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ANDRIUS BOGDANOVIČIUS:

**Lithuania's Experience Linking National Currency
to Euro**

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Lithuania's experience linking National Currency to Euro

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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 achieve 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 the forthcoming changes (i) will preserve competitiveness of economic entities, and whether the changes (ii) 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. 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. After re-pegging Lithuania became a member of euro zone *de facto*.

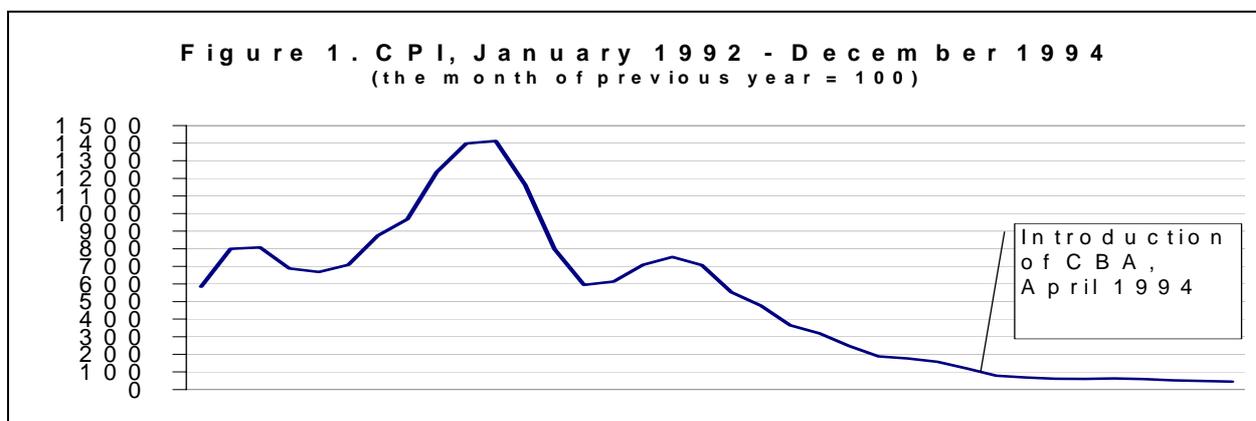
4. This paper analyses Lithuania's experience of linking its national currency litas to the euro. The main questions are going to be explored: whether the CBA and selected strategy of pegging national currency to the euro are fitting in a view of competitiveness, monetary stability and achievement of 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 litas to the euro is overviewed. The second chapter explains the goals of introduction of the CBA, reasons for selecting US dollar as a reserve currency, and features of CBA. The third chapter discusses Lithuania's ability to preserve competitiveness, to safeguard the stability of monetary and financial sector, and to achieve 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

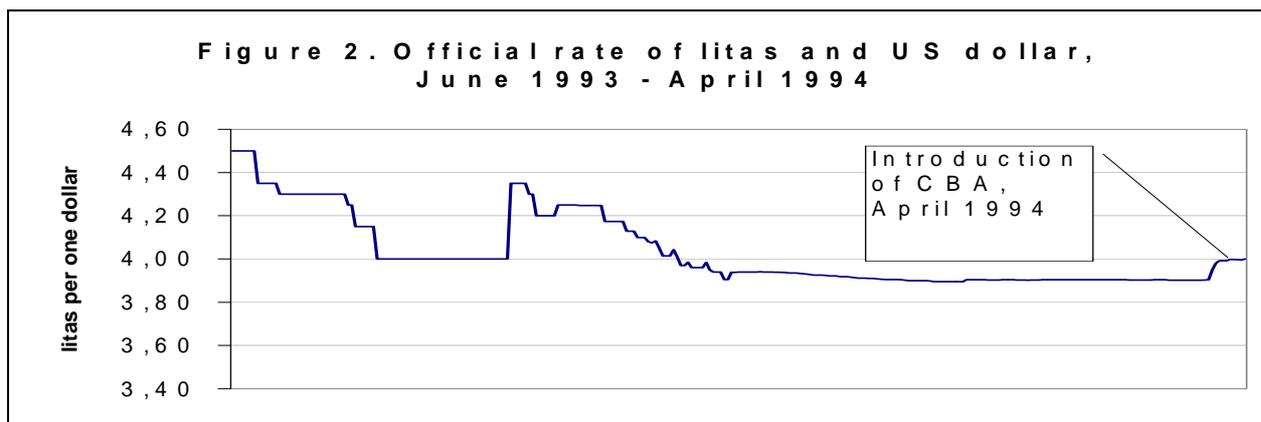
5. After regaining of independence (March, 1990), Russian rouble was used as currency in Lithuania until temporary national currency *talonas* replaced it (October, 1992). In fact, talonas was introduced in May 1992 and dual currency system (rouble and talonas) was in effect till October 1992. Until 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. Besides rouble and *talonas*, payments in other foreign currency were allowed and Lithuanian economy was broadly dollarised.

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.

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 constantly falling inflation, which declined from three to two digit level, but still stayed high (Figure 1). 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 2). The fluctuations of exchange rate of litas in the market were even more volatile.



Source: Lithuanian Department of Statistics



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. 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 achievement of the Maastricht criteria were not discussed as CBA's aims.

10. Discussions to which currency to anchor the litas were 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 Lithuania¹ 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. 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 are covered by official reserves; short term deposits in commercial banks are not. Moreover BoL got the credit from IMF to maintain stability of litas. Secondly, commercial banks are required to hold reserves in BoL. Thirdly, BoL fulfils 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) re-pegging litas from US dollar to the euro, (ii) gradual replacement of CBA by pegged exchange rate within horizontal bands regime, and (iii) restoring conventional monetary policy. However this program was not implemented due to the public criticism and Russian crisis, 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, officially stating that this is the best instrument to pursue the goal.

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

IV. CBA: fitting or not?

15. Answering the main question whether the CBA fits to the accession country, following issues have to be explored: does CBA make preconditions to preserve competitiveness for economic entities; does not CBA diminish stability of monetary sector. Also in the light of approaching membership in the EMU there is one more issue: does CBA allow achieving the Maastricht criteria on inflation, exchange rate stability and interest rates. These issues are discussed in more details analysing Lithuania's experience.

1. Competitiveness of Lithuanian entities

16. After the Russian crisis of 1998 Lithuanian export shifted to the EU countries. In 2001 export to the euro zone comprised 25.8 percent of the whole export, whereas export 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 respectively (Table 1). The other important markets for Lithuanian exporters are Latvia (12.6 percent of the whole export), Russia (11.0 percent), and Poland (6.3 percent).

17. The largest part of import also comes from the EU countries. Import 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 import respectively (Table 2). Import from Russia in comparison with the export to this country comprise almost three times bigger figure. The other countries, maintaining significant import to Lithuania, are Poland (4.9 percent) and USA (3.0 percent).

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.

	Export
EMU countries	25.8
CIS countries	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: Lithuanian Department of Statistics

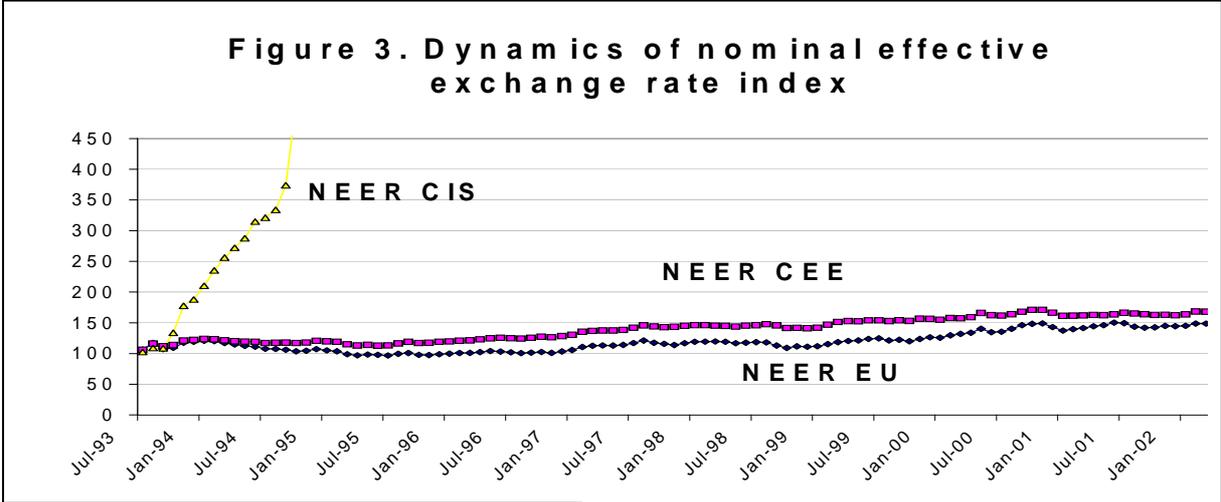
	Import
EMU countries	34.7
CIS countries	29.4
Russia	25.3
Germany	17.2
Poland	4.9
Italy	4.2
France	3.8
UK	3.4
USA	3.0
Sweden	3.0
Denmark	2.9
Netherlands	2.4
Belgium	2.0
Belarus	1.9
Others	21.8

Source: Lithuanian Department of Statistics

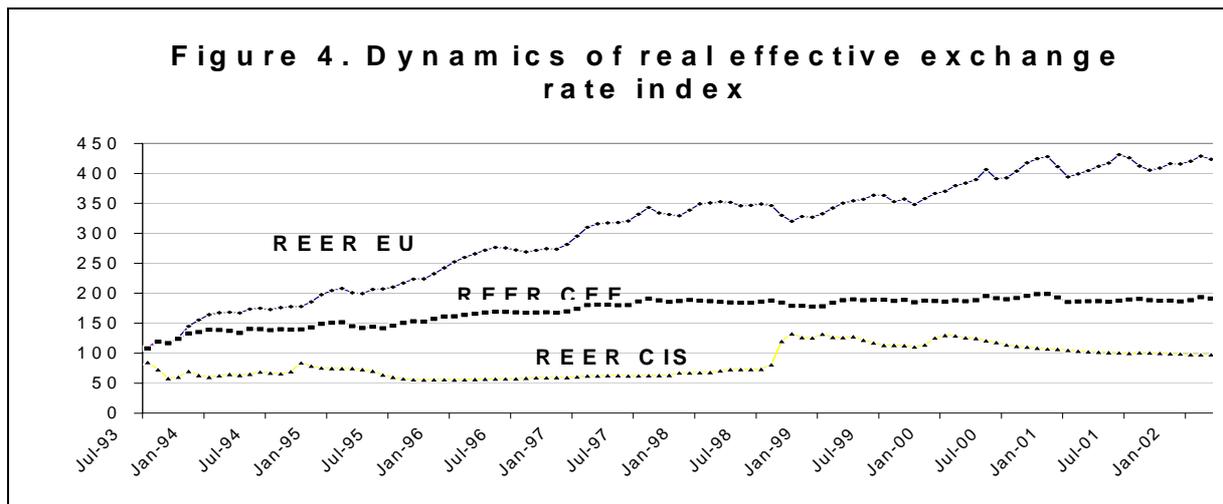
19. Although export to the Eastern and Central Europe makes up around one third of all export, transactions using currencies of these countries comprised a small part of all transactions. The most common currencies in the foreign trade transactions are US dollars, litas, and euro. However, due to multiple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

20. Overall impact of exchange rate fluctuations on competitiveness can be analysed using CPI-based effective exchange rate indexes of litas. BoL calculates CPI-based effective indexes of litas and national currencies of countries belonging to the main foreign trade regions, namely EU, Central and Eastern Europe (CEE), and CIS.

21. While nominal effective exchange rate (NEER) index, reflecting changes in exchange rates of Lithuanian and CIS currencies, has increased even by 8958 percentage points (from the time of CBA establishment in Lithuania), real effective exchange rate (REER) index – increased only by 40 percentage points (Figures 3 and 4). This difference demonstrates comparably much large rise in domestic prices in CIS, which theoretically reduced possibility for economic entities processing in CIS to become more competitive comparing with Lithuanian entities.



Source: Bank of Lithuania



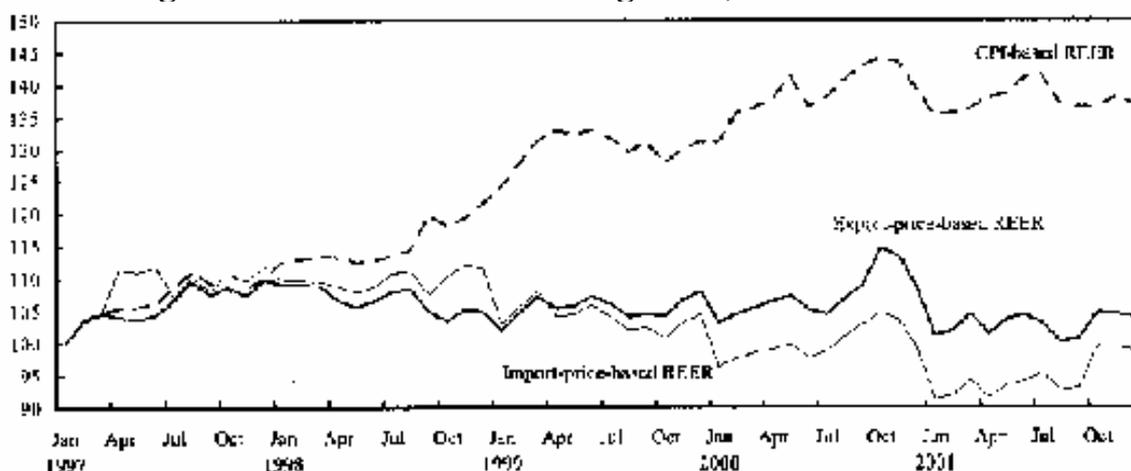
Source: Bank of Lithuania

22. Different state of affairs is with effective indexes, reflecting changes in exchange rates of Lithuania's and EU countries' national currencies. NEER index during the analysed period has increased by 35 percentage points, while REER index – by 256 percentage points. This fact reflects comparably bigger rise in domestic prices in Lithuania, which theoretically limited possibilities for Lithuanian entities to compete with their rivals in EU.

23. In relation to the CEE countries, both nominal and real effective exchange rate indexes illustrate lightly negative impact of foreign exchange rate fluctuation on competitiveness of Lithuanian entities (indexes increased accordingly by 55 and 64 percentage points).

24. While the CPI-based REER showed a protracted appreciation, the export-price-based REER have demonstrated remarkable stability since 1997 (see Alonso-Gamo, Fabrizio, Kramarenko, and Wanga). This stability means that Lithuanian entities coped to adjust to real appreciation of litas and export prices moved in line with rivals operating abroad. Means of such adjustment were “tightening belts” through reducing expenditures, switching expenditures from litas and US dollars to euro, installing of new technologies, and developing of new products.

Figure 5. Real effective exchange rate, 1997-2001



Source: IMF Working Paper 02/127

25. The impact of re-pegging litas to the euro evoked many discussions. While Bank of Lithuania and other public authorities state that re-pegging of litas was economically useful for the reason that it put many Lithuanian entities on a similar playing ground as their foreign rivals (the biggest part of foreign trade is with current or approaching euro zone countries) and eliminated currency risk, in practice the impact of re-pegging is more complex. For some Lithuanian entities re-pegging implies bigger exposure to currency risk. For instance, re-pegging may not be in line with interests of energy sector entities, which usually pay for raw materials in dollars and sell their products for litas. Besides even these entities, which export their products to the euro zone, or their rivals abroad may have cash flows not necessarily in their national currencies. Probably partly for these reasons the survey of entities, which Bank of Lithuania conducted in January 2002 (just prior re-peg), shows that 38 percent were against the re-peg (57 percent of entities supported it and 5 percent have no opinion on this matter).

26. Analysing further impact of exchange rate fluctuations on competitiveness, the IMF staff conducted the simulation of real effective exchange rate under different scenarios for 2002-2003. 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 the euro was assumed to appreciate against the US dollar by about 30 percent to return to its highest historical level by the end of 2003. 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. The IMF staff concluded that while these growth rates were assumed to be 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.

27. However there are three sources of threats. One of them lies in Lithuanian entities themselves, namely, entities are relatively inexperienced planning of cash flows and managing currency risk. 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. Second source of threat is condition of major export markets. 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. Third threat comes from government regulations and tax policy. Rigid labour regulations², non-tariff barriers to foreign trade³ and increasing tax burden hinge Lithuanian entities to adjust to changing economic conditions and preserve their competitiveness.

2. Monetary and financial sector stability

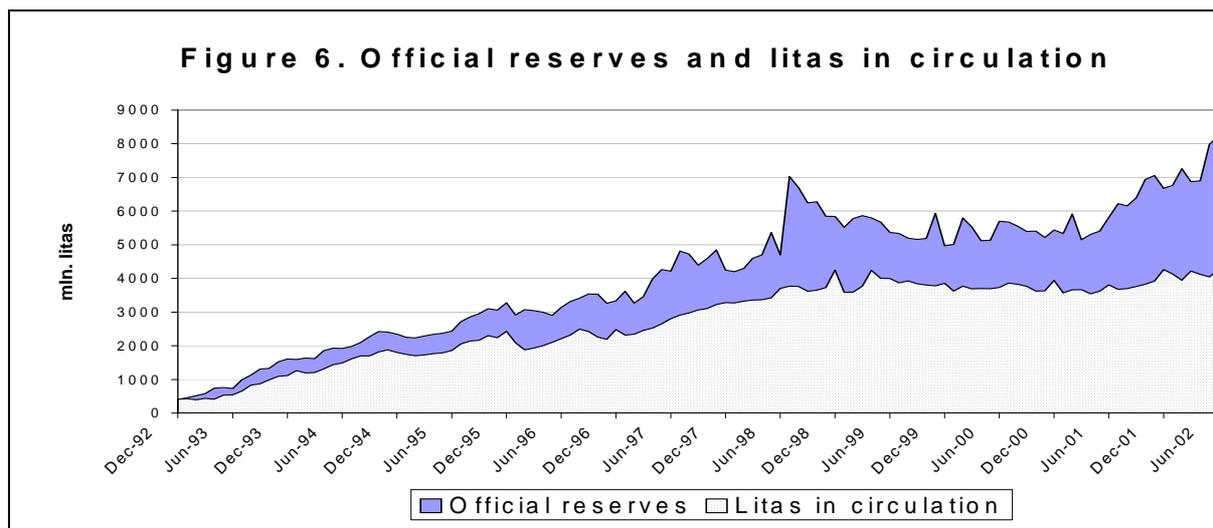
28. In retrospective view, CBA resisted two real strains on it: the banking crisis that evolved in the end of 1995 and beginning of 1996, and especially budgetary crisis in 1999 that evolved after the Russian crisis in 1998. Notably, during these events there were relatively large official reserves⁴ (Figure 6) and political will to resist pressures 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.

29. 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 percents (Figure 6). This substantial covering is a good precondition to resist speculative attacks and capital flow volatility.

² 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.

³ 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.

⁴ During both periods official reserves consisted of 140-150 percents of litas in circulation.



Source: Bank of Lithuania

30. Among the political factors, which ensure sustainability of CBA and political will to resist the pressures against litas, the most important are the invitation of Lithuania 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 the Maastricht criteria, and compulsory membership in the ERM II. It is interesting to note that 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 another exchange rate regime.

31. Among the economic factors, which may theoretically distress monetary stability, is volatile capital flows. However 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. Moreover 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.

32. 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

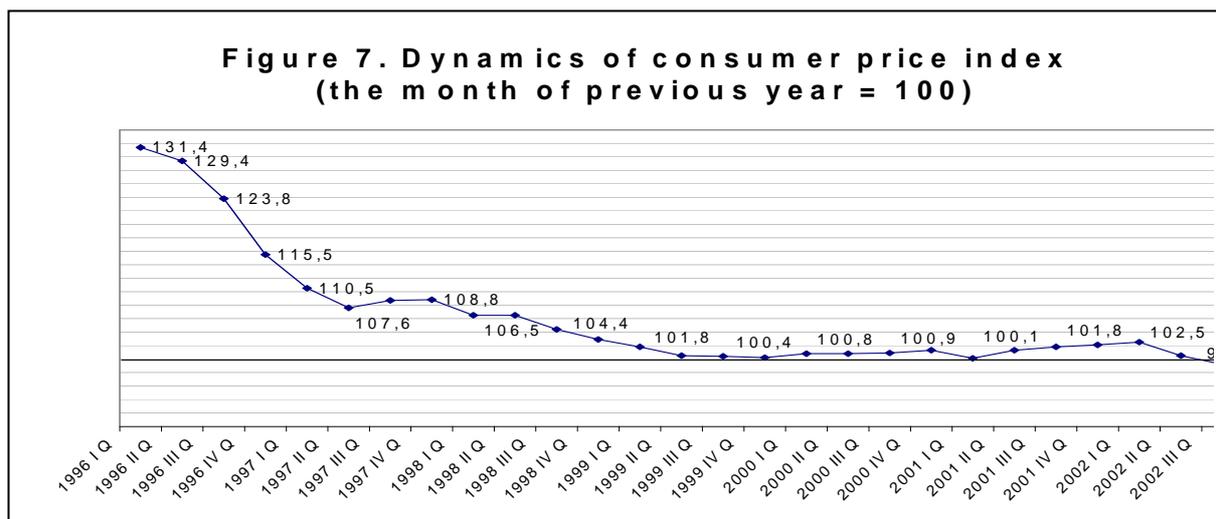
encourages monetary stability. If the pressure on litas evolves, households and entities would be able smoothly to shift towards payments in the euro.

3. Achieving the Maastricht criteria

33. 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).

34. Being pegged to US dollar litas might not fall in line with criterion on currency fluctuation against the euro, however after the re-pegging the question of achievement of criterion on national currency fluctuation against the euro is not point at issue. Also, CBA has allowed achieving interest rate criteria so far. 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. Again re-pegging of litas eliminated the risk not to achieve the criterion on interest rates if economic cycles of the euro zone and the United States would diverge.

35. Achievement of criterion on price stability seemingly is the main topic. Following CBA establishment in Lithuania, the inflation process took a form of gradual convergence to low inflation in developed western economies. In the 1st quarter of 1997, the steep downward trend in inflation broke down and inflation stabilized around 8 per cent (Figure 7). 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.

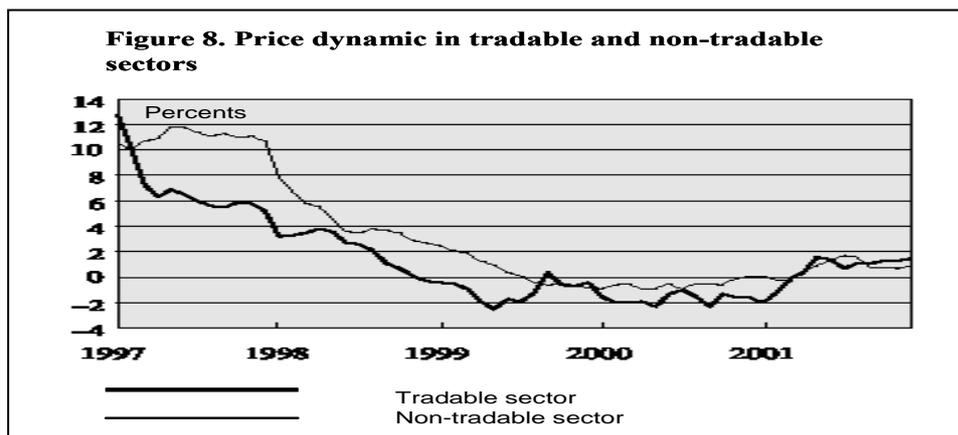


Source: Lithuanian Department of Statistics

36. The main inflation factors during the dollar-peg CBA period were the adjustment of relative prices, increasing value of litas, increases of administered prices and changes in taxation. 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 steadily increasing thus fuelling domestic prices and appreciation of REER index. 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 8). 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.

37. The CBA on the contrary was the factor which reduced inflation. 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.

38. There are a lot of factors, which may influence inflation level in near future. 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 depend 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.



Source: IMF Working Paper 02/127

39. While 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, price stability in medium term is more disputable however. CBA as such do not jeopardise price stability. The problem of achieving price stability prior expected date of EMU accession (2007) may arise if government would protract structural and budgetary reforms. For instance, it is calculated that, if restructuring in energy sector was delayed, prices would go even higher than without reforms. Another example is health-care system, where there are no reforms yet, and “shadow” expenditures for health-care grow every year. 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

1. Pre-re-pegging period

40. 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.

41. 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.

42. According to one of them, the 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.

43. 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.

44. 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.

45. There were also some more arguments for transparent and clear re-pegging procedures (see Alonso-Gamo, Fabrizio, Kramarenko, and Wanga). 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

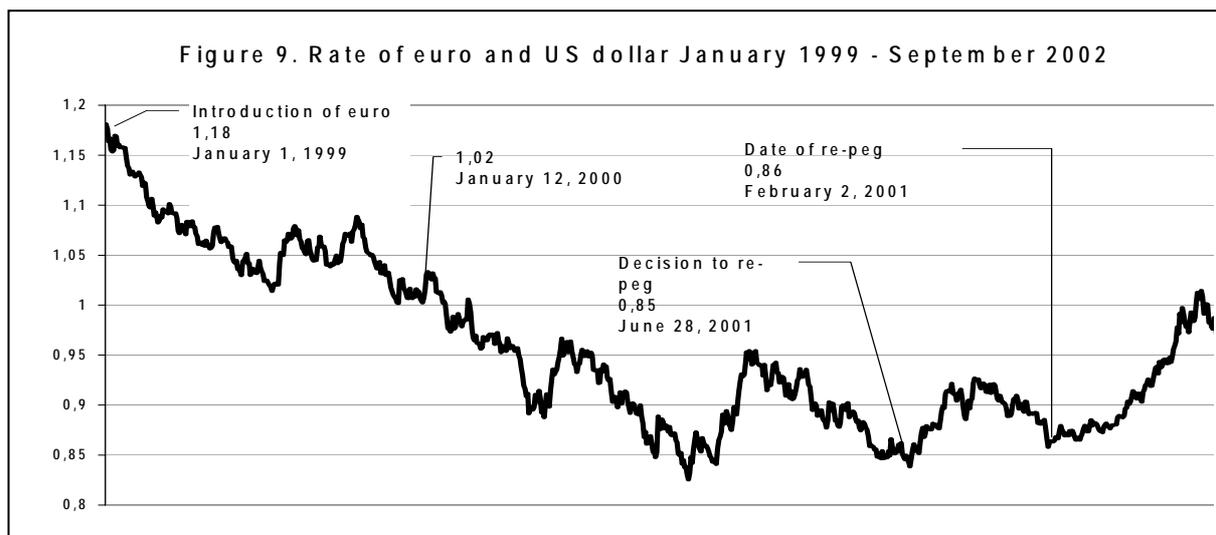
in public debate, it was thought that announcing in advance the details and timing of the re-pegging would be the best way to reassure the public and reduce uncertainty and speculations.

46. 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 February 1, 2002.

2. Post-re-pegging period

47. Seemingly the main problem of re-pegging was that just prior to re-pegging US dollar appreciated against the euro (Figure 9) 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.

48. 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.



Source: Reuters

49. 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 evaluated their preparation as medium or poor.

50. 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 export and import 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.

51. 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 central bank and 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, and current achievement of the Maastricht criteria 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 strategy of re-pegging, when the date and procedures concerning the re-pegging were elaborated in advance and the central bank refrained from changing the said date notwithstanding the market condition, created favourable and equal conditions for all market participants to prepare for the shift of the reserve currency in due time. The market participants are generally satisfied by clear and transparent procedures of re-pegging and public confidence in the CBA with the new reserve currency continues to be strong.
- There are no persuasive economic arguments against replacement of litas with euro prior Lithuania's membership in EU and EMU.

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