for presuming that the country would be made better off by managing its own currency. This was clearly the case with the Baltic states when they left the Soviet Union and its continuously weakening ruble.

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<sup>1</sup> The views expressed in this paper are those of the author and do not necessarily reflect the views of the Bank of Finland. The author is grateful to Dr. Pekka Sutela for valuable comments.

## 2 Preconditions for the Introduction of a National Currency

The introduction of an own currency is a huge task, especially for a country which does not have the institutions of a market economy. In this case, certain preconditions which enable the monetary system to function in an orderly manner are generally considered necessary to the introduction of the national currency. These preconditions include such very basic things as a central bank with the tools necessary for conducting monetary policy and institutions capable of pursuing a sound fiscal policy. In addition to setting up these institutions, a vast body of legislation concerning banking structures as well as monetary and fiscal policy has to be put in place and specialists need to be trained to implement the program.

There are also other conditions concerning the economy of a transition country that would be necessary for the introduction of a national currency. They include things such as the accomplishment of price liberalization and the achievement of a balanced budget. Essentially, the question concerns the sequencing of the various elements in the process of transition from a socialist economy to a market economy as well as the achievement of economic independence. The Baltic states have shown that at least some of these elements can be developed gradually after the introduction of the national currency, provided, of course, that the most fundamental elements are in place from the start.

The aim in establishing a national currency is naturally to achieve a stable monetary environment in the sense that the currency is credible and stable in value. To achieve this aim, there are several elementary choices which have to be made concerning the appropriate policy structures, one of the most important of them being the choice of an exchange rate regime.

The basic dilemma here concerns the degree of autonomy the country in question wants to have with respect to its monetary and exchange rate policy. The choice of exchange rate regime affects the toolkit for monetary policy. A country can choose either of the two polar alternatives, a fixed exchange rate regime or a freely floating regime, or something in between. In a fixed exchange rate regime, the exchange rate of the new national currency is pegged to a major foreign currency or basket of currencies. The aim is to give the new currency the same level of stability as the main currency. In this case, the pegged exchange rate serves as a nominal anchor for the national economy. The peg compels the country to pursue stringent monetary and fiscal policies. Monetary policy is directed to maintaining the fixed exchange rate.

The pegged exchange rate system has its disadvantages; it may be difficult to determine the correct level of the exchange rate at the outset. This is the case particularly in the former socialist countries with their distorted internal price structures. Further, some amount of foreign exchange reserves is required from the very beginning so that the authorities can defend the chosen rate if necessary.

The opposite alternative is to let the new currency float freely. In this case, there is no need to maintain foreign exchange reserves for defending the external value of the currency. Markets set the exchange rate, and domestic monetary policy can be pursued independently. The drawback to this alternative is that a floating exchange rate cannot be used as a nominal anchor.

Between these two extremes there are various alternatives with different combinations of their properties, such as a floating exchange rate with active central bank involvement in the markets in order to steer the exchange rate. It is also possible to set certain boundaries for the exchange rate. In this case, the central bank intervenes when the rate approaches a boundary. In the adjustable peg system, changes in the pegged exchange rate are made either regularly or unexpectedly.

The choice of the exchange rate regime depends on the economic conditions and the structure of the economy of each individual country, and they determine which policy goals are the most important and which should be handled through the exchange rate mechanism. Naturally, choosing the exchange rate regime is not sufficient to guarantee the success of the new currency. The proper management of monetary and fiscal policies is crucial for the stability and credibility of the currency, under any exchange rate regime.

One additional choice to be made at the outset concerns the desired degree of convertibility. It is very important for a country that is in the process of transition from a planned economy to a market economy to establish current account convertibility for its currency as early as possible. Current account convertibility allows foreign goods to enter the home market, thus enhancing competition and the alignment of domestic prices with prices in the world markets. This requires the simultaneous liberalization of foreign trade from administrative controls.

As regards capital account convertibility, almost all the former socialist countries (with the exception of the Baltics) have preferred to maintain capital controls. This is due to the need to avoid possible outflows of capital from countries that suffer from a severe shortage of domestic capital. However, the development of systems for regulating capital movements may be rather cumbersome and expensive, and the efficiency of the control may be questionable.

Further, when introducing a national currency, there are matters which have to be settled with the previous currency region in order to enable a smooth transfer to the new system. These entail agreements on future trade and payments arrangements and settlement of any outstanding balances between the countries, as well as the possible return of banknotes and coin withdrawn from circulation. Finally, methods must be devised for actual changing of currencies.

### 3 The case of the Baltics

#### 3.1 Different Methods of Introducing National Currencies

The Baltic states were in a much worse situation than the former socialist countries of Eastern and Central Europe when they started to build their own national monetary systems. During the Soviet period, the economies of the Baltic states were totally subordinated to the all-Union institutions in Moscow. For this reason, the Baltics did not have institutions for conducting monetary or fiscal policies in the Western sense. So, all these institutions had to be formed from scratch in a very short period of time.

The Baltic states, being much more dependent on trade with the former Soviet Union than were the countries of Central and Eastern Europe, were also hit much harder by the collapse of Soviet economic ties. As a result, industrial production in the Baltic countries has fallen by about two thirds since 1990. The economic environment for building market economy institutions has been very difficult. These difficulties point up the success that the Baltic countries have had in establishing their national currencies.

At the time that the Baltic states regained their independence, the initial economic conditions were very much the same in all these countries. From that point of view one could have expected the choices in the introduction of own currencies to be somewhat similar, too. However, each of the Baltic states has gone its own way in developing a national monetary system. One could surmise that Estonia and Latvia have moved in opposite directions in their policies while Lithuania has so far followed to a large extent the policy course taken by Latvia, but has lagged behind.

#### Estonia

The Baltic states were determined to detach their economies from the Russian ruble zone as part of the process of regaining their independence, which took place in the late summer of 1991. Preparations for establishing its own monetary unit began in Estonia while the country was still a part of the Soviet Union. Latvia and Lithuania also had plans for their own currencies at that time.

However, it took about one year from the onset of political independence for the Baltic states to separate from the ruble zone. Estonia was the first of them to do so. In June 1992 three days of concerted effort by a large number of volunteer and other workers ended with the conversion of all Russian rubles circulating in the country into Estonia's own national currency, the kroon. The rate of conversion was 1 kroon to 10 Russian rubles, and the amount of cash rubles that an individual could change was limited to 1500 rubles (about 12 US dollars or a third of the average monthly pay at the time). (For a thorough discussion of the Estonian case, see Hansson, 1992 and 1993.)

Since the conversion date, the use of all other currencies has been prohibited in Estonia. Indeed, even all the shops that used to sell their goods only for hard

currency, changed immediately to the use of the kroon. The Estonian people gave their support to the new currency, and the kroon instantly established its position as virtually the only means of payment in the country. This was a remarkable achievement, bearing in mind the large amount of foreign currencies (mainly dollars and Finnish marks) that had been in circulation before the reform. Unfortunately, there are no accurate data on their amount, but their large share was reflected in the rapid growth of the central bank's foreign exchange reserves during the following months, as people converted foreign currencies into kroons in order to handle their daily transactions.

The Estonian approach to monetary reform as well as its monetary, fiscal and foreign exchange policies may be characterized as the utmost in discipline and order. This has contributed to the firm status which the new currency gained from the very beginning.

### Latvia and Lithuania

Latvia and Lithuania chose a more gradual and perhaps less organized exit from the ruble. Latvia left the ruble zone in July and Lithuania in October 1992 when they declared their respective interim currencies, which had been circulating alongside the Russian ruble since spring of the same year, to be the sole legal tender in the country. The interim currencies, in Latvia the Latvian ruble and in Lithuania the talonas (coupon), had been issued when these countries and several other ruble zone countries were suffering from a severe shortage of Russian rubles.

In Latvia the conversion of the currency took place gradually, the central bank replacing Russian rubles by the Latvian rubles over the course of several months. The rate of exchange was 1:1. Unlike in Estonia, there were no limits in Latvia on the amount of Russian rubles that could be offered for conversion.

This liberal attitude in allowing any amount of Russian rubles to be converted into the interim national currency could have had a detrimental effect on the Latvian economy and the new currency, as there could have been a flood of Russian rubles coming in from other republics of the former Soviet Union. Perhaps fortunately, there apparently was not much confidence in the new currency outside the country, and Latvia was able to complete the process in an orderly manner.

In Lithuania the conversion principles were much the same as in Latvia. The conversion rate was 1:1 and there were no limits on the amount of Russian rubles that could be converted. The only difference was that Lithuania had to take abrupt measures and withdraw the remaining Russian rubles from circulation during one week in September, as there was a large inflationary inflow of Russian rubles especially from Ukraine.

The use of interim currencies in Latvia and Lithuania was largely due to the fact that these countries did not have the final currencies printed at the time when the chaotic monetary situation in Russia and other republics of the former Soviet Union compelled them to leave the ruble zone. The more official reason, given by Latvian and Lithuanian authorities, was that they did not want to introduce the final currencies until their economies had been stabilized.

Latvia and Lithuania introduced their final currencies, the lats and the litas respectively, gradually during 1993. In Latvia the conversion period was again longer, continuing from March to October. In Lithuania the conversion took place during one month in summer. In Latvia the rate of conversion was a peculiar 200 Latvian roubles per 1 lats, giving rise to many problems and miscalculations in transactions during the long transition period. In Lithuania the rate was 100 talonas per 1 litas.

The immediate reason for the introduction of the final currencies seems to have been that the amount of forged banknotes in both of these countries was rising rapidly, as the interim banknotes were of a very low quality and very easy to counterfeit. At least in Lithuania, the stabilization of the economy could not have been the main reason for the introduction of the final currency.

The use of convertible currencies was quite common also in Latvia and Lithuania during their last years in the ruble zone. Unlike Estonia, Latvia even today continues to allow the use of foreign currencies. The only requirement is that prices have to be stated in lats. Lithuania prohibited the use of other currencies in the autumn of 1993. No information is available on how much foreign currency is still circulating in the country. It is likely that foreign currencies (mostly dollars and German marks) are still used for making payments, especially in the enterprise sector.

The confidence of the Latvian and Lithuanian people in their own national currencies may not have been as strong as was the case in Estonia, although the new currencies immediately became the prime means of payment in these countries also.

### Negotiations with Russia

Several Western specialists stressed the importance of prior negotiations with Russia concerning trade-related payments arrangements in the new situation. The idea was to minimize the possible detrimental effects that the exit from the ruble zone could have on trade flows. Each of the Baltic countries conducted negotiations with Russia, and some agreements were reached. In general, the Russian government did not oppose the exit of the Baltic countries from the ruble zone, as they considered the shrinking of the ruble zone to be salutary in respect to the management of the ruble.

The Baltic states' trade with Russia decreased sharply in 1992. Although there were some problems in implementing the new trade agreements, the main reason for the contraction was not the introduction of the Baltic currencies but Russia's economic turmoil. Furthermore, trade with the Baltics was also affected by certain political decisions made in Russia.

### 3.2 Differing Monetary and Exchange Rate Policies

The Baltic states are small and highly dependent on foreign trade. These factors have influenced the monetary and exchange rate policies that they have adopted



when introducing national currencies. From the very start, the Baltic countries have aimed at extensive convertibility of their currencies. They have also aimed at an ambitious stabilization policy in order to bring down the high inflation which followed price liberalization, and they have been quite successful in this regard.

Price liberalization was largely completed in the Baltic states by the time they left the ruble zone. The most important prices that were – and still are – under control are those of energy products. However, rapid price increases also took place after the introduction of the new currencies. In some cases, the increases were connected with the introduction of new taxes or the raising of tax rates, as the Baltic countries continued to develop their fiscal systems. The continuation of inflation is also partly due to the price adjustments that take place as domestic prices adapt to world markets.

All the Baltic countries have pursued a very restrictive fiscal policy during their new independence, and their budgets were roughly in balance in 1992. Thus, the introduction of their own currencies did not bring about any change in this respect.

A somewhat more problematic feature of the Baltics is the underdeveloped state of banking and financial services. A large number of small private banks has emerged in each of the countries during the past few years, but their reliability is sometimes questionable. There are no capital markets, and legislation concerning financial activity is often inadequate. The situation is best in Estonia, where the basic laws have been passed and the banking supervision is the most effective.

Because of the underdeveloped state of the financial sector, market instruments for use in monetary policy are not yet available, and it is nearly impossible for the government to raise domestic financing.

The Estonian central bank was established at the end of 1990, but for more than a year it did not carry out any central banking functions, being involved mainly in preparations for the introduction of the national currency. The Estonian central bank was from the beginning established as a pure central bank. It was started from scratch, at first employing only three persons.

The Latvian and Lithuanian central banks were formed by merging the local branches of several former all-Union banks. As a result, these central banks operated at first as commercial banks and have only recently rid themselves of this role by forming independent banks to take over their commercial banking functions.

The Baltic countries have chosen quite different approaches not only in the manner of introducing their national currencies, but also in their monetary and exchange rate policies. Although the policies chosen in Estonia and Latvia have been quite the opposite, both of these countries have done very well in establishing their national currencies.

## Estonia

In introducing its national currency, Estonia opted for a rather unique monetary and exchange rate policy regime, a so-called currency board arrangement. This is another example of the highly disciplined approach that the Estonians have adopted for economic transition process.

The idea of a genuine currency board is that all the money in circulation domestically has 100 percent backing in the country's gold and foreign currency reserves. These reserves determine the amount of domestic currency in circulation, and the latter can change only in accord with the changes in the former. The domestic currency is pegged to a (reserve) foreign currency, and the currency board is obliged to accept on demand and at the fixed rate all domestic currency presented in exchange for the reserve currency. (For more information on currency boards, see Osband et al., 1992 and Hanke et al., 1992.)

The practical operation of a currency board is very simple. The arrangement automatically takes care of the amount of money in circulation, thus rendering monetary policy completely passive and obviating the need for a central bank.

A currency board arrangement has several advantages. It quickly gives credibility to the new currency, because of the 100 percent backing of the reserve currency. It also allows the country to immediately establish the convertibility of its national currency. Further, the management of a currency board does not require sophisticated professional skills, as does the conduct of genuine monetary policy. The currency board arrangement is conducive to stringent monetary and fiscal policies, as it obviates the possibility of inflationary financing of budget deficits: the central bank cannot print money so as to lend it to the government. This relieves the bank of the political pressure to inflate. On the other hand, especially when foreign financing is meager, the fact of utterly tight monetary and fiscal policies may bring about overly austere conditions in the economy.

Some additional advantages as well as disadvantages of the currency board arrangement are mentioned in Chapter 2 in connection with pegged exchange rate arrangements.

Estonia has slightly modified the original concept of a currency board. There is in fact a central bank which has some scope for conducting monetary policy. The central bank can use the reserve requirements applied to commercial banks to affect the amount of liquidity in the market. It also has international reserves in excess of the currency board backing, which allow it some room for maneuver in exceptional situations. In Estonia the principles of the currency board arrangement have been fixed by law, and it is also stated in the law that the central bank is not allowed to devalue the currency.

Estonia chose the German mark as its reserve currency, and the kroon was pegged at 8 kroons to 1 mark. The rate was taken from the prevailing market rate between the Russian ruble and the German mark at the time of conversion. As rubles were abundant and convertible currencies scarce, the exchange rate did not reflect the purchasing powers of the currencies. As a result, the kroon was clearly undervalued. One estimate of the degree of initial undervaluation is offered by Dr. Arvo Kuddo (Rahva Hääl, 1 February, 1994). According to his calculations, the pegged value of the kroon may have been less than a third of its actual value.

The undervalued exchange rate has served to boost exports and restrain imports. Undervaluation has also helped in securing the convertibility of the kroon. On the other hand, the undervaluation has contributed to the continuation of relatively high inflation in Estonia. Because the exchange rate has been fixed, the real exchange rate has appreciated.

## Latvia and Lithuania

Latvia and Lithuania have chosen more conventional monetary and exchange rate policies. In both of these countries, the exchange rate is floating, although the central banks actively intervene in the market. Especially Latvia has pursued a very restrictive monetary and fiscal policy since its withdrawal from the ruble zone.

The roots for the stringent monetary policy in Latvia lie in the extensive independence of the central bank. Neither the government, nor the parliament are able to affect central bank's monetary policy decisions. Further, the central bank is not allowed to finance budget deficits except under special conditions defined by law.

Although the institutional arrangements for conducting monetary policy differ considerably in Estonia and Latvia, the practical basis for the policy pursued in both of these countries is essentially rather similar. It entails an independent position for the central bank, which frees the bank from political pressures to inflate.

In Latvia the independence of the central bank is written in law. The continuation of this independence is therefore subject to the will of political decision makers. In principle, the same applies to the Estonian currency board arrangement, as a change of the law is needed to abolish the arrangement. However, ending the currency board arrangement is a far more complicated measure, due to its strong institutional status. In this respect, the future of stringent policies is more uncertain in Latvia than in Estonia. At least so far, the Latvian strict policies have been sustainable, and they have been continued without any major interruptions.

Immediately after leaving the ruble zone, Latvia moved to a single exchange rate system. The exchange rate is formed in the interbank markets, which developed rapidly after the liberalization of foreign exchange dealing. One of the most striking features in the Latvian foreign exchange markets was the rapid emergence of numerous small exchange offices in the capital. With time, some of them have turned into major banks.

In the beginning, the central bank was not active in foreign exchange markets, due largely to a lack of professional skills and organizational development. Later on, the central bank began to intervene regularly in the markets in order to guide the exchange rate movements.

Although no detailed information is available, it is obvious that from the outset the Latvian and Lithuanian currencies were also undervalued in light of purchasing power parity. The undervaluation was due to the prevailing uncertainties in the markets concerning the new currencies.

Since its introduction, the Latvian national currency has constantly strengthened in value. The policy line of the Latvian central bank is to let the lats appreciate smoothly and without any sudden large movements, thus allowing the adaptation to the difference in the purchasing power parity to take place through the exchange rate rather than through the domestic price level (see Figure 1).

In Lithuania the problem of domestic and international credibility in the national currency is more serious than in Latvia. This is so because the commitment of the Lithuanian political leaders to the austere policies is considerably

weaker, as has been demonstrated by the economic problems that have developed during the past few years.

The macroeconomic stabilization of the economy has not advanced as far in Lithuania as in its Baltic neighbour countries. Although fiscal policy has been very tight, monetary policy has been easier, and as a result inflation has been higher than in Estonia and Latvia. The Lithuanian currency had lost much of its value by the spring of 1993, but it has subsequently started to strengthen, due to stricter monetary policy (see Figure 1).

Latvian and Lithuanian central banks are sometimes accused of not letting their currencies appreciate as fast as the supply of foreign currencies would allow them to appreciate. One reason for the banks' behaviour is obviously the pressure coming from large enterprises engaged in exports. These companies complain that their position has been made worse by the strengthening of the real exchange rate.

Due to the problems in strengthening the credibility of Lithuanian monetary policy, there has been active discussion in the government about adopting a currency board arrangement similar to that of Estonia. A draft law to that effect was presented to the parliament in winter 1993–1994, but the outcome of the process is still unclear.

It seems doubtful whether a currency board rule could remedy the situation in Lithuania. The arrangement would be fixed by a law, which according to the Lithuanian practices can be changed with little pain when it is deemed necessary. In itself, the currency board arrangement is not a panacea, it is only as useful as the decision makers want it to be.

Lithuania had a dual exchange rate system as late as autumn 1993. The central bank quoted an official rate, which occasionally differed from the market rate. It remains somewhat unclear whether the official rate was used for other than accounting purposes or for other than state companies. Later in the year, the central bank discontinued its quotations of the official rate, which is now determined in the interbank market.

## Foreign Exchange Controls and Convertibility

During the first stages after the introduction of its national currency, Estonia had some restrictions on convertibility, but most of these were lifted soon afterward as the kroon became established. Right after the reform, current account transactions were allowed for residents, provided they could document import transactions or travel abroad. However, these rules were not followed literally in the banks, obviously with the central bank's approval. Finally in 1993, these requirements were abolished.

As concerns current account convertibility, at first companies were required to repatriate their currency earnings. This requirement was also relaxed near the end of 1993, and firms can now freely open accounts in foreign banks. Foreign currency accounts can also be kept in Estonian banks. Estonia allows repatriation of profits from foreign investments, but foreign lending and borrowing require the approval of the central bank.

In Latvia the underlying idea in the development of the foreign exchange markets has been extreme liberalism. Current account transactions are free of restriction, as are capital account transactions. Right from the beginning, the

central bank has deliberately refrained from exchange controls. According to certain information, even the size of the foreign exchange market is unknown to the officials. This very liberal stance, together with the still underdeveloped banking supervision, may entail some danger now that money laundering has become a major problem in international banking.

Lithuania has had more exchange restrictions than Latvia, although its exchange system is also quite liberal. Current account transactions were liberalized right from the beginning, but state companies have faced requirements to surrender their foreign currency earnings. These requirements were abolished in 1993. Private persons are allowed to maintain foreign currency accounts in domestic banks or abroad, while enterprises need the permission of the central bank to hold accounts abroad.

## 4 Concluding Remarks

The introduction of national currencies in the Baltic states can be considered a clear success, a fact that has been largely neglected by the Western audience. The achievement is emphasised by the difficult initial conditions that the Baltic states faced when leaving the Soviet Union. In addition, the Baltic states have achieved currency convertibility in a very short period of time. For the Western European countries, it took decades after the war to accomplish the same task.

In the case of the Baltics, one could argue (and, as a matter of fact, it was argued a couple of years ago, at the time when the transition to national currencies was taking place) that these countries were too quick to leave the ruble zone, as they did not yet have all the laws and institutions needed in a market economy. However, if one considers the economic environment of the ruble zone, with all the uncertainties connected with the steep depreciation of the currency, one cannot but approve of the decision of the Baltic states to introduce their own currencies as soon as possible. The Baltics have shown that it is possible to establish a national currency even if the domestic market economy structures are not yet in place.

One fact reflecting the success of the Baltic states in their reforms is that they have been able to constantly increase their foreign currency reserves (see Figure 2). When establishing their own currencies, the countries got back the gold and foreign currency reserves which they had deposited in Western central banks before their annexation to the Soviet Union in 1940. Later, the Baltic states received loans from the International Monetary Fund, which have also augmented their reserves. But basically the increase in their international reserves is due to the sharp increase in the Baltic countries' exports to the West.

A considerable share of these exports consists of the re-export of metals from Russia to the West. This trade is in many cases connected with illegal activities and often escapes customs records and control. The future growth of the foreign exchange reserves is dependent on the possibilities of the Baltic states to find new export items, as the re-export trade is bound to come to a halt at some point, perhaps in not too distant future. On the other hand, the Baltic states (especially Estonia) have already achieved quite good results in expanding the structure of their exports.

One of the factors contributing to the success of the Baltic currencies is that macroeconomic stabilization in those countries has been carried out with perhaps greater vigor than in any other countries in transition. Estonia and Latvia have been able to reduce yearly inflation from about 1000 per cent in 1992 to 35 per cent in 1993. Lithuania has not been as successful in stabilizing her economy; largely due to loose monetary policy, the annual rate of inflation was as high as 189 per cent in 1993 (see Figure 3).

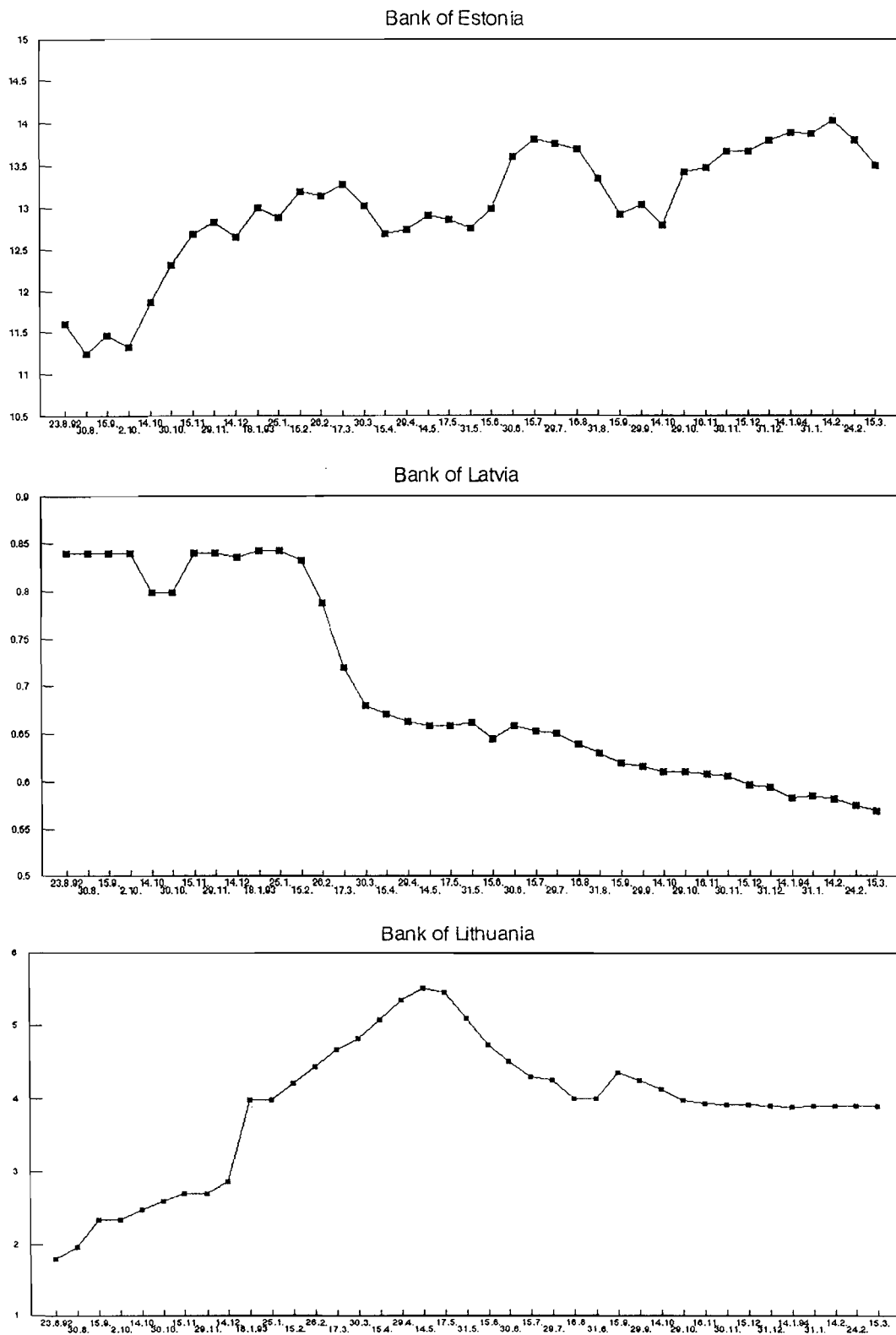
If one compares the process of transition towards a market economy in the Baltic states, Estonia is the obvious leader, as it also is as regards the introduction of the national currency and the effectiveness of monetary policy. This is clearly the result of the uncompromised commitment of the Estonian leaders to the reform policies chosen.

A good deal of the merit of the Estonian currency board arrangement belongs not to the system itself, but to the disciplined political actors. It might have been

possible for Estonia to achieve equally good results without a currency board. This fact makes it possible for Estonia at some point of time in the future to abandon the arrangement without severe loss of credibility and to continue stringent but more conventional monetary policies that will give it more room for maneuver.

Figure 1.

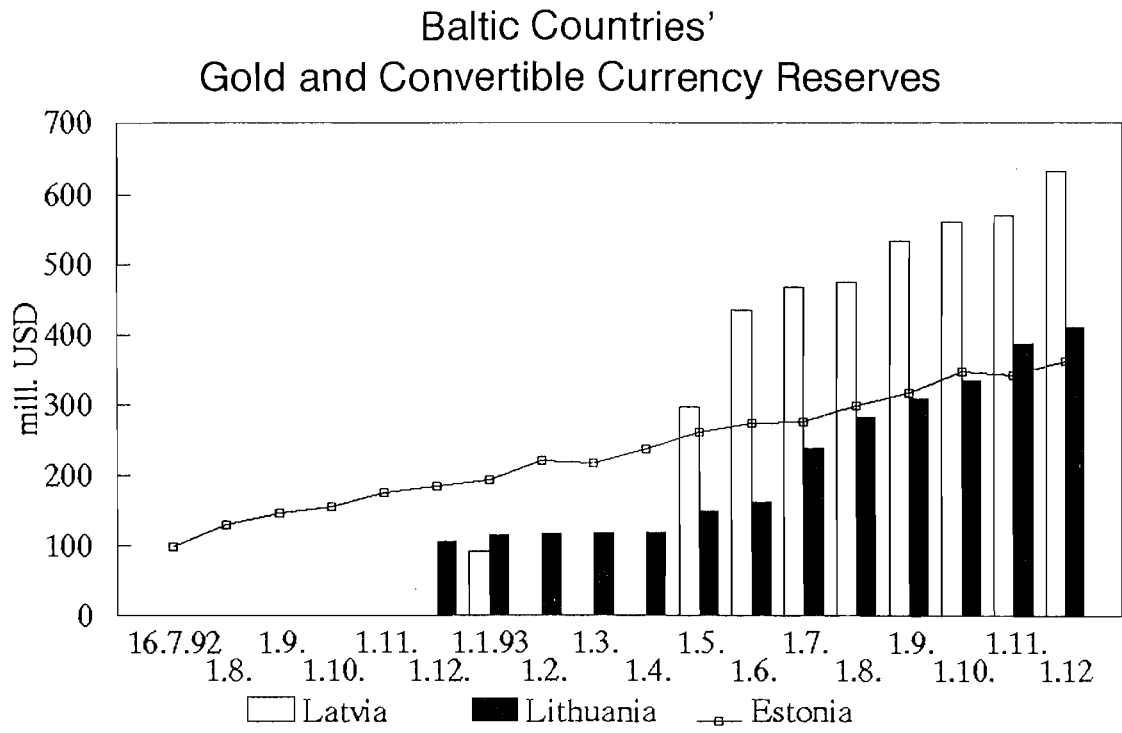
### Exchange Value of the US dollar in the Baltic countries



Source: Āripāev, Baltic News Service



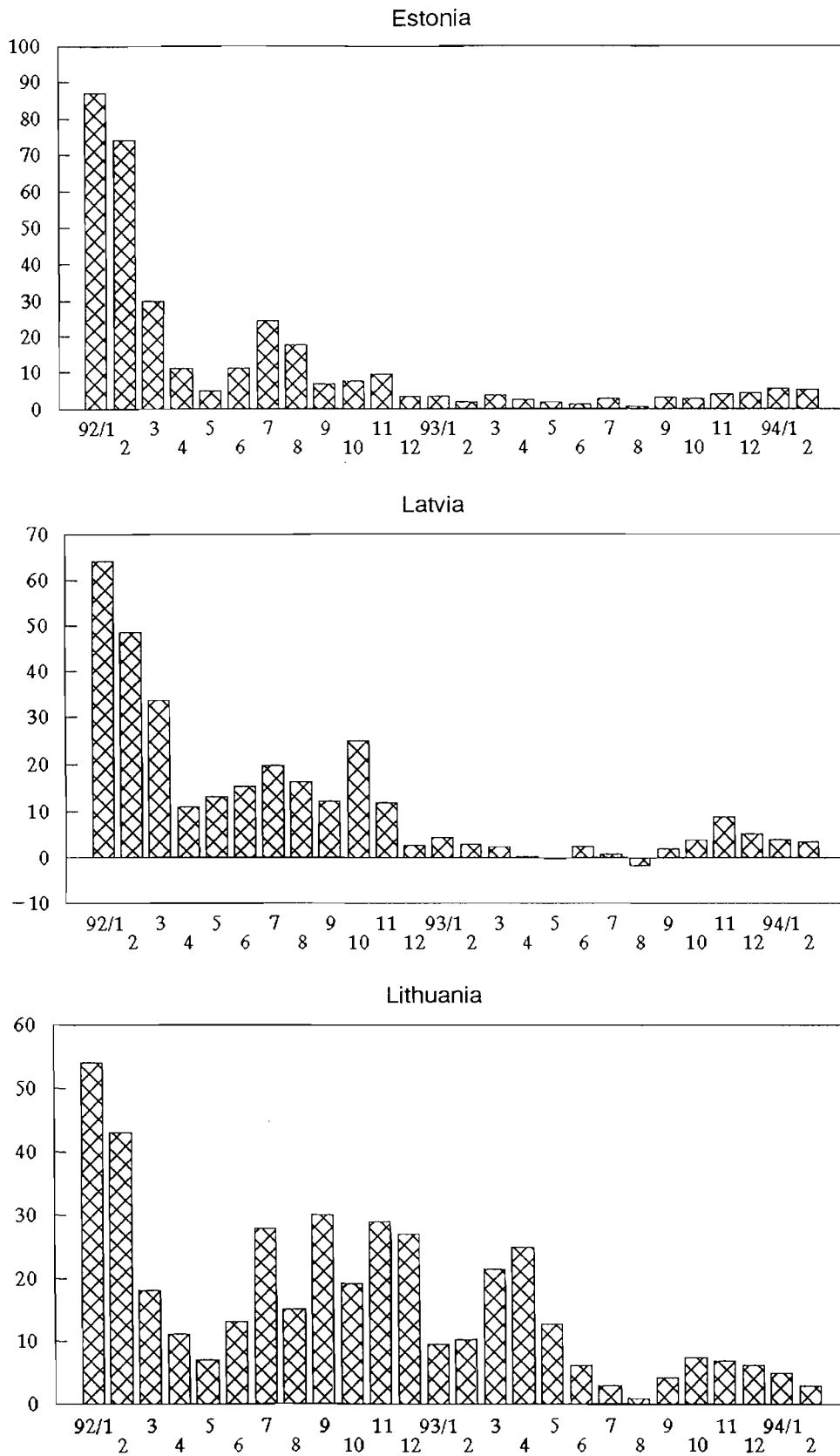
Figure 2.



Sources: Official statistics of the Baltic countries, Baltic News Service

Figure 3.

### Monthly Inflation Rate in the Baltic Countries



Source: Official statistics of the Baltic countries

## References

Abrams, R.K. – Cortés-Douglas H. (1993) **Introduction of a New National Currency**. International Monetary Fund, Working Paper, June.

Bennet, A.G.G. (1992) **The Operation of the Estonian Currency Board**. International Monetary Fund, Paper on Policy Analysis and Assessment, December.

Hansson, A.H. (1992) **Transforming an Economy while Building a Nation**. Stockholm Institute of East European Economics, Working Paper No. 62, December.

Hansson, A.H. (1993) **The Estonian Kroon: Experiences of the First Year**. in The Centre for Economic Policy Research, *The Economics of New Currencies*.

Lainela, S. – Sutela, P. (1993) **Introducing New Currencies in the Baltic States**. Bank of Finland, *Review of Economies in Transition*, 8.

Osband, K. – Villanueva, D. (1992) **Independent Currency Authorities: An Analytic Primer**. International Monetary Fund, Working Paper, July.

Repše, E. (1993) **The Experience with the Latvian Ruble and the Lats**. in The Centre for Economic Policy Research, *The Economics of New Currencies*.

Sutela, P. (1993) **Discussion on Repše**, in The Centre for Economic Policy Research, *The Economics of New Currencies*.

Villanueva, D. (1993) **Options for Monetary and Exchange Arrangements in Transition Economies**. International Monetary Fund, Paper on Policy Analysis and Assessment, September.

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