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Seija Lainela - Pekka Sutela

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Bank of Finland
Institute for Economies in Transition (BOFIT)

PO Box 160
FIN-00101 Helsinki
Phone: +358 9 183 2268
Fax: +358 9 183 2294
bofit@bof.fi
www.bof.fi/bofit

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

Introducing New Currencies in the Baltic Countries¹

Abstract

This paper offers an overview of the currency reforms in the Baltic countries. After surveying the arguments for introducing national currencies, the differing solutions applied in the three countries are analyzed. Estonia opted for a modified currency board, while Latvia has pursued policies that are institutionally liberal but stringent in the stabilization sense. Lithuania has followed Latvia in adopting a piecemeal reform strategy. Both approaches have their pros and cons, which are discussed. Still, the conclusion is that escaping from the rouble zone has not only been possible and desirable, but that there is also more than one way of doing it.

¹ This article builds upon two earlier papers, Lainela and Sutela (1993) and Lainela (1993). The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.

1 Baltic States introduce their own currencies

New currencies were introduced in the Baltic states during the summer and autumn of 1992. Estonia was the first of them to introduce its own currency, the kroon. Latvia and Lithuania left the rouble zone a little later when they declared the parallel currencies that had been circulating alongside the Russian rouble to be the sole legal tender. These interim currencies were to be replaced with true national currencies, the lats in Latvia and the litas in Lithuania. The introduction of the lats was started in March 1993, and the litas followed in summer 1993. This was largely seen as a technical operation involving the exchange of banknotes – and changing price scales – without any fundamental change in the monetary system as this had already taken place when the Russian rouble was abandoned. As the Estonian experience shows, one should though not underestimate the socio-psychological importance of finally having the "real" national currency in circulation. Also, the new notes are much better protected against counterfeiting than those of the parallel currency had been.

The Baltic currencies, as the monetary authorities of these states would be the first to emphasise, are not entirely new in the sense that all three states had their own sovereign currencies between the World Wars. In Estonia the currency was initially the markka and subsequently the kroon, in Latvia it was the lats and in Lithuania the litas.

There are several valid economic arguments for the introduction of national currencies in countries which were formerly part of the rouble zone (see, for instance, Fieleke, 1992, Hansson, 1993). 1) A national currency allows the pursuit of a more independent economic policy, while at the same time underlining the responsibility of national decision-makers for the development of their own economies. 2) There is no reason for thinking of the rouble zone as an optimal currency area. The resource endowments, probable exogenous shocks, institutions and policy goals of the former Soviet republics vary hugely. Having different currencies is therefore a more natural arrangement than the rouble zone ever was. 3) The rapid depreciation of the rouble has made it necessary for these countries to buffer themselves against the rouble crisis. 4) Particularly during the early months of 1992, the rouble zone suffered from a simultaneous excess supply of deposit roubles and a shortage of cash roubles. Supplementary currencies were duly introduced in several of the former Soviet republics for transactions purposes. There was a probability that regional or enterprise-based monies would have appeared in the Baltic countries without the introduction of sovereign currencies. That would have greatly complicated the conduct of economic policy. 5) The existence of a national currency also introduces the possibility of garnering government revenue in the form of seigniorage.

Apart from such economic considerations, Baltic currencies were also viewed from a wider perspective. A national currency has great importance as a symbol of national independence. The enthusiasm shown by the Baltic states for their own currencies is easy to understand and should be also respected from this point of view. Evidently, the endogenous population of countries like Estonia and Latvia, where stringent stabilization policies have proved very popular in the voting sense, has been willing to accept greater hardship in the name of defending the value of one's own currency than would ever have been possible under a different

monetary arrangement. National feelings, a seemingly irrelevant factor in economic policy making, may thus have had great importance in widening the sphere of the feasible in economic policies.²

Outside understanding for the Baltic currency plans was rather less than complete in 1992. The International Monetary Fund (IMF) and the European Community (EC) are understood to have urged the Baltic states to be cautious in introducing their own currencies. In the Baltic states this was widely, even if incorrectly, interpreted as opposition in principle to national currencies. Hansson and Sachs (1992) argue that the IMF "tried at first to delay the introduction of Estonia's currency, arguing that the country was not yet ready". Only after having seen that the Estonian authorities "proceeded on their own", did the IMF provide them "with some last-minute technical support". They would seem to be well placed to make the comment, as Hansson was a member of the official three-member Estonian Currency Reform Committee at the time the kroon was introduced.

Still, the IMF has protested this interpretation vehemently (Odling-Smee, 1992). The Fund does not try to deny that – as evidenced by Hernandez-Cata (1992) – the IMF originally took a highly cautious attitude towards the introduction of national currencies in the former Soviet Union. The Fund at that time argued that "certain key elements would need to be in place to improve the chances for success, including, inter alia, completion of the price liberalization process and a balanced budget". Not all such preconditions were present when the kroon was first introduced. The difference in the monetary reform schedules implied is partly explained by the fact that the Fund seems to have been thinking along the lines of establishing fully-fledged central banking, while Estonia basically chose to pursue the shorter and narrower road of a currency board. As such, the IMF naturally never questioned the sovereign right of Estonia to choose its path. The introduction of a national currency is a matter for sovereign decision-making in each independent country. What has changed since early 1992 is the emphasis given to national currencies as policy instruments. While the IMF recommended careful consideration to the Baltic countries in early 1992, the Fund was in early 1993 understood to be pushing such unwilling former Soviet republics as Belarus and Kazakhstan towards the introduction of national currencies as a condition for full-scale Fund support. Indeed, if the technicality of having notes printed is satisfied, there is no economically acceptable reason for not introducing a national currency in any former rouble zone country. The example of Ukraine perhaps shows that it is possible to manage the monetary system on one's own even worse than has been the case in the rouble zone, but that is not really a valid argument against national currencies. As pointed out above, the existence of a national currency not only creates new policy instruments, but also highlights the responsibility of domestic authorities.

The Baltic states are only now in the process of developing institutions and instruments for the pursuit of monetary and foreign exchange policies. This process will inevitably take a long time, as experience, know-how and other resources remain scarce.

² Naturally, there is an interesting asymmetry. Those perhaps worst hit by stabilization do not always have the chance to vote in elections.

The IMF also stressed the need to negotiate payment arrangements with the rouble zone countries before the introduction of national currencies so as to prevent the dislocation of trade between these countries. In negotiations, Russia was forthcoming concerning the technical issues of exchanging kroons for roubles, but trade issues proper have been bogged down by various economic and political conflicts of interest. All Baltic states have seen a collapse in their trade with the rouble zone countries, especially Russia. However, trade had already started to decline before these countries left the rouble zone. Thus the Baltic states' own currencies were not a decisive factor in this regard, although they did give rise to some technical difficulties and payment delays. Russian monetary disorder has surely been a more serious trade obstacle.

Opinions differ in the Baltic states concerning the pace at which foreign trade could and should change from almost complete dependence on Russia to a more balanced geographical distribution. It is generally accepted, however, that there is a need to continue trading with Russia and other CIS states. Payment arrangements between these countries have been agreed on or are still being negotiated. Arrangements are probably least advanced in Lithuania, partly because Lithuania was forced to introduce an interim currency very quickly. Negotiations between the Baltic states and Russia have been hampered by various political disputes and problems relating to, for example, the servicing of outstanding debt commitments. Much of the actual trade between the countries is conducted outside official channels, often using barter or mutually acknowledged convertible currencies. Consequently, not all of this trade is recorded in statistics.

It is widely held in the Baltic states that the decline in the trade with Russia is mainly due to the serious economic situation in Russia as well as to political measures taken by Russia that are regarded as being anti-Baltic. On the other hand, the outcome of the parliamentary elections in Lithuania in the autumn of 1992 demonstrated that, at least in that country, people feel that their own government could also do more to maintain and develop traditional trade relations.

Currency substitution, the parallel use of foreign currencies in domestic circulation (dollarization), can be interpreted in different ways. Under certain circumstances, it may be the only possible path to monetary stability. At the same time, it transfers seigniorage abroad and removes money supply from among the instruments of economic policy. As a rule, governments usually seek to avoid currency substitution if only possible. In this respect, the introduction of national currencies and the consolidation of their position have been most successful in Estonia, where the kroon seems to have replaced practically all the roubles and convertible currencies in circulation. The Estonian kroon enjoys the confidence of the population, as is evident in the extensive exchange of cash convertible currencies for kroons and the increase in kroon deposits since the currency reform.

Convertible currencies can still be used in Latvia and, until August 1993, in Lithuania as well. In Latvia, at the end of 1992, a large share of transactions were still made in convertible currencies. There were also Russian roubles in circulation. The Latvian monetary authorities sometimes deny seeing this as a problem. In a Hayekian vein, they argue that there should be a choice of monies. Corresponding information is not available concerning Lithuania, but it seems probable that the position of the national currency was not any stronger there.

The stability of the new currencies in the longer term is difficult to assess at this point. The Estonian kroon has from the beginning been pegged to the deutsche mark and as a result of the general European currency turmoil it has

strengthened along with it. The Latvian rouble floats. This may be presented as a deliberate policy choice concerning the exchange rate regime. It may also be due to such technical reasons as the fact that the country still lacks the conditions for adopting a fixed exchange rate and conducting foreign exchange policy in general. Still, Latvian exchange rates have so far been fairly stable.

Against the background of Russia's monetary chaos the introduction of the Baltic currencies stands out as a crowning achievement. In late 1992 and early 1993 the inflation rates of Estonia and Latvia were hardly more than one-tenth of Russia's. Even at worst, monetary reform could hardly have made the situation in the Baltic states any worse than it is in Russia. That escaping from the rouble zone was the wise thing to do became more and more evident during the course of 1992. The uphill struggle to stability and beyond to prosperity is, however, still in its early phase. The Baltic states clearly lack effective instruments for macroeconomic management and expertise in such areas as monetary and fiscal policies. This might still undermine the credibility of the new currencies.

In Estonia economic policy is now decided by a right-wing government accountable to a parliament elected in September 1992. The government remains committed to stringent economic policies. The Lithuanian elections held in October 1992 resulted in a shift of power to the left. Later, the board of the central bank was changed. The policy implications of these changes still remain uncertain, but the priorities may be changing towards more stringent monetary policy and loose fiscal policies. Latvia was the last of the Baltic states to organize parliamentary elections, which were held in June 1993 with the centre-right forces winning. No major changes in economic policy seem to be forthcoming.

While stabilisation policies will determine the worth of the new currencies in the short run, the ability of the Baltic economies to earn foreign exchange is of crucial importance for the stability of the new currencies in the longer term. Structural reforms in the economy and the reorganization of production are therefore important tasks. The countries' own resources will not be enough for this, however, and external financial support will remain necessary in the coming years.

It is sometimes assumed that the size of a country correlates positively with the possibilities of establishing the necessary credibility of new currencies. The Baltic experience, especially when counterposed with Ukraine, does not support this assumption. It may actually be that small, compact countries with a high degree of homogeneity and commonly shared goals are in a better position in this respect than large countries with deep divisions. The relatively small exchange reserves needed may be easier to mobilize and certainly some of the technicalities of transition are much simpler in a small setting.

2 The Estonian kroon

2.1 Background

Discussion of a national currency started in Estonia in 1987 when a group of four high-ranking government officials and scholars published the so-called IME programme, aimed at securing Estonia's economic independence.³ A national currency was part of this programme. The economic and political obstacles to the introduction of Estonia's own currency were, however, insurmountable as long as Estonia was part of the Soviet Union. In spite of this, preparations for the introduction of the kroon got under way in 1990 when the Estonian central bank, Eesti Pank (Bank of Estonia), commenced operations. When Estonia gained political independence in August 1991, the way was open for the introduction of the country's own currency.

As already mentioned above, the IMF closely followed the preparations being made for the Estonian currency reform in spring 1992. The IMF had earlier supported the idea that the rouble should be retained in the republics of the former Soviet Union but later in the spring relaxed its opinion and in the final stage assisted in the practical issues involved in the introduction of the kroon. The Russian government also changed its attitude towards the introduction of national currencies in the former republics in the course of the spring. Because of the uncontrolled monetary policies pursued in some of the republics, the Russian government now felt that a shrinking rouble zone was in Russia's interest. For this reason Estonia and Russia found it fairly easy to reach agreement on the technical issues related to the introduction of the kroon.

The introduction of the country's own currency has been strongly supported in Estonia for both economic and political reasons. It may not be too much of an exaggeration to conclude that almost magical efficiency-enhancing properties have been attached to sovereign currency among segments of the public at large. In the longer term, however, such expectations could turn out to be a problem if greater independence in economic policy fails to bring about the rapid increase in stability and the standard of living which the Estonians expect.

2.2 Estonia's new currency system

In introducing the kroon, Estonia basically adopted the currency board system. A currency board is arguably the most simple, credible and pressure-resistant way to introduce a national currency in undeveloped monetary conditions. It is an arrangement whereby the introduction of the currency is the responsibility of a

³ For the political and economic background of Estonia and Latvia see Misiunas and Taagepera (1983), Van Arkadie and Karlsson (1992). For recent Estonian economic policies see Hansson (1992a). An authoritative account of the Estonian currency reform is provided by Kallas and Sörg (1993).

currency board, an independent monetary authority either distinct from the central bank or at least separate from the central bank's other activities. The currency board undertakes to convert all the national currency offered to it at a fixed rate into the currency chosen as the reserve currency. The domestic currency in circulation is fully backed by foreign exchange and can only change according to changes in the foreign exchange reserves. Monetary policy is not exercised; rather, the supply of money is endogenous to the market (Osband – Villeneuve, 1992; Walters, 1987).

The aim of the currency board system is to achieve currency convertibility and a fixed exchange rate and thereby help to stabilize the economy, bring about structural change and integrate the country into the world economy as quickly as possible. As the currency board is a technical arrangement which is not associated with any economic or political discretionary power it ensures that the fixed exchange rate is adhered to. Political pressures, to which a conventional central bank is exposed, cannot affect a currency board. For the same reason, inflationary financing through central bank lending to the government cannot take place, either. The government can only run budget deficits if it is able to finance them in the money market. As a country like Estonia lacks well-developed markets where the government might raise deficit finance, a currency board and a balanced budget become natural companions.⁴

A currency board's strength and weakness thus lie in the fact that it completely ties the hands of the currency issuing authority. In so doing, it economises on scarce policy resources and borrows the credibility of the reserve currency chosen. On the other hand it subjects possible economic policies to stringent constraints.

The great advantage of the currency board system is that it is simple to operate and does not require experts in monetary policy. This is particularly important in former socialist countries, where the ways and means of the market economy are generally less than perfectly understood.

It is essential for the success of a currency board that it is credible, ie that the market shows confidence in its ability and will to exchange currency at a fixed rate. The country issuing the reserve currency may choose to support the currency board country here, as too may international organizations and other countries. Foreign support may become crucial in countries with a low capacity to earn foreign exchange and large variations in its foreign exchange earnings. Without support, such fluctuations would be directly reflected in the domestic money supply, which might be impossible to accept for cyclical reasons.

The currency board model in a post-communist country is naturally also open to different kinds of criticisms. It may be judged as too harsh a solution for an economy in the process of adjustment because the only way to increase the supply of money is by attracting foreign exchange into the country, either through exports or capital investment. When inflationary financing is impossible and the exchange rate is not flexible, other factors – domestic prices and wages – must adjust. Softening adjustment by inflation and money illusion is impossible as a policy line. This puts the functioning of the economy and the political acceptability of

⁴ But paradoxically, a currency board system might help to pave the way to the abandonment of balanced budgets by enhancing the credibility of the government so as to make market-based deficit financing feasible. In the Estonian case, this phase may already have been reached.

the currency board to a severe test. Perhaps not surprisingly, currency board solutions have proven unacceptable to large countries. There are also examples of failed currency boards. They are thus neither sufficient nor necessary for successful stabilization. Most stabilizations have been achieved without a currency board.

Currency board arrangements have been applied in various parts of the world, mainly in former British colonies where the mother country's currency has been the reserve currency. More than 70 such boards once operated. Among the best known examples of countries which still have a currency board of some kind are Hong Kong and Singapore. In both of these cases, however, the currency board has developed a long way towards being an ordinary central bank over the years (Fieleke, 1992, pp. 20-21). Argentina adopted the currency board principle in spring 1991 and it has succeeded in curbing its high inflation rate and bringing down interest rates.

Before the currency reform in Estonia, there were doubts about the applicability of the currency board model in Estonia as it lacks the foreign exchange earning capacity typical of the countries cited as examples. It was suspected that money supply would become a random process in an Estonian currency board. So far at least, such fears have proven to be unfounded.

In May 1992, the Estonian Parliament passed three laws: the currency law, the law on backing the Estonian kroon and the foreign exchange law (see Eesti Pank, 1992). These laws lay down the principles of Estonia's currency system. As they make the running of the Estonian currency board the task of the central bank, which also retains the possibility of pursuing monetary policies, the Estonian case is best characterised as a hybrid form of currency board (Bennett, 1992).

This fact has given rise to peculiar discussions. On one hand such prominent supporters of the currency board principle as Hanke, Jonung and Schuler (1993) argue that the Estonian case should not be characterised as a currency board at all. On the other hand Fieleke (1992) points out that no "pure" currency boards currently seem to exist. The purist argument therefore suspiciously looks like an attempt to make a principle immune to criticisms from the real world.

According to the above-mentioned Estonian laws, the kroon is fully backed by gold and foreign exchange. The Bank of Estonia can change the amount of notes and coin in circulation only to the extent that there are changes in the gold and foreign exchange reserves. The Bank of Estonia undertakes to convert all kroons offered into deutsche mark, ie the central bank operates in only one currency. This arrangement is being applied in the early stages of the currency reform because of its simplicity. The intention is to shift after some time to the normal practice whereby the central bank operates in several convertible currencies.

The exchange rate of the kroon is fixed and the kroon is pegged to the deutsche mark (1 DEM = 8 EEK). The exchange rate is allowed to fluctuate within margins of 3 per cent. The Bank of Estonia quotes an official exchange rate for the kroon against the deutsche mark and unofficial rates against other currencies.

The Estonian kroon is convertible within the country as regards current account operations, ie the convertibility covers the current foreign exchange transactions of Estonian enterprises and individuals. According to the Bank of Estonia's instructions, the kroon is convertible into foreign currencies when the

customer can present documentary evidence of a journey abroad or of an import transaction. In practice, however, these documents are not always requested.

There are no restrictions on the transfer abroad of dividends or foreign capital invested in Estonia. The permission of the Bank of Estonia is required for raising foreign loans. Foreign exchange earnings must be surrendered within two months of their receipt. Enterprises engaged in foreign trade can, however, obtain the Bank of Estonia's permission to keep foreign exchange in foreign banks for a longer period.

The core of Estonia's foreign exchange reserves consists of the gold reserves which the country had deposited in Western central banks before 1940. During the past year, Western countries have returned these reserves, totalling about 11.3 tonnes, to Estonia either in the form of gold or foreign exchange. The Bank of Estonia is required to publish information once a month on the gold and foreign exchange reserves and the amount of notes and coin in circulation. A decision has also been made in Estonia on the possibility of using the country's forest reserves to back the kroon, if necessary, but the practical implementation of this decision is likely to be difficult.

2.3 Implementation of the currency reform

Technically, Estonia's currency reform has been a notable success. A reform whereby the entire amount of notes and coin in circulation is changed at one time requires very complex practical arrangements. In the practical exchange of one currency for another, a large number of volunteer workers assisted at conversion points in different parts of the country. The aim was to make sure that the rules and arrangements were as unambiguous as possible so as to minimize the scope for discretionary decisions and abuse. In a small country with an educated population, the authorities were able to implement the practical exchange in a speedy and orderly fashion.

In carrying out the currency reform there was the risk that large sums of roubles might flow into the country from Russia for the conversion. This danger was avoided by restricting the amount of cash that each inhabitant could exchange and by separately investigating all unusually large transfers made between bank accounts before the conversion. It may also be that in the end the possessors of large amounts of rouble notes decided not to place their trust in the new currency of a small nation.

The currency reform was carried out between 20 and 22 June. The rouble ceased to be legal tender in Estonia with immediate effect on 20 June and the only legal tender since then has been the kroon. All persons residing in Estonia who had registered their names for the conversion were allowed to exchange 1 500 roubles at a rate of 1 kroon per 10 roubles in the period from 20 to 22 June. The amount was equivalent to about 12 dollars. Larger amounts of roubles could be converted into kroons at a rate of 1 kroon to 50 roubles in the period from 26 to 30 June. After this the roubles could no longer be converted into kroons. Apparently, the Tallinn authorities believed that Estonians would use any remaining surplus roubles for shopping in Russia. The central bank of Russia has, however, forbidden the import of roubles from Estonia to Russia after the

currency reform. The nonimplementability of such restrictions is not a major problem in the case of such a small state as Estonia. This fact helped to make the reaching of agreement between the Tallinn and Moscow authorities easier than would be in case in, for instance, Ukraine.

Bank deposits made by residents were also converted into kroons at the rate of 1:10. The only exception was deposits of more than 50 000 roubles made after the beginning of May. The conversion of such deposits was decided on a discretionary basis. Roubles held by enterprises were also converted into kroons at the rate of 1:10. As soon as the currency reform began, stores marked their prices in kroons and, for example, all hard currency stores started to sell their goods in kroons only.

Foreign currency accounts held by enterprises or individuals remained valid and foreign currencies in such accounts could be used until the end of 1992. The accounts were, however, closed as regards new foreign currency entries, which must be converted into kroons. Beginning from 1 March 1993, Estonian firms were again allowed to open settlement accounts in foreign currencies in authorized Estonian banks. According to the Bank of Estonia, this measure was made possible by the strengthened position of the kroon.

Since the introduction of the kroon, the official exchange rate quoted by the Bank of Estonia has been 1 deutsche mark = 8 kroons. The exchange rate between the kroon and the deutsche mark was set at the level of the so-called market rate of the rouble at the time of the currency reform. This meant that the kroon was undoubtedly undervalued. The rouble's market rate was determined in interbank auctions and, because of the scarcity of currencies offered and abundance of roubles, the rouble's rate was undervalued. The undervaluation of the kroon follows the example of many other currencies at the time of abrupt opening up of the economy. It should facilitate economic development by promoting exports and protecting home markets from import competition. On the other hand it is one possible explanation for the continuation of Estonian inflation.

A crude way of assessing the feasibility of the current exchange rate over a longer period of time is to look at Estonian competitiveness in terms of wage levels. Currently average Estonian wages are approximately USD 60 per month. Taking the Polish level of USD 150 per month as the benchmark, Estonia could still at least double its cost level while maintaining the current exchange rate.

Altogether about 2.2 billion cash roubles were converted into kroons (Hansson, 1992). The amount is about the same magnitude as estimates of the amount of roubles in circulation in Estonia at that time, on which no accurate data were available. It would seem that only small amounts of roubles were converted into kroons during the second stage of the conversion at the more unfavourable rate.

The implementation of the currency reform required discussions with Russia beforehand on practical arrangements related to the issue of the kroon. The Bank of Estonia has agreed to return the roubles collected during the conversion to the central bank of Russia without compensation. Because of problems connected with payment arrangements, this has not yet been done. Due to high Russian inflation, and particularly after the rouble note reform of August 1993, the whole issue has become academic.

2.4 After the reform

The currency reform can also be considered to have succeeded rather well in achieving goals other than technical ones. This is indicated by the fact that the kroon immediately became the only currency in circulation. Since the currency reform, significant amounts of foreign exchange have flowed into the Bank of Estonia. During the first months after the currency reform the foreign currency converted into kroons consisted mainly of cash held by residents and the magnitude of these sums came as a surprise to the authorities.

Later on, enterprises also started to repatriate their foreign exchange funds. In July, the Ministry of Economy estimated that Estonian companies held foreign exchange in foreign bank accounts to the equivalent of USD 65 million (Baltic News Service, 24 July 1992). Other estimates put the sum as high as USD 100 million. Currency was evidently transferred abroad at an accelerating pace prior to the currency reform because companies were uncertain as to how foreign currency holdings would be treated.

On 16 July 1992, the Bank of Estonia published its balance sheet for the first time. It showed foreign exchange reserves of USD 98 million. By early June 1993, the reserves had already increased to USD 274 million. Developments in the Bank's balance sheet are shown in Appendix Table 1. As can be seen, the kroon is actually overbacked relative to the currency board principle adopted.

Criticism of Estonia's currency reform came mainly from economists and spokesmen for the business sector. The level at which the kroon's exchange rate was fixed aroused criticism. It was argued that the undervaluation of the kroon makes imports too expensive, with the result that a large part of production becomes unprofitable (Rajasalu, 1992). It should be noted, however, that this criticism has not been levelled at the choice of a currency board as such.

The criticisms of enterprises and banks refer to problems caused by the practical arrangements associated with the conversion and the new exchange rate system. Large companies engaged in trade with Russia are unhappy about the obligation to convert all of their roubles as this hampers their trade with Russia. Altogether, companies exchanged 700 million cash roubles into kroons in connection with the reform.

As regards commercial banks, problems are caused by the central bank's practice of operating only in the deutsche mark and not in other foreign currencies. Commercial banks have to convert other currencies deposited in accounts with them into deutsche mark before presenting them to the Bank of Estonia for conversion into kroons. The operation takes time and weakens banks' liquidity as they nevertheless have to pay the corresponding amounts in kroons immediately to their customers (Otsason, 1992).

2.5 Impact of the reform on the foreign trade sector

As the rouble is not a convertible currency, the Bank of Estonia does not quote an exchange rate for it. According to the banking agreement between Estonia and Russia, payments between the two countries may be effected either in roubles,

kroons or other currencies ('Estoniya', 1992). The aim is to have payments related to trade with Russia handled by commercial banks. Accordingly, Estonian banks have been authorized to open correspondent accounts in Russian banks. There are three ways in which companies engaged in trade with Russia can spend the roubles they have earned: they can keep them in Estonian banks' correspondent accounts in Russia, exchange them for convertible currencies in the Russian currency auctions or find a buyer on Estonia's currency exchange. Even after the reform, there are still currency exchanges operating in Estonia where banks, acting on the instructions of companies, buy and sell kroons, convertible currencies and roubles.

Trade between Estonia and Russia has declined sharply over the past two years or so. Difficulties have been encountered in importing goods from Russia as well as in receiving payments for export deliveries. Hence the introduction of Estonia's own currency has not been crucial for trade with Russia, although apparently the new payment arrangements still do not function quite smoothly. It is obvious that a substantial part of trade between Estonia and Russia that is excluded from official statistics is based either on barter or convertible currencies.

Payments with other CIS states will be effected through correspondent accounts kept in the central banks and commercial banks. In practice, trade is now partly conducted in cash convertible currencies as well. It has been agreed that payments between the Baltic states should be made mainly in convertible currencies (Äripäev, 12 September 1992).

2.6 Implications of the reform for other sectors

In connection with the currency reform, the turnover tax in Estonia was raised from 8 per cent to 18 per cent, the corporate income tax was raised by 10 percentage points to 35 per cent and personal taxation was tightened. Wage rises were also restricted. These measures are part of the economic stabilization programme which the Estonian authorities drew up together with IMF experts. The stabilization programme is based on restrictive monetary policy and tight fiscal policy aimed at improving the budget balance, which had started to move into deficit.

As a result of these measures, living costs went up by almost a quarter between June and July. The rate of increase was still 18 per cent in August and 7 per cent in September. Inflation only slowed down to 3.4 per cent in December, and remained on the same or even lower level in early 1993. There are several possible explanations why the currency board did not immediately bring about price stability. One contributing factor to the rapid rate of inflation after the currency reform has been the larger-than-expected inflow of currencies into the Bank of Estonia. This turned into a rapid increase in the amount of currency in circulation. These currencies came both from larger-than-expected original cash reserves and from exports, including the reportedly very profitable rading of metals and other commodities imported from Russia.⁵ The share of exports in the

⁵ The share of such re-exports reported to the authorities and of currency revenue repatriated remains a mystery.

economy has thus at least temporarily been larger than expected. Performance on the real side of the economy has, however, remained weak, and output fell continuously until at least early 1993. The rapid rate of inflation has reduced the substantial original undervaluation of the kroon, which has also allowed the existence of inflation. Finally, one should note that Estonian price liberalisation has been to a degree stepwise. This has also continued to feed inflation in spite of the balanced budget.

Commercial banks may set interest rates freely. Nominal interest rates on loans have been high, with annual rates averaging 50 per cent in the autumn. Still, real interest rates have been clearly negative. Bank-specific variation in interest rates has recently ranged from less than 30 to almost 200 per cent annually. The Bank of Estonia does not quote any interest rate that might be taken as an official policy guideline.

The application of the currency board system in the Estonian conditions over the longer term will involve special problems. As already mentioned, the foreign currency reserves have grown faster than expected both because the size of domestic foreign currency cash funds was larger than expected and because export earnings had been boosted by receipts from trading. In theory it is possible that export earnings will continue to increase at a faster rate than domestic production in the future, in which case the currency board system could turn into a mechanism sustaining inflation.⁶ Perhaps partly in recognition of this danger, the central bank, which is responsible for the currency board's functions in Estonia, has also retained monetary instruments at its disposal. It is not known exactly as to what extent these might be used. In principle, however, a potentially unstable combination of a currency board and a central bank pursuing monetary policy might be emerging. It is very probable that the currency board principle will be regarded as too strict in coming years, as the credibility of the kroon will no longer be a problem and politicians increasingly come to learn to love budget deficits, also for good economic reasons. The transition from the present arrangement to something much more like an ordinary central banking system is a question which will perhaps soon be occupying Estonian policy planners.

A more probable outcome than oversized export revenue will be the drying up of income from trading Russian commodities on international markets. In such a case adherence to the currency board would lead to a contraction of money supply in an economy which has already undergone a statistical turndown of some 50 per cent in production. This might be the time for the Tallinn authorities to gradually abandon the currency board, which at least some among them have always understood to be a temporary vehicle for creating credibility and borrowing time for the development of central banking instruments and policies proper.

The Banking Department of the Bank of Estonia has already intervened strongly in the banking system. Several banks, among them three of the largest, had to be liquidated or consolidated in a first round of post-socialist banking crisis. These moratoria following insolvency translated into illiquidity were due to general incompetence, unduly high inflationary expectations and the loss of

⁶ Naturally, the currency board principle only sets the upper limit of money supply, leaving it at the discretion of the monetary authority to decide which share of currency revenue should be 'activated' in money supply. As seen in Figure 1, the Bank of Estonia has not issued money up to the limit set by the currency inflow. The accumulation of reserves – say for the case of a banking crisis – might however become politically difficult to sustain in some circumstances.

currencies in the Moscow VEB debacle. It was not yet a case of a bank crisis induced primarily by bad loans. That is still waiting in the wings.

2.8 Estonia: concluding remarks

Hanke, Jonung and Schuler (1993) cite three criteria for a genuine currency board. The monetary base must be fully backed by foreign reserves, the currency must be fully convertible and the exchange rate fixed. In their view the Estonian case fails on two counts. Kroon convertibility is not complete even for current-account transactions, and the kroon is not convertible for capital-account purchases by Estonians. Also, the kroon exchange rate is not fixed but pegged; it can be changed.

There is no doubt that the Estonian case is not that of a pure currency board. But, as Fieleke (1992) argues, it seems impossible to find a pure currency board anywhere. Also, it seems that Hanke and others may exaggerate the ease with which the kroon exchange rate can be changed.⁷ Finally, their case is weakened by their insistence that 'when the pegged exchange rate of the Estonian monetary system is altered, as we believe will occur in the near future, the currency board system should not be blamed, since Estonia does not have that'. As all good utopians know, the only way any system can remain beyond failure is to define it in such a way that it would never be subject to empirical judgment.

Still, as the above discussion should make it clear, Hanke and others are very probably right in seeing current Estonian monetary arrangements – however one decides to call them – as being transient.

Fieleke (1992) tends to judge the adoption of a currency board by economies in transition as being in a sense superfluous. If the authorities can commit themselves to reform, why would they require so drastic a remedy? If they remain inclined to inflate, why would they agree to a currency board?

But surely, as we have already indicated, the alternatives are not that simple. First of all, the Baltic countries are clearly cases where the authorities have not reformed themselves. It is a question of genuinely new authorities, quite possibly with genuinely new frames of mind. Second, and more important, the most important lesson that may be drawn from the Estonian case seems to be that money is indeed not only money, but also a crucial national symbol. It is highly improbable that the Estonians would have accepted as stoically as they did the policies of balanced budget were it not for the sake of maintaining the value of the kroon. The currency board principle made 'The Only Stable Currency in the North of Europe' possible, and national pride helped to make drastic stabilisation policies feasible.

⁷ '...the governor of the central bank has warned that he would have to devalue the kroon if the Estonian parliament approved a high minimum exchange rate' (Hanke, Jonung and Schuler, 1993). According to existing legislation, he can do no such thing. Changing the rate of exchange is under the jurisdiction of the parliament, as the current rate is stipulated in law.

3 The Latvian rouble and the lats

3.1 Implementation of the currency reform

Latvia's intention of introducing its own currency was first made public in the first economic reform programme drawn up by the government in 1990. The Latvian currency reform is not as well known abroad as Estonia's. This might be because roubles were gradually replaced by the national currency in Latvia, and initially this has taken place through the introduction of an interim currency. In Latvia there was no single conversion operation that might have attracted a lot of publicity. Contrary to Estonia, the Latvians have opted for a stepwise reform. The introduction of Latvia's true national currency, the lats (divided into 100 santimi), was only started in March 1993.

The issue of the interim currency, the Latvian rouble or "rublis", was started in May 1992. Latvian roubles were introduced alongside roubles at the exchange rate of 1:1. The immediate reason for the introduction of Latvia's own currency was a severe shortage of rouble notes, a shortage which was felt throughout the entire rouble zone, especially in the early part of 1992.

Since May 1992, wages have been paid in Latvian roubles. The position of the Latvian rouble gradually strengthened during the summer. In July, retail stores started to give change in Latvian roubles only, and the Savings Bank of Latvia started to take deposits from individuals in Latvian roubles only. Russian roubles could still be withdrawn from savings accounts, however. The Bank of Latvia exchanged cash roubles for Latvian roubles until mid-July at a rate of 1:1.

As from 20 July, the Latvian rouble became the only legal tender in Latvia. Bank deposits of both enterprises and individuals were automatically converted into Latvian roubles at the rate of 1:1. At the same time the Russian rouble became a foreign currency and regulations regarding foreign currencies also applied to it. The use of foreign currencies inside the country is not forbidden altogether but all prices must be given in Latvian roubles and, because of their legal tender status, Latvian roubles must be accepted for payment. Wages may still be paid in foreign currencies. According to the sparse information that is available, enterprises – particularly the all-Union ones formerly subordinated to Moscow – continued to use Russian roubles to a large extent in their payments. Accurate data on the scope of the use of Russian roubles and convertible currencies are not available, but the Riga authorities have cited figures claiming that at the end of 1992 half of all transactions – according to other information one third – were still in convertible currencies and perhaps some 15 per cent in roubles.

Hard currency shops were obliged to start selling their goods in Latvian roubles as well. However, shops effectively circumvented this obligation by pricing their products so high in Latvian roubles that it pays customers to exchange their roubles for foreign currency in exchange offices and pay for their purchases in foreign currency. Exchange offices – Polish-style kontors – are plentiful and competitive. Central Bank officials refer to the freedom of markets and claim ignorance of the volume of the Riga cash market. It is believed to be probably the largest in the former Soviet Union.

The practical implementation of the currency reform in Latvia was successful, although for reasons very different from those in Estonia. Latvia chose a very simple method of gradually replacing Russian roubles with the new currency. This method nevertheless entails certain dangers: with bad luck, Latvia could have been faced with a flood of roubles from Russia and other former Soviet republics. The value of the new currency would then have collapsed. Fortunately for Latvia, there was obviously little confidence in the new Latvian currency outside the country, and thus foreigners were not interested in acquiring Latvian roubles.

The Latvian rouble was always intended as an interim currency before the lats was introduced. According to the authorities, the lats should have been issued as soon as inflation had been brought under control and the exchange rate stabilized. But in the autumn of 1992 the governor of the central bank asserted that this would possibly take place in the latter part of 1993 (as cited in *Estoniya*, 9 September 1992). Considering that the original plan was to introduce the lats in 1992, it is evident that, somewhat unexpectedly, the Latvian roubles temporarily lost their interim nature and became relatively permanent. This also created a serious technical problem as the existing Latvian rouble notes are easy to forge.

The announcement of the gradual introduction of the lats was made – after much speculation – in early March 1993. The official reason given was that as the economy had been stabilised, the time for the lats had come. Remembering what was said above about the socio-psychological importance of the kroon in Estonia, there is also some reason to wonder whether the June 1993 elections were not a contributing factor. Finally it seems clear that the flow of counterfeit Latvian rouble notes was much bigger than expected.

The rate of conversion of Latvian roubles into lats is 200:1. The first banknotes denominated in lats that were put in circulation on March 5 were five lats notes. Latvian roubles will be gradually phased out with the further issuance of lats notes. According to some statements the conversion process should be completed by summer 1993 (*Baltic Observer* 9/93). By June, already two thirds of cash in circulation was in lats. From July, all prices had to be in lats, and all taxes and duties are also collected in the new currency. Latvian rouble bank accounts were converted into lats, but foreign currency accounts remained untouched. The use of foreign currencies is still permitted.

The Latvian and Russian authorities do not seem to have yet reached a final agreement regarding the Russian roubles that have accumulated in the Latvian central bank in connection with the currency reform. Latvia has agreed to keep the roubles in its custody at the central bank. There are some unresolved issues between the countries regarding debts, and Latvia may be interested in linking them to the return of the roubles to Russia. As in the Estonian case, the Russian note reform of August 1993 changed this situation. A total of 1.5 billion roubles accumulated in the central bank of Latvia during the currency conversion (*Baltic News Service*, 9 October 1992). Their value has since been decimated by Russian inflation.

Like Estonia, Latvia has also recovered the gold reserves it deposited with Western central banks before 1940. The gold reserves were, in late 1992, estimated to amount to a meagre 7 tonnes (*Financial Times*, 19 December 1992).

Despite heavy domestic criticism, the Bank of Latvia, which enjoys a high degree of independence, remains committed to tight monetary policy. Inflation was running at a rate of 11 per cent a month at the end of August 1992, subsequently accelerated to 15 per cent but finally came down to 3–4 per cent in

December and stayed on that level for the first months of 1993. In the run up to the June 1993 parliamentary elections, these achievements were in danger as the Bank of Latvia seemed to be almost the sole domestic defender of stabilisation policies. In the end, however, stabilisation policies proved perhaps even surprisingly popular in the elections. In May 1993 Latvia was the first transition country to record a decrease in consumer prices in spite of the central bank increasing liquidity through currency intervention. For monthly inflation rates see Figure 1 in Appendix 2.

3.2 Exchange rate system

The officially announced exchange system in Latvia is very liberal. This is at least partly due to incomplete foreign exchange legislation and the undeveloped state of monetary institutions and instruments. In practice, the Latvian rouble is freely convertible as regards current transactions. Convertibility is wider than in Estonia as it is not restricted to apply to Latvian citizens only nor is it necessary to present documentary evidence when purchasing foreign exchange ('Valyutnoe', 1992). Enterprises are not obliged to repatriate foreign currency earned abroad but the state taxes foreign exchange earned by enterprises and individuals. There are no restrictions on the repatriation of either capital or dividends by non-residents.

The exchange rate of the Latvian rouble floats both against convertible currencies and the Russian rouble. In principle, exchange rates are determined freely in the market. A special feature of Latvia is the existence of private foreign exchange offices, which have been set up in large numbers in a short period of time. The best known of these is Parex, which controls the major part of the market. Officially at least, neither the banks nor the central bank are very active in controlling the foreign exchange market. This is mainly due to the undeveloped state of the banking sector and lack of resources.

Actually, however, it seems that the floating of the Latvian rouble is not clean at all. Originally, the Latvian rouble was clearly undervalued, and the monetary authorities have announced that they consider exchange rates based on purchasing power parity to be the proper ones in the longer term. Therefore the appreciation of the rublis against the dollar during the past year is also an intentional consequence of tight monetary policies. Over the shorter term, developments have also been informative. During the latter half of 1992 the Latvian rouble was notably stable against the dollar (see Figure 2 in Appendix 3). After the period of turbulence connected with the introduction of the lats, this stability has continued, this time most clearly against the deutsche mark.⁸ It is of course most improbable that such stability might have existed without central bank intervention in the currency market. In fact, the Bank of Latvia has rather consistently bought dollars from the banks to soften the appreciation of the rublis. 'De facto pegging, officially called floating in the face of uncertainty concerning

⁸ Or perhaps the implicit pegging has been to the ECU. – February was the time of rumours concerning the impending introduction of the lats, and many holders of 'Russian' roubles and other currencies may have wanted to convert their balances into Latvian roubles in case there would be an Estonian-type sudden exchange of (only) Latvian roubles into the lats.

the authorities' ability to defend the rate of exchange originally chosen', may be the apt characterisation of actual Latvian policies. The accumulation of dollar reserves by the central bank was also necessary because of the meagre level of initial reserves.

According to a semiofficial estimate, the Riga markets for cash roubles and convertible currencies were in 1992 the biggest in the area of the former Soviet Union. Latvia was considered to be the only former Soviet republic where obstacles to the exchange of non-cash roubles for cash and vice versa have in principle been removed. According to the authorities, the size of the rouble – foreign currency market is unknown, nor is any attempt made to determine the origin of the convertible currencies traded on it. Despite efforts to develop Riga into the biggest money market centre in the Baltic region, the complete lack of control that is claimed to exist in the market, especially regarding the origin of the currencies traded on it, could turn out to be a major problem. The authorities may not be sufficiently sensitive to this question.

3.3 Impact of the reform on the foreign trade sector

Prior to the withdrawal from the rouble zone, Latvia held negotiations with Russia on new arrangements for payments and settlements between the two countries. Accounts have been opened in the central banks of both countries, through which payments are made. Latvian commercial banks may open correspondent accounts in Russian banks and transfer companies' payments through these accounts.

With the aim of protecting its economy against a possible flood of roubles from the former Soviet republics, the Bank of Latvia introduced differentiated exchange rates in August for non-cash roubles transferred from different republics. According to the first quotation, roubles originating from Ukraine have the lowest value with a buying rate of 0.3 Latvian roubles. The highest rates were for roubles coming from, *inter alia*, Russia and Lithuania, with a buying rate of 0.9 Latvian roubles (Baltic News Service, 14 August 1992, 16 August 1992). Commercial banks may set their rates freely, as long as buying rates do not exceed the central bank quotations. The Bank of Latvia quotes exchange rates daily on the basis of the balance of trade between Latvia and each republic and the monetary and credit policy pursued in each republic. Thus the rates quoted by the central bank are administratively determined. Since markets between the roubles of different republics do not seem to have emerged yet, the central bank quotations regulate the market and divide it into segments according to republics, which can nevertheless be circumvented, in particular through convertible currencies. It seems, however, that this is rarely done, and enterprises trading with the former Soviet Union therefore have to be able to bilaterally balance their transactions with each of the former republics. This is a major impediment to trade. The central bank has emphasized that its quotations are only meant to serve as guidelines for transactions between banks and enterprises.

Latvian enterprises have been highly critical of the central bank's new system as their export earnings were significantly reduced because of the new rates. In early 1993, the Bank of Latvia stopped exchanging CIS currencies for Latvian roubles. It continues to quote their rates of exchange but now wants banks and

exchange offices to do the trading. It is understood that this decision was prompted by the accumulation of rouble assets in the central bank.

3.4 Latvia: concluding remarks

We pointed out above that the underlying specific problem for Estonian monetary policy in coming years will be an orderly transition from the current modified currency reserve arrangement to something closer to ordinary central banking. In the case of Latvia, three specific questions seem to stand over and above others.

First, noble as the general Latvian goals of an independent central bank, zero inflation and purchasing power parity exchange rates may be, low inflation levels have been bought at a very high price. In the summer of 1993, with zero inflation, the central bank refinancing rate was still 45 per cent and commercial bank lending rates in the order of 10 per cent monthly. It is unclear whether these rates merely reflect the inertia of inflation expectations or whether they are needed for balance of payments purposes, to facilitate a slow convergence of exchange rates towards purchasing power parities. In the latter case, the exchange rate goal should clearly be abandoned. Transition countries generally have exchange rates which are widely depreciated relative to purchasing power parities, and current Latvian interest rates are catastrophic.

Second, the laissez faire attitude of the authorities is not sustainable. The risks involved are evident. The country has already had its share of financial scandals, and much supervision and possibly also controls will be needed to make Riga a respectable financial centre.

Finally – and in particular against a Finnish background – one may ask whether the declared libertarian stance is in fact credible, given the possibilities for implicit agreements and backroom deals in any small society. A general clarification of the rules of the game might be in order.

4 Lithuania: coupons and litas

4.1 Implementation of the currency reform

The Lithuanian parliament passed an act on the introduction of a national currency at the end of 1991. At the same time, a currency reform committee was set up. After that, the introduction of the Lithuanian currency, the litas – divided into 100 centai – was widely expected throughout 1992. As, however, there were diverging views on how this should be done and the appropriate timetable, Lithuania became the last Baltic country to escape from the rouble zone.

After much debate, Lithuania – accepting the views of the central bank – decided to follow Latvia in embarking upon gradual monetary reform. The necessary conditions for a true national currency, including payment agreements with neighbouring countries, were deemed to be absent, and under the pressure of a rouble note shortage, Lithuania introduced an interim currency in May 1992. It had no proper name but was simply called the coupon, "talonas" in Lithuanian. The coupon was valued at par with the rouble. Initially, 40 per cent of incomes were paid in coupons. They were accepted as payment in the same way as roubles.

Somewhat later, towards the end of September 1992, the authorities began to withdraw roubles from circulation. Rouble notes and bank deposits held by the population were converted into coupons at the rate of 1:1 for one week until 1 October. After that, the use of roubles in trade was forbidden. Convertible currencies could still be used with special permission. Roubles were regarded as foreign currency and could be exchanged in commercial banks at the market rate.

The sudden withdrawal of roubles was motivated by a large inflationary inflow, especially from Ukraine. Declaring coupons the sole legal tender was judged to be the quickest solution. This was contrary to expectations, as the original intention had been for there to be a changeover from roubles to litas. There were also technical, but politically sensitive, problems in printing the litas notes.

In June 1993 the authorities finally announced that the litas would be put into circulation beginning from 25 June at the rate of 1 litas = 100 coupons. On the same date, bank deposits were also converted and all prices had to be given in litas.

The coupon was not accepted as means of payment after 20 July. The use of convertible currencies was also soon banned, and since 1 August the litas has been the sole legal tender in country. It is not yet known how well the conversion succeeded. Banning the use of convertible currency may have been difficult to implement. Though the litas became the only legal tender, convertible currency deposits held in Lithuanian banks were not converted without the consent of the depositor. Lithuanian individuals are still allowed to make deposits abroad; legal entities need a central bank licence for this purpose.

Like Estonia and Latvia, Lithuania has also recovered its pre-war gold reserves, a total of 6.3 tonnes, even now mostly in gold. They constitute the main part of the exchange reserves of the country. The roubles collected in the conversion have been stored and their return is to be negotiated with the rouble

zone countries. Like in the cases of Estonia and Latvia as well, this issue has been further complicated by the Russian rouble note reform in August 1993.

4.2 Exchange rate system and foreign trade

Like coupons, litas are in principle convertible. It is, however, unclear whether the unification of exchange rates has in practice been achieved. State-owned companies have, since January 1993, been obliged to repatriate a quarter of their foreign exchange earnings.

In 1992, Lithuanian financial policy was basically balanced but monetary policy lax. Therefore, the authorities were unable to bring down inflation rates in the same way as in other Baltic countries. The coupon depreciated considerably against the dollar, from 250 coupons per dollar in early October 1992 to 550 coupons in May 1993. Later, the coupon appreciated somewhat, as monetary policies started to become stricter (see Figures 1–2 in Appendices 2–3).

Already in August 1992, Lithuania and Russia reached an agreement in principle concerning payments between the countries. Practical problems have still to be resolved. In the same way as between Lithuania and Russia, payments with other CIS states are supposed to be settled through correspondent accounts held in central banks. Commercial banks may also transfer payments through their correspondent accounts.

5 Concluding remarks

The withdrawal of the Baltic states from the rouble zone and the introduction by these countries of their own currencies proceeded smoothly and the process was much easier than expected by many foreign experts. The sharp depreciation of the rouble since summer 1992 shows that the Baltic countries were correct to delink from the rouble and issue their own currencies. In those countries where economic stability has been given priority in policy making, domestic currencies have facilitated the attainment of that goal. The convertibility of the currencies has been a key to opening up and integrating the countries. At the same time, national currencies are no panacea. A prerequisite for stability is responsible fiscal and monetary policies.

The example of the Baltic countries shows that a national currency and independent monetary policy can be introduced under very different principles and procedures. However, given the fairly sparse information often available, it is sometimes difficult to assess how the systems actually function in practice. Existing evidence however already suggests two further conclusions. First, the size of a country does not determine the credibility of a national currency. Second, far from forming an optimal currency area, the Baltic countries are dissimilar enough to make any ideas of a monetary union totally illusory.

The Baltic countries have successfully passed through the first stage of the introduction of their own currency units, that is, they have left the rouble zone. However, bigger problems lie ahead because these countries will have to secure the long-term viability and stability of their currencies. This calls for responsible monetary and fiscal policies together with the restructuring of the economy, which, initially, will be felt in a declining standard of living. Foreign trade plays a crucial role in the small Baltic economies and the countries' capacity to earn foreign currency through exports is a key factor in terms of the stability of their own currencies. Finally, the availability of international financial support for the changes in these economies will remain important.

References

Bennett, A.G.G. (1992). **The Operation of the Estonian Currency Board**. IMF Paper on Policy Analysis and Assessment 92/3.

Besti Pank (1992). **The Monetary Reform in Estonia 1992**. Tallinn.

Estoniya: **Novyi poryadok rasshchetov**. Ekonomicheskaya Gazeta no. 29. 1992.

Fieleke, N.S. **The Quest for Sound Money: Currency Boards to the Rescue?** New England Economic Review, November–December, pp. 14–24. 1992.

Hanke, S.H. – Jonung L. – Schuler K. (1992). **Monetary Reform for a Free Estonia**. Stockholm.

Hanke, S.H. – Jonung L. – Schuler K. **Estonia: it's not a currency board system!** Transition, no. 1, p.12. 1993.

Hansson, A. **Transforming an Economy while building a Nation; the Case of Estonia**. Stockholm Institute of East European Economics Working Paper 62. 1992a.

Hansson, A. **Estonian Currency Reform: Overview, Progress Report and Future Policies**. Östekonomiska Institutet, Stockholm, Memorandum, 7 August. 1992b.

Hansson, A. **The Trouble with the Rouble: Monetary Reform in the Former Soviet Union**. in Åslund, A. – R. Layard, eds., Changing the Economic System in Russia. London, pp.163–182. 1993.

Hansson, A. – Sachs, J. **The Crowning of the Estonian Kroon**. Transition, No. 9, pp. 1–3. 1992.

Hernandez–Cata, E. **Introduction of a national currency**, in Gros, D. – Pisani–Ferry, J. – Sapir, A. eds., Inter-State economic Relations in the former Soviet Union, CEPS Working Document no 63, pp. 63–71. 1992.

Kallas, S. – Sörg, M. **Estonia's Currency Reform of 1992**. Bank of Finland Bulletin 67, no. 3, pp. 3–7. 1993.

Lainela, S. **Currency reforms in the Baltic countries**, to appear in Communist Economies and Economic Transformation, no. 4. 1993.

Lainela, S. – Sutela, P. **Escaping from the rouble: Estonia and Latvia compared**, a paper presented at the Third EACES Workshop on "Integration and Disintegration in European Economies: Divergent or Convergent Processes?", Trento, March 4–5, 1993. To be published in a conference volume edited by G. Pegoretti and B. Dallago, Macmillan 1994.

Misiunas, R.J. – Taagepera, R. (1983). **The Baltic States: Years of Dependence 1940–1980**. Los Angeles.

Odling–Smee, J. **Letter to the Editor**. Transition, No. 10, p. 9. 1992.

Osband, K. – Villeneuve, D. **Independent Currency Authorities: An Analytic Primer**. IMF Working Paper 92/50. 1992.

Otsason, R. **Eesti krediiturg on täiesti tühi**. Äripäev, 30 July. 1992.

Rajasalu, T. **Rahareformist, valuutakursist ja selle võimalikust järelmõjust**. Äripäev, 9 July. 1992.

Valyutnoe chudo Latvii. Ekonomicheskaya Gazeta no. 26, 1992.

Walters, A. **Currency Boards, The New Palgrave**. ed. Eatwell, J. – Milgate, M. – Newman, P. London, vol.1, pp. 740–742. 1987.

Van Arkadie, B. – Karlsson M. (1992). **Economic Survey of the Baltic States**. London.

Table 1.

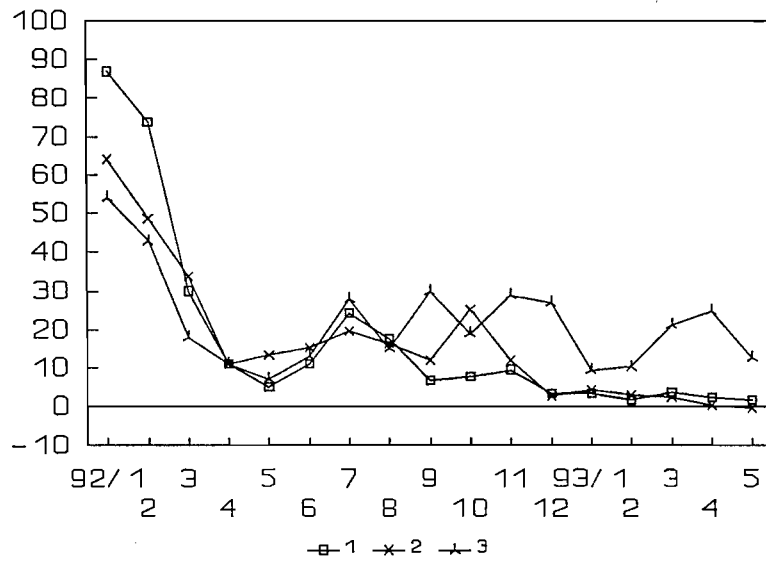
Appendix 1.

Balance sheet of the Bank of Estonia

1992	16 July 1992		1 Aug 1992		1 Sept 1992		1 Oct 1992		1 Nov 1992		1 Dec 1992	
	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD
Assets												
Gold and convertible foreign currency claims	1165.2	98.1	1541.2	130.3	1635.6	145.0	1739.0	154.2	2155.1	174.0	2345.3	183.1
Total	1165.2	98.1	1541.2	130.3	1635.6	145.0	1739.0	154.2	2155.1	174.0	2345.3	183.1
Liabilities												
Notes and coin in circulation	630.0	53.0	677.7	57.3	771.5	68.4	874.2	77.5	973.5	78.6	1084.6	84.7
Liabilities to financial institutions	229.2	19.3	317.9	26.9	420.2	37.3	309.6	27.5	517.6	41.8	556.6	43.4
Capital accounts	306.0	25.8	545.6	46.1	443.9	39.4	555.2	49.2	664.0	53.6	704.1	55.0
Total	1165.2	98.1	1541.2	130.3	1635.6	145.0	1739.0	154.2	2155.1	174.0	2345.3	183.1
<hr/>												
1993	1 Jan 1993		1 Feb 1993		1 March 1993		1 Apr 1993		1 May 1993		1 June 1993	
	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD	mill EEK	mill USD
Assets												
Gold and convertible foreign currency claims	2502.4	193.8	2775.6	220.1	2848.1	216.7	3061.3	237.0	3304.8	260.3	3489.3	273.6
Total	2502.4	193.8	2775.6	220.1	2848.1	216.7	3061.3	237.0	3304.8	260.3	3489.3	273.6
Liabilities												
Notes and coin in circulation	1228.6	95.2	1284.1	101.8	1425.0	108.4	1546.0	119.7	1632.2	128.5	1788.4	140.2
Liabilities to financial institutions	580.5	45.0	750.4	59.5	775.4	59.0	732.3	56.7	762.5	60.1	791.7	62.1
Capital accounts	693.3	53.7	741.1	58.8	647.7	49.3	783.0	60.6	910.1	71.7	909.2	71.3
Total	2502.4	193.8	2775.6	220.1	2848.1	216.7	3061.3	237.0	3304.8	260.3	3489.3	273.6
Bank of Estonia's foreign exchange quotations			14 July 1992	11.882	1 Jan 1993	12.9120						
USD exchange rate			1 Aug	11.8320	1 Feb	12.6104						
			1 Sept	11.2776	1 March	13.1440						
			1 Oct	11.2744	1 Apr	12.9144						
			3 Nov	12.3824	4 May	12.6976						
			1 Dec	12.8120	31 May	12.7520						

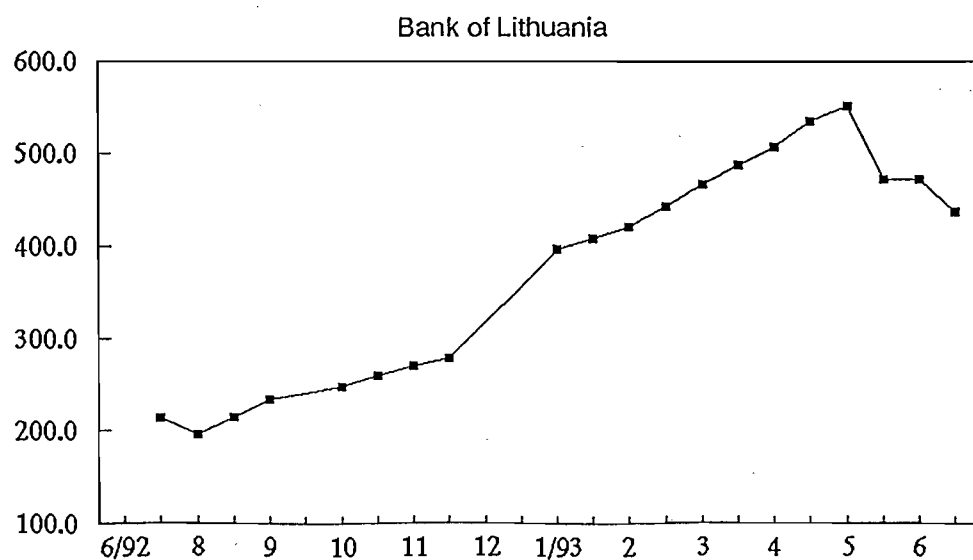
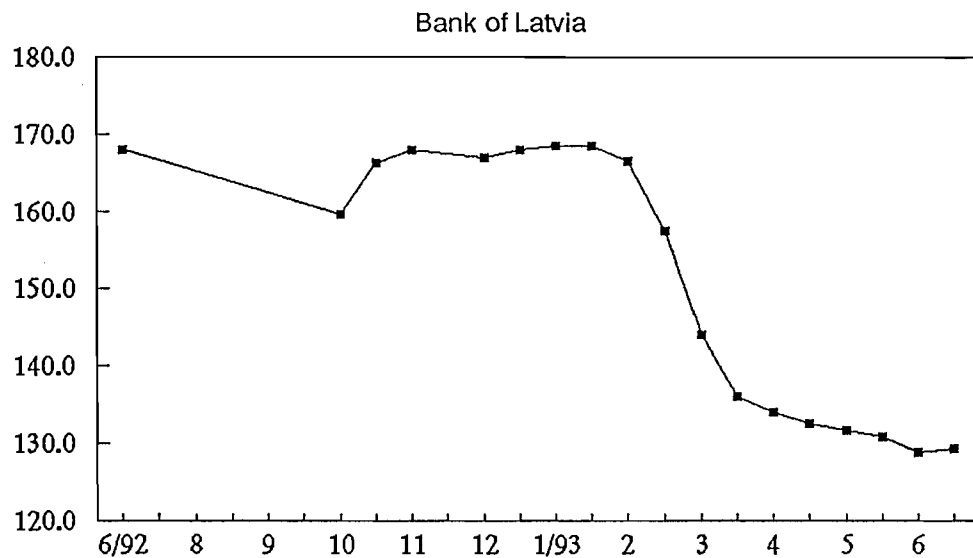
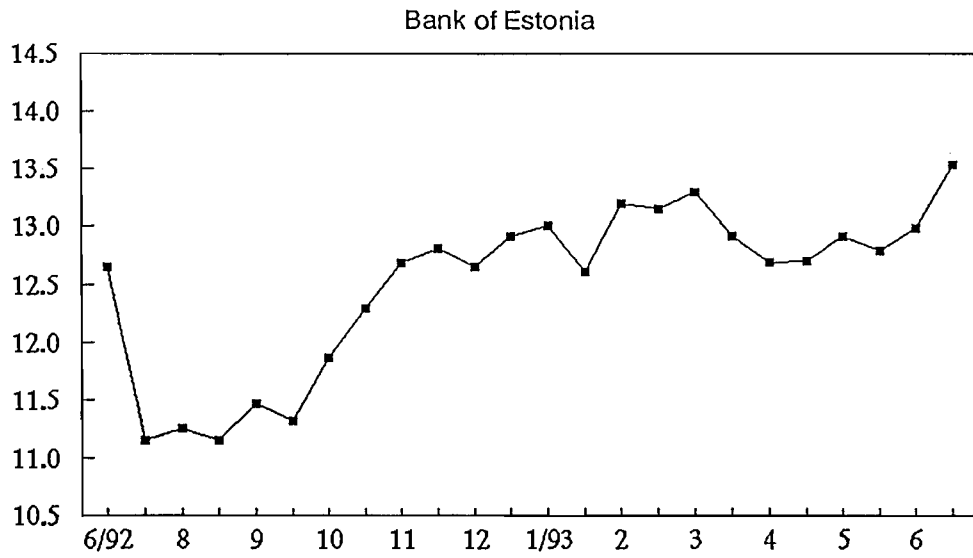
Figure 1.

**Monthly inflation
consumer price index**



- 1 Estonia
- 2 Latvia
- 3 Lithuania

Currency rates for US–dollar in the Baltic countries



Quotations are shown for the beginning and middle of each month.

Source: Āripāev, Baltic News Service

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