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A cost-benefit assessment of Romania's accession to European Union

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European Institute of Romania

Study no. 12

A Cost-Benefit Assessment of Romania' s Accession to European Union

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1. Introduction

The breakdown of the communist regimes in Central and Eastern Europe and the firm option of these states to adopt the free economy model represented an unprecedented event in the world history. Starting with 1990, most Central and Eastern European countries, including Romania, have seen the European Union as a lever and the European integration process as their chance for a new economical launch.

To acquire the status of EU member in the foreseeable future is an absolute priority of the Romanian politics. In the past 14 years, with almost no exception, the governance programs were defined according to the EU accession imperative, based on the fulfillment of the Copenhagen accession criteria. In the past 14 years, the decisions adopted by the national authorities have significantly influenced the “road map”, the date and the conditions of Romania’s accession. Up to year 2000, Romania came to grips with the circumstances of taking decisions of major importance for its future: dependent upon the actual results of the negotiations during the pre-accession period, which started on the 1st of January 2000, the potential “road maps” which Romania follows in its race for efficiency, competitiveness, development and stability are different, and the de facto social-economic evolution has varied, is varying and will vary according to the road map. Beyond the inherent prospective incertitude, there is one fact to be noticed: the start up of accession negotiations emphasised the political will in favour of Romania’s integration and strengthened our Romanian people’s belief that we will become again “full-fledged” European citizens.

1.1. The general framework of European Union enlargement

In Europe, the beginning of the ‘90th was a less usual one. Events that took place in this period changed the history. The idea of a new enlargement towards the East and Centre of Europe was not denied, on the contrary, it was perceived as a chance to accomplish “*an Integrated Europe from Atlantic to the Urals*”, as the French President de Gaulle spoke years ago. The enlargement idea was presented especially at the level of statements and political discussions; although the position of the European officials was, on principle and at declaratory level, in favour of the idea of a new enlargement, the positions of the member states were not identical and often conflicting, especially in respect of the actual conditions and the date of accession. However, there was a consensus that the extension towards the East will be possible, but in a far, undefined future, after the candidate countries will have fulfilled a number of well defined criteria on which the European Union was to pronounce itself in 1993, at the European Council in Copenhagen. What has been understood in the following years was the necessity to systematically review the set of integration criteria, which led to a step by step shifting of debates and negotiations, from the quantitative monitoring sphere to the qualitative evaluation one.

During the ‘90th, the European Union was itself the protagonist of significant transformations. At the beginning of the 90th, the restraint optimism, and in some cases

the reticence of the EU members to immediately pronounce themselves on the acceptance of Romania and other Eastern Europe countries as full-fledged members, seem to be fully legitimate as for the objective matter of fact. On the one hand, the European Union was at the end of the transition period of the second and third enlargement wave. The protagonists of these enlargements towards the South were Greece (1981), Spain and Portugal (1985-1986), countries having a development level inferior to the community average level and whose integration in the group structures proved to be costly. Also, the reunification of Germany at the beginning of the 90th requested financial efforts not only on the German state's side but also from the European group. After this "costly" experiment, the restraint showed by the countries in the Union to accept countries inexperienced in a real market economy (as Romania and other countries in the Eastern Block), with low economic development levels, in most cases lower than even the development level of the newest member of the group, seems to be legitimate.

Concurrently, the economic market position in the first half of the decade, unfavourable to the EU member states, is another element that generated a certain restraint of these countries towards a new enlargement. One should not understand that the idea of enlargement was rejected, should only understand that its accomplishment was postponed for a date when the candidate states will have met all the required conditions and the European Union will have been prepared and capable to cope with new financial efforts in order to support a new enlargement. The fact that the European Union is an adept of the enlargement idea, but an enlargement through the acceptance of few members with high development level and economic potential, can be proven by the fact that the discussions for the third enlargement wave, towards the North, finalised in 1995 with the accession of Sweden, Finland and Austria, were in full evolution at that time.

On the other hand, this restraint at the idea of Eastward enlargement must be also understood in terms of the priorities and challenges that the European Union is confronted with. At the beginning of the 90th, the attention of the EU authorities and member states was focused on other aspects of the European integration. The group was in an advanced stage of accomplishment of the single domestic market, being preoccupied to solve all the problems resulting from this new integrationist stage. Concurrently with the completion of the single and concordantly with the ambitious ideas promoted in the treaties of Rome and the Single European Act, the European Union is re-defining its priorities. The materialization of these definitions is retrieved in the Treaty on European Union (Maastricht, 1992)¹. The EU actions are directed to the deepening of integration and this fact is obvious along the '90th. During this whole decade, the efforts of the member states were directed to the creation of the necessary conditions for applying single sectorial policies, emphasising the interdependences and meeting the convergence criteria set out in the Maastricht Treaty as essential premises for the fulfillment of the extremely ambitious objective of the group, the accomplishment of the Economic and Monetary Union. The short term costs related to all these projects for greater European cohesion were already estimated as high, the consequence being an increase in the share assigned to the costs-benefits criteria for the assessment of the political decisions that were to follow.

Eastward enlargement was and still is a subject for debate in the European Union environments. There wasn't any previous enlargement wave to receive such attention. The

¹ Agnew, J. A. 2000: How Many Europes? The European Union, Eastward Enlargement and Uneven Development. Progress in Human Geography, 2000, p. 1

phenomenon may be explained. The conditions and premises of the Eastward enlargement are completely different from the ones related to any of the previous enlargements.

Firstly, the Eastward enlargement supposed accession, in a short period of time, of a very large number of states: 11 Eastern and Central European countries (among which Romania), plus Cyprus and Turkey, with a peculiar situation compared to the eleven ones. This fact implied particular efforts from the EU side, including: the process of monitoring the candidate countries' performances regarding the accomplishment of the Copenhagen criteria, the simultaneous start up of the accession negotiation with the 11 countries (an extremely difficult process due to the distinct dynamics and the specific problems of each of the candidate countries), additional financial efforts needed to support the transition process and the pre-accession programs of the candidates.

Secondly, the Eastward enlargement was a very special one, in respect of the particular situation of the candidate countries. The profile of Romania and of the Eastern countries that joined the EU in May 2004 is featuring countries in transition, where a full-grown market economy is missing and the experience of a democratic political system with only 14 years of operation is often considered to be insufficient. For this reason and as opposed to the other enlargements, there was established a series of extremely well defined criteria to be met by the candidate states, regardless of the negotiations result, in order to become full-fledged members of the European group.

Thirdly, it has to be mentioned that the Eastern countries are missing the specific experience of participating to integrationist groups. The countries that were subject of the previous enlargement already had the experience of participating to regional groups, most of them being ex-members AELS. Under these circumstances, the European Union suggested for Eastern countries that, before integration, the participation in own integrationist groups would be a useful experience for the candidate countries in respect to the benefits and constraints of the participation in an integrationist group. This is another element of novelty which, even if not substantiated as a requirement or an express condition for accession, denotes the concern of the EU authorities regarding the capacity of Romania and other Eastern Europe states to successfully cope with the requirements of participating in a regional group being in an extremely advanced stage of economic integration.

Fourthly, the basis of this enlargement differed to a great extent from other enlargements. The first EU enlargement wave, materialized through the accession of England, Ireland and Denmark, was mainly based on economic reasons related to the economic potential of the new members and the loosening of competition between these states, outside the group, and the countries inside the European Union. The second wave, materialized through the accession of a number of countries located in the South of the continent, having the development level and economic potential net inferior to the EU, was mainly determined by geopolitical considerations related to the loosening of tension between Spain and England and the consolidation of the Southern flank of NATO. The third enlargement wave from 1995, having as result the accession of Austria, Sweden and Finland, was determined by economic reasons related to the strengthening of the EU economic force, the diminution of competition inside the group and the need to protect and strengthen the competitiveness capacity of the group's participants towards the USA and Japan. The third enlargement wave may be considered the natural effect of the evolution registered in the European Economic Space (set in the 80th between the European Union and AELS, organisation having the other three states among its members).

According to the Treaty of Rome, there are no geographical limits, nor other restrictions that forbid the participation of a state to the EU, the only condition for a candidate state to become a EU member being to share the European values. Enlargement towards the East of Europe is a brand new experience even for the EU which will select its new members from outside AELS (the traditional candidates) and seems to rely on exclusively political and sentimental reasons. In a speech delivered in October 2000, the European Enlargement Commissioner Gunther Veurheugen underlined the uniformity of Europe and the irreversibility of the Eastward enlargement “*the EU enlargement is irreversible... We will not let Europe be divided again by political, ideological or other kind of criteria*” and there are no consistent reasons to deny the access of some countries inside the group: “*How could we say to the nations of Europe who have so recently won through to freedom and self-determination, sorry, the benefits of European integration are reserved for those who happened to be on the "right" side of the Iron Curtain in 1945?*”²

The events that took place in the Eastern Europe in 1990 as well as the steady option of the countries in the Eastern space to join the European structures got the drop on the member states and the EU authorities, so that their reaction was not a quick and well-defined one. The disagreements between the member states with regard to the practical modality of approaching the matter of Eastward enlargement, the changes in attitude towards the candidate countries etc., evident all along the last 10 years, are signals that, in certain circumstances or cases, the EU attitude was not clearly articulated and, to a great extent, this attitude was created “ad hoc” as the process was progressing. The analysis of the period 1994-2004 allows the identification of certain elements which formed the main administrative framework for the EU Eastward enlargement.³

- Candidate countries must accept the *acquis communautaire* in its whole. A standing derogation from any of the *acquis* aspects is not possible;
- The accession negotiations are focused almost exclusively towards the practical aspects of the taking-up the *acquis* by the candidate state.
- The problems arising from the large diversity of an extended integrationist group are solved by creating new instruments that overlap the existing ones, rather than through a fundamental reform that would cut out or dilute the existing inconsistent instruments;
- The new members are integrated in the community institutional structure on the bases of a progressive accommodation of the last one, by the promise of an extended reform following the moment of enlargement;
- The negotiation with groups of states already having close collaboration relationships is preferred;
- Member states are using the enlargement process for the follow up of their own interests and for the externalisation of the internally problems on a joint basis.

A renowned analyst⁴ stated that the Eastward enlargement had generated a large number of approaches and opinions varying from general arguments of economic and

² Günter Verheugen, Member of the Commission responsible for Enlargement; « Enlargement is irreversible », Debate on Enlargement in the European Parliament Strasbourg, 3 October 2000

³ Preston, C., *Enlargement and Integration in the European Union*, London: Routledge, 1997.

⁴ Baun, M: Enlargement. In L. Cram, D. Dinan, and N. Nugent (eds.), *Developments in the European Union*. London: Macmillan, 1999 pag. 269-89; Agnew, J. A. 2000: From the political economy of regions to regional political economy. How Many Europes? The European Union, Eastward Enlargement and Uneven Development. Progress in Human Geography, 2000, pag. 2

political nature in favour/disfavour of the enlargement idea, up to precise arguments related to the fulfillment of a determinate number of well-defined accession criteria, other alternatives for the Eastern countries, like re-orientation towards other groups (CEFTA, European Economic Space) and bodies, NATO and the European Council, not being neglected as preconditions, as a vote of confidence from the occidental countries side, or even as temporary substitutes for the European group. The major change of heart resides in shifting the ground from treating the East of Europe as a whole, a unitary block within economy of the enlargement process, to supporting the idea of a Europe at various speeds and with “various degrees of participation” of the group member states. The shift from the “concentric circles Europe”, under consideration at the beginning of the ‘90th, to an “a la carte” Europe under consideration at the end of the decade, must not be read as an abandonment of the “single Europe” idea, but rather as a possibility of achieving it. One of the most evident and, under my opinion, the most beneficial (for the EU) change of attitude is the shift from approaching the Eastern candidate states as a *compact group* (starting from the premise that they share similar values, history, economic and political characteristics and fifty years of communism shaped a series of similarities which makes them particular as compared to the other EU member states or the previous candidates) to treating each state as a distinct individuality. This more complex approach will offer the European Union a more realistic vision which, in the wake of the enlargement process, will enable the achievement of prevailing positive effects for the two talking partners.

All these elements enforced upon the process of enlargement towards the East of Europe a dynamic varying from one period to another, from one country to another, also attending to the changes of view and approach that occurred in the ‘90th, at the level of each candidate country and the European Union level as well. Among the elements that influenced the EU view upon enlargement and the dynamic of the process, the following three may be considered essential: *the state of preparation of the candidate countries, the implications of enlargement on the community budget and the advanced stage of EU integration (economic and monetary union)*. This last element may be considered determinative, meaning that the accession of the Eastern countries implied the adoption of a large part of the *acquis communautaire*, with impact on the duration of the negotiations and the efforts of the candidates to implement the community provisions; concurrently, due to the high economic vulnerability of the Eastern countries, the costs implied by the assumption of the accession criteria and by the accession to the EU in fact, could not be fully covered by the candidates so that the European Union had to take-over part of these costs. The elaboration of a proper policy with regard to enlargement represented an important challenge for the community decision-makers. The analysis of the dynamic of this process to date is a challenging and useful exercise. The European Union itself was during the 90th the protagonist of significant transformations. The non-existence of a foregoing policy in this field (combined with the clearly different character of the previous Eastward enlargement) imposed a high degree of innovation, creativity and strategic action. In addition, the perspective of an enlargement on such an unprecedented scale put to the issue the entire configuration of the European integrationist demarche, regarding both the institutional structure and the other community policies. Practically, enlargement depends on three **elements**: *the inner preparation of the candidate countries, the inner preparation of the EU and the accession negotiations in fact*.

The framework of Romania's accession to the European Union is a very special one; Romania will join the European Union together with 25 members, after three years from the last enlargement⁵. Such a conjuncture may prove to be sensible in respect of obtaining the consensus of the EU members (and especially of the European citizens, as far as the ratification process of the Accession Treaty by some of the member states implies to consult the people by referendum) and assuming the costs of the new enlargement soon after the previous one. Another element that might influence Romania's accession to the EU is related to the EU view regarding the Eastward enlargement. The end of the '90th was marked by the adoption of a "regional blocks" enlargement view. In this context, one should allow for the possibility of a term shift for Romania's and Bulgaria's accession and for the adoption of the decision to integrate the second enlargement wave in this view of a block accession of Romania, Bulgaria, Croatia and Macedonia (the last two states applied recently for accession to the EU).

Regarding the population's attitude towards accession to the EU, in Romania it is a positive one, this demarche accumulating the support of over 81% of the citizens (Eurobarometer, November 2003). This support is based on a positive attitude towards the European group and on the premises that "the accession to the EU is something good" (Eurobarometer, 2003). Maintaining such an attitude is likely to ensure that citizens will easily accept the costs implied by the EU accession and to restrict the risk of important socio-political disorders. Finally, we will notice that, beyond the political, institutional, cultural and emotional-historical aspects that might form motivations for or against the Eastward enlargement of the EU, the economic aspect is the one that permanently supported the wish for Europe's unification, for the achievement of the fundamental objective of becoming the strongest economy in the world and the largest common consumer market, as well as every aspect of economic nature turned often in barriers in front of the enlargement idea, due to the relative under-developed condition of the new wave of candidate states as compared to the average economic level of the EU. The enlargement in 2004 is not unprecedented in this respect, because it implies the accession to the EU of an additional population of 21% of the current EU population, perfectly comparable with the Southward enlargement stage from 1980, when the EU population increased with 22%. It is true that the relative living standard of the group of 10 states that joint the EU in May 2004 is even lower then the one of the Southern group from 1980, but what makes this enlargement process to seem more risky in respect of the potential costs is the low development degree of the market economy structures and the low knowledge level of the human resources in the sphere of systemic organisational relations that are settled in this type of economy.

2. Methodological approach to the costs-benefits balance regarding Romania's integration in the EU

2.1. The European Union accession conditionality

The participation in an integration group determined a series of transformations of different amplitudes at the participant states' level. These transformations vary in

⁵ the official accession date assumed by the Romanian authorities is year 2007.

amplitude according to the integration status reached by the regional group and may take the shape of institutional and/or content re-assessment of the sectorial policies (*policy making*). In view of the advanced integration stage reached at the European Union level (economic and monetary union) the transformations in adopting the economic policies are visible at the member states level. Essentially, these transformations are the result of transferring the sectorial policy making capabilities from the state member level to supranational level (community bodies), the “European” element becoming at a larger extent part of the *policy making* process at the participant states level. To adopt economic policies where the “European” element becomes dominant means, essentially, to straiten the free scope (to initiate restrictions) in the enunciation and implementation of economic policies by reason of following the common “European” interest. In other words, the participation in the EU assumes that the member states do accept external conditionalities in building the economic policies.

Recently, a full range of special literature was been developed, trying to define and identify the implications of transferring the capabilities of the economic policy area from the state level to the supranational level. The conceptual architecture is based on the empirical studies conducted at the EU member states level. The launched concept is the one of *Europeanization* (Borzel TA, 1999).

The conceptual framework of this project is built on the definition of Europeanization as a “*process of formal and informal formation, dissemination and institutionalization of the rules, procedures, paradigmatic economic policies, know-how and common believes and values defined and reinforced in the decision-making process of the EU, which form the subject of there integration in the decision-making logic, speech, political and institutional structures and national economic policies of the member states*” (Rafaelli, 2001).

The main efforts in the analysis of the “European” conditionalities enforced upon the member states were concentrated at the member states group’s level. The major premise of this theory was that Europeanization consists in a process manifested exclusively at the European Union level. Taking into account the materialization of the EU enlargement efforts⁶, the special literature extended recently the analyses of Europeanization at the candidate states level as well. The analyses presumption is that Europeanization implies the extension of the European governance model to the candidate states (Romania being among these) and affects both the member and the candidate states (Hughes J, Sasse G, Gordon C, 2002). Europeanization affects both member and candidate states in respect of the enforcement of community models, norms and policies which imply substantial re-assessments of the national policies and of the institutional framework. The main Europeanization instrument, in the candidate states case, is the one of European conditionalities imposed for the accession to the EU, these conditionalities being visible mainly as accession criteria (Hughes J, Sasse G, Gordon C, 2002). Romania’s as well as the other candidate states’ accession is conditioned by the conformation to the conditionalities imposed by the four accession criteria:

- Political criteria – to ensure the state of law;

⁶ Accession to the European Union of 10 of the 13 candidate states in 2004

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- Economic criteria – existence of a functional market economy which should allow the candidate state to cope with the competitive pressures and the market forces within the EU;
- Legislative criteria - to assume the *acquis communautaire* in force at the date of accession;
- Administrative criteria – to ensure the stability of institutions and the ability to assume the obligations resulting from the European Union member quality.

Essentially, the European conditionality represents an institutional arrangement, a norm, a behaviour standard which creates a connection between the benefits of belonging to a regional economic group of the EU type, with the conformation to the requirements and principles imposed by the member quality. The European conditionalities generate transformations of institutional nature regarding also the content of economic policies at the member states level, in so far as there are inconsistencies between the norms, the policies adoption framework at national level and the European framework (Hughes J, Sasse G, Gordon C, 2002). For the candidate countries, these adjustments imply costs, and the benefits resulting from the accession to the EU can be registered and maximised in so far as there is a high degree of compatibility/convergence between the policies and institutional framework for the adoption of these policies at national level, on the one hand, and the policies and European institutional model for the adoption of these policies, on the other hand.

The European conditionalities comprised in the Copenhagen accession criteria represent an important vector for the assurance of this convergence. The European accession conditionalities and their implications in terms of cost-benefit are to be analysed not only after Romania attains the European Union member status, but also before the accession. Such an approach is legitimate because the analyses of the transition period in Romania, as well as the studies conducted at the level of other candidate countries, revealed that the economic policies, the reassessments of institutional nature and all strategic objectives of the governments in the respective countries had as single determinant the accession to the EU, which implied steady efforts for meeting the European conditionalities comprised in the Copenhagen criteria. Up to date, one may state that the internally adoption of the European norms and economic policies influenced the pace and direction of the political and economic transformations in Romania, but limited the degree of freedom in the decision-making process and generated a relative degree of dependence (path dependence) of the Romanian authorities upon the community authorities in Brussels (Lățăianu G., 2003).

One of the most important (formal) elements of European conditionality, having evident impact in respect of costs and benefits, is the one expressed by the legislative criterion, namely the assumption of the *acquis communautaire* relevant in the adoption of sectorial policies and with impact on the competitiveness of the Romanian companies. The focus on this criterion – besides the economic one - is justified in this study in terms of the following elements:

- Adoption of the *acquis communautaire* implies adoption of norms and objectives and the adoption of the EU institutional model for the elaboration of sectorial policies, the European element prevailing over the national elements;

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- Adoption of the *acquis communautaire* does not solely imply the transposition in the Romanian legislation of the European regulations, but their implementation is a process that must be also accomplished, virtually prior to the factual accession to the EU, which implies that the accession to the EU will generate costs and benefits, both before and after accession;
- The community *acquis* comprises norms with impact on the competitiveness of Romanian companies, creating new conditions for their business activity.

There is also to be mentioned that this study will not focus on the other two criteria (political and administrative) because most of the conditionalities imposed by these criteria would have existed even in the absence of the EU accession, being requisite to the transition period. The existence and stability of the democratic institutions of the state of law, the assurance of the administrative premises necessary for creating a functional and competitive market economy, are definitive elements of the transition; the transformations induced by the pursuance of these imperatives would have existed in the absence of the European Union accession as well, but the difference resides in the time horizon assigned for their fulfillment (the accession to the EU speeds up this process by the fact that Romanian authorities took on a deadline for accession, namely year 2007). Regarding the legislative criterion, the adoption of the *acquis communautaire*, this one has a direct and evident impact as it imposes the priorities, objectives, content and a uniform institutional framework for the adoption and implementation of the national economic policies, the community interest and model prevailing in this equation. In this context, it is obvious that the conformation with the accession criteria and, by implication, the accession of Romania to the European Union, implies a series of **transformations** at economic and political level.

	<i>Direct impact</i>	<i>Indirect impact</i>
<i>Economical</i>	<ul style="list-style-type: none"> - disposal of the trade exchange barriers - implementation of the community provisions regarding competition (with visible effects on the business environment) - implementation of the CAP tools in agriculture - access to the structural funds 	<ul style="list-style-type: none"> - reorientation of the trade flows - industrial and agricultural restructuring - implications at regional level - accession to the convergence criteria of the UEM (Maastricht)
<i>Political</i>	<ul style="list-style-type: none"> - prevalence of the community law over the national one - direct applicability of the community legislation - modifications of the Constitution and the constitutional statute of the national parliament - representation in and participation to the community 	<ul style="list-style-type: none"> - reorientation of the foreign policy (including trade diplomacy) - modifications in the elaboration and implementation manner of the governmental policies

⁷ Preston, C., *Enlargement and Integration in the European Union*, London: Routledge, 1997.

	decision-making process	
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The aim of present study is not an exhaustive stock taking of the transformations and effects induced by Romania's accession to the European Union but rather their quantification and analyses in terms of generated **costs and benefits**.

It is evident that the institutional, economic and social adjustments induced by the adoption of the community norms and policies are cost generators. Taking into account the manner in which accession criteria are formulated, the administrative criterion respectively (the state's ability to cope with the requirements of being an EU member), and the manner in which the accession negotiations are progressing (negotiations on the eventual transition periods following the factual accession, allocated for the implementation of the *acquis communautaire*), most of the costs associated with the accomplishment of the Copenhagen criteria will concentrate in the period prior to 2007 (the envisage date for attaining the EU member status). The main cost categories directly associated with the accession to the European Union may be grouped as follows⁸:

1. ***Costs related to the adoption of the European norms and policies*** (*acquis communautaire*), in his category being included: costs generated by the institutional building, by the formation of human resources in these structures, costs associated with assuming community objectives of economic policy nature (which, depending on the area's characteristics and/or the time period, may imply high costs on short term, evident in the areas where the short term priorities of the two partners, Romania and the EU, are different) etc. Most of these costs will concentrate in the period prior to the factual accession.
2. ***Costs related to the conformation with and implementation of the standards defined by the European norms and policies*** – there is an attempt to quantify the efforts required for the compliance with the community provisions in the areas subject of the *acquis communautaire*. These costs may arise at institutional level (public authorities) and microeconomic level as well. This category includes costs associated with specific areas like: modernization of the transportation infrastructure, labour and social security standards, consumer protection, quality standards, environment standards etc. In this category are also included the costs associated with the free movement of goods, services, persons and capital⁹. For the most part, these costs will be revealed at microeconomic level and have the ability to affect the competitiveness of the Romanian companies. It is difficult to make the time distribution of these costs (pre and post accession), as long as their materialization will follow the adoption and proper implementation of an European standard in Romania and the implementation of these norms is in different stages, according to the analyzed field (for example, the European environment standards are not totally adopted, periods of over 10 years being required in some cases).
3. ***Costs of assuming the status of European Union member***. These costs will materialize after the accession to the European Union and include the

⁸ The first two cost categories are directly connected to the *acquis* adoption and implementation, the other being being connected to the compliance with the rest of integration criteria, their evaluation being a rather secondary goal to this study.

⁹ regarding the costs related to the insurance of the four freedoms of movement in the relationship between Romania and the EU, before the accession the costs are mainly related to the trade liberalization for industrial products; for the other areas of free movement, the costs will appear after the EU accession (immediately after, or, in some cases, after the transitory period that has been negotiated).

contributions to the community budget, the participation to the community institutions etc. In a small part, these costs may be also marked out prior to the factual accession and comprise Romania's co-financing contributions to the European Union programmes where it is part (ex. Phare, SAPARD, ISPA, Leonardo da Vinci, FP6 program etc.).

4. ***Costs related to the modernization of the Romanian economy.*** The costs included in this category are directly related to the modernization of the production capacities and the enhancement of the Romanian products and services competitiveness in order to face the competitive pressures inside the European Union. To a great extent, these costs are situated, in terms of time periods, prior to the accession date. This cost category includes: costs strictly related to the modernization of the production capacities in the economy sectors (enhancement of the technological level, the quality of products and services etc.); the costs associated with the modernization of production equipment, in order to ensure the compliance with the production, environment, safety and other standards imposed by the European Union are not included here, being revealed in another category of the typology proposed by this study. The costs in this category aim "mandatory investments" for the economic and social development of Romania and it is difficult to clearly differentiate between the modernization costs directly associated with the accession to the European Union and the costs imposed by the transition period.

Most of the costs derive from the existing differences between the institutional structures, the priorities and the content of the economic policies at Romania's level, on the one hand, and the defining elements of the community model, on the other hand. The accession to the EU implies the adoption of this model, the replacement of the national model and, implicitly, costs associated with the adoption/assurance of the compatibility/convergence in this respect. Also, in a sectorial perspective, the greatest part of these costs derives from the low development level of a sector as compared to the EU one, which makes the *acquis communautaire* to seriously affect the sector's competitiveness and to raise the alignment costs through the liquidation of certain companies or sectors which are not able to financially support the transposition of the *acquis communautaire*.

To assess the costs of Romania's accession to the European Union is a difficult step, due to the swift dynamic of the economic, political and social transformations in the European Union. The amendment of certain economic policies, implementation mechanisms or objectives of these policies is possible anytime in the European Union, such a scenario being plausible also due to the fact that the accession on the 1st of May 2004 of 10 countries might be an element likely to create pressures for such adjustments.

At the same time, the positive effects of respecting the European conditionalities, both prior and post-accession, must not be denied. One of the important benefits of Europeanization consists in the financial and technical assistance given by the European Union to Romania with respect to the formation of the legal and institutional framework required for a good functionality of the economy (ex. foundation of the Copy right office, the Competition Council, the custom legislation, the environment standards etc.). Concurrently, the commitment to join the EU and, implicitly, to respect the imposed conditionalities, had a beneficial effect in terms of accelerating the economic reforms and adopting the necessary measures for economic growth and enhancement of the

Romanian companies' competitiveness. The main benefits of Romania's accession to the European Union can be classified as follows:

- 1. *Supplementation and diversification of the financial resources.*** The European Union member status ensures Romania's access to the structural funds and to the cohesion funds. The volume (and implicitly the derived effects) of these fund transfers to Romania cannot be currently assessed, the national financial distribution of the structural funds being subject of the new 2007 – 2013 programming period. Part of these benefits can be set off before the accession's date and it reveals the quantum and positive effects of the input of funds through the pre-accession financial instruments or other instruments and programs developed by the EU for the candidate countries.
- 2. *Benefits resulting from the member status.*** These benefits will arise following the EU accession and are the result of the participation to the single market and the economic and monetary union, of the better support of the national interests through the participation in the EU institutions etc.
- 3. *Acceleration of reforms and support for the transition through the provision of fundamental elements for the definition of the national economic policies.*** The transition from a made to order economy to the market economy has no historical precedent. In these circumstances, along the whole transition period the EU supplied Romania with a model for the elaboration of its economic policies (in view of the accession criteria and the integration will, in most cases this meant the assumption of the respective community objectives and policies in their whole, or the duplication of certain member states' policies). These benefits are difficult to estimate and may take the shape of an abridgement of the transition period. The technical assistance provided by the EU to Romania in different areas is an example of a benefit in this category.

The costs and benefits of the U accession may be also expressed in terms of budgetary impact. The impact on the budget is evident for the following chapters: contributions to the community budget, CAP and structural funds (regional policy).

From the methodological point of view, it is difficult to make a clear difference between the effects of integration and the ones of the transition process. On the other hand, the **winner/loser** dichotomy is a relative one. The identification of a sector as winner or loser in the integration process does not come to the same thing for every company or individual in that sector. Additionally, the sectorial analysis does not necessarily answer to a positive/negative influence on the welfare of the entire society. A losing sector may release resources for other sectors, thus improving the efficiency of the allocation of resources in economy¹⁰.

The integration involves also reaching the socio-economic targets, which are periodically re-defined according to context evolution (for a discussion of the convergence concept see Ghiță (2002)). From a modelling perspectiva, the convergente is defined by a set of indicators ued as proxy for the convergence target. However, in practice the definition used for concergence may vary both in time and in different cases.

¹⁰ Dăianu, D. (coord.), *Winners and losers in the European integration process. A glimpse upon Romania*", Bucharest: *The Romanian Center for Economic Policies*, 2001.

As a candidate country Romania first of all to comply with the Copenhagen criteria, thus “establishing of a functional market economy, able to resist to the competitive pressure și market forces from the European Union”. European Union is also monitoring the progress towards the Lisbon criteria, thus to become “the world’s top knowledge-based economy by 2010, capable of sustainable economic growth with more and better jobs and greater social cohesion”. This objective is to be met using the so called open coordination method, which is based mostly on benchmarking (Keuning și Verbruggen (2001)).

2.2. Costs and benefits: The main meanings given to the terms

Both the costs and benefits of accession may have manifold meanings, depending on their sphere of comprehension:

1. Taking into account only **the bilateral financial flows officially pre-established between EU and Romania** – funds allotted by EU and respectively our country’s contribution to the various programs of EU.
2. The inclusion, in addition to 1), of the entire budgetary effort (also through the effects on customs tariffs diminution).
3. **The inclusion of all monetary flows**, therefore those of the economic agents also (derived from the application of the *acquis* or from the stimulating effects of customs tariffs modification on commerce).
4. **Extended impact at macro-economic level**, including modifications of both work productivity and competitiveness (beyond of that resulted out of customs tariffs modification, as well as that concerning the occupation rate).

For each of these meanings, the ratio costs-benefits may differ. It is clear that, if we take into account just the level 1), then accession appears as being extremely propitious. However, at the levels 2) and 3) the balance will progressively slant towards costs, as, in this case, expenditure is no longer looked as investment, their effects projected in future being not assessed.

The relatively accurate and maximum-possible evaluation of results becomes possible only at the level 4), which refers to even the stake of accession from the economic standpoint. At this level only the inter-connections among economic indicators can be examined (such as total productivity, occupation rate, inflation etc.).

At the macro-economic level of the costs-benefits ratio’s evaluation, we will have the following **direct effects** of the accession process:

Costs:

- co-financing the European programs;
- compulsory investments (which implies both a tilting over of the priorities and a supplementary risk of non-sustainability);
- giving-ups (due to some penalties, for instance).

Benefits:

- increased monetary flows;

- facility of access (programs, trade, labor migration);
- direct effects of the acquis' application, due to increasing integration into social and economic European system;
- increase in competitiveness;

The present work will primarily deal with the monetary flows (chapter 3) and subsequently will realize an estimation of macro-economic costs (chapter 4) on the basis of macro-economic model LINK. Then we will analyze in detail this balance on different dimensions. The LINK model is presented in extenso in Ciupagea-2000 where can be found a dedicated chapter. This model is used since 1998 at the United Nations for modeling the Romanian economy, being the single macromodel that belongs to a international system of models.

Out of the separate analysed dimensions, some are be sectorial, such as agriculture and industry, and others horizontal, such as environment, competition, human factor, research and development. Finally, costs-benefits balance will be dealt with from a regional view, given the importance of this dimension at the EU level.

3. Direct financial implications of Romania's accession to the European Union

Although *the direct financial implications* represent only part of the integration costs and benefits, nevertheless, as they are one of the aspects that can be quantitatively calculated in prospective terms, we consider that approaching them represents an important aspect of the questions put forward in this paper. Within this framework, we analyse the (probable) consequences caused by the European Commission's adoption of the *financial package for Romania and Bulgaria, for 2007-2009*. In order to reflect the financing trends, we have presented in the Annex 1 the financial flows involved for the period 2000-2006, with no detailation. The flows are used as inputs in the modell, as will be shown in the chapter 4, thus supporting the estimation of the macroeconomic impact.

On February 10, 2004, the European Commission presented the Parliament the proposals regarding the new financial perspective of the EU budget for 2007-2013.

The proposals also included *The Financial Package Allotted to Romania and Bulgaria, for 2007-2009*.

FINANCIAL PACKAGE FOR THE ACCESSION NEGOTIATIONS WITH ROMANIA

THE COMMITMENT APPROPRIATIONS OF THE EUROPEAN UNION

- Agriculture: € 4037 millions
 - Market measures: €732 millions
 - Direct payments: €881 millions
 - Rural development policy: € 2424 millions
- Structural and cohesion funds: € 5973 millions
- Internal policies: €1304 millions for Romania and Bulgaria
- Administration: €346 millions for Romania and Bulgaria.

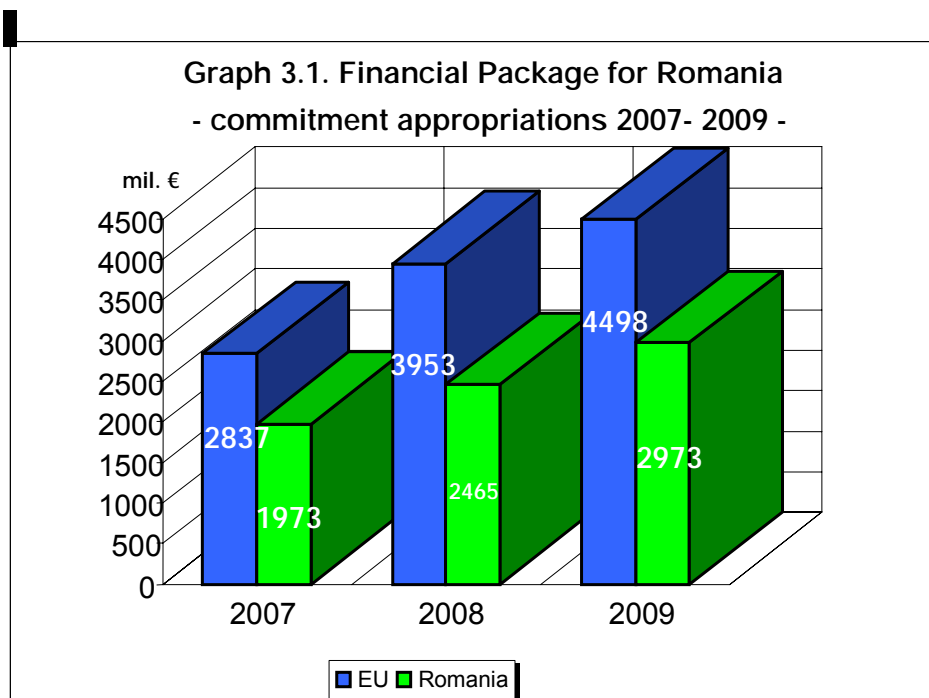
Data source: Commission of the European Communities, *A financial package for the accession negotiations with Bulgaria and Romania*, Communication from the Commission, Brussels, 19.2.2004, SEC(2004) 160 final

Taking into consideration the experience accumulated in recent years, the principles and the methodology used for the financial package proposed in the case of the first ten countries that have already joined the EU, the Commission considered that it is prudent to limit the financial package granted to Romania and Bulgaria to a period of three years. This means that, in Romania and Bulgaria, in the first three years of the EU financial perspective (2007-2009), the presented package will be applied, and in the latter part of the period (2010-2013) the financial perspective as such will be applied.

In reference to the proposal of the European Commission, we would like to point out to the fact that, under these circumstances, *financial package* mainly means the total of the direct, financial and budget implications, of the accession negotiations for chapters 7 – *Agriculture*, 21 – *Regional Policy and the Coordination of Structural Instruments* and 29 – *Financial and Budget Provisions*.

As far as **the EU commitments** are concerned, the total sums that were allotted were divided taking into consideration the chapters and the periods of time, starting from the data in the financial package proposal, and also from the principles and methods applied to the first ten countries that joined the EU. The result is the total sum of the EU commitments, which amounts to €11.3 billion, cumulated for the 2007-2009 period.

The resulted sums have an indicative feature, as they are going to be accurately calculated the moment the document describing the common position of Romania-the European Union is adopted.



Romania's budgetary effort (commitments) is calculated on the basis of the co-financing principles established by the methodologies permitting the access to the EU structural and cohesion funds, and also on the basis of the calculation that establishes

Romania's contribution to the EU budget. Romania's contribution to the EU budget is calculated applying a 1.14% to Romania's GDP forecast for the 2007-2009 period. The budgetary effort that resulted (commitments) amounts to €7.4 billion, for 2007-2009.

**Table 3.1. Financial Package for Romania – commitment
(millions Euros, 2004 prices)**

	EU commitments appropriations	Romania's budgetary effort (commitments)
2007	2837	1973
2008	3953	2465
2009	4498	2973
Total:	11287	7411

Source: see the Appendix 2

The payments (the actual transfers from the community budget to the national budget) will be smaller, on procedural grounds: a project accepted according to the specific methodology for each programme could be financed using the sums of money *committed* in a single year, and *the payments* will be spread out, taking into consideration the period along which the respective project will actually be accomplished.

Consequently, the payments depend on the real absorption ability; this ability is directly related with the presentation of some eligible projects (measures), with the ability of institutions, management procedures and the methods for the financial control of funds of being functional, with ensuring co-financing (from the state budget, local budgets or from private sources).

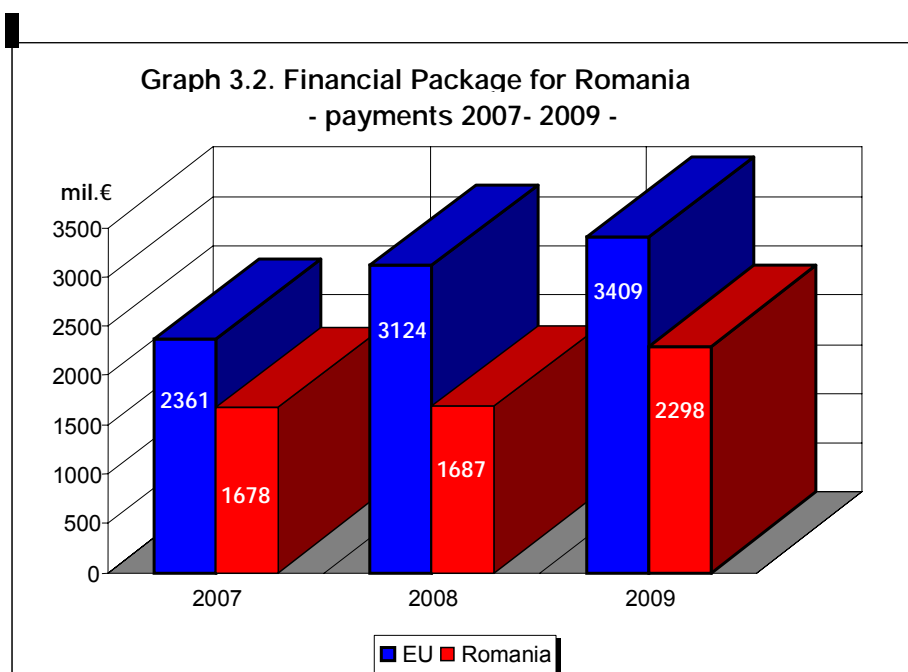
Estimated calculations, using the principles and methodology of the Copenhagen package, show that the payments for Romania, from the financial package, could amount to **€7 billion** between 2007 and 2009. Together with the sums that will be allotted during the respective period from the pre-accession funds committed previously (over €1.9 billion for the three years), we get a total sum of approximately €9 billion (€8893 billion).

Similar to the commitments case, **Romania's budgetary effort (payments)** is calculated on the basis of the co-financing principles established by the methodologies permitting the access to the EU structural and cohesive funds, and also on the basis of the calculation that establishes Romania's contribution to the EU budget. In addition to this, in this case, we have to take into consideration the co-financing necessities caused by the division of the pre-accession funds previously committed (up to 2006).

Table 3.2. Financial Package for Romania – payment appropriations

	(€ millions, 2004 prices)	
	EU payment appropriations	Romania’s budgetary effort (payments)
2007	2361	1678
2008	3124	1687
2008	3409	2298
Total	8893	5663

Source: see the Appendix.



The net balance of the financial transfers between Romania and the EU is calculated as difference between the payments proposed by the EU through the financial package and Romania’s contribution to the EU budget.

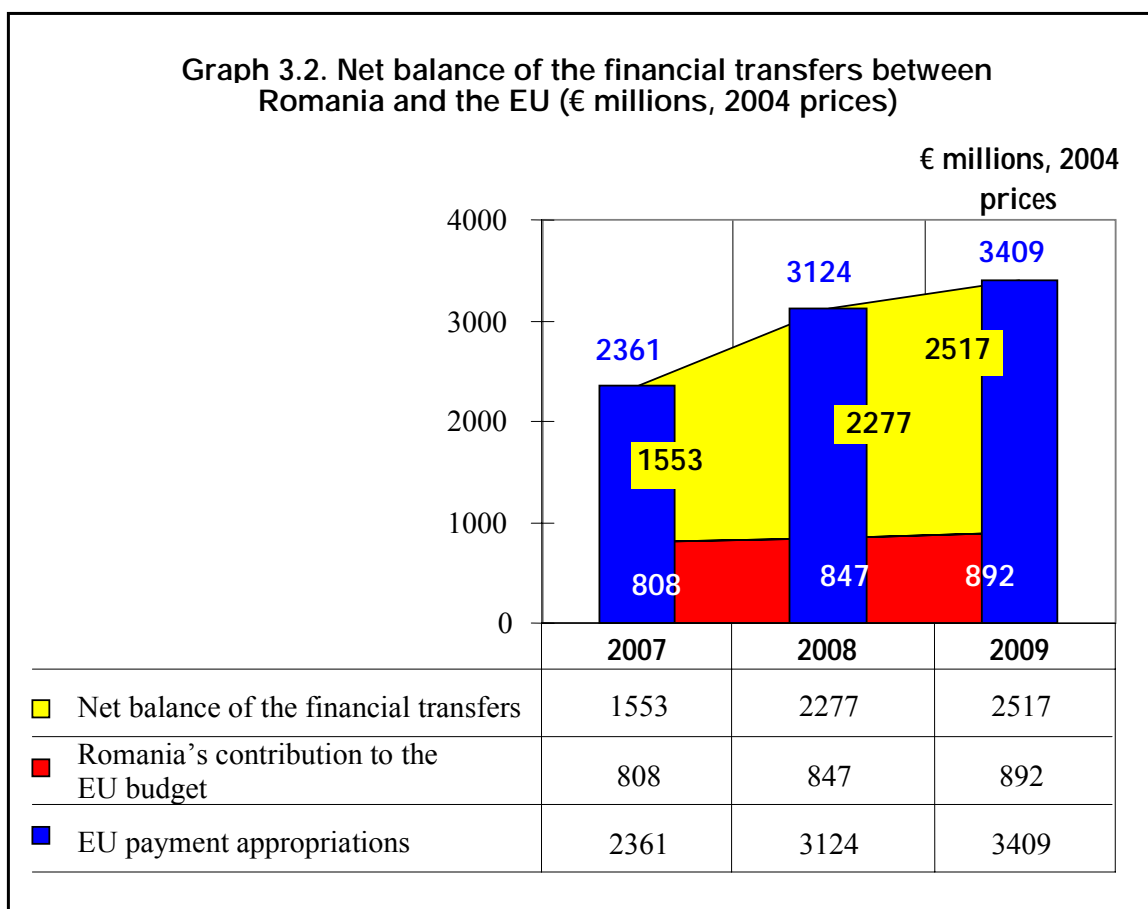
The presented values regarding the financial envelope can suffer minor changes, as a result of the negotiation between Romania-EU in the view of adopting the common position document, or as a consequence of the changes in the EU policy regarding structural funds. Moreover, the chapters about payments could suffer some changes, because the payments, as it has been proved, depend on the real absorption ability; this ability is directly related with the presentation of some eligible projects (measures), with the ability of institutions, management procedures and the methods for the financial control of funds of being functional.

Table 3.1. Financial Package for Romania – net balance of the financial transfers between Romania and the EU

(€ millions, 2004 prices)

	EU payment appropriations	Romania's contribution to the EU budget	Net transfers
	(1)	(2)	(3) = (1)-(2)
2007	2361	808	1553
2008	3124	847	2277
2009	3409	892	2517
Total	8893	2547	6346

Source: see the Appendix 2.



Taking all these into account, Romania could record a net flow of funds amounting to over €6.3 billion, in the first three years after the integration (2007-2009).

In 2007, the net flow, estimated to €1553 million would exceed the net flow from the year before integration – 2006 (flow estimated to approximately €800 million from the pre-structural funds Phare, ISPA and SAPARD) by more than €750 million. In a scenario of postponing Romania's European integration by three years, only the net loss of financial flows coming from structural funds would amount to approximately €3.95 billion.

The macro-economic impact of the financial package cannot be reduced only to the absolute sums granted to Romania. The underlying reason is the fact that the structural programmes and actions developed starting from the respective sums can generate and support a process of sustainable economic growth, at least in agriculture, infrastructure, environment and human resources, and also the growth of social cohesion resulted from balanced rural and regional development.

4. Macroeconomic costs and benefits evaluated with the Link-Dobrescu model

The impact analysis of Romania's integration process must be performed separately for the pre-accession and post-accession periods. Also, the scenarios considered in the impact assessment must be differentially conceived. At the level of macroeconomics, one type of analysis will refer to various simulations, temporally situated in the period 2000-2004 (already covered), meant to compare the reality to what could have happened in the Romanian society if the negotiation process would not have been started. The second type of analysis is of prospective nature, comparing various scenarios plausible for the period 2005-2015, where the accession moment will be also included, earlier – 2007-2008 – or later – 2011-2012, depending on the evolution of the pre-accession process and the negotiation one. With a view to the quantification of the integration effects on the Romanian macro-economy, two alternative scenarios have been carried out for each of the two periods (2000-2004 and 2005-2015 respectively).

4.1. Macro-economic estimation of the integration costs and benefits in the first integration stage, 2000-2004

4.1.1. Description of the alternative scenarios for 2000-2004

For the 2000-2004 period, the two scenarios, **integration** and **isolation**, are carried out as prognoses on the estimated model using data up to year 1999 inclusive. So, they represent what would have been forecasted to happen at the respective moment in the two alternative scenarios:

- **The isolation scenario:** the pre-accession negotiations would have not begun in 1999 and the Romanian economy would have continued the economic reform free of the integration related perspectives and constraints.
- **The integration scenario:** where negotiations were started after Helsinki but according to the conditions assumed at that time (most being included in the Acquis and the Medium-term Development Strategy 2000 (Postolache-Isarescu), which underlies the current development programmes).

The scenarios defined thereby are compared to the statistical data existent up to the level of 2003. The two scenarios are based on a series of common assumptions, being concurrently differentiated by the values of a set of exogenous variables considered to be points of political action on the economy in the two cases. The values of the exogenous data are identical with the statistical data actually recorded up to 2002-2003 (according to the data availability). When the values of the exogenous data are differentiated they are maintained at the level of the statistical data in the integration scenario, being adjusted according to the assumptions considered in the isolation scenario.

The assumptions taken into account in the performance of the two scenarios may be circumscribed to the following elements:

1. Positioning the country on the international market. Romania corresponds to the profile of a small open economy, not having the ability to influence the international trade (the volume and amount of international exchanges), which comes to keeping identically the following elements in the two scenarios:

- The international trade's volume, estimated to increase by around 5% per year, according to the forecasts of the Department for Social-Economic Policies within ONU;
- The world prices of the goods traded on the international markets, by SITC groups.

Although, starting from the assumption level, it is supposed that there are differences in the manner Romania's economy relates to the participation in the international market. Particularly, the weight of imports, respectively exports of services, in total imports, respectively exports, is considered to become with approximately 2% lower at the end of this analysis horizon in the case of the isolation scenario. This reflects the mutations induced by the European integration at the level of trade diversification as well as service trade liberalisation.

It was not assumed that there is a difference between the two scenarios regarding the trade protectionism, the rate of customs duty being identical, due to the agreements of Romania as an OMC member.

2. Agriculture and agricultural policy. We started from the premise that the value added in agriculture, exogenous in the model used by us, has variations correlated with the inflow of European pre-accession funds destined for agriculture (around 150 million Euros per year in 2000-2006, respectively the equivalent of approximately 0.3% of GDP or 4% of the value added in agriculture).

More, in view of the overall dynamics of the economy and the GDP, the sector contribution to the GDP would have been quite different in the two scenarios, differing one from the other as well as compared to the statistically registered status. The changes in behaviour, reflected in modifications of the elasticity values, prove to be extremely important, ensuring a multiplication effect of the direct impact.

3. Cohesion and social security policy: The weight in GDP of the costs with education and health, as well as social security, is equally maintained in the two scenarios at the statistical values and the values forecasted by the Romanian government for the considered period. Of course, given the diverse evolution of GDP, the absolute values of the budgetary effort designated for social policy varies from one scenario to the

other, but there are reason to consider that it would be a difference between the two alternative circumstances regarding the impact on the average life time and human development. Among the demographic indicators, the number of retired people is maintained the same in the two scenarios.

4. **Labour market and income policy.** The expected gross available income is higher in the isolation scenario as a result of a laxer manoeuvre space available for the actors interested in getting high nominal incomes, in the circumstances of a less structured economy, and their ability to enforce the achievement of these incomes. In the circumstances of a monetary policy assumed to be impassibly to the actual alternative conditions of the two scenarios, and a domestic supply with major inflexibilities, the impact of higher incomes will be found especially in inflation.

In both cases, the ratio between the average net income of the social assisted persons and the employed ones is maintained identical. For the analysed period, this ratio takes values around 40-45%. Same as with the structure, the ratio between the average pension and the average wage, as well as the one between the unemployment benefit and the average income, are identical in the two scenarios.

The progress of the integration negotiations brings about a facilitation of migration, which results in introducing the assumption of an active (and total, implicitly) population less numerous in the integration scenario case. However, the weight of the retired people having wage remunerated activities is maintained at the same level in the two scenarios (at around one quarter), assuming that this category is the less behavioural flexible to the labour market fluctuations.

4. **Structural reform policy:** Taking into account that the major privatisation stage has been covered between 1997-19998 and that the variable included in the model is specifically applying to the budgetary incomes from privatisation, the differences between the two scenarios have been considered insignificant in this case (depending not only on the rate of ownership transfer but also on the actual price). Also, the allocation mechanism for the research and development costs from the consolidated budget is similar in the two scenarios.

The differences of structural nature as a result of the reforms show up in modifications of elasticity and coefficients in the model, decisively affecting the test results.

6. **Monetary policy:** We assume that the monetary policy has a similar behaviour in the two scenarios, in three perspectives: firstly, the monetary policy is lax as well, secondly, the expected rate of inflation EXTGD is considered to be the same, thirdly, the weight of the public sector in the external claims and liabilities, expressed in foreign currency, is the same. The monetary policy instrument differently assessed in the two scenarios is the real interest rate. Also, it is to be noticed that the period is characterized by the use of the loan as an anti-inflationist anchor, and not the use of the exchange rate. The changes at the level of the BNR foreign currency reserves are assumed to show less increases in the isolation scenario, and the amount of financial inflows to Romania is considered to be lower in this case, due to the conservation on the international financial markets of a certain financial and economic risk level related to Romania. There have been taken into account the pay rates and interests associated to the foreign and internal-public claims and liabilities, in accordance with the MFP estimates.

7. **Fiscal policy:** On the costs side, in the isolation scenario we assumed a policy of stronger direct intervention in economy, the weight of the subvention costs in the total transfers designated to economic activities being with up to 10 percentages higher. But this is exclusively due to the differences in the direct subvention weight. So, while the rate of direct transfers in GDP is higher in the integration scenario case, these will be retrieved mainly as funding for investment.

At income level, the integration scenario generally assumes a higher level of collection for both direct and indirect taxes, not necessary by increasing the tax rates, but mainly by enhancing the fiscal discipline. So, we assume a higher level (with 5 to 10 percent) for the volume of collected corporate tax, as compared to the GDP in the integration scenario, and of the wage incomes (with around 1 percent) and VAT (with around 1 percent).

8. **Inflows of foreign funds:** these represent a key issue around which the entire process of costs and benefits quantification is gravitating. By the construction of the model, the European funds have an impact on the value added in every sectors of economy, the labour productivity, but are also means of covering the necessary internal funding. The direct foreign investments have an impact on investments (and, implicitly on the labour productivity) and the degree of covering the necessary funding. So, the assumption used here are extremely important.

Regarding the European funds, in the integration scenario case these represent around 5 times more than they would have been if Romania would have decided to stay outside the European Union. The direct foreign investments would have registered lower or even negative growth rates in the isolation scenario case.

4.1.2. The results of estimations for the 2000-2004 period

The differences between the two scenarios might be directly attributed to the integration effects, conceived as a synergetic process of which the exogeneous determinations have been defined in the design of the scenarios, as explained in the former section. These effects are estimated as differentials between the integration and isolation scenarios. The comparative results regarding the main macroeconomic variables are presented in the table below.

Table 4.1. The estimated consequences of the Romanian integration in the first stage of the integration process 2000-2004, base 1999

- percentage difference between the scenarios (integration vs. isolation) -

	2000	2001	2002	2003	2004
GDP	0.01%	0.90%	4.59%	5.52%	10.75%
Domestic absorption	0.97%	2.39%	6.00%	6.22%	12.32%
Investments	1.70%	2.64%	4.28%	4.84%	8.39%
Households consumption	0.28%	0.88%	3.36%	3.60%	7.18%
Current account deficit*	-0.95%	-1.41%	-1.13%	-0.35%	-0.84%

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General consolidated budget deficit*	-0.71%	0.11%	0.89%	0.85%	1.55%
Participation rate**	-0.05%	-0.05%	-0.35%	-0.68%	-1.17%
Employment rate**	-0.12%	0.06%	-1.37%	-3.98%	-2.73%
Unemployment rate**	0.13%	-0.23%	1.28%	1.88%	2.34%
Labour productivity***	0.28%	0.83%	3.04%	6.22%	7.47%
Wage rate	0.77%	0.62%	3.01%	6.29%	7.43%
Inflation**	-3.84%	-7.75%	-4.65%	-1.61%	-3.96%

*The deficit is expressed as share of GDP and has negative values. The differences presented are to be read as follows: a negative value means a larger deficit in the integration scenario as share of GDP, a positive value represents a smaller deficit in the integration scenario, expressed also as share of GDP.

**Differences between the values registered in the two scenarios.

***GDP per employed population

The simulation results show that the yearly average growth rate of GDP in the integration scenario is by 1.97% larger than in the isolation scenario. When cumulated, this difference shows that in 2004 over 10% of the GDP growth against 1999 is directly attributable to the integration effects.

The main macroeconomic indicators

Box 4.1: What type of process is driving the growth?

A methodological specification is necessary at this point of argumentation. It is only the consequences simulated through the gaps between the results of the scenarios that can be directly attributable to integration itself. The residual effects follow either the internal policies mix or are the results of other independent external factors, as the economic stance of the non-EU members trade partners of Romania, the synergy induced by the ongoing globalisation, as well as the behavioral changes leading to adjustments in elasticity. The latter could be otherwise seen as indirect (second order) effects of the integration process. They are mostly long term effects and are embedded in the model once the equations are reestimated.

For the period 2003-2003, the annual growth rate of GDP can be divided as follows

The typology of growth in the period 2000-2003:

Average yearly growth rate due to restructuring policies	2.5%
Average yearly growth rate due to integration policies	1.3%
Average yearly growth rate due to the synergy of factors	0.4%
Total average yearly growth rate	4.2%

However, this classification is simply indicative. It is difficult for instance to establish whether the synergic effects are directly or indirectly attributable to the integration process. Hence, we can consider the model results as a minimum of the total effects of integration at the macroeconomic level.

In what regards the determinant factors, the growth differential is mainly conducted by the demand and absorption side, with growth rates superior to those of GDP. This situation results in the deepening of trade deficit, over the value registered in the

isolation scenario, and includes the consequences of the lower ability of the domestic supply to cope with demand in the case of direct competition with EU companies. However, as the domestic supply is supposed to adapt, its ability to respond to the existing demand will improve and consequently the trade deficit will diminish.

Remarkably is also the fact that in the integration scenario, the share of underground economy in GDP is decreasing between 1999 and 2004 by 3.6%, while in the isolation scenario, this is slightly increasing (+0.4%).

The larger expansion of the domestic demand is a direct result of the supplementary productivity growth, meaning that in the case of the integration scenario the growth pattern is more intensive oriented, thus resulting in relative competitiveness improvements. The intensive pattern of growth is indirectly a consequence of the competition at regional and European level, having also negative effects, especially at the employment level. Both the participation and the employment rates (calculated as share of total population) are inferior in the integration scenario. This situation reflects the lower ability to stimulate the reallocation of the labour force the tradable sector to the non-tradable one (services), signalling therefore a potential of supplementary growth associated to this type of policies.

The supplementary growth of investments in the integration scenario is closer to the one of GDP, thus larger than the productivity growth rates. Besides the influence of the employment evolution, this situation can be explained by the lag of the investments effects, as for instance of those made in infrastructure.

With a level of -6.4% in 2004 in the case of the integration scenario, the current account deficit is still in sustainable interval. However, unlike the deficit of the consolidated budget, the deficit of the trade balance is increasing and at the end of 2004 gets closer to what is commonly thought as the sustainability limit. This points to the need of accelerating the restructuring process of the domestic supply in order to respond to the competitive pressure of EU.

Structural changes

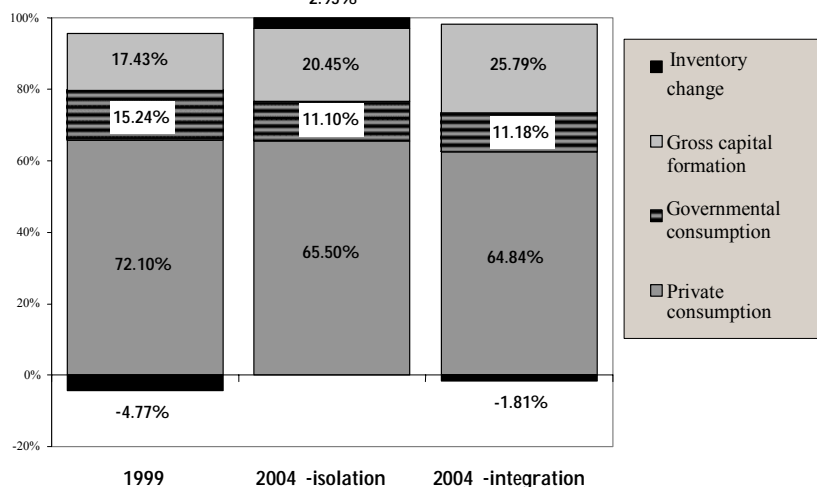
An important assumption is that a certain adaptation to the global markets evolutions is taking place also in the isolation scenario, fact that is inducing structural changes and adjustments to the growth pattern.

The multi-criteria analysis of the latter should also consider the macroeconomic equilibrium constraints. It is important to understand the way that different demand or supply side factors are propagated within the economic tissue through various transmission channels. Hence, we will analyse the GDP evolution and composition from two perspectives: supply and demand.

Determinant factors on the demand side: As result of the high growth rates, in both scenarios, the main structural change is connected with the significant growth of the accumulation rate (gross capital formation + inventory change as share of the GDP). In both scenarios, the accumulation rate reaches 23% of the aggregated domestic demand. However, a diminishing share of inventory reflects the more intensive growth pattern in the integration scenario. As mentioned in the description of the exogenous variables, this is

one of the effects of a larger growth of FDI, which are increasing the speed of adjustment of the domestic supply to the evolution of demand.

Graph 4.1. Forecasted changes of domestic demand structure 2.95%



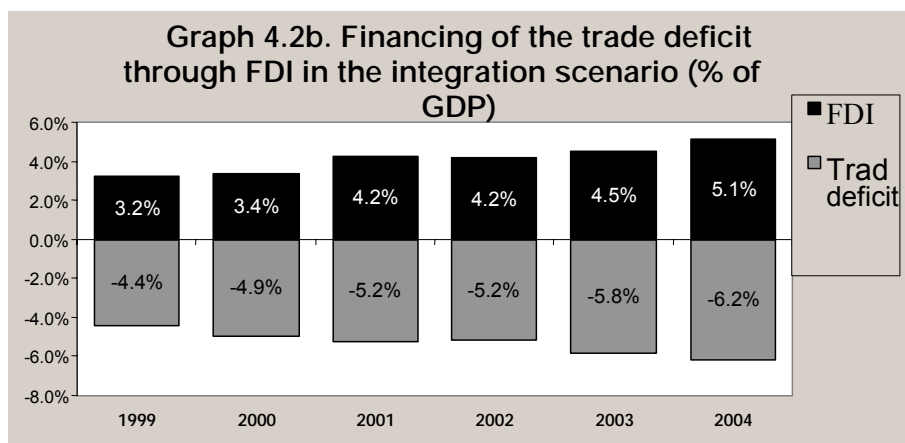
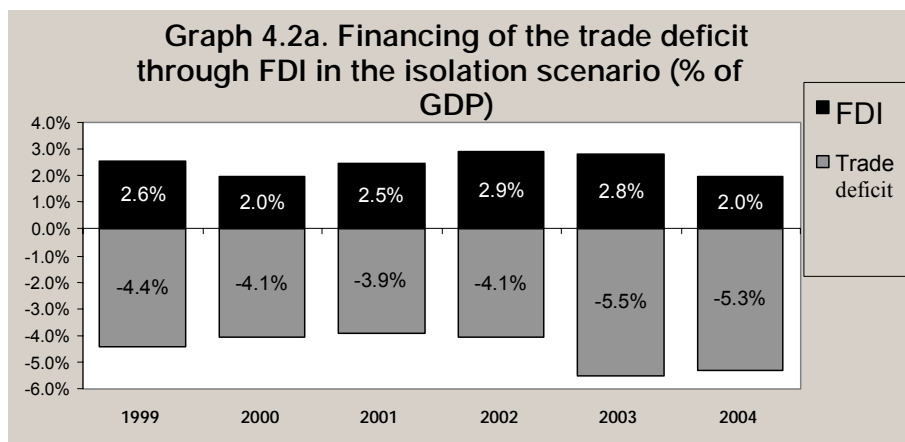
Note: The shares of private and public consumption in the aggregated demand are estimated using the SEC 1979 methodology, in order to ensure the continuity of the statistical series and consequently to enable the econometric estimation.

Common to both scenarios are also the diminishing shares of private and public consumption in the total demand, as result of the acceleration in the investment growth. As will be shown in the section dedicated to the evolution of prices, the relative prices are not yet stabilised and this is influencing the balance between the real evolutions and the nominal structure. In particular, the growth of demand for investment goods is pushing their prices over the level of GDP deflator.

As mentioned above, the trade deficit is closer to the commonly seen sustainability limit in the integration scenario. However, more important is the ability to cover this deficit from different sources. It is worthwhile to note that in the integration scenario the larger deficit of the current account is at the same time covered in a larger proportion by completely sustainable resources as foreign direct investments (FDI) and the transfers from EU, while the net borrowing requirement, that is to be covered by external lending, is also smaller in the integration scenario.

Table 4.2. The level and structure of the net borrowing requirement in 2004, in the two scenarios, % of GDP

	Isolation	Integration
Net borrowing requirement (% of GDP)	4.0%	0.2%
Net - outflow, from which:	7.3%	8.4%
- Current account deficit	-5.31%	-6.20%
- External debt payments	2.00%	2.16%
Net - inflow, from which:	-3.3%	-8.2%
- FDI	-1.95%	-5.11%
- Privatisation revenues	-0.50%	-0.40%
- Transfers of European funds	-0.40%	-2.00%
- NBR foreign exchange reserves	-0.47%	-0.65%



The drivers of growth on the supply side. The variation of the total or sectoral output appears as an effect induced by the integration process to the companies'

behaviour, to the type of competition and competitiveness. It appeared therefore that the demand growth is higher in the integration scenario, fact translated into a cumulated growth of the GDP for the period 1999-2004 by 9% larger in the integration scenario, or more than 90% of GDP growth. In the integration scenario, the higher growth is accompanied by a larger indirect redistribution effect, as result of increasing revenues from income taxes and collected VAT, with simultaneously fewer subsidised goods (these elements being those that are determining the difference between the total value added and GDP).

The positive evolution of supply is a result of the reform and policy mix that characterises the described integration scenario, policies that are propagated directly through the increasing capitalisation of the enterprises and the improvements of the investment behaviour, and also indirectly by stimulating the demand. Hence, the sectoral output functions that are used in the model are developed on the base of a factor mix both from the supply and demand side, with elasticity estimated by econometric analysis.

The sectoral composition of the added value in the model and the main determinant factors are presented in Box 2.

Box 4.2. The determination of the supply side

The model uses a desegregation on four sectors, as follows:

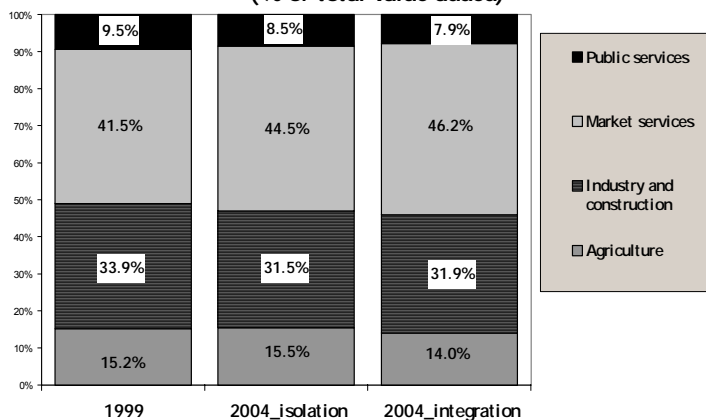
1. **Agriculture** – as described in the section dedicated to the modeling assumptions, the added value in agriculture is treated as exogenous, because the delayed modernizing of Romanian agriculture maintains its high dependence on the weather conditions. The differences between the two scenarios are correlated with the value of transferred funds, both from the state budget and the EU.
2. **Industry and constructions** – the dynamics of this sector is considered dependent of the following factors: a. **on the demand side**: domestic demand, external demand and b. **on the supply side**: the value of structural funds, expenditures of the state budget, the non-accommodative growth of the money supply, the fiscal burden for companies.
3. **Market services** (transport and deposits, post and telecommunications, financial and insurance services, trade) – the dynamics of the added value in this sector are dependent on the following factors: a. **on the demand side**: the domestic demand, the external demand and b. **on the supply side**: the value of structural funds and the fiscal burden for companies.
4. **Public services** (administration, education, health) - the dynamics of the added value in this sector are dependent on the expenditures of the state budget.

The simulation of demand is complex and the integration impact is induced directly by the structural funds, but also by other channels ensuring the transmission of effects especially on the demand side.

The structural change that follows the different evolutions of the four sectors is illustrated in the graph below (expressed in current prices). It can be noticed that in the integration scenario, there is a larger reallocation towards market services and also to industry and constructions. It should be mentioned that the *Energy and water* branch is included in market services sector, following the EU methodology. The obtained results are mainly influenced by the changes in the structure of prices, given that the prices for market services increased much faster than those for the agricultural products. The cumulated deflator in 1990-1999 for the market services has been 1380, when compared with 477

for the agriculture sector in the same period. The gap in the price growth differential had become narrower since 2000, as consequence of the macro-stabilisation. In real terms, the agriculture value added is forecasted having the highest growth, due to the impact of the structural funds, while the market services sector reaches a closer rate only in the integration scenario.

**Graph 4.3. Forecasted change in the structure of internal supply
(% of total value added)**



In fact, the decomposition of the supplementary growth of value added due to integration reveal similar sectoral effects:

Total supplementary growth of the value added due to the integration process ¹¹	Agriculture	Industry and construction	Market services	Public services
9.00%	5.94%	-0.93%	3.24%	0.75%

On the supply side, in real terms, the winners from the integration are therefore agriculture and market services, corroborated with a de facto modernisation of the entire economy.

The evolution of prices

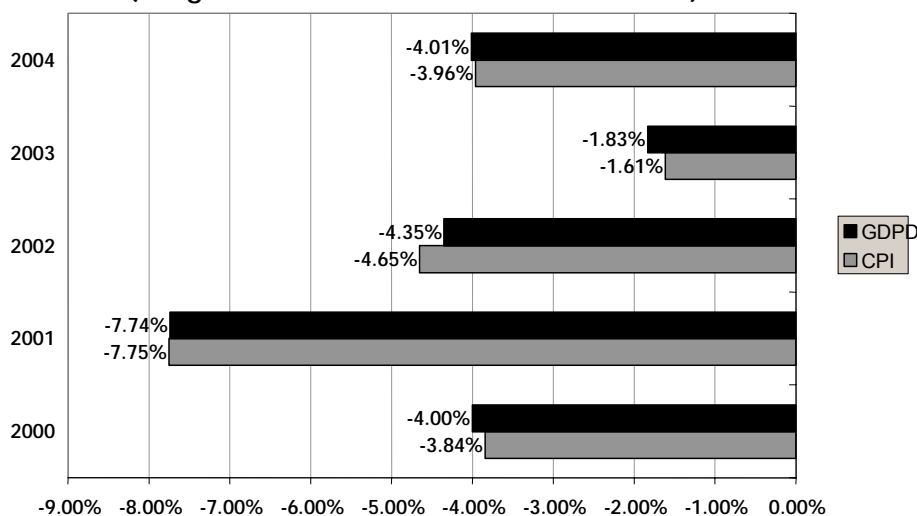
Among the prices that mediate the relation between the nominal and the real structure of the economy, we refer to the most relevant for the economic analysis, namely the total output price¹² and consumption price (which define the equilibria on the goods and services market), interest rate (capital price), exchange rate and average wage (labour price).

Price equilibria on the goods and services market: despite the values of expectations regarding the prices of output and consumption set similar in both scenarios, simulations show that prices are significantly higher in the isolation scenario. Cumulated against 1999, the GDP deflator and the CPI are in 2004 higher with 47.7% and 48% than in the isolation scenario.

¹¹ Percentage points difference between the integration and isolation scenarios

¹² References to sectorial prices were covered in chapter 4.1.1.

Graph 4.4. The differential of the inflation rate (integration scenario vs. isolation scenario)

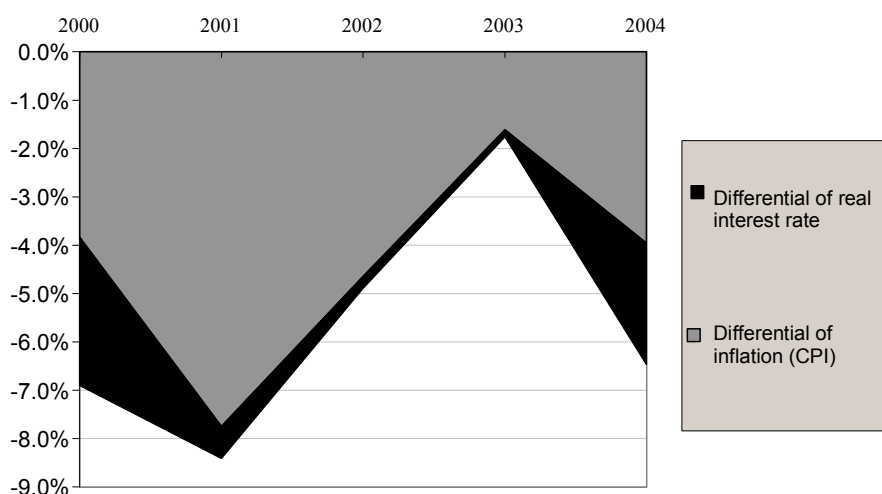


The GDP deflator and the CPI show close dynamics both in isolation and integration scenarios (cumulative difference between do not surpass in 2004, 4%, with a more pronounced growth of the CPI in the isolation scenario as a consequence of multiplication of variation in the GDP deflator (lead in turn by the realisation of higher nominal revenues, use of interest rate anchor and the implicit increase in the money velocity) as well as of the evolution in the demand for investment goods.

On the **money market**, the differences between the integration and isolation scenarios are induced especially through the evolution imposed by the exogenously defined dynamics of the real interest rate. Obviously, the implicit hypothesis is that, while the restructuring process is progressing, the credit channel of monetary transmission becomes functional. Nevertheless, the differences in the nominal interest rate are induced through the construction of the model especially by the consumption price index.

The enogeneous determination of the money supply takes into consideration the need to cover the inflationary pressures generated by the budgetary deficit and by the variation of the exchange rate, as well as the monetary distortion effect that induced by the existence of the arrears and spread of dollarisation. This translates into a lower (by 2%) capitalisation of the economy in the integration scenario versus the isolation one, given the monetary restrictions and the disinflationary policy measures promoted by the National Bank.

Graph 4.5. Differential of nominal interest rate
(integration scenario vs. isolation scenario)



The dynamics of the real **exchange rate** is explained through a complex function based on its elasticity to the variation of the real interest rate, evolution of the trade deficit and demand for investment. Nevertheless, the cumulative effects of those factors aggregates in both scenarios in similar behavior of the real exchange rate, that appreciates by around 3% yearly during 2000-2004.

The level of the **real wage** expresses the price of the labour and the equilibria on the labour market. In the integration as well as isolation scenarios, both nominal and real wages increase, resourcing the main keynesian type of growth driver, namely the internal demand. This leads in turn, as was shown before, to the development of the internal supply as well as to the increase of the trade deficit. The presence of the growth stimulation mechanisms through demand channels is especially obvious since the growth in the real wage (0.4% yearly average wage in the isolation scenario and 1.89% in the integration scenario) surpass in both scenarios the growth of the labour productivity (-0.5% and 0.9% respectively). Also in nominal terms, the unit labour cost will grow similarly in the two scenarios, from around 46% in 1999 to over 52% in 2004.

It is worth highlighting nevertheless, that, in what concerns the dynamics directly attributed to the integration, as results from table 4.1, the supplementary increase in real wages is, cumulated at the end of the interval, similar with the one of the productivity. Although the demand remains the driver of growth, at the margins, the integration effect is to be found in a higher efficiency on the supply side. In the same time, the differences in the real wage developments are to be seen in conjunction with a more tight labour market in the integration scenario, with a higher unemployment rate and a lower activity rate. This result can be explained as follows: investments, both internal and foreign are targeting a higher efficiency of the existing production capacities, which results in a more intense labour reshuffling process, simultaneous with a higher productivity and wages. The later fuel in turn the consumption demand and induce (simultaneously with higher needs for modernisation of the economy) higher commercial deficits, financed nevertheless through resources that insures their sustainability. While the modernisation process is

progressing, a more extensive process of growth will occur, resulting in higher job creation. The supplementary unemployment attributable to the integration can be, in this vision, circumscribed to the concept of the transitory unemployment as proposed by Aghion și Blanchard (1994).

4.2. Macro-economic estimation of the integration costs and benefits in the second integration stage, 2005-2015

4.2.1. Description of the alternative scenarios for 2004-2015

For the 2004-2015 period, the two scenarios, **integration** and **delayed-integration**, were built on the structure of the same LINK model, being estimated this time on the bases of the data available up to 2003 inclusive. The model itself was modified in order to allow the more rigorously interception of the effects of the structural funds expected to be transferred from the European Union during the period of the next decade. The two scenarios have many common elements and presumptions but are differing under the following aspects:

- **The delayed-integration scenario:** the pre-accession negotiations will not be followed by quick implementation actions in the 2005-2006 period, which will determine the European Union member states to decide together with the Romanian political decision-makers to delay the effective integration moment up to 2010-2012 (according to the European budgetary exercise). Hereupon, Romania will continue a policy of gradual assimilation of the European Acquis, but at a slower pace, the focus being mostly set on the internal social policies and less on the transposition of all the mobile targets self-proposed by the European Union in the quest of achieving the priority objective of becoming the most competitive economy of the world. The European Union will reduce the inflows of funds designated to our country compared to the amounts provided in the current agreements.
- **The integration scenario:** assumes that Romania's integration will take place according to the current forecasts, during 2007, that the social-economic policies will continue the trend of keeping in line with the European standards and the structural type funds will be directed towards the Romanian economy according to the preset agreements.

The scenarios differentiate by the values of the set of exogenous variable which describe the political interventions on the economy in the two cases. The values of the exogenous data are compatible with the assumptions regarding the future evolution of the economy and the expected levels of the social-economic policy instruments in their quantified form. The main differences between the integration and the isolation scenarios at the level of economic policy variables are presented hereinafter. The considerations that described generally the 2000-2004 period scenarios hold true and will not be repeated.

1. Positioning the country on the international market

Differences in the manner Romania's economy relates to the participation in the international market keep to exist due to the structural changes that arise at the level of the foreign trade relationships. The weight of imports, respectively exports of services in

total imports, respectively exports, is considered to become with approximately 5%, respectively 2.5% lower at the end of the prognosis period in the case of the delayed-integration scenario. This reflects the mutations induced by the European integration at the level of trade diversification as well as service trade liberalisation.

As a consequence of the increase in the productivity of agriculture due to the assimilation of specific EU funds, as well as the comparative increase of the purchasing power of the Romanian population, in the integration scenario the income elasticity (world demand for Romanian exports) is supposed to increase towards the end of the prognosis period. A phenomenon of comparative diminution of the income elasticity takes place at the imports of processed products level, while the income elasticity of the energy products is decreasing, consequence of the envisaged start-up of a new atomic energy reactor at the Cernavoda plant, expected for 2007-2008 in the integration scenario and much later in the alternative scenario.

It was assumed that there is no difference between the two scenarios regarding the trade protectionism, the rate of customs duty being a little bit lower in the integration scenario case, by quickening the implementation scheme for the new tariffs and quotas, as an integration result, but also by changing the structure of imports.

2. Agriculture and agricultural policy. The value added in agriculture, exogenous in the model used by us, has expected variations, correlated with the inflow of European structural funds destined for agriculture and with the overall increase in the sector productivity as a result of a more rapid restructuring (which makes the value added in agriculture to be with 10% higher in the integration scenario, compared to the alternative one, at the end of the prognosis horizon).

3. Cohesion and social security policy: One of the most significant differences between the two scenarios is expected to stand out in the sphere of social cohesion policy.

The weights in GDP and budgetary expenses of the costs with education and health, as well as social security or unemployment benefit, are noticeably increased in the integration scenario, due to the possibilities of supporting such a budgetary effort (education and health costs are higher with 1% of GDP). Of course, given the different evolution of the GDP, the absolute values of the incomes and budgetary expenses are estimated to be higher in the integration scenario, which will even allow the diminution of some rates and taxes if the political decision-makers would decide such a measure. The forecasted rate of the average pension – in relation to the average gross income by economy – is with 11% higher in the integration scenario at the end of the prognosis period, resulting from the assumption of a more advanced retirement age for both men and women, which is estimated to be achieved between 2001-2013 in the integration scenario, by following the European social model.

Among the demographic indicators, the change of the pension system determines the estimated number of active persons to increase with about 700,000 in the integration scenario, up to year 2015, which also affects the labour force growth. A possible additional reason in favour of such a phenomenon could be the attenuation of the net flow of Romanian emigrant population.

4. Labour market and income policy. The available gross income of the population is expected to be higher in the integration scenario, and consequently, it was assumed a possible increase of the tax rate for the personal income. The expectations regarding the exogenous variables assume that the effective volume of the budgetary

incomes collected from income taxes will increase gradually in the integration scenario, becoming in 2015 with 26% higher than the effective volume of the income tax in the alternative scenario.

In consequence of the increase in the productivity of the competitive sector, exposed to the single European market which cumulates most of the wage earning population, in the integration scenario there is assumed a gradual increase of the ratio between the average net wage and the average net income of the non-wage earning population, this ratio settling between 1,05 and 1,1. In the same scenario, the ratio between the average amount of the unemployment benefit and the average net wage by economy is also increasing.

5. Structural reform policy: The delayed-integration scenario assumes a loss of interest in the Romanian economy from the foreign investors side, which will result in the stagnation of the direct foreign investment flows at the low current level and in keeping at sight some very low prices for the few enterprises which the Romanian governments will decide to privatise in the next period. More, it is assumed that the delay of the integration moment could have been generated exactly by the policy of delaying the reforms in certain public utilities sectors which will be never privatised in the prognosis period. Therefore, the budgetary incomes from privatisation are estimated to be higher in the integration scenario, especially in the period 2004-2010. For not running the model with too many similar exogenous variables (financial funds which fit in the category of net outside flows), the incomes from privatisation considered to be common between the two scenarios were entered in the residual category which describes Romania's balance of payments. Only the additional incomes from privatisation in the integration scenario have been set out separately. In the delayed scenario, the research and development expenses from the budget are keeping their weight in GDP up to the end of the prognosis period. In the integration scenario, these follow a plan of gradual growth (target proposed in the European Council from Barcelona) to bring total R&D expenditure to a level of 3% of the GDP, out of which only one third should be provided by governmental sources (budget).

The differences of structural nature resulting from the reforms are displayed in the changes of the models' elasticity and coefficients (the equations of productivity, investment, exports and imports), decisively affecting the test results.

6. Monetary policy: The monetary policy has distinct behaviours in the two scenarios: firstly, the monetary policy is initially lax and then restrictive in the integration scenario (high MONOPOLY – exogenous of monetary restraint - between 2007-2009 and reduced after 2012), in order to allow the financial-banking policies to be adjusted according to the accession impact in 2007, and to induce the achievement of the inflation target after 2012, when Romania is estimated to enter the EMU. Secondly, the expected rate of inflation EXTGD is lower in the integration scenario. Thirdly, the monetary policy instrument which is still different in the two scenarios is the real interest rate, higher in the alternative scenario. The integration scenario is characterized by the use of the loan as an anti-inflationist anchor, and not the use of the exchange rate, which determines the Romanian National Bank not to intervene against the massive trend of the nominal appreciation of the LEU at the end of the prognosis period. The changes in the level of foreign currency reserves of BNR, considered to be a residual category of the model which explains the equilibrium of the balance of payments, are assumed to have smaller increases in the delayed-integration scenario because the financial flows to and from Romania are considered to be reduced in this case (due to the fact that on the international financial

markets Romania is associated with a higher level of financial and economic risk and due to some reduced bilateral income transfers of the production factors).

7. Fiscal policy: On the costs side, the differences between the two scenarios are due to the greater opportunities offered by the sustainable economic growth in the integration scenario case. The weight of the subvention costs in the total transfers designated for economic activities, and the weight of the latter in the GDP stay same but the structure of direct and indirect taxes and the dimension of the taxation base is changing. In the integration scenario, the additional budgetary efforts that join the higher net funds received from the UE are considered apart from the budgetary ex-effort for subventions, the figures used in the scenarios following rigorously the amounts inscribed in the actual agreements between Romania and the EU, presented in the financial chapter of this paper.

The costs with social-cultural and sports actions are driven up for the 2004-2009 period in the integration scenario and the residual budgetary expenses and capital expenses are draw in only in weight towards the end of the prognosis period.

There are provided sub-chapters for specific budgetary expenses equivalent to the investments made by the government as own financial effort joining the amounts risen from European funds, investments contracted then with the private sector of the economy. Obviously, the investment equation is influenced in the model by the incomes from European funds, the adjacent budgetary effort and the direct foreign investments.

At the expenses level, the integration scenario generally assumes a high level of tax collection, for both direct and indirect taxes, by strengthening the fiscal discipline. Hereupon, a reduction of the value added tax rate is to be expected after 2012, as well as the introduction, starting with 2009, of a new reduction stage for the social security taxation rate. The result of the tax collection enhancement and the increase of the taxation base for the personal incomes after 2008 is the increase in volume of the income taxes (see above).

In the integration scenario case, there have been taken into account lower pay figures for the rates and interests associated to the foreign and internal-public claims and liabilities, based on the recovery expectations for the respective expenses.

8. Inflows of foreign funds:

Regarding the European funds, in the integration scenario case these represent around 3 times more than in the alternative scenario case (direct funds plus own budgetary effort) in the 2007-2009 period and around 4-5 times more after 2010, because the moment of decision regarding the transfer of new funds was missed due to the delayed integration process (a shift of the EU financial and economic interests is most likely if Romania delays accession for own reasons).

The direct foreign investments present higher growth rates in the integration scenario case in the period 2006-2012, which makes the stock of direct foreign investments to be significant and to generate important horizontal effects.

Starting with 2006, when the moment of a possible integration delay is estimated to be perceived in the alternative scenario, the net flows of income transfers from the labour force working outside Romania are decreasing in this scenario, compared to the integration one, reaching differences of around 1 billion Euros per year towards the end of the prognosis period.

4.2.2. The results of estimations for the 2005-2015 period

The results from model simulations for the two proposed scenarios are summarised in the following tables and graphs. The figures and their trends are self-explaining, so we will limit only to highlight the most essential effects and to resume at the end of the study the main conclusions resulting from the comparison between the integration and the delayed-integration scenarios.

The main macroeconomic indicators

Table 4.3. Estimation of macroeconomic consequences of the integration of Romania in the second stage of the process, 2005-2015, base 2004

- percentage difference between the scenarios (integration vs delayed-integration) -

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDP	0.12%	0.60%	3.18%	6.48%	9.18%	10.51%	13.32%	17.52%	21.49%	26.80%	32.02%
Domestic aggregate demand	0.90%	0.40%	2.57%	5.91%	8.61%	9.65%	12.22%	16.47%	20.40%	25.53%	30.24%
Investment	0.19%	0.43%	4.72%	10.21%	16.53%	20.58%	27.66%	37.01%	46.04%	58.53%	71.78%
Private consumption	0.11%	0.12%	2.44%	5.13%	7.72%	8.75%	11.31%	15.60%	18.91%	24.25%	29.31%
Current account deficit *	0.00%	-0.05%	-0.31%	-0.46%	-0.57%	-0.41%	-0.40%	-0.74%	-1.10%	-1.48%	-1.77%
General consolidated budget deficit*	0.39%	0.18%	0.04%	0.17%	0.20%	0.11%	-0.25%	-0.43%	-0.27%	-0.14%	-0.19%
Employment rate**	1.88%	2.65%	1.73%	1.72%	-0.22%	2.37%	-0.95%	-0.50%	-2.61%	-3.18%	-5.52%
Unemployment rate**	-1.87%	-2.75%	-1.67%	-1.77%	0.26%	-2.57%	1.05%	0.50%	2.64%	3.35%	5.48%
Labour productivity***	0.03%	0.07%	1.22%	2.84%	4.37%	5.30%	5.96%	8.69%	12.16%	16.99%	22.46%
Real wage rate	0.01%	0.05%	0.85%	-1.74%	-1.57%	-0.16%	-0.08%	-0.06%	0.12%	3.11%	5.53%
Inflation**	0.01%	-0.01%	-0.99%	-1.04%	-0.96%	0.05%	-0.43%	-1.00%	-1.50%	-1.02%	-1.03%

*The deficit is expressed as share of GDP and has negative values. The differences presented are to be read as follows: a negative value means a larger deficit in the integration scenario as share of GDP, a positive value represents a smaller deficit in the integration scenario, expressed also as share of GDP.

**Differences between the values registered in the two scenarios.

***GDP per employed population

Over the forecasting horizon – 2004-2015 – the supplementary growth in the integration scenario will be around 2% (4.54% yearly average GDP growth in the integration scenario as compared with 2.55% in the delayed-integration one), being fairly close to the one observed for the 2000-2004 period. The share of informal economy decreases between 2004 and 2015 by 3.5% in the integration scenario and by 2.8% the delayed-integration (alternative) one.

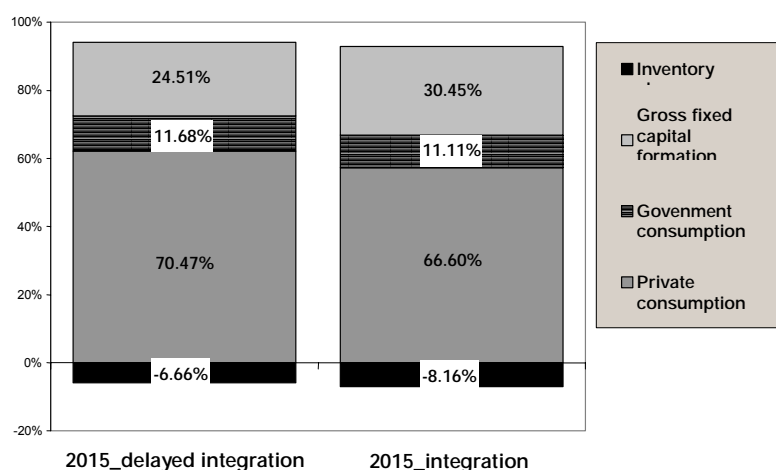
Nevertheless, the mechanisms explaining the supplementary growth in the two periods differ.

Firstly, during the second period, the supplementary growth of the GDP attributable to the integration is a direct consequence of the development of the internal supply, with investments registering much higher growth rates in the integration scenario compared with the delayed-integration one. The dynamics of domestic aggregate demand, consumption and real wages attributable to the integration process is below the one of the GDP, which might be explained through the growth of the real wages much below the growth in the productivity. This in turn is expected to reflect the still tight conditions on the labour market, conditions that seem to harden towards the end of the interval. Although close to the integration momentum, the situation of the labour market might improve the effect is present only in a short term. The development of the internal supply is mostly intensive, through restructuring and higher productivity, while the extensive development, leading to emergence of new businesses and higher job creation, is lagging behind, potentially as an effect of the still unfavourable business environment. The excedentary supply will turn towards the external markets, leading to a significant reduction in the trade deficit especially in the integration scenario.

Structural changes

The structural evolutions on the demand side reflect the effects of the dynamics described above, with the share of private consumption registering minor variations in the integration scenario, weighting against the impressive evolution of the accumulation rate.

Graph 4.6. Forecasted structure of the internal demand, 2015



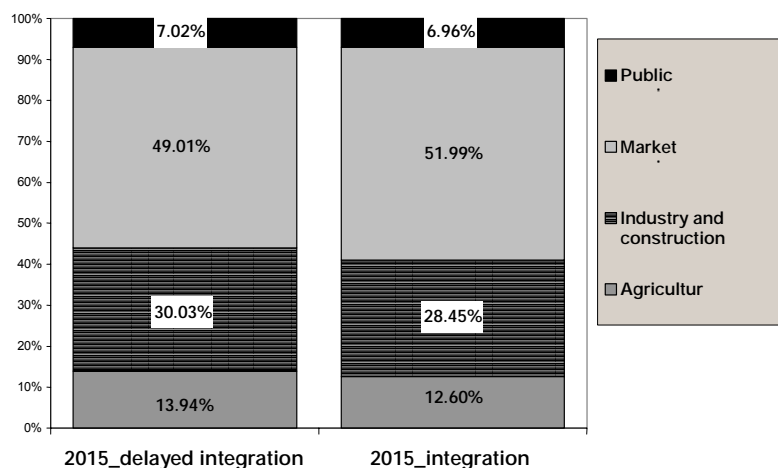
The current account deficit becomes positive in the last year of forecasted interval (2015) in the integration scenario, and in both situations the balance of payment is in excedent.

Table 4.4. The level and structure of the net borrowing requirement in 2015, in the two scenarios, % of GDP

	Delayed-integration	Integration
Net borrowing requirement (% of GDP)	-0.65%	-3.06%
Net – outflow, from which:	2.46%	8.37%
- Current account deficit	-3.03%	1.26%
- External debt payments	5.49%	7.11%
Net – inflow, from which:	-3.11%	-11.43%
- FDI	-2.11%	-6.34%
- Privatisation revenues	0.00%	0.00%
- Transfers of European funds	-0.60%	-3.00%
- NBR foreign exchange reserves	-0.39%	-2.09%

On the supply side, the structural changes have the same trend as those observed in the previous period.

Graph 4.7. Forecasted structure of the internal supply, 2015



For this interval, in real terms, the market services as well as the industry and construction are the main drivers of the integration related growth. Especially is to be observed that industry and constructions move from the net loser to net winner situation. This is very likely explicable through the need to restructuring before growth, which is less the case of the services sector.

Total VA growth attributable to the integration	Agriculture	Industry and constructions	Market services	Public services
34.20%	5.83%	9.12%	12.59%	6.66%

Prices

Average yearly growth in prices, 2005-2015	GDP deflator	Consumption price index	Investments deflator
Integration scenario	6.74%	6.69%	7.20%
Delayed-integration scenario	7.29%	7.49%	7.98%

Obviously, inflation will be lower in the integration scenario, especially towards the end of the forecasting period, even if this change in behaviour could not be directly foreseen from the hypotheses on the fiscal and monetary policies.

Nevertheless, the forecasts are directly dependent upon a relaxation of the supply constraints as defined by the literature.

Box 4.4: Institutional and behavioural conditionalities on the supply side

Dobrescu (2000, 2002a, 2002c, 2003) identified four essential factors affecting the productive performances of the Romanian economy on the supply side, namely:

- a) the existence of an important sector of companies chronically inefficient;
- b) under-use or even exits from the economic circuit of numerous production capacities, otherwise potentially profitable, because of protracted privatisation and numerous patrimonial litigations;
- c) undercapitalisation of a consistent share of the viable segment of the economy;
- d) high fiscal burden particularly on labour.

The later is explicitly included in our analysys as economic policy variable. We also control for the effects induced on the capitalisation of the economic agents, as shown before. In what concerns the other factors, we assume that the integration in the EU will represent a positiv shock for the Romanian economy, involving behavioural changes especially through clarification of property rights and decisive implemmentation of community acquis. Obviously, this hvnothesis is under a certain risc.

Consolidated budget deficit

The budgetary equilibrium results from the difference between the revenues and expenditures of the consolidated budget.

The modeling technique used for this purpose is presented below (Box 4.3). The cumulative results on both periods are simultaneously presented in graphs 4.8.a and 4.8.b.

Box 4.3: Modelling the components of the budget

The modelling technique for the revenue side of the budget relies on the principle according to which the revenues show linear dependency on the corresponding tax base, or proxies of it.

The tax rates used are therefore implicit, both by mediating the distribution on brackets, including various deductions, and by the fact that it captures all the factors and elements, including those relating with the quality of tax administration with influence the total volume of the budgetary revenues.

The budgetary categories taken into consideration on the revenue side are:

Direct revenues

From profit tax = $f(\text{gross operating surplus})$

From social contributions paid by companies = $f(\text{total wage expenditures})$

From wage tax = $f(\text{disposable income of households})$

Indirect revenues

From VAT and excises = $f(\text{GDP})$

From custom duties = $f(\text{imports})$

Other revenues (cumulate both the residual categories of direct and indirect revenues as well as the non-fiscal revenues)

Various other revenues = $f(\text{revenues of the public sector})$

Revenues from privatization = exogeneous

On the expenditure side it is assumed that different categories of budgetary expenditures are defined in linear relation with the target of expenses. As for the revenues, we use implicit rate.

The groups of expenditures so considered are:

Expenditures with pensions = $f(\text{number of pensioners, average pension})$

Expenditures with unemployment benefit = $f(\text{number of registered unemployed, average unemployment benefit})$

Other expenditures with social character = $f(\text{prognosed level of the total budgetary expenditures})$

Expenditures with economic activities = $f(\text{GDP})$, broken up on subventions and subventions on product

Expenditures for defence = $f(\text{trend, political factors})$

Expenditures with education and research = exogeneous

Culture, religion, sport and youth activities = $f(\text{trend, population})$

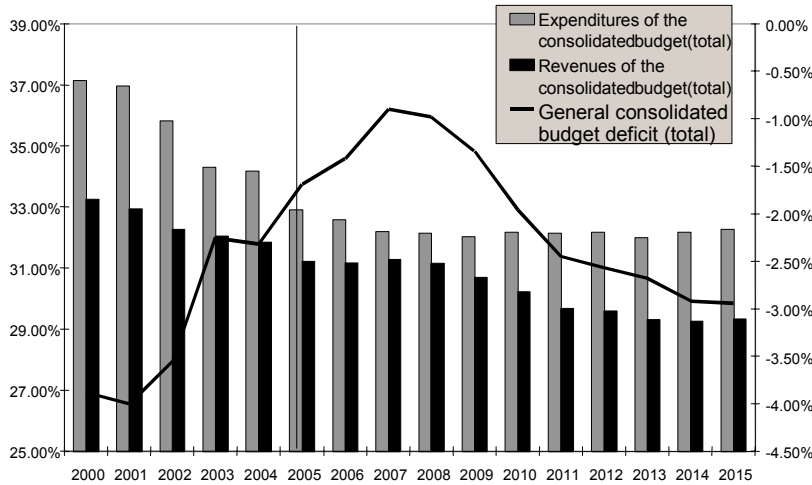
Other expenditures = $f(\text{gross operating surplus})$

Public debt service = $f(\text{total public debt})$

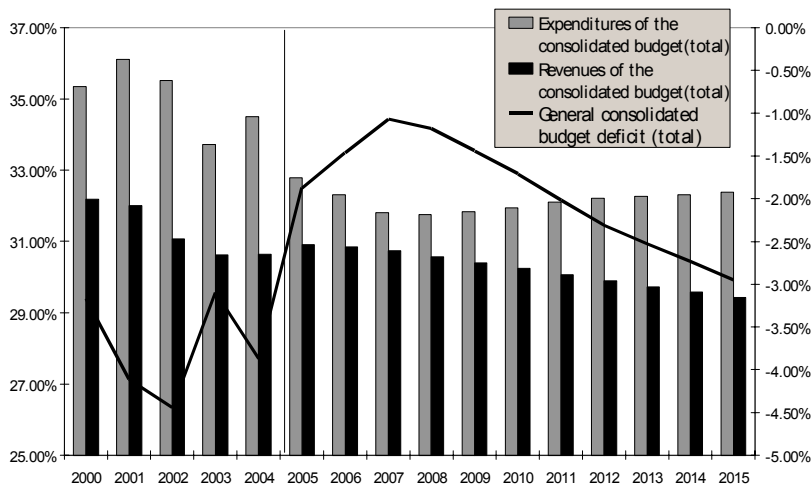
With both scenarios, the consolidated budget deficit decline towards the average of the forecasting period, but restarts to accumulate after year 2010. The results of model simulations, based on maintaining the current premises of fiscal policies, draw a signal for the policy makers regarding the need of permanent monitoring of the dynamics of budgetary revenues and promptly deciding on the opportunity of increasing current fiscal rates or – as a preferred solution – trying to increase the tax base for several categories (wealth and revenues, especially, but also value added, where the exceptions are still numerous). The level of budgetary revenues and expenditures as percent of GDP resulting from the simulations must be regarded with some caution; they only correspond to a projection of current certain tax collection levels, which is maintained as hypothesis for the future (as shown in the section dedicated to the description of the scenarios). Our

results are not forecasts of budgetary revenues and expenditures per se, given their preponderantly exogeneous, policy driven, features within the modeling exercise. Even so, it can be noted that the value of budgetary revenues and expenditures – expressed in Euros – increase over the forecasting horizon, following the real appreciation of the national currency. It is worth highlighting the process of restructuring the main budgetary categories: the revenues will see the effects from the growth in the indirect revenues, while the expenditures will maintain their share in GDP due to the gradual reduction in the public debt service.

Graph 4.8a: Budgetary equilibrium in the integration scenario(% GDP)



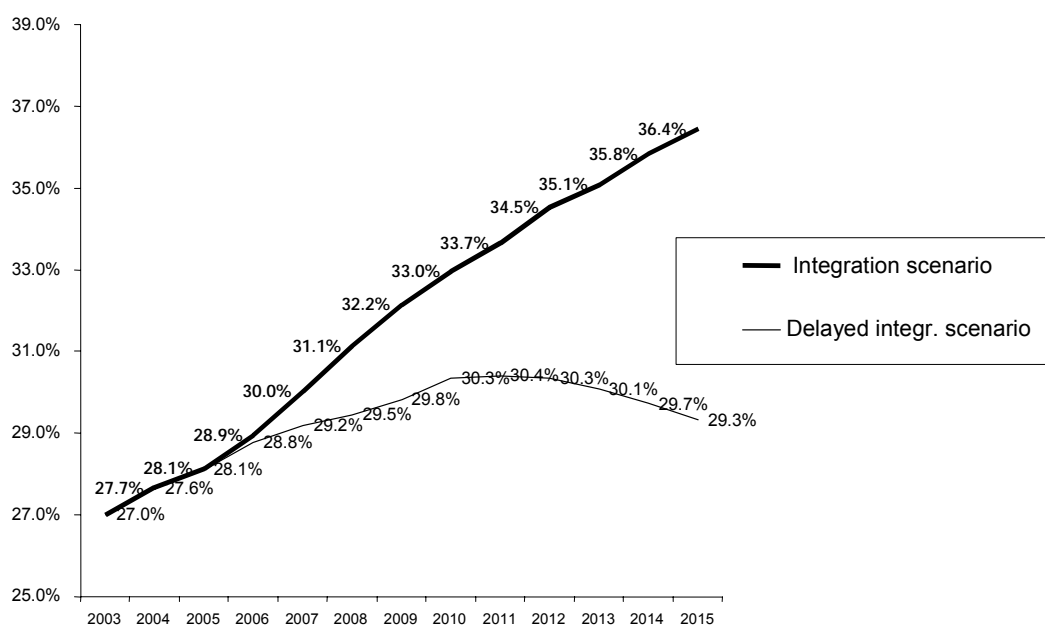
(% of GDP)



4.3. The real convergence

To illustrate the process of real convergence we analysed the forecasted variation of the GDP per capita, in PPS terms, in the two alternative scenarios: integration and isolation/delayed-integration. The forecasts were based on a hypothesis of a 2.5% yearly growth in EU in PPS terms and of 1.9% growth of the GDP deflator. The employed methodology for the update of the PPS term is the one proposed by the OECD. It can be noted that, under the integration scenario, the GDP per capita in Romania converge towards almost 37% of the one in the EU (in purchasing power parity) until 2015, while in the alternative scenario the process of convergence stops after 2012. Obviously, if the conditions of Balassa-Samuelson models are fulfilled, the convergence will accelerate, due to the restructuring of price system (including the appreciation of national currency). In this case, it can be hypotetised that, in 2015, the per capita GDP in Romania will reach, in PPS terms, around 43-47% of the average level in European Union-15, as at the beginning of 2004, or the equivalent of 55-60% of per capita GDP in the EU-25.

Grafic 4.9: GDP/capita, PPS, EU=100



5. Implications of the accession process for the corporative sector

The European paradigm concerning companies' behavior is centered on the regulation of the most aspects regarding their activity, from work security to environment and quality standards. Such an approach has received a lot of criticism as the risk of over-regulation and even of the elimination of freedom of the action, but it has also considerable benefits.

First, adopting quality standards brings about both immediate benefits for consumers and opening up of access to the European market.

A significant effect of these regulations is represented by the counteracting of the naturally existing information asymmetry between producers and customers¹³, an asymmetry that represents one of the major causes that affects the real competition. To put it differently, the client does not know the details of production process, and, if certain conditions would not be regulated, producers that respect them would not be competitive, in comparison with they that ignore them.

From this perspective, regulation, and thus aquis adoption, represents a chance for Romania, that encounters a reduced level of consumers' sophistication¹⁴ - a fact that affects the degree of demand's push for the supply.

In a broader sense, aquis adoption implies an upgrade at the level of resources allocation. In order to produce goods and services in European manner (and consequently of European quality), it is necessary not only to have the discipline imposed by aquis, but also to mobilise larger resources. The sudden transition cannot be achieved without an increase of both capital quantum and intensity in utilizing human factor. For this reason, for many economic agents there is the risk of suffocation, of the incapacity of mobilizing the necessary resources for adopting the new model of production. These limitations may appear from various reasons:

- Limited access to capital;
- Lack of experienced personnel or without the required skills;
- Dependence on another support activities that are not developed yet;
- Insufficient development of infrastructure;
- Incapacity of managing in increasingly complex conditions.

Taking into account all these difficulties, the success of the qualitative leap at the level of mode of production will depend on the capacity of institutional capacity of assuring both overseeing and assistance in new regulations' application. We consider that a system centered just on penalties is not sustainable in Romania, as it risks to discourage the companies.

At the level of the entire aquis that affects companies' behavior, it appears the risk of asymmetrical implementation. Thus, if a domain is not covered, in the conditions of the above-mentioned pressure exercised on enterprises, it becomes a sore point. In order to face the strict rules from different domains, the enterprises may exercise pressure in others. For instance, if quality standards are not doubled by work security standards, the number of work accidents might increase.

The aquis is affecting in different degrees the economic sectors, fact that calls for a certain adptation of the support policies.

Table 5.1. Degree of exposure to community aquis of various industrial domains

¹³ See Stiglitz in *Competition and competitiveness*.

¹⁴ According to *World Competitiveness Report*, 2003.

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Industrial domains	Common market legislation	Environment acquis	Health and security for employees	Competition
Food,, beverages and tobacco	***	*	*	
Fabrics and textile products		**		
Leather and leather products		**		
Wood and wooden products		*	***	
Paper and paper products		***		
Coke, products refined out of oil and nuclear combustible		***		
Chemicals, chemical products and fiber manually manufactured	***	*	***	*
Rubber and plastic products	*	*		
Other non-metallic mineral products	*	***	**	***
Primary metals and products fabricated out of metal	**	*	**	*
Machines and equipment	**	*	**	*
Optic and electric equipment	**		**	
Transport equipment	**	*	*	**
Manufacturing		*	*	

Source: Michael Landesman, Roman Römisch, Robert Steher and Björn Gillsäter (2001) in the study PAIS

Accession to European Union and, in the future, to the monetary union will most probably lead to inflation diminution - a fact that will contribute to the rise of investment rates. The expected macro-stabilization will increase the access to external credits, reducing, at the same time, their costs.

One of the derived aspects of accession process to EU is an expected foreign direct investment increase (FDI), a decisive dimension if we take in account the critical need of capital. Many studies demonstrate that there was a correlation between the announcement regarding EU extension and ISD evolution¹⁵. Thus, the announcement of the Council of Essen in 1994 was followed by a significant FDI increase in the countries with the most chances of accession – i.e., Hungary, Czech Republic and Poland. In addition, in 1997, EU decision of initiating the negotiations with five applicant countries led also to FDI increase in these countries, stimulating both economic growth and restructuring.

The main benefits brought by FDI are:

- The job creation;

¹⁵ see Alan Bevan, Saul Estrin and Heather Grabbe, *The impact of EU accession prospects on FDI inflows to central and Eastern Europe*, POLICY PAPER 06/01, ESRC “One Europe or Several ?” Program

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- Vertically stimulation effects and horizontally increase of competition. However, in the context of the lack of competitiveness of the local companies, the increase of competition may lead to their bankruptcy;
- Technological transfer (in most of the cases) of managerial know-how and marketing;
- Access to markets, respectively to those markets on which investing companies activate;
- A superior training of personnel and reduced impact on environment.

The experience has shown that, as a rule, that de facto connection to European regulations has had favorable effects on FDI, but there have been many opposite cases. Domains as security market or non-banking financial services have proved as not having a positive impact, and, in the case of regulations concerning competition, the impact has been even negative.

Out of the candidate or new entered countries, Romania, along with Bulgaria, Slovenia and Slovakia, is ranked on the last positions regarding FDI incomings. To compare, Poland has succeeded in attracting more FDI than Portugal. Visegrad Group (Czech Republic, Hungary, Poland and Slovakia) has collected approximately two thirds of the total FDI in region. Unlike these, Romania and Bulgaria have collected only 10%, the comparison being even more disadvantageous if we take in consideration the number of inhabitants.

As far as the new context is concerned, FDI flux will be determined by a series of factoris, as follows:

- UE extension dimension that brings about FDI dissipation;
- The chance for the entire area to become attractive for FDI, imposing the image of a great economic growth potential;
- Given the nature of accession, internal market dimension does no longer represent an advantage/stimulating factor, fact that which transfers the competition for FDI in the ground of cost, labor training, corruption and taxation;
- The credit rating. Alongside this factor may be mentioned also the signals of recognition regarding the progresses made towards accession. The studies show that this mechanism has operated even irrespective of the credit rating.

Infrastructure development represents one of the key elements in the upgrading process that companies should achieve following the European production pattern. In this respect, there are for Romania two major directions of action:

- Transport infrastructure - which is the object of the Chapter 9 of negotiations.
- Information infrastructure (information and communication technology –ITC) - see chapter 12.

As far accession costs in **transport domain** are concerned, these are among the most significant, reaching only for infrastructure 18,3 mld Euros in the period 2004-2007, out of which 10, 6 mld Euros in the period 2008-2015¹⁶.

¹⁶ Estimation provided to Romanian Ministry of Integration by the Ministry of Transport, Constructions and Tourism. (see the annex Transport)

Need of financing estimated for the acquis implementation in the chapter TRANSPORTS for infrastructure (mil. Euros)

	TOTAL	out of which										
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
I. Infrastructure (A+B), out of which :	16697.16	478.46	1565.63	1922.56	2591.29	1456.98	1151.88	1274.68	1544.79	1574.9	1411.69	10
A. Infrastructure projects – TINA report:	10629.06	244.96	1259.13	1396.16	1650.29	648.98	579.9	816.8	991.4	881.2	898.99	7
Road infrastructure 2004 – 2015	0	0	0	0	0							
Railway infrastructure	8650.3	165.7	1044.5	1187.5	1462.3	491.6	419.6	620	848.7	748.7	754.5	0
Infrastructure of Constanta seaport	344.6	17.5	64	67.1	90	40	38	18	10	0	0	
Infrastructure of seaports and inland waters	1206.06	29.06	117.43	115.46	80.59	111.48	116.48	124.48	78.29	77.9	96.29	0
Aerial infrastructure	418.1	32.7	33.2	26.1	7.4	5.9	5.9	54.4	54.5	54.6	48.2	
B National roads' rehabilitation	6068.1	233.5	306.5	526.4	941	808	571.9	457.8	553.3	693.7	512.7	0
II. Cost of aquis application	1595.5	296.126	276.776	280.238	254.5	197.9	145.48	144.48	0	0	0	
Total (I+II)	18292.66	774.586	1842.40	2202.79	2845.79	1654.88	1297.36	1419.16	1544.79	1574.9	1411.69	10

Source: Estimation provided to Romanian Ministry of Integration by the Ministry of Transports, Constructions and Tourism. (see the Appendix Transports)

As a candidate country, Romania benefits of the financial assistance provided by ISPA (Instrument for Structural Policies for Pre-Accession), which is supporting the development of railways, ports and airports. Only for the railway infrastructure, ISPA assistance reaches 240 millions Euros, on condition that Roamnian state adds another 70 million Euros.¹⁷

The transport aquis involves also other costs, amounting 1.59 billion Euros for the period 2004-2009 (see Appendix 3).

6. Agriculture and agricultural policy

For Romania, agriculture represents one of accession negotiations' tender domain, mainly due to the great number of inhabitants who work in this sector, as well as due to the extremely reduced productivity. An examination of the structure of agricultural

¹⁷ <http://www.cfr.ro/JF/engleza/0010/financing.htm>

employment reveals the fact that the weight of employees is extremely reduced and, at the same time, that of workers with part-time work is extremely high. If we take into consideration that, despite these aspects, migration from urban to rural continues surpassing that from rural to urban, it looms the image of a subsistence domain – a testimony of social costs implied by transition in Romania.

Given the prevalence of both agricultural area in the total arable area - 63% represents arable area - and private owned land (63% out of total agriculture area is private owned land), and the reduced average size of agricultural farms (approximately 2 hectares), there might contend that Common Agriculture Policy (CAP) will have a significant effect on Romania. Production in this sector realized by Romania falls under CAP incidence: in 2002, 57% from agricultural production has been represented by vegetal production (dominated by cereals) – which represents the main class of products under PAC incidence, and 41% by animal production – that is entirely under common policy incidence.

Thus, in the common position paper - by means of which the negotiations have been temporarily concluded (on July 4, 2004) – five strategic domains have been identified: rural development, arable area for cereals, animal breeding, wine-growing and wine-making sectors, and food industry (milk and sugar processing). These domains emphasize that the agricultural policy which Romania intends to apply is consistent with the new Common Agriculture Policy, that is also orientated towards rural development, gradual elimination of production quotas (until 2013), progressive decrease of direct payments and money transfers for rural development, diminution of subsidies and conditioning them by the compliance with alimentary safety, environmental and animal care standards etc.

The largest part of costs related to Romania's accession to EU for agriculture and agricultural policy, derives from the weak competitiveness, as well as from a low degree of general development of Romanian agriculture by community standards. As it is shown in the last European Commission's Country Report (2003), *„Romanian agriculture is extremely vulnerable to unfavourable weather conditions, due to structural problems of this domain. One of the major problems is represented by agricultural land's fragmentation, that which makes farms be too small to afford necessary investment and apply technology. Farms' activity is further too little correlated with market, taking into account that processing and sale units continue orientating themselves towards great producing units, and to a less extent towards small farms, which are currently predominant”*. In the next period, the most part of costs will derive from the necessity of *„accomplishing the complete concordance till accession as to community requirements regarding alimentary safety and consumer protection. Romania should further concentrate its efforts on both strengthening the administrative capacity in order to implement and apply community acquis, especially in the sanitary, veterinary and phytosanitary domains, and accelerating the structural reform in agricultural and agro-alimentary domain.”* (European Commission, 2003).

The effects of CAP implementation should be examined from manifold perspectives. Farmers will have to produce by the EU quality, sanitary and phytosanitary standards, if they want to sell their products on the market (either national market, EU market or sale of products to FEOGA). In order to benefit from support within CAP, they will have to cultivate less and produce at European standards. Otherwise, they will be able to continue producing, but will not be able to sell, all production being utilized for self-consumption only. Such a perspective would mean transforming a significant part of

the Romanian agriculture, and implicitly a significant part of rural economy (based mainly on agriculture), into a self-consumption based agriculture and, respectively, a rural economy. Certainly, this is an unacceptable alternative under the conditions of market economy. It would create, to some extent, a vicious circle: without meeting EU standards, farmers will not be able to sell and will not be able to obtain the necessary financial resources to make farms profitable and implement the EU standards. Hence, there will be perpetuated the self-consumption characteristic of rural agriculture and economy, and it will not take advantage of benefits resulted from price rises of agricultural products - due to the fact that intervention price is higher than the current level of prices on Romanian market - as FEOGA will buy only products in accordance with EU standards, and the financial capacity will remain modest, so that it will not be able to sustain the costs of CAP standards implementation.

At macro-economic level, in order to support farmers during the process of CAP implementation, it is necessary to finance national programmes, but also to take a better advantage from European funds available prior to pre-accession in the framework of SAPARD programme. Given the high degree of agricultural land fragmentation, with apparent consequences on reduced size of agricultural farms, Romanian product competitiveness is seriously affected, and short-term costs for making them efficient include not only costs for technology and for increasing the efficiency, but also costs for meeting sanitary and phytosanitary standards, as well other rules of European Union. The most affected by the introduction of both new quality standards, and sanitary and phytosanitary rules will be the small-size farms. Under these circumstances, the initiation of a programme identifying the necessary measures that must be taken in order to support both the semi-subsistence farms and small farms that may be viable constitutes a category of „compulsory investment” for making competitive the Romanian agriculture and setting up the pre-requisites for taking advantage of EU member status.

The main elements that generate costs can be synthesized as follows:

a. Budgetary costs for the implementation of the common agriculture policy.

The degree of acquis adoption and implementation, as far as chapter 7 - „Agriculture” - is concerned, is still reduced. Thus, in 2003, were adopted approximately 253 legislative acts regarding acquis adoption (around 100 of these acts were adopted in 2002, and 14 in the first months of 2004); most of them referred to tender domains of accession negotiations, also mentioned in the Commission’s last Country Report, respectively common market organization, quality certification, sanitary and phytosanitary control etc. Given the relatively reduced degree of community acquis’ transposition, as well as the specific characteristics of both agricultural domain and rural environment, in the next period will become visible a series of costs related to both new provisions’ implementation and the necessity of institutional re-defining at local and regional level, as well as costs at micro-economic level. Costs from „compulsory investment” category, pertaining to community policy’s implementation, will continue being visible until 2015.

In addition, for Romania, the status of member state would bring funds transfers from community budget for sustaining this policy (from European Fund for Agricultural Orientation and Warranty, - section Warranty). These funds might be totally available from community budget. European Commission’s studies indicate that European Union will not get through the full obligation earlier than from 2013, although up to that date would

progressively increase its participation in financing the agricultural policy of new members (according to CAP mechanism); a conclusion implying that Romania has to ensure own financing sources for the implementation of CAP provisions.

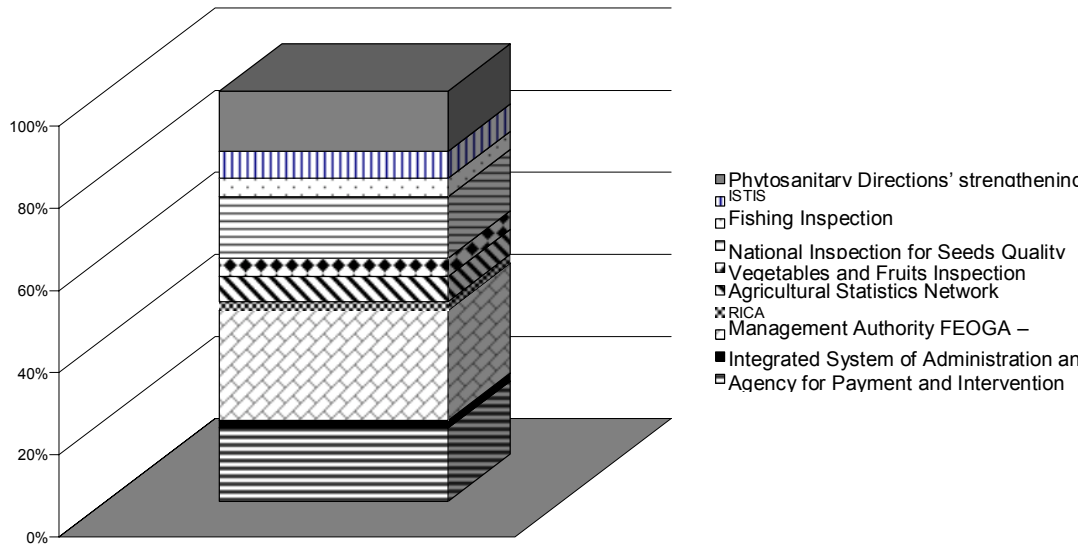
b. Costs related to institutional setting. To these costs it is added those related to institutional setting regarding the application of this policy. Romania's efforts for alignment with CAP have also included till now, in addition to partial adoption of legal framework that constitutes community acquis, re-defining of Romanian agriculture's support system, following efficiency criteria, able to stimulate the the land concentration (the increase in farm's size) Taking into account that the support mechanism adopted by Romania (like the European one) is focused on price mechanisms, budgetary implications, in terms of costs are obvious. In the agriculture sector, the institutional setting is far from being completed. The process could be considered initiated as soon as both SAPARD Agency and institutional mechanisms for programme implementation have been set up. In their turn, costs related to the participation in SAPARD programme can be measured not only in terms pertaining the dimension of co-financing obligations on the part of Romanian government, but also in costs related to both the reduced degree of utilization of these funds and delays in programme application. Time extension of these costs has as maximum limit the accession date (2007).

At present, institutional setting up process is still in the making and has comprised the setting up of new institutions, required, after accession, for the administration of CAP at national level (e.g. Romanian Agency for Food Safety, Agricultural Accountability Information Network etc.). This kind of costs will progressively decrease until 2007 – deadline, up to which institutional setting up process must be completed (at least roughly), and institutional framework for CAP should be not only created, but also operative.

c. Costs related to the adoption and implementation of agricultural and processed products' quality standards, of sanitary and phytosanitary standards, of systems regarding quality certification etc. These costs become materialized not only at macro-economic level (concerning the adoption of specific legislation, creation of the framework for product quality's certification etc.), but also at micro-economic level (derived especially from imposing some higher quality and production standards than those existing now). The fact that the most part of agricultural production is obtained in private farms (91% out of cereal production in 2002 has been obtained from private-owned land) means *the most part of costs regarding the implementation of sanitary and phytosanitary standards stipulated in PAC will be transfered at the level of private small farms.* Cost elements regarding CAP implemetation will be directly supported by agriculture producers, with no competence within CAP regarding facilities for dimension farms; as current CAP mechanisms are not fit for these small farms. To put differently, the most affected, in relative terms, will be small farmers, due to their limited financial capacity to, simultaneously implement the CAP standards and increase their efficiency.

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For the period 2004-2007 total expenses for institutional framework development, including those designed to increase quality standards of products and help meet sanitary and phytosanitary standards are estimated at 538,0261 millions Euros, out of which around 80% for sanitary veterinary standards, and the rest being allotted as can be seen in the



graph below.

Benefits from the adoption of the common agriculture policy are evident pre-eminently on medium and long term, and derive from:

a. Financial support from community budget of agricultural policy in Romania. Position Paper that temporarily concludes chapter 7 „Agriculture”, mentions that Romania will receive 4 billions Euros for the period 2007-2009, (plus approx. 800 millions, estimated financing from structural funds), that represents twice the budget of the Ministry of Agriculture for 2004. In the pre-accession period there is functional the SAPARD Programme (Special Pre-Accession Programme for Agriculture and Rural Development), financed by European Union and co-financed by the Romanian Government, a special programme destined to support agriculture and rural development. As part of it, Romania will receive 150 millions euros early between 2000 and 2006, being the second country after Poland as to the funds received. Unfortunately, till now this programme has not had the expected success, as funds cannot be totally used, due to not only some imperfections in information and consultation system, but also to some conditions of eligibility that cannot be met by an extremely great number of applicants from agricultural and agro-alimentary sector - such as private capital 100%, the lack of duties in the last years of activity etc.

b. Rural areas development. Rural development is already stated as being one of predominant domain of Romanian agriculture policy for the next years, situation perfectly in accordance with the priorities of the Common Agriculture Policy (in Agenda 2000, rural development became the second pillar of CAP). Rural Development aims at

reducing the gaps between rural and urban areas, absorbing rural labor in non-agricultural sectors (services, agricultural products' processing, agro-tourism etc.), infrastructure development, in order to ensure as high as possible living standard for rural inhabitants and reasonable pensions for farmers etc. Rural development measures comprise measures directly applicable to human resources from agricultural and rural activities (pensioning before age limit under certain conditions, financial support for farmers from unfavoured areas or with specific environment problems etc). Romania has received for rural development approximately 2.3 billions Euros, plus another approximately 0.8 billions for projects financed from structural funds (FEOGA Orientation).

c. Increase of agricultural production. The increased prices of agricultural products after accession, inclusively through the subvention system, will represent a strong stimulent for agricultural producers. The rises will be differentiated depending on agricultural production structure in Romania. As result of negotiations, the area cultivated with cereals eligible for subventions is 7 millions hectares. Other domain which received attention in negotiations was animal breeding sector, for which it has been obtained subvention for all eligible animals in EU, although their level is inferior to that requested by Romania. As to sugar, negotiations have been extremely difficult, taking into consideration the reduced production obtained by Romania in the last years (average production being 99000 tons in the period 1998 – 2002, with 55000 tons in 2000) and the fact that Romania is clearly an importing country for sugar. However, it has been obtained a total quota for sugar (quota for sugar from sugar beet, plus a quota from sugar cane processing), which, along with what it has been obtained at isoglucose, covers totally Romanian domestic consumption. Although only 40% of the milk produced in Romania in this period meets EU quality parameters, it has been obtained a quota exceeding 3 millions tons, out of which more than 1 million for deliveries to processing units, and around 2 millions tons for direct sales to consumers, as well as a restructuration quota (own consumption in households) of 106995 tons. The negotiation of certain quota levels does not represent a warranty of their maintaining them after accession. More precisely, if in two years after accession these quotas are not reached, they will be automatically decreased to the level of real production. Therefore, it is absolutely necessary an increase in competitiveness and, first of all, in productivity. In addition, there have been obtained more transition periods and agreements in negotiations, based on arguments provided by producers who have presented modernization plans and measures for the increase of efficiency for these units. Some of them will offer to producers and processing **personnel** of milk, meat etc. a supplementary time for complying with Erupean standards.

d. setting up and development of market mechanisms. Setting up an institutional framework similar to the EU one, as well as the increasing role of the professional associations in market functioning and organization, **through the agency** of both better management and control, results in benefits not only for producers, but also for consumers (in issues regarding food safety and more „fair” prices as well).

e. benefits derived from both free circulation of agricultural products and Eu mechanism of price warranty. For these, however, Romanian products must meet quality, sanitary and phytosanitary standards similar to those of EU. Under these conditions, only production units accredited by EU (list A) will be able to sell products on the European market. For some of production units, in the framework of the Common Position Paper, it has been agreed on transition period for restructuration and

modernization (list B), but if these will not succeed in reaching the necessary standards, they will have to fail in business even the next day after this deadline.

7. Environmental policy

European Union has been adopted a consistent environmental policy in 1972. This policy was seen as a way for developing a managerial program for environment protection for the whole regional block. At the beginning this harmonized strategy for environment relied on the articles 2, 100 and 235 of the Treaty of Rome. The provisions contained in the article mentioned above referred to the powers delegated to the Community institutions to adopt new regulations and to harmonize national regulations of the member states if these regulations had a direct effect on the proper functioning of the integrated market. The **principles** underpinning the EU environmental policy are:

- *Preventing is a better than correcting*
- *All elements/processes with adverse effects on the environment should be controlled at the outset*
- *The polluator should pay for all damages produced and for the cleaning of the environment*

European Single Act stated that all issues dealing with the environmental protection should be integrated in Community policies. Thus the environmental policy is strongly correlated with the Common Agricultural Policy, the Transport Policy, the Energy Policy, the Regional Policy, Tourism Policy and the Community Initiatives in the field of research and development.

The costs for implementing the EU environment policy consist, first of all, of investments and of setting up the mechanisms needed for the proper transposing the European environmental standards. The implementing of the EU standards will lead to the cessation of some polluting industrial activities; additional investments in non polluting/friendly environment technologies will be needed, but the costs of these technologies is too high for most Romanian companies and SMEs and may lead, on short and medium term, to a contraction of the economic activities or to their cessation, decrease in employment and incomes. Since in most areas are confronted with concentration of highly polluting industrial activities or with the existence of industrial activities producing goods which are not complying with EU environmental standards, the amplitude of the effects generated by the introduction of European environmental regulations will be significant on short and medium term; these negative effects will not be alleviated/eliminated even they are distributed on longer transition periods.

Previously, Romania seemed to be facing an apparent dilemma: since the financial resources are limited, it was raised the question about the opportunity of 1) focusing the efforts on the environmental issued of the economic development or 2) considering these environmental issues of being of second importance and dealing with them later once the aspect related to economic development and growth would have been, at least partially, sorted out. In case of the first approach, some reticence may be noticed. The reticence is based on the idea that sorting out environmental problems generates significant costs

in a period when the economy cannot provide sufficient resources needed for simultaneously funding an equilibrated regional development and for a fast recovery of the costs for complying with EU environmental standards. The second approach represents an easier way than the first one, but it only postpones the environmental issues for a given moment in the future when the national economy will be able to undertake the costs involved. In case of this second approach, it should be pointed out that the period that Romania needs for reaching an adequate level of economic development for supporting the costs involved is long. Thus, if the existing development gap between Romania and EU/other countries in transition is considered, in this second approach, the environmental issues will hardly be judged as being a priority for the short and medium term.

When selecting the best option, the following issues should be considered: in Romania, the regional disparities in terms of pollution is higher than the regional disparities in terms of economic development; after 1990 the environmental problems are to be found as a driving element of the existing regional disparities in terms of economic development. Prior to 1990 the most developed regions were also the most polluted regions (their economic development was based on high concentration of the industrial activities in the area, but the cost of their economic development was an environmental cost, visible under the form of high pollution). After 1990, the industrial restructuring and humble programs drafted for sorting out the environmental problems had negative effects on the level of the economic development of the region and regional divergences in terms of development accrued.

The results of the analysis made by the European Commission show that the EU regulations on environment protection cannot be fully transposed before end of 2005. *“the transposition of the Community acquis will require important investments, so that the implementing timetable will be highly dependent on the Romania’s overall economic development. Investments should lead to a gradual compliance with the environmental standards laid in the Community Directives. These investments will be mostly done by the public sector (especially municipalities) and will be a burden for the public budget”*¹⁸.

This is the consequence of the fact that Romania lacked a coherent reasoning for environmental policy. In case when formal regulations for environment protection were adopted, the system of punishments associated was very lax which explains the inefficiency of these regulations. The studies conducted so far (PAIS 2001) estimate significant costs for implementing the Community environmental acquis. The periods of transition that Romania required in case of this chapter (up to 20 years) also indicate high costs for implementing the EU environment provisions on the background of insufficient financial resources. The costs for implementing the Community acquis will be supported by the public sector, but also by private undertakings. The costs undertaken by private companies are determined by the obligation to use “environment friendly” technologies and production methods allowing them to comply with the criteria set up for the eco-labelling. Companies from the siderurgy and oil industry will be the most affected (since most of these companies are private, most of the costs in these sectors will be undertaken by the private owners and not by the state). The largest part of the costs for implementing the community acquis will be undertaken by the public sector since the government will be responsible for: ensuring the compliance of the activities of state owned large companies from energy, extractive industries and public utilities etc. with environmental criteria; implementing from own means and co-funding various programs for environment

¹⁸ programul de armonizare legislativă în domeniul mediului ambient și costurile aferente vor fi prezentate în anexa 3

protection and depollution of surfaces and rivers (ISPA prior to accessiion and cohesion funds after 2007 will be available as support from EU). Regardless the source for funding the measures adopted for ensuring the compliance with the EU provisions, the costs will be transferred to the price of the products realised and services provided and, consequently, to their end users.

As regards for the transposition of the Community acquis into the Romanian legislation, the performances are not significant. Two explanations for this state of facts can be identified: the great number of regulations and standards included in the Community acquis and the priorities set up by the Romanian government which focus mainly on adopting the acquis of the chapters for considered to be less sensitive in negotiations than the “Environment” chapter and for which negotiations were started. Since 2002, we can notice an intensification of the legislative efforts for adopting the Community acquis in the field of environment protection. Most legal acts adopted between 2002-2004 cover the folowing areas: criteria for eco-labelling of the Romanian products, rules applicable to waste and waste management, introduction of schemas for environment management and audit according to the EU model, instituion building for implementing environment protection programs.

When discussing the impact of adopting the EU environment policy, the following benefits should be considered: the development of the eco-industries (producing equipment for controlling the pollution), the development of the new “clean and process” technologies and benefits associated for companies orienting their activites towards these new sectors. Also, the adoption and implementing of the European rules for environment protection will benefit to the society as a whole; these benefits cannot be quantified and manifest in terms of the improvement of the quality of life.

Methodologically, the analysis of the accession impact on environment field raises problems regarding the correlation between costs and benefits in time and as a domains. The costs of meeting the standards are identifiable, as are related to specific technologies or activities. They are more easily quantifiable, with a more reduced time horizon and more clearly spread out. Effects/benefits are not only local, but also geographically wide-spread, being at the same time much harder quantifiable. However, “benefits resulted from air quality increase and industrial pollution control might be eight times as big as conformation costs” [in the five sectors with the greatest implications: energetic industry, mining industry, chemical industry, petrochemistry, siderurgy, building material industry]¹⁹.

The main problem is therefore balancing of certain direct costs with less visible benefits and to different degrees of extension (that may extend even to new-born children’ health), that which makes the valuation much looser. The most frequent domains in which one feels the benefits are health, some economy branches such as tourism and fishing, as well as some social benefits (including here waters’ aesthetic characteristics).

According to the estimations made the Ministry of Environment, the total costs for environmental acquis’ implementation in the period 2004-2021 are approximately 29.5 billion Euros, out of which:

- 19.5% from the state budget;

¹⁹ Manoleli D., PlatonV., Stănescu P., Prisecaru P., Georgescu L., *European environment acquis’ impact on certain industrial domains in Romania*, European Institute of Romania, 2002.

- 28.8% from the community funds;
- 35.76% from the economic agents;
- 15.94% from other sources.

Table 7.1. Estimation of environment costs in the main domains with the financing sources in the period 2004-2021

	TOTAL	Out of which:			
		TOTAL BUDGET	TOTAL EU FUNDS	TOTAL Economic agents	TOTAL Other sources
Horizontal legislation	9.05	9.01			0.04
Air quality	804.28	19.97	3.20	774.51	6.60
Waste Management	2474.78	571.48	1010.18	648.98	244.14
Air quality	16282.06	3427.84	7008.88	2198.34	3647.00
Industrial pollution control	9797.64	1655.26	540.26	6909.32	692.80
Protection of nature	7.32	7.32			
Chemicals	29.73	6.23	1.00	22.50	0.00
CNCAN	31.80	27.03			4.77
Noise	1.15	1.15			
Civil protection	85.52	22.43			63.09
GENERAL TOTAL	29523.32	5747.73	8563.52	10553.64	4658.43

Source: Estimation of the Ministry of Environment and Water Administration.

Valuations of costs regarding the implementation of environment Directives are also available as a result of the research set of pre-impact, PAIS I.

PAIS Study no 5²⁰ evaluates the impact of two EU environment Directives that imply the greatest costs, in five economic domains: the Directive regarding big combustion stations (LCP 88/609) and the Directive regarding the prevention and control of industrial pollution (IPPC, 96/61). The five sectors that are the most pollutant are: energetic industry, mining industry, chemical industry, petrochemistry, siderurgy, building material industry. To comply with EU acquis, the five economic domains must additionally spend 650 de millions € per year, approximately 40 per cent out of these costs belonging to iron and steel industry; the most reduced costs belonging to building material industry, which has already invested in pollution control equipment.

²⁰ Manoleli D., Platon V., Stănescu P., Prisecaru P., Georgescu L., *European environment acquis' impact on certain industrial domains in Romania*, European Institute of Romania, 2002.

Table 7.2. The implementing costs of the Directive regarding the large burning centrals (LCP88/609) and of the Directive regarding the control of the industrial pollution (IPPC, 96/61)

	Costs of investment (mil Euros)	Maintaining and operating costs (mil Euros)	Annual costs (mil. Euros)
Energetic industry	382-1142	33,7-100,3	64,3-191,7
Mining industry	533	5,6	48,2
Chemical industry and petrochemistry	1006	118	198,5
Iron and steel industry	932-1219	127,4-162,5	201,9-260
Building material industry	190-269	17,2-27,6	32,4-49,2
TOTAL	3043-4169	301,9-414	545,3-747,5

Source: Dan Manoleli, Victor Platon, Rodica Stanescu, Petre Prisacaru, Lucian Georgescu, European environment acquis' impact on certain industrial domains in Romania, European Institute of Romania, 2002.

The study estimates the benefits resulted from air quality's improvement and industrial pollution control, as being eight times as big as the five economic domains' conformation costs, they proceeding mainly from the diminution of the number of illnesses and premature death.

From the moment when the five domains will implement the EU acquis, Romanian population will rejoice at clean drinking water. A study has estimated that benefits due to a better air quality and to pollution control, as a result of Directives LCP and IPPC implementation, amount to between 0.78 and 5.85 billions per year. The highest limit of these benefits is approximately eight times as big as the highest limit of conformation costs. These benefits do not measure the PIB or welfare, and companies cannot rely on them for acquis implementation's financing.

The implementation costs are significant; as they may increase electricity cost with 6 per cent, and iron and steel cost with approximately 20 per cent.

In the last version of the position paper regarding Chapter 22, Romania asked for five and respectively seven transition years for the LPC and IPPC directives. The authors estimates that these transition periods are too short, taking into account the great number of installation that must be technologically improved. Romania might start by establishing the program through the agency of which to estimate the necessary period for EU directives' transposition.

Another PAIS study²¹ estimates the costs for EU acquis implementation regarding water quality at 13,4 milliards Euros (16.2 billions according to the Ministry's evaluation), which represents a large part of the costs for complying with environment protection's requirements. Additionally, they are required administrative and institutional costs. The most strenuous financial effort will have to be sustained by local utility. Financial efforts will have to be made in industry and agriculture as well.

²¹ Rodica STANESCU, Cristina Sorana IONESCU, Dan MANOLELI, Impact of implementation of the directives 91/271/EEC, 98/83/EC, 76/464/EEC (and the seven daughter-directives) and 91/676/EEC on industry, agriculture and local utility system, p.40.

A similar study²² estimates the costs for modernization of the noise emission control at approximately 10 millions Euros (in comparison with 2.15, according to ministry's estimations), considering that these costs will be completely compensated by benefits regarding workers' health and noise decrease at local level.

The estimated cost which Romanian authorities (central and local) must sustain for air directives' implementation is 200 millions Euros, taking into account the total investment made in the first year and operating costs for four years (without component parts). In order to achieve the implementation it will be required approximately 600 measurement stations for The Network of Air Monitoring, 800 component parts and networks for the System of Emission Inventorying and a personnel of 762 persons²³.

The total effort for the transposition of provisions of the Directive regarding administration of major accidents involving dangerous substances is estimated at 810000 - 820000 Euros²⁴. At the local institutions level, costs are approximately 522000 - 530000 Euros, out of which: current expenses for the five involved institutions - 203000 - 211000 Euros, (40% from total costs) and capital expenses - 320000 Euros, (60% from total costs). IMP must spend expenses totaling 325000 - 330000 Euros (more than 60%), out of which approximately 165000 Euros (79% - 80%) are current expenses and 163000 Euros (51%) capital expenses. The Central Authority - MAPM – cumulates total costs of 291000 Euros, out of which: 52000 Euros capital expenses and 240000 Euros current expenses.

8. Foreign trade

According to the commitments assumed the Position Paper regarding the Chapter 25, *Customs Union*, the most necessary measures for both the realization of customs union and the implementation of trade policy provisions should be taken until 2005. The main commitments refer to: „The conclusion of TARIR (Romanian Customs Tariff) implementation and the insurance of a complete compatibility with TARIC (Common External Tariff) – deadline: 2005; The conclusion of Common Transit Agreement through the generalization of NCTS's - The New System of Common Transit - implementation – deadline: 2005; The integral application of community *acquis* in the domain of ceilings and quantitative quotas – deadline: accession date” (Position Document regarding Customs Union). As far as customs regimes are concerned, their harmonization can be roughly considered as a concluded process even since the end of 2003.

In the field of the common trade policy, The EU Progress Report 2003 reveals the necessity of continuing the efforts of harmonization with the *acquis* provisions regarding the products with double utilization, i.e., export credits and general export licenses. As the same report indicates, for the next period it is required to ensure an increasing stability of the legal framework²⁵, pre-eminently in trade policy area.

²² Impact study concerning the transposition and application of the directive 2000/14/ec of European Parliament and Council from May 2000.

²³ Estimation of Institutionale and Administrative Costs required for the implementation of certain EU directives – Frame-Directive regarding Air and Daughter-Directives.

²⁴ Constantin Ciutacu, Victor Platon, Evaluations of institutional and administrative costs generated by the implementation of the Directive No. 96/82/CE SEVESO II

²⁵ In Romania, the institutional framework of common commerce policy's application is ensured by External Commerce Department, and that of customs regulations' application by National Control Authority, with role of control and co-ordination - which covers customs services, and by Romanian Customs Administration.

Integration of a relatively small-size economy to an economic area such as that of EU, with a high degree of economic stabilization, implies certain costs and benefits. In what concerns trade, Romania's accession effects must be examined on two axes: costs and benefits involved by the European Agreement (before accession) and those involved by the adoption of the EU commercial policy (after accession itself).

As far as the first axis is concerned, for Romania, costs and benefits derive, in principle, from the gradual process of trade liberalization of trade in agri-food products and the setting up of a free-exchange area between Romania and EU in the area of industrial products (the creation of this area has been initiated by the conclusion of European Agreement in 1993 and finished in January 2002).

Costs derived from trade liberalization between Romania and EU are, in this case, pre-eminently related to both protectionism diminution (first of all the elimination of customs tariffs) and direct confrontation with the much more competitive European products, as well as costs of alignment to European standards of quality for products (if these commitments are not fulfilled, the Romanian products cannot accede to the European market). **Benefits** are related to an easier access to a larger market, for both supply and demand, stimulation of competitiveness, re-defining international specialization. It is already visible the effect of reorientation of Romanian foreign trade (more than 60% from these are developed with EU and other associated countries).

Moreover, at a more or less formal suggestion of EU, Romania has become a member - alongside the other associated countries – of the European Agreement of Free-Trade in Central Europe (CEFTA), as an exercise for regional integration through free-trade agreements. As in the European Agreement case, agricultural and industrial products have been considered sensitive products, their liberalization being made progressively, differentiated on types (lists) of products. Bilateral agreements concluded by Romania with each of the other CEFTA members have stimulated commercial exchanges, but to a lesser extent than expected.

As far as the second *analysis axis* is concerned, costs and benefits are related to the adoption of common commercial policy, Romania will lose the decisional competence in matters of trade policy, which will be transferred at the Community level. Thus, two major directions of commercial policy changes become predominant:

1. elimination of trade barriers within the enlarged EU Customs Union and the adoption of the EU Common External Tariff (TEC) (*applied customs tariffs*), which will therefore lead to the modification of both tariff protection and, implicitly, of the imports. The change in customs tariffs will be heterogeneous for the trading partners.

2. negotiation of a Common List of Commitments within the World Trade Organization (which refers to the maximum level for the applied tariffs, called *bound tariffs*). More concretely, Romania will cancel its list of commitments to the WTO and will negotiate, along with enlarged EU, a new list, valid for all new members of the custom union. This might lead to formulate claims for compensatory measures in favour of third countries (which consider that their trade interests are harmed).

The impact on both tariff protection and trade will fulfill the provisions of Articles XXIV and XXVIII of GATT referring to Custom Union's enlargement²⁶.

²⁶ On the one hand, Customs Union's extension might not determine a higher level of tariff protection than that before extension, but, on the other hand, might not have a negative impact on third countries' imports.

The Costs related to the adoption of the EU's trade policy are mainly generated by:

a. trade liberalization induced in the relationships with third parties, respectively:

1) diminution of tariff protection through the adoption of a common external tariff – which will facilitate the access in Romania of products originating in extra-EU countries. Customs tariffs applied in the regime of most favoured nation clause (MFN) will decrease from 18.6% to 6.3% for all products, from 30% to 16.2% for agricultural products, and from 15.4% to 3.6% for industrial products (European Commission, Progress Report, 2003).

2) Romania will become a donor of preferences, by means of application of the EU preferential schemes -e.g., Generalized Preference System (GSP), Asia-Caribbean-Pacific Agreement (ACP), etc.

b. strengthening of capacity control of the Romanian customs administration; to this type of cost it has to be added that associated to the foreseeable phenomenon of decrease in customs personnel, determined by diminishing activity at the border, due to the elimination of the customs control for inter-community trade - this activity being applicable in the relationships with third parties only;

c. decrease of budgetary revenues resulted from the change in customs tariffs. This decrease has two main determinatives: customs tariffs' diminution²⁷ and the fact that all customs tariffs collected at Romanian customs border are to be transferred to the EU budget, their utilization being in the central authorities' competence.

In the trade area, **the benefits** implied by accession to EU are mainly related to:

a. taking advantage of opportunities of access on extra-EU markets, derived from participation in the preferential trade agreements of EU;

b. improvement of the position in negotiation within the WTO and with other trade partners, derived from the affiliation to the European group.

c. increase of choices for producers, as to production inputs and technologies, and for consumers as to the diversification of consumption goods

d. within the integration process, after the accomplishment of the customs union, it may appear supplementary earnings as a result of both increase in production factors' mobility and co-ordination of monetary and taxation policies: physical capital accumulation - which is made by means of both direct foreign investment and a better allocation of labor force.

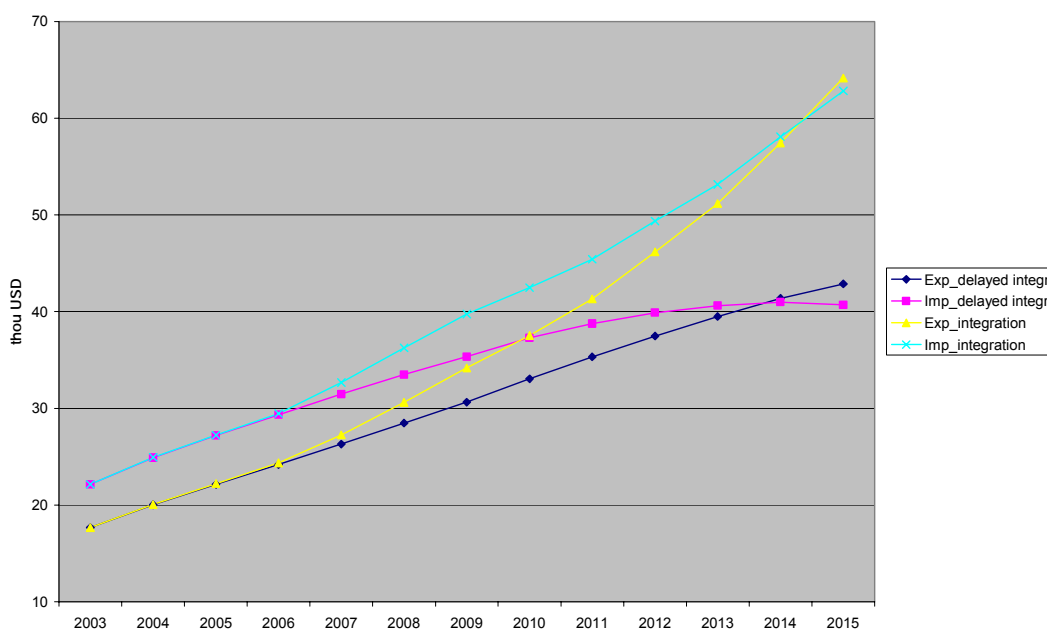
e. increasing the profit, especially in those sectors where domestic price is greater than the average cost of production. In this case, the increase of production volume will generate income increase so long as marginal income will be greater than the marginal cost.

f. diminution of costs, as a result of the economies of scale operating in an enlarged market.

²⁷ It constitutes a diminution factor of income resulted from customs tariffs, to the extent in which the sum of imports remains constant (or does not increase to the extent of compensating the effects derived from the decrease of tariff protection).

Our estimations (see Graph no. 8.1.) show a much higher dynamics of Romanian foreign trade in the case of integration scenario, with an increase of 3.6 times of exports in the period 2003-2015, and of 2.8 times of imports. In the case of delayed-integration scenario, the growth of trade flows is estimated at 2.4 times for exports and 1.8 times for imports (for the same period). In both scenarios, trade balance is to be improved, and, by the end of forecast period, will be turned to a positive balance.

Graph 8.1. Forecasted foreign trade in the integration and delayed -integration scenarios



9. Competition

Community provisions in the field of competition aim at assuring the premises for a fair competition within the Internal Market. Most relevant Community provisions for Romania are those regulating the state aid. The adoption and implementing of these provisions will generate costs, mainly, under the form of increases in prices of the products and services which were benefiting previously from state aid schemas (subsidies, etc.). These costs will be transferred to the end users and consumers (individuals and companies) and to other industries, since the most state aid was directed towards public utilities. The benefits associated to the adoption of the Community acquis are: accelerating of the restructuring of the former beneficiaries of the state aid, reducing expenditures from the state budget (the budget resources could be used more efficient in other areas etc.).

„Romanian competition legislation is broadly in line with EC anti-trust rules, although in the area of state aid sufficient controls are not yet present. The quality of state aid decisions has to be improved and awareness of the main state aid principles remains low among state aid granting authorities. Romania should strengthen the position of the competition authorities vis-à-vis the aid granting authorities. Particular attention must be paid to addressing questions of alignment of incompatible state aid schemes and the enforcement of competition rules in respect of non-notified aid schemes and existing aid. Romania should also ensure that timely notification is given of plans to grant state aid to steel companies and that there is transparency vis-à-vis the EU of aid measures in favour of these companies.” (Romania’s Progress Report 2003, European Commission).

10. Education and human resources development

Human resources represent an important factor underpinning economic growth and competitiveness of Romanian business. Provisions referring to the “human resources development” are contained in two chapters of the acquis, respectively chapter 18 “Education, Training and Youth” and chapter 13 “Social Policy and Employment”. Generally, within EU, the responsibility for the issues addressing the field of human resources lies with the member states; at the Community level are adopted only the decisions ensuring the coordination of the policies and actions taken by the member states.

As stated in the EU Treaties, “education, vocational training and youth” is placed in the area of the competences of the member states. In the field of education, the Community acquis consists of: Community directive of 1977 (addressing the issues of the education of the children of the EU workers moving within the Community), action programs and Council Conclusions. Resolutions and Declarations of the Council and the Ministers of Education of the Member States address various issues such as: principle of equal chances, illiteracy, safety in schools, privileges for minorities etc. Two institutions have been created, namely CEDEFOP and European Training Foundation of which tasks are to facilitate the dialogue between member states and to coordinate the harmonization of the national systems of education and training within the EU area. In the field of education and training, the EU institutions assumed the tasks of creating the conditions and rules for quality assurance in education, development of the European dimension of the education and training, development and implementing of a framework policy in addition to the efforts of the member states in the field of education and training. The final aim of the EU policy is the increase of the employment rate. The core principle of the policy is the respect for cultural and language diversity. For implementing the Community provisions and principles, three Community programs have been developed: Socrates, Leonardo da Vinci and Youth. These programs aim at facilitating the harmonisation of the national education and training systems through mobility programs for students and academics, exchange and curricular development programs, dissemination of good practices in the field of education and training.

According to the provisions of the EU Treaties, the responsibility for the drafting and implementing of the social policy lies with the member states. The Community provides the guidelines, sets up the common goals and principles to be used by the member states for drafting their social and employment policies. Main EU documents containing provisions for social and employment policies are: EU treaties, European Social Charter, White Paper on “European Social Policy”, “Community Charter for Social Fundamental

Rights”. According to these documents, the goals of the social policy are: increasing employment; improving the living and working conditions; ensuring an adequate level of social security; promoting the dialogue between employees and employers; development of the human resources for ensuring high employment rates; fighting social exclusion etc. At the European Council held in Lisbon in 2000, employment has been officially declared as the priority of the EU for the next 10 years to come by the end of which, the employment rate should reach of 70% (in 2010). Prior to the European Council of Lisbon, European Employment Strategy was built on mix a measures and actions taken by Community and member states. After this moment, the employment has gained an accrued local dimension: *„the improvement of working conditions and the respect of the workers rights are the most important goals of the EU aiming at avoiding the situation in which the development of the internal market is accompanied by a process of lowering working standards and distortions”* (Romanian Document of Position for chapter 13)

In a synthetic manner, the EU approach of the social and employment policies may be presented as follows:

- Definition, at the EU level, of the minimum safety requirements at the working place and of the working conditions is the core piece of the labour legislation framework. These Community provisions are not aiming at leading to the harmonization of the national legislations, but at providing a common reference framework containing the minimal requirements for assuring the respect of the employees rights and proper working conditions.
- Promoting cooperation and joint actions as main tools used in the field of social security.
- Multi annual programs represent the main instrument for complying with the implementing of the principle of equal chances between men and women at the EU level.
- Promoting partnerships and social dialogue are the main patterns of the European social model.

Placing the responsibility in the field of social policy at the level of the Member states is a decision justified by the high heterogeneity of the national labour markets, differences among member states are significant in this respect. EU has adopted the “European Employment Strategy” which set up the pillars of the employment policy and is used as a common reference framework for drafting national employment strategy. According to the Recommendations of the EU Council of Ministers (2004), the employment policies laid down by the members states should address the following objectives: full employment, quality and productivity of labour, enhancement of the social cohesion and inclusion. The measures suggested by the EU for achieving these objectives are: increasing the labor force mobility (it addressed both the geographical mobility - the freedom of movement of persons may contribute to this aim -, and the inter-sectorial mobility), developing the education and continuing training systems etc.

The costs of adopting the Community acquis in the field human resources development (the two chapters concerning “education, training and youth” and “social and employment policy”) are caused by the gaps existing in the education and training systems, labour market and social policies between Romania and EU. According to the information

and data contained in the Joint Assessment Paper (JAP 2002), the main patterns of the Romanian of education, training and social policy are:

- the rate of participation to education and training (for the population aged of 25-64 years) reached the level of 68.5% in 2001, below the Community average rate of 69.2%;
- the average level of education for the labor force (age of 15 and over) slightly increased since the mid '90s, but remains lower as compared to EU level and standards *“in Romania, in 2000, only 8.4% of the labor force had tertiary education (as compared to 7.6% in 1994), 77.4% had secondary education (as compared to 74.3% in 1994 out of which 72% had postsecondary education, 14.3% had only primary education or lower level of education (as compared to 18.2% in 1994)(JAP 2002).*

The employment rate had a decreasing trend, the most severe fall was in case of the group of 15-24 years (the employment rate fell at 34.2% in 2001) and 45-54 years (the employment rate fell from 80.2% at 73.1%). *“Since the beginning of the transition period, the loss of jobs concentrated mostly in industry and less in services...agriculture played the role of a buffer which absorbed the workforce dismissed in the industry...in 2000, agriculture represented the main supplier of jobs (agriculture represented 41.4% of the total employment) and participated with 23% of the employment of the active population” (JAP, 2002).*

The school leaving rates are estimated at 0.8 for compulsory education and 3.5% for inferior secondary education *„in case of vocational schools, the drop out rate was higher (6% during mid '90s). Still accurate estimates cannot be made. According to the information available for the late '90s., 17% of students enrolled in primary education did not graduate this level of education while 5% did not enroll in the primary education. High drop out rates are also recorded in superior secondary education in rural areas” (JAP, 2002).*

Participation in post-secondary education recorded a significant increase since early '90s, but still remains low.

The education and training system is highly uncorrelated with the requirements of the labor market; for reducing these weaknesses, some projects co-funded by the World Bank and Phare aiming at restructuring the vocational education and training based on occupational standards, increasing access to education in rural areas and for disadvantaged population (e.g. roma population) were implemented.

Participation to life-long training remains low in case of unemployed persons and employees; this state of facts has negative effects on the effectiveness of the measures for increasing employment.

Social dialogue and participation of social partners to partnerships remain low.

Another aspects concerning education that are worth mentioning are:

- although Romania distinguishes itself at the secondary education level through a good quality of schooling in the domains of mathematics and sciences²⁸, pupils' ability of applying the learned theories in concrete cases is extremely reduced²⁹.

²⁸ Global Information Technology Report 2003 places Romania on the ninth position (from 82 countries), with a score of 5.81 (from a maximum of 7) as regards education quality in mathematics and sciences.

- as the number of students has increased more in economic and law domains, the weight of scientific and technological domain in the total number of students has decreased. This situation explains above all through the potential students' lack of vision regarding the future of labor market.

In these conditions, for Romania, as far as education is concerned, accession to EU calls for a series of costs (compulsory investment and risks), namely:

- the increase of education expenditure weight in GDP.

With a single exception in 1988, public education expenses (as share of) oscillated around 3%, in spite of the fact that Education Law stipulates a minimum of 4% (art. 170). The existing level of these expenses posits Romania on the last place, not only compared with early members, but also with new comers, at a significant distance from EU-15 average (5%). It might also be mentioned that private education is poorly developed in Romania, and therefore it does not have any compensatory contribution. Moreover, even the Romanian Government admits not only that "education system should be improved", but also that it is necessary, for it, "the increase of funds allotted from the state budget for education and for the development of the private education sector"³⁰.

- the accession of Romania to the European higher education and research area – a fact that calls for a structural redefinition of the higher education system in order to improve the compatibility/ uniformity among EU countries, and among these and applicant countries);

- the improvement of the compatibility of the Romanian system of vocational education and training with that from EU. To this category belong also the efforts of developing the VET system, insufficiently developed in Romania, according to the European principles. The degree of diploma recognition within EU is also a decisive factor for the migration of persons with higher education. On the other hand, the recognition of as many diplomas as possible represents the basis of an experience exchange, to the extent in which a part of specialists returns to country.

- redefining of the general framework of education, vocational education and training;

- alignment with EU work legislation. This step involves not only specific costs of creating a legal and institutional framework, but also its provisions have effects on Romanian companies' competitiveness (e.g. compulsoriness of warranting a minimum wage, which is currently much higher in EU countries than in Romania, financial support for employees' life-long learning etc.)

- constituting and consolidating of a legal and institutional framework for the adoption and application the EU's social assistance and protection policy. A step of this type generates, above all, budgetary costs due to the higher structure and level of EU social protection. Certain institutions required for acquis implementation have been

²⁹ PISA test (OECD Program for Students Assessment) accomplished in 2000 with a view of measuring the education quality for the 15-year-old pupils "on the basis of youngs' capacity of using their knowledge and aptitudes to respond to some challenges similar to the real situations, rather analyzing the capacity of facing school schedule", ranked Romania on the 30th place out of 32 countries (28 being members of OECD), before Mexico and Brazil only.

³⁰ Measures of economic policy need to be applied in order to meet the Copenhagen economic criteria – functional market economy and capacity of facing both competition and market forces within EU
http://www.mfinante.ro/macro/masuri_copenhaga.htm

already created: National Agency for Labor Occupation, National Council of Vocational Training for Adults etc.

- *Personnel re-qualifying and reorientation* may be considered as part of compulsory investment required by accession to EU. There must be mentioned that, as far as life-long learning is concerned, Romania occupies the last place in Europe³¹, a situation that considerably affects competitiveness. To this it is added a great number of leavers from general profile high-schools – therefore with a minimum specialization. The fact that one of the comparative advantages of our country represents the reduced cost of labor is strongly counter-balanced by these aspects. This situation is already reflected in the reduced weight of occupation in medium and high technology industries.

As to education, among the benefits implied by EU acquis adoption can be mentioned:

- the rise of medium level of education – a fact that, at the economic level, creates the premises for increasing of sophistication level of productive activities and demand.

- the increase of correlation degree between skills developed by the educational system and those required by the labor market – a fact that contributes to the increase of the degree of human potential utilization.

- assuring a uniform framework of qualifications and occupational standards – a fact that will create the premises for a good functioning of labor’s migration freedom, with positive effects on the adjustment of existing lack of equilibrium on labor market;

More generally, the cost related to human capital refers as well to:

- *Health*. “Although it is not mentioned in European Commission Report – emphasizing human capital with a high level of education, health represents another weak point for Romania. Funds allotted from state budget to this domain being much smaller than in other applicant countries”³²

- *Social effects of restructuring*. *This also is a phenomenon which would have occurred irrespective of accession process, but which is and will be accelerated by it.* Labor reorientation towards competitive domains implies an increase of unemployment level, as labor reallocation does not take place immediately, but requires a period for re-qualification and reorientation, and, in addition, high competitive domains are usually less intensive in utilizing labor (especially unqualified labor). The amplitude of accession’s negative effects will also depend on both the development of a re-qualification system and an efficient system of social protection. Efforts that must be achieved in this domain constitute a fundamental premise for building solid social and economic policies, able to support a balanced increase of living standard of population on medium and long term (diminution of income gaps, diminution of social exclusion phenomenon etc.).

For this reason, the negotiation chapter 30– *Social Policy and Labor Occupation*–implies significant costs, especially before accession. These costs will be spread out in this way:

- 2004: 26.11 mil Euros

³¹ European Innovation Scoreboard – Country Report Romania 2002.

³² Measures of economic policy need to be applied in order to meet the Copenhagen economic criteria – functional market economy and capacity of facing both competition and market forces within EU
http://www.mfinante.ro/macro/masuri_copenhaga.html

- 2005: 47,17 mil Euros

- 2006: 42.91 mil Euros

Out of the total of 116.2 mil. Euros: 56% will must be allotted from budget, 0.7% from the budget for unemployment insurance, 11.9% from extra-budgetary sources, 25.3% from non-reimbursable assistance, and 4.4% from other sources. (See Appendix 3)³³.

- *Permanent migration*. In the last years, permanent migration has had a descending trend, reaching only 10000 persons, most of them having as destination EU, and especially Germany. On the other hand, the reduced income level in Romania has made work migration a life strategy³⁴. For this reason, it is expected that free migration effects should be strongly correlated to the income gap in comparison with EU. As many studies show, persons who migrate for work are above all persons with higher education³⁵, the major problem being related to the risk of “brain drain”. This is the case especially in the domain of information technology (IT), where a quarter of graduates leave the country. The great number of specialists with IT certificates existing in Romania (approximately 16000) – a figure that posits our country on the fifth place in the world – reveals not only education quality in our country, but also specialists’ disposition to migrate to other countries where these certificates are recognized. On the whole, however, “emigration in EU countries will reach about 3-4% from Romanian population across one or two decades after the introduction of free migration for Romanian citizens. Due to the fact that aggregated values will be relatively reduced, migration effects on Romania and EU will probably be determined by skills and concentration in regional profile of going out flows”³⁶. There must be noticed that “all estimations of the future flows remain mere intellectual exercises, as up to now there was not any migration system legally regulated – not to speak of the free migration from Romania to EU”³⁷.

- *Work migration*. Although, at the first look, one might focus on the fact that, in the case of the free circulation of labor, capital, goods and services, the risk for an important part of autochthonous labor to migrate to other EU countries, there must take in account the reverse phenomenon as well. It is estimated that, concurrently to the influx of foreign investment from EU countries, to take place an increase of interest for Romanian labor market. In this way, it may take place an increase of immigrant labor weight, particularly at the qualified and experienced labor level, or, to put differently, an increase of competition pressure on certain segments of labor market.

As to human capital, among accession benefits can be mentioned temporary work migration - given the not negligible dimension of repatriated income – as well as experience transfer (theoretical, technical, managerial or entrepreneurial). “Temporary migration is determined by social and human capital’s characteristic of those who migrate – they are especially qualified persons, young men from areas with high income, having familial or ethnic relationships abroad and having financial means for traveling”³⁸. Unfortunately, the very large income differentials make many Romanians accept abroad jobs inferior to their education and capacity – a fact that decreases the repatriated income.

³³ Estimation of Ministry of Work, Social Solidarity and Family.

³⁴ Dumitru Sandu, Migration in the Barometer of Public Opinion, Open Society Foundation, November 2002.

³⁵ Idem.

³⁶ Study “PAIS: Free migration of persons and services: implications for Romania and negotiation process, p.42.

³⁷ Idem.

³⁸ Idem.

In addition, temporary work migration risks becoming a drain for grey matter, a situation to which also contributes the specific policies from some destination countries, such as USA, Canada, Australia, but also Germany (green card for those who work in IT domain) and France (immigration law adopted in 1998 aimed at simplifying the entrance conditions for certain professional categories highly qualified. There might contend that “the assuming a credible commitment towards accession to EU (followed in the near future by free migration) reduces the inclination to emigrate permanently”³⁹.

Excepting Eastern Germany, which represented a special case, due to the substantial subsidies allotted by West Germany, the impact of trade and foreign direct investment on labor market has been inquired into not sufficiently (Krueger and Pischke, and Bird et al.*).

Research undertaken has revealed that the structure of wages is extremely important for the respective companies' growth and development. Due to the modifications occurred in regulations regarding labor market, the advantages gained as a result of education, skill and experience can considerably change. In Eastern Germany, the advantages associated with formal education have increased, but those associated with experience have remained unaltered (Bird et al.). The modifications in personal income distribution, as well as their influence on social insurance system are the main consequences of changes in the salary structure. But, excepting these, they appear to have stimulating effects on training, as well as on mobility. The theories of migration selection show that the structure of emigrants is strongly connected to the differences between the earnings possibilities of the origin country and those of receiving country – that which presents importance for human capital of origin country.

The theories of direct investments and trade lead to contradictory predictions regarding the relative wages in Eastern Europe. Heckscher-Ohlin theorem in international trade affirms that trade liberalization increases the relative wage differential (qualified personnel salaries/ unqualified personnel salaries) in the countries with abundance of qualified personnel (EU) and decreases the same relative salary differential in the countries destitute of qualified personnel (Central and Eastern European countries). According to this theorem, trade liberalization increases efficiency and, at the same time, reduces salary dispersion in Central and Eastern European countries. On the other hand, foreign direct investments, as well as exportation, could be an important channel for technology and knowledge diffusion, increasing in this way the income of personnel with superior qualification in Central and Eastern European countries (and respectively Romania) and broadening the differences in income distribution. The results observed up to now in Latin America does not confirm Heckscher-Ohlin theorem prediction regarding the diminution of the relative salary gap (Robbins**).

It is difficult to undertake a research concerning the impact of trade liberalization and foreign direct investments on labor and income distribution in Romania, especially due to the fact that the value of foreign direct investment per inhabitant is very low, not generating yet clear stimulating effects.

³⁹ Idem.

* Bird E. J., Schwarze J. and Wagner G., Wage Effects of the Move Towards Free Markets in East Germany, *Industrial and Labor Relations Review* 47, 1994.

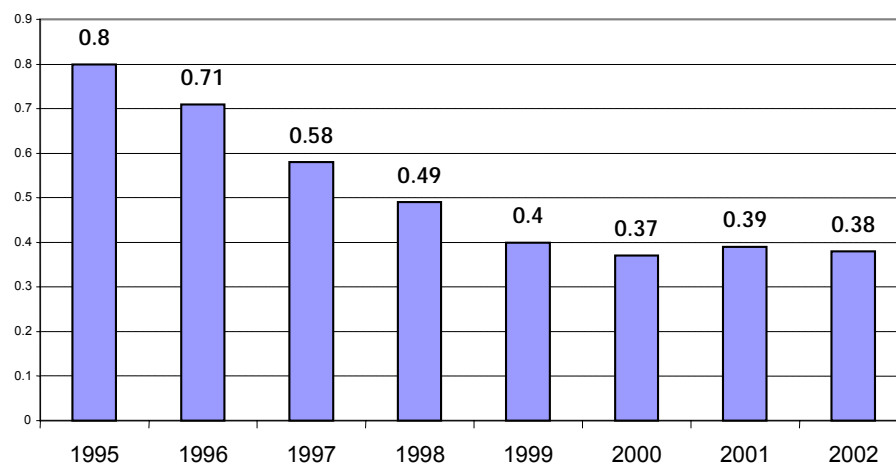
** Robbins D. J., *Trade, Trade Liberalization and Inequality in Latin America and East Asia*, Harvard University, 1996.

11. Research, Development and Innovation

Two years after the Lisbon Strategy, the European Council has established that the total expenses with research and development (R&D) should (indicatively) come close to 3% from GDP until 2010, that being for EU-15 around 2%.

Romania is far from this desideratum, taking into account that the weight of R&D expenses in GDP in our country was only 0.38% in 2002, therefore less than a fifth of UE-15 average.

Research and development expenses as weight from PIB



Source: Romanian Statistical Yearbook, 2003

Even though this aim of 3% is just indicative, Romania will have to inscribe itself on a rapid convergent curve at this indicator, being given the R&D importance for competitiveness⁴⁰. Competitiveness through price, based on the labor's reduced cost proves less and less functional in industry, as it implies an orientation towards intensive work activities, which affect the terms of trade. However, it may prove decisive in the domain of services, including those connected to industrial activities.

Taking into account the growth rate of R&D expenses needed in order that Romania achieves the convergence with EU countries, it raises issues as the R&D system's capacity of absorbing efficiently these resources, or the potential of increasing the number of researchers. In order to obtain an optimum utilization, the increase of resources should realize simultaneously with the introduction of financing schemes based on transparency and real competition, assuring the access to resources for both public and private unities.

In the same year, 2002, European Union assigned as indicative object that private sector should cover 2/3 out of R&D financing sources, and only 1/3 to be covered by the state. However, among all member and applicant countries, only Sweden reaches this level, with a private financing weight of 67%. In Romania, the private financing weight is, in

⁴⁰ According to study Sources of Economic Growth in OECD Countries, 2003 (<http://www1.oecd.org/publications/e-book/1103011E.PDF>); econometric analysis confirms the importance of research-development activity for economic growth.

total, relatively high in comparison with the levels from other member or applicant countries (applicant countries' average was in 1999 of 55%, and in EU of 44%).

Taking into account the expected increase of R&D expenses at EU level, the demand of researchers⁴¹ will increase also, that which will induce an increasing risk of drain brain. The impact of this phenomenon will depend to a great extent on the capacity of straightening of R&D national system.

Romania has been a member of CDT V Framework Program since 1999, and on 29th of October 2002 has signed at Brussels the Memorandum of Agreement regarding the participation in Framework Program 6. Both programs imply the participation with a determined sum, as percentage from GDP, and benefits result from the value of the won projects by auctions. Although, in Framework Program V, Romania received, according to agreement, a transition period that meant a diminution of participation quota, because both the reduced number of projects and their reduced degree of acceptance, our country did not recuperate the contribution paid for participation in program. Hence, Romania was fund donor in this direction, recuperating approximately 20 mil Euros⁴², but we may consider these losses as inherent to a normal learning process.

Unfortunately, although the number of proposals has considerably increased in comparison with PC5, among the 1066 research projects that include a Romanian participant within Framework Program 6, only 10.27 % have been selected for being financed⁴³. For this reason, the total contribution to PC 6 for the four years (2002-2006), amounting to 88 millions Euros, will probably be just partly recuperated, even in the conditions in which, for payment that will be paid by Romania, it has been requested covering of a percentage of 50%, through PHARE program's budget.

They are making efforts to improve Romanian participation in PC 6, even through a project within the framework of it. That means Romnet-Era, a support-program for Romanian research financed by European Commission through PC 6, amounting to 340000 Euros, that aims at approaching frontally the factors that impede the Romanian participation in PC 6, through information dissemination, building up a research network from the best Romanian institutes and facilitating the direct contact with potential partners from abroad.

12. Information Technology and Communications (ITC)

In the European Union, the first steps made in telecommunications acquis were meant to sustain competition within the single market, and were introduced in 1998, being followed in 1999 by measures targeted on the convergence between telecommunications, media and information technology. In February 2002, the telecommunications acquis was upgraded, new objectives being introduced, i.e. to separate the responsibilities concerning

⁴¹ "Far from reaching the objects established at Lisbon regarding the number of researchers, Europe risks a crisis created by the diminution in the number of researchers", said Prof. José Mariano Gago, the president of a group of high level experts, who presented recommendations regarding the increase of human resources in scientific and technological domains to the European Commissary regarding Research at an international conference held at Brussels on April 2, 2004.

⁴² Research, Development and innovation – Balance for the years 2001 – 2002, Ministry of Education and Research, <http://www.mct.ro/web/2/publicistica/comunicate/2003/bilant2001.pdf>

⁴³ Michele Genovese's declaration - specialist in Research Direction of European Commission – at the seminar "From national research networks to accession to European Research Area", organized within the framework of Romnet-Era program, April 2004.

legislation of those concerning the operational aspects. This involves, among the others, instituting an independent settling authority and avoiding interest conflicts between policy makers and the ownership of ITC companies.

These measures are based on motivations generated of the ICT influence on European general competitiveness.

The main directions for the candidate countries are as followings⁴⁴:

- Adopt a national telecommunications policy for the development of the sector consistent with Community policy,
- Prepare market players for the pressure of competition expected when they join the European Union,
- Prepare the telecommunications market through the transposition and implementation of Community legislation, in particular through price rebalancing,
- Ensure the objective enforcement of the regulatory framework through an adequately resourced and well trained independent regulatory authority,
- Address the communications needs of under-developed regions, especially the adoption of a universal service policy.

On the 8th of November 2002, in Brussels, Romania provisionally closed The Chapter 19 in negotiating the EU accession, concerning telecommunications and information technology. The negotiations for this chapter were started in 2000.

In 2002, the European Commission Report for Romania regarding telecommunications has indicated that "important progresses were made in accomplishing the *acquis* in telecommunications and also in making possible the liberalization of communication and postal services markets", and "in the future, the efforts should be channeled to develop the new established implementing structure towards an effective and an independent organism".⁴⁵

Communication market liberalization has received a consistent reaction from the private sector, as, till May 2004, 51 companies receiving authorization to supply phone services have already received numbering licenses from ANRC.⁴⁶

However, the evolution was slower at the level of the commercial launches. One year after liberalization, two competitors entered the local market: ATLAS TELECOM and ASTRAL TELECOM. In spite of the lower prices requested by these companies compared to Romtelecom, the equilibration of the main supplier prices by market mechanisms was delayed. A new competitor is still missing on the trunk market. The competition was already powerful on the international market, where Romtelecom has been confronted with

⁴⁴ Source: <http://europa.eu.int/comm/enlargement/negotiations/chapters/chap19/>

⁴⁵ 2003 Regular Report on Romania's progress towards accession, http://europa.eu.int/comm/enlargement/report_2003/pdf/rr_ro_final.pdf

⁴⁶ www.anrc.ro

the competition of the Internet providers and with the cable providers, with significantly lower prices.⁴⁷

For the year 2004 are announced commercial offers from another important players on this market: Telecomunicații CFR, Teletrans (owned by Transelectrica), POSTelecom (80% of the stock was held by Romanian Post Services " Poșta Română"). The fact that these companies are majority state owned could be explained by of the large financial power requested to break down the monopoly in the telecommunications market.

Until 2004, the pressure of competition has not revealed. However, in March, Romtelecom reduced by 20% the trunk and the international tariffs, and by 2% for the fixed - mobile interconnections.⁴⁸

Beyond the acquis compulsory requests regarding competition, the EU shows a big interest on the practical utilization of the ITC. In accordance with the Lisbon target of EU becoming "the most competitive knowledge economy", the action plane eEurope has been developed and launched in June 2000, and in the year 2002, in Seville, was launched the eEurope 2005 Action Plan.

The eEurope action plan is based on two groups of actions which reinforce each other. On the one hand, it aims to stimulate *services, applications and content*, covering both online public services and e-business; on the other hand it addresses the underlying *broadband infrastructure and security matters*.⁴⁹

The action plan comprises four separate but interlinked tools:

1. **Policy measures** to review and adapt legislation at national and European level; to ensure legislation does not unnecessarily hamper new services; to strengthen competition and interoperability; to improve access to a variety of networks; and, to demonstrate political leadership. eEurope 2005 identifies those areas where public policy can provide an added value and therefore focuses on a limited set of actions in priority areas. Some key targets are:
 - Connecting public administrations, schools, health care to broadband
 - Interactive public services, accessible for all, and offered on multiple platforms
 - Provide online health services
 - Removal of obstacles to the deployment of broadband networks
 - Review of legislation affecting e-business
 - Creation of a Cyber Security Task Force
2. eEurope will facilitate the exchange of experience, of **good practices** and demonstration projects, but also of sharing the lessons from failures. Projects will be launched to accelerate the roll-out of leading edge applications and infrastructure.
3. Policy measures will be monitored and better focused by **benchmarking** of the progress made in achieving the objectives and of the policies in support of the objectives.
4. **An overall co-ordination of existing policies** will bring out synergies between proposed actions. A steering group will provide a better overview of policy developments and ensure a good information exchange between national and

⁴⁷ Nicolae Oacă, Anul de telecomunicații 2004, <http://telecom.globtel.ro/prez2004/256,1>, Anul de telecomunicații 2004

⁴⁸ <http://www.roportal.ro/discutii/ftopic312.html>

⁴⁹ http://europa.eu.int/information_society/eeurope/2002/news_library/documents/eeurope2005/execsum_en.pdf

European policy makers and the private sector. This steering group would also make an early participation of candidate countries possible.

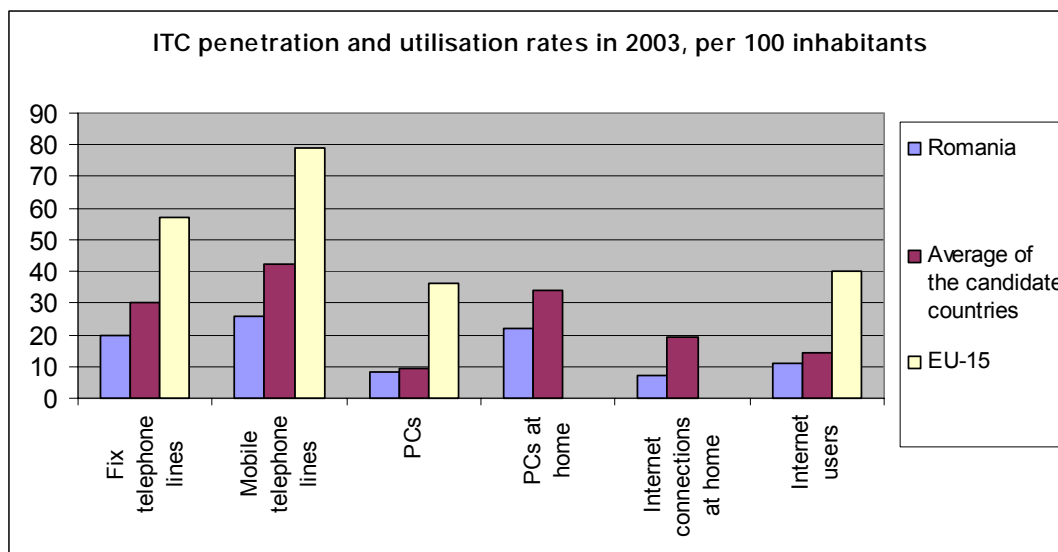
At the European Ministerial Conference held in Warsaw on 11-12 May 2000, Central and Eastern European Countries recognised the strategic goal set by the EU-15 in Lisbon and agreed to embrace the challenge set by the EU member countries with eEurope by deciding to launch an "eEurope-like Action Plan" by and for the Candidate Countries as a compliment to the EU political commitments in order to try and broaden the base for achieving the objective that the whole of Europe becomes "the most competitive and dynamic knowledge-based economy in the world".⁵⁰

Funding for actions in the eEurope+ Action Plan will predominantly come from national budgets, private sector investments, relevant programmes and funds made available by the European Union through its existing programmes, and available instruments of international financial institutions such as EIB, EBRD and the World Bank.

PHARE is expected to make significant resources available to support the implementation of the action plan through the PHARE support for economic and social cohesion, a program which is intended to provide assistance to the Central and Eastern European Countries for the preparation of the Structural Funds after accession. The main areas of assistance are human resources development, support to SME's and business-related infrastructure.⁵¹

In order to ensure the benchmarking, eEurope Plan contains a system of indicators meant to be a basis for overseeing the evolutions in the specified areas.

According to the eEurope+ reports, despite the considerable progresses, in what regards both the penetration utilization rates of ICT, Romania remains far off the level of the EU old members, and yet under the other candidate countries or recently admitted.



Data source: eEurope+, Final Progress Report, 2004

⁵⁰http://europa.eu.int/information_society/topics/international/regulatory/eeuropeplus/action_plan/index_en.htm

⁵¹ eEurope+2003 Action Plan

http://europa.eu.int/information_society/topics/international/regulatory/eeuropeplus/doc/eEurope_june2001.pdf

Regarding the ITC utilization, Romania presents a certain gap between the public and the private sectors. In this concern, as a consequence of the scope programs, the number of computers and Internet connections considerably grew in the education sector, surpassing the average of the candidate countries and the recently admitted countries for the secondary education sector.

Table 12.1. Number of computers per 100 pupils or students

	Romania		The average of the candidate or acceding countries	
	2001	2003	2001	2003
Primary education	1	2.3	4	5.9
Secondary education	2.7	10.4	4.2	6.5
Tertiary education	5		5	

Source: eEurope+ (2004 Final Progress Report and 2003 Progress Report)

The e-government sector registered also important progresses. Thus, as a result of the digital reform program, in 2001 was implemented the public acquisitions system called "e-procurement", which is having a great success, and in the year 2003 was introduced the national electronic system, an e-government portal through which are offered information and electronic services to the population and to the business players.⁵²

Unfortunately, the number of both computers and internet connections is extremely low at the company-level – a fact synthetically reflected in the small number of employees who use this communication mode.

Table 12.2. Share of employees using Internet

Economic sector	2001	2002
Industry and construction	4.0	3.7
Commerce	4.1	7.8
Services	5.2	13.1
Banks and insurance	11.5	18.1
Average in corporation domain	4.4	6.3

Source: National Institute of Statistics

Electronic commerce is, in its turn, in an incipient stage but the foreseen extension of e-procurement system to B2B will considerably stimulate this domain.

Table 12.3. On-line sales state in 2002

	2002
Share of companies selling on-line (total)	0.6%
Industry and construction	1.0%
Commerce	0.4%
Services	1.0%
Weight of income obtained via Internet	0.4%

⁵² www.mcti.ro

Weight of income obtained via Internet out of total income of companies with on-line sales	9%
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Source: National Institute of Statistics

Beginning with 2004, Romania is involved in the eTen program. This is a communitarian program created so that the electronic services could be extended to a trans-European dimension. The program is focused on those public services contributing to raising the information society benefits for citizens, companies and administration. The main objective of the program is to provide financial assistance in the first stages of developing such services, supporting the investors to build a business able to effectively function in the future by its own forces. The following areas may receive financial support: e-government, e-health, e-learning, e-business and the electronic security services.

The program was conceived to roll out between 2003 and 2006, with a total budget of 172.5 million Euros. Over 1, 000 participants from 27 countries were registered at the project call in 2003. For 2004, the budget of the eTEN program is 43 mil. Euros. Likewise other European programs, eTEN participation is conditioned on the collaboration with foreign partners to this program.⁵³

eTEN can provide up to a part of the total investment required to bring a service into full operation (currently 10% but subject to future revision). In the initial launch phase, when the business or investment plan is being developed, up to 50% of the costs can be met. This first phase, when assumptions about the operating costs and the potential revenues or savings are put to the test, is vital for the success of the service.

Although the Romanian companies' participation to the project call was rather limited by now, the efforts made by MCIT to promote this program will probably raise the number of participants.

In conclusion, the integration process reveals the following costs and benefits in the ITC field:

Costs

- **to monitor and ensure competition on the ITC market.** Financing ANRC is based on a monitoring fee representing 0,02% of this sector companies revenues, cumulating 4 mil. Euros in 2003.⁵⁴ Extrapolating EITO estimations for the trend on the ITC market services, we reach to 22,4 mil. Euros for the period 2004 - 2007, and to 70,5 mil. Euros for the 2008 - 2014. Excepting the restrained costs for instituting ANRC, all the other costs are undertaken by the market players in this sector.

- **financing the e-government programs, putting to practice eEurope+ Plan and supporting the development of the infrastructure.** These costs, amounting to 832532 Euros in 2002 and estimated to 762157 in 2003, are covered by MCTI. As a consequence of MCIT intention of building telecentres in the rural areas (in cooperation with USAID) and of its pledge to enlarge e-government, these expenses will grow significantly.

The budget for MCTI programs (Euros)

	2002	2003	2004	2005	2006
Domestic communication infrastructure	111981	80213.9	81546.1	109462	86023.6
Implementing eEurope Action Plan	384607	187166	190274	198637	200709

⁵³ <http://financiar.rol.ro/stiri/2004/06/135488.htm>

⁵⁴ <http://www.networkworld.ro/general.php?c0=161.1.206.5.0.0>

E-government programs	184289	160428	163092	170243	172033
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Data source: Public Finance Ministry (the values for 2003 - 2005 are estimated)

http://www.mfinante.ro/buget/buget2002/pdf/a3_31_25.pdf

- **making the education system one modern equipped.** The budget for SEI Project (Electronic Educational System) represents 200 mil. USD, out of which 6 mil. USD were already allocated from the Ministry of Education and Research (MER) budget in 2001 and spent for the pilot program, and another 60 mil. USD were dedicated to 2002 - 2003 fazes, earned by MER in 2002 through financial leasing.

Benefits

- **reducing the tariffs for ICT services** as result of increasing competition;
- **increasing penetration rates for telephone and Internet** due to the lowering tariffs;
- **participating to eTEN program.** The benefits depend of the Romanian companies' ability of gaining projects;
- **general benefits connected to the evolutions in the information society.**
 - diminishing corruption (by increasing transparency);
 - reducing costs by simplifying the interaction with the state institutions;
 - increasing competition as a result of incrementing the economic agents visibility;
 - a closer contact with international technical evolutions;
 - an increase in working productivity through ITC utilization;
 - the reducing of costs and the business activity fluidization by developing the e-banking and e-commerce services.

We have to underline that the estimations of the savings generated by introducing B2B interaction system reveal values surpassing 20% for many sectors of activity.

The economic sector	The savings rate as a result of B2B system
Aeronautics	11%
Chemistry	10%
Coal	2%
Communications	5-15%
Computers	11-20%
Electronic components	29-39%
Food industry	3-5%
Forestry	15-25%
Railway transport industry	15-20%
Health	5%
Life sciences	12-19%
Metallurgy	22%
Media and publicity	10-15%
Maintenance services	10%
Oil and gases	5-15%
Paper	10%
Steal	11%

Source: Gheorghe Zaman, "Digital economy", in *Information Society - Knowledge Society. Concepts, Solutions and Strategies for Romania* (coord. Gheorghe Filip), Romanian Academy, 2001

13. Regional policy

The adoption of the model of the European regional policy (the *acquis communautaire* in the field of regional policy) is an important element of the Europeanization in Romania (and in the candidate countries generally), triggering most of the costs and benefits. The regional policy was perceived in all candidate countries as a European conditionality since the implementation of these policies forced the governments of these countries to reassess the institutional structures according to the European rules imposed by the European Commission (Hughes et al, 2001).

The regional policy of the EU promotes a balanced economic development of the regions. A reasonable allocation or the existence of a reasonable allocation perception is one of the most important elements for motivating and justifying the participation of the states to integrationist arrangements; otherwise, the regional arrangement group has poor chance for achieving its goals. One of the most important consequences of the malfunctioning of the allocation process/mechanisms become manifest at local level under the form of regional disequilibrium. The EU regional policy is based on two major criteria⁵⁵:

- *Efficiency* – the regional policy is justified since the concentration of certain economic activities, of the production of certain goods etc. in specific regions would disturb the efficient allocation of resources and will therefore diminish the global welfare,
- *Equity* – as the necessity of a fair distribution of the welfare effects among regions and social categories is judged as an “act of solidarity” between the prosperous and poor regions.

The costs and benefits of adopting the community model of regional policy result from its logic and patterns.

The EU regional policy, as it was designed out for the 2000 – 2006 period, aims at:

- Improving the efficiency of the structural instruments by focusing on fewer objectives of the structural policy and by clearly setting up and sharing responsibility among different types of participants concerned;
- Maintaining the budgetary costs of the social and economic cohesion policy under control;
- Extending the efforts for promoting regional cohesion towards the future member countries.

The procedures for administrating the Community resources are highly decentralized and simplified. A clear delimitation between the responsibilities of the different actors and levels of governance involved in the process is the core component of this policy which is therefore consistent with the application of the subsidiarity principle.

⁵⁵ Molle Wiliam, *The Economics of European Integration*, Darmouth, 1990

The objectives of the regional policy are as follows:

□ Objective number 1 - **to promote the development and structural adjustment of the regions lagging behind their economic development**, it covers regions of which average GDP per capita is below to the limit of 75% of the average Community GDP per capita. Around 2/3 from the total structural funds are allocated for the this objective and over 20% of the EU population is subject to actions funded under Objective 1. Romania is eligible in the integrality of its territory for receiving funding from the structural funds under this objective.

□ Objective number 2 – **to support the economic and social re-conversion of the regions facing structural difficulties**, others than the regions eligible under objective 1. This objective covers areas under economic transformation, countryside areas on the decline, areas in difficulties, dependent on fishing, as well as urban districts in difficulties. 18% of the EU population, at most, will benefit from the funding received under this objective, the allocation depending on the dominant activity of the areas concerned (10% in industrial areas, 5% rural areas, 2% urban population, 1% fishing sector).

□ Objective number 3 – covers all actions in favour of the **human resources development**, others than the ones related to objective number 1. This objective creates the reference framework for the setting up of measures taken under provisions of the Amsterdam Treaty dealing with the use of labour force and the European Employment Strategy.

The adoption and the implementing of the EU regional policy are based on the following principles:

- ***The principle of multi-annual financial programming of the regional development.*** This principle presumes the drafting of the national development plans for determined periods of time. The projects for regional development may be funded for a period of maximum 3-6 years.
- **The subordination principle** requires the subordination of the regional development plans to specific priorities/objectives of the European regional policy.
- The principle of creating **partnerships** at local, national and regional level, between the Community and the national or local governments. According to the definition formulated by the European Commission in 1988, the partnership represents “*the close collaboration between the Commission, the member state and the competent authorities at different administrative levels of a state, each part acting as a partner for achieving a common objective*”. After 1993, it was possible to involve in these partnerships not exclusively local, national and Community authorities but also any other interested part.
- **The principle of additionality: the Community support has is additional to the national efforts and do not replace them.** This principle was adopted in order to increase the efficiency of the use of the structural funds and to avoid

situations, as happened previously, when the Community funds were used as substitute of the national resources.

- The principle of **synchronization** of the measures adopted under the regional policy with the measures adopted under other sectorial policies.
- The principle of **concentration** – efforts and funds should focus towards the least developed regions and the dissipation of funds towards a large number of objectives should be avoided.

In Romania, we can talk about a regional policy built on the European principles and objectives, in line with the European model, after the adoption of Law no. 115/1998 addressing the issue of the regional development. 1998 should be considered a moment of reference, since it represents the beginning of the process of transposing the Community *acquis* in this field of regional policy and the time limit for assessing costs and benefits.

Romania's regional policy is generally in line with the European Union's regional policy in terms of objectives, principles, legal framework and mechanisms for implementation. Also, the building process of Romania's regional policy is based, as in the EU case, on the national development plans (NDP) and regional development plans. The drafting of these plans represents a bottom-up exercise of financial programming and of setting up development objectives and may be considered a good practical assignment for a future management of the structural funds. The use of the pre-accession financial instruments, as a main funding source for the NDP activities, had a dual effect: on the one hand, the transposition of the European principles regarding the use of structural funds was facilitated and, on the other hand, due to the limited budget allocations from the EU budget, the number of development priorities was reduced and they relied exclusively on the priorities decided by the European officials on the expense of national priorities, altering therefore the quality of the planning exercise imposed by the accomplishment of the NDP. The technical assistance provided by the EU to Romania for the elaboration of the NDP and of the regional development plans is a substantial benefit, since it provided an important transfer of know-how concerning the drafting of development plans. Romania, as a beneficiary of the programs for regional development promoted by the European Union had to provide co-funding for these programs. This co-funding is a cost element in the pre-accession period which is expected to increase in quantitative terms after the accession (as a result of an increase of the Community contribution from the structural funds).

The main cost associated to the regional policy result from:

- The institutional building process required for the adoption and proper implementation of the regional policy;
- Difficulties in applying the EU regional policy principles;
- The relatively low use of the European funds, which deprives the regional economy of some financial resources that might be efficiently used for investments in the economic and social development of the region.

The cost mentioned above will gradually diminish in the future. The reasoning for this conclusion is the following: these costs consist of "start-up expenses", meaning that they represented mandatory investments for the adoption and implementation of the EU

regional policy, as well as additional costs resulted from Romania's lack of experience (at both macro and micro level) in managing this policy according to EU rules, built on the logic of funding the regional development on project competition and not on centralized allocation of funds according to arbitrary administrative criteria. The first component of these costs has visibly diminished its importance and may induce a slight increase prior and post accession due to the future expected reform of the EU regional policy. The second component of the costs will gradually diminish, up to zero, as the governments and private actors of the business community will gain experience in using the specific instruments of the EU regional policy.

At macro level, the following aspect should be mentioned: after 2007, the funding of the regional policy, and generally, of the social and economic cohesion, will have as main source the structural and cohesion funds, and the effects in terms of net costs and benefits depend to a large extent on the ability of the national units to implement the structural funds and to efficiently administrate these instruments. Although in the pre-accession period, the financial instruments available for Romania were based on the model of the structural and cohesion funds and meant to help the Romanian government to prepare for the EU membership, in the EU Common Position and the follow up documents regarding the regional policy and the coordination of structural instruments it is emphasized that the Romanian government does not possess yet of the ability to properly administrate structural instruments. This is a conclusion with obvious consequences in terms of costs.

Certain deficiencies in applying effectively the European principles should be pointed out:

- The principle of multi-annual programming is difficult to put into effect in Romania due to the differences existing between the information and data on site and the statistical data available;
- The collection and processing of accurate social and economic data is a costly exercise and the use of pre-existent data sources (standard data time series) is an easier option in this respect but it is less efficient in the perspective of an accurate statistical description of a region and of the regional changes occurred; this may lead to the adoption of inadequate strategies and measures due to the inaccurate information.
- The manner in which the regions of development were created. Since the dominant criterion was that of the geographic proximity, it is usual for a region to face heterogeneous and complex problems, situation in which it becomes difficult to prioritise the existing problems and formulating a consistent strategy for addressing them. There are some methodological difficulties affecting the quality of the ex-ante assessments of impact of certain measures for regional development, difficulties encountered by the authorities in the elaboration of long-term plans (6 years according to the programming requirements for the European regional policy), difficulties related to the absence of consistent objectives correlated in dynamics etc. These circumstances lead to the establishment of large number of development priorities, in both short and medium run, at the level of each region, limiting the implementing and the efficiency of the principle of concentration;

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- Difficulties in concluding partnerships and in promoting cooperation (inter-ministerial, inter-regional, intra-regional, public-private, between the national and regional authorities)
- Major difficulties in applying the principle of additionality;
- The shortage of qualified personnel. Until the present time, Romania was confronted with low availability of qualified personnel at local level.

These costs can be traced in the following axis:

- Legislative;
- Institutional;
- Social and economic.

For most cases, it is currently difficult to financially assess these costs. Certainly, most of them will manifest at regional level under the form of a quasi-permanent poor economic and social development or of a slower pace of the regional economic growth.

On the legislative axis, the assessment of the costs associated with the adoption of the *acquis communautaire* in the field of regional development can be divided in two periods: prior to accession and after the accession.

Until now, the legislative costs resulted from the process of the approximation of the national regulations regarding regional development with the Community provisions are small. This is due to the fact that Romania's legislation was formulated, since the beginning, in accordance with the European standards. In other words, the legislative costs are insignificant because there was no regional policy in Romania prior to 1998 (complying or not with the Community provisions).

The size of the costs associated with the adoption of the *acquis communautaire* might increase after 2007. 2007 is the year when the current financial programming period for the EU regional policy expires and changes are expected. In so far as these changes will produce, their transposition in the Romanian legislation could be costly. It is extremely plausible that the regional policy reform in 2007 will aim at a reducing the EU financial contribution for less developed regions (affecting, in relative terms, the funding available for the regions of Romania, less developed as compared to the EU regions).

On the institutional axis, the costs associated with the adoption of the *acquis communautaire* are mainly institutional building costs, since specific institutions, which did not exist before, were needed implementing the provisions of the regional policy. As mentioned before, we cannot talk about the existence, prior to 1998, of an institutional infrastructure for the implementation of the regional policy. The fact that at European level there are no standard models of national institutional structures in this respect, it is a factor that significantly limited the costs of institutional building since Romania was able to choose the less expensive option from the samples provided by the EU members. The current institutional structure regroups elements of the institutional architectures of different member states, adjusted to Romania's specific conditions. The institutional building was necessary and was carried on, as already mentioned, so that to ensure proper framework for the implementing of the European principles and standards of the regional development. This structure is recent and was from the very beginning complying with the Community norms, so that it is difficult to assess the costs implied by the process of

making it “in line with” with the European guidelines. The modifications occurred in this structure do not have major implications in terms of raising costs, but on the contrary, they may be included in the category of measures likely to increase its efficiency through a better coordination between the regional policy measures and the sectorial ones.

The most evident costs for institution building are those associated to availability of qualified personnel. The most visible deficit was recorded at local level. In case of Regional Development Council and Regional Development Agency (as regional bodies). These costs are assessed in terms of the small number of projects funded within the Community programs (poor use of the EU funds), mainly due to the limited availability of the RDA’s qualified personnel providing technical assistance and consultancy for the elaboration of projects according to the European norms. Once this deficiency corrected through various training programs for the RDAs personnel, diversification of the RDA and RDC activities at regional level and enhancement of RDAs to promote the conclusion of partnerships between authorities, business companies and non-governmental institutions, the institutional costs gradually reduced. Also a more severe control exercised by the territorial and national bodies regarding the conformation to the European principles and the utilization of the funds allocated for regional development projects, could increase the efficiency of these bodies and of their promoted measures.

The implementing of the *acquis communautaire* in the field of regional development should not generate *economic and social costs* since its underlying idea of the European regional policy is to create a normative framework and adequate instruments likely to increase the level of the economic development level of the group, and to fairly distribute the welfare among regions. In other words, the fundamental idea of the regional policy is to encourage the increase in employment and incomes at regional level through a mechanism of redistribution helping the regions facing industrial decline or economic restructuring processes to catch up with the more developed regions, without affecting the economic and social development of the last ones. In so far as the transition period was associated with economic restructuring which led to costs in terms of increase in unemployment and reduction of the regional income, but the regional policy measures were aiming attracting investments within affected regions and redefining the economic activities on grounds of efficiency so that to ensure a proper capitalization and valuation of the endogenous growth potential of the region. The purpose of the regional policy is not to impose certain measures, standards or restrictions, but to diminish the negative effects of adverse economic conditions at regional level and to stimulate and to contribute to the economic and social development of the region.

In order to meet the requirements of the EU membership, to efficiently capitalize the benefits resulted from the participation to a regional integration exercise and to ensure fair distribution of these benefits among regions, Romania will struggle for reducing disparities in terms of development between its regions and the regions of the European Union. This actions may prove to be expensive, due to the existence of some exogenous factors: limited transfers from the structural funds and the EU budget towards the poorer regions (e.g. motivated by German opposition to an increase of the spendings of the Community budget), the dependency of many under-developed regions on declining industries, the effects of the CAP reform.

In case of Romania, the identification of the cost components directly resulting from the implementation of the *acquis communautaire* is a difficult process due to various reasons:

- firstly, adoption of the European norms does not generate negative effects, but on the contrary, tries to limit them and to enable the occurrence of positive effects in terms of an increase in the economic development level of the regions;

- secondly, most of the negative effects (poor economic and social development, unemployment, industrial decline etc.) are driven by the restructuring processes or by exogenous elements to the *acquis communautaire* in the field of regional development. These phenomena manifested and produced effects also prior to the beginning of the process of approximation of legislation in the field of regional development.

- thirdly, a great part of the negative effects produced at regional level will persist and there is a possibility of getting worse as the *acquis communautaire* is adopted in other fields (like: environment, competition, agriculture etc.) which imply the introduction of standards and norms likely to affect, on short term, the economic development of the regions.

In the matter of regional development policies, to measure Romania's readiness to cope with the requirements of the EU membership is a difficult demarche which implies an analyses of Romania's ability to ensure a quick and balanced pace in the economic and social development of the regions, an analyses of the institutional ability to implement the Community legislation etc. So, the specific Community provisions have been already adopted and implemented or are under implementation. The modification operated in 2003 in case of the Law no. 151/1998 may be judged as an action likely to ensure the full compliance of the national legislation with the Community provisions. Also, the preparations at institutional level for membership entered in the "straight line" since in 2003 there nominated the bodies of the central government in charge with the management of the EU structural and cohesion funds. Nevertheless, the experience of the last planning exercise of the National Development Plan 2004-2006 proved the existence of some disfunctionalities regarding the inter-ministerial cooperation and confirms, to a certain extent, the concern laid down in the Common Position of the European Union for chapter 21, namely, the relatively reduced ability of the central administration institutions to efficiently manage the structural funds.

13.1. A foresight strategic approach for the regional development in Romania

The issues of regional development could be analysed – from the point of view of the cost-benefit balance – using the relation between the regional gross domestic product per capita and the essential factors that contribute to the evolution of the respective index. First and foremost, the purpose of this analysis is to identify the main factors that explain the interregional difference in GDP/capita. Secondly, we intend to prove that for each and every one of these factors we can provide a simple index, yet one easy to observe and statistically robust at the same time, as well as an econometric model needed to study the correlation between the variation of the respective indices at regional level.

As a result of the analysis, there has been established that four factors are strongly related to the interregional differences in GDP/capita and GDP/employed person:

- *the structure of the economic activity* (established by taking into

consideration the percent of the employed population in economic sectors as compared to the entire employed population, at regional level);

- *the scope and the potential of the innovation activity* (as a proxy variable we used the number of employees in research-development activities per 10,000 employed persons, in counties);
- *the infrastructure and the accessibility of the region* (the infrastructure is estimated taking into consideration the density of the railway network, the density of roads and the density of the telephone network);
- *the level of education and qualification of the workforce* (established by taking into consideration the regional data referring to the percent of elementary, high-school and university graduates in the stable population over 12).

The correlations between the regional gross domestic product (per counties) and the already mentioned factors characterising economic growth are presented in Table 13.1. According to the theoretical expectations, the empirical analysis proves the existence of relatively strong correlations between the mentioned factors and the economic growth potential. Thus, the active population employment rates in industry, building construction and services are positively related to the development level, while high percent in agriculture employment blocks the economic growth. Moreover, a high level of education favours economic growth, as well as the existence of an adequate infrastructure.

On the basis of our results, we developed the analysis taking into consideration the predictable changes characterising the economic strategy, **in the view of the European integration**. We anticipate, in this context, an increase in the autonomy in economic field, so that development will rely on the entrepreneurs' initiative, the ability of the economy to generate technical progress through inventions and innovations, the free working of prices and specific markets mechanism (goods market, labour market, financial, money and capital market, foreign exchange market). The development engine, in such a model, is represented by the competition between entrepreneurs, the ability to generate technical progress and the propensity to assume private initiative in an economy that guarantees the property right. All this will indiscriminately apply to the national economic framework, as a matter of fact following the guiding lines of the development scenario of the "Lisbon targets" type.

The future promotion of a coordinated economic policy aiming to achieve interregional harmonisation would find only few regions in relatively favourable positions. Without essential changes in the regional position of the development factors stipulated by the utilised model, Bucharest City, and, to some extent, Cluj, Constanța, Brașov, Sibiu, Prahova, Timiș and Arad counties would have been favoured in their development.

The other regions could benefit from a development process only if two conditions are met:

- pre- and post-accession national development is to be supported by regional policy measures;
- economic liberalism measures were to lead to a general economic progress, and this economic progress, developed in the already mentioned development poles were to be diffused in the territorial structures after reaching a certain level.

The qualitative estimations are presented in the figure below. The indices measuring the regional development potential were brought about by means of linear transformations in the [-2, +2] interval, so that -2 represents the least favourable situation, and +2 the most favourable one. In the next figure, the intensity of the colours ranges from white (for +2), to black (for -2) and there are various shades of grey for intermediary situations (-1, 0, +1).

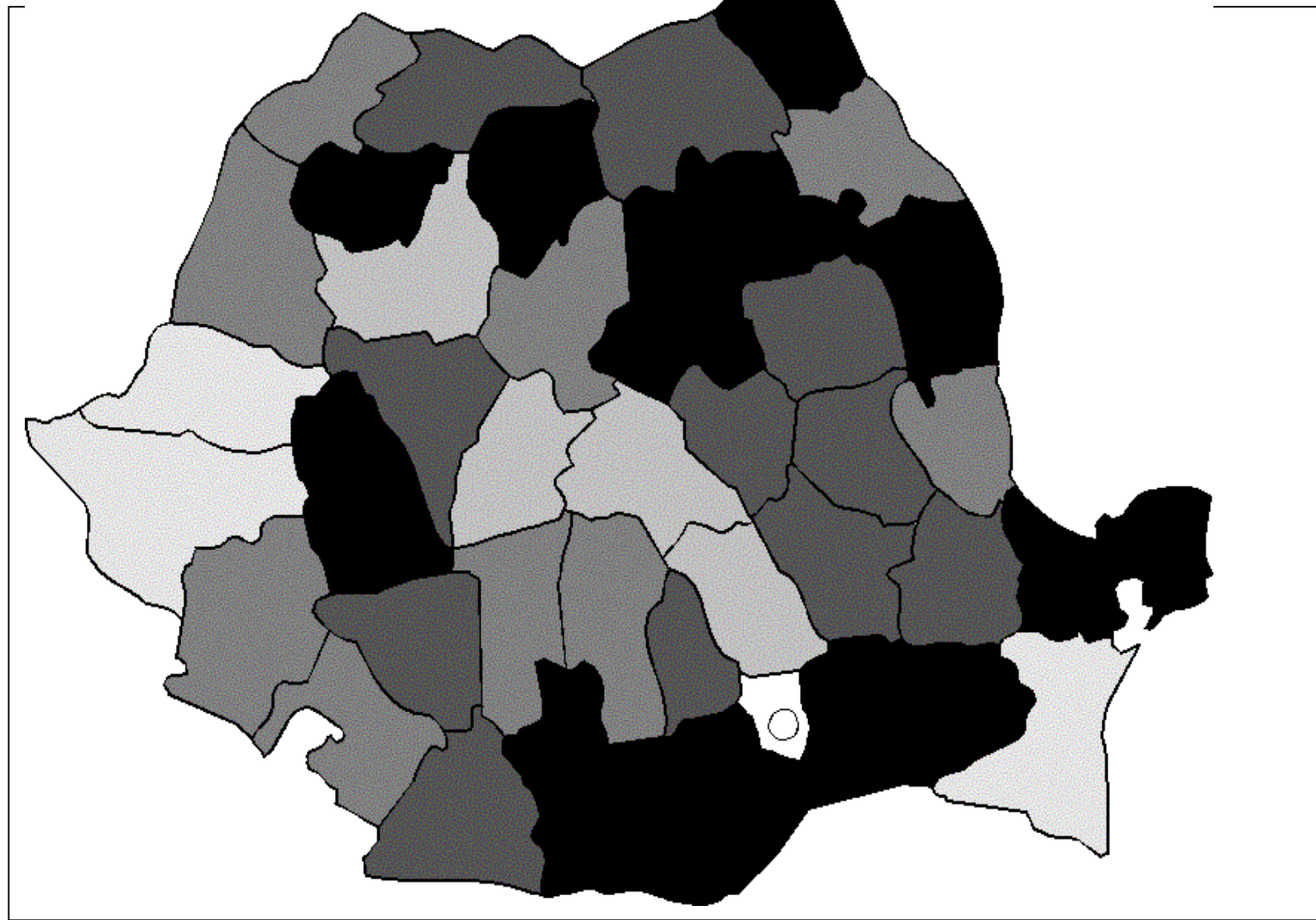
This presentation first reveals the fact that **regional evaluations differ considerably: negative for some counties and relatively positive for others**. At the same time there isn't any single region for which the evaluation is entirely favourable and for which its future is economic, and consequently, entirely ensured. Within this framework, the comparative regional analysis, starting from the economic weaknesses at regional level, could be interpreted as an index of the important economic, social and political problems, characterising each region.

The second important conclusion is that **in most regions, in spite of their diversity, the development elements have to be consolidated from the free market perspective**. Moreover, starting from the existent situation in the domains that represent classic tasks of the national and local public administrations, such as education, infrastructure and healthcare, and so on, the elements characterising regional development should be equally consolidated from the coordination perspective.

Because the two strategic approaches suggested (development coordination and economic liberalism) are to some extent contradictory, it is not possible to extract a univocal formula of succeeding in national and/or regional economic development. Nevertheless, it is considered that, no matter the theory that at a certain moment substantiates the development economic policy, a constant of the general progress is represented by *social innovation*. Social innovation is defined as being the ability and determination of individuals, companies and governments to continuously modify the old success formulas and to establish a new equilibrium between the various factors of the economic progress from the new reality perspective.

Table 13.1. The correlation coefficients between the GDP/capita at regional level and the economic growth factors (2002)

Economic growth factors		Correlation coefficients
Employment in:	Agriculture and forestry	-0.74
	Industry and building construction	0.68
	Services	0.49
Level of education	University education	0.76
	High-school education	0.73
	Primary education	-0.82
Employment in research-development activities		0.48
Railway transport infrastructure		0.39
Road transport infrastructure		0.09



Estimations of the regional economic growth potential, in the view of the European integration

Legend:

The indices that measure the regional development potential were brought about by means of linear transformations in the $[-2, +2]$ interval, so that -2 represents the least favourable situation, and $+2$ the most favourable one.

13.2. Regional development scenarios for Romania

Starting from the above mentioned general considerations, the empirical results of two regional development scenarios are discussed. For the two development model corresponding to each of these scenarios, is highlighted the presence or not of the sustainable character,, in the various regional contexts.. The comparative analysis of the opportunities and **blocking** factors for the Romanian counties is presented in the appendix. The irrespective figures are based on the characteristics that each of the proposed models.

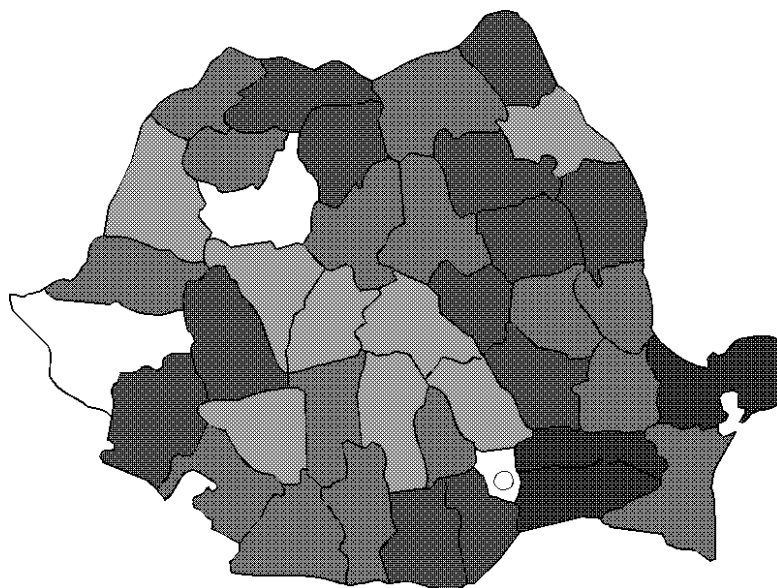
13.2.1. The regional development scenario in the coordination perspective

The regional development scenario in the coordination perspective is based on the new-Keynesian theory. Because imperfect information does not allow formulating correct expectations, but only changing expectations, the instable behaviour of the economic agents could cause cumulative perturbations that call for the state's embracing an anticyclical policy. The key factors of this development model are the education level, the state of infrastructure, the quality of the public action, the cooperation between the state, the employers and the unions, the collective adaptability. The development engine is represented by the cooperation between the already mentioned agents, cooperation that brings back uncertainty and increases the quality of anticipations, leading to a collective adaptation and adjustment to new situations that have occurred in economy. The role of the state in this process is crucial.

To determine the regional effects of an economic policy based on this theory, one has to estimate the status of the main economic progress factors. The education level is estimated just as in the previous scenario, following the methodology used when calculating the *human development index*. Also, the infrastructure is calculated by equally aggregating the normalised indices regarding the habitable surface per capita, the density of the railway network, the density of the road network and the density of the telephone network. The cooperation between state, employers and unions is calculated taking into consideration the number of the collective labour conflicts. Because the number of the labour conflicts represents a status index, the 1992-2002 data have been taken into consideration. The county structure of this index has been corrected with the structure of the employed population.

Due to the lack of an adequate estimator of the collective adaptability, this has been calculated starting from the active population adaptability on the work market. It has been considered that the bigger the adaptability degree is, the lower the unemployment rate is. Moreover, the quality of the public action is estimated by means of the human development index, calculated for the respective communities. The qualitative estimations are presented in the following figure.

Figure 13.2. The regional development scenario based on the coordination perspective



Without committing ourselves to the correctness of the estimators used for the progress factors stipulated by this model, we would like to put forth the fact that such a development model would favour, to some extent, Bucharest City and Argeş, Bihor, Cluj, Prahova, Timiş counties. Bistriţa-Năsăud, Botoşani, Tulcea and Vaslui counties would be disadvantaged. The cooperation model presupposes the state's active intervention, in cooperation with the local economic agents, to support regional development.

13.2.2. The development scenario based on the free market perspective

The starting point for the regional development scenario, grounded on the free market perspective, is the theory developed by the neo-Austrian economic school of thought. According to the respective theory, the essential elements characterising economic progress are the autonomy of the economic sphere, the entrepreneurs' initiative, the ability of the economy to generate economic progress through inventions and innovations, the free working of prices and specific markets mechanism (goods market, labour market, financial, money and capital market, foreign exchange market). The development engine is represented by the competition between entrepreneurs, in an economy that guarantees the property right. There is profound distrust as far as the role of state and that of public policies are concerned.

The private initiative is calculated as a balanced average starting from the specific importance of private property in agriculture as compared to the entire agricultural surface (share coefficient = 1) and the number of private entrepreneurs per 1,000 persons (share coefficient = 2), in the middle of 2002.

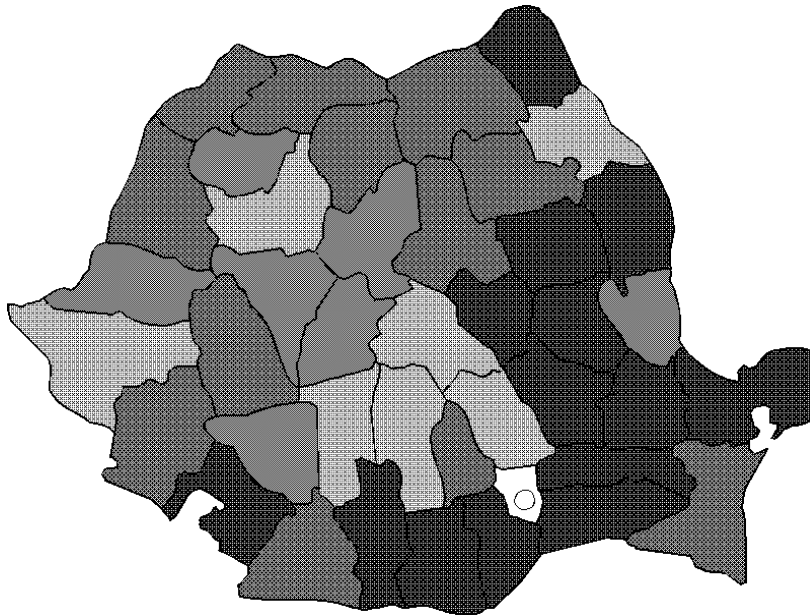
The innovation potential is the result of the ratio between the number of persons that work in research and development to 10,000 persons, and the education index.

Promoting, in the future, an economic policy that should rely on the theory developed by the Austrian school of thought, including the subsequent developments of this theory, would find in less favourable positions fewer regions than the previous models. Without essential changes in the regional situation of the development factors stipulated by this free market model, Bucharest Region, and to some extent Cluj, Braşov, Prahova, and

maybe Iași and Timiș counties would be favoured in their development. The other counties could benefit from a development process only if two conditions are met: economic liberalisation measures were to lead to a general economic progress, and this economic progress, developed in the already mentioned growth poles were to be spread in the territorial structures after reaching a certain level.

As in the previous case, the indices that measure the regional growth factors have been brought, by linear transformations, in $[-2, +2]$ interval, so that -2 represents the least favourable situation, and $+2$ the most favourable one. In the next figures, the intensity of colours ranges from white for $+2$ to black for -2 .

Figure 13.3. The development scenario based on the free market perspective



Even if the presented conditions are met and even if we could a priori acknowledge that economic progress does not occur everywhere at the same time and that, when it occurs, powerful forces act so that increase be geographically concentrated around these starting points, the process of diffusing development from the poles to the periphery is uncertain and, at any rate, partial. This happens so because, as it is demonstrated in the theory of the growth poles, in addition to the uncertainty of the existence of the threshold from which the diffusion forces become dominant as compared to the polarisation ones, there arises the problem of the quality of the effects produced by this diffusion, operated from the poles to the rest of the areas.

If activity filtering phenomena occur in the process of development diffusion, disequilibria could become persistent. Developed regions always accumulate valuable elements and have the tendency to push, towards the other areas, those activities that, at some point, become inconvenient, and the declining activities and so on. Likewise, regions also exercise a filtering process applied to input flows, filtering that results in competitiveness loss for those regions left behind (for example, qualitative depopulation). If these two processes take place together, there might occur a certain tendency to perpetuate the opposition between the relatively developed regions (that have a bigger innovation ability, a higher level of qualification and productivity of the workforce, and consequently higher income for the entire population) and the other regions in which economic growth and employment growth are mainly the result of the decongestion

processes of developed areas. This means that, at regional level, even if there is a general development process, it is the quality of such a process that could lead to a certain persistence of disequilibria and to a cumulative growth in development inequalities, because, taking into account the specific circumstances of the free market model, the higher innovation ability and the competitiveness of better-developed regions could result in a continuously polarised development type.

A second important conclusion is that, in most regions, in spite of their diversity, it is necessary to consolidate the development elements from the free market perspective. The problem is of present interest in Romania, having in mind the economic reform process. Furthermore, starting from the existing situation in the domains that represent classic tasks characterising national and local public administrations, such as education, infrastructure, and healthcare and so on, it is necessary to consolidate, to the same extent, the elements specific to regional development from the coordination perspective.

14. Final conclusions

In terms of the macro-economic indicators evolution, the analyses comprised in the previous chapters and the prognoses based on the two scenarios proposed to be run on the structure of the LINK-Dobrescu model for Romania lead us to the following conclusions:

1. There is no doubt about the opportunities of sustainable economic growth offered by Romania's integration in the EU as soon as possible. For the considered prognosis period – between 2004 and 2015 - the average yearly growth pace results to be with approximately 2 percents higher in the integration scenario case (4.54% compared to 2.55%). Besides representing a yearly excess of gross domestic product equivalent to around 900 million – 1 billion Euros, this difference allows us to talk about a convergence phenomenon of the Romanian living standard towards the average EU one, in the integration scenario case, while in the delayed scenario case divergences show up at the horizon of 2011-20012.
2. The integration of Romania in the EU in 2007 can generate higher costs compared to an alternative scenario of isolationism or delayed integration in the first period of time, corresponding to the pre-accession and the first two-three years of post-integration in certain sectors of economic activity and for certain groups of economic agents. It is the case of the growth rate of the real average gross wage by economy which seems to be higher in the delayed integration scenario, in the first years of the period of interest, up to 2009-2010. Also, the trade balance deficit is higher in the integration scenario up to year 2010, with values close to 1 billion Euros per year. The unemployment rate presents lower values in the first 5-6 years in the alternative scenario case but is deteriorating towards the end of the prognosis period.
3. One of the main benefits of Romania's integration in the European Union is provided by the openness degree of the economy towards the rest of the world (the weight in GDP of the sum of exports and imports of goods and services). This is oscillating in the alternative scenario case between 76-80% during the prognosis period, whereas in the integration scenario this is increasing gradually from 76% up to over 100% in year 2015. The opening

phenomenon is accompanied by beneficial effects as well as by the increase of foreign investment flows towards the Romanian economy sectors, the increase of the ability to cover the necessary external funding of the internal deficits, the increase of the bilateral flows of labour force between Romania and other EU states and implicitly of the income flows of the production factors, the increase of the labour productivity in the Romanian economy, even in the less-developed sectors like agriculture, as a result of the limited transfers of technology and structural funds for development and of the high competitive pressure of the single European market.

4. Even if it is supposed that the policies adopted in the case of an isolation scenario would copy the policies of an integration scenario, the results continues to be different and in favour of the rapid integration scenario. This demonstrates that the evolution in economy is not follow the simple rules of arithmetic, but is a system with compensatory feed-back, which makes the positive effects to be amplified through synergies of influence factors like restructuring the system of domestic and external prices, factors of technical progress or development of human capital. The concrete example is offered by the evolution of Romania's economy in the 2000-2003 period, as compared to the results obtained by running two different scenarios, one starting from social-economic policy measures similar to the real ones, the other extending the real hypotheses specific for year 2000 to the entire simulation period, up to 2004 (freezing the social-economic policies at the level of the basic year). The simulations based on the two scenarios offer results inferior to the effective achievements of the real economy, which demonstrates that a model will not be able to reveal both structural and behavioural changes to date in the macro and micro-economy. For the 2000-2003 period, the growth of real GDP cumulated in the simulated isolation scenario is 7,34% and 12,93% in the integration scenario, whereas, in actual fact the increase in volume of the gross domestic product in Romania was close to 18% in the considered four years.

The sectorial analysis presented in the present paper generated in their turn certain important conclusions:

1. The *economic development will not be homogenous between the economic sectors*, in none of the possible development scenarios. There will always be relative losers and winners. One of the fundamental issues for the political decision-makers will be to find the social-economic policy solutions and measures necessary for the reduction of losses (costs) where these arise or are of acute nature, or in the best case, to find methods for transferring all the sectorial differences in a global growth area.
2. The reported figures, disaggregated by sectors of economic or social activity, show that the possible *costs and benefits of Romania's European integration or isolation are not homogeneously distributed in time*. There are periods when the costs are prevailing in certain sectors or even in the economy as a whole, followed by periods of benefits supremacy. The analyses should be performed for a medium or long term and the results should be discussed based on the trends recorded towards the end of the prognosis period.

3. According to the partial results presented in the previous chapters, the sectors that seem to be holding the winning cards for the next years, due to the specific pre or post-accession processes, are: *market services*, which will continue the development process started in 1990, at a higher pace relative to the rest of the economy, *agriculture*, due to the efforts which Romania will focus on restructuring, with an important financial and know-how support from the European Union, as well as the *sectors extremely exposed to international competition*, which lived through the initial competitive impact and the diminution of the domestic demand in the first years of transition. The development of imports and exports will continue at a steady pace, which will additionally increase the external competitiveness of these sectors.
4. The social-economic activity sectors liable to suffer, in the future, at least in the short and medium run, the impact of costs at a higher level than benefits, will be those related to the necessity of restructuring the *area of environment protection and the public utilities sectors*. The labour market may experience distorting phenomena in the next years, regardless of the scenario chosen by the political decision-makers for Romania's development, before perceiving the beneficial effects of sustainable development among which the generation of new jobs will be mainly mentioned.

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