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**WINNERS AND LOSERS
IN THE PROCESS
OF EUROPEAN INTEGRATION.
A LOOK AT ROMANIA**

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**WINNERS AND LOSERS IN THE PROCESS OF EUROPEAN INTEGRATION.
THE CASE OF ROMANIA**

Final report

Overview

We provide a first empirical assessment of winners and losers in the process of European integration, based on a broad view, that aggregates a pure trade perspective, a sectoral approach including unit labor cost and productivity analysis, a labor migration description and a picture of individual perceptions. Our findings of winners and losers, as well as of potential winners and losers, are complemented by policy recommendations, which emphasize the need for an active public policy.

Introduction

Integration in the European Union is one of the twin strategic choices of Romania. As a matter of fact, this integration is seen as a multiple venue for the Romanian society in its quest for economic transformation and modernization. Why the latter is mentioned? For economic and social backwardness is a feature of Romania (and of other Eastern European societies) which goes back deeply into history, well before the advent of communism. Will Romania succeed now, in combining post-communist transformation and modernization via its quest for EU integration? This can and should be an obsessive question to all of us. *Prima facie*, the answer cannot be but positive for the EU is a club of rich and democratic countries. Admission into the EU would seal the accomplishments of a journey of thorough economic and social change. But there is a major distinction to make in this respect, namely between the end stage (accession), and integration viewed as a gradual process of change of the anatomy and physiology of Romanian society – which should make it compatible with EU economic and institutional structures. If the emphasis is put on *process* the issue becomes much more complicated since the candidate countries for EU accession are very diverse and Romania is one of the poorest performers economically. It does make sense, therefore, to assume that, in her case, the process will last longer.

But this inference, on the time dimension of integration, is not the end of the story. Integration can be more or less smooth, with a variety of benefits and costs, which hinge on the actual advance of transformation in Romania. The more economic progress Romania achieves the easier would be for her to fit into the very competitive EU environment. And even so, there would be losers: sectors and companies which are likely to be forced out of the economic game, with dire consequences for the labor force compelled to seek other jobs. Achieving allocative efficiency (reallocation of resources from low onto high productivity areas) is not painless in the real world. Moreover, the public (economic) policies of Romanian governments – even when these policies take cognizance of the need to apply the *acquis communautaire* are not a given; they can vary, be better or worse, which means that their effects can be widely different. Some policies can enhance integration, other can slow down this process.

Surprisingly, although EU integration is an historically exceptional process for Romanian society, the research linked with the economics of this endeavor is pretty scant. The implications are multifarious. And this assertion does not refer to the naked

utility of knowledge, but to its supporting function in propping up policy. For this reason, we thought it appropriate to start, at The Romanian Center for Economic Policies, a research program on this topic.

This paper aims at identifying winners and losers of EU integration¹, from the Romanian society perspective. On the one hand, our endeavor follows a path already opened by other works abroad² and at home³. On the other hand, this study differs from previous attempts on that it combines the social and the economic sides, by relating labor movements to trade realities. Our study also presents another novelty in that it shows how groups of people perceive EU integration. This is important since, in a democracy, perceptions shape popular support for policy. Good or wrong, these perceptions are to be taken into account by policy-makers.

In order to attain our goal, there are some facts that we need to clarify from the very beginning, as follows:

- The first step in our analysis is to try to define the realities beneath the concepts of *winners* and *losers*. There is a major remark to be made: the winner/loser classification varies depending on the dimension of the analysis. First, the winner/loser identification of a sector does not necessarily hold true for each and every part of that sector, be it either a firm or an individual. Hence, there could be particular winners within a loser sector, and *vice versa*. Second, the winner/loser dichotomy valid for one sector or another does not necessarily correspond to net welfare gain/loss at the level of the entire society. Following this line of thought, a loser sector can free resources to other sectors of the economy, improving the allocative efficiency of the economy as a whole.
- It is always difficult to make a clear distinction between the effects of the integration process and those of the normal transition-based reforming process. We have tried to isolate the impact of EU integration from the impact of the transition process; yet, we acknowledge that the success was only partial. Our efforts aimed at calculating separate revealed comparative advantages indices with the European Union, and with the rest of the world, considering the rest of the world situation as a control scenario (in the absence of asymmetric trade barriers dismantling); the subjective perceptions

¹ We hereby understand integration not *stricto sensu*, as the formal move to join EU, but as a gradual process of increasing compatibility with EU economic structures, political institutions and legal mechanisms. As formal integration can not be taken for granted, we use the term “integration” to define the processes that take place in the pre-accession stage.

² Tang, Helena (ed.) *Winners and losers of the EU integration* EBRD, 2000; Pelkmans, Jacques, Gros, Daniel and Ferrer, Jorge Nunez *Long-run economic aspects of the European Union’s Eastern enlargement* WWR working documents, 2000; Richter, Sandor *Measurement of costs and benefits of accession to the EU for selected CEECs* WIIW project, 2000; *Custom policy impact of EU integration*, The Romanian Center for Foreign Trade, 2000.

³ Munteanu, Costea; Boscaiu, Voicu; Liusnea, Daniela; Puscoi, Lucia *The impact of foreign trade and direct investments on productivity in the Romanian manufacturing industry. The case of Romania* RCEP research paper (in Romanian) no. 22/2000.

of individuals refer exclusively to the integration process; domestic migration flows are complemented by workforce outflows towards EU.

- The winner/loser position is not a given fact, an axiomatic feature that must be taken for granted. It is actually the final objective of this paper to give recommendations on alternative policies to address, soften, or even counteract, negative impacts entailed by the integration process.

Limits of our work are hereby acknowledged as follows:

- Some inconsistencies in our paper, or lack of relevance of some indicators, might appear due to the difficult process of data collection, on one hand, and even the initial process of data gathering for the official statistics, on the other hand.
- The agriculture does not receive the entire attention it deserves, as our analysis is rather focused on industrial sectors. Another study should redress this imbalance.
- Hypothesis are expressed, yet some of them remain to be tested by further research.

Methodology

The methodology deals with gathering and computing Romania's foreign trade data for the last 10 years, including revealed comparative advantages⁴, and comparing them with those of other accession countries (CEFTA minus Romania). In addition, data on unit labor costs, employment and productivity are computed and analyzed together. However, we admit the fact that there are other dimensions of illustrating the positions of different groups of industries and individuals, than the rather quantitative approach adopted hereinafter. As far as the more sensitive part of individual perceptions is regarded, it is based on the results of a representative opinion poll. Within this analysis, dominant opinion indices are computed in order to describe the symbolic image attached to the process of integration by different groups of people⁵.

1. A brief description of EU-Romania relationships

Romanian authorities' efforts to join the European Union have evolved within an institutionalized framework since February 1993, the date of signing the EU Association

⁴ We calculate RCA in two ways. First, we look at domestic RCA, meaning what we trade better than the average, based on the formula $RCA = \ln(X_{ir}/M_{ir}) / (X_r/M_r)$, where i is a given industry and r a given region (it can be eu - European Union, c - CEFTA, r - rest of the world as in total minus EU). These data are calculated since 1991. Second, we look at external RCA, meaning what we trade better than others, based on the formula $RCA = \ln(X_{ir}/X_r) / (M_{ri}/M_r)$ - a ratio of the share of i in our country exports to the share of the i in the partner region's imports. These data are only available for 1999. For an easier understanding, we will refer the first type of RCA as RCAA, and the second one as RCAB.

⁵ The dominant opinion index is calculated as $DOPI=(P-R)*(100-N)/100$, where P-positive answers, R-rejection answers, N-neutral. DOPI scores can vary from -100 to +100.

Agreement. In June 1995, Romania officially applied for accession into the EU. A first assessment on its request was given by the EU in the Agenda 2000, a document adopted in July 1997. In December 1999, the European Council decides to open accession negotiations with the so-called “Helsinki group” of six countries, including Romania. The year 2000 marks a number of developments in the process of integration.

In terms of a strategic perspective towards EU accession, most important of these events was the adoption of The Medium Term Economic Strategy; in terms of technical compliance with EU regulations, most significant event was the actual debut of negotiations on specific chapters. Out of a number of 31 negotiations chapters, Romania has completed 5, namely: small and medium-sized enterprises; education, training and youth; science and research; external relations; common foreign and security policy. Four other chapters which have been opened for negotiations are: statistics; culture and audio-visual; telecommunications and information technology; competition policy. The approach taken is to fasten the process by dealing now with rather easy-to-negotiate chapters, leaving the sensitive issues, such as agriculture, to be addressed later on.

The latest report (2000) of the European Commission on Romania is tough in several respects. Thus corruption is considered widespread, the Parliament is working to slow, and the Government’s decisions lack coherence. Regarding the economic criteria, some positive results have been noticed (slight economic recovery, increase in exports, decrease of the fiscal deficit); however, structural reforms are still lagging and Romania is not regarded as a functional market economy.

As far as the adopting the *acquis communautaire* is concerned, the report considers that Romania has recorded fast improvement on competition laws, trademark and copyright legislation, and transport. Limited progress - the report says - is shown on free movement of goods, people and capital, social protection and unemployment policies, while there is still significant need for further improvement on agriculture, environment, telecommunications, information technology, consumer protection.

The advance of the negotiation process, and the subsequent adoption of the *acquis communautaire*, do not automatically get Romania closer to integration into the EU. This is because the gap to be closed is not only a political, legal or technical matter, but first of all a development issue. According to World Bank estimates⁶, Romania needs a steady annual growth rate of 4.7% over the next 20 years in order to reduce at 50% the per capita income gap with EU average level.

2. The individual perspective

The dominant lines of reasoning among people with regard to the EU integration process are identified⁷ on the basis of two questions addressed: *Do you consider that Romania, as*

⁶ *Progress toward the unification of Europe*, a World Bank paper, 2000.

⁷ *Eurobarometer*, April 2000, The Gallup Organization Romania

a whole, would benefit from becoming a member of the European Union? and Do you consider that you would personally benefit from Romania's accession to the European Union?.

Figure 1. The matrix of perceptions of the EU integration process

Romania's accession to EU would bring...		Self advantages		
		Yes	No	Don't know
Country advantages	Yes	54% active supporters	16.5% moderate supporters	13.7% pasive supporters
	No	0.8%	4.7% opponents	0.6%
	Don't know	0.4%	3%	6.3% absents

More than half of the population considers that both the country and themselves would benefit from EU accession. They trust the EU (DOPI score 70) and have a good representation of it (DOPI score 77). **The three things that these active supporters think about when asked about the EU are: positive effects of the accession on the evolution of the Romanian economy (57%); positive effects of the accession on the external image of the country (25%); free movement for persons as a result of visa abolition (13%).** At its turn, Romania has “a lot to offer to the EU” (DOPI score 41) and its membership would be perfectly justified in historical and geographical terms (DOPI score 73). The EU accession would give a boost to the Romanian economy (DOPI score 83) without increasing the unemployment (DOPI score -32), leading to improvements in the standard of life (DOPI score 82).

The second largest group is those of moderate supporters, who consider that the integration process would put the country in a winner position, but it would rather have a neutral impact on their own welfare. Similar views are shared with the active supporters, except for the moderate scores recorded. The first three things they would think about regarding the EU remain the same, with 53% appreciating that the EU integration would have positive impact on the Romanian economy.

By specific differences, the group of passive supporters is not well identified. Their opinions do not differ from those of the other supporters, except maybe on their intensity; what differentiate them is their inability to place themselves in a position on the winner-loser axe.

The opponents represent a small group, with a negative perception of the EU (DOPI score -16), low trust in the EU (DOPI scor 11), the effects of accession on the Romanian economy are contrasting (DOPI scor 2), with potentially rising unemployment (DOPI score 3). Despite these consideration, the majority within this group would vote “yes” at a would-be referendum.

The last group belongs to those who could identify neither themselves, nor the country on the winner-loser axe. Except for this group, that is neutral on all aspects, an interesting feature is the poor perception of the country leaders as regards their efforts toward the EU integration. The active supporters have a less favorable opinion on this (DOPI score only 20), the moderate activists have an almost neutral opinion (DOPI score 1), going down to the negative representation in the eyes of the opponents (DOPI score -22).

The general level of satisfaction with the current life is low, with a negative overall score of -24. However, **the EU active supporters are less unsatisfied with their current life** (DOPI score -10), while the EU opponents are really unsatisfied with their current life (DOPI score -43). We might interpret these findings as the EU opponents are recruited among those that have already had a loser experience, although it is not clear whether or not their loser experience was due either to integration, or merely to the transition process.

Table 1. Socio-ocupational groups defined as winners and losers

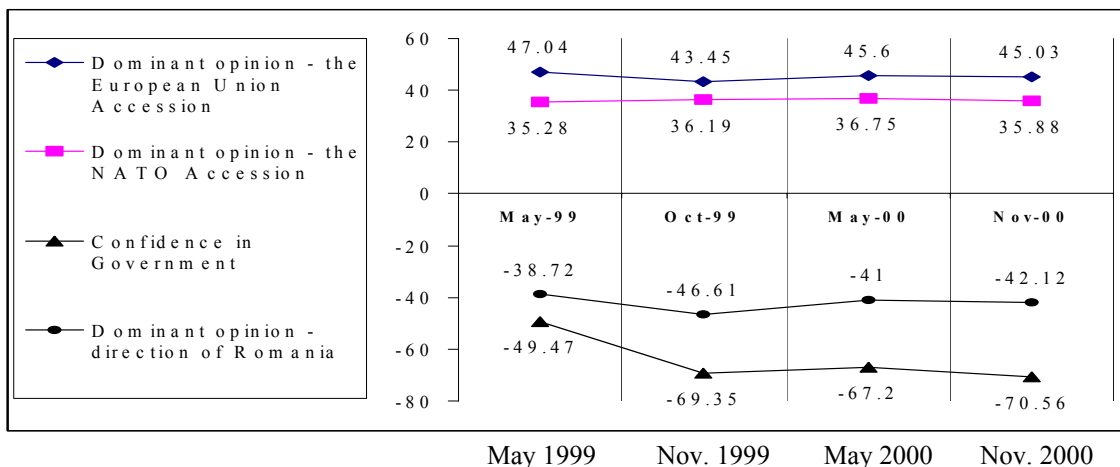
Group	supporters	opponents	absents	sample
Unemployed	38	-12	2	23
Retired	19	-28	-2	8
Peasants/farmers	35	-10	-1	21
Employees	57	-18	0	34
Industrial workers	46	-18	0	27
Entrepreneurs (SMM enterprises)	47	-6	4	31
Professors	54	-7	4	36
Public officers	50	1	10	34
Entrepreneurs (big enterprises)	63	17	10	52
Politicians	64	36	34	62
Experts, free lancers	68	3	16	51

Note: the figures in this table are DOPI scores

The differences in perceptions between supporters and opponents of the EU integration stem out clearly from table 1. However, regarding the people that are still actively involved in economy (so, except retired people), **there is a certain degree of consensus as far as peasants (farmers) are concerned: they are less winners than others among supporters, rather losers among absent and definite losers in the view of opponents.** For the sample as a whole, they are at the bottom of the winners list.

When aggregating individual perspectives, at the level of the entire society, the EU accession records highest scores of support.

Figure 2. Is EU accesion useful for Romania? - DOPI scores, as compared to DOPI scores on OTAN accesion, confidence in government and the direction of Romania



Source: OSF Public Opinion Barometers (May 1999 – Nov.2000)

Note: Dominant opinion index = (positive – negative)* (100 – missing)/100. Values: + 100 = the accession is useful, - 100 = the accession is not useful. Dominant opinion index was also computed for the confidence in Government. +100 = total confidence, -100= not at all confident. Confidence in Presidency, Parliament and political parties had almost the same levels and evolution.

The permanent loss in confidence in national political institutions does not determine a loss in faith that European Union accession represents the necessary target for our country. The Romanian case follows the relationship described in other cases⁸ - the level of popular support for the European integration is directly proportional with the degree of distrust and alienation towards the national political institutions (caused by mismanagement and corruption at public levels), and with the perceived capacity of supra-national institutions to compensate for the shortcomings at the national level. However, even within the EU, there is the principle of subsidiarity, meaning the delegation of authority at national level in a number of national relevant issues. A coherent public policy is needed therefore at national level in any case.

3. The economic perspective

3.1. Setting the stage for winners and losers: trade reorientation

The collapse of the CMEA, the trade area of the socialist block, induced a fast, though not sharp, reorientation of the Romanian trade towards the EU, a trend characteristic to all CEE formerly planned economies. By the end of 1999, more than 65.5% percent of Romania's exports went to EU members, while the share of imports from the Common Market reached as high as 60%. The situation slightly changed in 2000, with exports to the EU representing 63.7% of total exports, and imports from the EU reaching 56.2% of total imports. EU-15 accounts today for 59.6% of total Romanian trade flows. The

⁸ Ignacio Sánchez-Cuenca, "The Political Basis of Support for European Integration," *European Union Politics*, Vol. 1, No. 2 (June 2000), 147-171; Christopher J. Anderson, "When in Doubt, Use Proxies: Attitudes toward Domestic Politics and Support for European Integration," *Comparative Political Studies*, 31 (1998), 569-601; Mark N. Franklin și C. Van der Eijk (ed.), *Choosing Europe? The European Electorate and National Politics in the Face of the Union*, (Ann Arbor: University of Michigan Press, 1996).

figures are comparable to the share of intra-EU trade of many current EU members. One can say that at least from an economic perspective, and discounting for some trade barriers still existing in agriculture and a number of protected EU industries, **Romania, together with most CEE economies, is *de facto* integrated in the EU trade connections.**

Figure 3. Geographical distribution of Romanian exports (%)

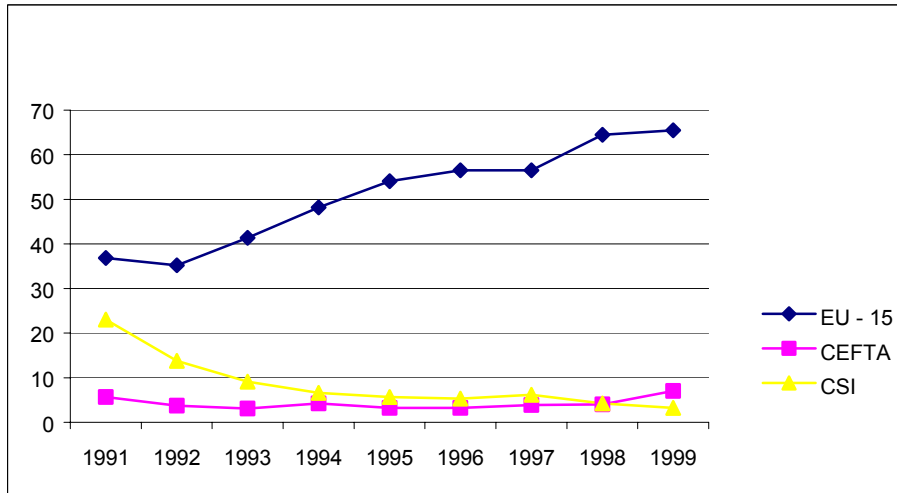
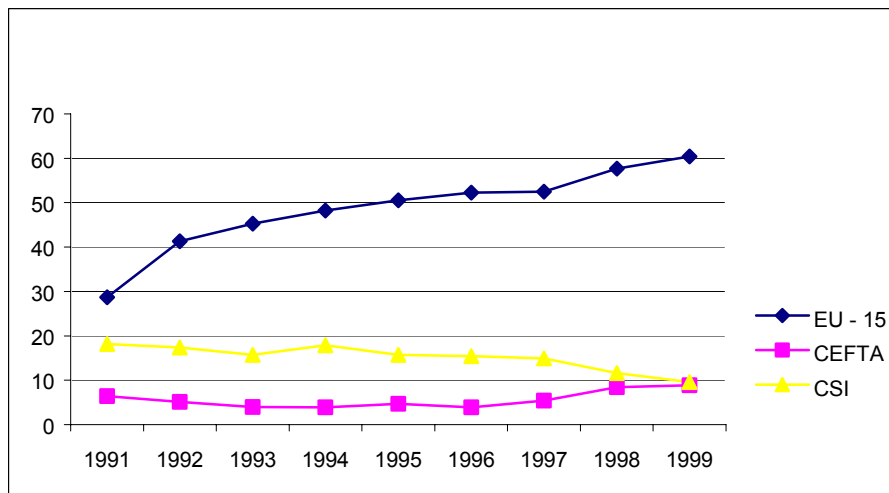


Figure 4. Geographical distribution of Romanian imports (%)



Romania had significant commercial links with the EU in the communist period, with a peak in the late '70s. As the former regime went on to repay foreign debt ahead of schedule, Romania applied an import substitution strategy in the '80s, with consequences on the modernization of its industry, and the trade with the EU. After Revolution, the EU became the largest trade partner of Romania as early as in 1991, at a share comparable with, and even higher than for other CEE economies. Trade with other regions, above all with the CIS states, has declined both relatively and in absolute terms, as the figures suggest. Yet Russia has remained the major supplier raw materials (mainly oil and gas) for Romania.

Several main factors have contributed to this evolution. First, the steady emergence, and then consolidation of the institutional framework governing trade relations between Romania and its EU and CEE partners. On the EU side this culminated with the signing of the pre-accession agreement, the Association Agreement, in February 1993. The accord put the basis of the gradual removal of quantitative trade barriers between Romania and the EU, with the exception of agriculture and several industries, “sensitive” for the EU partners. While some consider the treaty not asymmetrical enough towards the CEE countries, leading to worsening trade balances, or even that its presence actually hinders trade relations between the two sides, the significant increase in trade volumes between Romania and the EU in the years after the signing cannot only be coincidental. In addition, the recent evolution shows that for the last three consecutive years the export/import coverage ratio with EU has nevertheless improved.

Table 2. Romanian foreign trade, total and with the EU countries

	Export total	Import total	Coverage ratio	Export EU	Import EU	Coverage ratio
	mil. USD	mil. USD	%	mil. USD	mil. USD	%
1991	4,265,216	5,794,158	73.61	1,575,897	1,663,612	94.73
1992	4,363,360	6,014,640	72.55	1,534,735	2,466,713	62.22
1993	4,892,120	6,521,671	75.01	2,023,343	2,955,222	68.47
1994	6,151,334	7,109,003	86.53	2,964,244	3,427,654	86.48
1995	7,910,019	10,277,871	76.96	4,283,421	5,185,543	82.60
1996	8,084,458	11,435,273	70.70	4,568,590	5,986,143	76.32
1997	8,431,000	11,280,000	74.74	4,768,000	5,922,000	80.51
1998	8,302,000	11,838,000	70.13	5,358,000	6,829,900	78.45
1999	8,504,700	10,392,100	81.84	5,571,400	6,276,700	88.76
11 luni 2000	9,528,700	11,512,200	82.77	6,071,800	6,472,300	93.81

Source: computed after NSC

A note of caution is needed however on these positive dynamics: aggregate numbers can be pretty deceptive as to the quality of Romanian exports and to the impact of trade on the economy.

With respect to the CEE, the turning point in trade relations was marked by the adoption of the CEFTA treaty, which came into functioning in July 1997. It is probably too early to be enthusiastic about the gradual, but steady increase in trade levels with CEE partners after 1997 (reaching 7%, respectively 8.9% of Romania’s exports and imports in 1999), which were seriously hurt in the aftermath of the CMEA dissolution. Many analysts (Inotai, 2000) consider that there are further good premises for regional integration and trade growth, although within the boundaries defined by the EU accession process, the foremost objective of each country in the region.

The second important factor explaining the figures above is the internal economic reform process underway in transitional economies. Although the speed or depth of restructuring

varied considerably from country to country, some crucial steps, which are prerequisites to successful adjustment to the new, competitive economic environment (such as price liberalization leading to temporary loss of price competitiveness, privatization or the adoption of new legislation governing market behavior –which partially explain some of the initial syncope in trade levels in early years of reform as well-), are common throughout the region.

Furthermore the charts suggest that the reorientation of trade towards the EU partners was accompanied by significant *trade creation*. The latter occurred following, on one hand, the progressive removal of tariff and non-tariff barriers required by the Association Agreement, and on the other hand, through dynamic positive internal effects such as economies of scale introduced by technology transfers and FDI inflows, diversification of products traded on international markets, or the increased competition entailed by the erosion of the power of some domestic monopolies. For Romania, the volume of exports traded with the EU went up from under USD 2 bn. in 1990 to over USD 5.5 bn. at the end of 1999. Inevitably, geographical adjustment and the dissolution of the CMEA have also resulted in *trade diversion*, away from traditional trade partners during the communist period, such as the CIS countries.

A fundamental question raised at this stage is: *Is the geographical redistribution of the Romanian trade, now clearly oriented towards the EU, sustainable?* As the institutional framework underlying the trade policies of the CEE countries is quite irreversible, and, somehow, rigidly, defined by the association agreements, as EU membership candidates, as well as by their aspirations, the answer here seems to be affirmative. Romania, like all other present and future EU members is already very much a participant in the Single Market, and therefore trade patterns follow its rules and rigours. The true question to be raised is therefore rather: *When will Romania achieve full economic integration, both institutionally and as a participant in the redistribution mechanisms of the Union?* Obviously, the answer here has a political dimension.

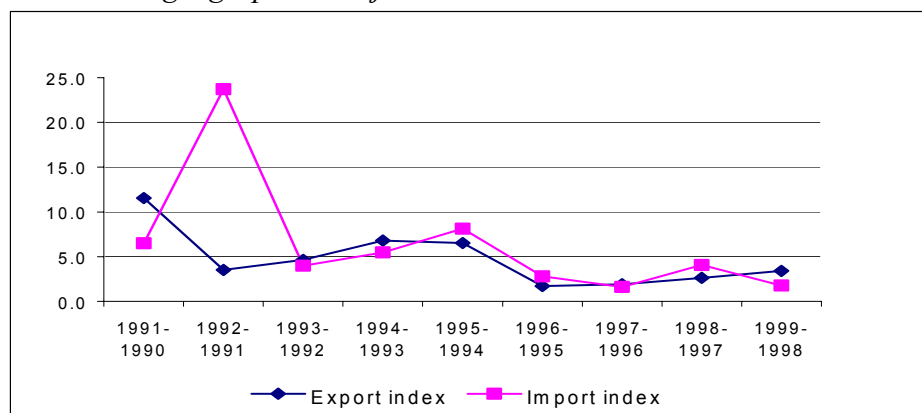
Geographical dynamic adjustment is important because it captures the capacity of the Romanian economy to develop long-term commercial links, capable to buffer short terms global turbulence and adverse shocks without major shake-ups. In order to investigate the extent to which the Romanian foreign trade has adjusted geographically towards the EU, in the ten years of transition, we resort to standard measures of geographical adjustment indices⁹. Indices for imports from and exports to the EU are presented in the graph below.

⁹ We construct an index of geographical adjustment of imports (m) from, respectively exports (x) to the EU, defined as follows:

$$m_t = \frac{\sum_{i=1}^N \|(M_t)_i - (M_{t-1})_i\|}{M_{t-1}} \qquad x_t = \frac{\sum_{i=1}^N \|(X_t)_i - (X_{t-1})_i\|}{X_{t-1}}$$

where $i = 1 \dots N$ is the country's partner and t the period for which the index is calculated. It follows that the index expresses the cumulative changes in quantity imported (exported) over two consecutive periods relative to the total amount of imports (exports) corresponding to the previous period. The changes are

Figure 5. Romanian geographical adjustment indices towards EU



Foreign trade is adjusted when a country records a relatively stable geographical composition of transactions, after a certain number of periods during which quantitative fluctuations are declining in amplitude. The faster the drop in the level of the index, the quicker geographical stabilisation is achieved. An index of 0,1 – 0,15 indicates a relatively high geographical stability of foreign trade. *Grosso modo* this level of expression captures both the international conjuncture and the country's internal capacity to carry out transactions. The evolution of the index shows that, since 1996, the Romanian foreign trade has reached a relative geographical stability vis-à-vis the EU, after a period of significant changes.

In this context, one can say, at a first approximation, that **Romania has adjusted its foreign transactions according to the existing economic situation on world markets. Yet, although geographically stable, Romanian foreign trade is carried out on a less efficient basis**, due to the productivity gap relative to the main trade partners. One of the reasons could be the fact that geographic adjustment has not been accompanied by sufficient change in the commodity structure of exported goods.

2.2. Winning and losing sectors: revealed comparative advantages, unit labor costs, productivity

► We acknowledge that relatively little attention is paid to agricultural products in our paper. However, sufficient facts are available to qualify us to include agriculture in the sensitive sectors, with a significant loss potential.

What we can notice is that for groups I, II and IV (animals and live animals, vegetal products, food, tobacco, beverages) the trend of RCAA with the EU is above the trend of RCAA with the rest of the world. At the same time, only for group I, RCAAc in 1998, e.g., is -1.98, by comparison with a neutral RCAAEu (-0.01). If we extend the analysis to

considered in absolute value, in order to capture the overall effect of switching from a traditional to a new market. See Zaman (1999) for details.

include group V (minerals) in the **natural resource-intensive class**¹⁰, then this class **accounts for only 7.43% of Romania's imports from EU, while representing 27.34% of Romania's imports from CEFTA**¹¹.

The asymmetrical concessions in the EU Association Agreement have probably protected most of our agricultural products from facing competition, while the symmetrical feature of the CEFTA accession has brought significant trade deficits in these products. The abolishment of barriers in agricultural trade with the EU, scheduled for 2002, should therefore be a matter of great concern regarding the ability of this sector to cope with European competition. It is our guess that we already face such competition through intermediaries, as part of CEFTA exports to Romania might be actually re-exports (by such mechanism, EU exporters can avoid tariffs).

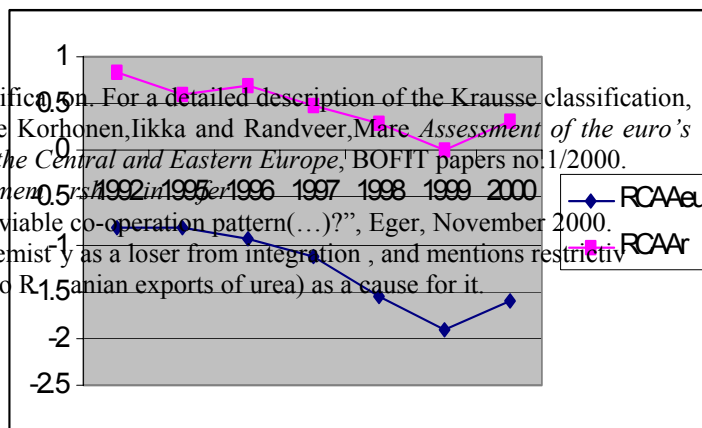
What might be even worse, and **we must signal it as a working hypothesis at this time, is that in the very likely case of a number of CEFTA countries joining EU faster than Romania, our deficit with EU in agricultural products will worsen sharply, and RCAAeu will follow a similar trend.** Consequently, **what we have negotiated with EU in the agricultural sector needs to be re-negotiated** - we believe that in advance - , or else, **a chronic disequilibrium will be automatically enforced.**

► Let us focus now on the industrial goods. **A clear loser in the process of EU integration is the chemical sector.** As one can see from below, revealed comparative disadvantages with the EU are on a steep downward trend, while with the rest of the world we still seem to have a comparative advantage. Furthermore, the percentage of chemical imports in imports from EU has remained steady, while the percentage of chemical exports has decreased by more than two times over the last five years¹². Since imports from EU represent two thirds of total chemical imports, the prolongation of this inefficient pattern of trade may lead to chronic disequilibrium in the chemical sector, and chronic inability to restructure.

Table 3. Chemical industry: an EU loser

RCAAeu	1992	- 0.54
	1995	- 0.81
	1996	- 0.95
	1997	- 1.12
	1998	- 1.56

Figure 6. Trade facts in the chemical sector



¹⁰ According to the so-called Krausse classification. For a detailed description of the Krausse classification, and its application to CEEC countries, see Korhonen, Iikka and Randveer, *Assessment of the euro's implications for economic development in the Central and Eastern Europe*, BOFIT papers no. 1/2000.

¹¹ Calculations made in Voinea, *Liviu Are men...* presented at the conference "Is Visegrad a viable co-operation pattern (...)", Eger, November 2000.

¹² A paper by Radu Serban also regards chemistry as a loser from integration, and mentions restrictive import practice from the EU (e.g. barriers to Romanian exports of urea) as a cause for it.

	1999	- 1.91
	2000 (7months)	- 1.61
RCAAr	1992	+ 0.83
	1995	+ 0.60
	1996	+ 0.70
	1997	+ 0.47
	1998	+ 0.02
	1999	+ 0.00
	2000 (7months)	+ 0.31
Xch_eu/Xeu	1995	4.42%
	1996	3.80%
	1997	3.10%
	1998	1.99%
	1999	1.48%
	2000 (7months)	1.91%
Mch_eu/Meu	1995	9.99%
	1996	9.87%
	1997	9.53%
	1998	9.51%
	1999	10.07%
	2000 (7months)	9.60%
Xch_eu/Xchem 2000		24.4%
Mch_eu/Mchem 2000		63.5%

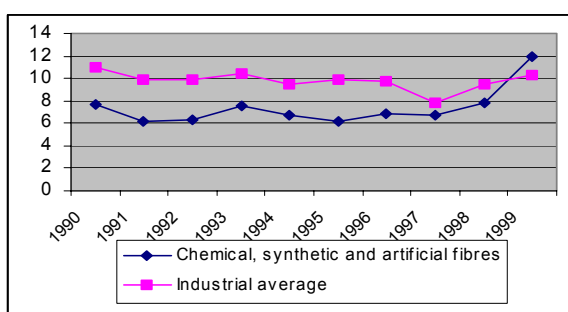
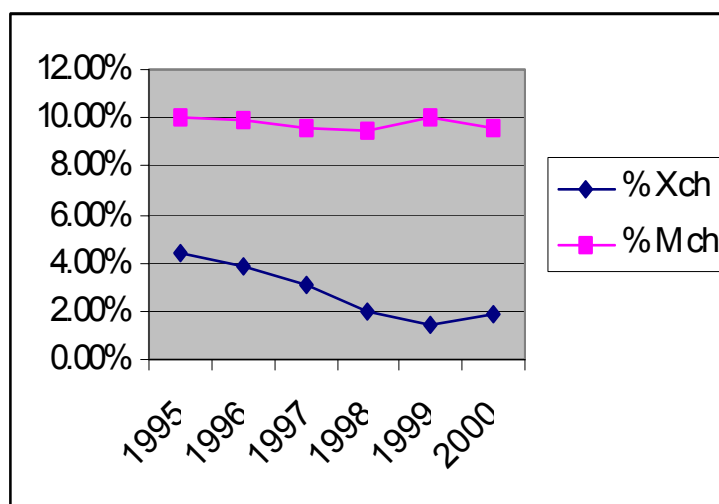


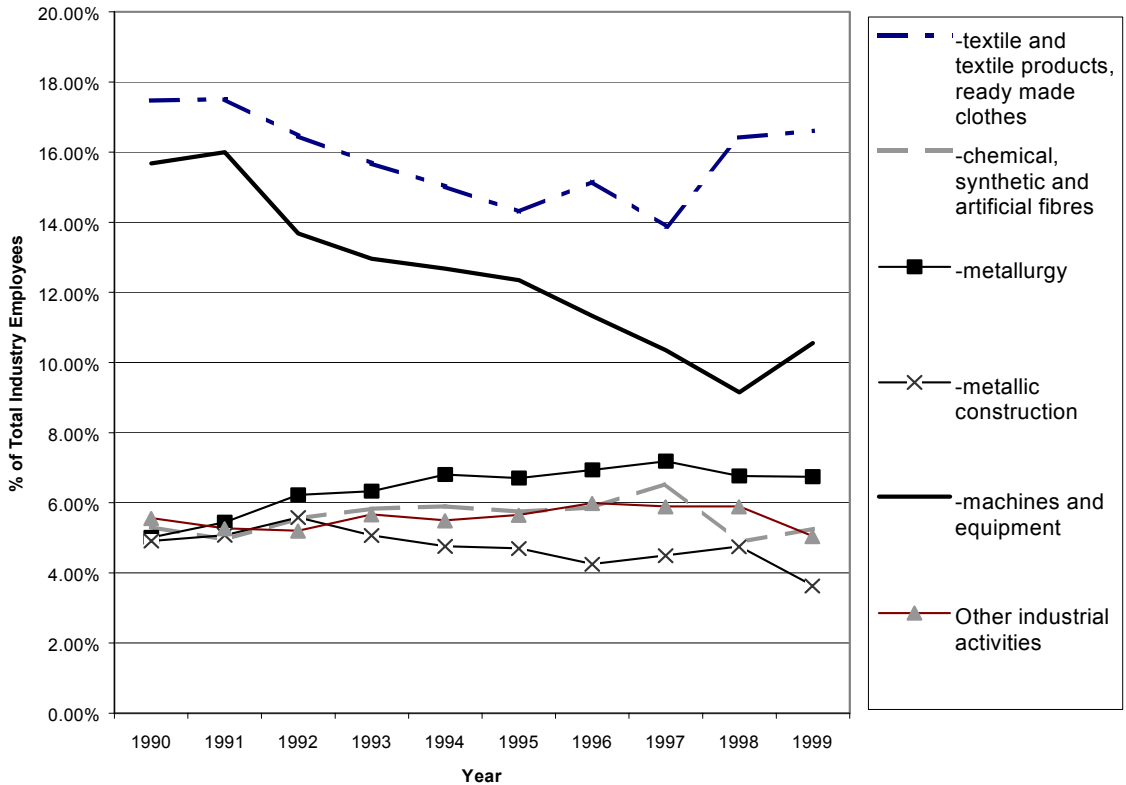
Figure 7. ULC in the chemical industry

This lack of restructuring has finally been reflected in 1999 in the unit labor cost that exceeded the industry average.

► Regarding groups VII (**plastics and rubber**), VIII (**skin and leather**), and X (**paper and related products**), there is a mixed story to be told. On the one hand, Romania has negative and downward RCAAeu for each of these groups, and the pace of the trend is significantly faster than in our trade with the rest of the world. It is true that exports of these groups have never had significant shares in our total or EU export, yet the share of

these imports have steadily increased over the last years, signaling a **deeper deterioration**

Figure 8. Employees by sector, % of total industry employees, 1990-1999



of the performance of these industries. On the other hand, one should not jump to the conclusion that these sectors are losers due to the EU integration, because we also perform worse than CEFTA countries. Take plastics (39) and rubber (40), for example. The RCABeu for Romania in 1999 was 0.65 for item 39 and 0.76 for item 40 (below unit value shows disadvantage), while RCABeu for CEFTA countries¹³ (minus Romania) was 1.31 for item 39 and 1.92 for item 40. It comes out that we perform poorer than comparable countries on the trade relationship with a third partner (EU). Take also group X (paper and related products) – in 1998, RCAAc for Romania recorded a disastrous – 3.14, showing (apart from being too early to join an organization with symmetrical concessions) that **the domestic structures of production might be uncompetitive in**

¹³ When speaking about CEFTA-6 we could as well speak about CEFTA-5, as we have found no significant statistical differences with or without considering Bulgaria.

general terms, not only as far as the EU is regarded. Therefore, we hesitate to include these sectors in the EU loser team.

► The **wooden products** group (group IX) records a healthy growth in RCAAeu, from 0.86 in 1995 to 1.89 in 2000, while RCAA_r remained rather constant, also at high positive levels. There is no surprise regarding the competitive advantage in general, as Havlik (2000)¹⁴ identifies this group among traditional winners for CEFTA countries. What **shows a winner position** is the **improved trend of RCAAeu**.

► Two of the **most dominant Romanian industries** (representing together 32.43% of total exports, respectively 47.04 of exports to the EU), namely **textiles** (group XI) and **footwear** (group XII) **are likely to be in the winners' boat**, as they enjoy revealed comparative advantages with the EU, both when we calculate RCAAeu and RCABeu. This might be true for the time being, but **we should warn on a significant slowdown, putting at risk the competitiveness of these sectors on medium-term**. RCAAeu for group 11 went from 0.54 in 1996 to 0.26 in 2000, and from 1.72 in 1996 to 1.47 in 2000 for group 12, while both groups have recorded negative values in 2000 on trade with the rest of the world. The explanations can be twofold:

- tax avoidance by practicing transfer prices. It is reasonable to assume this, as the percentage of foreign companies in this export-driven industry is high, and a recent RCEP study (2000)¹⁵ shows that transfer prices are widely used by foreign companies (they calculate that 46% of the foreign companies that obtain more than 75% of their turnover from export activity make losses from exports);
- the too high labor costs, in these labor-intensive industries. According to Havlik (2000)¹⁶, the unit labor cost¹⁷ in the Romanian textile industry was on average more than two and a half time higher than in the manufacturing industry. In a labor-intensive industry, the persistence of such a situation might turn that industry into loss-making. This is due not to high wages, but to low labor productivity.

Table 4. Labour productivity, selected CEEC countries, year 1998

Manufacturing = 100

		Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia	Bulgaria
D	Manufacturing total	100,0	100,0	100,0	100,0	100,0	100,0	100,0
DA	Food products; beverages and tobacco	139,8	97,2	129,4	179,0	129,8	173,2	141,4
DB	Textiles and textile products	43,9	22,1	40,4	29,6	26,5	47,9	37,6
DC	Leather and leather products	30,1	21,8	42,5	46,5	27,8	50,5	37,3
DD	Wood and wood products	45,9	60,6	80,4	55,7	28,7	59,4	62,8

¹⁴ Havlik, Peter *Industrial competitiveness of CEECs* WIIW working paper, 2000

¹⁵ Munteanu, Costea; Boscaiu, Voicu; Liusnea, Daniela; Puscoi, Lucia *The impact of foreign trade and foreign direct investments on productivity in the manufacturing industry. The case of Romania* The Romanian Center for Economic Policies, research paper no.22/2000.

¹⁶ idem 8.

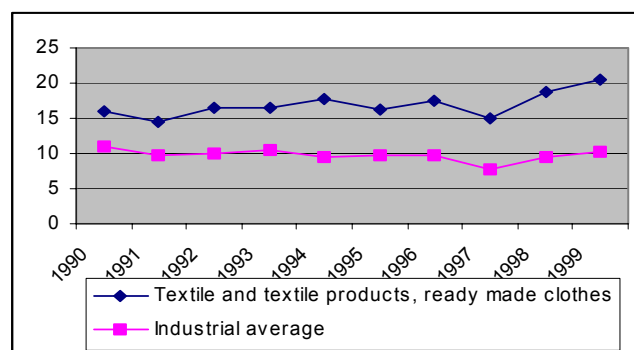
¹⁷ ULC = Wage / (gross output/employed persons)

DE	Pulp, paper & paper products; publishing & printing	138,2	119,1	147,2	69,5	123,6	89,2	104,8
DF	Coke, refined petroleum products & nuclear fuel	1076,8	233,5	458,0	596,2	734,3	304,2	604,7
DG	Chemicals, chemical products and man-made fibres	219,5	124,6	146,3	137,6	167,5	212,7	162,4
DH	Rubber and plastic products	84,7	93,3	116,1	99,8	117,0	100,8	85,8
DI	Other non-metallic mineral products	83,4	66,1	81,9	83,0	82,6	105,1	86,7
DJ	Basic metals and fabricated metal products	89,4	100,7	100,9	167,2	112,0	78,4	246,8
DK	Machinery and equipment n.e.c.	66,1	55,6	66,8	39,2	52,7	81,3	59,5
DL	Electrical and optical equipment	96,5	162,6	112,3	111,7	64,3	77,5	61,8
DM	Transport equipment	169,0	251,3	137,1	119,3	320,6	249,9	98,4
DN	Manufacturing n.e.c.	55,9	41,1	69,8	49,2	42,5	93,7	53,4

Source: WIIW Industrial Database.

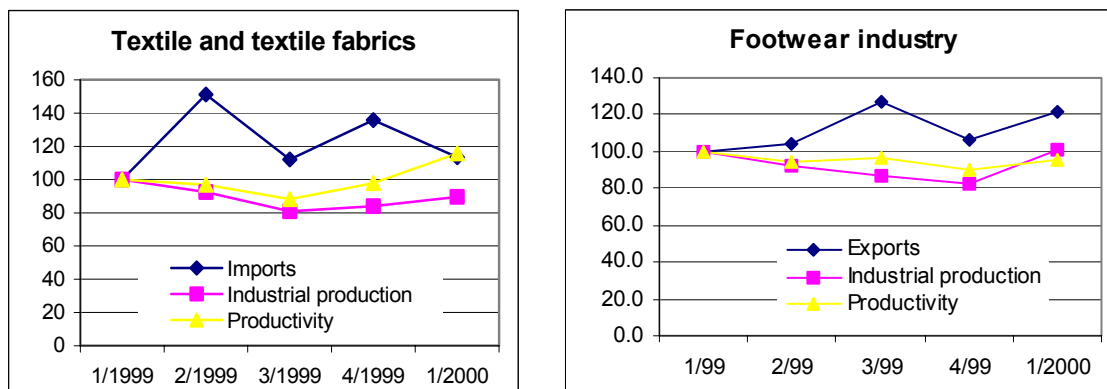
Figure 9. Textile sector: unit labor cost

We also draw a dynamic picture of ULC in the textile sector, and reached similar results: **the unit labor cost in textiles has exceeded the industry average for the last ten years, with a worsening trend since 1997.**



The other problem identified, low productivity, also holds true: during the entire year 1999 productivity in the textile industry was on a negative side (less than 100% of previous period, on trimestrial basis), and the same story can be said about its sister industry - footwear. Furthermore, the number of employees in the textile sector as a percentage in total industry employees (see figure 8) decreased over the years, with a minimum in 1997, then it reversed its trend, which might explain the low labor productivity. Since most of the textile industry is in private hands, a question arises: *Why do private owners keep employing people, if labor productivity is low?* The idea is that the number of employees is growing, but their wages are among the worst in industry. So, the textile and footwear industry, representing almost half of our exports to the EU, are characterized by decreasing revealed comparative advantages, low wages, low labor productivity, high unit labor costs, low value-added exports and, as a general consequence, decreasing revealed comparative advantages. This should be of great concern to entrepreneurs, as well as to policy makers.

Figure 10. Productivity and other indicators in textiles and footwear sectors



► Another mixed story has to be told as far as groups XIII (**glass and ceramics**), XVII (**means of transport**) and XVIII (**optical, medical, photo instruments**) are concerned. **They are not necessarily losers**, as (except, maybe, group XIII) although **they have hardly ever been winners**. The RCAAeu is either declining, or steady at negative values. However, we are at clear cut disadvantage with CEFTA countries: in group XIII, in 1998, our RCAA_c was -1.36 ; at the same time, group XVII is a winner in Czech Republic, and group XVIII is a winner in Hungary. Therefore, **we should make again the hypothesis on the negative effects of CEFTA countries joining EU in separate groups**, with Romania left outside the first-runners group. What Richter and Mortensen (2000)¹⁸ say in general terms: “(...) all else being equal, the larger the Union, the greater its gains and, hence, the loss to non-member countries”, we can easily transfer for the case of a non-member Romania, in case the targeted sectors remain unprotected.

► We also seem to have **potential winners**. They can be identified, subject of further re-technologization, and also of removing EU barriers, in groups XV (**metals**) and surprisingly XVI (**machines and equipment**). For metals, we have positive RCAA_{eu}, maintaining them in 2000 at the same level as in 1992 ($+0.8$); yet, our RCAA_r, also decreasing, stays higher than RCAA_{eu}. Potential does exist, it only remains to be realized by removing EU protectionist measures at some products of the metallurgical sector.

The technology-intensive group XVI records a significant and constant reduction in our competitive disadvantage toward the EU, from -1.42 in the year of signing the Association Agreement to -0.66 in the first 7 months of 2000. **Efficiency gains due to imports of technology can be noticed, with one trimester gap.**

Considering recent developments, both metallurgy and machines and equipment industries **share apparent improved productivity and industrial production indicators**. Metallurgy also shows an ULC well below the average, as opposed to above

¹⁸ Richter, Sandor and Mortensen, Jorgen *Measurement of costs and benefits of accession to the EU for selected countries in CEE* WIIW working papers, 2000.

the average ULC for machinery and equipment. This feature is however normal for the machinery and equipment sector, as it is technology-intensive, and it is not impeding on its performances. The cut in the percentage of employees (see figure 8) might prove that substantial restructuring took place, and that it paid off – as productivity and industrial production figures show. Furthermore, the recovery in the percentage of employees since 1998 might signal that employment increases in this sector on a healthy, efficient basis. As we go for an in depth analysis further on in this paper, we will show that appearances of positive evolution of technology-intensive sectors are deceiving. When we turn our attention, in another chapter, to the patterns of job destruction, we will also argue that restructuring has not necessarily taken place in the right direction.

Figure 11. Productivity and other indicators for metallurgy, machinery and equipment

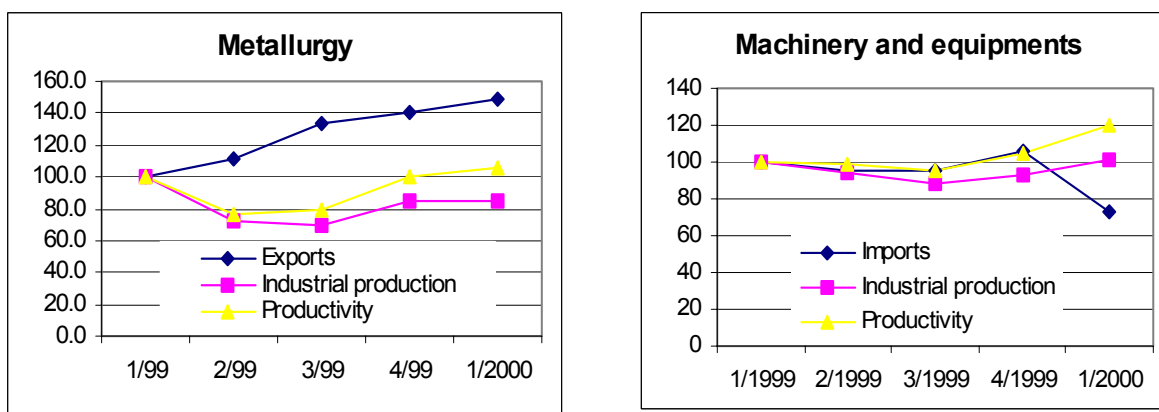
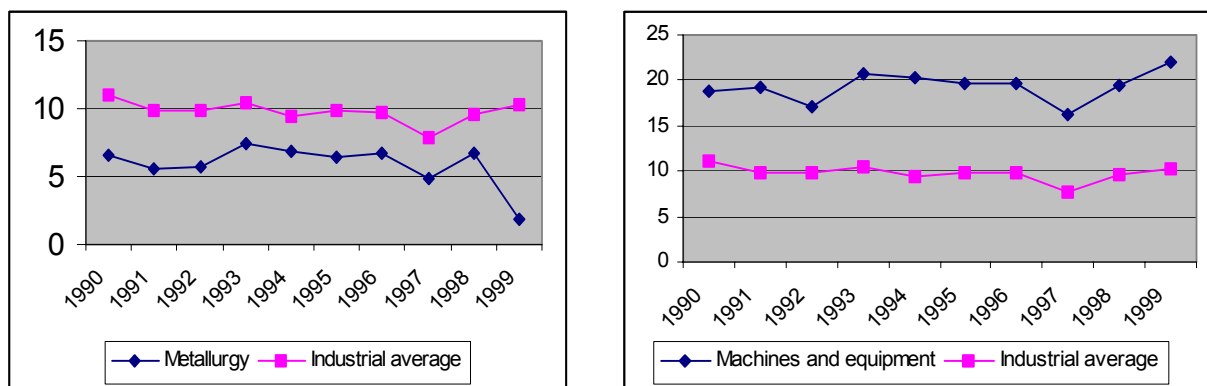


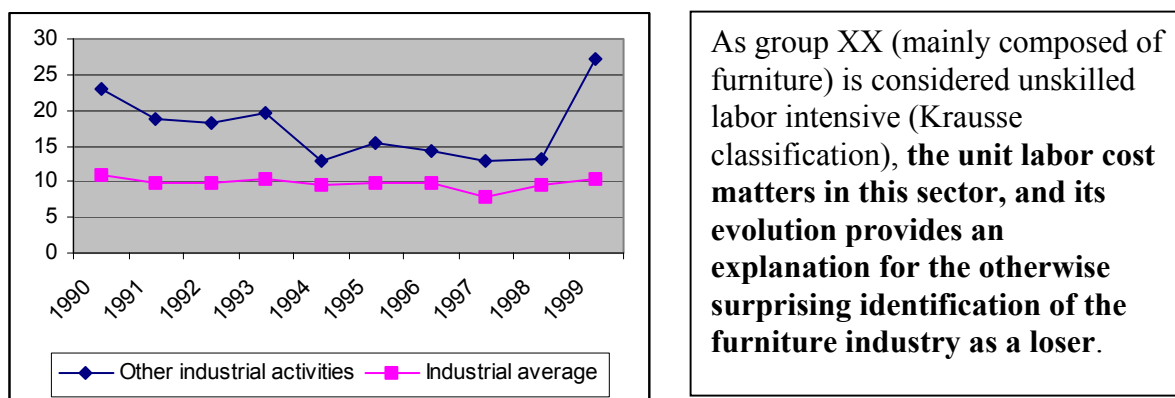
Figure 12. Unit labor costs for metallurgy, machinery and equipment



► Finally, **furniture** (main component of group XX - others) **seems to have been a loser**, since the RCAAeu decreased from 2.58 in 1993 to 1.04 in 2000, and the share of

furniture exports in exports to EU has plunged from 18.1% in the year before signing the Association Agreement to only 6.81% in the first 7 months of 2000. The same motifs explained under textile section may apply here for the slowdown. As furniture is also traditional for CEFTA countries, the same two (or more) stages accession effect may lead to further losses.

Figure 13. Unit labor cost for group XX – other industrial activities, mainly furniture



We say furniture seems to be in a loser position. But does it have to be so? If one looks at the winner position revealed for wooden products, it means that potential does exist. What happens is that we export low value added wooden products, closer to raw materials than to manufactured items, and we heavily import furniture. A reason for this is the high demand for wooden products abroad, particularly in neighboring countries, that makes exporting logs, for example, a simple and profitable business. Another reason is the indirect impact of foreign direct investments, as foreign companies seem to prefer to import furniture for offices and warehouses. Local companies importing furniture and acting as intermediaries are therefore in winning position, although the sector as a whole is at a loss.

2.3. Beyond statistics: our winners play in the second league

The results of our study on revealed comparative advantages¹⁹ in technology-intensive sectors, mainly group XVI *machines and equipments*, look very promising at a first glance. Even when compared with production, productivity and unit labor cost analysis - analysis drawn, due to statistical inconsistency, based on CANE²⁰ structure, instead of combined nomenclature - the optimistic conclusions get support. However, the devil stays

¹⁹ Iancu, Aurel in *Theories of advantage, industrial development and economic integration* Oeconomica no.3-4/2000, insist on the distinction between comparative and competitive advantages. We start our analysis, on industrial sectors, with revealed comparative advantages (a method used in recent studies on CEECs countries, such as those under the aegis of Bank of Finland, or WIIW). However, we share a broader perspective, by mixing trade facts with biased factor endowment analysis, as well as with labor migration, research and development, and education. All of these bring us closer to the interpretation of competitive advantages, which is also demonstrated by our non-neutral policy recommendations.

²⁰ CANE refers to Classification on Activities of National Economies.

in the details, and small details can make a big difference. Since the picture for group XVI was quite intriguing, we considered a more in-depth examination necessary.

From the very beginning, we must say that the statistical data available (after considerable efforts) pose serious doubts due to their lack of consistency. The detailed data for years 1997 and 1998 are in USD, refer to our total trade and are provided by Romanian sources; the data for 1999 and the first 10 months of 2000 are in Euro, refer to trade with the EU and are provided by European sources. The differences between them are disturbing, yet not surprising; even more disturbing are the differences between Romanian data once calculated based on CANE structure, and then on the combined nomenclature. E.g., product 84733010 (electronic assemblies for automatic data-processing machines or for other machines) records exports to EU²¹ worthing 0.6 mil. Euro in 1997, 4.8 mil. Euro in 1998, 53.7 (!) mil. Euro in 1999 and 0 (zero) in 2000²². We must consider the data in our hand quite unreliable for a trend analysis and limit ourselves to interpreting the composition of group XVI.

Group XVI consists of two classes: 84 - nuclear reactors, boilers, machinery and mechanical appliances; and 85 - machinery and mechanical appliances and electrical equipment, sound and television image recorders and reproducers.

As far as the class 84 is concerned, the most significant share of our exports (varying in a narrow band around 18% over the last four years²³) is held by roller and ball bearings (mainly product 848210, as well as products 848220 and 848280). What else do we export? Parts for air or vacuum pumps or compressors (product 841490) had 14.6% of our exports in class 84 in 1999; other major export products in this class are parts for machines and equipments (84314980), parts and accessories for machine tools for metal processing without removing material (84669490), parts and accessories for machine tools for metal processing by removing material (84669395), valves and similar articles for pipes, boiler shells, tanks, vats or the like (84818099). Different types of machines and equipments have a rather symbolical presence in our export structure (below 2% for each type). Therefore, **we actually produce and export parts for machines and equipments, rather than the very machines and equipments**. This is not necessarily bad on condition that exports are steady and export values increase to reflect higher sophistication.

The structure of exports in class 85 brings further evidence to support the above remark. Ignition wiring sets and other wiring sets for vehicles, aircrafts or ships (854430 - although declining in 2000) hold more than one third of our so-called “technology-intensive” exports in this group. With one significant exception (electric engines, under 8501), the other main exports in this class are also parts and components, as follows:

²¹ Computed from country-by-country data from NSC and translated into Euro at a reasonable average rate of 1USD = 1.05 Euro

²² Such examples are even more disconcerting in light of the fact that Romania has started negotiations with the EU on chapter on statistics.

²³ For year 2000, exports are adjusted on a 12-month basis.

parts of electrical apparatus for line telephony or line telegraphy (85179088), heating resistors (85168099), conductors (85444190 and 85445190).

The import picture is also not very bright. Under class 84, we import office equipment (under 8473 - which is not productive input), sewing machines and wood processing machines (under 8452), rubber and plastic processing machines (under 8477), and other similar machines and equipments to be used as inputs in traditional, yet low-technology intensive industries.

Regarding class 85, our main imports consist in dead-end products such as mobile phones, TV and radio sets, recorders, etc (under 8517, 8525, 8529), not to mention that ignition wiring sets are also heavily imported (about 10% of imports in class 85 - in absolute terms we record deficits under this product type).

There are three main conclusions that can be drawn from interpreting the structure of foreign trade in group XVI:

- **the exports of “technology-intensive” group XVI actually consist of labor-intensive products²⁴** such as spare parts and machines’ components. Despite their somehow inappropriate classification, most of Romania’s technology-intensive exports are products for which the labor cost matters. We said earlier that Romania records increasing performances in machines and equipments’ group; and this is true, in terms of diminishing revealed comparative disadvantages. Yet, the reason why we have improved our competitive position here is simply because we are exporting labor-intensive products, where we can apply the same line of reasoning from similar groups like textiles or wooden products.
- **the imports of “technology-intensive” group XVI belong to two categories.** On the one hand, there are final goods, with no relevance and/or impact on the level of local production and export. On the other hand, there are machines and equipments used as inputs in low technology-intensive sectors, such as textile, wood, metal, plastic processing. This second category of “technology-intensive” imports has one major effect: it **perpetuates the traditional division of foreign trade**, with labor-intensive and human capital-intensive products. This is to say, **the imports of what should be high value-added inputs serve to the export of low value-added outputs** - we can

²⁴ Krause classification defines as “unskilled labor intensive” those commodities with the lowest value added per employee, including textiles, garments, furniture, glass, while goods with the lowest ratios of R&D expenditure to value added are named “human capital intensive”, containing paints, rubber, paper, TV and radio sets (other groups are “natural resource intensive” and “technology intensive”). Lary classification is even more disconcerting: “skilled labor intensive” means explosives, fur skins, optical, medical, measuring instruments, home electrical appliances, aircraft, ships, partially metal manufacturing; “unskilled labor intensive” has textiles, leather and wooden products, energy distribution equipment, furniture, footwear, watches; “psychical and human capital intensive” contains perfumery, fertilizers, floor coverings, tapestries, mineral manufactures, sanitary, heating, lighting fixtures and fittings (another group is “physical capital intensive”). OECD considers that within the “labor intensive” group, that features garments, footwear, toys, etc, the major competitive factor is the cost of unskilled and semi-skilled labor (other groups are “resource intensive”, “scale intensive”, “differentiated”, “science-based” – the latter mirrors the rapid application of science to technology”).

call it the paradox of the Romanian foreign trade. We do not import for technical renewal, but for maintaining the current structure.

- The above remarks suggest that **there is a subcontracting culture already implemented in Romania, based on our low wage costs**, and that this subcontracting has spread around to include so-called “technology-intensive” products, or should we rather say “low-technology intensive products produced in Romania as part of high-technology products finally assembled somewhere else”.

Now, that we’ve established these facts, two simple questions come to our mind. First, *how have these facts been influenced by the process of European integration?* Second, *are these facts basically useful or harmful to the Romanian economy?*

First, **the subcontracting culture does not limit itself to Western Europe**. Neither do our spare parts exports, nor our imports of machines for low-value added industries. The fact that they prevail in the relationship with the European Union comes from the natural fact that European Union prevails in our foreign trade. The EU prevalence would have probably existed even in the absence of the Association Agreements, given the geographical proximity; it is only the volume of the trade, not the direction of it, that would have probably been affected due to higher levels of protection. It is therefore hard to say that what happens to group XVI is a result of European integration; and it is also difficult to say that it is not. **The problem that can be identified here in connection with the integration process lies in the legal and competition issues associated with subcontracting**. The Romanian law (including Competition Law and Regulations of the Competition Council) does not even specify the word subcontracting, while the European Commission issued a notice on subcontracting agreements as early as in 1978. However, this lack of adequate legislation is not peculiar to Romania only, as none CEE country has adopted a specific legislation on subcontracting. Nonetheless, Romanian authorities need to become aware that subcontracting is a common practice, and subsequently need to pass legislation to protect the rights of the local companies acting as subcontractors, to encourage and enable them to develop the products and technologies that have been licensed to them into new products and technologies of their own.

The competition issue described above relates to our second question. It depends on how you look at it. **Subcontracting, based on low wage costs, can be good because it provides jobs for millions of Romanians; and it can be bad because these jobs are in low value-added sectors, perpetuating low wages, and low standards of life**. Apart from how you look at this issue, the answer also depends on judging it in a broader context.

The reality is that we have a large and substantially underutilized workforce and, in the context of future EU deficit of workforce²⁵, **Romania has the chance to become a pool of human resources for European plants** (either directly, at the source, or indirectly, at

²⁵ Such a deficit is predictable due to at least two factors: first, the aging process of the population, and second, the low propensity of Western workers to fulfill “dirty” jobs, mainly in energy-intensive, polluting industries.

their subcontracting units). Even now, when there are paramount legal barriers to emigration to EU (visa requirements and work permits legislation), **Romania is, together with Poland, the only CEE country with a record of large net emigration**²⁶. Moreover, 47.2% of foreign workers legally employed in Hungary come from Romania²⁷, not to mention the illegal emigration. As wage differentials constitute the main incentive for working abroad, **the potential for further emigration is enhanced** by a big mass of people that are either unemployed (1 million registered, more others out of records), or employed in the underground economy (mild estimations say 650.000²⁸ – next section of our paper will deal with labor market issues in more depth). Furthermore, records so far show that Romanian labor outflows are dominated by people that were employed at the time of leaving the country. On the other hand, as any other resource, **the Romanian workforce has its limits, of a demographic nature**. Different sources²⁹, taking into account only the net negative natural growth, come to the same conclusion: within the next four decades, the total population of Romania might shrink by 6 million people, if the current trend persists. Not much labor to export, then, and also not much room for labor-intensive products, by that time.

Of course, there is always a question mark on how to define labor-intensive sectors. Despite such terminological problems, it is clear that **Romania currently competes mainly in labor-intensive products**. The large and rather cheap workforce makes the difference in these products, attracts FDI and drives the export growth.

Is there something wrong with being intensive in labor? In the short run, the answer is no, as long as alternatives are beyond immediate reach. In the long run, the answer is most likely yes, because there will always be another country intensive in even cheaper labor. In the case of Romania, the income gap with the EU will eventually – over a certain period of time - decrease, wage differentials will eventually diminish and labor costs will eventually rise. In the long run, both the players and the rules of the game will change. Therefore, we might lose our edge in our main competitive advantage: the labor cost. At the time this happens, the workforce will face reallocation. Reallocation to what? Alternatives must emerge in advance, as they should orient work reallocation. Competitive advantages must be created and developed in sectors that escape the labor cost trap.

Is it possible to create alternatives? There is the experience of a number of Asian countries, that based their development on labor intensive products, and gradually changed the fuel of their growth towards more complex, science based, products and technologies. Between 1980 and 1992, labor intensive exports' share in total exports

²⁶ According to Langewiesche, Renate and Lubyova, Martina Migration, mobility and the free movement of persons: an issue for current and future EU members WIIW working paper, 2000. The study does not cover former Yugoslav and Soviet republics, that probably share similar records.

²⁷ See above

²⁸ According to *Underground economy in Romania* (coord.: Albu, Lucian and Tarhoaca, Corneli) RCEP preliminary report, 2000.

²⁹ See *WHO Report 2000* and *The state of the Romanian society, after 10 years of transition* (editors: Zamfir, Catalin; Badescu, Ilie; Zamfir, Elena)

decreased for the Republic of Korea from 49.0% to 35.1%; the same downward trend was valid for Taiwan Province of China – from 55.5% to 38.4% -, Singapore – from 19.3% to 11.5% -, Thailand – from 41.0% to 38.0% -, and even India – from 55.4% to 49.6% - or China – from 66.6% to 58.4%. At the same time, the share of science based exports increased for the Republic of Korea from 2.1% to 5.4%, for Taiwan Province of China from 1.2% to 13.5%, for Singapore from 1.8% to 30.5%, for Thailand from 0% to 10%, and for Malaysia from 3.8% to 9%. Furthermore, in the trade relationship with the EU countries, the Newly Industrialized Economies of South-East Asia have dramatically changed patterns, to reflect changes in factor endowment. Labor intensive exports of NIEs to EU, as a share in total NIEs' exports to EU, more than halved from 59.6% in 1980 to 24.6% in 1994, while the share of science based exports skyrocketed from 7.6% in 1980 to 28.3% in 1994³⁰. The credit for changing the patterns of Asian trade rests primarily with public authorities, who proved visionary enough to pursue an industrial policy aimed at taking Asian economies out of a development trap³¹.

The transformation that occurred in Asia was from economies of scale to economies of scope. **Romanian manufacturing industry, by its very intensity in labor, belongs to a rather outdated development paradigm.** Some labor intensive sectors arise as winners, and they might even be able to maintain their position, as long as they keep labor costs down. It is not the major league, but if this is the league we want to play in, then the future would seem rather secure, except for the demographic threats that we mentioned before. A future of low value added and of chronic trade deficit, financed by remittances from the exponents of net emigration. **The winners -can we really call them winners?-, in this context, are rather given, and the losers have lost the battle before it had started. In order to change this state of things, and to be able to play in the major league, there is no escape from investing in research and development, education and skill formation** (some economists would call this the new techno-economic paradigm³²).

At governmental level, research and development is hardly supported, as the ratio of R&D expenditures to GDP is four-five times lower than the ratio recorded in EU, and even in other CEE countries. At business level, the picture is more diffused. A recent study³³ shows that 93% of Romanian car component manufacturers undertake research and development, while the CEE average lags behind, at 62%. The explanation stays in the activity of three different car manufacturers in Romania, that often delegate responsibilities not only in producing components, but also in designing or upgrading

³⁰ Data from *Sharing Asia's dynamism: Asian direct investment in the European Union* UNCTAD publication, 1996.

³¹ See Rodrik, Dani *Understanding economic policy reform*, Journal of Economic Literature XXXIV, 1996 and Liu, Tsou and Hammit *Export activity and productivity: evidence from the Taiwan electronics industry*, Weltwirtschaftliches Archiv, no.4/1999.

³² See Diwan and Chakraborty *High technology and international competitiveness* Praeger NY, 1991, as reflected and interpreted in Donek, Ekrem *Is the Turkish economy competitive in the new technology goods?* Yapi Kredi Economic Review vol.9, no.2/1998.

³³ Lorentzen, Jochen and Mollgaard, Peter *Vertical restraints and technology transfer: inter-firm agreements in Eastern Europe's car component industry* Department of International Economics and Management, Copenhagen Business School working paper no.9/2000.

them. However, if the scale of R&D is considered (in terms of R&D expenditure to total expenditures, or R&D sales to turnover), then the results will probably be a lot less spectacular. Regarding education, CEE countries, including Romania, lag significantly behind EU average with respect to the ratio of students to total population, and the ratio of technical oriented students to total students, not to mention that a part of those very well trained, especially in computers, can easily find a job abroad. Nonetheless, when R&D and education meet, we can produce remarkable results. Software producers and exporters, belong to the winner category – e.g. the Romanian company Softwin has created a software product, the first in the world to use WAP technology for remote access and control to security networks; this product was downloaded by almost half a million American users only in the last 45 days of the year 2000, helping Softwin to reach its target of 1% of the global anti-virus market in 2001, with the aim of 6% of the same market by 2006³⁴. Such a case³⁵ is not singular, yet the spreading-out effect is quite low.

4. The social perspective

4.1. Winning and losing working groups

As markets integrate, companies have to adapt to increasing competition in the product market. As a result, they are under severe pressure to shed excess labor in order to improve their productivity levels. The work force is pushed into changing their jobs, companies, sectors and sometimes even their occupations. This effect of integration is the focus of the present chapter of the analysis. Depending on the labor forces' mobility and the speed of adjustment the integration cost for the labor force can be high or low. A quick reallocation requires sometimes relocation of the labor force, as people will have to move to where the jobs are. Ex post, the process might be beneficial for the economy, but at any moment in time there will be people winning or losing. A common sense perspective would advise that the losers are people close to retirement age, from the declining sectors, that have very specific skills not easily transferable, while the winners are younger people with the right skills, working in the growing sectors.

While we acknowledge the necessity and the importance of labor reallocation, we recognize that there is scope for the policy maker to diminish the pressure on the labor force through adequate policies. Our analysis consists of comparing the structure of the employment by sector in Romania to the one in the EU. The study uses 1 digit level of aggregation data for reasons that will be presented later.

³⁴ Data from the Romanian section of the web page www.europemedia.net

³⁵ That usually escapes official recording as export.

The analysis of winners/losers from the allocation of labor point of view complements the analysis based on foreign trade trends. While previously the winners/losers were identified by looking at export trends and at the comparative advantage of different sectors, and therefore presented a view of the current situation, the next analysis presents an image of who the winners/losers might be as the integration process goes even deeper.

First, labor reallocation is necessary, because Eastern European companies have to operate, and survive, in a totally new environment. The dissolution of the traditional trade patterns and gradual integration of the region into the EU economic structures³⁶ resulting in increased external competition oblige enterprises to restructure, and inevitably shed workers, freeing resources for the growing sectors. At the same time, sectors that have received little attention in communist times, mostly services-oriented, are growing, and their demand for labor picks up. De-industrialization and convergence towards EU structures of productions³⁷, experienced not only by CEE countries, but also by the late entrants into the Union such as Greece, Portugal and Spain –as we will show- are in our opinion two important aspects of the reform process in Eastern Europe.

Nevertheless, we shall mention that the convergence hypothesis is subject, in practice, to some limitations, such as: the process takes place over an undetermined period of time (integration is not the deadline for convergence, and even if it was, we would have no firm date set for integration); some discrepancies might persist, as they reflect, in some cases, either the basis of our current competitive advantages, or an unexploited potential of production capacity.

The reason for focusing on broad (1-digit³⁸) industrial sectors rather than more narrowly defined (2-digit) industries is twofold. In industrialized market economies there is considerable labor mobility between narrowly defined industries, but much larger problems associated with de-industrialization and the absorption of manufacturing workers in other sectors, that this where problems of structural adjustment can be expected to be most severe³⁹. Similarly, prior to the reforms, inter-enterprise labor mobility was quite high in Eastern Europe and of the same order of magnitude as in many Western European countries (Jackman and Rutkowski, 1994). Yet, in the past the bulk of this mobility took the form of people moving between basically similar jobs in similar types of enterprise, and even if job mobility of this form were to remain high, as appears to be the case in Russia and elsewhere in the former FSU (see e.g. Commander et al., 1994) it would make no contribution to bringing about the enormous changes in the structure of employment by industry that are required.

Second, with regard to the broader industrial groups, a comparison with market economies indicates a very clear picture of the main types of sectoral imbalance. By contrast, with the

³⁶ A process whose speed and degree of integration is defined by the Europe Agreements Romania and other CEE countries have signed in the early '90s.

³⁷ However, there are significant disparities even within EU regarding the structures of productions. We deal with this issue by computing data for both Southern and Northern EU members.

³⁸ The standard OECD classification.

³⁹ See Britain or Spain during the '80s.

narrower categories, it is far from clear which countries should specialize in which sectors. It turns out in any event that employment changes in the different industry groups within any broad sector tend to be in the same direction, so not much is gained by finer detailation.

In this section we attempt to measure the change in the structure of employment required and the amount achieved so far in Romania relative to other CEE countries. We introduce measures both of the speed and of the efficiency of restructuring, and the effectiveness of new job creation in the growing sectors. The idea behind this type of analysis is that any fluctuations and changes in the structure of an economy, and preponderantly structural adjustments, have a reflection in changes in the labor market. Output swings, aggregate or sectoral, might be determined in the short run by price distortions, exchange rate variations, direct or indirect government interventions such as subsidies to state enterprises (“soft budget constraints”), all present in a transitional economy. It is therefore difficult to isolate temporary output volatility from structural, irreversible modifications in production structures as a result of integration. This could be more visible by looking at fluctuations in the labor market. However, the mirror reflection of changes in the production structures into the labor market risk to be distorted when the economic environment does not record a consistent evolution (e.g., the steady growth recorded in Hungary and Poland), but, quite the opposite, a boom-and-bust cycle.

To answer these questions asked above, it is necessary to define a “*warranted*” structure of employment for each country, that is to say the structure that could be expected to develop in the long term given the current or future economic policies pursued by CEE countries, which are to a reasonable approximation those of the free market. One might attempt to determine this warranted structure in terms of the estimated long-run comparative advantage of the individual CEE countries in particular sectors (Hare and Hughes, 1992), but such estimates may build in features of the economy, such as the inherited physical capital stock, which will themselves change during the process of transition. Additionally, they are more feasible for traded goods sectors than for (private or public) services, though the service sector is critical for employment.

Instead, we start from the idea that, to a first approximation, the structure of employment in the CEE countries should in the long run become more or less the same as in neighboring market economies. The differences in the inherited employment structure of the CEE economies as compared to a neighboring market economy can be attributed to the distortions of the planned economy, reflecting the material bias of production, obsolete technology, inappropriate relative factor prices and extensive use of labor resources. As these features are removed, the employment structure of CEE countries should come to resemble that of Western European countries.

We would like to stress at this stage that **we do not believe that CEE countries will or must have identical economic structures as EU economies, as there are differences between market economies themselves, but that gradually, over a sufficiently long period of time, these countries will converge towards such structures.** How fast, or slow, this occurs will certainly depend on a variety of factors, not least on the speed of the reforms in transitional countries or the willingness of the EU to integrate them.

In Table 5, using OECD data which permits direct comparison by broad industrial sector, we contrast the employment structure of the CEE countries with that of Western European *witness* economies. The table indicates the scale of the problem. In comparison with the market economies, there is obviously excessive employment in agriculture, mining and manufacturing industry in all countries. Services are everywhere underdeveloped, most obviously with finance (which covers business and professional services in addition to banking, insurance etc.), but also trade and community services (which include health and education as well as public administration). Construction and transport are much in line with market economy provision. As for Romania, the table shows that the country has the largest share of agricultural employment (27.9%), one of the largest manufacturing sectors (33%), and the smallest community services (15.3%) and trade (5.9%) sectors.

Table 5. Structure of employment (%) in 1989

Sector	Bulgaria	Czech	Hungary	Poland	Romania	Slovakia	South OECD	North OECD
Agriculture	19.0	11.7	16.6	26.8	27.9	13.8	10.7	4.1
Mining	2.6	3.6	2.0	3.4	2.3	1.0	0.4	1.0
Manufacturing	34.9	34.0	28.6	24.5	33.0	32.1	22.0	26.3
Electricity, gas, water	0.8	1.4	2.6	1.1	1.2	1.6	0.9	1.1
Construction	7.8	7.3	7.0	7.8	7.0	11.6	8.1	6.4
Trade	9.2	11.5	11.3	8.9	5.9	11.1	19.3	17.4
Transportation	6.8	6.5	7.7	7.2	6.9	6.4	6.0	6.0
Finance	0.6	0.5	0.8	1.0	0.3	0.4	6.1	8.6
Community services	18.4	23.5	23.4	19.3	15.3	22.0	26.5	28.7
RI-South	24.2	17.2	16.5	23.0	31.3	18.4	-	10.0
RI-North	27.3	19.6	19.6	27.7	33.4	21.6	10.0	-

Source: *OECD-Labour Force Statistics (1998) for OECD countries, and authors' computations for Eastern European economies.*

Note: South OECD countries are: Greece, Italy, Portugal and Spain. North OECD countries are: Denmark, Germany, Great Britain and the Netherlands. RI is the coefficient of restructuring, defined as the overall excess employment in the sectors where employment in the Eastern European country exceeds mean employment in the witness countries (South, respectively North, OECD).

Therefore, the process of integration into the EU structures is likely to result into some clear winners and losers. Agriculture, with its base of production consisting of very small, labor intensive farms, will have to suffer dramatic decreases in its work force, therefore a large part of the cost of integration will be paid by agricultural workers. This cost can be identified in terms of psychological distress, unemployment, and transfer costs.

Miners, on the other hand, are clearly losers, at least in short run, especially since the wellbeing of the entire community is dependent on the profitability of the mine. Their skills are not very high, so they could be easily used in other types of jobs, in construction, for example. But, they are quite immobile due to the depreciation of their apartments, which cover only a fraction of the price of a similar one elsewhere. So, unless the new employer covers the moving costs, the jobs have to come to them.

Manufacturing is too broad, and the likeliness of losing jobs in the manufacturing, as a whole, does not qualify for narrower identification of winners and losers.

For purposes of comparability we divided Western European countries into a Northern tier (Denmark, (West) Germany, Netherlands, UK) and a Southern tier (Greece, Italy, Portugal and Spain), to allow for the considerable differences in employment in agriculture (the average for the North is 4.1%, while for the South is 10.7%). These differences may be attributable in part to permanent features of the economic landscape such as climate and population densities, and in part to historical and institutional considerations. It is conspicuous, however, that in comparison with Northern Europe the imbalance in employment structure is concentrated almost exclusively in one sector - agriculture - where the CEE average of around 24% contrasts with only 4% in the Northern European countries. It would seem appropriate to allow for persistent differences along these lines in CEE countries also, and in the next section we use the Northern countries as the witness group for the Czech and Slovak republics and for Hungary and the Southern countries as a witness group for the others (Poland, Bulgaria and Romania).

It is evident from Table 5 that the extent (as against the nature) of structural imbalance differs considerably between countries. To capture this asymmetry, in the final row of the table, we calculate an "*index of restructuring*" which measures the proportion of the workforce in each country which would need to change sector to enable the country to attain the same structure of employment as that of a comparable Western European economy in 1989. To an approximation, hence, the index of restructuring measures the inherited "distortion" of formerly centrally planned economies at the (conventional) beginning of the reform, in the sense of departures from the average Western European economy; the larger the index, the higher the "distortion", and most likely the adjustment and restructuring costs.

As compared with the structure of employment in the Southern European countries, **the extent of restructuring required in Romania, at 31.3% of the workforce**, was at the outset, nearly double that required in Hungary (16.5%). In other words, in order to attain a Southern European employment structure in Romania, on average 31.3 workers out of 100 had, in 1989, to change their broad sector, and presumably occupation, skills and even work area, in order for Romania to converge towards a South OECD employment distribution. Only 16.5 employees would have to do the same in Hungary. The discrepancy is even larger if we compare Romania with North OECD countries (33.4%), with most of the difference coming unsurprisingly from the large employment share in agriculture, and to some extent, manufacturing. While Romania is something of an outlier, the extent of restructuring required was also significantly greater in Bulgaria and (due to its abnormally large agricultural sector) in Poland than in the Czech or Slovak Republics, which are quite similar

to Hungary. In this context, we believe we do not mistake greatly if we state that, among the EU accession candidates investigated in the paper, Romania has apparently inherited the most distorted employment structure vis-à-vis an average EU economy, or even potential EU economy.

Therefore, Romania compared to the other CEEs countries is the furthest away from achieving a structure of employment similar to the UE. So, in order to catch up, it should have a high speed of adjustment. This suggests the fact that **out of all CEEs countries Romania's population will be the most affected by the integration, needing a lot of flexibility to adapt to the new labor market conditions.** However, there is scope for alleviating at least partially the cost by adopting adequate policies aimed at reducing labor market inflexibility⁴⁰ and the cost of new jobs, and at creating the alternatives for labor reallocation in light of the revealed loss or win potential of some sectors of activity, as revealed by our previous trade analysis.

Turning now to the second question, the amount of restructuring achieved, an obvious measure is simply to replicate Table 5 for the most recent year where comparative statistics are available, namely 1997, and compare the structural imbalances "now" with those that existed at the outset. The data for such a comparison are shown in Table 5. Here we include information for the reunified Germany. The remarkable feature of Table 6 is that the imbalances appear as great now as they were in 1989. While the proportion employed in manufacturing has fallen everywhere, including a remarkable 10% decline in Romania, and the proportions employed in trade and finance have risen, the proportion employed in agriculture has risen in some of the countries (notably Romania), and, most remarkably, the **restructuring index shows very little improvement** and has actually slipped back in some countries (compare the last two rows of the table). **For Romania, in particular, the gap with Western Europe appeared to have widened**, at 33.1% relative to the South, and as much as 40% relative to the North.

Table 6. Structure of employment (%) in 1997

Sector	Bulgaria	Czech	Hungary	Poland	Romania	Slovakia	South OECD	North OECD
Agriculture	24.3	5.7	7.9	20.5	37.5	8.6	9.3	3.0
Mining	2.0	1.8	0.7	2.5	2.0	1.7	0.5	0.3
Manufacturing	23.2	27.8	23.7	21.0	23.0	26.1	20.8	19.2
Electricity, gas, water	1.1	1.9	2.7	1.8	2.1	2.5	0.9	0.7
Construction	4.9	9.7	6.0	6.6	4.9	8.9	8.3	7.2
Trade	12.4	16.7	16.9	14.5	10.3	14.4	21.2	18.6
Transportation	7.7	7.7	8.5	6.2	5.6	7.4	5.6	6.2
Finance	1.6	2.0	2.3	2.1	0.8	1.4	7.7	11.2
Community services	21.8	26.7	31.3	24.8	13.7	29.0	25.7	30.
RI-South	21.2	13.8	13.4	14.9	33.1	13.8	-	-

⁴⁰ Net migration might also contribute to increasing labor flexibility, although it still remains to be tested whether or not losers are movers up to a large extent.

RI-North	28.9	18.0	15.4	22.6	40.0	18.6	12.0	-
RI-North-89	27.3	19.6	19.6	27.7	33.4	21.6	-	9.3

Source: *OECD-Labour Force Statistics (1998) for OECD countries, and authors' computations for Eastern European economies.*

The situation after seven years of transition is not very bright. **Instead of decreasing, the employment in agriculture has risen. The speed of job destruction that took place in manufacturing mainly has not been matched by the speed of job creation, leaving a large part of the people with no means of support except the agricultural work. These workers are losers of integration.**

The apparent lack of progress in restructuring despite substantial job losses reflects several phenomena. First, there is a problem of "moving goalposts" - the market economies are themselves in the process of relatively rapid structural change (9.3% between 1989 and 1997, as the last row of the table shows), and the transition economies need quite a rapid pace of employment reallocation simply to avoid falling further behind (in all cases employment changes in market economies are moving them further away from the employment structure of the transition economies). If one calculates the gap in employment structure between the transition economies in 1997 and the witness economies in 1989, all the transition economies show some improvement, most notably the Czech and Slovak Republics. This remark must be qualified by the fact that these two countries are not known as most advanced in the restructuring process. Statistics and reality do not frequently match (remember the first impression we had on the growth of technology-intensive exports).

In Romania the widening of the distance relative to Western Europe appears to be attributable mostly to the rise of the share of agriculture in total employment from 27.9% in 1989 to more than 37% in 1997, but also due to the decline of the pro-cyclical construction sector, probably due to recession. Another explanation for losing jobs in construction stays with the net Romanian emigration intensive in a few number of sectors, mainly construction⁴¹. Employment in community services shrunk to 13.8% in 1997, by far the lowest in Eastern Europe, again probably due to budgetary cuts (education, health and public administration are all on the expenditure side of the budget, under severe strain after 1996 in Romania). On the positive side, employment in trade, a sector with huge potential in Romania, continued to grow both in relative and absolute terms, reaching about 10% of total employment, although further job creation and growth in trade is still possible and desirable (the average share of trade in total employment is 21.2% in Southern Europe, respectively 18.6% in the North).

The second reason explaining slow convergence concerns **the peculiar role of the agricultural sector as an "employer of last resort"**. In some countries, particularly those where employment in agriculture was initially high, the collapse of regular employment has led to a reversion to small-scale farming. There is thus a perverse tendency for those countries that had the greatest surplus of employment in agriculture in 1989 to experience the slowest declines (Bulgaria), or even in the case of Romania, a sharp increase in agricultural employment between 1989 and 1997 from 3,056 thousands to 3,384 thousands.

⁴¹ Langewiesche, Renate *EU enlargement and the free movement of labor* WIIW working paper, 1999

Romania is in fact the only country in the panel, Eastern or Western, where the workforce in agriculture increased; the numbers peaked in 1995-96.

The so-called **reverse migration**, from urban to rural, typical in times of crisis, **has hit Romania severely**. In the first 7 years of transition, the percentage of reverse migration in total domestic migration has increased seven times (see table 1, annex E). The reverse migration has been experienced mostly by poorest counties - the Botosani county, with the lowest value of the development index, received almost entire immigration from counties at the other end of the development axis (see table 2, annex E.). Such already poor counties, that received additional labor supply in the context of limited and decreasing labor demand, can easily be identified as losers. It is difficult to estimate whether they are losers of integration, or simply losers of transition. The only way to say it is to identify the specific sectors where the components of reverse migration flows were previously employed, but the data are not available in this respect. According to Sandu⁴², young and relatively skilled people predominate in the reverse migration flows, a conclusion that contradicts a foreign study⁴³ stating that the flow of Romanian emigration towards EU consists largely of young and relatively high-skilled people who were previously employed back home. Therefore, we are prudent in labeling as winners or losers specific age groups of population – what we can say about young and relatively skilled people is that they are the most mobile part of population (see also table 3, annex E).

A large agricultural sector in terms of employment suggests the existence of a two tier system consisting, first, of large numbers of people involved in low productivity, small farming, subsistence agriculture, coexisting together with large, potentially profitable, but in practice still state-owned and unreformed, groups of farms. The question we have to ask here is whether all these small, privately owned farms could survive or will die—with daring social and economic implications- in the competitive environment of the EU and CEFTA, where agriculture, and exports of agricultural products, are heavily subsidised through the Common Agricultural Policy for the former, or the governments for the latter. Illustrative in this sense is the example of Poland, a country with a large inherited agricultural sector (27% of employment in 1989) where employment in agriculture declined by almost one million and a half people between 1989 and 1997 (reaching a share of 20.5%). In Romania, 46% of population lives in the rural area, yet agriculture fails to produce more than one fifth of the GDP, while contributing with less than 3% to total exports.

Third, and most important, a significant part of the change in the employment structure that has been observed has not been attributable to the reallocation of labor across sectors, but simply reflects the uneven incidence of macroeconomic recession and sectoral shocks. In Romania, for example, the share of employment in utilities such as electricity and water has risen even though the initial shares in these sectors were already too high, presumably because they are less vulnerable to recession. At the same time the share of employment in manufacturing severely declined from 33% to 22%, mainly in the light, non-unionized branches such as textiles and clothing (Pauna C. and Pauna B., 1999). 1997, the year where

⁴² Sandu, Dumitru *Social space of transition*, 2000

⁴³ Langewiesche, Renate and Lubyova, Martina *op.cit*

this reallocation analysis stops, was indeed the year that recorded the lowest ratio of employees in textiles and footwear sectors in total industry employees, as figure 7 also proves. **What has happened after 1997 was the sharp rise in the relative number of employees in these sectors, with the subsequent increase in unit labor costs and continuous decrease in comparative advantages. The lower than industry average wages, with productivity lagging even lower behind industry average, might indicate that, taking textiles as an example, when occurring, restructuring has not taken place as it should have.**

Some further evidence for the uneven nature of the shock suffered by CEE countries (given in table 4, annex E) shows gross changes of employment by sector between 1989 and 1997 in absolute figures. Between 1989 and 1997 the rate of net job destruction in the sectors that declined in terms of workforce ranged from 28.0% of the initial level of employment in Poland to 17.1% in the Czech Republic, while net job creation in the sectors ranged from 8.2% in Poland to only 0.6% in Bulgaria. There is a clear inverse relationship between job destruction and job creation, consistent with the dominant role of aggregate shocks relative to sectoral reallocation. It is notable that in most cases even where the share of employment in a particular sector is rising, the absolute level of employment in that sector is falling. Such changes in the structure of employment that took place between 1989 and 1997 could thus have been achieved almost entirely by differential rates of job loss with no labor mobility at all across sectors. The fact that there was a net job destruction might seem to contradict the rapid growth of some CEE countries, such as Poland and Hungary; on the other hand, one can argue that it has provided the conditions for the economy to develop on new grounds, to gradually create jobs, and to work efficiently.

Table 4 in annex E provides a good image about the size of job destruction and job creation in Romania. It shows that during the period of investigation employment shrunk by almost 2 million jobs, a figure exceeded only by Poland, with 2.7 million, but also with a significantly larger labor force. Furthermore, **net job destruction in the sectors where the overall employment declined was around 2.6 million job cuts, or around 24% of the initial employment level in those sectors.** To put it in other words, in the declining industrial sectors, preponderantly in manufacturing, but also in constructions and transportation, one in four workers employed in 1989 lost his job by the end of 1997. At the same time, new job creation in the growing sectors was during the same period of around seven hundred thousand workplaces, or 6.4% of the 1989 employment level. Almost half of these jobs are in agriculture, the “employer of last resort”, and presumably in subsistence agriculture, but also a significant rise took place in trade, and to some extent in utilities (still state-owned or controlled monopolies) and the financial sector.

The fact that the gap in the structures of production has actually widened over the first eight years of transition is aggravated by the low scale of job creation. This seems to reflect not the restructuring process in the economy, but precisely the opposite of it, the lack of adequate restructuring.

The problem with losers is that they are actually losers-to-be, stucked in sectors that still need restructuring. Some of the workers understand this, and are already tired of a decade

in which they have been considered as losers, without being officially declared as such. This decade of stress over their jobs has not only affected their efficiency at work, but also has postponed the reconversion process. Unemployment figures for 2000 show again the delay in restructuring, with slightly over 10% unemployment rate at the end of the year, as compared to a target of 13% set at the beginning of last year.

The remaining part of the workers, as well as a part of the private owners, are tempted to look only at their short-term positions on the winner/loser axe. How shall we count a female worker in a poor town, employed in a small textile factory, and getting paid with 50USD/month? She might be tempted to count herself as a winner - after all, she has a job, and she comes home with some money that are not negligible in a poor town. Even her employer might count her as a winner - after all, he picked her out of a line of people in need of a job. Meanwhile, we might be tempted to count her as loser - her job has little future, her health could fastly ruin, the wage is two times and a half below the industry average, and, in case she would like to leave, she is probably not lucky enough to have an alternative.

4.2. Taking sides: can our losers change their team?

From the outset, labor market policy in the transition economies has been based on the recognition of the need for substantial reallocation of labor across sectors. It was thought that employment restructuring might lead to high albeit temporary unemployment (Blanchard and Aghion, 1992), because the speed of job loss in declining sectors could be very much more rapid than the rate of new job creation in the growing sectors and on account of obstacles to labor mobility. In this framework, the key elements of labor market policy were seen to be:

- subjecting firms to hard budget constraints to force rapid restructuring;
- encouraging labor mobility and flexibility;
- provision of benefits, or some form of “social safety net”, for those temporarily stranded between the collapse of jobs in the state sector and the growth of the private sector;
- encouraging transitions out of the labor force, eventually through generous retirement and early retirement programs.

The evidence presented in the previous section argues that some of these policies may have been inappropriate. Whether or not unemployment is economically efficient depends on the opportunity cost of those retained in employment which, given the very low outflow from unemployment, may be close to zero. The belief that unemployment is efficient in the particular circumstances of the transition, because it would facilitate the movement of workers into growth sectors, is disputable - private firms appear to recruit those with jobs in the state sector or new entrants to the labour force rather than from the unemployed. This comes to support the idea that the boom and bust cycle needs to be avoided, and sustainable growth, including job creation, be achieved. Evidence suggests (Earle and Pauna, 1998) that most of the workers displaced from the declining sectors, like in Romania, and pushed into unemployment tend to become long-term unemployed and discouraged, with very little chance of re-entering workforce.

Thus the objective of policy should be (or should have been) to try to balance the growth of jobs in the private sector with the decline in employment in the state sector, by encouraging the former, particularly in the growing sectors, and restraining the latter. This does not imply a policy of indefinite and indiscriminate support for maintaining employment in declining firms, but rather an attempt to equate the private social costs of layoffs. One extreme would be simply to abolish unemployment benefits, as is approximately the case of Russia. But the Czech approach, of limiting and restricting availability of benefits in conjunction with selective support of state firms, seems a more attractive model for Romania, as a transition country.

The immediate problem in the CEE countries, Romania included, however concerns the long-term unemployment of displaced workers. The danger here is that given the mismatch between the skills of the unemployed, usually characterized by a high degree of specificity, and the shifts in the demand for labor, many unemployed coming from the declining industrial enterprises will have very little chances in finding jobs. Tighter controls on, and lower levels of, benefits may help reduce the flow into unemployment but will not themselves create more jobs for the unemployed. Only to the extent that such policies reduce the general level of wages, or can be made part of a package reducing taxes on employment, will they assist in the creation of new jobs. Such effects seem unlikely to be sufficiently large to have a major impact on the problem.

Looking further into the nature of unemployment in Romania and other transition economies, it is notable that both the eligibility and the duration of unemployment benefits are limited, yet many people seem able to support themselves for long period of unemployment⁴⁴. Clearly, it is possible that many of those registered as, or reporting themselves, unemployed may also have some form of casual or informal work, given in particular that many of the East European countries have sizable agricultural sectors, like Romania, and some also have thriving informal sectors. There has been widespread concern, not least in the countries themselves, about abuse of the benefit system, though there is little hard evidence⁴⁵. Unemployment is thus becoming linked to the growth of the (non-taxpaying) shadow economy.

The transition economies, and Romania among them, typically have both high benefits, albeit with restricted coverage, and high employment taxes, which together create strong incentive for evasion. This suggest a possible new role for active labor market policies: by linking payment of benefit to some temporary job, like in Britain, the employer is of necessity brought into the formal sector. Traditionally, evaluations of active labor market policies in CEE countries, as in OECD economies, have tended to be unfavorable, reflecting the fact that active policies are designed to overcome impediments to mobility usually between similar jobs, when the problem in most CEE countries has been an

⁴⁴ E.g., in Bulgaria, only 24% of those reported as unemployed in the June 1994 Labour Force Survey were receiving unemployment benefits, leaving 550,000 people (over 15% of the labor force) reporting themselves as unemployed with no visible income.

⁴⁵ However, in Poland, one survey found that 46% of unemployed people had some form of work, albeit often only casual or part-time (World Bank, 1995), while a second survey found that around 35% of employers were hiring informally people registered as unemployed (Mroczowski, 1996).

overall shortage of jobs (OECD, Puhani and Steiner, 1996). The degree of job destruction might be high in the EU zone, but at the same time job creation is well above levels in CEE countries, which do not seem to be able to absorb the excess labor force released by the declining sectors⁴⁶.

If active labor policies (retraining, public works, job counseling, etc.) targeting the unemployed have been proved to have a limited impact, both in CEE and OECD countries, in reducing the level of joblessness, and mainly in stimulating job creation, is there anything else that can be done by policy makers? Since the problems of the CEE countries are largely structural, and adaptational, and generated by the elimination of the institutional framework for which enterprises and workers have been prepared for decades, namely the command economy, it might be that the firms and labor market participants alone cannot succeed in making a successful adjustment to the fundamentally new environment in which they have to survive, which is the free market, competitive climate.

Therefore the government, hand in hand with the markets, can remedy these structural deficiencies and address areas where the market mechanisms alone fail to provide the conditions necessary for successful adjustment. We do not advocate here for an interventionist policy overruling the market forces, but for selectivity and complementarity, where the main role of the authority would be to enhance the growth of rising industries, in order to replace those that are in decline, and to provide loser workers, as well as the losers-to-be, with the chance to relocate towards winning sectors.

⁴⁶ These evaluations have, however, been concerned with the future job prospects of participants rather than with the growth of the shadow economy. A gradual introduction of Swedish style active labor policies, say in terms of providing a temporary job or training after six months unemployment of those under 25, as a condition for continued receipt of benefit could have an important role in retaining people in the official labour market, and discouraging the growth of the shadow economy.

5. Conclusions and policy recommendation

Most of the conclusions have already been stated in the previous sections of our work, some others might seem trivial, and some might have escaped to our attention; yet, we try to provide a number of clear-shot conclusions.

According to results of the opinion poll, the majority of population actively supports the integration, while only 4.7% define both themselves and the country as losers. However, the economic and social reality does not support this overwhelming positive attitude. There are at least three common-sense reasons to explain the discrepancies between individual perceptions and holistic realities:

- *insufficient information.* Our paper is an attempt to provide an objective, fact-based, assesment, understanding and interpretation of the impact of European integration upon the Romanian society.

- *the false impression that integration is a remote target that, when reached, will automatically bring welfare surpluses to the society.* Integration has already started, and someone wins and somebody else loses just as we write – integration is a process. **We have tried to analyze this process both ex ante (convergence towards working structures) and ex post (trade facts).** It is highly important to become aware of the winners and losers positions, and to understand that these positions are not immutable and that they depend on governments' policies.

- when a sector of activity, or a group of working people, wins or loses, *it does not necessarily mean that the group tendency is valid for every individual in that group.* Even overenthusiastic as it is, the opinion poll shows us, by aggregating scores, that 24.2% of population considers itself as losers, while other 20.6% doesn't have an opinion.

We have identified winners, among which:

- **exporters of wooden products;**
- **developers of new high-tech technologies** (at this moment, they are not significant, and the spreading-out effect is low);
- **people working in services** (however, privatization in tourism, for example, is still to take place, with implications on the number of employees).

A mixed story can be told regarding textiles and footwear. They are still on the winning side, but they are constantly diminishing their competitive advantage, as employment in these sectors has grown, but with wages way below industry average, productivity

lagging even further behind industry average. **As most activities in these sectors are developed in lohn** (being relatively unskilled labor-intensive and low value-adding), **the fact that the unit labor cost constantly exceeds the industry average threatens to further decrease their comparative advantage.**

At the same time, **we have identified clear losers:**

- **the chemical sector**
- **the mining sector;**
- **exporters of furniture;**
- **people who returned to agriculture as an employer of last resort.**

These situations must be taken neither as granted, nor as desirable. The fact that furniture is on the losing side, while raw wooden products are on the winning side, should be addressed and reversed (a recent measure of the Government acts in this direction, although the method might be disputable, namely the interdiction to export logs). This problem could be addressed on the demand-side as well, by temporarily limiting final (non-productive inputs) imports of furniture, at least for state-owned entities.

The people who returned to agriculture as an employer of last resort must be offered alternatives, by promoting active labor policies. Otherwise, they are going to be long term losers, as agriculture will increasingly face challenges due to trade openness with partners, mainly the EU members and the CEFTA front runners, which heavily subsidize their agriculture.

There are a number of sectors with losing potential, as they are at disadvantage within CEFTA, yet relatively neutral with respect to EU: plastics, rubber, leather, paper, glass, ceramics, optical and medical instruments. **When CEFTA front runners join EU** (inevitably prior to Romania), **two major consequences will appear for Romania:**

- **the disadvantages (that have become of a chronic nature) with CEFTA will be transferred into disadvantages with EU;**
- **potential trade will be diverted from EU-15 in favor of newcomers.**

This warning is also valid for agriculture, a highly sensitive sector. **We recommend that, in such a context, the Romanian authorities should acknowledge the reality that some other CEFTA countries will join the EU ahead of us, and they should become aware of what this paper signals.** Consequently, within the accession negotiations, regarding the above mentioned sectors (including agriculture), **Romania should review its bargaining position** and possibly demand further temporary exemptions, plus measures to avoid potential trade diversion.

Another sector where Romania should try to bargain with the EU is metalurgy. Our analysis shows that a winning potential might exist in this area, but it might be inhibited by trade restrictions imposed by the EU in order to protect its own industry.

When we discuss about loser sectors, it does not mean that Romania should necessarily abandon them, as they seem to be inefficient. When we discuss about winners, it does not mean that they they will maintain their position unconditionally. **In both cases, and most of all in cases without a clear call, but with identified potential toward losing or winning, there is a need for public policy as industrial policy⁴⁷ pursued with the strategic goal to escape the low development traps and promote high value-added activities.**

Based on its labor-intensive feature, the Romanian economy has become a net exporter of workforce and a carrier of the subcontracting culture at home.

Even the growth of the so-called technology intensive group is due to labor intensive products, as we produce and export parts and components for machines and equipments, rather than machines and equipments. **Romania seems to preserve an old structure of production, which, taken in conjunction with the low ratios of saving and investment in the economy, show not only the little renewal efforts that take place, but also the low ability of the economy, by itself, to develop such renewal efforts.** Therefore, once again, public policy is needed in order to enhance higher saving and investment ratio, and favor high value-added sectors.

This would actually be the very first policy recommendation - namely, that a policy must exist, to promote industrial modernization while supporting labor reallocation, with the ultimate goal in mind to create new structures of production that allow for high value added products to be produced, and for the income gap with the EU countries to be reduced.

This public policy must be selective in its intervention, but global in its approach.

For example, **specific legislation must be passed in order to protect the rights of so many Romanian companies acting as subcontractors. However, legislative measures by themselves do not solve the problem. At the same time, efforts must be focused on enhancing investment in research and development, education and skill formation, so that our industry could graduate out of the subcontracting culture. In addition, fiscal policies might be designed to encourage companies to increase the share of value-added that is locally incorporated in their products.**

Commercial policy is less efficient in the context in which the current average industrial tariffs with the EU is 5.5%. **Commercial policies is nowadays rather a last resort mechanism to temporary redress imbalances, by introducing derogations, and salvagardory measures.** They are needed, as we have argued in case of some sectors - agriculture included- that face potential losses when the enlargement of the EU will take place without Romania. However, **they must be complemented by industrial, labor, legislative and fiscal components** of a public policy designed at the national level.

⁴⁷ See Daianu, Daniel *South-Eastern Europe revisited. Can economic decline be stopped?* p.22-24, Institute for Security Studies, occasional papers no.21/2000.

6. Suggestions for further research

The intention of this study has been to stimulate the debate on various issues of economic integration with the EU. It would have been beyond our ability to provide thorough answers to the few questions we addressed, in view of the available time and resources. Much remains to be done and this study is only a step forward. We very much hope that the research on this topic will continue⁴⁸.

Further research is definitely needed in directions such as:

- an in depth analysis (sectoral studies) of the challenges faced by sectors with losing potential: agriculture, rubber, plastics, leather, paper, glass, ceramics, optical and medical instruments;
- identifying alternatives for losers of integration, be they sectors, groups or regions;
- the social impact of convergence towards EU structures;
- the impact of subcontracting on the development potential of local companies

⁴⁸ Particularly now, when another EU-focused think tank, the European Institute, has started its operations in full gears.

Annex A.

Revealed comparative advantages of Romania with EU and with the rest of the world, 1991-2000

RCA_T – total trade RCA

RCA_{UE} – Romania's RCA with UE

RCA_R – Romania's RCA with the rest of the world

1-20 groups of goods as shown in official statistics

Obs (groups 1-22)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
RCA _T 1	1.56	1.09	1.15	0.94	0.54	1.09	1.41	-0.44	0.14	0.13
RCA _{UE} 1	-1.73	0.65	0.57	0.58	0.40	0.61	0.93	-0.08	0.46	0.41
RCA _R 1	3.83	1.39	1.35	1.07	0.65	1.53	1.74	-0.66	-0.09	-0.08
RCA _T 2	-1.36	-1.83	-1.82	-0.64	0.57	1.16	0.26	0.13	0.31	-0.81
RCA _{UE} 2	-1.44	-1.40	-1.66	0.13	0.60	0.23	0.40	0.33	0.76	-0.29
RCA _R 2	-1.41	-2.37	-2.01	-1.37	0.61	1.49	0.25	0.18	0.18	-1.02
	-0.59	-1.32	1.27	0.51	1.18	1.40	1.63	0.58	0.72	0.10
RCA _{UE} 3	-0.66	-1.00	0.38	-1.62	-0.37	-1.60	-2.32	-2.19	-0.90	-3.15
RCA _R 3	-3.48	-2.46	1.93	1.23	2.25	3.19	3.03	1.52	1.60	1.13
RCA _T 4	-1.99	-1.90	-1.86	-1.61	-1.83	-1.37	-1.10	-1.40	-1.68	-1.76
RCA _{UE} 4	-1.75	-1.13	-1.22	-1.36	-1.60	-1.26	-1.15	-1.63	-1.57	-1.56
RCA _R 4	-2.44	-2.51	-2.40	-1.80	-2.03	-1.42	-1.03	-1.15	-1.69	-1.79
RCA _T 5	-1.85	-0.88	-0.89	-0.84	-0.96	-1.01	-1.04	-0.85	-0.71	-0.68
RCA _{UE} 5	0.47	0.23	0.87	0.90	-0.07	-0.04	-0.53	-0.08	-0.45	-1.02
RCA _R 5	NA	-1.21	-1.37	-1.11	-1.03	-1.14	-1.02	-0.82	-0.61	-0.51
RCA _T 6	0.70	0.34	-0.11	0.01	0.01	-0.01	-0.23	-0.76	-0.89	-0.56
RCA _{UE} 6	-1.05	-0.54	-0.96	-0.69	-0.81	-0.95	-1.12	-1.56	-1.92	-1.61
RCA _R 6	1.37	0.83	0.37	0.52	0.60	0.70	0.47	0.03	0.00	0.31
RCA _T 7	-0.07	-0.42	-0.63	-0.32	-0.40	-0.50	-0.58	-0.72	-0.76	-0.61
RCA _{UE} 7	-0.68	-0.30	-0.66	-0.65	-0.38	-0.54	-1.00	-0.71	-0.92	-0.74
RCA _R 7	0.36	-0.49	-0.59	0.00	-0.42	-0.45	0.29	-0.75	-0.50	-0.39
RCA _T 8	0.64	-0.81	-0.89	-0.84	-1.13	-1.25	-1.15	-1.24	-1.34	-1.21
RCA _{UE} 8	0.72	-0.62	-0.75	-0.94	-1.33	-1.52	-1.46	-1.45	-1.50	-1.40
RCA _R 8	0.60	-0.96	-1.08	-0.53	-0.29	-0.19	0.04	-0.21	-0.29	0.01
RCA _T 9	1.49	1.87	2.05	2.26	1.79	2.09	2.14	2.23	2.18	2.17
RCA _{UE} 9	0.86	1.48	1.17	1.27	0.87	1.28	1.34	1.81	1.93	1.90
RCA _R 9	1.91	2.24	2.71	3.14	2.84	2.79	2.87	2.65	2.49	2.47
RCA _T 10	-0.27	-1.35	-1.33	-1.24	-0.75	-1.21	-1.09	-1.56	-1.51	-1.10
RCA _{UE} 10	-0.34	-1.42	-1.64	-1.60	-1.25	-1.78	-1.84	-2.13	-2.09	-1.60
RCA _R 10	-0.44	-1.24	-1.13	-0.92	-0.28	-0.68	-0.42	-0.99	-0.85	-0.55

RCA_T_11	0.81	0.11	0.46	0.50	0.52	0.60	0.51	0.52	0.33	0.29
RCAUE_11	1.43	0.14	0.59	0.49	0.47	0.55	0.46	0.45	0.30	0.26
RCA_R_11	0.48	0.26	0.24	0.55	0.53	0.55	0.43	0.38	-0.01	-0.07
RCA_T_12	0.94	0.87	1.49	1.68	1.66	1.75	1.54	1.48	1.48	1.38
RCAUE_12	0.85	0.95	1.82	1.85	1.69	1.73	1.59	1.56	1.51	1.47
RCA_R_12	0.93	0.90	0.76	0.74	0.89	1.31	0.15	-0.58	0.29	-0.79
RCA_T_13	0.28	0.62	0.51	0.54	0.49	0.36	0.35	0.32	0.23	0.17
RCAUE_13	0.05	1.04	0.91	0.63	0.44	0.31	0.33	0.31	0.27	0.23
RCA_R_13	0.37	0.26	0.16	0.44	0.55	0.43	0.34	0.31	0.19	0.06
RCA_T_15	1.28	1.32	1.53	1.25	1.22	0.92	1.13	1.05	0.85	0.87
RCAUE_15	0.74	0.85	0.78	0.80	1.09	0.83	1.04	0.98	0.69	0.83
RCA_R_15	1.55	1.63	1.92	1.56	1.38	1.03	1.24	1.18	1.07	0.97
RCA_T_16	0.21	-0.27	-0.68	-0.88	-0.91	-0.97	-0.97	-0.88	-0.72	-0.59
RCAUE_16	-1.34	-1.13	-1.43	-1.44	-1.30	-1.21	-1.11	-0.98	-0.77	-0.67
RCA_R_16	0.86	0.35	0.10	-0.04	-0.33	-0.58	-0.78	-0.75	-0.65	-0.50
RCA_T_17	1.54	1.30	0.65	0.31	0.34	0.41	0.45	0.23	0.59	0.49
RCAUE_17	-0.29	-1.04	-0.85	-0.46	-0.22	0.13	-0.23	-0.21	0.60	0.32
RCA_R_17	2.11	NA	1.41	0.63	0.72	0.64	0.90	0.76	0.63	0.71
RCA_T_18	-1.63	-1.46	-2.03	-2.17	-2.39	-2.00	-2.05	-1.64	-1.85	-1.68
RCAUE_18	-2.53	-1.76	-2.16	-2.33	-2.52	-2.19	-1.96	-1.72	-1.89	-1.61
RCA_R_18	-1.18	-0.97	-1.59	-1.93	-2.20	-1.67	-2.23	-1.52	-1.78	-1.80
RCA_T_20	2.86	2.27	1.94	1.50	1.41	1.35	1.21	1.18	1.10	1.04
RCAUE_20	2.87	2.59	2.04	1.47	1.42	1.30	1.15	1.12	1.11	1.05
RCA_R_20	2.55	1.79	1.83	1.60	1.24	1.38	1.26	1.22	0.92	0.84

Annex B.

Revealed comparative advantages of CEFTA countries (minus Romania) with UE, 1999

Groups 1-22	% Exp CEFTA	% Imp UE	RCA CEFTA - UE	RCA log
1	1.621	1.729	0.938	-0.064
2	1.677	3.080	0.545	-0.608
3	0.048	0.338	0.143	-1.946
4	1.400	2.592	0.540	-0.616
5	3.087	11.373	0.271	-1.304
6	3.017	6.839	0.441	-0.818
7	4.222	2.782	1.517	0.417
8	0.644	0.992	0.649	-0.432
9	3.540	1.596	2.218	0.797
10	2.075	1.691	1.227	0.204
11	9.809	7.661	1.280	0.247
12	1.523	1.172	1.299	0.262
13	2.367	0.815	2.905	1.066
14	0.460	3.407	0.135	-2.003
15	10.830	5.526	1.960	0.673
16	29.772	28.594	1.041	0.040
17	15.791	10.423	1.515	0.415
18	1.238	4.354	0.284	-1.258
19	0.024	0.097	0.249	-1.392
20	6.119	2.801	2.185	0.781

Annex C.

Romania's foreign trade structure, total and with EU, 1991 - 2000

Winners and losers in the process of European integration. A look at Romania

PMT – percentage of specific imports in total imports

PXT – percentage of specific exports in total exports

PMEU – percentage of specific imports from EU in total imports from EU

PXEU – percentage of specific exports to EU in total exports to EU

Obs (groups 1-22)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
PMT_1	0.73%	1.42%	1.05%	1.39%	1.25%	0.64%	0.58%	1.76%	1.18%	1.03%
PXT_1	3.47%	4.23%	3.31%	3.56%	2.15%	1.91%	2.36%	1.13%	1.36%	1.17%
PMEU_1	2.25%	1.80%	0.90%	0.92%	0.89%	0.68%	0.50%	1.07%	0.76%	0.69%
PXUE_1	0.40%	3.46%	1.58%	1.65%	1.33%	1.25%	1.26%	0.99%	1.20%	1.05%
PMT_2	6.37%	7.13%	7.28%	1.97%	1.50%	1.46%	1.51%	1.91%	2.15%	2.40%
PXT_2	1.64%	1.14%	1.18%	1.04%	2.64%	4.63%	1.95%	2.18%	2.93%	1.07%
PMEU_2	10.57%	9.20%	9.41%	1.27%	0.67%	0.90%	0.76%	0.81%	0.89%	1.05%
PXUE_2	2.50%	2.26%	1.79%	1.44%	1.22%	1.13%	1.14%	1.14%	1.90%	0.79%
PMT_3	0.24%	0.67%	0.36%	0.46%	0.32%	0.21%	0.29%	0.47%	0.31%	0.25%
PXT_3	0.14%	0.18%	1.28%	0.77%	1.03%	0.86%	1.49%	0.84%	0.64%	0.27%
PMEU_3	0.70%	1.26%	0.50%	0.52%	0.43%	0.33%	0.41%	0.45%	0.30%	0.25%
PXUE_3	0.36%	0.46%	0.73%	0.10%	0.29%	0.07%	0.04%	0.05%	0.12%	0.01%
PMT_4	6.22%	7.35%	6.13%	5.52%	5.65%	5.29%	3.78%	4.43%	4.01%	3.64%
PXT_4	0.85%	1.10%	0.96%	1.10%	0.91%	1.34%	1.26%	1.10%	0.75%	0.63%
PMEU_4	8.85%	5.72%	4.61%	4.31%	4.55%	3.77%	2.72%	2.91%	2.64%	2.03%
PXUE_4	1.54%	1.85%	1.36%	1.11%	0.92%	1.07%	0.86%	0.57%	0.55%	0.43%
PMT_5	45.32%	31.58%	28.70%	26.82%	24.16%	23.51%	21.35%	14.25%	12.05%	14.86%
PXT_5	7.14%	13.10%	11.73%	11.61%	9.24%	8.56%	7.57%	6.11%	5.90%	7.52%
PMEU_5	14.50%	8.97%	4.47%	2.71%	3.78%	4.33%	3.50%	2.19%	1.52%	2.33%
PXUE_5	23.25%	11.24%	10.72%	6.64%	3.53%	4.17%	2.06%	2.02%	0.97%	0.84%
PMT_6	7.09%	6.85%	7.84%	7.87%	9.01%	8.63%	8.33%	8.68%	9.38%	8.80%
PXT_6	14.22%	9.65%	7.03%	7.92%	9.13%	8.52%	6.64%	4.05%	3.84%	5.01%
PMEU_6	12.08%	9.22%	9.44%	9.31%	9.96%	9.88%	9.53%	9.51%	10.07%	9.61%
PXUE_6	4.25%	5.35%	3.63%	4.66%	4.43%	3.81%	3.11%	2.00%	1.48%	1.92%
PMT_7	1.34%	2.99%	3.13%	3.20%	3.80%	3.91%	3.94%	4.33%	4.59%	4.68%
PXT_7	1.25%	1.96%	1.67%	2.33%	2.55%	2.38%	2.21%	2.10%	2.14%	2.54%
PMEU_7	2.53%	3.33%	3.45%	3.80%	3.94%	4.11%	6.00%	4.32%	4.80%	5.10%
PXUE_7	1.29%	2.46%	1.78%	1.98%	2.69%	2.41%	2.20%	2.13%	1.92%	2.43%
PMT_8	0.31%	1.27%	1.75%	2.10%	2.06%	2.30%	2.46%	2.58%	2.91%	3.06%
PXT_8	0.59%	0.57%	0.72%	0.90%	0.66%	0.66%	0.78%	0.75%	0.76%	0.91%
PMEU_8	0.31%	1.99%	2.71%	3.47%	3.67%	3.99%	4.25%	4.21%	4.58%	5.01%
PXUE_8	0.63%	1.07%	1.28%	1.36%	0.97%	0.88%	0.99%	0.99%	1.02%	1.23%
PMT_9	0.61%	0.54%	0.46%	0.38%	0.54%	0.45%	0.47%	0.50%	0.66%	0.64%
PXT_9	2.70%	3.55%	3.61%	3.62%	3.26%	3.66%	4.01%	4.64%	5.82%	5.64%
PMEU_9	1.11%	0.77%	0.65%	0.54%	0.80%	0.53%	0.57%	0.44%	0.58%	0.55%

Winners and losers in the process of European integration. A look at Romania

PXUE_9	2.63%	3.34%	2.07%	1.91%	1.90%	1.92%	2.17%	2.72%	4.03%	3.65%
PMT_10	0.67%	1.51%	1.47%	1.90%	2.29%	2.40%	2.26%	2.63%	2.54%	2.35%
PXT_10	0.51%	0.39%	0.39%	0.55%	1.07%	0.71%	0.76%	0.55%	0.56%	0.78%
PMEU_10	1.30%	1.99%	1.57%	2.18%	2.64%	2.69%	2.66%	2.58%	2.66%	2.44%
PXUE_10	0.93%	0.48%	0.30%	0.44%	0.75%	0.45%	0.42%	0.31%	0.33%	0.49%
PMT_11	4.24%	9.34%	10.10%	11.40%	11.76%	11.74%	13.87%	15.42%	18.64%	18.40%
PXT_11	9.50%	10.44%	16.04%	18.80%	19.84%	21.44%	23.03%	26.04%	25.83%	24.54%
PMEU_11	3.04%	15.94%	17.14%	20.21%	19.60%	19.33%	22.81%	23.11%	26.56%	26.89%
PXUE_11	12.71%	18.27%	31.05%	33.05%	31.21%	33.42%	36.02%	36.39%	36.01%	34.93%
PMT_12	0.78%	0.70%	0.74%	0.94%	1.03%	1.08%	1.39%	1.67%	1.83%	1.99%
PXT_12	2.00%	1.67%	3.27%	5.06%	5.41%	6.25%	6.46%	7.34%	8.03%	7.90%
PMEU_12	1.14%	1.12%	1.04%	1.50%	1.70%	1.84%	2.24%	2.33%	2.60%	2.78%
PXUE_12	2.68%	2.90%	6.44%	9.54%	9.26%	10.32%	11.03%	11.13%	11.80%	12.13%
PMT_13	1.38%	1.18%	1.35%	1.29%	1.34%	1.44%	1.27%	1.38%	1.49%	1.36%
PXT_13	1.82%	2.20%	2.24%	2.22%	2.20%	2.07%	1.79%	1.89%	1.87%	1.61%
PMEU_13	2.67%	1.27%	1.18%	1.34%	1.52%	1.55%	1.47%	1.45%	1.40%	1.35%
PXUE_13	2.81%	3.57%	2.93%	2.52%	2.36%	2.11%	2.04%	1.98%	1.83%	1.69%
PMT_15	4.18%	4.52%	4.26%	4.95%	5.34%	6.26%	5.94%	6.67%	6.61%	7.06%
PXT_15	15.01%	16.86%	19.60%	17.31%	18.16%	15.69%	18.47%	19.07%	15.41%	16.91%
PMEU_15	5.80%	5.73%	4.77%	5.15%	5.75%	6.47%	5.81%	5.94%	6.08%	5.75%
PXUE_15	12.17%	13.35%	10.36%	11.52%	17.03%	14.79%	16.50%	15.77%	12.10%	13.24%
PMT_16	14.48%	15.20%	17.62%	20.41%	20.56%	21.91%	22.99%	23.00%	23.43%	22.13%
PXT_16	17.82%	11.64%	8.97%	8.44%	8.29%	8.32%	8.74%	9.52%	11.38%	12.21%
PMEU_16	24.65%	22.95%	27.17%	32.02%	28.75%	29.28%	26.17%	26.97%	26.38%	26.60%
PXUE_16	6.46%	7.40%	6.52%	7.56%	7.85%	8.74%	8.62%	10.17%	12.17%	13.63%
PMT_17	2.43%	2.94%	4.33%	4.67%	3.86%	3.63%	3.40%	4.10%	3.02%	2.95%
PXT_17	11.39%	10.84%	8.27%	6.36%	5.41%	5.45%	5.31%	5.14%	5.48%	4.81%
PMEU_17	3.48%	9.87%	5.95%	3.96%	3.70%	3.21%	3.20%	4.32%	2.52%	2.62%
PXUE_17	2.59%	3.50%	2.54%	2.50%	2.99%	3.66%	2.55%	3.50%	4.61%	3.60%
PMT_18	2.40%	1.18%	1.79%	2.26%	2.77%	2.09%	2.30%	2.30%	2.45%	2.21%
PXT_18	0.47%	0.27%	0.23%	0.26%	0.25%	0.28%	0.30%	0.45%	0.39%	0.41%
PMEU_18	3.73%	1.97%	3.07%	3.03%	3.79%	2.87%	2.45%	2.49%	2.50%	2.20%
PXUE_18	0.30%	0.34%	0.36%	0.29%	0.31%	0.32%	0.35%	0.45%	0.38%	0.44%
PMT_20	0.54%	0.86%	1.19%	1.58%	1.76%	1.77%	1.85%	1.92%	1.96%	1.89%
PXT_20	9.47%	8.38%	8.22%	7.09%	7.26%	6.83%	6.24%	6.25%	5.91%	5.34%
PMEU_20	1.02%	1.36%	1.87%	2.64%	2.60%	2.56%	2.60%	2.43%	2.41%	2.40%
PXUE_20	18.02%	18.10%	14.36%	11.50%	10.72%	9.35%	8.25%	7.41%	7.35%	6.82%

Annex D.

Unit labor costs in selected Romanian economic sectors, 1990 - 1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Industrial average	11.02	9.87	9.89	10.40	9.48	9.86	9.74	7.79	9.53	10.28
Extraction Industry	11.40	12.37	16.96	21.05	19.14	20.44	19.50	12.75	17.11	18.72
-coal mining and preparation, meralliferrous ore, mining and preparation and other extraction activities	36.14	35.46	26.87	30.18	23.31	27.34	26.57	20.77	25.59	33.93
-crude oil and natural gas extraction	3.65	4.50	8.20	11.99	12.17	11.43	10.90	7.41	11.71	12.71
Processing industry	11.15	10.68	9.65	9.56	9.08	9.38	9.11	7.46	8.98	9.05
-food and beverages+tabacco	5.15	4.93	5.39	4.80	5.79	5.82	6.21	5.49	5.93	9.46
Textile and textile products, ready made clothes	16.01	14.49	16.54	16.55	17.84	16.29	17.59	15.05	18.77	20.50
-leather goods and footwear	16.76	15.01	14.26	15.31	18.79	14.46	14.88	14.08	16.53	19.57
-wood working (excl. furniture)	13.71	11.47	11.68	12.48	11.52	11.67	9.71	8.82	10.95	28.50
-pulp, paper and cardboard and publishing houses	12.76	9.60	10.95	8.24	8.66	7.53	6.57	6.57	8.28	21.51
-crude oil, coal and nuclear fuel processing	1.62	1.83	2.16	1.88	2.40	2.60	3.10	2.49	3.18	3.71
Chemical, synthetic and artificial fibres	7.66	6.20	6.32	7.60	6.79	6.18	6.80	6.74	7.82	11.90
-rubber and plastic processing	9.28	8.12	9.38	8.42	10.79	9.12	8.66	8.38	9.22	20.79
-other nonmetallic mineral products	14.04	14.49	11.89	15.68	11.82	11.50	10.98	8.42	10.99	18.20
Metallurgy	6.56	5.55	5.66	7.50	6.89	6.48	6.65	4.80	6.75	1.82
Metallic construction	12.87	14.08	15.64	17.92	8.77	14.83	12.35	11.73	12.14	29.09
Machines and equipment	18.77	19.24	17.11	20.64	20.22	19.63	19.67	16.27	19.41	22.06
-electric optical and electronic equipments	12.89	11.40	13.01	6.32	6.72	11.63	8.40	8.25	9.94	18.23
Tranaport mean	17.60	12.93	12.84	17.45	14.95	15.50	13.03	11.95	11.99	17.53
Other industrial activities	23.05	18.87	18.30	19.63	12.94	15.30	14.32	12.89	13.20	27.17
Electrical and thermal energy, gas and water	8.24	7.24	6.86	10.25	6.62	7.12	8.40	6.83	8.96	16.42
-production, distribution and transport of electric, thermal energy, gas and hot water	7.01	6.44	6.36	9.90	6.16	6.66	7.48	6.20	8.27	14.96
-water collection, treatment and distribution	34.93	24.07	15.52	14.07	12.74	12.71	18.20	14.16	15.26	27.14

Annex E.

Specific aspects of labor migration in Romania

Table 1. Incidence of urban-rural and rural-urban migration in total migration flows (%)

	1990	1991	1992	1993	1994	1995	1996
Urban-rural	3,5	10,1	13,7	14,6	18,4	20,8	23,4
Rural-urban	69,8	50,3	39,2	35,0	30,5	25,1	24,7

Source: Sandu, Dumitru, *op.cit*

Table 2. Immigration structure based on the discrepancies between the county of origin and the county of settlement, 1995-1996

County of settlement	Immigration structure (%)			Development index for the county of settlement (1-least developed)
	Arrivals from more developed counties	Arrivals from rather similar counties	Arrivals from less developed counties	
Botosani	96,2	3,8	0	1
Vaslui	96,5	3,5	0	2
Teleorman	82,3	17,7	0	3
Giurgiu	73,7	26,3	0	4
Calarasi	66,8	33,2	0	5
Neamt	66,2	27,0	6,7	6
Ialomita	64,3	31,9	3,8	7
Suceava	55,8	22,1	22,2	8
Olt	51,8	38,0	10,1	9
Buzau	67,9	27,3	4,8	10

Source: Sandu, Dumitru, *op.cit*

Table 3. Occupational status, comparison 1990-2000

Occupational status	18-25	26-35	36-45	46-55	56-65	66+
% employed with work contract before 1990	50.3	86	84.5	69.6	22	-
% employed with work contract in 2000	36.6	60.7	60	43.7	4.9	-
2000 - 1990	- 13.7	- 25	- 24.5	- 26	-17	-
% retired before 1990	1.9	2.6	3.6	20.4	63.1	-
% retired in 2000	1.4	3.5	8	26.1	83.3	93.6
2000 - 1990	- 0.5	+ 0.9	+ 4.4	+ 5.6	+ 20	-

Data: OSF Public Opinion Barometer, "Social Structure and Ways of Life" 2000,

Table 4. Change in employment (mil.) 1989-1997.

Sector	Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovakia	South OECD
Agriculture	-0.037	-0.346	-0.532	-1.44	0.328	-0.156	-1.498
Mining	-0.019	-0.108	-0.073	-0.19	-0.075	0.012	-0.148

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Manufacturing	-0.753	-0.466	-0.544	-0.991	-1.534	-0.228	-0.813
Electricity	-0.001	0.014	-0.033	0.091	0.054	0.014	-0.029
Construction	-0.176	0.088	-0.126	-1.221	-0.328	-0.094	-0.078
Trade	0.001	0.205	0.063	0.687	0.283	0.037	0.411
Transport	-0.044	0.032	-0.07	-0.286	-0.252	0.001	-0.025
Finance	0.024	0.072	0.045	0.14	0.038	0.022	1.331
Community service	-0.089	0.075	-0.012	0.485	-0.436	0.088	0.438
Total change	-1.094	-0.434	-1.282	-2.725	-1.922	-0.304	-0.411
Job creation	0.025	0.486	0.108	1.403	0.703	0.174	2.18
[%]	0.58	9.04	2.18	8.25	6.42	6.97	5.30
Job destruction	-1.119	-0.92	-1.39	-4.128	-2.625	-0.478	-2.591
[%]	-26.07	-17.11	-28.07	-24.28	-23.98	-19.14	-6.30

Source: computations based on ILO Yearbook of Statistics 1998