

The Estonian Currency Board: Its
Introduction and Role in the Early Success
of Estonia's Transition to a Market
Economy

*Adalbert Knöbl, Andres Sutt, and
Basil Zavoico*

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The Estonian Currency Board: Its Introduction and Role in the Early Success of Estonia's Transition to a Market Economy

Prepared by Adalbert Knöbl, Andres Sutt, and Basil Zavoico¹

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Abstract

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

This paper reviews the history of the introduction of the Estonian kroon under a currency board arrangement. On June 20, 1992, Estonia became the first country from the former Soviet Union to abandon the Russian ruble and introduce its own currency. The paper looks at the factors behind this decision and discusses the implementation of the currency reform. It then assesses the economic impact of the reform and also compares Estonia's experience with that of its Baltic neighbors. It concludes that although the currency board arrangement made an important contribution to the early success of Estonia's economic stabilization and reform program, the underlying financial and structural policies were crucial for that success.

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Authors' E-Mail Addresses: aknobl@imf.org, asutt@epbe.ee, bzavoico@imf.org

¹ Messrs. Knöbl and Zavoico are Senior Resident Representative and Senior Economist in the European II Department, respectively. Mr. Sutt is a Deputy Governor at the Bank of Estonia. Mr. Knöbl was the mission chief on Estonia immediately following its independence, during the period of currency reform, and for two years thereafter. Mr. Zavoico was the lead desk economist on Estonia from November 1991 through October 1993. Mr. Sutt was an economist in the central bank policy unit at the Bank of Estonia in the run-up to the currency reform. The authors wish to thank Siim Kallas, Ardo Hansson, and Rein Voog who took the time to discuss the early history of the reform process and John Odling-Smee (EU2), Adam Bennett (MED), Peter Keller (EU2), Tapio Saavalainen (EU2), Richard Haas (EU2), and Andrus Alber (OED) for their comments. The views expressed are those of the authors and do not necessarily represent those of the IMF or the Bank of Estonia.

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I. INTRODUCTION

On June 20, 1992, Estonia became the first country that emerged from the Soviet Union to abandon the Russian ruble and introduce its own national currency. The relative success of the subsequent stabilization and reform program, including the realization of rapid real growth, has often been attributed largely to Estonia's early embrace of the currency board mechanism. When it was first learned that the currency board was the preferred monetary framework, a number of observers (including the International Monetary Fund) cautioned the authorities that this device could place unnecessarily tight restrictions on policymakers and might constrain development. In the event, successive Estonian governments have been able to work well within the confines of the currency board and have engineered a growth performance equal—or superior—to most countries in Eastern Europe and the Commonwealth of Independent States (CIS) that have chosen less restrictive monetary regimes.² There is every indication that Estonia will make its transition to the European Economic and Monetary Union (EMU) and, ultimately, to the euro with its currency board intact.

This paper will review history of the introduction of the currency board in Estonia, which goes back several years before independence was achieved in August 1991, and the factors responsible for the government and the central bank, the Bank of Estonia, settling on that particular mechanism. It will discuss the implementation of the currency reform in June 1992, including supporting fiscal and monetary policy measures that were taken, and then assess the economic impact immediately following the reform. The paper will also touch upon the special factors that may have been responsible for the success of Estonia's early stabilization and reform and compare Estonia's stabilization experience with those of the other two Baltic countries.

II. BACKGROUND TO THE CURRENCY REFORM

A. The Early Days

Although a mere ten months passed between the emergence of Estonia as an independent state and its currency reform, an active and informed debate about the transition of the Estonian economy from state control to a market model had already been taking place for almost five years. In this debate, the introduction of an independent currency played a key role.

The debate began in the wake of the gradual loosening of political and economic controls following Mikhail Gorbachev's accession to power in 1985. Permission was given to consider alternative modalities for the devolution of power from the center to the republics, and this catalyzed discussion in Estonia about how to take advantage of this greater room for maneuver. The first substantive product of this debate was the publication of a proposal in

² For an assessment of post-independence growth in the Baltics, see Gulde and Keller (2002).

September 1987 by four leading Estonian social scientists for a new, and—given the political circumstances—very ambitious economic framework.³ If implemented as conceived, it would essentially create a self-managing economic zone in Estonia within which the main instruments of central planning would have been largely dismantled. A key element of this program was the introduction of a national currency, with the favored model at that time being that of the Scottish pound (with the Estonian currency to be issued locally, but tied to the ruble).

During the period September 1987–November 1989, work on IME focused on struggling with Moscow about the limits of how far autonomy could be taken and drafting legislation to give effect to a succession of compromises with the center.⁴ In November 1989, the Soviet Union promulgated the Law on Economic Independence which granted the Baltic states a degree of autonomy. This provided an opening that Estonia used immediately to reestablish the Bank of Estonia on January 1, 1990.⁵ However, as most financial operations remained centralized in the Tallinn branch of the Soviet State Bank (Gosbank), the Bank of Estonia's activities were largely confined to developing a strategy for achieving greater economic autonomy for Estonia within the confines of the Soviet Union.⁶ In practice, this meant planning in earnest for the currency reform. However, at this stage, greater emphasis was given to resolving political constraints and to logistical factors (e.g., banknote printing) than on addressing the broader issues of the preferred foreign exchange regime and supporting

³ This framework was called IME, which is the Estonian acronym for “self-managed Estonia” and is also the Estonian word for miracle. Among the original authors of IME were Siim Kallas and Edgar Savisaar. For more background, see van Arkadie and Karlsson (1992), Kallas and Sorg (1994), and Economist Intelligence Unit (1990).

⁴ An important product of this period was the establishment in Estonia of the first commercial bank in the Soviet Union that operated as a joint stock company—Tartu Commercial Bank—in December 1988. This bank later also had the distinction of being the first bank in the CIS and Baltic region to be declared insolvent and then liquidated (December 1992).

⁵ The Bank of Estonia was originally founded in February 1919 upon Estonia first gaining independence, but was closed in June 1940 following Estonia's annexation by the Soviet Union. For a more detailed history of the Bank of Estonia, see its website at “www.ee/epbe/en/history.html”.

⁶ Shortly after its reestablishment, the Bank of Estonia also took over the Tallinn branch of the Foreign Trade Bank of the Soviet Union (Vneshekonombank). Although this bank's responsibilities were largely commercial, they provided Bank staff with important experience in managing foreign assets.

macroeconomic policies—a shortcoming that was to plague the debate on currency reform for the next two years.⁷

Growing political tension between Estonia and Moscow in 1990 led to the retraction by Moscow of some measure of economic autonomy, which also implied the postponement of any currency reform. However, the political commitment to currency reform remained strong and found expression in the formation of the Monetary Reform Committee (MRC) in March 1991. The MRC was tasked with framing the general principles of monetary and currency reform and also given extensive powers to promulgate legislation related to these reforms.⁸ Most importantly, it was staffed entirely by officials with a commitment to a market-based reform and was supported in its work by the Bank of Estonia which was similarly constituted.⁹ The still-functioning Tallinn branch of the Gosbank—which was the effective central bank in Estonia for fulfilling most payment and bank supervision functions—remained the bastion in Estonia of banking officials with a predominantly central planning background. As a result, the de facto central bank played virtually no role in the discussions relating to the currency reform.

During the period through August 1991, the MRC and the Bank of Estonia debated the principles of monetary reform, but in relatively general terms and without discussing any specific mechanisms (including a currency board). These discussions were also sidetracked to an extent by organizational issues and disagreement over the fate of the commercial banking arm of the Bank of Estonia (the former Vneshekonombank). These debates ended and the work of the Bank refocused on the reform effort with the appointment of Siim Kallas in September 1991 as Governor of the Bank of Estonia (and who was also on the MRC).¹⁰

⁷ Indeed, the first tender for the design of kroon banknotes was announced in December 1989.

⁸ By law the MRC had three members: the Prime Minister, the Governor of the Bank of Estonia, and one expert appointed by the legislative body. The founding members of the MRC were Edgar Savisaar, Rein Otsason, and Siim Kallas. In February 1992 the MRC was reconstituted to include Tiit Vähi (then Prime Minister), Siim Kallas (then Governor of the Bank of Estonia), and R. Jalakas (a Swedish banker of Estonian origin). Ardo Hansson was appointed as a substitute member in June 1992 (shortly before the currency reform). To ensure that it could complete its work, its term of office was set to end only in June 1995.

⁹ Indeed, from the outset the Bank of Estonia adopted an explicit policy of only hiring staff with “modern” views, i.e., market- and Western-oriented technicians.

¹⁰ Kallas was regarded as having useful experience in banking through his work at the Savings Bank (Hoiupank) and was already a member of the Bank of Estonia’s Board.

B. Independence and the Imperative of Currency Reform

The combination of independence being achieved on August 20, 1991 and Siim Kallas taking over at the Bank of Estonia in September 1991 gave enormous impetus to the momentum for reform. Not only was the introduction of a national currency linked to the explicit national goal of achieving economic independence from Russia and the CIS—which with independence became a realistic goal—but, at the same time, the Bank of Estonia (and the MRC)—already the intellectual locomotive of market reforms—gained as head a governor that had been at the forefront of the reform debate for several years.

In recognition of the need to resolve the emerging economic difficulties and dealing with the growing political pressures, the Bank rapidly expanded its staff as specialists in banking and economics were hired.¹¹ Initially, debate centered around whether to implement the currency reform by going directly to an independent currency or transitioning through a voucher (or parallel currency) phase. Concern was also expressed for the implications of the large “monetary overhang”—large enterprise and individual ruble deposits—for post-reform price stability.

The Bank of Estonia decided in late 1991 that the preferred route would be to move directly to an independent currency, arguing that vouchers would not help solve the problem of inflation. If a rapid reduction in inflation did not accompany the introduction of the new currency, it was feared that scarce foreign exchange reserves would be depleted in defending an unrealistic exchange rate. In recognition that additional foreign exchange would be required to support the new currency, Bank staff suggested initiating discussions on a foreign-financed stabilization fund or by pledging Estonia’s extensive state-owned forests.^{12 13} At that time, Kallas was attracted to the transparency and high degree of

¹¹ In August 1991 the Bank of Estonia had only about 25 staff.

¹² Indeed, in a meeting with the IMF’s Managing Director (Michel Camdessus) on October 31, Prime Minister Savisaar formally asked the IMF for a stabilization fund to support Estonia’s currency reform. The Managing Director expressed sympathy for Estonia’s predicament but said that membership in the IMF would need to be secured and credible macroeconomic policies implemented before financial support from the IMF could be mobilized.

¹³ In the event, and to supplement the Bank of Estonia’s meager foreign reserves, the Estonian legislature in January 1992 committed to the balance sheet of the Bank of Estonia 150 thousand cubic meters of forests ready for felling, which it was estimated had a market value of about US\$150 million. Thus came about the myth—prevalent in the years immediately following the reform—that the kroon was backed by Estonia’s forests. These forest assets were formally removed from the Bank of Estonia’s balance sheet only in June 1997.

confidence associated with the gold standard, under which Estonia had achieved a period of monetary stability during the period 1927–33. However, it was recognized that in the prevailing international environment this alternative was impractical. Notwithstanding the lack of consensus on how to proceed, in discussions with the IMF mission in November 1991, Bank officials emphasized that the target date for the currency reform should be not later than mid-1992.¹⁴

Box 1. Estonia and the IMF

Estonia applied for membership in the IMF on September 9, 1991. The first formal contact with the IMF took place when the Deputy Managing Director of the IMF (Richard Erb) met in Tallinn with delegations from the three Baltic States on September 22–25, 1991. An acquaintance mission visited Estonia in November 1991 and was followed by the membership mission in January 1992. Estonia formally joined the IMF on May 26, 1992 with a quota of SDR 31 million (or about US\$43 million).

Missions to negotiate a program of financial cooperation took place in April, June, and July 1992. A resident representative was stationed in Tallinn in April 1992. Following the introduction of the Estonian kroon on June 20, 1992, the IMF and Estonia issued a joint press release in which the IMF expressed its support for the currency reform (Appendix 1). This was followed by the approval of the first stand-by arrangement with the IMF on September 16, 1992 in the amount of SDR 27.9 million (or about US\$39 million).

However, at the same time, the Government began to lobby the Bank of Estonia for a currency reform based on the introduction of vouchers on grounds that it could be implemented quickly and that it would postpone having to take hard decisions on issues such as the exchange rate and the currency regime, issues on which it felt it had little expertise. Moreover, at that time the Government was also preoccupied with broader issues related to keeping the economy going, and more specifically, mitigating the impact of the collapse of interrepublican trade on key industries (over 90 percent of trade in late 1991 was with the Baltics and the CIS).

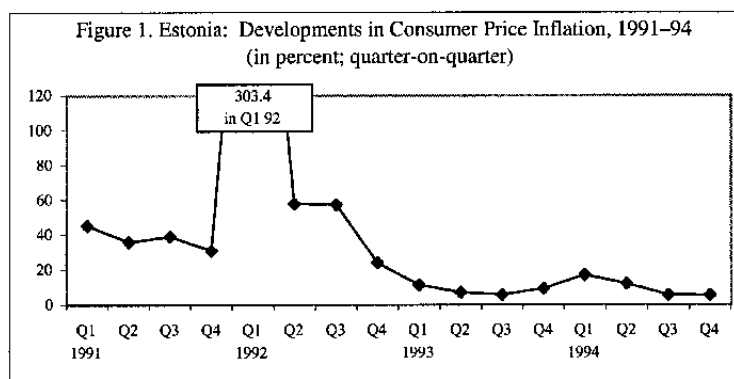
A crucial meeting of the MRC was called in early January 1992 to assess where things stood and review the timetable for the currency reform.¹⁵ The deterioration in the economic environment—including concerns that the Russian stabilization plan would fail and that the introduction of coupon schemes in other republics (for example, Ukraine) would “flood Estonia with rubles”—served to underscore the urgency of implementing a coherent reform strategy. However, while progress was made at this meeting in addressing selected logistical

¹⁴ See Box 1 for details of the evolution of Estonia’s relationship with the IMF.

¹⁵ Two IMF staff, including Mr. Knöbl, were invited to participate in this meeting. In addition to the three members of the MRC, several other high officials, including the ministers of finance and trade, also joined in the discussions.

issues (including the broad framework for the conversion of rubles held by enterprises and individuals), it was clear that little had been done to prepare for the implementation of an independent monetary policy, the management of the foreign exchange regime, and the implications of currency reform for trade with the Baltics and the CIS. In particular, the reluctance of the Russian authorities to discuss settlement arrangements in a post-ruble environment threatened to disrupt further an already crippled trade system. Moreover, there was no discussion at this point of what foreign exchange regime should be adopted following the introduction of the new currency. In this setting, IMF staff cautioned that currency reform should be delayed until sound monetary and fiscal policies were in place, and in particular, that mechanisms to establish firm control over budget spending and credit would need to be developed and introduced as a matter of urgency. In discussions with their Estonian counterparts, IMF staff also indicated that they were not averse to the introduction of coupons as a temporary supplement to ruble notes if Russia failed to provide an adequate supply of currency.

In January 1992, Russia liberalized prices, including energy prices, which led to a steep increase in import costs and the rate of inflation (Figure 1) (see Box 2 for details of Estonia's economic situation during the first half of 1992). Although temporary relief was arranged in the form of Western-financed fuel oil imports, the impact of the resultant terms of trade shock led to the Savisaar government being blamed for not being adequately prepared for these eventualities and it fell on January 16. It was replaced by a caretaker government headed by Tiit Vähi, who was the former Minister of Transport and Communications and widely regarded as an able "technician" that could lead a new government until a new constitution was agreed and parliamentary elections could be held.¹⁶ Shortly thereafter, and with the MRC preoccupied with the currency reform, Vähi formed an Economic Reform Committee (chaired by himself) to take responsibility for crafting broader macroeconomic



Source: Estonia authorities; and IMF European 2 Department's database.

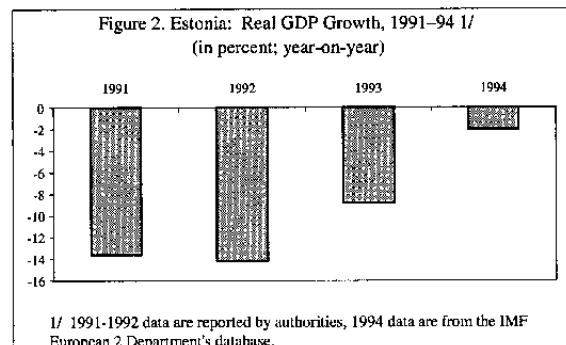
¹⁶ On assuming the premiership, Vähi also replaced Savisaar on the MRC.

policy and developing a stabilization program.¹⁷ To a degree this implied a two-track framework for debating the reform. In the event, cooperation between the Forest Committee and the Bank of Estonia was negligible.

Box 2. The Estonian Economy in Early 1992

Immediately after re-gaining independence, Estonia started pursuing a policy of transition from central planning to a market economy. This had to be achieved against the background of an initial position of the Estonian economy that was much more difficult than that of the Eastern and Central European countries at the start of their reform efforts. The systemic shock when Soviet central planning collapsed was very large, with widespread disruptions in trade and financial links that led to shortages of goods and raw materials, the loss of export markets (trade concentration had been very large in the Soviet Union; 90 percent or more of Estonian trade had been with the Soviet Union), and dysfunctional payments and monetary arrangements (with the emergence of a wide divergence in the value of cash relative to account rubles and a critical cash ruble shortage).

Economic circumstances grew more dire in early 1992 as the liberalization of prices in Russia gave rise to hyperinflation and were further aggravated shortly thereafter when Estonia faced a severe terms of trade shock, as Russia moved to world market prices for energy and raw material exports to the Baltics. As a result, Estonia's terms of trade deteriorated by about 20 percent of GDP, implying an enormous loss of real incomes. In fact, Estonia experienced a much larger terms of trade deterioration than the 3 to 5 percent of GDP deterioration that Eastern and Central European countries faced after the dissolution of the Council for Mutual Economic Assistance. Real GDP in Estonia fell by over 25 percent in 1991-92 (Figure 2), while consumer prices, after having risen by over 200 percent in 1991, rose at a monthly rate of 80 percent in January-February 1992. Inflation abated somewhat thereafter, falling to an average rate of about 15 percent per month until the kroon was introduced in mid-June.



Source: Estonia authorities; and IMF European 2 Department's database.

Although the general government budget for 1992 was balanced when agreed in December 1991, the rapid inflation experienced in early 1992 resulted in the government providing subsidies for selected consumer staples to protect vulnerable groups. Moreover, sharply falling output and the decline in interrepublican trade resulted in substantial financial hardship for the enterprise sector, with the result that many enterprises went into arrears on their taxes. The combination of rising expenditures and falling revenues combined to substantially weaken Estonia's fiscal position in late winter and spring. Without corrective measures, it was estimated by IMF staff in April that the budget deficit in the second half of the year would be in the range of 5-6 percent of GDP, even if key consumer subsidies were eliminated.

In this situation, there was no choice or even debate of gradual versus rapid adjustment. The systemic shock had already occurred, and the aim of policy was to achieve rapid economic stabilization, while also accelerating the transition to a market economy. The main elements of policy were tight monetary and fiscal policies aimed at bringing down inflation, and structural measures aimed at institution building and rationalization of the economic incentive structures.

¹⁷ This committee came to be known as the "Forest Committee" as it was sequestered in a forest guest house about 25 kilometers west of Tallinn. Although Vahi was formally the chairman, Enn Roose (Deputy Minister of Finance) was the effective head.

Reflecting the Estonian authorities' market orientation, most price increases that followed the price liberalization in Russia were fully passed through to the public. However, to protect vulnerable groups, the removal of some budgetary subsidies for key consumer staples (whose prices had increased in some cases by 200-300 percent) were postponed temporarily. The pick-up in inflation also exacerbated the already difficult ruble shortage (as essentially the same stock of rubles now had to support a much larger nominal expenditure aggregate).¹⁸

The growing cash shortage in late January and early February became a major threat to any prospect of an early economic recovery, mainly because of the continuation of the Soviet practice of paying all wages and salaries in cash.¹⁹ Sharp increases in prices and the resultant decline in real incomes combined with delays in paying wages rapidly translated into weakening demand and falling sales and output. In response, stopgap measures were taken, including the introduction by the Bank of Estonia of checks to effect payments, the payment of wages by enterprises in the form of coupons redeemable in in-house shops, and even the issuance of a "regional" currency by the Tartu City Government (the use of which was quickly suppressed by the Bank of Estonia).²⁰ None of these adaptations proved effective in providing any material relief to the cash shortage and political pressure on the Government and the Bank of Estonia mounted to accelerate the timing of the currency reform. Although the Bank of Estonia was making progress on logistical issues (e.g., organizing the printing of new currency notes and deciding on balances that would be eligible for conversion), it was making little headway on the "day x+1" issue—which was how to acquire the technical skills required to implement an effective monetary policy and manage the currency immediately following its introduction.

In late February and March, the Bank of Estonia managed to secure supplies of additional cash rubles, which helped relieve political pressure for the immediate introduction of a new currency. However, at the same time, the sharp deterioration in the government's budgetary position, combined with the absence of domestic or external sources to finance its deficit, led

¹⁸ Because only Russia could issue ruble notes, a cash ruble shortage developed throughout the ruble zone at that time. This was a major motivating factor in many early currency reforms.

¹⁹ The most striking manifestation of the cash ruble shortage was the emergence of a spread between cash and "account" rubles (rubles held in accounts at commercial banks), which emerged in late 1991 and grew rapidly, especially after the inflation that accompanied price liberalization in early 1992. The premium on cash peaked at almost 100 percent in the first quarter of 1992.

²⁰ The ruble shortage led to interesting innovations in the service sector. For example, hotels (which had no natural access to cash rubles as they tended to be paid in foreign currency or account rubles) established pizza kiosks where fast food was sold for cash. Cash rubles so collected were used to pay wages and meet other cash expenses.

the government to put increasing pressure on the Bank of Estonia for credit, as did many enterprises that were unable to secure financing from commercial banks. Kallas steadfastly refused both official and enterprise requests for credit resources on grounds that this would undermine the macroeconomic framework for the impending currency reform. At the same time, early signs were that the government's Forest Committee, reflecting its largely old-style membership and a "central planning" approach to analysis, was likely to conclude that enormous financing gaps would accompany Estonia's transition to a market economy and that these could only be met through large scale external assistance (including foreign borrowing) and an accommodating central bank.²¹ There was some concern at the Bank of Estonia that further resistance to demand for credit could quickly result in its newly won independence being swept away and that the Forest Committee could usurp the lead in framing the reform agenda and push it in a more interventionist direction.

It was into this setting that Jeffrey Sachs, accompanied by Ardo Hansson and Boris Pleskovic, arrived in Tallinn on April 4.²² This visit happened to coincide with a IMF mission that was initiating negotiations on a possible stand-by arrangement. With the Argentinean experience with a currency board in the background,²³ Sachs proposed to Kallas that Estonia adopt a currency board arrangement (CBA). Sachs' team left a memorandum prior to its departure outlining the main features of a CBA.²⁴ This proposal entailed the currency board providing full coverage for the entire stock of broad money, an objective which was at that time well out of reach given Estonia's available foreign exchange reserves. Nevertheless, Kallas was attracted immediately to this concept because currency boards were associated with the same transparency and high degree of confidence as the gold standard. The implementation of a CBA would also immediately solve the problem of resisting demands for credit from the Government and enterprises and at the same time side-step the

²¹ The Forest Committee engaged in a Purchasing Power Parity exercise that suggested a wholesale shift to world prices for all goods and services on the first day following the reform with no compensating adjustments to either demand or supply. Since the minimum consumption basket thus valued was around US\$ 240/month and since the average wage was US\$30/month, this suggested that the exchange rate would need to be set at least eight times the prevailing market rate to meet minimum social requirements.

²² Jeffrey Sachs was Professor of Economics at Harvard University, Ardo Hansson was advisor to Prime Minister Vähi, and Boris Pleskovic was economic advisor to the Prime Minister of Slovenia with experience of the Slovenian currency reform.

²³ At the time, it was believed that the introduction of a currency board in Argentina in March 1991 contributed importantly to monetary stability by imposing strict fiscal discipline on a government that had in the past found it impossible to resist major spending initiatives financed largely by borrowing from the central bank.

²⁴ The Sachs team also met with the IMF mission to discuss its proposal for a CBA.

challenge of managing an independent monetary policy (the “day x+1” problem). Moreover, the early acceptance of a workable concept—around which the tightly knit Bank of Estonia could quickly build political momentum—would also help deflect attention and undermine support for any *dirigiste* proposals generated by the Forest Committee (proposals in which it appeared that Vähi was starting to take considerable interest).

The IMF negotiating mission accepted the Estonian authorities’ concerns regarding the imperative for urgent currency reform, but again cautioned that the emergence of a large fiscal deficit in 1992 would undermine the introduction of the kroon. It stressed the importance of embedding the currency reform in a more general and consistent macroeconomic framework. The mission submitted to the authorities on April 7 a draft of a Memorandum of Financial and Economic Policies (MFEP) that foresaw the currency reform taking place in the context of the Bank of Estonia conducting an independent monetary policy and with the kroon exchange rate freely floating.²⁵ However, after Kallas expressed his great interest in a CBA and underlined the government’s commitment to introduce the new currency no later than end-May, the mission indicated that it could support either a CBA or a floating exchange rate.²⁶ But the mission again emphasized the importance of combining currency reform with a credible stabilization package and noted the risks associated with a deteriorating fiscal position. It also noted that the CBA would be a “tough” option, and could result in a squeeze on the economy given the prospective financing gap in the balance of payments.

The final decision to take the CBA route was taken by the Bank of Estonia and the MRC in late April, shortly after the departure of the IMF mission.

III. IMPLEMENTATION

After the decision in April 1992 to introduce a CBA, preparations for the introduction of the kroon moved ahead full force.

A CBA is a relatively simple institution to set up, which was an important consideration in Estonia at the time when expertise in central banking was limited. Even so, several important decisions had to be taken prior to its introduction. First, it had to be decided what the CBA would be backing; second, which currency the kroon would be pegged to; and third, what to

²⁵ The draft MFEP foresaw two alternatives as regards timing. The first alternative involved a reform in May-early June, but without the initial financial support from the IMF (as there was insufficient time to bring the associated financial program to the IMF’s Executive Board). The second alternative involved a brief delay in the currency reform to allow time to complete negotiation of the MFEP and prepare the necessary paperwork.

²⁶ The mission also left behind a short note outlining the main operational features of a currency board, in which it was proposed that the currency board back only the money base, for which existing and prospective foreign reserves were just about adequate.

back the CBA with. The necessary legislation and regulations for the CBA, as well as the supporting policies, in particular fiscal policy, also needed to be put in place.

Relevant legislation was drafted in early May 1992, in part with technical advice from IMF staff. Governor Kallas came to Washington for the signing of the membership of Estonia in the IMF on May 26, 1992. During his visit, several meetings took place with IMF management and other senior IMF officials of the IMF. They again stressed to Governor Kallas the importance of waiting with the introduction of the kroon until all the supporting policies, in particular fiscal policy, were in place to make sure that the introduction of the kroon would be successful. They argued that the best time would perhaps be once a stand-by arrangement with the IMF was in place in a few months time. This would not only signal that economic policies were considered adequate by the international community, but also would make foreign exchange available for the backing of the kroon. Governor Kallas, however, insisted on an early introduction of the kroon, and stated that it had been decided that the introduction would take place over the long weekend starting June 20, 1992. The Governor and IMF staff then agreed on that date for the currency reform and also on close cooperation between the Estonian authorities and the IMF in the run-up to the currency reform. It was decided that a IMF staff mission would visit Tallinn in June before the introduction of the kroon and work with the Estonian authorities on technical details of the monetary reform and, perhaps more important, on a stabilization program, in support of the kroon.

On the technical side, as noted above, a decision had to be made on what the CBA should cover. Opinions differed, with the Bank of Estonia (and Sachs) favoring to initially cover broad money.²⁷ At the other extreme, Estonia could have opted for a Hong Kong model and opted for coverage of the note issue only. In close consultation with IMF staff, an intermediate solution was decided upon whereby only Bank of Estonia liabilities would be covered with foreign reserves. Cover of broad money was considered impracticable, as it would have constrained the banking sector unnecessarily, and also because sufficient foreign exchange cover for broad money was not available. On the other hand, the Bank of Estonia decided to maintain the existing regime of reserve deposits by banks, partly because there was no effective system of interbank clearing outside the central bank, but also to ensure that banks held precautionary balances against unexpected outflows. Such deposits, being liabilities of the Bank of Estonia and interchangeable with cash, needed to be backed the same way as cash.²⁸

²⁷ That is, the monetary liabilities of both the Bank of Estonia and the commercial banks. Thereafter, the issue of new money by the Bank of Estonia would occur only through the purchase of foreign exchange reserves, i.e., the system would revert to a base money rule. It was estimated at the time that foreign exchange reserves amounting to US\$200-300 million would be needed to meet this initial requirement.

²⁸ There was also the problem of the Hoiupank, or Savings Bank, which was the main depository of individual savings accounts in Estonia. Its assets were held exclusively in the
(continued)

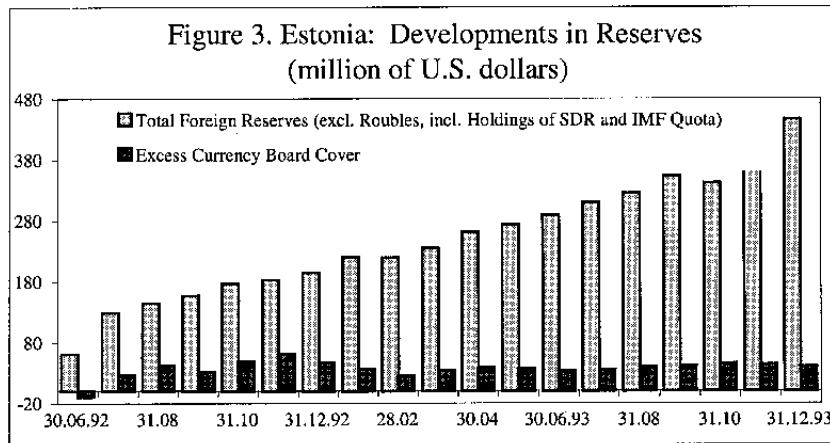
The second choice related to the currency that the kroon should be pegged to. As Estonia aspired to ultimately join the European Union (EU), and the main trade relations in the future would be with the EU, initially a peg to the European Currency Unit (ECU) was considered. However, as such a peg would not have been as transparent as a link to a single well known currency, the choice was made to peg the kroon to the deutsche mark (DM). For simplicity, the exchange rate was fixed at the nearest whole DM multiple to the prevailing ruble/US dollar market rate.²⁹

On the third issue noted above, there was no choice to make, as there were practically no foreign reserves available, except for the gold restituted from the United Kingdom.³⁰ Thus, the CBA started with a backing of only 90 percent of the liabilities of the Bank of Estonia, with full backing being realized within about a month after the currency reform following further gold restitution (Figure 3).

Gosbank, Moscow. Access to these assets—which represented about 1/3 of the amount that the Bank of Estonia was considering covering under its currency board - was denied by Moscow which effectively blocked these accounts. In the interests of ensuring broad support for its reform, the Bank of Estonia decided to fully recapitalize the Hoiupank. To ensure maximum security of these deposits, it also imposed a 100 percent reserve requirement on the Hoiupank's liabilities.

²⁹ In fact, there was a deliberate rounding up to the nearest whole DM multiple from the prevailing market rate to build-in a modest cushion of competitiveness (to eight kroon to one deutsche mark).

³⁰ This represented gold held as foreign reserves by the Republic of Estonia prior to Estonia's annexation by the Soviet Union in June 1940. After Estonia regained its independence, selected depositories recognized these claims and returned the gold. However, at the time of the currency reform, only the gold restituted from the Bank of England was available to the Bank of Estonia (about US\$52 million). A further US\$45 million was restituted from Sweden and the BIS in July. The total required to cover the Bank of Estonia's liabilities (including those of the Hoiupank) at the time of the currency reform was about US\$63 million.



Source: Estonia authorities; and IMF European 2 Department's database.

Other technical issues related to reviewing carefully and suggesting needed changes to provisions in early drafts of legislation—some of which were modeled on elements of Soviet regulations—including a prohibition on individuals taking kroon currency notes out of the country. There was also a provision for central bank intervention to maintain the exchange rate, which was unnecessary in a CBA environment. IMF staff also advised opening an exchange window at the Bank of Estonia where individuals and enterprises could come and freely exchange unlimited quantities of kroon into deutsche marks and vice-versa with “no questions asked” and with no conversion costs. It was believed that this public display of confidence in its own currency reform would help bolster the kroon in its infancy. The Bank of Estonia agreed on opening this window and also suitably modified enabling legislation in close cooperation with IMF staff, including eliminating the proposed restriction on the export of kroon notes and cutting out references to central bank intervention to support the exchange rate. Measures that could not be taken by the Bank of Estonia were adopted by the MRC.³¹

As these discussions were proceeding, Prime Minister Vähi abruptly and without consulting the Bank of Estonia suggested to immediately use one kroon notes (which had already been printed and were stored at the Bank of Estonia) as coupons to substitute for 500 (or 1,000) ruble notes to overcome the ruble cash shortage, which had started to worsen again. In this form, the kroon notes (as ruble coupons) would have been worth substantially more than their post-reform value and would have complicated and undermined the formal introduction of the kroon. Although this scheme was successfully resisted by Governor Kallas (with IMF staff support) in the MRC, Vähi took the battle to Parliament on May 20, which also rejected

³¹ The power given the MRC to promulgate decrees with the full force of law proved crucial in the last weeks prior to the reform as legislation could be drafted, amended, and given effect in a very short time.

this proposal. Although the Bank of Estonia had prevailed, this exercise nevertheless put further political pressure on the Bank of Estonia to carry out an early reform.

The CBA chosen by the Bank of Estonia put strict constraints on economic policy. Under the CBA, base money could only be created against convertible foreign currency.³² There was, therefore, no scope for a discretionary monetary policy; there was also to be no central bank credit to Government or enterprises; and lending to banks could occur only under exceptional circumstances, when the soundness of the entire banking sector was at risk, and then only within strict limits of excess foreign exchange cover of base money. The CBA also provided a framework for fiscal policy: any budget deficit had to be constrained to what could be financed in the domestic financial market outside the Bank of Estonia, or abroad, which at the time was close to zero, implying that the budget needed to be roughly balanced. It was also recognized that to ensure a high degree of confidence in the reform, restrictions on conversion would need to be minimal. Accordingly, it was agreed to introduce the kroon with broad current account convertibility and limited capital account convertibility.

More complicated than the technical details of the CBA and politically challenging was the implementation of a stabilization program in support of the kroon. When the IMF mission arrived in Tallinn in early June 1992 it found that supporting policies were not in place. In fact, an ex-ante budget deficit in the order of 5 percent of GDP had opened up for the second half of 1992 that needed to be closed before the introduction of the kroon. As internal access to financing was essentially precluded by the CBA and external financing was uncertain, prudence suggested that the government aim at broadly balancing the budget for the remainder of the year. Achieving this scale of adjustment was made difficult in an environment where GDP during the second half of 1992 was projected to decline sharply. The mission set out these parameters for Governor Kallas and Prime Minister Vähi. Mr. Kallas agreed that urgent action was required and indicated that the Government would fall in case of insufficient preparation of the currency reform. Mr. Vähi also accepted that policy needed to be changed and ordered the Ministry of Finance to work closely with the mission team on the stabilization program. The mission collaborated very closely with Minister Miller and his staff in the days preceding the reform in designing a fiscal package that would ensure that the general government would remain in small surplus for 1992 as a whole. On June 18, the Prime Minister announced the fiscal package amounting to about 5–6 percent of GDP that centered on an increase of the VAT rate from 10 to 18 percent, a highly controversial measure (given the weak economy and falling incomes) that was adopted immediately by the MRC. Finally, although Russia had not initially taken seriously Estonia's intention to proceed with the currency reform and stalled on discussions to establish new clearing accounts to ensure that the payments associated with interrepublican trade could continue uninterrupted, in mid-June they accepted that reform was inevitable. In

³² For more details on the economic implications and mechanics of currency boards, see Bennett (1992 and 1994).

negotiations concluded just prior to the introduction of the kroon, Russia closed the old correspondent accounts and agreed on the modalities for operating new clearing accounts.³³

With all the essential elements in place, the IMF then announced its support of the currency reform in a joint press release by the Government of Estonia and the IMF on June 19, 1992 (Appendix I). Finally, the kroon became sole legal tender on June 20, 1992 (Table 1).

The introduction of the kroon went relatively smoothly, the only significant miscalculation being the underestimation of the demand for the new notes over the first weekend of its introduction. This was most likely due to the timing of the currency reform—just before the long summer break with the attendant increase in the demand for cash, but also because it appeared that the Estonian population had accumulated substantially greater amounts of foreign currency (mainly U.S. dollars) and stored them “under mattresses” than officials had expected. The resultant kroon shortages were quickly rectified by the Bank of Estonia and the new currency became generally accepted as the new and exclusive medium of exchange in Estonia within a week of its introduction.

IV. ASSESSMENT

It is difficult, if not impossible, to insulate the contribution of the introduction of the CBA per se to the economic stabilization. What is clear, however, is that a tight, anti-inflationary policy stance could only be implemented after the introduction of the kroon, since only then could Estonia insulate its economy from inflationary impulses from the ruble area. Even so, it has to be borne in mind that the CBA was only part of a comprehensive stabilization program. If that had not been the case, the CBA itself may have been in danger of failing. It is thus necessary to assess the whole stabilization and reform program, with its central elements of tight fiscal policy and the strong commitment to the CBA aimed at bringing down inflation, and structural policies aimed at transition to a market economy.³⁴

³³ In the event, these clearing arrangements broke down shortly thereafter. However, this did not have a major impact on economic activity and inadvertently supported the government's policy of a rapid reorientation of trade and finance to the West.

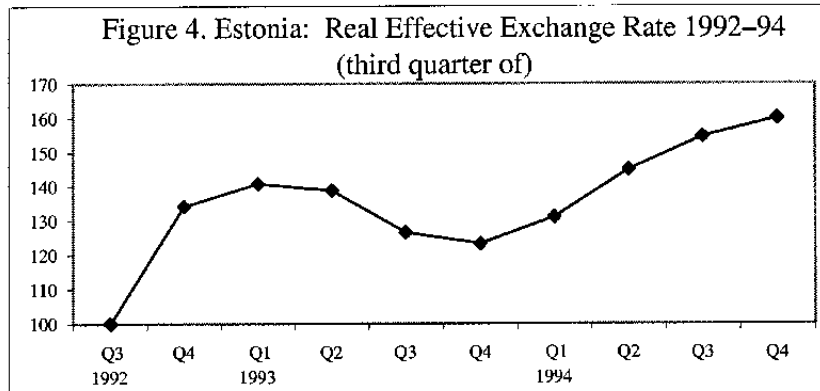
³⁴ Key structural measures included early price and trade liberalization, the early adoption of effective bankruptcy legislation (September 1992) and a privatization program that provided for the sale of 100 percent stakes in larger enterprises and that did not discriminate against foreign investors. Legal reforms and a court system that supported the enforcement of contracts were also crucial in creating an environment in which private enterprise could prosper.

Table 1. The Logistics of the Currency Reform	
Date:	The Estonian kroon became the sole legal tender at 4:00 a.m. on June 20, 1992. Individuals could convert rubles into kroon at special cash exchange offices at the official conversion rate during the period June 20-22, 1992 during the hours 9 a.m.– 10 p.m.
Official Conversion Rate:	10 rubles = 1 Estonian kroon.
Conversion of Cash Rubles:	All resident individuals (including children) and non-residents with residence permits could convert ruble notes equivalent to a maximum of rubles 1,500 at specific bureaus based on place of residence (which was equivalent to about US\$13 at the prevailing exchange rate). Cash exceeding rubles 1,500 could be exchanged at the (punitive) exchange rate of 50 rubles = 1 Estonian kroon. Enterprises had until June 20, 1992 to deposit cash rubles into their bank accounts which were then converted as noted below.
Conversion of Account Rubles at Commercial Banks:	All ruble current accounts, time deposits, and savings accounts were re-denominated into Estonian kroon at the official conversion rate. However, balances in savings accounts in excess of rubles 50,000 deposited since May 1, 1992 and transactions from other rubles states in excess of ruble 1 million and made after May 1, 1992 were blocked until their origin was verified and a decision on conversion was made on a case-by-case basis. Commercial banks were closed during the period June 20-25, 1992 to allow for the re-denomination of ruble accounts. The Bank of Estonia guaranteed access to cash by commercial banks up to the amount of their correspondent accounts with itself.
Total Cash Rubles Collected	Rubles 2.3 billion (or about 3 percent of GDP).

The response of the economy to the economic program became apparent very quickly. Inflation fell rapidly after monetary conditions tightened following the introduction of the CBA (Figure 1). Monthly inflation declined from an average of about 80 percent in early 1992 to only 3.3 percent in December 1992. However the decline was not as rapid as initially expected, and annual inflation remained in double digits until 1997. Several reasons may account for this. First, subsidization of services (rents, transportation, public utilities) was eliminated only gradually, which kept administered price increases high for some time. Second, the initial exchange rate may have been undervalued. With a fixed exchange rate, real appreciation had to come through higher inflation.³⁵ On the other hand, the initial “undervaluation” may have helped to limit the real output decline. Third, the recovery of

³⁵ See Banerjee, et al (1995).

capital costs associated with the country's physical infrastructure (housing, power plants, etc) was only phased in gradually as most of this capital was inherited from the Soviet economy, with the result that the associated services were initially underpriced; but as the capital was either repaired or replaced, full cost pricing was phased in and resulted in periodic up-ticks in inflation.³⁶ Fourth, in a successful transition, the equilibrium real exchange rate is appreciating reflecting different productivity growth in the trade and non-traded goods sectors (Balassa-Samuelson effect) (Figure 4).³⁷



Source: Estonia authorities; and IMF European 2 Department's database.

However, the recorded decline in output was very steep (Figure 2), over 25 percent over the two year period 1991-1992, much steeper than that experienced in Central and Eastern European transition economies. This can be explained by the much more severe systemic and terms of trade shocks than in other transition economies. It is worth noting that the steepest decline in output occurred before stabilization policies were put into place. Moreover, output stabilized quickly once stabilization policies took hold in mid-1992, with real GDP declines moderating significantly during the latter part of the year. This suggests that the short term cost in terms of lost output of rapid disinflation was small, but recovery was also initially slow.

The monetary arrangement was also tested rather quickly. The banking crisis of December 1992 reflected the new constraints on the economy. However, the collapse of three major commercial banks—although large, involving about 40 percent of broad money—did not take a serious toll on the economy as banks were not yet serving the function of full financial intermediaries.³⁸

³⁶ See Zavoico (1995).

³⁷ See Richards and Tersman (1995).

³⁸ At this stage of development, the primary function of banks was to facilitate payments through the clearing mechanism. This role was quickly taken over by surviving banks.

(continued)

It may be of interest comparing the Estonian experience with that in the other two Baltic countries and thus, perhaps, gain further insight regarding the contribution that the CBA made to the success of Estonia's economic transition.

Estonia had started the stabilization policy earlier than the other two Baltic countries, but Latvia did not lag far behind. The Latvian ruble was introduced in May 1992 and circulated initially alongside the ruble at a rate of one to one; this was done largely to overcome a ruble cash shortage at the time. Latvia left the ruble area in July 1992, just about one month after Estonia, when the Latvian ruble became the sole legal tender. The lats, the new local currency, gradually replaced the Latvian ruble, starting in March 1993. The lats was initially allowed to float and, in fact, appreciated significantly. Since February 1994, the lats has been pegged to the Special Drawing Right (SDR). There has been little difference in practice between the CBA in Estonia and the peg in Latvia in recent years, as foreign reserves usually exceeded the monetary base in Latvia.

Lithuania left the ruble area on October 1, 1992, somewhat later than Estonia and Latvia, when the talonas, an interim currency, was declared sole legal tender. On June 25, 1993, the Litas was introduced. At first, the exchange rate was flexible. Monetary discipline was initially weak, and the talonas depreciated sharply. However, monetary policy was tightened in spring 1993, and the talonas, later the Litas, appreciated before stabilizing in late summer 1993.

Monetary policy had been subject to political pressures in Lithuania, which at times had been very pronounced. As an illustration of this, by October 1993, the fourth Governor of the Bank of Lithuania had already been appointed in the short life of the re-established Bank of Lithuania (1990). In order to insulate monetary policy from political pressure, a currency board arrangement was introduced on April 1, 1994 (initially pegged to the U.S. dollar and then re-pegged to the euro on February 1, 2002).

The response of the Latvian and Lithuanian economy to the stabilization policies was similar to that of the Estonian economy. Inflation was brought down sharply once monetary policy was tightened.³⁹ In fact, Latvian inflation came down faster and reached single digits in 1996, about a year earlier than in Estonia. Output also stabilized quickly in Latvia and Lithuania once stabilization policies took hold.

These strikingly similar results were achieved in different monetary regimes. Estonia established the CBA immediately with the introduction of the kroon. Latvia initially floated

Moreover, since part of the deposits held in these banks had not been freely usable for some time before the collapse of the banks, the economic impact of their closure, at least in part, already been absorbed.

³⁹ As noted, monetary policy was tightened in Lithuania only in the spring of 1993; until then inflation had remained high.

its currency and later moved to a fixed exchange rate with a regular central bank regime. Lithuania floated its currency, but it trended downward initially as monetary policy was lax. The exchange rate was stabilized through a tightening of monetary policy, and then a CBA was adopted.

This experience suggests that the choice of the monetary and exchange regimes—e.g., a CBA or floating rate—is not the most important decision that the authorities must make. Rather it is the underlying policies that are crucial for the response of the economy. Thus, inflation remained high in Lithuania with a floating exchange rate and weak monetary policy, while it came down sharply once policy was tightened, even before the introduction of the CBA. Comparison between the Estonian and Latvian experience also suggests that similar economic outcomes can be achieved with different monetary and exchange rate arrangements.

V. SUMMARY AND CONCLUSION

In summary, and also taking into account the experiences of the Baltics and other transition economies, it can be argued that the introduction of the CBA in Estonia—although clearly an important step in the reform process—was more symptomatic of a broader intellectual and political commitment to the rapid transition to a market economy and prudent and transparent macroeconomic policies than it was a cause of the very apparent success of the Estonian economy since it achieved independence. Although it can be argued that the same results could have been achieved under a different exchange rate regime, there is no doubt that in Estonia's particular circumstances—distinguished by a fierce determination to achieve a rapid political and economic break with its Soviet past—the kroon (and the CBA) quickly became a symbol of this quest for independence. This enabled the Estonian authorities to present often contentious and painful adjustment measures, especially keeping the budget balanced, shutting down insolvent banks, and pushing forward with an aggressive privatization policy, as being inextricably linked to defending the CBA. These measures were of central importance in creating a stable macroeconomic and market-oriented environment that permitted an early return of real growth and, ultimately, to the Estonian economy generally being regarded as “a success story”. The ability to present such measures to the public as alternatives to threatening the very existence of the kroon materially simplified their political acceptance and, in the end, were crucial in helping overcome the inevitable resistance to change by vested interests and the “old guard” that every transition economy must face.

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INTERNATIONAL MONETARY FUND

NEWS  BRIEF

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Number 92/16

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JOINT STATEMENT BY THE GOVERNMENT OF ESTONIA AND
THE INTERNATIONAL MONETARY FUND ON CURRENCY REFORM

The Government of Estonia has announced the adoption of a currency reform in Estonia featuring the introduction of a national currency, the *kroon*. This is a historic decision with profound consequences for the Estonian economy. The International Monetary Fund has been kept fully informed of the key elements of the reform and has assured the authorities of its full support in the implementation of the reform.

Over the past several months the IMF staff has been discussing the design and implementation of a stabilization and structural reform program with the Government of Estonia and the Bank of Estonia. This program includes as an integral element the introduction of the *kroon*, as announced on June 17. The currency reform will impose financial discipline on the economy and requires the implementation of supporting price, incomes, budgetary, and structural policies in the immediate future. These policies, a number of which were announced yesterday by the Prime Minister of Estonia, are essential for the success of the currency reform and will allow Estonia to create the conditions for sustained growth in the period ahead.

Broad agreement has been reached between the Estonian authorities and IMF staff on a package of policies that could form the basis of an IMF-supported financial program, although additional work on elaborating measures is required. Provided that this work can be brought to a satisfactory conclusion, the management of the IMF is prepared to recommend to the Executive Board that the program be supported by IMF resources, and to help Estonia seek financial support from industrial countries to ensure that its external financing requirements can be met.

EXTERNAL RELATIONS DEPARTMENT

700 19th Street NW, Washington, DC 20431 • Telephone 202-623-7100 • Facsimile 202-623-6772