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NON-INTEREST CURRENT ACCOUNT SUSTAINABILITY IN CENTRAL AND EASTERN EUROPEAN (CEEC) AND BALTIC COUNTRIES

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Abstract:

The problem of current account imbalances is especially present in Central and Eastern European and Baltic transition countries. The main goal of this paper is to assess sustainability of non-interest current accounts in these countries in the last decade and give projection simulations in the medium-term (five-year period) using the approach of Milesi-Ferretti (1996). Subsequently, the aim of the paper is to determine the sustainable levels of the non-interest current account in transition countries and compare it with actual levels. Research results indicates unsustainability of non-interest current account in most of CEE and Baltic countries in the medium term, while the situation is somewhat better with included net inflows of foreign direct investments.

Key words: current account sustainability, non-interest current account, MFR approach, transition countries
JEL Classification: F32, F41, P20

1. Introduction

A transition economy or transitional economy is an economy which is changing from a centrally planned economy to a free market economy. Virtually all transition countries have been involved in the process of financing the productive investments in order to adapt the structure of their market systems. Process of transition in Central-Eastern European and Baltic countries has started in the early 1990-ies. Main characteristics of the process of transition in these countries envolved liberalization of economic systems, macroeconomic stabilization, restructuring, privatization and legal and institutional reforms. The levels of domestic savings in these countries were lower than required investment, the difference was compensated throughout external borrowing which led to a rapid increase in the deficits on current account of these countries. The increase of deficits on the current account of Central-Eastern European and Baltic transition countries during the 90s of last century has led to concern regarding the sustainability of deficits and the impact on the macroeconomic position of these countries.

Current account balance is one of the major factors when assessing country's external position. It records the inflow and outflow of goods and services, net factor income and net transfer payments. The net factor income includes stocks and investment in the form of

interest or dividend. If country's current account is in suficit, it indicates higher production than consumption and vice versa if country's current account is in deficit it indicates that production is lower than consumption. Country with a surplus on current account usually have positive merchandise trade balance. Current account deficits over 5% of GDP should be closely monitored and can be unsustainable for economy in the long run, especially if the deficits are financed with short-term debt or foreign exchange reserves. Some analysts define sustainable levels of current account for CEEC countries with hard pegs or currency board arrangements in the magnitude of 5-9%. It can be said that what really matters is not just the size but rather the source of the current account deficit. The main goal of this paper is to assess sustainability of non-interest[94] current accounts in Central and Eastern European and Baltic countries in the last decade by giving projection simulations for the medium-term (five-year period) using the approach of Milesi-Ferretti (1996). The paper is structured in a way that gives an overview of empirical researches on the sustainability of current account in the second chapter, lays out the research methodology and key assumptions in the third chapter and assesses medium-term sustainability of non-interest current account of the transition countries in the fourth chapter. In the final part of the paper concluding observations were presented.

2. Empirical Literature on the Sustainability of the Current Account Deficits

Economic theory has not yet reached agreement on the uniform definition of the current account sustainability. Various economists have proposed various definitions for the sustainability of current account deficits. Sustainability can be defined as a state that can be maintained at a certain level in the long-run. So current account sustainability can be defined as a state of current account that can be maintained in the long run without the need for drastic policy changes or without leading to a crisis. Studies for evaluation of the current account sustainability in the economic literature were mostly based on one of the approaches for adjustment of the balance of payment[95]. There are no simple rule that can determine whether the current account is sustainable or not. The sustainability of current account balance presents a valuable indicator for investors and holders of economic policy about an economic development and macroeconomic position of the country. Short-term current account deficits, which are causing the relocation of capital to areas with higher productivity of capital, are not inherently negative. Long-term current account deficits act to increase the foreign indebtedness of the country which is one of the main causes of financial crises in the world[96]. A large number of Central European and Eastern European transition countries have experienced significant fast-growing current account deficits at the end of the 90ies. The cause of that were under-developed financial systems, managing foreign exchange regimes with the aim of controlling inflation which led to a significant real currencies appreciation of these countries (Roubini and Wachtel (1998)). These authors identified three major factors that cause an imbalance in the current accounts of the transition countries. These are the gap between savings and investment, significant real domestic currency appreciation and underdevelopment of country's banking and financial systems.

The most important approach of the sustainability of current account deficit in the literature is the intertemporal solvency approach developed in the 1980s (Sachs (1981), Obsfeld and Rogoff (1995), Ghosh and Ostry (1995), Milesi-Ferretti and Razin (1996)).

[94] The term *NICA* (eng. *Non-Interest Current Account*) is a relatively new concept in economic literature and is rarely used in reference to the term of current account balance.
[95] Elasticity approach, monetary approach, portfolio approach and intertemporal approach
[96] This is particularly evident during the economic crisis of the 90s of the last century when such deficits are usually financed with short-term capital inflows (Dulger and Ozdemir (2005)).

The concept of intertemporal solvency requires that the present discounted value of future trade surpluses must be at least equal to or greater than the present value of external debt, which indicates a country's ability to repay its external liabilities. Intertemporal approach to the analysis of sustainability of current account deficit is based on the concept in which the current account is seen as a result of a dynamic relationship between domestic savings and investment, government spending, interest rates and other factors. Solvency condition also stipulates that foreign debt can increase until the rate of economic growth is greater than the increase in real interest on foreign borrowings.

Milesi-Ferretti and Razin (1996, 1997, 1998, 1999) follow on the initial work of Sachs and examine various indicators of sustainability for the group of developed industrial countries and emerging markets such as exchange rate policy, trade openness, development and stability of the financial system and levels of savings and investment in the country. They define current account sustainability as the condition where the budget constraint is met without a drastic change in private sector behavior or policy shift. On the other side current account is unstable if there is no need to drastically change current government policy. They conclude that it is not easy to empirically determine the exact threshold of viability after which the current account is showing signs of recovery.

Roubini and Wachtel (1998) indicate that the most important factors when assessing the sustainability of current account are the structure of the current account, the difference between savings and investment in the country, correlation between government budget balance and balance of current account (and their impact on country's economic growth), real exchange rate appreciation, international reserves, foreign debt and other factors.

Calderon *et al* (2000) examine the empirical links between current account deficits and a broad set of economic variables proposed in the literature. Key findings of their analysis state that current account deficits in developing countries are moderately persistent, a rise in domestic output growth generates a larger current account deficit, increases in savings rates have a positive effect on the current account, shocks that increase the terms of trade or cause the real exchange rate to appreciate are linked with higher current account deficits.

Zanghieri (2004) formulates a simple theoretical framework for the sustainability of current account under budgetary constraints using the results for constructing a medium-term growth projections of external debt. He points out that a deficit created by a reduction of savings is much more worrying than a deficit caused by an increase of investments. Another valuable statement is that the foreign direct investments are the most appropriate instrument of external financing in comparison with, for example, short-term debt instruments.

Aristovnik (2005, 2006, 2006a) examines the current account determinants on the sample of 17 transition countries. Using the approach of Milesi-Ferretti and Reisen investigates whether the problem of high current account deficits of selected transition countries is a source of macroeconomic destabilization The results of the analysis showed that almost all transition countries can maintain higher levels of current account deficit except Hungary, Macedonia, Moldova, Romania and the Baltic countries. He concludes that if deficit of current account exceeds the limit of 5% as a share of gross domestic product, then the problem of sustainable external deficit can appear.

Didik, N., Gligorov, V. (2007) analyses current account deficit sustainability in Bosnia and Herzegovina. The results of the analysis has shown that if the exports and the external debt

dynamics continued their current trends the economy should have no problem with sustaining its external imbalance. The main vulnerabilities of the economy on the other hand comes from export weaknesses and fiscal sustainability.

Hlivnjak, S. (2007) explores what sustainability of current account deficits means for Bosnia and Herzegovina in the context of its economic development and accession to the EU. Empirical analysis of the sustainability of the persistent trade deficits in BIH was conducted using an equilibrium exchange rate approach. The main finding is that BIH current account sustainability is not threatened by exchange rate misalignment, thus there is no need to adjust the peg.

Simeonov, K (2007) argue if current account sustainability depends largely on the choice of exchange rate regime or not. According to Simeonov some analysts claim that countries with hard peg and currency board arrangements are much more vulnerable to external shocks. Their fixed exchange rates against the euro prevents them from using policy instruments e.g. monetary policy and exchange rate policy instruments. Other analysts claim that the exchange rate regime is not the important factor when assessing current account sustainability and highlight other factors like the level of capital inflows or stability of financial institutions.

Galinec (2008) investigates current account sustainability in the case of Croatia. The main goals of the paper was to analyze Croatian external indebtness and balance of payments developments, to identify determinants with the most significant impact on current account developments in Croatia during the 1995-2005 period and to estimate levels of current account sustainability within short and long term using the Milessi-Feretti and the Reisen approach. Short-term and long-term levels of current account sustainability were estimated as well as "transition" levels of current account balances required to reach desired levels of external debt and international reserves.

Dumitru, I, Dumitru, I. (2009) assesses the sustainability of current account in Romania by estimating its structural component, based on an inter-temporal perspective. The most important result of the paper is that the main drivers of the current account deficit in Romania, as well for other transition countries of Europe, are the economic convergence factors.

3. Methodology

The theoretical framework of sustainable current account balance used in evaluating the sustainability of current account balance CEEC and Baltic countries is based on the approach of Milesi-Ferretti and Razin (1996). This approach has roots in the intertemporal approach satisfying the budget constraints under which the sustainability of current account balance depends on the solvency of the state[97], ability to service debt and the willingness of foreign creditors to loan capital. Milesi-Ferretti and Razin use this framework in identifying the important factors that affect the solvency of the country and the sustainability of current account balance. The model starts with the relation (1) according to which the current account balance is equal to the difference between savings and investment in the country:

$$CA_t \equiv F_t - F_{t-1} = Y_t + rF_{t-1} - C_t - I_t - G_t = S_{pt} + S_{gt} - I_t \qquad (1)$$

[97] The economy is solvent if it is able to generate future trade surpluses required to repay existing debt.

where CA = current account balance, F = foreign debt[98], Y = gross domestic product, r = world interest rate (assumed for simplicity to be constant), C = private consumption, G = government current expenditure, S_{pt} = private savings , S_{gt} = government savings and I = total investment (private and public).

The definition of solvency which states that the value of external debt must be less than the present discounted value of future trade surpluses is of limited practical value because it depends on future trends of variables. However, one can perform a simple solvency condition under the assumption that all the macroeconomic variables, as s share in gross domestic product, are constant. This assumes that the interest rate and the rate of change of real effective exchange rate are constant. If we take into account these assumptions, the relation (1) can be rearranged to:

$$CA_t \equiv s_t p_t^* F_t - s_{t-1} p_{t-1}^* F_{t-1} = p_t (Y_t - C_t - G_t - I_t) + i^* s_t p_{t-1}^* F_{t-1} \tag{2}$$

where s = nominal exchange rate, p = domestic GDP deflator, p^* = foreign BDP deflator and i = world nominal interest rate.

After dividing the relation (2) with the nominal gross domestic product we get the relation (3):

$$f_t - f_{t-1} = tb_t + \frac{(1+r) - (1+\gamma_t)(1+\varepsilon_t)}{(1+\gamma_t)(1+\varepsilon_t)} f_{t-1} \tag{3}$$

where f = foreign debt as a share of GDP, tb = trade balance as a share of GDP, ε = rate of real appreciation of the domestic currency and γ = real GDP growth rate.

Suppose that the economy is in steady state in which the private and government consumption, investment and external debt are constant as a share of GDP presented by the relation (4):

$$tb = 1 - i - c - g = -\frac{(1+r) - (1+\varepsilon)(1+\gamma)}{(1+\varepsilon)(1+\gamma)} f \tag{4}$$

In our model in the process of evaluation of medium-term current account sustainability of the transition countries will be used the modified approach of Milesi-Ferreti and Razin presented by the relation (5). It shows non-interest current account balance relative to GDP $nica_1$ depending on the total gross external debt ted, world real interest rate on foreign debt r^*, rate of real economic growth γ and rate of real appreciation of domestic currency ε. Modification to the MFR approach is using the variable of non-interest current account $nica$ displayed as a share of gross domestic product instead of the variable tb which presents current account of balance of payment in the original model[99].

[98] Variable used in the original model was net foreign assets, however, for the simplicity of the analysis and availability of data in our model we use variable an external debt in accordance with the sustainability of the external debt presented by the International Monetary Fund (IMF (2002)).

[99] According to Aristovnik (2006), who is refering to Doisy and Hervé (2003) and Zanghieri (2004), when calculating a sustainable current account balance we should take into account only the non-interest component of current account.

$$nica_1 = 1 - i - c - g = -ted * (r^* - \gamma - \varepsilon) \quad (5)$$

where $nica_1$ = non interest current account as a share of GDP , i = investment as a share of GDP, c = private consumption as a share of GDP, g = government expenditure as a share of GDP, ted = gross foreign debt as a share of GDP, r^* = real interest rate on foreign debt, γ = real GDP growth rate and ε = rate of real appreciation of the domestic currency.

Greater domestic consumption relative to national income is only possible when a country is a net debtor to abroad. Since most of the countries in transition are net borrowers on international capital markets, to maintain a stable share of gross external debt to gross domestic product is possible only with the existence of the surplus on current account, assuming default probabilities based on interest on foreign debt. Maintaining a higher ratio of gross external debt to gross domestic product is possible with the help of higher rates of economic growth, borrowing at a lower world real interest rates and increasing real appreciation of domestic currency.

Taking into account net foreign direct investment (FDI) relation (6) is obtained:

$$nica_2 = 1 - i - c - g = -ted * (r^* - \gamma - \varepsilon) - fdi \quad (6)$$

where $nica_2$ = non interest current account as a share of GDP with calculated net foreign direct investment[100] and fdi = net foreign direct investment as a share of GDP.

4. Sustainability Assessment of non-interest Current Account in CEEC and Baltic Countries

Sustainability assessment of non-interest current account in CEEC and Baltic countries can be divided into two separable analysis. First analysis includes sustainability assessment of non-interest current account in CEEC and Baltic countries in the period between 2001 to 2005 and 2006 to 2010 and uses methodology of research described in the previous chapter, respectively relations (5) and (6). More precisely, the aim of the first analysis is to determine the sustainable levels of the non-interest current account balance in regard to the existing value of the gross external debt, real interest rates on foreign debt, real GDP growth and real appreciation of domestic currency. Next step in the analysis is to determine and explain differences between the sustainable and actual levels of non-interest current account. For this purpose time-series data for variables of interest are constructed for the period between 2001 and 2010, which are converted and displayed in the form of five-year averages of variables for the period between 2001 to 2005 and 2006 to 2010. Second analysis includes projections of non-interest current account indicators in the period between years 2011 and 2015. Countries included in the analysis are Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania Slovakia and Slovenia[101].

[100] Doisy and Herve (2003) argue that the significant share of the balance of payments imbalances in the transition countries were financed by the net flows do not increase the foreign debt of the country (foreign direct investment) and when calculating sustainable level of current account we should include this type of financing.

[101] The analysis includes new EU member countries during the fifth enlargement in 2004 and 2007. The Republic of Croatia is still not a member of the European Union, but is expected to join during 2013.

The variables used in the analysis are:

- Gross external debt as a share of gross domestic product (ted)
- World real interest rates on external debt (r^*) - obtained by adjusting the nominal interest rate on foreign debt (i^*) and the difference between the rate of inflation in each transition country $(\inf_{DOM})$ and the euro area $(\inf_{EUR})$
- Real economic growth rate (γ)
- Interannual change in the real effective exchange rate, increase in the index indicates real appreciation of domestic currency (ε)
- Net foreign direct investment as a share of gross domestic product (fdi)
- Current (actual) level of non-interest current account as a share of GDP $(nica_{act})$ obtained by adjusting the current account balance for interest payments on foreign debt.

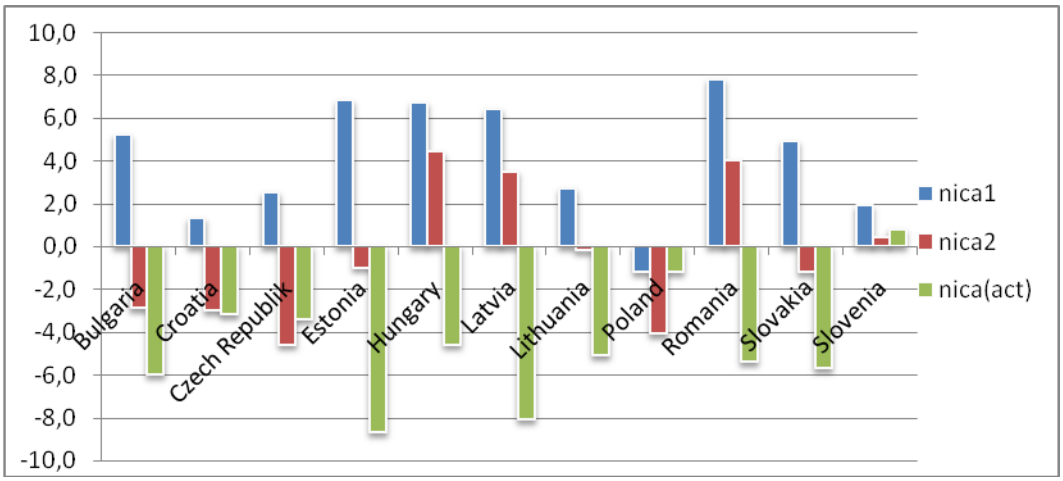
Data on variables are aggregated and available from the EUROSTAT website and reports of the International Monetary Fund. In tables 1, 2 and 3 (in Appendix) are presented input variables for the medium-term sustainability assessment of non-interest current account in CEEC and Baltic countries (averages 2001 to 2005 and 2005 to 2010 and projection averages up to year 2015). All variables are expressed as an average relative shares of growth percentages in five-year period. Negative values represents negative growth rates or negative trends in variables. Results of medium-term sustainability assessment and projection of non-interest current account for CEEC and Baltic countries are presented in the table 4 (in Appendix). Two indicators of non-interest current account sustainability $(nica_1)$ and $(nica_2)$ were calculated and presented as averages of five-year periods. Comparison between sustainable and actual levels of non-interest current account for CEEC and Baltic countries (averages 2001 to 2005 and 2006 to 2010 in percentage of GDP) are presented in figures 1 and 2.

From Figure 1 we can see that the average sustainable levels of indicator $(nica_1)$ in the period between 2001 to 2005 were higher than the actual levels $(nica_{act})$ except in the Polish case, where they were equal and amounted at -1.2%. It can be concluded that average non-interest current account in the period between 2001 and 2005 is not sustainable in CEEC and Baltic countries except Poland. Real currency appreciation was present in all countries except Latvia (-0,5 %) and Poland (-2,3 %). The highest average annual real appreciation of the currency had Hungarian forint (7,5 %) and the Czech koruna (7,3 %)[102]. When looking at the real rate of economic growth it can be seen that all countries have experienced positive average economic growth rates. The highest rates of real economic growth were recorded in the Baltic countries; Latvia (8,1 %), Lithuania (7,6 %) and Estonia (7,5 %). Lowest rates of economic growth were recorded in the Czech Republic (3,7 %), Slovenia (3,5 %) and Poland (3,0 %). The increase in external debt during the period between 2001 and 2005 was present in all countries due to constant deficits on current accounts of these countries. All countries have had a positive average real interest rate on foreign borrowing except Romania[103]. The actual level of non-interest current account $(nica_{act})$ was negative in all countries except Slovenia which has maintained an average growth rate of 0.8%.

[102] Real appreciation of domestic currency impact on reducing the burden of the gross external debt because for the same amount of liabilities in foreign currency we need to allocate less funds in local currency.

[103] Romania had a very high average inflation rate of about 18.7% on annual basis which is significantly higher than the average euroarea rate of inflation which amounted at 2.2%.

Figure 1: Comparison between sustainable and actual levels of non-interest current account for CEEC and Baltic countries (averages 2001 to 2005, in percentage of GDP)

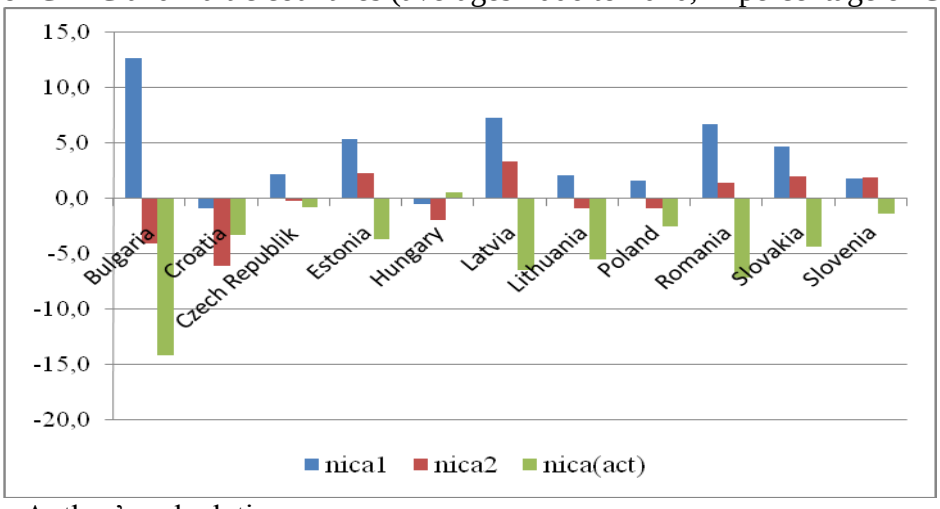


Source: Author's calculations

If in the analysis were included net foreign direct investments, situation is somewhat better. In that case sustainable medium-term levels of indicator ($nica_2$) were present in three transition countries: Czech Republic, Poland and Slovenia. Poland and Slovenia had a lower average level of net foreign direct investment (2,7 % and 1,6 %) than the Czech Republic (7,1 %) which stalls alongside Bulgaria and Estonia with 8,2 % and 7,8 %.

From Figure 2 it can be seen that the average levels of indicator ($nica_1$) in the period between 2006 and 2010 were higher than the actual levels ($nica_{act}$) except in the Hungarian case, where the sustainable level of non-interest current account (-0.5 %) was lower than actual level which amounted to (0,6 %). Real currency appreciation was present in all transition countries. The highest average annual real appreciation of the currency had Romanian leu (7,5 %), Bulgarian lev (8,1 %) and Slovakian koruna (7,6 %). On the other hand, the smallest real appreciation of the currency can be seen in the case of the Polish zloty (0,5 %), Hungarian forint (0,9 %), Lithuanian litas (1,1 %) and Croatian kuna (1,2 %). All countries except Latvia with 0,1 % had a positive average annual real economic growth rate.

Figure 2: Comparison between sustainable and actual levels of non-interest current account for CEEC and Baltic countries (averages 2006 to 2010, in percentage of GDP)

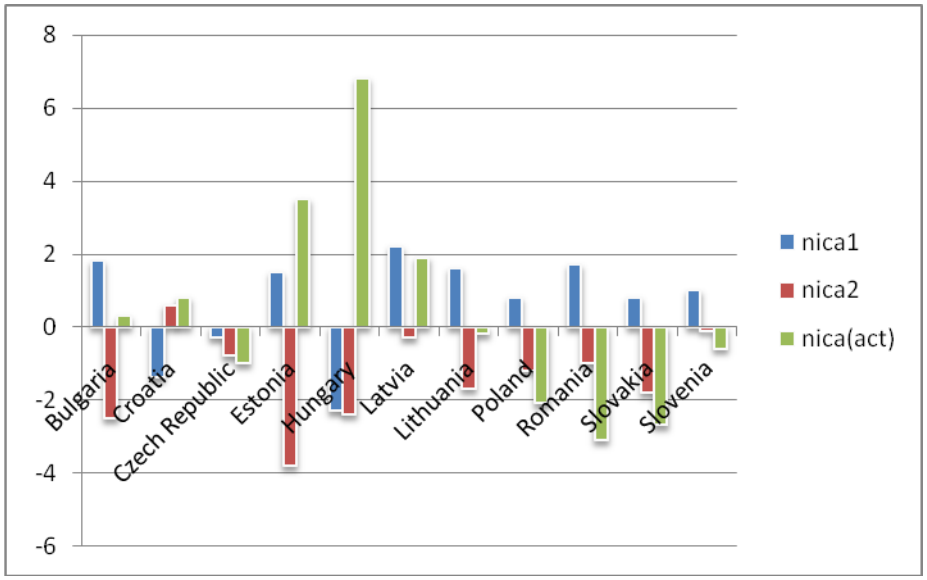


Source: Author's calculations

The highest rate of real economic growth was recorded in Slovakia (4,8 %) and Poland (4,7 %). Due to the global economic crisis that began in 2008, average rates of real economic growth in CEEC and Baltic countries countries in the period between 2006 and 2010 were lower compared to those in the period between 2001 and 2005. The increase in external debt during the period between 2006 and 2010 was present in all countries due to constant deficits on current accounts which have increased the average level of external debt in comparison to the previous five-year period. The increase in external debt has also contributed to the unsustainability of non-interest current account. If we consider the cost of foreign capital, most transition countries has had a positive average real interest rate on foreign borrowing except Bulgaria (-2,0 %), Lithuania (-2,0 %), Latvia (-1,9 %) and Romania (-0,8 %). All CEEC and Baltic countries have had high average inflation rates ranging from 5,2 % to 6,8 % which is significantly higher than the average of euroarea inflation rates which amounted at 1,9 %. The actual average level of non-interest current account ($nica_{act}$) was negative except in the case of Hungary which has maintained an average growth rate of 0,6 %. If in the analysis are included net foreign direct investment, sustainable medium-term levels of indicator ($nica_2$) were present only in Croatia and Hungary.

Input variables for the second analysis are given in table 3. Results of the second analysis are presented in the figure 3 and table 4. Second analysis compares sustainable and projected levels of average non-interest current account for CEEC and Baltic countries in the period between years 2011 and 2015. First step in the analysis is to evaluate each country's macroeconomic position, second step is to present five-year projection trends and third step is to assess sustainability of non-interest current account in projected period.

Figure 3: Comparison between sustainable and projected levels of non-interest current account indicators for CEEC and Baltic countries (projection averages 2011 to 2015, in percentage of GDP)



Source: Author's calculations

Bulgaria has been hardly hit by the global economic crisis but a modest turnaround took place in 2010. Growth has returned to the economy, combined with improved fiscal discipline which should be maintained. The outlook for the next five years is positive giving average growth rate of 3,7%. Government has made important spending cuts in the public sector to limit spending and deficit levels in the future. Projected average value of

non-interest current account in five- year period is 0,3% and is not sustainable. On the other side, with included FDI inflows projected levels are sustainable in the medium term. EU accession negotiations for Croatia have successfully been completed and Croatia is most likely to join the European Union in July 2013. But macroeconomic performance of the country remains weak with negative growth rate in 2010 and expected growth rate of 2,2% in projected period. The economy is projected to recover very slowly and is facing serious competitiveness problems which require implementation of deep structural reforms. Projected average levels of indicators are sustainable in the medium term with and without included foreign direct investments.

The post-crisis recovery in Czech Republic has stalled in 2011. The reasons are deteriorating external conditions, low exports and weak domestic demand which has been affected by fiscal consolidation. Government policies should maintain macroeconomic and financial stability enhancing economic growth. Implementation of structural reforms is critical to boost potential growth. Non-interest current account indicators are not sustainable in the five-year period.

Estonia was severely impacted by the economic crisis but has been on a solid recovery path with projected growth of 7,5% in 2011. Strong growth was primarily driven by exports, inventory cycle and euro adoption in January 2011 which has also boosted investor and consumer confidence in Estonia. Strong fiscal discipline is provided through fiscal consolidation programme. Following good economic perspective, current account indicators are also sustainable in the medium term.

Hungary's recovery remains weak in comparison with others countries in region. Economy grew by 1,1 percent in 2010, while expected average five-years growth amounts at 1,9%. But economy has benefited from stronger demand for its exports in the eurozone which led to optimistic projection for growth of projected non-interest current account indicator (6,8%). Hungary needs to maintain fiscal consolidation plan in order to preserve investor confidence and stimulate higher foreign direct investments in economy.

Latvian economy suffered one of the sharpest economic downturns in the region but the economy has emerged from recession. In year 2010 country showed steady growth especially in exports to Germany and Sweden which was offset by weaknesses in government consumption and investment. The recovery still remains fragile. Government priority is to maintain fiscal consolidation policy and improve competitiveness. Projected average non-interest current account is not sustainable in the medium term but foreign direct investment show significance in that case.

Lithuania has experienced steady recovery in 2010. Government adopted a consolidation package designed to improve fiscal performance based on improved tax compliance and administration. Unemployment is still a major problem which restrains private demand. Lithuania is on the path to euro adoption and must comply to Maastricht criteria. A national reform programme has been developed to target technology intensive production through stimulating research and development. Projected average economic growth in five year period is 4,2% and for foreign direct investment 3,3%.

Poland is on an impressive growth path, GDP grew by 3,8 percent in 2010 which is also projection for average growth in the next five years. Poland remains attractive to foreign direct and portfolio investors. Implementation of the announced fiscal consolidation strategy is vital for sustaining investor confidence amid broader concerns over sovereign exposures. Infrastructure is being upgraded through the rapid absorption of EU structural

funds. On the other side loose fiscal policies has led to widening in the current account deficit. Accordingly, projected value of indicator *nica* is not sustainable in the five-year period.

Economy of Romania struggle to recover in 2010 following the deep recession in 2009. Real gross domestic product (GDP) decreased by 1,3 in 2010 percent despite a strong performance in exports which increased by more than 20 percent. The economy is expected to remain stable but grow slowly. Economic outlook in the projected period looks optimistic with average growth rate of 2,9%. Fiscal reforms are needed in the field of social security, pension and health care system. Following negative trends on current account, projected indicators of non-interest current are not sustainable.

Economic growth in Slovakia in 2010 was 4 percent and was primarily driven by explosion of net exports. Projected average growth is 4,2% up to 2015. Little concerns are giving recent drop in foreign direct investment inflows but Slovakia remains an attractive destination for FDI. Government has made rapid progress in lowering the fiscal deficit, there is also a need to keep administrative costs low and labour market flexible. Projected levels of non-interest current account indicators are lower than the sustainable levels.

Slovenia was hardly hit by the recession in 2009 when GDP experienced one of the sharpest contractions (8 percent) within the European Union. In 2010 growth reached just 1,3 percent and economic recovery remains slow by regional standards. Domestic demand remains very weak with potential risks to external shocks. Projected economic growth is slow with 2,3% in five-year period. Consequently, projected non-interest current account indicators are not sustainable.

Results of the second analysis indicate unsustainability of indicator $(nica_1)$ in most CEEC and Baltic countries except Croatia, Estonia and Hungary. Inflows of foreign direct investments facilitate the current account deficit burden. In that case sustainable levels of indicator $(nica_2)$ are also present in Bulgaria, Latvia and Lithuania.

5. Conclusion

Theoretical framework of sustainable non-interest current account which was used in evaluating the medium-term sustainability for CEEC and Baltic countries was based on the approach of Milesi-Ferretti and Razin (1996). The aim of the paper was to determine the sustainable levels of the non-interest current account in these countries in contrast to the existing value of the gross external debt, real interest rates on foreign debt, real GDP growth and real appreciation of domestic currency. Next step in the analysis was to explain differences between the sustainable and actual levels of non-interest current account. Two sets of analysis were presented and explained.

Results of the first analysis indicate unsustainability of the average non-interest current account in CEEC and Baltic countries in the period between 2001 and 2005 except in the case of Poland. If in the analysis were included net foreign direct investments, situation is somewhat better. In that case sustainable medium-term levels of indicator $(nica_2)$ were present in three transition countries: Czech Republic, Poland and Slovenia. Average levels of indicator $(nica_1)$ in the period between 2006 and 2010 were higher than the actual levels $(nica_{act})$ except in the Hungarian case. Once again, if are in the analysis are included net foreign direct investments, sustainable medium-term levels of indicator $(nica_2)$ were present only in Croatia and Hungary. Results of the second analysis indicate

unsustainability of indicator ($nica_1$) in most CEEC and Baltic countries except Croatia, Estonia and Hungary. Inflows of foreign direct investments facilitate the current account deficit burden. In that case sustainable levels of indicator ($nica_2$) were also present in Bulgaria, Latvia and Lithuania.

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APPENDIX

Table 1: Input variables for the medium-term sustainability assessment of non-interest current account for CEEC and Baltic countries (averages 2001 to 2005)

	ε	*ted*	γ	r^*	*fdi*	i^*	$\inf_{dom}$	$\inf_{EUR}$	$nica_{act}$
Bulgaria	0,025	0,679	0,053	0,003	0,082	0,036	0,055	0,022	-0,060
Croatia	0,019	0,628	0,045	0,043	0,043	0,046	0,025	0,022	-0,032
Czech Republic	0,073	0,380	0,037	0,043	0,071	0,040	0,020	0,022	-0,034
Estonia	0,032	0,704	0,075	0,013	0,078	0,026	0,035	0,022	-0,087
Hungary	0,075	0,662	0,041	0,013	0,023	0,049	0,059	0,022	-0,046
Latvia	-0,005	0,836	0,081	0,010	0,029	0,028	0,041	0,022	-0,081
Lithuania	0,027	0,462	0,076	0,047	0,029	0,034	0,009	0,022	-0,051
Poland	-0,023	0,450	0,030	0,027	0,028	0,032	0,027	0,022	-0,012
Romania	0,036	0,345	0,057	-0,127	0,038	0,037	0,187	0,022	-0,054
Slovakia	0,053	0,530	0,047	0,008	0,061	0,044	0,059	0,022	-0,057
Slovenia	0,004	0,558	0,035	0,001	0,016	0,035	0,056	0,022	0,008

Source: Author's calculations

Table 2: Input variables for the medium-term sustainability assessment of non-interest account for CEEC and Baltic countries (averages 2006 to 2010)

	ε	*ted*	γ	r^*	*fdi*	i^*	$\inf_{dom}$	$\inf_{EUR}$	$nica_{act}$
Bulgaria	0,081	0,994	0,027	-0,020	0,167	0,026	0,065	0,019	-0,141
Croatia	0,012	0,875	0,010	0,026	0,052	0,039	0,031	0,019	-0,033
Czech Republic	0,061	0,430	0,027	0,030	0,024	0,037	0,026	0,019	-0,008
Estonia	0,057	1,122	0,002	0,003	0,031	0,033	0,049	0,019	-0,037
Hungary	0,009	1,159	0,001	0,010	0,014	0,044	0,053	0,019	0,006
Latvia	0,068	1,384	-0,001	-0,019	0,039	0,031	0,068	0,019	-0,064
Lithuania	0,011	0,759	0,014	-0,020	0,030	0,013	0,052	0,019	-0,055
Poland	0,005	0,565	0,047	0,013	0,025	0,024	0,030	0,019	-0,025
Romania	0,112	0,570	0,026	-0,008	0,054	0,035	0,062	0,019	-0,071
Slovakia	0,076	0,612	0,048	0,035	0,027	0,040	0,023	0,019	-0,043
Slovenia	0,014	1,036	0,019	0,014	-0,001	0,024	0,030	0,019	-0,013

Source: Author's calculations

Table 3: Input variables for the medium-term sustainability assessment of non-interest current account for CEEC and Baltic countries (projection averages for 2011 to 2015)

	$\varepsilon*$	*ted*	γ	r^*	*fdi*	i^*	$\inf_{dom}$	$\inf_{EUR}$	$nica_{act}$
Bulgaria	n/a	0,836	0,037	0,015	0,043	0,024	0,029	0,020	0,003
Croatia	n/a	0,957	0,022	0,037	0,020	0,047	0,030	0,020	0,008
Czech Republic	n/a	0,478	0,032	0,039	0,005	0,035	0,016	0,020	-0,010
Estonia	n/a	0,847	0,043	0,025	0,053	0,038	0,033	0,020	0,035
Hungary	n/a	1,293	0,019	0,037	0,001	0,050	0,033	0,020	0,068
Latvia	n/a	1,302	0,039	0,022	0,025	0,018	0,016	0,020	0,019
Lithuania	n/a	0,682	0,042	0,019	0,033	0,035	0,036	0,020	-0,002
Poland	n/a	0,660	0,038	0,026	0,020	0,032	0,026	0,020	-0,021
Romania	n/a	0,700	0,029	0,005	0,027	0,025	0,040	0,020	-0,031
Slovakia	n/a	0,654	0,042	0,030	0,026	0,040	0,030	0,020	-0,027
Slovenia	n/a	1,170	0,023	0,014	0,011	0,015	0,021	0,020	-0,006

Source: Author's calculations

** Data for ε are not applicable because CEEC and Baltic countries are in the euro adoption process*

Table 4: Medium-term sustainability assessment of non-interest current account for CEEC and Baltic countries

	Averages 2001-2005		Averages 2006-2010		Projection averages 2011-2015	
	$nica_1$	$nica_2$	$nica_1$	$nica_2$	$nica_1$	$nica_2$
Bulgaria	5,2	-2,9	12,7	-4,0	1,8	-2,5
Croatia	1,3	-3,0	-0,9	-6,1	-1,4	-3,4
Czech Republic	2,5	-4,6	2,2	-0,2	-0,3	-0,8
Estonia	6,8	-1,0	5,4	2,3	1,5	-3,8
Hungary	6,7	4,4	-0,5	-1,9	-2,3	-2,4
Latvia	6,4	3,5	7,3	3,4	2,2	-0,3
Lithuania	2,7	-0,2	2,1	-0,9	1,6	-1,7
Poland	-1,2	-4,1	1,6	-0,9	0,8	-1,2
Romania	7,8	4,0	6,7	1,4	1,7	-1,0
Slovakia	4,9	-1,2	4,7	2,0	0,8	-1,8
Slovenia	1,9	0,4	1,8	1,9	1,0	-0,1

Source: Author's calculations

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