Lithuanian Free Market Institute

Lithuania's experience linking National Currency to Euro

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November 2002, Vilnius

Contents

I. Introduction

1. Seeking to become a member of the Economic and Monetary Union (EMU), Central and Eastern European (CEE) countries may have to modify their current exchange rate policies in order to fulfil the convergence criteria established by the Maastricht Treaty and later, when joining the Economic and Monetary Union (EMU), replace their currency by the euro at exchange rate in question.

2. Taking into account that any changes in the exchange rate policy will eventually influence economic environment, the following questions have to be answered, whether: (i) the changes in exchange rate policy will preserve competitiveness of economic entities; (ii) the changes will not diminish stability of monetary and financial sector. These questions have to be scrutinised by the candidate countries before choosing the way to modify exchange rate policy and/or pegging their currencies to the euro.

3. Answering those questions, it is expedient to take into account the experience of candidate countries, which in advance have pegged their national currencies to the euro at fixed rate. One of such countries is Lithuania, where after introducing the Currency Board Arrangement (CBA) in 1994, the national currency was pegged to the US dollar and re-pegged to the euro on 2nd February, 2002. This experience may be helpful to the majority of CEE countries, which currency has not been yet pegged to the euro and/or which may face problems to fulfil the Maastricht criteria.

4. This paper analyses Lithuania's experience of linking its national currency litas to the euro. The main questions have to be answered: (i) whether the CBA and (ii) selected strategy of re-pegging litas to the euro are appropriate in a view of competitiveness of economic entities, monetary stability and preparation to fulfil the Maastricht criteria. In the first chapter short introduction to the history of exchange rate policy in Lithuania as well as earlier attempts to fix the litas to euro is analysed. The second chapter explains the goals of introduction of the CBA, reasons for selecting US dollar as a reserve currency, and features of introduced CBA. The third chapter discusses Lithuania's ability to preserve competitiveness, to safeguard the stability of monetary and financial sector, and to fulfil the Maastricht criteria. The chosen

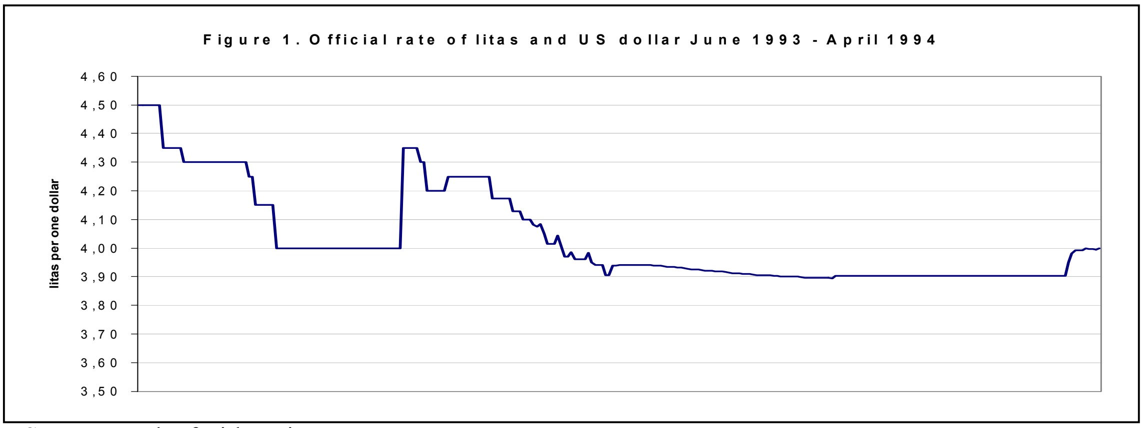
strategy to re-peg the litas to euro and the impact of re-pegging on economic entities is discussed in the forth and fifth chapters.

II. Main facts of exchange rate policy in the pre-CBA period

5. After regaining of independence (March, 1990), Russian rouble was used as currency in Lithuania until temporary national currency *talonas* replaced it (October, 1992). In fact, talonas was introduced in May 1992 and dual currency system (rouble and talonas) was in effect till October 1992. Until when talonas was brought in, Lithuania was dependent on the exchange rate policy of central bank of Russia. After introduction of talonas, Bank of Lithuania (BoL) began to conduct independent monetary policy, however the money issuing had been carried out with no rules and restrictions.

6. This period was accompanied by excessive inflation. Inflation climbed from 9 per cent in 1990 to nearly hyperinflation level in 1992 making up over 1000 per cent. The main factors that inclined price growth included excessive money creation in the rouble area and later in Lithuania too, a price liberalization reform in 1991–1992, and a shock of energy prices. Besides rouble and *talonas,* payments in other foreign currency were allowed and Lithuanian economy was broadly dollarised.

7. National currency litas was introduced in July, 1993. Until establishment of CBA, BoL carried out managed floating exchange rate policy. The other instruments of monetary policy in use were capital reserves requirement, interest rates regulations, and open market operations. The period between the introduction of litas and establishment of CBA was accompanied by falling inflation, which declined from three to two digit level. The exchange rate, however, still was rather volatile. Official exchange rate of litas declined from 4.5 litas per one US dollar at the introduction moment to 3.9 litas per one US dollar in the middle of March, 1994 (just prior the establishment of CBA) (Figure 1).



Source: Bank of Lithuania

III. CBA introduction: goals, selection of reserve currency, and features of CBA

8. Proposals to introduce CBA in Lithuania provoked extensive debates among politicians, economist and business society. The opponents of CBA favored the preserving of central bank functions, because they believed that CBA would deprive the central bank of monetary policy implementation means to ensure the “good” for the country (whereas “good” was everything and nothing in concrete). The proponents of CBA accepted as true opposite things by stating that only neutral central bank, non-monetary policy and usage of stable currency as an anchor would allow Lithuania to achieve good economic performance and lead to the prices' stability. Their opinion appeared to be more valid and persuasive, thus the choice was after the CBA.

9. The establishment of CBA had the main aim, which was to depersonalize monetary policy and secure country's money from interventions and manipulation by the central bank. Such issues as fall of inflation and fulfillment of the Maastricht criteria were not discussed as CBA’s aims.

10. Discussions to which currency to anchor the litas was initiated prior to the very introduction of the currency board system in Lithuania. Two alternatives were under debates at that time – the US dollar and the German mark. Picking up each of these currencies had both their pros and cons. The asset for the German mark was Lithuania’s geographical position, the intention someday to join the EU and the growing trade with the European countries. The advantages of the dollar were linked to its exceptional popularity in Lithuania[1]

[1] Hyperinflation and large devaluation of the talonas at earlier stages of economic transition, led to a high level of dollarisation in Lithuania. With the introduction of the litas in 1993, dollarisation of the economy significantly

and close contacts with the Eastern markets, where the dollar also was extensively in use. At the end, the US dollar was chosen as the anchor currency.

11. CBA was introduced on 1st April, 1994. Litas was pegged to US dollar at the rate of 1 dollar to 4 litas (market rate prior introduction was 1:3,9). The Law on credibility of the litas stated that the litas put into circulation by the BoL shall be fully covered by the gold and foreign exchange reserves.

12. However Lithuania's CBA is not an orthodox one. Some conventional features of central bank system remained preserved. Firstly, only litas put into circulation by the BoL was covered by official reserves; short term deposits in commercial banks were not. Moreover BoL got the credit from IMF to maintain stability of litas. Secondly, commercial banks were required to hold reserves in BoL. Thirdly, BoL fulfilled the function of the lender of the last resort. Fourthly, BoL was not replaced by institution that is common in the orthodox CBA. Fifthly, from the middle of 1997, BoL obtained the right to execute open market operations.

13. In 1997, The Monetary Policy Program for 1997-1999 was prepared and approved by BoL. This program foresaw: (i) gradual replacement of CBA by pegged exchange rate within horizontal bands regime, (ii) re-pegging litas from US dollar to the euro, and (iii) restoring conventional monetary policy. However this program was not implemented due to the public criticism and crisis of Russian currency, which urged the BoL and other authorities to rethink the advantages of CBA.

14. It should be stressed that after the introduction of CBA the BoL was attributed with primary objective by the Law, which was to achieve stability of currency (external value of litas). In March 2001 Parliament approved amendments to the Law on Bank of Lithuania, thus introducing the new primary objective of the BoL – to seek price stability. Despite that, BoL is seeking this goal by CBA, claiming that this is the best instrument to pursue the goal.

IV. Currency board arrangement: appropriate or not?

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declined, although staid high. At that time about 80 percents of transactions and private savings were in US dollar.

15. Answering the question whether the CBA is appropriate for accession countries, let's initially specify what criteria ought to be used. In principle, authorities of the accession countries are faced with three conflicting objectives when choosing the appropriate exchange rate policy: (1) to secure competitiveness of economy; (2) to ensure exchange rate stability in face of capital volatility; and (3) to pursue the Maastricht criteria on inflation, exchange rate stability and interest rates. In the following chapters we will discuss those questions in more detail.

1. Competitiveness of Lithuania's economic entities

16. After the Russian crisis of 1998 Lithuanian export shifted to the EU countries. In 2001 exports to the euro zone comprised 25.8 percent of the whole exports, whereas exports to the EU countries not belonging to the euro zone, i.e. UK, Denmark and Sweden, accounted for 14.2, 4.4 and 3.5 percent respectably (Table 1). The other important markets for Lithuanian exporters are Latvia (12.6 percent of the whole exports), Russia (11.0 percent), and Poland (6.3 percent).

Table 1

Main Export Markets in 2001

	Exports
EMU countries	25,8
CIS coutries	19,7
UK	13,8
Latvia	12,6
Germany	12,6
Russia	11,0
Poland	6,3
Denmark	4,5
Belarus	3,9
USA	3,8
Sweden	3,7
Ukraine	3,4
France	3,3
Estonia	3,2
Others	17,9

Source: Department of Statistics

17. Largest part of imports in Lithuania also comes from the EU countries. Imports from the euro zone countries make up 34.7 percent, and from countries, not belonging to the euro zone, i.e. UK, Denmark and Sweden, account for 3.4, 2.9 and 3.0 percent of the whole imports respectably (Table 2). Imports from Russia in comparison with the exports to this country comprise almost three times bigger figure. The other important countries, maintaining significant imports to Lithuania, are Poland (4.9 percent) and USA (3.0 percent).

Table 2

Main Import sources in 2001

	Imports
EMU countries	34,7
CIS countries	29,4
Russia	25,3
Germany	17,2
Poland	4,9
Italy	4,2
France	3,8
UK	3,4
USA	3,0
Sweden	3,0
Denmark	2,9
Netherlands	2,4
Belgium	2,0
Belarus	1,9
Others	21,8

Source: Department of Statistics

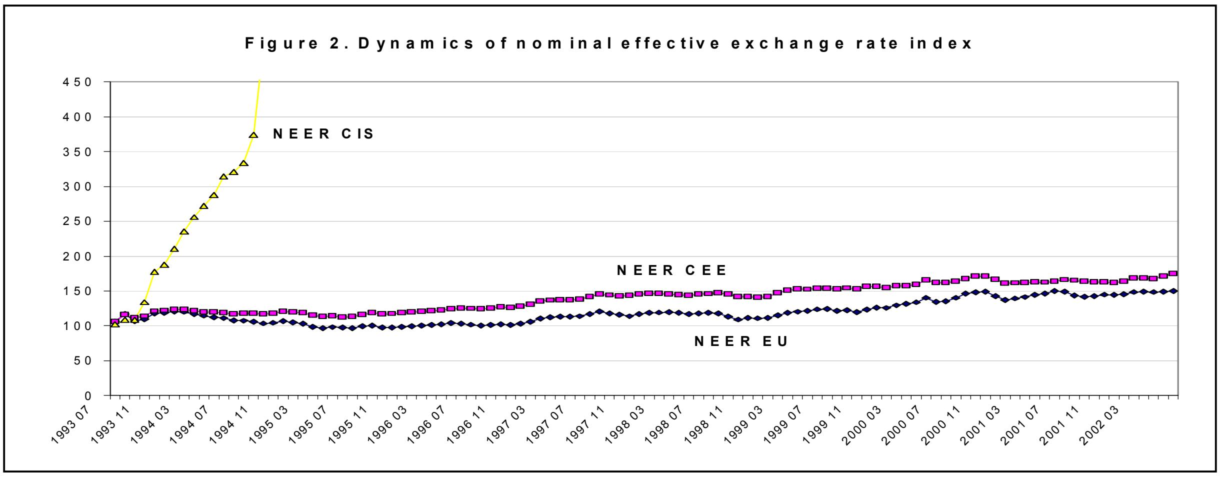
18. Analysis of Lithuania's and countries', which are Lithuania's main export markets, structures of foreign trade demonstrates that the major rivals of Lithuanian entities in foreign and domestic markets are from such countries as

Russia, UK, Latvia, Sweden, Estonia, China, Poland, Estonia, Ukraine, Belarus, and the Czech Republic.

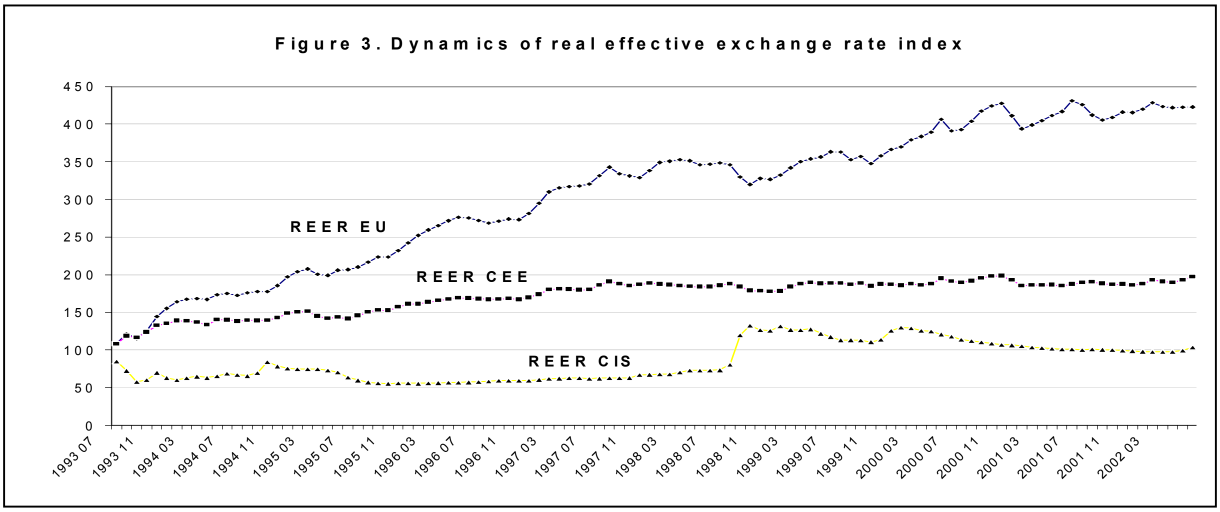
19. Although exports to the Eastern and Central Europe makes up around one third of all exports, transactions using currencies of these countries comprised a small part of all transactions. The most common currencies in the foreign trade transactions are US dollars, litas, and euro. However, due to multiple structures of Lithuania's foreign trade and its rivals', broader spectrum of foreign currencies should be taken into account when considering currency rate fluctuation impact on Lithuanian entities competitiveness.

20. Overall impact of currency exchange rate fluctuations is illustrated by effective exchange rate indexes of litas. BoL calculates effective indexes of litas by comparing fluctuation of exchange rates of litas to the national currencies of countries belonging to the main foreign trade regions, namely EU, Central and Eastern Europe (CEE), and CIS. In relation to the national currencies of these regions, nominal effective index of exchange rate of litas from the date of pegging litas to the US dollar (April, 1994) has increased by 25, 40 and 7770 percent respectively (Figure 2). In the same time, CPI-based real effective index of Litas has increased respectively by 260, 51, and 6 percent (Figure 3).

21. Exchange rate of euro and US dollar had a large impact on rates of CIS currencies – gradual depreciation of euro against the US dollar reduced exchange rate of their national currencies against the US dollar. Index of nominal effective exchange rate index, reflecting changes in exchange rates of Lithuania and CIS, has increased by 7770 points from the date of pegging litas to the US dollar. However, at the same time, real effective exchange rate index – increased only by 36 points. These numbers demonstrate solid inflation rates, causing large real appreciation of CIS national currencies. Large increase in domestic prices diminished opportunities for economic entities processing in these countries to become more competitive comparing with Lithuanian entities.



Source: Bank of Lithuania



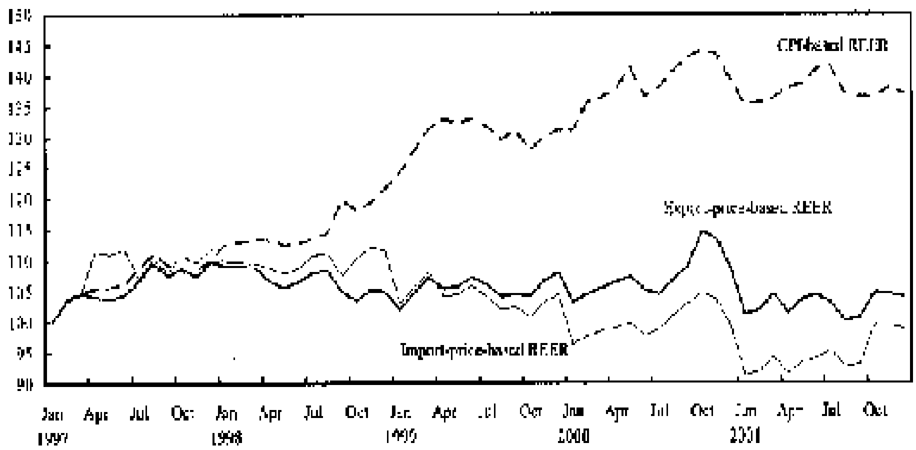
Source: Bank of Lithuania

22. Different state of affairs is with effective indexes, reflecting changes in currency rates of Lithuania and EU. Index of nominal effective exchange rate of litas during the same period has increased by 25 points, a real effective – by 260 points. This reflects higher inflation in Lithuania and growing production costs for Lithuanian entities. When litas was pegged to the US dollar and the US dollar has appreciated against the euro, Lithuanian entities were forced to adjust to fluctuations of exchange rate in order to stay competitive compared with their rivals from foreign countries.

23. CEE currencies were less fluctuating against euro than against the US dollar and followed gradual depreciation of the euro against US dollar (until litas was re-pegged to euro). In relation to the CEE countries, both nominal and real effective exchange rate indexes of litas show that preconditions for Lithuanian entities to compete theoretically have decreased.

24. While the CPI-based REER showed a protracted appreciation, both the export-price and import-price-based REER have demonstrated remarkable stability since 1997 (see Alonso-Gamo, Fabrizio, Kramarenko, and Wanga (2002)). This stability of both indexes means that Lithuania' export and import prices moved broadly in line with those of trading partners (Figure 4). Lithuania's exporters could reduce prices in line with trading partners. Means of adjustment to real appreciation of litas were "tightening bells" through reducing expenditures, switching expenditures from litas and US dollars to euro, installing of new technologies, and developing of new products.

Figure 4. Real effective exchange rate, 1997-2001



Source: IMF Working Paper 02/127

25. The litas's peg to the euro put many Lithuanian entities on a similar playing ground as their foreign rivals. As it was mentioned many Lithuanian entities compete with their export rivals from other European countries that either have a fixed national currency-euro exchange rate, or an exchange rate fluctuating less than the litas. On the other hand, for some Lithuanian entities re-pegging implies additional time and financial expenses, since they need to insure themselves against exchange rate fluctuations. Thus, for instance, companies of the energy sector usually paying for raw materials in dollars and selling their products for litas did not risk incurring losses due to exchange rate fluctuations, as long as the litas was pegged to the US dollar. Meanwhile, after linking the litas to the euro, the litas-dollar exchange rate does fluctuate and these companies may sustain losses, if the dollar exchange rate increased. Therefore, the shift of the anchor currency may entitle the said companies to somewhat more complex work conditions.

26. In January 2002, just prior re-peg, BoL surveyed the opinion of managers of entities on the re-pegging of litas (this included 1005 respondents from different regions of Lithuania). In accordance with this survey, 57 percent of respondents support the re-peg, 38 percent are against and 5 percent have no opinion on this mater. Results of the survey stipulate several important conclusions. First, large part of entities have their estimation on the benefits resulting from the re-peg, which also means that entities have been conducting analysis on the impact of re-pegging litas to euro and most probably large part of entities have undertaken measures to prepare themselves to adjust to changing situation. Secondly, approximately six out of ten entities treat the decision to re-peg litas to the euro as beneficial. That means better results of Lithuanian economy in general. Thirdly, it is important to note that four out of ten entities are against the re-peg. If the resistance arises because of negative expectations and possibly negative impact on their performance, then the large part of these entities should prepare themselves to be able to cope with the litas-US dollar fluctuation.

27. One of the ways for entities to avoid the losses resulting from currency rate fluctuations – employ derivatives. However, derivatives still remain not widely used even among relatively big Lithuanian entities. The use of derivatives can be illustrated by their turnover in commercial banks. In absolute numbers the use of derivatives is slowly increasing (see Figure 5). However, if compared with the rise of foreign trade, this increase is hardly feasible (see Figure 6).

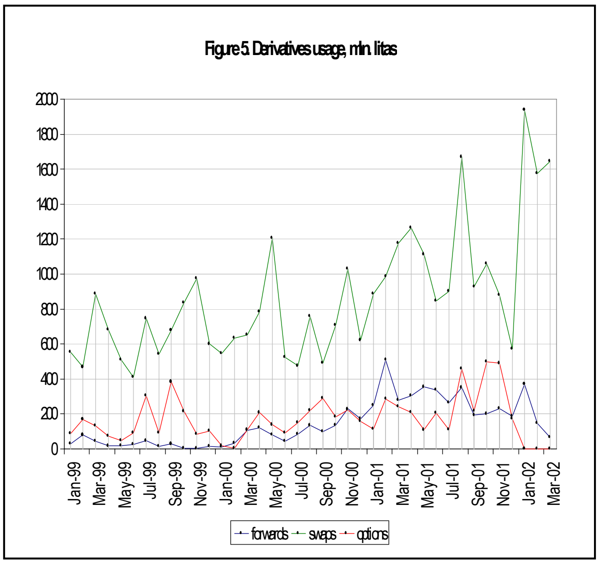


Figure 5. Derivatives usage, mln. litas

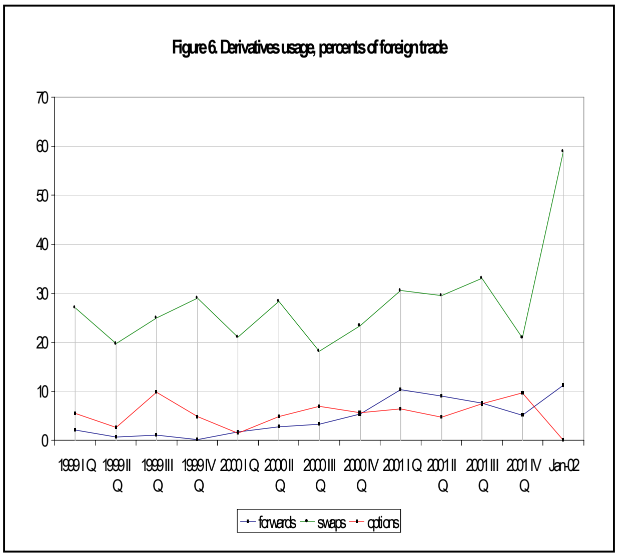


Figure 6. Derivatives usage, percents of foreign trade

Source: Bank of Lithuania

28. The main reasons for the unpopularity of derivatives are the following[2]: (i) entities hedge open positions by balancing the currency structure of inflows and outflows; (ii) employment of derivatives implies additional costs; (iii) derivatives are not able to grant full defense against currency rate fluctuations.

29. Moreover, the survey showed that Lithuanian entities have relatively inexperienced planning of cash flows. As a consequence, decision making in the area of currency risk management is frequently late and taken when currency fluctuations already did negative impact on the performance of entities.

30. Analysing Lithuania's entities abilities to compete in near future, the IMF staff conducted the simulation of real effective exchange rate under different scenarios for 2002-2003 (see Alonso-Gamo, Fabrizio, Kramarenko, and Wanga (2002)). Three scenarios were presented to quantify the impact of different assumptions on the appreciation of the euro on the REER index. Under the worst-case scenario: (1) the euro is assumed to appreciate against the US dollar by about 30 percent to return to its highest historical level by the end of 2003; (2) REER would appreciate by almost 5 percent during both years, below the average of 1994-2001. The IMF staff calculated that in the worst-case scenario, the required productivity growth in the tradable sector should be about 13 percent per year, which would lead to 7 percent economy-wide productivity growth to sustain competitiveness. While these growth rates are consistent with Lithuania's recent experience, supporting macroeconomic and structural policies, as well as a significant pick-up in investment should be firmly in place to avoid loss of competitiveness. The IMF staff concluded that under current policies and in the absence of other major shocks, the economy appears to be able to cope with even 30 percent appreciation of the euro during 2002-03.

31. Some source of concern is economic decline of Western European and North American economies. Although in 2001 the volumes of exports and imports were the biggest during the past six years, the growth of exports slowed down due to the economic decline in the EU. However, a sharp expansion of Lithuania's trade with rapidly developing CIS countries, especially Russia, made up for this slowdown. According to LDS, in 2001 Lithuania's exports to CIS increased by 45.9 percent, while exports to Russia rose by a striking 86.4 percent. On the other hand, Lithuanian companies are strengthening trading links with the EU and

[2] LFMI conducted a survey in March-April of 2002, which involved finance managers from 23 entities from

improving compliance with EU quality requirements. This will help them to maintain export relationships with EU member states. It demonstrates ability of Lithuania's companies to preserve their competitiveness.

32. Labour regulations are a source of concern too. It perceived to be a serious obstacle to business operations in Lithuania than in other CEE countries. According to the Business Environment and Enterprise Performance Survey, conducted jointly by the World Bank and the European Bank for Reconstruction and Development, Lithuania was ranked as the second worst among ten accession countries in this respect. Seeking to diminish these obstacles there were some amendments recently to labour legislation, providing for more flexibility in employment contracts and severance. In March 2001 amendments were adopted to labour legislation and abolished a mandatory form of labour contracts, reduced layoff benefits and simplified wage regulations. Nevertheless, there remains a need for more efficient and flexible labour market to adjust to changing economic conditions and preserve competitiveness of economic entities.

33. The other source of concern is barriers to foreign trade. On February 1, 2002 import tariffs on agricultural products from the EU were reduced. In compliance with WTO membership obligations (Lithuania joined WTO in May 2001), Lithuania lowered import duties on certain animal products, flowers, oilseed rape oil, motor oil, spirits and textile. It should be noted that Lithuania is obligated to lower import tariffs every year in equal increments until they reach the level negotiated with WTO. However, non-tariff barriers are increasing. The Government emphasises the need to use on a wider scale non-tariff and unconventional measures in protecting local producers and shielding the domestic market from low-quality or informal imports. For example, in November 2001 Lithuania tightened up the procedures for customs valuation of goods in order to reduce the amount of particularly cheap imports, especially clothes and textile articles. However, the method of comparative prices used in customs valuation is unjustified, defective and open to arbitrary interpretation. Its application injures all importers and in particular small businesses. Ambiguous and frequently unjustified customs valuation has complicated business conditions and restricted the import of raw materials.

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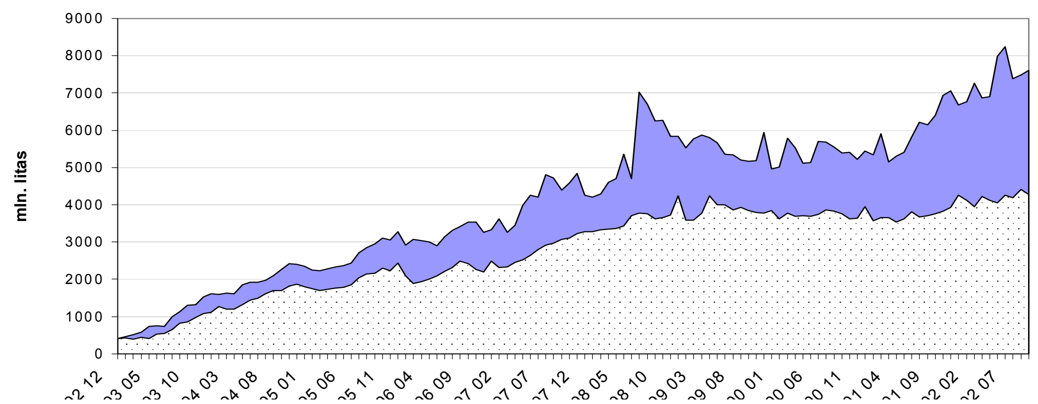
different sectors of economy.

2. Monetary and financial sector stability

34. In retrospective view, CBA resisted two real strains on it: the banking crisis that evolved in the end of 1995 and beginning of 1996, and especially budgetary crisis in 1999 that evolved after the Russian crisis in 1998. Notably, during these crises there were relatively large official reserves[3] (Figure 7) and political will to resist pressure on litas by undertaking effective measures (e.g. A.Kubilius' government took measures to rebuild budgetary discipline in 1999 and these measures were strong prerequisite for sustainability of litas). Besides, apparently there were intents of speculative attacks on litas, however CBA made speculative attacks ineffective and unattractive.

Figure 7. Official reserves and litas in circulation



Source: Bank of Lithuania

35. Further sustainability of CBA guarantees considerable official reserves. In the end of September 2002, litas in circulation was covered by official reserves by about 170 percent (Figure 7). This substantial covering is a good precondition to resist speculative attacks and capital flow volatility.

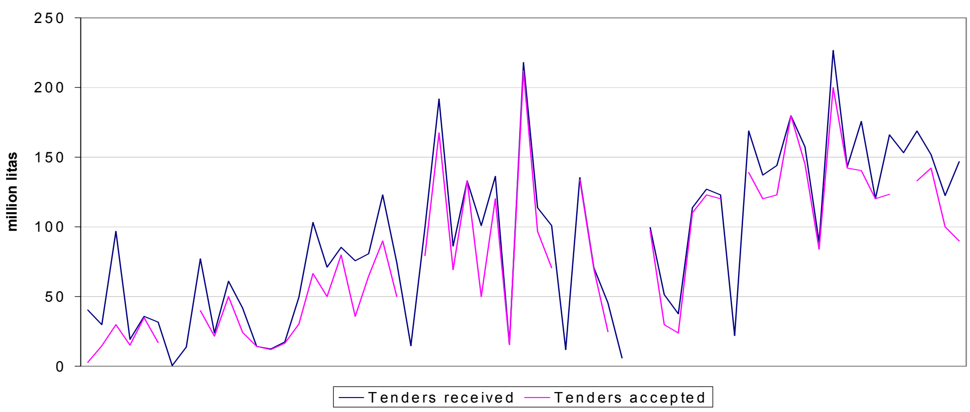
36. The most important among the political factors are the invitation of Lithuanian to join the EU. The invitation has encouraged Lithuania to continue the implementation of its obligations in the program of preparation for the EU membership, which includes achievement of the Maastricht criteria, and compulsory membership in the ERM II. In Lithuania CBA is seen as the best mean to implement the Maastricht criteria and all major political parties support CBA.

[3] During both periods official reserves consisted of 140-150 percents of litas in circulation.

37. The number of opponents of CBA in comparison with their number in the past has significantly shrunk. Even those, who have been preparing program for abandoning CBA, today recognize that in the light of approaching membership in the EMU, it would not be appropriate to change existing CBA to the other exchange rate regime.

38. Banking sector stability is an important feature of every exchange rate mechanism. In Lithuania as in the other CEE countries banking sector is in large part in foreign ownership and largely depends on parent banks. Increasing foreign ownership in the financial sector has brought financial stability, qualitative enhancements, increased competition, transparency and efficiency of financial intermediation. Just significant deterioration of foreign parent banks can potentially cause stress in the Lithuanian banking system. However it is doubtful whether monetary instruments of BoL could facilitate in that case as remedies. At least it is obvious that Lithuanian banking sector did not need monetary policy instruments of BoL so far. Repo auctions were not widely accepted by the commercial banks and during 1997-1998 the BoL conducted them by very small amounts; time deposits auctions were conducted by slightly bigger quantity during 1997-2000 (Figure 8). Later, after foreign capital came to the Lithuanian banking sector, market participants rejected fully these instruments of monetary policy.

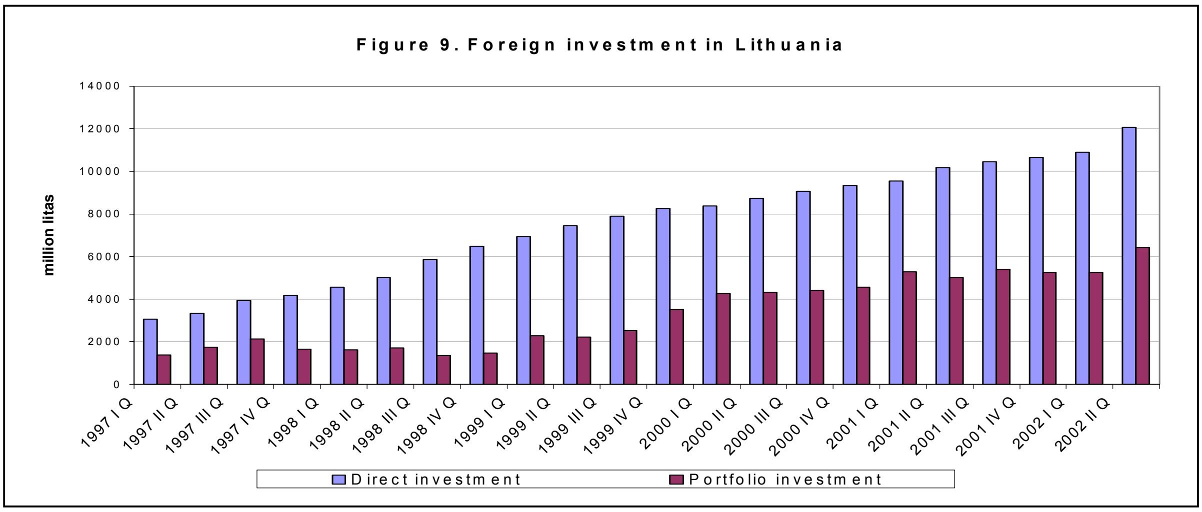
Figure 8. Time deposits auctions August 1997 - February 2000



39. One of the major concerns for monetary stability in CEE is volatile capital flows. In Lithuania large scale capital outflows are unlikely because most foreign investments are in the form of foreign direct investment or Lithuanian T-bonds placed abroad.

40. Since 1997, portfolio investments have been constantly growing and in the 2nd quarter of 2002 comprised 6412.8 millions litas (Figure 9). However during the research period, portfolio investments in the absolute numbers have declined several times. Firstly, in the 3rd quarter of 1997 portfolio investments decreased because of the market corrections, when prices of shares increased and the sell-off of shares begun. Secondly, in the 3rd quarter of 1998 portfolio investments decreased as a consequence of the Russian crisis. However, later portfolio capital returned to Lithuania and since 1999 began to grow gradually.

41. Portfolio investments comprise about 77 percent of the official reserves. Even if similar external shock such as the Russian crisis occurred, it would hardly have a large impact on the portfolio investments. The main reasons behind that concern the low liquidity of the securities market. Large part of portfolio investments is not speculative, but for a long term, based on expectations that their prices will grow in the future.



Source: Bank of Lithuania

42. Until November 2002, payments between Lithuanian entities and/or households could be executed only by litas. After the Law on foreign currencies was amended, starting 1st November 2002, it was allowed to conduct non-cash payments in any currency and cash payments in euro and litas. It reduces costs of Lithuanian entities, which is important for competitiveness. Moreover, this is a partial step towards introducing euro in Lithuania and it encourages monetary stability. If the pressure on litas evolves, households and entities would be able smoothly to shift towards payments in the euro.

3. Fulfilling the Maastricht criteria

43. The Maastricht treaty foresees five convergence criteria among which three directly depend on the exchange rate mechanism: national currency fluctuation against the euro (plus/minus 15 percent fluctuation band), inflation (best 3 countries + 1.5 percent), and interest rates (T-bond rate of best 3 countries + 2 percent).

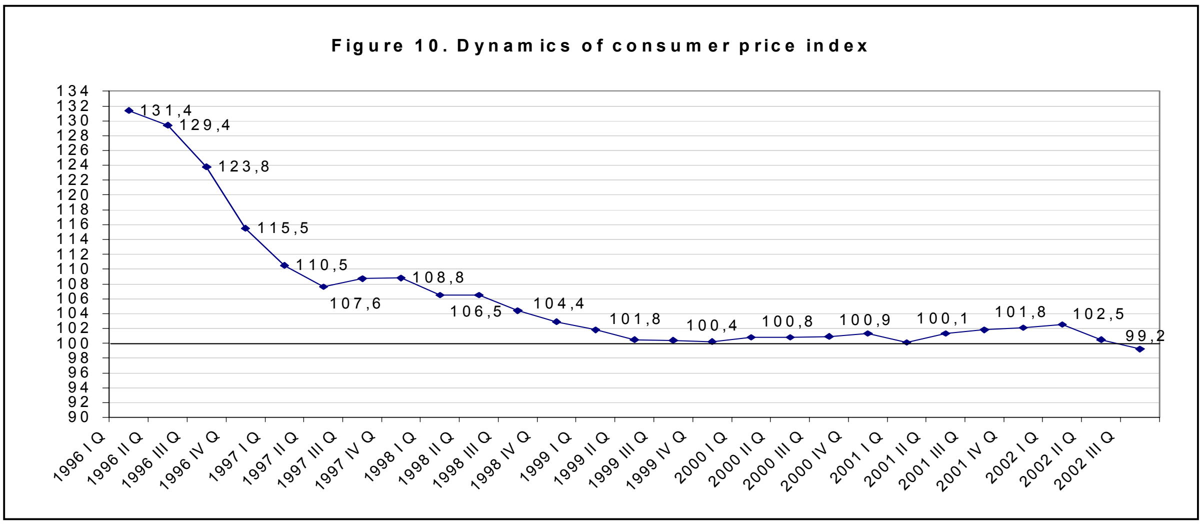
44. Being pegged to US dollar litas might not fall in line with criterion on currency fluctuation against the euro. The re-pegging ensured the fulfilling of this criterion.

45. Also, CBA has allowed fulfilling interest rate criteria. Long-term interest rates in Lithuania were 6.15 percent on average in the mid of 2002 and thus stood below the referred value to the interest rate criterion of 7 percent, defined as the average long-term interest rate of the best performing member states in terms of price stability plus 2 percentage points. If the government continues the fiscal discipline and structural reforms policies, in the absence of other major shocks, these will form good preconditions for Lithuania to fulfil criterion on interest rate in the near future as well.

46. Fulfilment of criterion on inflation is much more disputable. Lithuania has already become a member of euro zone *de facto*, when litas was pegged to the euro. External value of litas as well as interest rate level in Lithuania depends upon the policy of European Central Bank and this forms preconditions for inflation level in Lithuania to reach the level of countries in the euro zone. However fulfilment inflation criterion under CBA provokes more doubts, because it is supposed that CBA guarantees external value of litas and at much lesser extent stability of prices.

47. Following CBA establishment in Lithuania, the inflation process took a form of gradual convergence to low inflation in developed western economies. Although the expectation was for a drastic decline in the level of inflation, the convergence took nearly 3 years to bring the annual CPI growth to one-digit level. In the 1st quarter of 1997, the steep downward trend in inflation broke down and inflation stabilized around 8 per cent. Further decline of inflation came in the second half of 1998 and persisted until the second half of 1999. It was the result of Russian financial crisis, and loss of markets. Therefore inflation level in period 1999-2000 first half was at deflation level. Inflation had fallen in line with the Maastricht treaty

requirement from the beginning of 1999 and since then did not breach the level of reference value. The average annual inflation figures for 1999–2001 stood well below 2 percent in Lithuania.

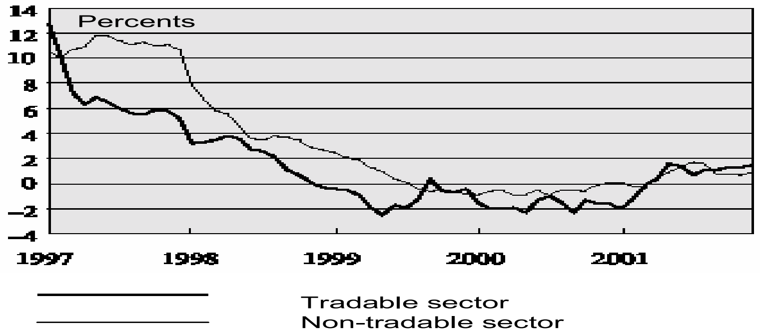


Source: Department of Statistics

48. CBA allowed eliminating one of the main causes of inflation – money supply. Since establishment of CBA the litas is fixed and the amount of money in the market is defined by demand for money and is not politically controlled. The main inflation factors during the dollar-peg CBA period were the adjustment of relative prices, increases of administered prices and changes in taxation.

49. Additional inflation factors in this period were the Balassa–Samuelson (BS) effect and increasing investment demand. Inflation in non-tradable sector was higher than in tradable sector (Figure 11). This may be explained by competition from the side of foreign countries which lessened the increase of prices, especially when re-orientation of trade structure began. However, in the middle of 1999, price dynamic in those different sectors had more or less converged.

Figure 11. Price dynamic in tradable and non-tradable sectors



Source: IMF Working Paper 02/127

50. The increase in price level is also influenced by the increased demand for Lithuanian assets too. During the period of 1995-2001, direct foreign investments have been increasing thus fuelling domestic prices and appreciation of REER index.

51. The currently observed low level of inflation in Lithuania should not be regarded as the final achievement in price stability but rather as recently increasing value of litas. The lifting of the remaining price controls and possible external shocks may lead to the re-appraisal of inflation.

52. In upcoming years, the ratio of inflation will be influenced by factors, such as fluctuation of litas, dynamic of oil prices, state budgetary and tax policy, structural reforms, flows of foreign investments, and others.

53. Steady increase of foreign investments does not make concern. Investment will increase productivity of Lithuanian entities and it will have downward pressure on inflation level. However budgetary and tax policy as well as lack of structural reform may have upward pressure on inflation and may hinge competitiveness of Lithuanian entities.

54. One factor of growing tax burden is harmonisation of Lithuanian tax tariffs with the EU ACQUIS. Tax harmonisation will gradually raise excise taxes for fuel products, tobacco, and alcohol up to minimum ACQUIS requirement. Other source of inflation is the changes in tax policy. For example, the adoption of a new law on the corporate income tax in December 2001 reduced tax rate from 24 to 15-percent, however the tax base was expanded in order to double budget revenues from the tax. Moreover, introduction of new taxes on immovable property is planed.

55. There are concerns that structural reforms in various sectors of economics may cause increase of prices and, thus, inflation. One example is restructuring of Lithuanian energy sector, which may have an impact on the growth of prices. However, it is calculated that, if restructuring in energy sector was delayed and new technologies and "know-how" postponed, prices would go even higher. Another good example is health-care system, where there are no reforms and because of that "shadow" expenditures for health-care grow every year.

56. Expansionary budget policy also has a stimulating impact on price level. In fact, the national budget is not planned by programmes and is not cyclically balanced, thus forcing government expenditures to grow every year so fuelling the inflation level.

V. The strategy of re-pegging litas from US dollar to euro

57. In the late 1999, the BoL made the first announcement of its intent to re-peg the litas from the dollar to the euro at parity with a promise to announce the schedule and details of the re-pegging in mid-2001. In the distressed financial situation of late 1999, this statement of intent without a precise date did little to evoke speculations about the timing of the re-pegging or the possibility of devaluation. A sharp appreciation of the dollar during 2000 fuelled again speculations about a possible devaluation, but the BoL made a number of public statements in order to restore confidence of its intent to re-peg without devaluation.

58. In deliberating what strategy of pegging to the euro is to be selected, the Central Bank of Lithuania considered two main alternative strategies of pegging a national currency to the euro.

59. According to one of them, a country's central bank should choose, taking into account the situation in the money and credit markets, macroeconomic indicators and other factors, such a time and exchange rate of re-pegging that would not hinge competitiveness of Lithuanian entities. In this case, broad decision making powers would have to be granted to the central bank, and the details of linking national currency to euro would not necessarily be based on clear and transparent criteria.

60. Second alternative strategy was to ensure transparent and clear procedures for pegging a national currency to the euro, having elaborated them in advance and leaving no opportunity for the central bank to change them. In this case economic entities are provided with conditions to prepare independently for pegging a national currency to the euro concurrently ensuring that the government or the central bank will not change the fixed date of pegging and procedures regardless of the exchange rate between euro and US dollar and other market conditions.

61. There were substantial discussions about merits and drawbacks of each strategy. On the one plate of scales was the supposed "good for competitiveness" exchange rate of re-pegging on the other – transparent and clear re-pegging procedures. The main drawbacks of the first strategy were the risk of moral hazard and more complicated and costlier preparation for re-pegging for entities and households, if its exact date had not been known in advance. Households and especially entities cannot prepare for a shift of the anchor currency in one fell swoop, as it is time-consuming to reassess contracts and to plan cash flows in line with changes in litas exchange rate fluctuations with respect to foreign currencies. The main negative aspect of the second strategy was that (i) by the date of re-pegging, the euro might have declined and in this case litas would have been fixed to euro at low rate, (2) and pegging of litas to euro at low euro rate would have meant that in future there would be more preconditions for appreciation of litas against US dollar and other foreign currencies. That would be unacceptable for Lithuanian entities that compete with foreign ones.

62. There were also some more arguments for transparent and clear re-pegging procedures (see Alonso-Gamo, Fabrizio, Kramarenko, and Wanga (2002)). Firstly, The BoL was keen to maintain its institutional credibility, seen as critical to the future introduction of the euro to Lithuania: a mismanaged re-pegging could have jeopardized EU accession. Secondly, given a high level of dollarisation in the economy, balance-sheet effects of a surprise re-pegging might have had a large negative impact, offsetting small gains in competitiveness through picking up the "good" exchange rate. Thirdly, since the re-pegging issue was an ongoing topic in public debate, it was thought that announcing in advance the details and timing of the re-pegging would be the best way to reassure the public and reduce uncertainty and speculations.

63. Finally, the BoL decided to implement the second strategy and committed to publicly announce the date and procedures concerning re-pegging at least six months ahead of the date

of re-pegging and refrain from changing the said date notwithstanding the market condition. Thus, the BoL announced on June 28, 2001 – seven months in advance – that the re-pegging would take place on February 2, 2002, based on the euro/dollar reference rate of the European Central Bank of February1, 2002.

VI. Circumstances of re-pegging and its impact on economic entities

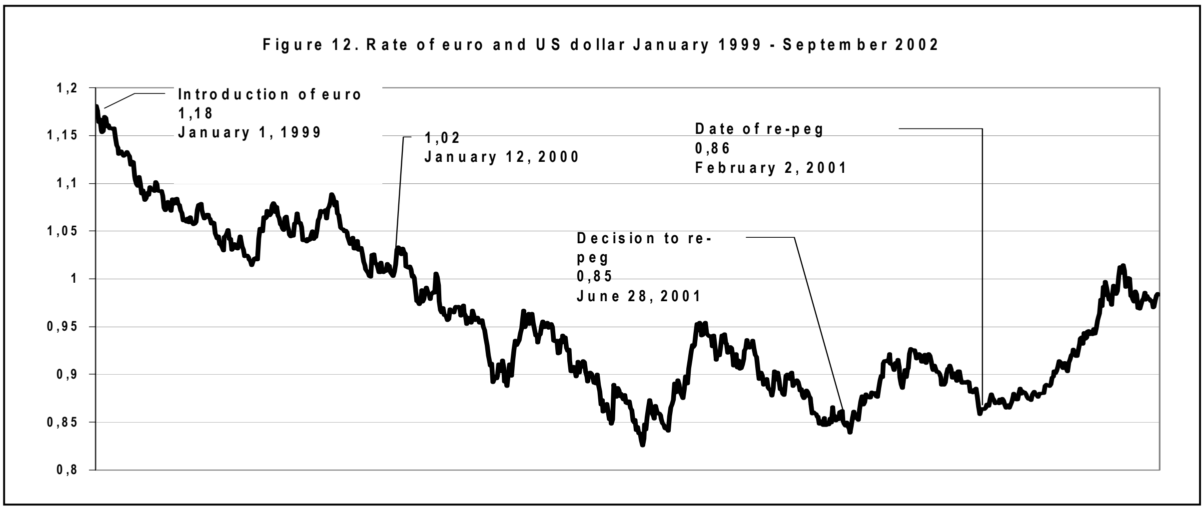
64. What impact the re-pegging of litas to the euro would be on Lithuanian entities, mostly depended on: (1) their currency structure of cash flows, and (2) which currencies use their rivals. The main consequence of re-peg is that after the re-peg litas fluctuates not against the euro, as it used to be before, but against the US dollar. Until litas was pegged to the dollar, while planning to conduct transactions by euro, entity could not exclude possibility that euro appreciates against the dollar. On the other hand, while planning to conduct payments by dollars from its incomes by litas, the entity did not face currency risk because of the fixed exchange rate of litas against the dollar. After the re-peg, while planning to conduct transactions by euro from the incomes by litas, the enterprise does not have any currency risk because of the fixed exchange rate. And, on the contrary, after the re-pegging litas to the euro, the enterprise would face certain currency risk if was planning to pay by dollars from its income in litas because of fluctuating exchange rate of litas and dollar.

65. The re-pegging litas to the euro had impact not only on contracts by euro, litas, and dollars, but also by other currencies. Until litas was pegged to the dollar, the exchange rate of litas fluctuated against other currencies in the same way as the dollar. However, when litas was pegged to the euro, the exchange rate of litas is fluctuating in the same way as euro.

66. In preparation for the re-peg of national currency, entities were able to review in advance their present and potential contracts and make calculations about the impact of re-pegging on their performance. Entities could adjust their contracts in a way to ensure the least influence of re-pegging on their cash flows.

67. Seemingly the main problem of re-pegging was that just prior to re-pegging US dollar appreciated against the euro (Figure 12) and therefore the costs for some of Lithuanian economic entities became higher in comparison with their foreign rivals. Nevertheless, the re-pegging exchange rate of 0.8632 USD per euro was only slightly higher than the average of

0.8962 per euro for 2001, and the authorities and entrepreneurs were generally confident that the economy remained competitive. Public confidence in the CBA with the new reserve currency continues to be strong.



Source: Reuters

68. The question of how entities prepared themselves for the re-pegging litas has become a subject for survey of opinions of entities' managers, located in largest cities of Lithuania. The survey was ordered by BoL and conducted in March, 2002. About 52 percent of managers stated good level of preparation of their enterprise, 31 percent asserted medium level of preparation, and 17 percent assessed their preparation as poor. Thus, by making an assumption that entities have correctly evaluated their state of preparedness for the re-pegging, considerably large part was able to manage the currency risk. On the other hand, the survey revealed that almost half of entities evaluate their preparation as medium or poor.

69. Large entities appear to be managing the consequences of the re-pegging better than small ones and households. Large entities indicated that they had started to adjust their financial management well before the re-pegging, and many liabilities had been converted into euro immediately prior to the re-pegging. Some companies had started to negotiate their exports and imports prices in euro, even in their trade with the CIS, providing a hedge to their operations. At the same time, entities exposed to trade in products priced in dollars (crude oil, gas, etc.) prefer to keep a portion of their liabilities in dollars. However, some entities kept their liabilities in dollars, betting that the euro would appreciate. On the other hand, small entities remain unhedged to exchange rate fluctuations.

70. Household assets in foreign currencies exceed liabilities in foreign currencies, therefore after re-pegging litas from US dollar to euro it is important to convert household savings in US dollars to euro or litas assets as soon as possible. Otherwise, huge open foreign exchange position may aggravate their financial standing. Still households' deposits remain largely denominated in dollars. This means that households who kept their deposits in dollars suffered from unrealized losses associated with the recent depreciation of US dollar against litas. It is calculated that households have lost approximately 300 million litas of savings. Nevertheless public confidence in the CBA with the new reserve currency continues to be strong.

VII. Conclusions

- The main goal of establishing the CBA in Lithuania was to depersonalise monetary policy and secure national currency from interventions and manipulation by the government.
- The establishment of CBA created preconditions for Lithuanian entities to preserve their competitiveness, secured monetary and financial stability, also forming a basis for fulfilling the Maastricht criteria. Lithuanian entities operating in clear monetary conditions adjusted to real and nominal appreciation of litas by reducing expenditures, switching expenditures from litas and US dollars to euro, installing the new technologies, and developing new products. There were intents of speculative attacks on litas, however CBA made speculative attacks ineffective and unattractive.
- There are seemingly no doubts among analysts that competitiveness, monetary and financial stability will be preserved under CBA in upcoming years, if structural reforms are proceeded, budgetary discipline is maintained, and tax burden stays at the similar level. The source of concern is rigid regulations of labour market, increasing non-tariff barriers for foreign trade, lifting tax burden, and weaknesses of public finances.
- The litas's peg to the euro put many Lithuanian entities on a similar playing ground as their foreign rivals. On the other hand, for some Lithuanian entities re-pegging implies additional time and financial expenses, since they need to insure themselves against exchange rate fluctuations. The main "losers" of re-pegging are entities of the energy sector usually paying for raw materials in dollars and selling their products for litas,

and other entities, which besides euro and litas use other currencies or compete with rivals using other currencies.

- Eight months since the re-pegging four main lessons may be drawn. The first lesson is that the decision to announce the date of the re-peg in advance and not to change it whatever be the exchange rate on the market created favourable and equal conditions for all market participants to prepare for the shift of the reserve currency in due time. The second lesson is that some small entities and households incurred losses from low euro and US dollar re-pegging rate and as a result later appreciation of litas against US dollar; on the other hand it was impossible to find an exchange rate to please all parties. The third lesson is that in the distressed financial situation and high fluctuations in financial markets the only way to resist speculations and preserve public confidence is to peg currency to the euro without devaluation or revaluation by announcing the schedule and details in advance. The forth lesson is that many market participants quite promptly adopted their business to new peg and impact on economy was negligible in the light of steady GDP and foreign trade growth.

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