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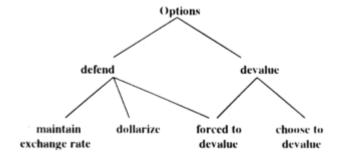
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PROSPECTS FOR THE LITAS: THE IMPACT OF THE RUSSIAN CRISIS

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In an earlier study written in May, 1998, "Prospects for the Lithuanian Litas: Stability or Devaluation?", we argued that economic fundamentals suggest the litas is overvalued and that eventually the litas will need to be devalued. 1 Following the collapse of the Russian ruble at the end of August 1998, we examined the prospects for the Lithuanian litas in the wake of the Russian economic and financial crisis. In September 1998, we argued that Lithuania had to decide which policy stance to adopt for the litas based upon four mutually exclusive alternatives; (1) defend and maintain the existing exchange rate of USD 1.00 = LTL 4.00 at all costs, (2) adopt the US dollar as the national currency, (3) defend the existing exchange rate for as long as possible until the costs of defending the litas become too great and accept a forced devaluation of the litas, or (4) develop a comprehensive strategy for a proactive devaluation of the litas that will minimize the impact of the Russian crisis on the long-term growth of the Lithuanian economy. 2 Figure below illustrates the options faced by Lithuanian policymakers in September 1998.



Policy options for the litas exchange rate.

Lithuania, along with other countries in Eastern Europe that have significant exports to Russia and the other Commonwealth of Independent States (C.I.S.) countries, faced major economic challenges as Russia endured a period of economic and financial crisis. The loss of major export markets for Lithuania to Russia, Ukraine, and Belarus, which together account for more than 40 percent of Lithuania's exports, meant that Lithuania's current account deficit widened from its level of 13.5 percent of GDP during the first quarter of 1998 to a level exceeding 15 percent of GDP for the full year. Moreover, investor perceptions of the risk of investing in Eastern Europe increased following the Russian crisis, so that capital inflows decreased as well. Difficult economic times lie ahead for Lithuania, and the situation in March 1999 confirms that the effects of the Russian crisis have been increasingly felt since the devaluation of the Russian ruble in August 1998.

Lithuania has chosen the first option, to defend the existing exchange rate of USD 1.00 = 4.00 LTL, and reserves have declined 22.4 percent from a high of USD 1.72 billion in July 1998 to USD 1.34 billion in February 1999. We discuss the implications of each option faced by Lithuanian policy makers, as well as investigate the tradeoffs they faced in September 1998. We then discuss the current situation as of March 1999.

I. Developments in Lithuania following the ruble devaluation

It was not very difficult to predict that Russia faced the possibility of an economic and financial crisis. Even though Russia has consistently run a large foreign trade surplus because of its energy and other natural resource exports, Russia was gradually exhausting its international reserves. The explanation is simple: huge capital outflows drained reserves out of the country. Furthermore, Russia's large fiscal budget deficit, because of poor, if not to say horrible, tax collection, resulted in a continually expanding level of government debt financed by short-term obligations at high rates of interest, often in excess of 100 percent. Once investor confidence began to waver, and investors began to have second thoughts about the desirability of holding additional Russian government paper, the fragility of the prevailing situation was exposed.

After spending billions of dollars from its reserves to keep the ruble exchange rate stable, the central bank of Russia on August 17, 1998 announced that the band within which the ruble was allowed to fluctuate had been increased from 5.27-7.13 RUR/USD to 6.0-9-5 RUR/USD. Russia also declared a 90-day moratorium on the repayment of ruble denominated government bonds. The exchange rate of the ruble fell steadily from 6.30 RUR/USD on August 14 to 7.86 RUR/USD by August 27. On August 28, the Russian central bank withdrew from the Moscow interbank currency market as the ruble exchange rate suddenly dropped below 10 RUR/USD, and the results of the day's trading session were canceled. In other words, there was no possibility to buy dollars on the interbank market, and the ruble effectively became inconvertible. After trading on the Moscow interbank currency market resumed, the ruble continued its downward slide. The central bank was the only seller of dollars, and commercial banks were prepared to buy all the dollars that were offered. The central bank was no longer able to maintain the ruble's floating target zone and abandoned any regulation of the ruble exchange rate. On September 8 the ruble cost approximately 20 RUR/USD in Moscow, and in volatile trading, after strengthening briefly to less than 10 RUR/USD, was trading around 16 RUR/USD by September 18. In March 1999, the ruble ups trading around 23 RUR/USD.

Lithuania did not have to wait long to feel the impact of the Russian turmoil. The same week as the *de facto* devaluation of the ruble, foreign investors exercised a put option to redeem USD 73 million of bonds issued by Mažeikių Nafta only one year after the bonds' issue date. Investors' perceptions of the risk of investing in Lithuania increased, and if this belief is widely held, foreign borrowing can be expected to become more difficult for both the Lithuanian government and leading Lithuanian corporations. Evidence of this can already be seen by the inability of Mažeikių Nafta to refinance its debt with foreign investors. The Lithuanian government has filled the gap by lending \$63.1 million from its Privatization Fund for three months, and providing a government guarantee for a loan of \$9.9 million extended by the Lithuanian Savings Bank (*Verslo žinios*, Sept. 14, 1998, p. 2). This loan has been extended for another three months, because private investors have not been interested in extending credit to the company.

As Lithuania has run a current account deficit in excess of 10 percent of GDP throughout 1997, and 13.5 percent of GDP in the first quarter of 1998, we suggest that Lithuania will encounter difficulties covering its current account deficit through foreign borrowing, or foreign investment. Foreign investors prefer to wait and see how conditions will develop in Russia before making any decisions on whether to make new investments in Lithuania. Vilniaus Bankas recently decided to postpone a new equity issue worth 80 million lital face value, which had been announced in the spring, due to unfavorable conditions in global financial markets (*Verslo žinios*, September 4, 1998, p.3). This provides further evidence that foreign investors are less interested in Lithuania than before, and the domestic capital market does not possess sufficient funds to make up for the loss of foreign investors.

In addition to the loss of interest in Lithuania by foreigners, Lithuanians demonstrated their loss of confidence in the stability of the litas two weeks after the devaluation in Russia. Sparked by concerns that the Russian financial crisis could possibly force a devaluation of the litas, Lithuanians rushed to banks to buy U.S. dollars. The dollar offer rate increased from 4.00 litas per dollar to 4.07 or even 4.08 litas per dollar at Snoras and Šiaulių banks (*Baltic Business Weekly*, Aug. 31 - Sept. 6, 1998), The demand for dollars was seven times higher than usual. Česlovas Iškauskas, press spokesman for the Lithuanian Savings Bank, reported that the bank's clients are converting their litas deposits into the U.S. dollar deposits (*Lietuvos Rytas*, Sept. 1,1998, p. 19).

As a consequence of the conversion of lital into dollars, under the existing currency board arrangement, the Bank of Lithuania has to buy lital and sell dollars at the official exchange rate. If significant amounts of lital are exchanged for dollars and return back to the central bank, the monetary base will contract, thereby reducing the supply of lital, and thus pushing domestic interest rates up. However, interest rates have not yet risen sharply through mid-September. Why not?

The explanation lies in the decision of the government not to accept a sharp increase in treasury bill yields. At the regularly scheduled auctions of treasury bills on both August 31 and September 1, 1998, six-month T-bills worth LTL 60 million were offered each day, but no bids were accepted. The Lithuanian government said it was refraining from covering the budget deficit by distributing T-bills, due to attempts by banks to raise bond yields. "We have sufficient funds to absorb the excessive reaction to events in Russia. There are no objective reasons to establish a new higher yield level," Finance Minister Šemeta asserted (*Baltic Business Weekly*, Aug. 31 - Sept. 6, 1998). In subsequent auctions, only around 20 percent of the offered treasury bills were sold. On September 7, LTL 20 million of one-month T-bills were offered, and less than LTL 7 million were sold at an average yield of 9.57 percent. The next day, on September 8, LTL 60 million of six-

month T-bills were offered, and only LTL 13.2 million were sold at an average yield of 12.86 percent. One week later, on September 15, LTL 60 million of six-month T-bills were offered, and only LTL 12.3 million were sold at an average yield of 13.11 percent.

If the government has been unable to obtain its needed funding from treasury bill auctions without enduring a sharp rise in interest rates, where has the money come from? The answer, as in the case of Mažeikių Nafta, is the Privatization Fund. During the first two weeks of September, LTL 117 million (USD 29 million) was borrowed from the Fund. Thus, when combined with the loan to Mažeikių Nafta, approximately USD 100 million has been borrowed from the Fund, or nearly 20 percent of the proceeds from the sale of Lietuvos Telekomas. When will this money be repaid, if foreign investors do not return to Lithuania as in the case of Mažeikių Nafta? And when will the money be repaid that was borrowed to cover the shortfall from unsold T-bills? As reported in *Verslo žinios* (September 11, p.3), the government is planning to refund these monies to the Privatization Fund from the proceeds of an ECU 200 million Eurobond issue originally planned for June. However, due to conditions in global capital markets, the issue has been indefinitely postponed.

If foreign capital is no longer flowing into Lithuania, how can Lithuania continue to finance its current account deficit? At present, Lithuania is drawing down its foreign reserves, temporarily increased by the sale of Lietuvos Telekomas. However, this can be no more than a stopgap measure. We do not believe that it is possible for Lithuania to balance its current account without either (1) a devaluation of the litas, or (2) the decision to endure a painful economic contraction if the government decides to defend the existing exchange rate at all costs. The main cause of the current account deficit is the continued growth of imports in excess of exports. In the first half of this year, Lithuania's foreign trade deficit totaled 4.1 billion litai. Products worth 7.8 billion litai were exported, and 11.9 billion litai in goods were imported during the first six months of 1998. Moreover, Russia remains* Lithuania's main foreign trade partner since it accounts for 21.4 percent of all Lithuanian exports and 21.6 percent of imports (*Baltic Business Weekly*, Aug. 24 - 30, 1998). Both Ukraine and Belarus account for approximately 10 percent of Lithuania's exports each, so that more than 40 percent of Lithuania's exports have been called into question by the crisis in Russia. This information can help to explain the following events, which occurred in Lithuania after the Russian devaluation:

Vernitas, the largest Lithuanian manufacturer of acrylic threads, was shut down due to the financial crisis in Russia. Over a thousand workers and administrative staff were compelled to go on an unpaid vacation (*Baltic Business Weekly*, Aug. 24 - 30,1998).

The third largest Lithuanian food-packaging materials manufacturer, Fasa, closed down on September 1,1998. More than 600 workers have been sent home for an indeterminate period of time. Fasa used to sell 77 percent of its output to CIS states, with half of its produce going to Russia alone (*Baltic Business Weekly*, Aug. 31- Sept. 6, 1998).

The second largest Lithuanian pharmaceutical company, Endokrininiai Preparatai, closed down for a month on September 1, 1998. About 390 people went on a forced unpaid vacation due to the financial crisis in Russia. The pharmaceutical company exports about 60 percent of its production to Russia (*Baltic Business Weekly*, Aug. 31- Sept. 6,1998).

The Alytus refrigerator factory Snaigė has sold less than 3,000 refrigerators in the past two weeks, and its production could decrease by 13,000 during the third quarter of this year. The company president believes that a part of his staff may lose their jobs (*Baltic Business Weekly*, Aug. 31- Sept. 6, 1998).

Kraft Jacobs Suchard Lietuva has cut back on its export of sweets to Russia due to the ruble devaluation. The services usually required of 150-200 seasonal workers were turned down. The company director did not reject the possibility of staff cut-backs in the near future (*Baltic Business Weekly*, Aug. 31- Sept. 6,1998).

By mid-September, thousands of workers across Lithuania have been laid off or placed on "unpaid vacation." Many firms, especially in the dairy industry, which exports large quantities of its output to Russia and the CIS, are merely stockpiling production in their warehouses. Thus, exports have fallen, the current account deficit will widen, and external financing is not available to finance the shortfall. Where does this leave Lithuania? We turn now to an examination of the four policy options which confronted Lithuanian policymakers in September 1998.

II. Examination of Policy Options

It is clear that Lithuania has suffered an exogenous shock with the devaluation of the Russian ruble and the temporary (?) loss of traditional export markets as Russia endures a period of economic and financial crisis. Lithuanian government officials in their public pronouncements have sought to emphasize the normality of the present situation. The government's position can be summarized as follows: The crisis is in Russia, and Lithuania will only experience minor difficulties because Lithuania has sufficient foreign currency reserves to withstand any possible crisis. We see the situation differently, and we foresaw in September 1998 that Lithuania will clearly experience difficult economic times following the ruble devaluation. Our objective is to highlight the policy alternatives that Lithuania faced, and we will now consider, in turn, the

four options outlined at the beginning of this paper, (1) defend the existing exchange rate at all costs, (2) dollarize and abandon the litas as the national currency, (3) experience a forced devaluation of the litas, or (4) develop policies for a proactive devaluation of the litas as part of a comprehensive economic policy to minimize the long-term costs of the Russian crisis to the Lithuanian economy, while simultaneously correcting the existing overvaluation of the litas against the dollar and the German mark. The following section is written from the perspective of September 1998. The situation as of March 1999 will be covered in Section IV.

1. Defend the Existing Exchange Rate of the Litas

Under Lithuania's Currency Board Arrangement, it will be possible, in theory, to defend the current fixed exchange rate of LTL 4.00 = USD 1.00. The question, however, is at what cost? Government officials repeatedly emphasize the high level of foreign reserves held by the Bank of Lithuania, and this does provide a measure of support. As of the end of August 1998, Lithuania's official foreign reserves totaled USD 1,673,900,000. Are these reserves sufficient to permit Lithuania to avoid a financial crisis?

To assess the sufficiency of Lithuania's reserves, which were recently bolstered by the receipt of USD 510 million from the sale of Lietuvos Telekomas, we need to examine the flow of financial funds into and out of Lithuania. During the first quarter of 1998, Lithuania exported goods worth LTL 4117.6 million, while imports during the same period totaled LTL 5367.6 million. Thus, Lithuania's trade balance was in deficit by the amount of LTL 1250.0 million (USD 312.5 million), so that during January, February and March of 1998, Lithuania experienced a net outflow of USD 312.5 million to pay for the excess of its imports over its exports. This sum represents 18.7 percent of the level of reserves at the end of August 1998. How was this deficit in Lithuania's trade covered?

To a very small extent, trade in services and other flows in Lithuania's current account provided a small offset to the trade deficit, as the first quarter current account deficit was LTL 1240.8 million (USD 310.2 million). Thus, a surplus in services and other transfers (net) covered USD 2.3 million of Lithuania's trade deficit. During this same period, Lithuania's foreign reserves increased by USD 86.4 million, so foreign capital in the form of foreign direct investment and loans was flowing into Lithuania in sufficient quantity to completely finance the trade deficit, plus allow for an increase in foreign currency reserves held at the central bank. Is this situation still sustainable after the crisis in Russia? We do not believe so.

As discussed earlier in this paper, foreign investors, as in the case of Mažeikių Nafta, are taking their capital out of Lithuania, and new investors can not be found for bonds issued by the Government of Lithuania or equity shares issued by Vilniaus Bank. If new capital is not flowing into Lithuania, how can Lithuania's excess of imports over exports be paid for? The answer is simple. Foreign reserves must be drawn down.

Let us now analyze the adequacy of Lithuania's foreign reserves. Under the Currency Board Arrangement, the monetary base of currency in circulation, plus reserves held by Lithuanian banks at the Bank of Lithuania, must be fully backed by foreign currency reserves. As of the end of August 1998, the monetary base was LTL 3770 million, or USD 942.5 million, while foreign reserves totaled USD 1673.9 million. Thus, Lithuania's reserves were 177 percent of the required amount, or Lithuania had excess reserves of USD 731.4 million. Surely this is more than adequate, or is it?

First, we must assume how capital flows have changed as a result of the crisis in Russia. For our base case, let us assume that no new capital is flowing into Lithuania as investors decide to "wait and see" how the situation in Eastern Europe will develop. Note that we are also assuming that there is no net outflow of capital from Lithuania because investors are content to continue to hold their existing Lithuanian investment?.. The holders of the bonds of Mažeikių Nafta who exercised their put options suggest that our assumption of no net capital outflows may be overly optimistic.

Second, let us assume that the trade balance remains unchanged from the first quarter of 1998. Imports remain at their present levels, and overall exports remain unaffected by the Russian crisis, as new markets are found to replace the loss of export markets to Russia, Ukraine and Belarus. Third, we will assume that the difference between the trade and current account balances that prevailed in the first quarter of 1998 is unchanged, so that Lithuania continues to report a net surplus on services because of transit trade from Russia and other CIS countries through Lithuania.

Given the above assumptions, Lithuania's foreign reserves in excess of the monetary base will allow Lithuania to continue with the existing level of imports over exports for a period of seven months in the absence of new net capital inflows into Lithuania. Are the above assumptions realistic, and what will happen if foreign reserves are drawn down to the level of the monetary base? As lital are converted to foreign currency to pay for imports, they come out of circulation, thereby reducing the monetary base. Thus, if the monetary base shrinks, Lithuania's existing level of reserves will last for even longer than seven months. Surely it is comforting to know that Lithuania's reserves will enable Lithuania to avoid suffering the fate of the Russian ruble, or is it? We believe the picture is more complicated than that described above.

In our view, the current situation is far more serious, for we believe the above assumptions to be wildly optimistic. We will return to an examination of these assumptions later in this paper, when we consider whether Lithuania will be forced to devalue the litas. For the moment, let us assume that the assumptions made are realistic. What will happen as foreign reserves are gradually drawn down to pay for Lithuania's appetite for imported goods? As already stated, as lital are converted to foreign currency to pay for imports, the monetary base will be reduced. What does a contraction of the

monetary base mean? As the monetary base is reduced, money supply will be reduced even more rapidly through the money multiplier effect. With a falling money supply, and without a contraction in money demand at exactly the same rate, there will be upward pressure on interest rates. For a better understanding of the possible impact on interest rates and economic activity that we may observe in Lithuania, let us look to the example of Argentina, which has a Currency Board Arrangement similar to Lithuania's.

Argentina faced pressure on the sustainability of its Currency Board Arrangement after the Mexican peso lost nearly half its value in a forced devaluation in December 1994. As investors lost confidence in emerging markets in Latin America, there was a rush to convert Argentine pesos into US dollars. As pesos were converted into dollars, the monetary base contracted. Interest rates came under severe pressure and reached a brief peak of 70 percent in early March 1995. For the month of March 1995, the 30-day lending rate in pesos averaged 33.67 percent, compared with an average 30-day lending rate of 10.00 percent in November 1994, before the crisis began. As foreign reserves were drawn down, the surplus reserves above the required backing of the monetary base fell from USD 1663 million in December 1994 to only USD 45 million in May 1995. As a, result of the sharp jump in interest rates, economic activity contracted sharply. The year on year GDP growth rate in IVQ 1994 was 6.6 percent, and fell to -5.2 percent in IIQ 1995, -8.1 percent in IIIQ 1995, -7.0 percent in IVQ 1995, -3.2 percent in IQ 1996, before recovering to 4.8 percent in IIQ 1996. Unemployment, which had been at 12.2 percent in October 1994, jumped to 18.4 percent by May 1995, and remained at high levels, declining by only 2.3 percent to 16.1 percent by May 1997.

And how important was Mexico in Argentina's foreign trade at the time of the Mexican peso crisis in 1994? Argentina's exports to Mexico totaled USD 273.7 million in 1994, dropping to USD 144.4 million in 1995, a reduction of 47 percent. However, in terms of Argentina's total exports, the impact was trivial because Mexico represented 1.7 percent of Argentine exports in 1994, and only 0.7 percent in 1995. As Argentina went into recession and domestic demand collapsed as a result of crippling real interest rates, Argentina was able to dramatically increase its exports to neighboring countries in Mercosur, the South American trading bloc of which Argentina is a member. Imports, however, declined nearly seven percent as a result of weak domestic demand, even though the fixed exchange rate of the Argentine peso held firm.

In the wake of the Russian crisis, the Argentine peso is again coming under speculative pressure for a devaluation. Investors are raising their required risk premiums for Latin American investments, and there are growing fears of a Brazilian devaluation because of persistently large fiscal deficits. Since Brazil is Argentina's largest trading partner, a devaluation in Brazil will put strong pressure on the continued sustainability of Argentina's Currency Board Arrangement, even more so than in 1995. In just two weeks, short-term Argentine interest rates rose from 16.90 percent on August 26 to 24.30 percent on September 9, while comparable US interest rates remained steady at around 5.5 percent.

What, therefore, can we expect to see in Lithuania? A decision to defend the existing exchange rate means that reserves will gradually leave the country to finance the ongoing trade deficit, assuming no sudden loss of confidence and a mad rush to buy dollars. The resulting contraction of the monetary base will reduce the money supply and raise domestic interest rates. Since the Lithuanian government has been borrowing from the Privatization Fund rather than selling treasury bills, the primary T-bill market has not been providing the usual price signals to investors. We expect to see a sharp rise in Lithuanian interest rates, which in turn will choke off new investment, and lead to higher unemployment and a contraction in economic activity. Argentina provides evidence of the economic pain that must be endured if the government chooses to defend the existing exchange rate. However, in Argentina's case, exports grew substantially from 1994 to 1995, thereby causing a sharp reduction in Argentina's current account deficit from USD 10.1 billion in 1994 to only USD 2.8 billion in 1995. Thus, the need for foreign capital inflows to finance the current account deficit was drastically reduced, yet Argentina still suffered a sharp recession and a dramatic jump in unemployment.

Unlike Argentina, Lithuania's current account deficit can only be expected to worsen, as exports to Russia, Ukraine, and Belarus have been largely halted, and new trading partners are unlikely to absorb more than a small portion of the lost export sales. Thus, unless imports are dramatically curtailed, Lithuania's excess reserves will quickly be exhausted. However, the discipline of a Currency Board Arrangement, if strictly enforced, will ensure that Lithuania can maintain the existing exchange rate of LTL 4.00 = USD 1.00. As reserves are drawn down, interest rates will be pushed ever higher, economic activity curtailed, and with it Lithuania's ever growing appetite for imported goods. The question remains as to how high a cost Lithuania is willing to bear in order to maintain the existing fixed exchange rate of the litas. At what point does the cost of unemployment and lost economic growth, possibly for a prolonged period of time, exceed the benefit of defending the exchange rate? Although an all-out defense of the litas is possible, we believe that the costs will far exceed the benefits. Thus, we do not believe this is the optimal strategy for Lithuania to follow.

2. Abandon the Litas and Use Dollars

If Lithuania decides to defend the litas at all costs, a necessary result will be higher interest rates, which in turn will choke off investment and economic activity. An additional reason for higher interest rates is that investors, in effect, demand compensation if they perceive the possibility of a devaluation. Why should I hold a deposit in lital for 7 percent annual interest, versus a deposit in dollars for 5 percent annual interest, when the litas may devalue by far more than the 2 percent difference in deposit rates? Under a fixed exchange rate regime, the question always remains as to whether the exchange rate might change, so that investor confidence becomes critically important. In Asia, a large number of currencies had enjoyed stable exchange rates against the US dollar for a number of years until mid 1997. Beginning with

Thailand in July 1997, a wave of devaluations has swept across the region. Hong Kong, which also has a Currency Board Arrangement similar to Lithuania's, has seen the Hong Kong dollar come under repeated speculative pressure, but because of the strengths of a Currency Board Arrangement, Hong Kong has been able to maintain its fixed parity against the US dollar.4

Hong Kong interest rates have been pushed upward by speculative pressure against the currency, and this has caused a bubble in asset prices to burst. Real estate prices have tumbled and are at approximately half their 1997 level. The Hong Kong economy is in recession for the first time in a generation, and high interest rates have choked off economic activity. When the crisis in Russia intensified, short-term interest rates in Hong Kong rose more than 2 percent in one week from 12.33 percent on August 26 to 14.39 percent on September 2. Again, the question may be posed, at what cost should a pegged exchange rate be maintained, if the price to be paid is lost economic growth, unemployment, and recession?

One idea that has been discussed in both Hong Kong and Argentina as a last resort has been the abandonment of their respective national currencies, to be replaced by the US dollar. If there is no longer any possibility of a devaluation, interest rates in the local currency should no longer command an extra premium to compensate for the risk of a possible devaluation. What would be the costs imposed by such a decision, and should Lithuania consider "dollarizing" the Lithuanian economy?

The most immediate cost to Lithuania would be the loss of seigniorage, or government profit from the manufacture of coins. Lithuania has LTL 2930 million litai in circulation at the end of August 1998. The equivalent amount, held in US dollars as foreign reserves, will earn \$40 million in interest this year assuming a 5.5 percent annual interest rate. Abandoning the, national currency to replace it with dollars, however, would entail a loss of national pride and identity, especially after enduring more than fifty years of Soviet occupation. The loss of control over the money supply and the lack of a lender of last resort would be no different than under a "pure" Currency Board Arrangement. Can we find examples of countries where this has been done?

Both Panama and Liberia have no national currencies of their own, but instead have adopted the US dollar as legal tender. However, this option of "dollarizing" has never been exercised in defense of a currency, to the best of our knowledge, devaluation being preferred instead. It is worth mentioning, however, that another variation of this strategy may be possible. Both Bermuda and the Bahamas have Currency Board Arrangements, where their respective national currencies are fixed at par to the US dollar. Moreover, US dollars circulate freely as legal tender in both Bermuda and the Bahamas. Given the large number of tourists visiting these islands from the US, who would not be interested in holding any local currency, the use of the US dollar allows tourists to conduct all their transactions using only US dollars. Thus, in theory, Lithuania could continue to issue litai, but allow the US dollar to circulate freely as legal tender within Lithuania. National pride would be preserved, and individual Lithuanians could make their own choice as to whether to hold their cash balances in litai or in dollars.

Dollarizing the Lithuanian economy would be a drastic step, and we present it here only to highlight that it exists as a possible alternative to defending the existing litas exchange rate at the cost of potentially crippling interest rates. Furthermore, dollarizing the Lithuanian economy does nothing to address the underlying overvaluation of the litas. The ever growing current account deficit strongly suggests that the litas is overvalued, and the overvaluation serves as an effective tax on exports and an effective subsidy on imports. Short of enduring a deep and prolonged economic contraction, where prices fall during a period of deflation, a devaluation of the litas is the only way to correct the overvaluation of Lithuania's real exchange rate.

3. Forced Devaluation of the Litas

After watching the wave of devaluations sweep across Asia, beginning with Thailand in July 1997, to be followed by Russia and the Ukraine in the summer of 1998, and now reaching South America with an effective devaluation in Colombia, we believe that a forced devaluation of the litas is the most likely outcome of the Russian crisis. Let us return now to the assumptions we made when we stated that Lithuania's excess reserves were sufficient to finance the current account deficit at the same level as in the first quarter of 1998. Our base case assumptions found that excess reserves were sufficient for seven months, when we assumed no net capital inflows or outflows, and the current account deficit remains unchanged from its first quarter 1998 level.

In the immediate wake of the Russian crisis, Lithuanian exports to Russia, Ukraine, and Belarus were effectively halted. Thousands of workers were placed on unpaid vacations by a number of factories, while other companies, particularly dairies, have continued to produce, but with the goods normally sold to Russia building up as unsold inventory. Let us optimistically assume that new export markets can be found for some of the goods previously sold to Russia and the CIS, so that the net drop in exports from goods previously sold to that region will be only 50 percent, instead of the close-to-100 percent drop at the time the crisis broke. Since more than 40 percent of Lithuania's exports used to go to Russia, Ukraine, and Belarus, we will assume that exports will be at 80 percent of their level in first quarter 1998, or LTL 3294 million.

As for the future level of imports, we will assume that the growth in imports will be halted and will therefore continue at the first quarter level of LTL 5368 million. Thus, the trade balance will worsen to LTL 2074 million per quarter, or USD 518.4

million. This represents an increase of over USD 200 million from the first quarter level of USD 312.5 million, a 65 percent rise, and, at this rate, Lithuania's excess reserves will be exhausted in only 4.2 months.

The above assumes no net capital outflows, yet we already know that USD 73 million left Lithuania to repay the bondholders of Mažeikių Nafta. If there are net capital outflows on the capital account, or if Lithuanians decide to convert large quantities of litai into dollars, Lithuania's excess reserves of USD 731.4 million as of August 1998 could easily be exhausted before the end of the year. It should be noted that reserves can disappear almost overnight if there is widespread anticipation of an imminent devaluation, as evidenced by Mexico's loss of half its dollar reserves in a single day in 1994. The next day, Mexico devalued its peso.

There is a widespread belief among Lithuanians that devaluation can not happen there, even though in the past 15 months there have been devaluations in Thailand, Indonesia, Malaysia, South Korea, Taiwan, the Philippines, Russia, Ukraine, and Colombia. We do not believe that Lithuania will be able to avoid a devaluation, and *The Economist* already wrote on October 18,1997, in an article entitled "Something Horrible Out There", that Lithuania was a likely candidate for a devaluation. Several months later, the first quarter country report on Lithuania from *The Economist Intelligence Unit* predicted a devaluation of the litas by third quarter 1998.

Although a devaluation of the litas will make the average Lithuanian poorer by raising the price of imported goods, if a tight monetary policy is adopted, any inflationary pressure should be contained to a one-time surge in the Lithuanian inflation rate. Moreover, contrary to frequently heard arguments, a litas devaluation does not necessarily worsen Lithuania's prospects for membership in the European Union, as evidenced by the experience of Finland. 7

In June 1991, Finland announced that it would peg the Finnish markka against the ECU within a 3 percent fluctuation band. Finland believed that its future lay in Europe, and its stated policy at the time was to join the European Union. With the breakup of the Soviet Union, beginning with the freedom of the Baltic States formally recognized by the Kremlin in September 1991, Finland's special role in transit trade to the USSR was eroded. Voices were calling for the need for a competitive devaluation to boost exports, and speculators sensed that the Finnish markka was weak, based on economic fundamentals. Speculative pressures mounted, and in November 1991, only five months after announcing its peg to the ECU, Finland devalued the markka by 12.3 percent. This did not end the speculative pressures, however, for in September 1992, in a wave of speculative pressure against a number of European currencies, including the British pound and the Swedish kroner, Finland allowed the markka to float freely. The Finnish markka promptly dropped from FIM 6.2 per ECU to FIM 7.1 per ECU, the second devaluation in less than a year. And where is Finland today? - a member of the European Union and one of the eleven founding member states of the Euro.

We believe that a devaluation of the litas is inevitable. The fundamentals all point in the direction of a devaluation, and the Russian crisis has merely served to accelerate the process. We believe that the longer a devaluation is avoided, the higher the cost to Lithuania. Foreign reserves will have been lost defending an exchange rate that is clearly overvalued, and the ultimate devaluation will likely have to be larger if forced by market conditions.

4. Proactive Devaluation of the Litas

In a forced devaluation, market conditions force a recognition that a currency is overvalued and that the existing exchange rate is unsustainable. Devaluations normally occur in conditions of crisis, and as Cooper (1981) reports from studying 24 devaluations between 1953 and 1966, 30 percent of the governments fell within one year of the devaluation, and 60 percent of the finance ministers lost their jobs within one year of the devaluation. We wish to argue that rather than waiting for market conditions to force a devaluation of the litas in a climate of financial and political crisis, a superior strategy is to choose to devalue before being forced to do so by external conditions.

It is clear that the economic and financial crisis in Russia is already having a negative impact on Lithuania. Exports to Russia, Ukraine, and Belarus have largely collapsed, and the degree to which Lithuania's exports to these markets will recover in the future is unclear and highly uncertain. Lithuania's current account deficit will widen, and capital inflows into Lithuania will be sharply reduced, if not reversed altogether as short-term speculative capital flows out of Lithuania. Already, nearly one-fifth of the privatization proceeds of Lietuvos Telekomas have been borrowed in order to delay the day of reckoning from the effects of the Russian crisis. As a result, the full impact on short-term interest rates has not yet been felt, as borrowings from the Privatization Fund have filled the funding gap caused by unsold treasury bills.

If the day of reckoning continues to be delayed, we foresee the rapid erosion of Lithuania's foreign reserves, with no net benefit to the country. Moreover, if funds continue to be borrowed from the Privatization Fund, the sale of one of Lithuania's crown jewels, Lietuvos Telekomas, will have made Lithuania worse off. Lietuvos Telekomas will be in foreign hands, the Privatization Fund will be empty, foreign reserves will be at dangerously low levels, and the "ūkininkai" (farmers), who had their life savings wiped out from the devaluation of the Soviet ruble, will find that no funds remain to compensate them for the earlier devaluation, but instead were squndered in order to delay the inevitable devaluation of the litas.

II. Recommendations Presented to the Lithuanian Government

We present below what we believed to be the optimal strategy in implementing a devaluation of the litas, and these recommendations were presented to the Lithuanian government in September 1998. We believed that this strategy would minimize the costs to Lithuania of the Russian crisis, as well as make the government and central bank stronger for choosing to act from a position of strength, rather than passively reacting to events. It is clear that Lithuania has been made worse off by the crisis in Russia. Comforting words to the contrary, the Lithuanian standard of living will fall as a result of the loss of significant export markets. This was an exogenous shock to the country, but well-chosen policies could have minimized the long-run costs to Lithuania.

First, a devaluation of the litas will improve Lithuania's current account balance, which will no longer be financed by readily available inflows of foreign capital. Exports to the European Union will become more competitive, and the effects on Russian consumers of the ruble devaluation against the dollar will be partially offset. Imports will also fall, as foreign goods become more expensive for Lithuanian consumers. The recent devaluations in Thailand and South Korea have already led to dramatic improvements in their current account balances. As reported in *The Economist*, "Better News in East Asia" (August 29, 1998, p. 70); "South Korea ran a current account surplus of \$22 billion in the first half of this year (equivalent to almost 16 percent of GDP), compared with a deficit of \$10 billion in the same period in 1997. Thailand ran a surplus of about \$6 billion (12 percent of GDP) in the first five months of this year, against a deficit of more than \$4 billion in the comparable months of last year." Thus, a devaluation of the litas will provide an opportunity to correct the overvaluation of the real exchange rate of the litas, which has been reflected in Lithuania's ever-widening current account deficit.

Second, a devaluation of the litas will provide an opportunity to change the reference currency for the fixed exchange rate from the US dollar to the Euro. As membership in the European Union is the stated policy goal of Lithuania, the Euro is the logical currency against which the litas should be pegged. This has already been acknowledged in the *Monetary Policy Programme of the Bank of Lithuania for 1997-1999*.

Third, what should be the new fixed parity of the Lithuanian litas? The determination of the optimal rate is beyond the scope of the present paper. However, we believe that the devaluation should be targeted to reach the determined equilibrium exchange rate after allowing for a one-time inflationary surge as the effects of higher import prices work their way through the economy. Thus, we believe a slightly larger devaluation is called for than today's equilibrium exchange rate would indicate. We suspect that the new parity should fall between 5 and 6 LTL per ECU.

Fourth, at the time the devaluation is announced, we recommend that the new exchange rate be viewed as absolutely binding. The devaluation of the litas from LTL 4.00 = USD 1.00 is necessary based on the cumulative inflation in Lithuania since the litas was introduced in 1993 against cumulative inflation in the European Union and the United States. The pegging of the litas in 1994 was a good policy choice to establish the credibility of a newly introduced currency, as well as to serve as an anchor until the lingering effects of the hyperinflation from the collapse of the Soviet Union could be purged from the economy. The exogenous shock of the Russian crisis means that this correction of the overvaluation of the litas can no longer be delayed, and a devaluation of the litas will have the added benefit of lessening the impact of the Russian crisis on Lithuania.

How can the credibility of the new exchange rate be established? How can a convincing signal be sent to the markets that Lithuania does not intend to devalue again? As the Russian experience demonstrates, an announced devaluation can all too easily turn into a free fall of the currency. We recommend that Lithuania commit itself to the new peg of the litas against the Euro in the following fashion. If the litas again comes under sustained pressure, with interest rates soaring in a speculative attack, Lithuania will adopt the Euro as legal tender in Lithuania, either circulating in conjunction with the litas, or the litas will be withdrawn from circulation altogether and the Euro will be the sole legal tender in Lithuania. As Lithuania's stated intent is to join the European Union, this merely accelerates the date of the Euro circulating as legal tender in Lithuania, and it sends a strong signal to the European Union of Lithuania's commitment to join.

III. Events in the Half-Year Following the Ruble Devaluation

The six months following the ruble devaluation have witnessed a slow and often imperceptible worsening of economic conditions, and we believe that a devaluation of the litas is inevitable. The policy of the government has been to deny that the Russian crisis has led to a crisis in Lithuania, and we believe that the current government fervently wishes to avoid a devaluation before the election to the Seimas in September 2000.

As we forecasted in September 1998, Lithuania's foreign reserves have steadily declined by \$386 million to \$1.34 billion, a 22.4 percent decline since that time. Exports have fallen in the wake of the Russian crisis, as expected, leading to the observed decline in foreign reserves. However, capital has continued to flow into Lithuania, as evidenced, for example, by

the decision of Skandinavska Enskilda Banken to invest \$55 million in Vilniaus Bankas in December 1998, and of Carlsberg Brewery to purchase the Klaipėda based Lithuanian brewery - Švyturys in March 1999.

Lithuania has also been able to return to the international capital markets in late March 1999 with a Euro 200 million five-year Eurobond issue. The pricing of this issue was at 4.75 percent over five-year German government bonds for a yield of 8.19 percent, so that Lithuania has borrowed at a cost which is more than double that of the German government. Thus, the decline in foreign reserves has not been as precipitous as we feared in September 1998 as foreign investors have continued to express a willingness to invest in Lithuania. The refinancing of Mažeikų Nafta's bonds, however, has still not been possible in the international capital markets, so that the foreign appetite for Lithuanian credit exposure has been reduced, but not eliminated.

The impact of the Russian crisis on Lithuania's current account balance saw the country's current account deficit rise from 10.2 percent of GDP in 1997 to 15.1 percent of GDP in 1998. During the last five months of 1998, beginning in August, when the Russian crisis hit, exports dropped 16.7 percent compared to the same period in 1997. This led to a drop in imports compared to the previous year, beginning in October 1998, and for the last three months of 1998, imports were 13.6 percent lower than in the same period in 1997. Thus, demand for imports declined as the general economy began to weaken, and this economic fragility is also reflected in a rise in the official unemployment rate, which rose from 5.4 percent in August 1998 to 8.1 percent in February 1999.

Further signs of the weakness in the economy are the decline in government tax collections. The Lithuanian government failed to collect 11 percent of its planned revenues in January 1999, and the state social insurance fund, SODRA, was 17 percent under its anticipated collections for the first two months of 1999. The recent issue of Lithuania's five-year Eurobond issue in the international capital markets will provide a cushion against the shortfall in tax collections, as well as the drop in foreign reserves, but for how long? Russia remains far away from economic recovery, and the pain of the Russian crisis is being increasingly felt across broad segments of Lithuanian society.

We believe that the government will continue to fail to acknowledge the full impact of the Russian crisis on the Lithuanian economy. Any talk of devaluation of the litas will be resisted as long as foreign reserves remain sufficient to fully back the litas under the currency board arrangement. The cost of such a strategy, however, is to artificially maintain a higher standard of living after suffering an exogenous shock, at least until the next election to the Seimas in September 2000, if capital inflows remain sufficient to do so.

IV. Conclusions

The recommendations outlined in this paper were presented to the Lithuanian government in September 1998. We considered four different policy responses to the Russian devaluation, and we believed that the optimal policy response to the ruble devaluation was a proactive devaluation of the Lithuanian litas. Rather than responding to events, we urged policymakers to seize the initiative and lead the nation in a time of impending crisis.

The storm has already broken in Moscow, and what earlier was a gentle breeze has gradually become a strong wind as the effects of the economic and financial crisis have reached Lithuania. The effects of the storm on Lithuania could have been minimized with optimal policy choices in a difficult situation. A proactive devaluation of the litas, properly presented to the nation and the world, could have provided Lithuania with an opportunity to demonstrate its political maturity and readiness to join the European Union. Merely waiting for the storm by hunkering down and hoping that the Lithuania's foreign reserves will be sufficient may very well result in an empty Privatization Fund, depleted foreign reserves, higher levels of foreign debt, which must eventually be repaid, and even more difficult days ahead, as developments in Russia have already amply demonstrated.

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¹ Prospects for the Lithuanian Litas: Stability or Devaluation?," Joseph P. Kairys and Algirdas Šabūnas, *Organizacijų vadyba: sisteminiai tyrimai*, No. 7, 1998, pp. 115-137.

² Rusija devalvo rublį: lito kurso politikos alternatyvos," Joseph P. Kairys and Algirdas Šabūnas, *Organizacijų vadyba: sisteminiai tyrimai,* No. 8,1998, p. 153.

³ As of August 1998, Lithuania's surplus reserves were USD 731.4 million.

⁴ For a discussion of Lithuania's currency board arrangement, see "Currency Board Arrangements: An Evaluation of the Lithuanian Experience/" Joseph P. Kairys and Algirdas Šabūnas, *Socialiniai mokslai: vadyba*, No. 3, 1998, pp. 50-59.

⁵ See "Crunch Time for Hong Kong", Financial Times, August 20, 1998, p. 11, and "Latin America Seeks Shelter", *The Economist,* August 29,1998, pp. 69-71.

⁶ See Shapiro (1996), p. 50.

⁷ See Moffett (1994).

⁸ These recommendations were presented to Prime Minister Gediminas Vagnorius on September 25,1998.