CURRENT ACCOUNT DEFICIT ANALYSIS. THE PATTERN BASED ON ADJUSTING COST OF INVESTMENTS

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Abstract: The present paper deals with the issue of current account deficit, trying to offer a series of answers to the debates regarding its recent evolution in Romania. In the former part it is presented the level of current account deficit and the evolution of its main components within the period 2001-2005. The latter part tries to quantify the main factors that may influence and affects the level of current account deficit, using a pattern based on adjusting investments cost.

Keywords: current account deficit, commercial balance, income balance, models, investment adjustment cost.

1. Introduction

There has been noticed lately, more and more often, a wide series of debates of specialists regarding the interpretation of macroeconomic figures. There is a certain consensus concerning the forecasting of inflation, economic growth, exchange rate and interest, but there are major problems while interpreting their figures, respectively sustainability of economic growth, current account deficit and disinflation process. Moreover, the specialists` opinions do not only differ regarding the further economy evolution, but also regarding the actual condition of the Romanian economy.

Thus, we can say that the debates are between two distinct groups: the optimistic and the pessimistic persons. For instance, conform to the report of The Ministry of Public Finances regarding the macroeconomic situation; the current account deficit will be steady within 2007-2010. The above-mentioned report specifies, "the sustainability of current account deficit will be ensured mainly by direct investments, capital transfers and portfolio investments (almost 80%) "[40]. At the same time, the same report specifies that the impact of commercial deficit on current account will be partially compensated by the surplus of net current transfers. The current account deficit for 2006 is estimated at 8.6% of GDP, and for 2008 and 2009 it is estimated to be steady, at 8.7% of GDP, whereas in 2010 it is estimated to reach the level of 8.6 of GDP again. On the other hand, a series of analysts pay attention to the unforeseeable aspects of some expensive corrections at the level of economic growth and current account deficit.

[40] www.mfinante.ro

We consider that these different opinions follow the fact that we still have a strong untaxed economy which highly contributes to the increase of the life standard in Romania, Thus, an economic increase within the next years with a similar rhythm as that of 2006 will have a high pressure on intern resources, manifesting through high prices of work force and of some assets. Moreover, the fact that we save less at the internal level but we spend (invest) more will lead to a deeper external imbalance. This needs more foreign investment every year, namely internal expenses are paid by foreign economies.

2. The level of current account deficit and the evolution of its main components

The issues regarding the size and sustainability of current account deficit have deepened lately, mainly because of the maintenance of a high deficit for 2005 comparatively with the previous years, as well as the forecasting for 2006, which indicate the same deficit.

So far, the problem of current account deficit has been solved by the coverage of the foreign investments, but now we consider that the situation will change within 2 years. Therefore, if for 2006 the coverage level is estimated at 82%, for 2008 it is estimated at almost 40%. Which is the explanation? Once Romania is integrated in the European Union, the investors' interest in Romania will minimize because the domains of maximum productivity will decrease and the salaries will reach little by little the level of the ones in the EU.

The data published by NBR for 2005 shows that the current account deficit of Romania was of 8.7% of GDP, comparatively with 8.4% in 2004, these two being the years with maximum values after 1989. (Figure 1). However, these levels are superior to the average current account deficit for the period 1994-2003, respectively 4,96%.

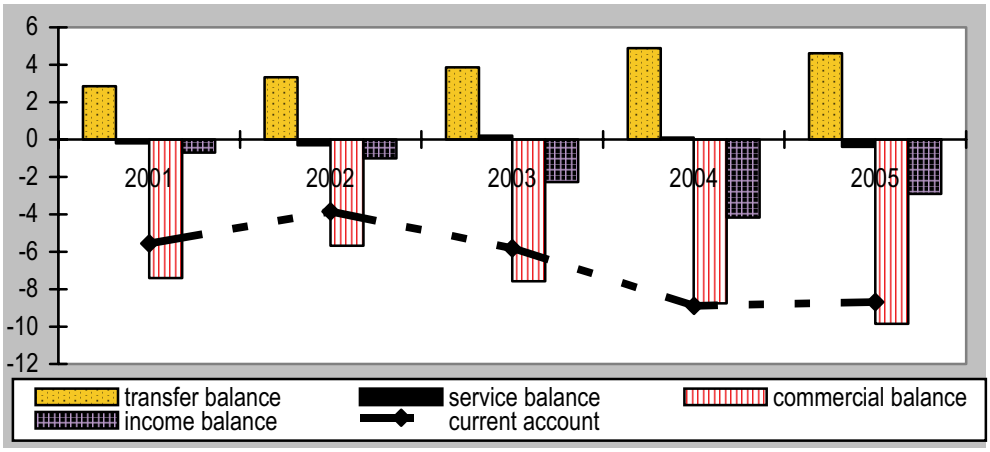

Figure no. 1: The level and annual composition of current account deficit (% of GDP) 2001 -2005

Source: NBR, www.bnro.ro

Comparatively with the deficits registered in other countries in the center and east of Europe, as well as in the Baltic Countries, current account deficit in Romania is average, superior to those of Czech Republic, Poland and Slovenia, but inferior to those

of Leetonia, Estonia or Bulgaria. Moreover, comparing the actual deficit of Romania with that registered in the 10 countries which adhered to EU in 2004m for the last 2 years before integration its image is mixed as well. Respectively, if some countries (Estonia and Hungary) registered the maximum deficit level within 1995-2003, others (Malta and Slovenia) registered the minimum level within the same period. (Table 1)

Table no 1. The level of current account deficit (% of GDP) in the countries – new members of EU

	2002	**2003**
Czech Republic	-5.78	-6.39
Estonia	-10.18	-12.14
Hungary	-7.23	-9.10
Latvia	-6.75	-8.30
Lithuania	-5.07	-6.87
Poland	-2.62	-2.19
Slovakia	-8.07	-0.87
Slovenia	1.50	-0.30
Malta	0.29	-5.77
Cyprus	-4.39	-3.36

Source: Bloomberg

The growth of current account deficit of Romania beginning with 2004 is explained by the structural internal changes of economy and by the catching up process. In addition, the real appreciation of national currency contributes too. Despite all this, the exports maintain their robust growth rate, the appreciation effect being limited also following the high exchange degree between different product groups.

To the evolution of the current account balance have contributed, to different extents, all the four above mentioned components: commercial balance, services balance, incomes balance and current transfers balance.

As we can notice from figure 1, the contribution of services balance deficit was almost insignificant, and commercial balance deficit was the main cause of the deepening current account deficit.

We think that the real appreciation of the national currency in the last years (following the appreciation in nominal terms of the currency), under the conditions of reducing consumer price index rate, has not had a significant impact on the exports level, whose curve is still ascendant. The negative impact of appreciation of the national currency was partially annihilated by performing both import and export operations (by the same economic agents), as well as by the distribution of exports and respectively imports into different groups.

The negative balance, with a tendency of increasing of incomes balance is mainly reflected by the evolution of the incomes balance from foreign investments. Respectively, the statistic research regarding direct investments of non-residents in Romania has completed this indicator conform to IMF Methodology, including the re-invested profit within the flow of incomes from direct foreign investments. It has implicitly determined a rise of current account deficit, and at the same time an increase of the surplus of capital and financial account, thus the net position being unchanged.

We have to notice that the increase of the reinvested profit represents an acknowledge of Romania's investing attractivity, its positive effects being perpetuated.

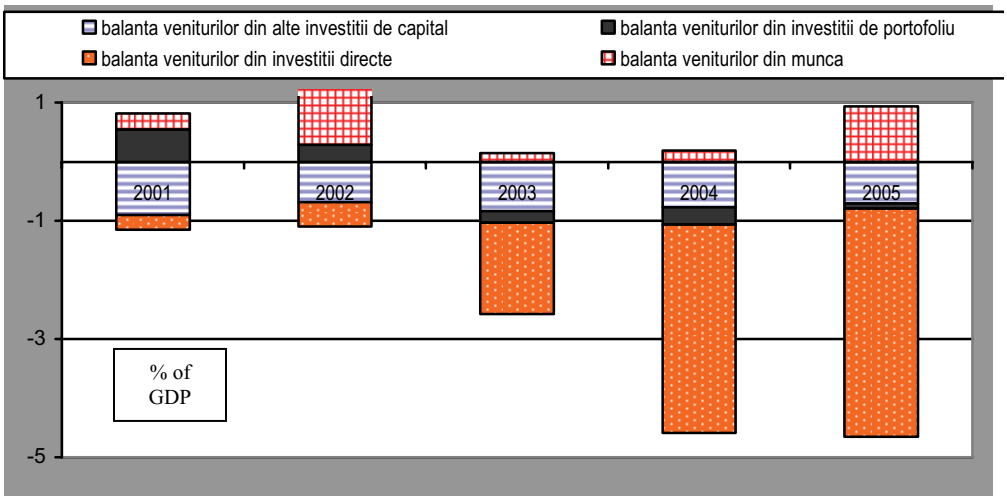

Figure no. 2. Income balance

Source: NBR, www.bnro.ro

At the level of **running transfer balance,** the dynamics is given by the evolution of running transfers towards other sectors, whose surplus has represented over 95% of the total surplus of the running transfers balance in the last two years.

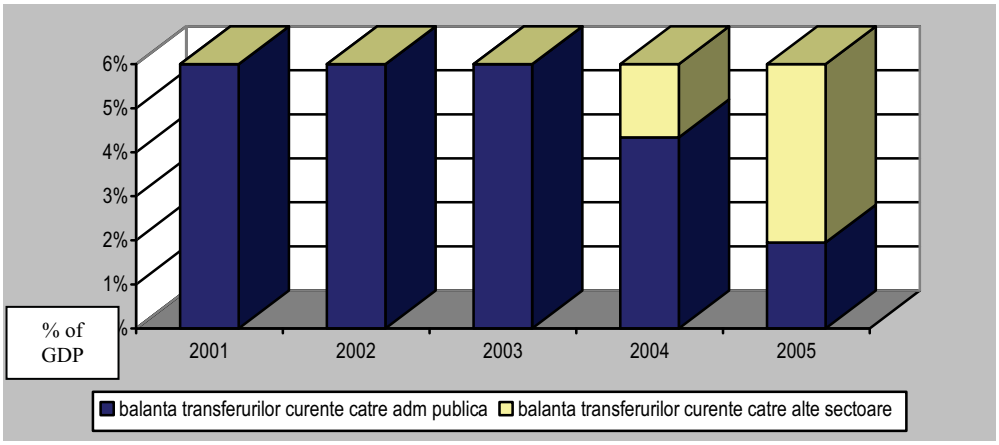

Figure no. 3. Running transfers balance (% of GDP)

As shown in figure 3, the data due to 2005 indicate that the running transfers towards other sectors represent 4,53% from GDP (gross domestic product). We consider that the potential causes of this evolution are: on the one side, the increase of the funds sent in the favor of the residents in foreign countries, and on the other side, the methodology recently approved by NBR which imposed the revision of the estimation coefficient of the funds transferred from abroad in the favor of the residents through unofficial means, generating an important increase of the percentage of those funds in the total of running transfers towards other sectors.

3. Estimating the impact factors of the running account deficit with the help of the model based on the investment adjustment cost

As economy is not an exact science it is difficult enough to estimate what level the running account deficit should reach in order to not become dangerous. From the experience of other countries, and on the basis of the economic theory, we estimate that, as long as the deficit is financed on the basis of direct investments, the probability of a crisis diminishes.

In this paragraph we will try to estimate the factors, which influence the running account deficit, riding on a model, which uses the cost of direct foreign investments adjustment.

3.1. The model description

The model lies in the analysis of the productivity exogenous impacts on the investments and on the running account in a model of inter-temporal optimization developed by Glick and Rogoff (1992). Although the model analyses separately the effects of a global productivity impact and of an impact typical of a country, only the specific impacts are considered to have an important effect on the running account . Based on this hypothesis we considered that productivity is totally determined by factors specific to the country (it is not correlated with the global productivity). In the model [41], is the case of an open economy, with small proportions in which the consumers can borrow at the rate of the interest without risk (considered to be steady) and pursue the maximization of the utility under the circumstances of the budgetary constraints presented at point (1.1).

$$B_{t+1} - B_t = rB_t + Y_t - C_t - I_t \qquad (1.1)$$

B represents the stock of net external assets, r represents the rate of the international interest, Y is a measure of the national production (real GDS), C the internal consumption, I the volume of the investments. Financing the running account deficit is achieved on the basis of the accumulation of net external assets: $\Delta_{B_{t+1}} = CA_t$

The offer follows a Cobb Douglas type function and includes the cost of capital adjustment:

$$Y_t = A_t K_t^{\alpha}\left[1 - \frac{\theta}{2}\left(\frac{I_t^2}{K_t}\right)\right] \qquad (1.2.)$$

A represents the entire productivity of the factors, K is the stock of physical capital, defined by the relation:

$$K_t = K_{t-1}(1-\delta) + I_t \qquad (1.3)$$

The firm will choose the investments flow which will maximize the topical value of the future profits, and from the optimization the following relations will result:

[41] See M. Copaciu, I. Racaru, Echilibrul extern al României-abordări cantitative şi calitative, Banca Natională a Romaniei, Caiete de Studii, october, 2006

$$I_t \cong \beta_1 I_{t-1} + \eta \sum_{s=1}^{\infty} \lambda^5 \left(E_t A_{t+s-1} \right) \qquad (1.4.)$$

Where $0 < \beta_1 < 1$, $\eta > 0$ şi $0 < \lambda < 1$ and

$$Y_t = \alpha_I I_t + \alpha_K K_t + \alpha_A A_t \qquad (1.5.)$$

Where $\alpha_1 \langle 0$ because of the cost of capital stock adjustment.

Productivity will follow a self-aggressive type process:

$$A_t = \rho A_{t-1} + \varepsilon_t, \qquad \text{with } 0 \le \rho \le 1 \qquad (1.6)$$

Under the circumstances of a permanent productivity impact, using relation 1.4., the investments become :

$$\Delta I_t = (\beta_1 - 1) I_{t-1} + \beta_2 \Delta A_t \qquad (1.7)$$

Where $\beta_1 - 1 < 0$ şi $\beta_2 = \eta[\lambda / (1 - \lambda)] > 0$;

The coefficients marks result from the hypotheses regarding the investment flow. By deriving the equations of consumption and of the unit product in accordance with the factors productivity and replacing in relation 1.1. we obtain the relation for the running account deficit:

$$\Delta CA_t = \gamma_1 I_{t-1} + \gamma_2 \Delta A_t + r CA_{t-1} \qquad (1.8)$$

Where

$\gamma_1 \cong (\beta_1 - 1)(\alpha_I - 1) + \alpha_K > 0$ and

$\gamma_2 \cong \beta_2 [(\alpha_I - 1)(1 - \beta_1) - \alpha_K] / (1 + r - \beta_1) < 0$

3.2. Results

By the model definition it is expected that a permanent impact of the productivity specific to a country to have greater effect on the running account deficit than on the investments as a result of time difference necessary to the adjustment of capital, as well as of the modification of expectations regarding the increase of the permanent income relative to the current level (the savings decrease, the consumption increases).

Nevertheless this model confirms the sustenance of the present running account deficit, but the performance level of the model is rather low.

4. Conclusions

The elements of the running account balance have different influences on the balance: if at the level of current transfers balance the impact is favorable in medium term (in view of the increasing profitable influence of the Romanian workers' transfers abroad), the income balance has a relative neutral impact.

The negative effect induced mainly by the adaptation of the methodology to the international standards and the inclusion of the re-invested profit, is compensated by the positive effects that the reinvestment of those profits have on the national economy. The negative impact comes from the commercial balance, its structure has elements with mainly negative influence, but the currency risk and the exchange rate are diminished by the big proportion of the commercial exchanges of groups of products.

Seen as a difference between the gross unit savings and investments, the running account is positively influenced by the private investments, which are

necessary within the context of reorganizing the real sector and the convergence process. This conclusion is valid if the ex *ante* decisions of making those investments are optimum ex *post*, fact which seems to be sustained by important indicators at the level of the financial system.

REFERENCES

1. Copaciu, M Racaru, I — Echilibrul extern al Romaniei, abordari calitative si cantitative, BNR, Caiete de studii, nr.18, octombrie, 2006
2. Glick, R Rogoff, K. — Global versus country specific productivity shocks and the current account, NBER Working Paper nr. 4140, 1992
3. Gosh, A.R. Ostry, J.D — The Current Account in the Developing Countries: A Perspective from the Consumption Smoothing Approach, The World Bank Economic Review, Vol. 9, 1995
4. Halpern, L. Wyplosz, C. — Economic Transformation and Real Exchange Rates in the 2000s: The Balassa-Samuelson Connection, UNECE 2001/1 Chapter 6
5. Milesi-Ferrretti M., Razin — Sustainability of Persistent Current Account Deficits, NBER Working Paper, nr. 5467, 1996
6. Wooldridge, J.M — Econometric Analysis of Cross Section and Panel Data, MIT Press, 2001
7. Zanghieri, P — Current Account Dynamics in new EU members: Sustainability and Policy Issues, CEPII Working Paper, 2004