

CONSIDERATIONS ON THE MACROECONOMIC IMPACT OF STRUCTURAL FUNDS ABSORPTION. THE HEROM MODEL

Assoc. Prof. Anca BĂNDOI, PhD
Lect. Oana GHERGHINESCU, PhD
University of Craiova

The effectiveness of Romania's integration into the European Union (EU) implies the attraction of net benefits that the European single market provides to the Romanian economy, under the status of a member country, taking into account the commitments and obligations in the short, medium and long term. In the new integration framework, the need to increase capacity to absorb structural funds in the period 2008 - 2013 is a prerequisite for increasing economic competitiveness and sustainable development in Romania.

Lesson from the new EU member states showed that in the first years of integration, there is a low capacity of absorption of EU structural funds, due to the lack of experience and the difficulties in developing eligible projects, and to the non-conformity with Community requirements in terms of procedures and financing. Romania is no exception in this regard. Furthermore, it should be borne in mind that in 2007 and 2008, the first years of integration, absorption capacity in Romania was much lower in comparison with new EU member countries part of the 2004 wave of accession. In order to assess the growth potential offered by the structural funds, on the one hand, and to mobilize efforts to effectively access the financial instruments, on the other hand, C. Ciupagea and R. Voinescu (2007) attempted to quantitatively and qualitatively assess the macroeconomic impact of structural funds for 2007-2013, based on the HERMIN-type model for the

Romanian economy - the HEROM model (C. Ciupagea 2000). This type of model has been used in almost all EU member states.

It is noteworthy that the above-mentioned model HEROM considers two basic scenarios, imagining economic growth in Romania "with structural funds" or "without structural funds". The scenario "without structural funds" does not take into account the EU structural funds provided in Romania during 2007 - 2013, being limited to pre-accession funds only. The second scenario "with structural funds" is based on the assumption that the structural funds, scheduled in the 2007-2013 National Development Plan, are absorbed at a 100% rate. The HEROM model starts also from the assumption that after 2013, structural funds will be reduced to zero, which will cause a "shock" to the Romanian economy, with adverse effects for a period of several years.

Ciupagea and Voinescu conclude that the average annual economic growth would be higher by 2 percentage points for the scenario "with structural funds", compared with the scenario "without structural funds" during 2007-2013, but drew attention to some phenomena which may adversely affect these expectations. In both scenarios, particularly in the one with the absorption of structural funds, the demand for labor force in service sectors and manufacturing industry records a higher rate of growth compared with the supply of labor force at the Romanian economy

level, which can lead to strong constraints in some subsectors concerning the development potential in Romania in the next decade. The study highlighted that in the absence of action to increase mobility and quality of the human factor and in case of reduction of disparities between regions, it is possible that the growth rates achieved by Romania to be lower than expected, due to limitations imposed by the insufficient supply of labor force, both in quantitative and qualitative terms.

According to the results of the HEROM model, as an effect of a guaranteed financial injection of structural funds in the Romanian economy (as specified in the National Strategic Reference Framework 2007-2013), GDP will be higher by 15-20 percent in 2013. As a consequence of the suppress of structural funds financing in 2014, for the scenario "with structural

funds", there will be a reduction in GDP growth over a period of 2-3 years, after which it will be resumed so that the "differential " of the average annual growth rate between these two scenarios will be reduced to less than one percentage point according to the 2007 - 2020 span forecasts.

In conclusion, according to the final results of the model, GDP per capita in Romania in 2020 would represent 60-65 percent of the EU-27 average, in the case of the "without structural funds" scenario, and 75-80 percent for the scenario "with structural funds".

Starting from the econometric model quoted for Romania, we will try to assess the macroeconomic impact of structural funds on the import and export growth in Romania, as the percentage difference between the values obtained in the scenario "with structural funds" and "without structural funds".

Table 1. The difference between the growth rates of imports and exports of Romania in the scenario "with structural funds" and "without structural funds"

Year	Import	Export
2007	0.20	0.65
2008	0.20	0.51
2009	6.18	0.29
2010	6.49	0.15
2011	8.67	0.88
2012	7.94	1.75
2013	5.66	2.34
2014	6.96	2.64
2015	3.96	3.53
2016	0.85	3.53
2017	1.11	4.67
2018	1.59	6.20
2019	2.20	6.90
2020	2.44	6.74

Source: C. Ciupagea, Voinescu R. *Evaluarea impactului fondurilor structurale în România [Assessing the impact of structural funds in Romania]*, Quarterly Bulletin, National Commission for Prognosis, No. 2 / 2007, p. 28

The period 2014-2016 will register negative growth differences or reductions, as a result of suppressing structural and cohesion funds financing. On the other hand, it was found that structural funds have a greater impact on

exports than on imports growth, which is a positive phenomenon for strengthening economic growth in Romania.

The presentation of the HEROM model hypotheses and results aims at drawing proposals to refine its analytical

and predictive capacity in order to continue research in this area of debate.

Undoubtedly, the HEROM model demonstrated its usefulness as a reference point and prospective argument. In fact, it lies at the basis of certain projections of the National Strategic Reference Framework agreed between Romania and the EU. However, we want to make some clarifications in order to increase the analytical capacity and accuracy of prediction of results, from the desire to be closer to the realities of the integration process, taking into account the experience of other countries, older members of the EU, in accessing structural funds and also the need for greater skill in using the extrapolation method.

We believe that the assumptions for the scenarios "without structural funds (zero EU funds) and "with structural funds" (100% absorption rate) are useful for emphasizing the importance of EU financing in Romania's economic growth. However, the lack of plausibility of the magnitude of the positive macroeconomic effects in Romania, as a result of structural funds, should consider the following:

- Neither the hypothesis "without structural funds" nor the one of "structural funds 100%absorbed" is realistic or even probable, with a high degree of certainty, since the experience of other countries has shown that the absorption rate varies from one period to another, so that the

two "extreme" alternatives were not checked in any situation;

- Based on the previous experience of other countries, we consider that the scenarios with different degrees of absorption rates in the period 2007 - 2013, or with an average absorption rate for the entire period would be more appropriate.

Based on the results of the two extreme scenarios (complete absorption of funds or total non-absorption), we will try to assess the impact of EU financial assistance on imports and exports in circumstances where differences in absorption rate increase from one year to another are recorded, in version 1 - pessimistic, and version 2 - optimistic (Table 2). After 2013, scenarios "with "and " without structural funds" reveal a stronger impact on exports compared with imports, but the significance of the impact is difficult to forecast, given that it is possible to adopt other two scenarios, namely "with" or "without Monetary Union integration". This obviously complicates the way of identifying the influence of various factors and determining their direct and prospective impact. In addition, international financial crisis triggered in 2008, could have a serious impact in the sense of reducing the EU budget, the structural funds default. Countries that joined the single currency area, for example, experienced an inflationary pressure in the first two years.

Table 2. The percentage difference between import and export values due to different rates of absorption of structural funds

Years	Version 1, pessimistic			Version 2, optimistic		
	Absorption rate (%)	Imports (%)	Exports (%)	Absorption rate (%)	Imports (%)	Exports (%)
2008	30	1.86	0.15	35	2.17	0.18
2009	40	2.47	0.12	48	2.96	0.14
2010	45	2.92	0.07	59	3.83	0.09
2011	60	5.20	0.52	79	6.84	0.69
2012	70	5.55	1.22	89	7.06	1.56
2013	80	4.53	1.87	95	5.38	2.22

Source: Calculations based on data from Table 1

Another factor of influence, which could have an impact on the efficiency of projects implemented under the structural funds and on their capacity of absorption is the direct foreign investment portfolio, taking into account the significant decrease in foreign currency receipts from privatizations, as well as the growing importance of "green field" investments with foreign capital participation.

In assessing the effectiveness of structural funds in the period 2008-2020, external debt sustainability over the medium term and long term should also be taken into account. Their projections to 2013 indicated a serious emphasis on the lack of sustainability, which has already been sanctioned by international rating agencies (see the country rating of Romania, downgraded by Standard & Poor's, in October, and by Fitch in November 2008, just as a result of the accelerated growth of trade and current account deficits, which will make more difficult the access of our country to international capital markets and will significantly increase borrowing costs,

affecting the value and sustainability of external debt).

- Finally, the macroeconomic impact of structural funds should be correlated with the efficiency of investments and ICORE (incremental capital output ratio coefficient), while the injection of such funds can be considered an unqualified investment. So far (but also during 2008-2013, according to projections made by the National Commission on Prognosis), the ICORE coefficient recorded an upward trend, which means a greater investment effort to get an additional production unit. The development of the HEROM model also in the foreign trade field takes into account the specific variables of different groups of imported and exported goods, the issue of import competition, and in particular, of immiserizing exports, with lower added value, which usually implies exports of primary (natural) resources with a disruptive impact on the environment, which implies a low eco-efficiency on medium and long term.

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