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**The Impact of Transition and Economic Integration on
Manufacturing Employment Change:
An Assessment for the Regions of the European Union New
Member-States**

(paper submitted for the Young Scientists' Session)

Abstract:

The spatial and structural dynamics generated (or released) in the contexts of the interacting processes of transition and economic integration have already left a clear mark in the economic landscape of the EU new member-states (NMS).

The trade-adjusted shift-share analysis, an extension of the traditional shift-share analysis, is performed in order to evaluate the impact of these processes on the EU NMS regional manufacturing employment change. Despite its non-theoretical character, the method allows for valuable results to be drawn on the issue.

The analysis is conducted at the NUTS III spatial level on the basis of manufacturing data according to NACE 2-digit classification for the period 1991-2000. This is a period of extreme importance since it includes both the shocks and the upsets of the early transition and the more recent trends of the pre-accession period. The analysis focuses on the manufacturing sector due to its significance in the former politico-economic regime and due to the high pressures that this sector has encountered afterwards.

Based on the available statistical data, the analysis is conducted for the regions of Bulgaria, Romania, Hungary, Estonia and Slovenia. These regions constitute a highly heterogeneous group since areas with different economic, demographic and geographic characteristics are represented.

Key-Words: EU new member-states, regional manufacturing employment change, trade-adjusted shift-share analysis

1. Introduction.

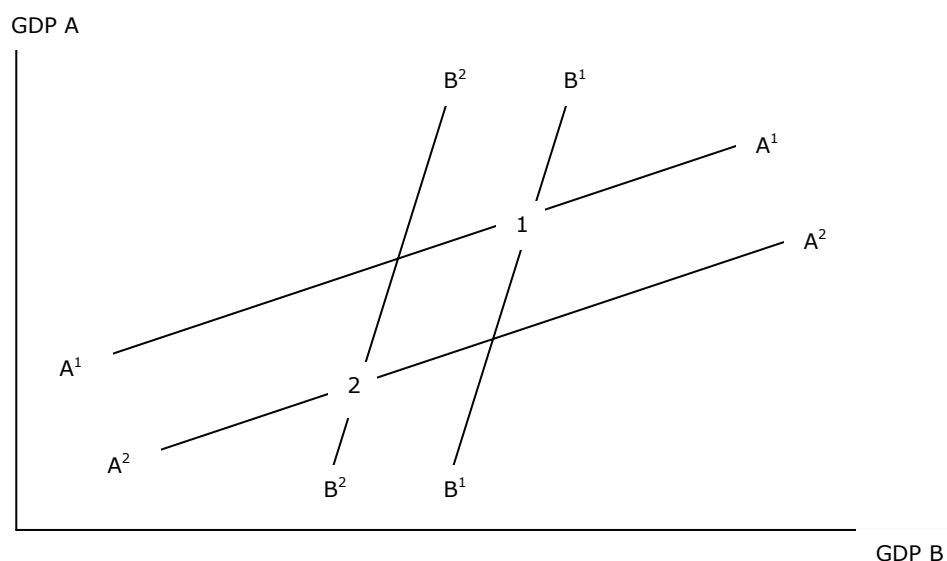
After the collapse of the bi-polar world, the ensuing EU new member-states (NMS)¹, has been experiencing the impact of the processes of transition, from central planning to free market economy, and integration, into the economic space of the EU, as pre-conditions for historical (re)unification and economic catch-up with the prosperous Western European (EU-15) countries (Petraikos et al, 2000). The dynamics generated (released) under these interacting market-driven processes, that are still in motion, have resulted to a shock reflected in key economic indicators of the EU NMS, causing important changes in their economic structures. The old structures of internal organization and external relations collapsed and being replaced, often in a painful and forceful way, as the outcome of the activation of market forces and the adoption of certain political alternatives (Cornett, 1999).

During the socialist period the EU NMS were under the Soviet dominance being members of the Council for Mutual Economic Assistance (COMECON). COMECON had almost no economic transaction with the rest of the world. Its break-up, after the collapse of the Soviet system, lead the ensuing EU NMS to a state of economic downturn and isolation. The trade activity in the context of COMECON was not based on a clear price mechanism and, as a result, the prices inside the COMECON were significantly different from the international (outside the COMECON) prices. In most of the cases, the low quality industrial products were hyper-valued concerning the trade activity between the COMECON member-states (Krugman and Obstfeld, 1995).

The harmonization with the international prices deteriorated the EU NMS terms of trade, during the pre-accession period, as the payments were conducted in "strong" currencies i.e. the US dollar or the German mark. The price competition in the international, free, markets decreased the interdependence among the EU NMS with negative impact on their GDP levels (Diagram 1). Under the COMECON context, the EU NMS were interdependent. The higher the GDP of a COMECON country (A) the higher its imports from another COMECON country (B) with positive effects concerning the GDP level of latter (country B). When the COMECON countries (A and B) started to trade (extensively) with non-COMECON countries the point of balance changed (from point 1 to point 2) with negative impact on their GDP levels.

¹ These are the countries of Slovenia, Hungary, Slovakia, Czech Rep., Poland, Latvia, Lithuania and Estonia that became EU members in May 2004, and the countries of Bulgaria and Romania that are going to become EU members in January 2007.

Diagram 1: The deterioration of the EU NMS terms of trade and the negative impact on their GDP levels.



Source: Krugman and Obstfeld (1995:501) / Own elaboration

In the early period of transition, the EU NMS experienced, indeed, a major fall in their GDP figures. Despite the partial reversal of this trend in the respective late period, the EU NMS still recorded significant hysteresis comparing both to the EU-15 economy and to their previous respective figures (Table 1). With the exception of Slovenia that has GDP levels comparable to the respective of the countries of the European South, the gap with the EU-15 countries is wide signifying the existence of an “east-west” pattern of development in the enlarged EU (Petraokos et al, 2004). Characteristic is the fact that in the year 2000, only the countries of Central Europe presented higher or slightly smaller GDP figures comparing to the respective of the year 1990.

Table 1: The EU NMS economic performance, Year 2000

	GDP	Per Capita GDP
	GDP90=100	PCGDPEU-15=100
BULGARIA	67	7.4
ROMANIA	76	7.9
CZECH REP.	95	24.0
HUNGARY	99	21.9
POLAND	122	19.6
SLOVAKIA	100	17.5
SLOVENIA	109	43.4
ESTONIA	77	18.0
LATVIA	60	14.5
LITHUANIA	62	15.4

Source: Data from REGIO Database (EUROSTAT) / Own elaboration

The sector of manufacturing has been affected the most (Table 2), mainly due to its inherent significance in the former regime (Gàcs, 2003) and, of course, due to the changes that has undergone afterwards (Bevan et al, 2001). A series of transition policies – privatizations of the industrial enterprises and deregulations of the markets – were implemented in the sector, with the restructuring of the industrial base as the ultimate purpose.

Table 2: The evolution of industrial output and industrial employment in the EU NMS, Years 1990 and 2000

	INDUSTRIAL OUTPUT		INDUSTRIAL EMPLOYMENT	
	(millions of €)		(thousands of employees)	
	1990	2000	1990	2000
BULGARIA	3.799	2.158	585	364
ROMANIA	18.806	9.723	1.742	887
CZECH REP.	17.986	14.550	1.717	1.425
HUNGARY	23.027	10.592	1.355	1.029
POLAND	42.052	30.866	3.528	3.170
SLOVAKIA	2.371	4.576	677	538
SLOVENIA	5.630	4.904	357	263
ESTONIA	1.287	901	243	151
LATVIA	585	1.003	384	188
LITHUANIA	4.909	2.160	592	320

Source: Data from REGSTAT Database (ZEI) / Own elaboration

The study of impact of integration and transition on the EU NMS structural patterns has recently attracted the attention of the relative scientific literature as development prospects and spatial imbalances seem to be affected by structural parameters. This strand of literature, however, despite its growing importance has not yet fully understood the pre-accession experience of the EU NMS, especially at the regional level (Resmini and Traistaru, 2003; Petrakos and Kallioras, 2006).

The aim of the paper is to evaluate the impact of the processes of integration and transition on the EU NMS regional manufacturing employment change with the performance of the trade-adjusted shift-share analysis. This method, which is an extension of the traditional shift-share analysis, allows for valuable results to be drawn on the issue despite its non-theoretical background. The analysis is conducted at the NUTS III spatial level on the basis of manufacturing data according to NACE 2-digit classification for the period 1991-2000. This is a period of extreme importance since it includes both the shocks and the upsets of the early transition and the more recent trends of the pre-accession period. Based on the available statistical data, the analysis is conducted for the regions of Bulgaria, Romania, Hungary, Estonia and Slovenia. These regions constitute a highly heterogeneous group since areas with different economic, demographic and geographic characteristics are represented.

2. The trade-adjusted shift-share analysis method for employment change.

The national economy is not the appropriate benchmark for the measurement of the changes occurred in the sub-national economies as international trade becomes increasingly important. This is one serious point of criticism concerning the traditional shift-share analysis method. Markusen et al (1991) in order to overcome to deal with such a criticism proposed a shift-share formulation where the conventional national-growth and industry-mix components are further disaggregated to account for regional employment growth resulting from changes in exports, imports and domestic demand. In addition, since output has been used as the base against which the relative importance of both imports and exports has been measured, the national-growth and industry-mix components have been further extended to account for possible effects on employment due to productivity gains. That is, it represents hypothetical losses in employment in cases where output growth leads to disproportionately smaller employment growth.

In the study of Markusen et al (1991) there have been some typographical errors that prevent the reader to fully comprehend the proposed methodology. These errors have offered the opportunity for a fertile discussion of this methodological proposition in the literature (Dinc and Haynes, 1998a; 1998b). Noponen et al (1998) account for these errors and respond to the comments raised in the literature. This section describes the methodology proposed by Markusen et al (1991) and further clarified in Noponen et al (1998).

Let E be standing for employment, i for manufacturing branches, r for regions, 0 for base year, t for terminal year. The change in regional manufacturing employment is given by $\Delta E^r = \sum_i E_{i0}^r e_i^r$, where $e_i^r = \frac{E_{it}^r - E_{i0}^r}{E_{i0}^r}$. The regional

employment change is decomposed as

$$\Delta E^r \equiv \underbrace{\sum_i E_{i0}^r e_i^r}_{\text{national component}} + \underbrace{\sum_i E_{i0}^r (e_i^r - e_i)}_{\text{industry mix}} + \underbrace{\sum_i E_{i0}^r (e_i^r - e_i)}_{\text{competitive shift}}$$

$$\text{where } e_i^r = \frac{\sum_r E_{it}^r - E_{i0}^r}{\sum_r E_{ir}^r} \text{ and } e = \frac{\sum_i \sum_r E_{it}^r - E_{i0}^r}{\sum_i \sum_r E_{ir}^r}.$$

The trade adjusted shift share analysis is funded on the relationship

$$Q = D + X - M,$$

where Q is the value of manufacturing production, D is the domestic demand ($D = Q - X + M$, is the apparent consumption), X stands for the exports and M stands for the imports.

The national component of the trade adjusted shift-share analysis is given by

$$\boxed{\sum_i E_{i0}^r e = \sum_i E_{i0}^r (e + q - q) = \sum_i E_{i0}^r q + \sum_i E_{i0}^r (e - q)},$$

where q is the national-level growth of the total manufacturing output. The growth can be further decomposed as, $q = \frac{Q_t - Q_0}{Q_0} = \frac{(D_t + X_t - M_t) - (D_0 + X_0 - M_0)}{Q_0} = \frac{dD_0 + xX_0 - mM_0}{Q_0}$,

where $d = \frac{D_t - D_0}{D_0}$ represents growth in the domestic demand, $x = \frac{X_t - X_0}{X_0}$

represents growth in the total manufacturing exports, and $m = \frac{M_t - M_0}{M_0}$ represents

growth in the total manufacturing imports. The national component is fully decomposed as

$$\boxed{\sum_i E_{i0}^r e = \sum_i E_{i0}^r \left(d \frac{D_0}{Q_0} \right) + \sum_i E_{i0}^r \left(x \frac{X_0}{Q_0} \right) + \sum_i E_{i0}^r \left(m \frac{M_0}{Q_0} \right) + \sum_i E_{i0}^r (e - q)},$$

with the last factor to represent the component of the national labor productivity.

The industry-mix component of the trade adjusted shift-share analysis is given by

$$\boxed{\sum_i E_{i0}^r (e_i - e) = \sum_i E_{i0}^r (e_i - e + q_i - q - q_i + q) = \sum_i E_{i0}^r (q_i - q) + \sum_i E_{i0}^r ((e_i - e) - (q_i - q))}, \quad \text{where}$$

q_i is the national-level growth of the output of each manufacturing sector i . The term

$\sum_i E_{i0}^r (q_i - q)$ can be further decomposed as

$$\sum_i E_{i0}^r \left(\frac{Q_{it} - Q_{i0}}{Q_{i0}} - \frac{Q_t - Q_0}{Q_0} \right) = \sum_i E_{i0}^r \left[\left(d_i \frac{D_{i0}}{Q_{i0}} + x_i \frac{X_{i0}}{Q_{i0}} - m_i \frac{M_{i0}}{Q_{i0}} \right) - \left(d \frac{D_0}{Q_0} + x \frac{X_0}{Q_0} - m \frac{M_0}{Q_0} \right) \right],$$

where $d_i = \frac{D_{it} - D_{i0}}{D_{i0}}$, $x_i = \frac{X_{it} - X_{i0}}{X_{i0}}$, $m_i = \frac{M_{it} - M_{i0}}{M_{i0}}$ is the national-level growth of the

changes in the domestic demand, the exports and the imports of each manufacturing sector i . The industry-mix component of the trade-adjusted shift-share analysis is fully decomposed as

$$\boxed{\sum_i E_{i0}^r (e_i - e) = \sum_i E_{i0}^r \left(d_i \frac{D_{i0}}{Q_{i0}} - d \frac{D_0}{Q_0} \right) + \sum_i E_{i0}^r \left(x_i \frac{X_{i0}}{Q_{i0}} - x \frac{X_0}{Q_0} \right) - \sum_i E_{i0}^r \left(m_i \frac{M_{i0}}{Q_{i0}} - m \frac{M_0}{Q_0} \right) + \sum_i E_{i0}^r ((e_i - e) - (q_i - q))},$$

with the last factor to represent the component of the national labor productivity for each manufacturing sector i .

The competitive-shift component in the trade-adjusted shift share analysis remains the same as in the original version of the method, keeping the form

$$\boxed{\sum_i E_{i0}^r (e_i^r - e_i)}.$$

The national component of the trade-adjusted shift-share analysis has, thus, four subcomponents, namely “national exports”, “national imports”, “national domestic demand”, and “national labor productivity”. These would represent the hypothetical effect if employment were to expand proportionately to national exports, the effects on employment through national imports substituting for domestic production, the effects on employment through a residual effect of national demand shifts, and a correction factor as productivity gains may lead to employment losses if output growth leads to disproportionately smaller job growth.

The industry-mix component of the modified shift-share method also has four subcomponents, namely “exports industry-mix”, “imports industry-mix”, “domestic industry-mix”, and “labor productivity industry-mix”. The first represents a hypothetical employment effect as if a region’s industries expanded proportionally to national export sales in those industries. The second provides for the hypothetical employment effect through import substitution for local industries. The third accounts for the residual effect of domestic demand on local industries, and the fourth accounts for possible effects on employment in cases where a region’s industrial structure has outperformed or lagged behind the nation’s productivity growth.

The positive sign of the “exports industry-mix” subcomponent indicates that $\frac{X_{it} - X_{i0}}{Q_{i0}} - \frac{X_t - X_0}{Q_0} > 0$. This relationship can be considered as an increase of the sectoral exports greater than the increase of the exports of the total manufacturing, at the national level, when both factors are positive with the first being higher than the second one. This relationship can be considered as an increase of the sectoral exports and a decrease of the exports of the total manufacturing, at the national level, when only the first factor is positive. This relationship can be considered as a decrease of the sectoral exports lower than the decrease of the exports of the total manufacturing, at the national level, when both factors are negative with the first being higher than the second one. The exact opposite things stand when the sign of the “exports industry-mix” subcomponent is negative.

The positive sign of the “imports industry-mix” subcomponent indicates that $\frac{M_{it} - M_{i0}}{Q_{i0}} - \frac{M_t - M_0}{Q_0} > 0$. This relationship can be considered as an increase of the sectoral imports greater than the increase of the imports of the total manufacturing, at the national level, when both factors are positive with the first being higher than the second one. This relationship can be considered as an increase of the sectoral imports and a decrease of the imports of the total manufacturing, at the national level, when only the first factor is positive. This relationship can be considered as a decrease of the sectoral imports lower than the decrease of the imports of the total manufacturing, at the national level, when both factors are negative with the first

being higher than the second one. The exact opposite things stand when the sign of the "imports industry-mix" subcomponent is negative.

The positive sign of the "labor productivity industry-mix" subcomponent indicates that $(e_i - q_i) - (e - q) < 0 \Leftrightarrow (q_i - e_i) - (q - e) > 0$. This relationship can be considered as an increase of the sectoral labor productivity greater than the increase of the labor productivity of the total manufacturing, at the national level, when both factors are positive with the first being higher than the second one. This relationship can be considered as an increase of the sectoral labor productivity and a decrease of the labor productivity of the total manufacturing, at the national level, when only the first factor is positive. This relationship can be considered as a decrease of the sectoral labor productivity lower than the decrease of the labor productivity of the total manufacturing, at the national level, when both factors are negative with the first being higher than the second one. The exact opposite things stand when the sign of the "labor productivity industry-mix" subcomponent is negative.

It becomes evident that the employment effects attributed to domestic demand, exports and imports shifts are all hypothetical. The basic assumption is that output-based measures are translated into jobs as if employment to output ratios had remained constant over the period studied. The labor productivity components come into play to account (as correction factors) for possible shifts of employment-output ratios during the period. Thus, a national labor-productivity component may be negative (positive) if over the study period output growth has outpaced (lagged behind) employment growth at the national level.

3. Regional manufacturing employment change in the EU new member-states: An assessment with the performance of the trade-adjusted shift-share analysis method.

The results of the performance of the traditional shift-share analysis method for the regions of Bulgaria, Romania, Hungary, Slovenia and Estonia² (Tables 4-8) and the results of the decomposition of the "exports industry-mix" (Tables 9-13), the "imports industry-mix" (Tables 14-18) and the "labor productivity industry-mix" (Tables 19-23) subcomponents, for the period 1991-2000, are extremely enlightening concerning the impact of economic integration and transition³ on manufacturing employment change⁴.

² The names of the regions of Bulgaria, Romania, Hungary, Slovenia and Estonia are provided in Table 3, in the Appendix.

³ The notion of integration incorporates that of transition since the impact of these two processes is inextricable, concerning the EU NMS, during the pre-accession period.

⁴ Tables 4-23 are in the Appendix

The decomposition of the "exports industry-mix" subcomponent reveals that in all EU NMS regions under survey the impact of the industry mix is positive concerning the manufacturing employment changes through the increases of exports. The positive sign of the subcomponent reveals that the exports increases in the sectors that each region is specialized are higher than the increases of the exports of the total manufacturing, at the national level. The negative sign of the subcomponent reveals that the exports increases in the sectors that each region is specialized are lower than the increases of the exports of the total manufacturing, at the national level. In both cases the impact is positive, even though in the case of the negative signs it can be supported that essentially the impact is negative since the positive impact at the regional level is lower comparing to positive impact at the national level.

The decomposition of the "imports industry-mix" subcomponent reveals that in all EU NMS regions under survey the impact of the industry mix is negative concerning the manufacturing employment changes through the increases of imports. The positive sign of the subcomponent reveals that the imports increases in the sectors that each region is specialized are higher than the increases of the imports of the total manufacturing, at the national level. The negative sign of the subcomponent reveals that the imports increases in the sectors that each region is specialized are lower than the increases of the imports of the total manufacturing, at the national level. In both cases the impact is negative, even though in the case of the negative signs it can be supported that essentially the impact is positive since the negative impact at the regional level is lower comparing to negative impact at the national level.

The decomposition of the "labor productivity industry-mix" subcomponent reveals that in all EU NMS regions under survey the levels of industrial output were increased at rates higher than the levels of industrial employment. This evolution is equivalent to losses in potential job positions even though under a certain perspective can be considered positive since this loss can be attributed to productivity gains (output increases). The positive sign of the subcomponent reveals that the productivity increases in the sectors that each region is specialized are higher than the increases of the labor productivity of the total manufacturing, at the national level. The negative sign of the subcomponent reveals that the productivity increases in the sectors that each region is specialized are lower than the increases of the labor productivity of the total manufacturing, at the national level. In both cases the impact is negative. However, things would have been worse, if this loss could not be attributed to productivity gains as, especially, in the case of the positive signs.

4. Conclusions.

The results of the trade-adjusted shift-share analysis provide the evaluation of the impact of the interacting processes of economic integration and transition on the EU NMS regional manufacturing employment changes. The industrial employment losses in the regions of Bulgaria and Romania and in many regions of Hungary, Slovenia and Estonia reveal that the positive impact of the exports increases did not manage to surpass the respective negative impact of the imports increases. This is an indication that these EU NMS regions have been vulnerable to deteriorating terms of trade pertaining to most manufacturing sectors during the pre-accession period. It appears that these regions did not manage to recover jobs lost due to increased international competition and due to the implemented restructuring policies. In the majority of the regions of Hungary and Slovenia, however, significant part of this negative impact can be attributed to productivity increases. This is not the situation, at least not in the same degree, for the majority of the regions of Bulgaria, Romania and Estonia. The positive manufacturing employment changes in the other EU NMS regions under survey can be considered as the result of the strength of their industrial mixes to the pressures of the competitive economic environment as the positive impact of the exports increases managed to surpass the respective negative impact of the imports increases.

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Appendix.

Table 3: Names of the regions of Bulgaria, Romania, Hungary, Slovenia and Estonia

BULGARIA (BG)		ROMANIA (RO)		HUNGARY (HU)		SLOVENIA (SI)		ESTONIA (EE)	
043	BLAGOEVRAD	012	BOTOSANI	031	GYOR - MOSON - SOPRON	001	POMURSKA	001	POHJA - EESTI
055	SMOLYAN	013	IASI	032	VAS	002	PODRAVSKA	006	KESK - EESTI
056	KARDZHALI	015	SUCEAVA	041	BARANYA	003	KOROSKA	007	KIRDE - EESTI
044	PERNIK	016	VASLUI	042	SOMOGY	009	GORENJSKA	004	LAANE - EESTI
045	KUYSTENDIL	024	GALATI	071	BNMS - KISKUN	00B	GORISKA	008	LOUNA - EESTI
053	HASKOVO	025	TULCEA	022	KOMAROM - ESZTERCOM	00C	OBALNO - KRASKA		
061	BURGAS	052	CARAS - SEVERIN	033	ZALA	004	SAVINJSKA		
063	YAMBOL	064	MARAMURES	051	BORSOD - ABAUJ - ZEMPLEN	006	SPODNJEPOSAVSKA		
011	VILDIN	023	COSTANTA	053	NOGRAD	00A	NOTRANJSKO - KRASKA		
012	MONTANA	032	CALARASI	061	HAJDU - BIHAR	00D	JUGOVZHODNA SLOVENIJA		
013	VRATSA	034	GIURGIU	063	SZABOLCS - SZATMAR - BEREG	00E	OSREDNYESLOVENSKA		
021	PLEVEN	037	TELEORMAN	072	BEKES	005	ZASAVSKA		
025	RUSSE	041	DOLJ	073	CSONGRAD				
032	DOBRICH	043	MEHEDINTI	011	BUDAPEST				
036	SILISTRA	044	OLT	012	PEST				
022	LOVECH	051	ARAD	021	FEJER				
023	TARNOVO	054	TIMIS	023	VESZPREM				
024	GABROVO	061	BIHOR	043	TOLNA				
031	VARNA	065	SATU MARE	052	HEVES				
033	SHUMEN	011	BNMAU		JASZ - NAGYKUN - SZOLNOK				
034	TURGOVISHTI	014	NEAMT	062					
035	RAZGRAD	021	BRAILA						
041	SOFIA	022	BUZAU						
042	SOFIA	026	VRANCEA						
051	PLOVDIV	031	ARGES						
052	STARA ZAGORA	033	DAMBOVITA						
054	PAZARDZHIK	035	IALOMITA						
062	SLIVEN	036	PRAHOVA						
		042	GORJ						
		045	VALCEA						
		053	HUNEDOARA						
		062	BISTRITA - NASAUD						
		063	CLUJ						
		066	SALAJ						
		071	ALBA						
		072	BRASOV						
		073	COVASNA						
		074	HARGHITA						
		075	MURES						
		076	SIBIU						
		081 + 082	BUCURESTI + ILFOV						

Source: www.europa.eu.int/comm/eurostat

Table 4: Results of the trade-adjusted shift-share analysis for the regions of Bulgaria, Period 1991-2000

	CHANGE	NATIONAL COMPONENT			INDUSTRY MIX			COMPETITIVE SHIFT		
		DOMESTIC EXPORTS DEMAND	IMPORTS	PROD/TY	DOMESTIC EXPORTS DEMAND	IMPORTS	PROD/TY			
BG011	-5.654	68	300	-329	-3.873	744	142	-51	-574	-2.080
BG012	-6.491	95	421	-462	-5.432	277	39	17	-301	-1.146
BG013	-6.975	102	452	-495	-5.828	563	100	-18	-498	-1.352
BG021	-6.492	100	443	-486	-5.717	163	13	38	-231	-815
BG022	-7.881	157	697	-764	-8.991	-316	-60	20	1	1.376
BG023	-6.361	123	545	-597	-7.027	0	1	-5	-161	761
BG024	-5.693	113	501	-550	-6.469	-382	-80	44	104	1.025
BG025	-7.725	148	657	-720	-8.474	287	53	-16	-381	720
BG031	-8.354	147	653	-716	-8.420	680	132	-51	-637	-142
BG032	-6.550	96	424	-465	-5.474	47	-17	65	-147	-1.079
BG033	-5.927	106	471	-517	-6.082	1.126	205	-51	-871	-316
BG034	-1.989	40	178	-195	-2.294	81	4	24	-102	274
BG035	-5.404	88	391	-429	-5.042	1.216	226	-65	-907	-882
BG036	-3.725	52	232	-254	-2.989	40	-8	39	-89	-747
BG041	-25.070	542	2.402	-2.635	-30.994	1.778	368	-197	-1.880	5.545
BG042	-9.965	154	682	-748	-8.803	88	12	5	-257	-1.098
BG043	-12.727	227	1.007	-1.104	-12.991	-481	-114	90	24	615
BG044	-5.246	87	385	-422	-4.963	850	181	-108	-675	-581
BG045	-7.872	116	513	-562	-6.614	226	30	19	-294	-1.305
BG051	-15.580	330	1.461	-1.603	-18.856	-510	-104	51	-96	3.747
BG052	-4.640	100	444	-487	-5.734	-616	-99	-8	265	1.495
BG053	-4.037	91	403	-441	-5.194	633	96	24	-523	876
BG054	-16.295	240	1.063	-1.166	-13.713	880	128	46	-875	-2.898
BG055	-3.461	60	266	-291	-3.428	232	25	35	-223	-136
BG056	-2.719	50	223	-244	-2.873	353	53	14	-291	-4
BG061	-5.898	116	515	-565	-6.641	1.440	262	-64	-1.087	126
BG062	-6.736	90	397	-435	-5.118	85	1	35	-167	-1.623
BG063	-3.947	55	244	-267	-3.143	282	47	0	-254	-911

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 5: Results of the trade-adjusted shift-share analysis for the regions of Romania, Period 1991-2000

	CHANGE	NATIONAL COMPONENT				INDUSTRY MIX				COMPETITIVE SHIFT
		DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	
RO011	-16.169	-6.480	797	-589	-10.430	1.994	51	62	-724	-849
RO012	-10.058	-3.802	468	-346	-6.119	992	44	29	-373	-952
RO013	-18.340	-7.731	951	-703	-12.444	227	13	6	-83	1.424
RO014	-23.282	-8.141	1.001	-740	-13.105	1.932	5	63	-670	-3.627
RO015	-25.923	-9.185	1.130	-835	-14.784	4.351	200	127	-1.644	-5.282
RO016	-7.839	-3.189	392	-290	-5.134	89	22	1	-44	314
RO021	-10.938	-4.206	517	-382	-6.769	53	4	1	-19	-138
RO022	-23.251	-7.996	984	-727	-12.871	902	-26	32	-290	-3.256
RO023	-17.064	-6.185	761	-562	-9.955	-220	-17	-6	92	-971
RO024	-10.991	-5.717	703	-520	-9.202	-619	-74	-14	270	4.182
RO025	-5.284	-2.264	279	-206	-3.645	525	12	16	-189	189
RO026	-7.545	-3.296	405	-300	-5.305	1.070	44	32	-400	205
RO031	-19.926	-12.922	1.589	-1.175	-20.799	-2.050	-70	-62	769	14.793
RO032	-5.020	-1.750	215	-159	-2.816	531	12	17	-192	-878
RO033	-18.717	-6.185	761	-562	-9.956	-2.558	-91	-77	956	-1.003
RO034	-2.365	-789	97	-72	-1.270	137	6	4	-51	-426
RO035	-4.329	-1.492	184	-136	-2.402	743	30	22	-278	-1.000
RO036	-28.535	-9.927	1.221	-902	-15.979	-1.574	-127	-42	640	-1.846
RO037	-6.878	-2.579	317	-234	-4.152	61	-1	2	-19	-273
RO041	-23.465	-8.624	1.061	-784	-13.881	-1.344	-37	-42	498	-313
RO042	-9.925	-3.424	421	-311	-5.512	-552	-21	-17	208	-717
RO043	-4.916	-2.543	313	-231	-4.093	-151	12	-6	46	1.738
RO044	-11.033	-4.249	523	-386	-6.839	-136	-27	-2	69	15
RO045	-8.699	-4.163	512	-378	-6.700	623	12	20	-222	1.598
RO051	-15.333	-6.448	793	-586	-10.378	914	65	25	-358	641
RO052	-6.402	-2.803	345	-255	-4.511	-469	-37	-12	190	1.151
RO053	-13.050	-4.808	591	-437	-7.740	67	-53	7	16	-693
RO054	-33.014	-13.342	1.641	-1.213	-21.475	778	61	20	-304	819
RO061	-19.546	-9.576	1.178	-871	-15.414	1.583	86	45	-603	4.026
RO062	-10.595	-4.403	541	-400	-7.086	623	32	18	-235	316
RO063	-39.262	-14.682	1.806	-1.335	-23.633	1.202	-66	45	-364	-2.235
RO064	-11.091	-5.312	653	-483	-8.550	1.544	59	46	-574	1.525
RO065	-11.797	-4.426	544	-402	-7.125	700	38	20	-266	-878
RO066	-2.070	-2.287	281	-208	-3.681	895	2	29	-311	3.209
RO071	-11.108	-4.922	605	-447	-7.922	-471	-17	-14	179	1.901
RO072	-35.494	-14.392	1.770	-1.308	-23.165	-6.936	-210	-212	2.564	6.394
RO073	-6.739	-3.411	420	-310	-5.491	300	30	7	-122	1.840
RO074	-11.275	-4.987	613	-453	-8.027	1.836	80	54	-690	299
RO075	-27.859	-10.868	1.337	-988	-17.494	1.827	42	57	-657	-1.114
RO076	-26.165	-11.065	1.361	-1.006	-17.810	269	10	8	-93	2.162
RO08	-165.288	-52.812	6.496	-4.801	-85.008	-10.007	-302	-307	3.720	-22.267

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 6: Results of the trade-adjusted shift-share analysis for the regions of Hungary, Period 1991-2000

	CHANGE	NATIONAL COMPONENT				INDUSTRY MIX				COMPETITIVE SHIFT
		DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	
HU011	-91.400	68.996	337.201	-294.586	-113.641	-12.433	98.434	-74.275	-8.841	-92.256
HU012	1.214	8.271	40.422	-35.313	-13.623	-2.565	6.225	-2.924	-550	1.272
HU021	16.697	4.301	21.022	-18.365	-7.085	-557	6.768	-5.404	-612	16.628
HU022	10.118	3.140	15.347	-13.407	-5.172	2.107	-4.230	1.632	256	10.446
HU023	7.687	4.346	21.241	-18.557	-7.159	3.874	-2.237	-1.881	15	8.044
HU031	10.190	7.021	34.314	-29.977	-11.564	-3.263	5.168	-1.299	-423	10.214
HU032	17.772	2.219	10.847	-9.476	-3.656	-590	-2.010	2.359	163	17.915
HU033	5.597	3.007	14.698	-12.841	-4.953	225	-4.373	3.631	329	5.874
HU041	1.318	3.301	16.132	-14.093	-5.437	1.589	-7.553	5.075	554	1.752
HU042	4.043	1.791	8.751	-7.645	-2.949	-143	-1.421	1.395	104	4.160
HU043	3.977	1.491	7.286	-6.365	-2.455	487	-3.122	2.266	233	4.157
HU051	-10.969	8.649	42.269	-36.927	-14.245	10.948	-9.913	-2.155	392	-9.986
HU052	2.006	2.474	12.090	-10.562	-4.074	-191	843	-550	-96	2.073
HU053	6.494	1.648	8.056	-7.038	-2.715	1.073	151	-1.200	-67	6.585
HU061	-1.026	5.462	26.694	-23.321	-8.996	-1.509	-1.423	2.759	103	-795
HU062	1.719	3.898	19.053	-16.645	-6.421	-2.623	3.023	-50	-222	1.705
HU063	1.294	3.247	15.867	-13.862	-5.347	1.867	-5.907	3.348	405	1.677
HU071	3.849	4.689	22.914	-20.019	-7.722	100	-5.808	5.020	435	4.240
HU072	1.762	3.299	16.124	-14.087	-5.434	878	-7.559	5.786	577	2.177
HU073	3.602	3.858	18.853	-16.470	-6.354	656	-5.584	4.268	408	3.966

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 7: Results of the trade-adjusted shift-share analysis for the regions of Slovenia, Period 1991-2000

	CHANGE	NATIONAL COMPONENT				INDUSTRY MIX				COMPETITIVE SHIFT
		DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	
SI001	1.888	2.916	7.898	-7.580	-3.682	450	-2.728	2.370	78	2.166
SI002	4.103	4.775	12.930	-12.410	-6.028	575	63	-461	70	4.589
SI003	809	1.509	4.087	-3.923	-1.905	515	756	-1.108	27	851
SI004	416	4.697	12.719	-12.208	-5.929	1.180	1.124	-1.937	82	689
SI005	-35	607	1.645	-1.579	-767	-159	697	-571	-8	99
SI006	1.329	738	1.999	-1.919	-932	121	-936	837	23	1.398
SI009	-3.962	5.253	14.225	-13.653	-6.632	702	-156	-336	83	-3.449
SI00A	1.096	727	1.969	-1.890	-918	280	-25	-174	19	1.107
SI00B	441	2.106	5.702	-5.473	-2.658	-1.578	519	620	-47	1.250
SI00C	681	991	2.685	-2.577	-1.252	-118	287	-196	2	858
SI00D	1.030	2.918	7.901	-7.584	-3.683	-327	29	211	16	1.548
SI00E	-14.869	18.870	51.098	-49.043	-23.821	-2.926	-1.772	3.874	95	-11.244

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 8: Results of the trade-adjusted shift-share analysis for the regions of Estonia, Period 1991-2000

	CHANGE	NATIONAL COMPONENT				INDUSTRY MIX				COMPETITIVE SHIFT
		DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	DOMESTIC DEMAND	EXPORTS	IMPORTS	PROD/TY	
EE001	-48.386	128.733	91.560	-212.799	-49.416	-199	780	-3.288	2.205	-5.962
EE004	1.512	5.939	4.224	-9.817	-2.280	-622	196	570	-64	3.366
EE006	-17.194	51.757	36.812	-85.556	-19.868	5.345	-2.064	-3.050	-118	-453
EE007	287	4.165	2.963	-6.885	-1.599	-511	95	788	-224	1.495
EE008	-1.017	8.188	5.824	-13.536	-3.143	-938	283	921	-131	1.515

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 9: Decomposition of the "exports industry-mix" subcomponent for the regions of Bulgaria, Period 1991-2000

	(1)	(2)	(1)-(2)
	$\sum_i E_{i0}^r \left(\frac{X_{it} - X_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{X_t - X_0}{Q_0} \right)$	
BG011	441	298	142
BG012	457	417	39
BG013	548	448	100
BG021	452	439	13
BG022	628	688	-60
BG023	540	538	1
BG024	415	495	-80
BG025	703	650	53
BG031	778	646	132
BG032	404	421	-17
BG033	674	469	205
BG034	181	176	4
BG035	615	389	226
BG036	222	230	-8
BG041	2.744	2.377	368
BG042	687	675	12
BG043	881	995	-114
BG044	562	381	181
BG045	538	508	30
BG051	1.339	1.444	-104
BG052	338	437	-99
BG053	496	400	96
BG054	1.182	1.054	128
BG055	289	264	25
BG056	274	222	53
BG061	775	512	262
BG062	394	393	1
BG063	288	242	47

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 10: Decomposition of the "exports industry-mix" subcomponent for the regions of Romania, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{X_{it} - X_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{X_t - X_0}{Q_0} \right)$	(1)-(2)
RO011	858	808	51
RO012	515	471	44
RO013	973	960	13
RO014	1.025	1.019	5
RO015	1.336	1.136	200
RO016	416	394	22
RO021	527	522	4
RO022	974	1.000	-26
RO023	752	770	-17
RO024	642	716	-74
RO025	294	282	12
RO026	453	409	44
RO031	1.535	1.605	-70
RO032	230	218	12
RO033	677	768	-91
RO034	104	98	6
RO035	215	185	30
RO036	1.115	1.242	-127
RO037	320	321	-1
RO041	1.033	1.070	-37
RO042	405	426	-21
RO043	326	314	12
RO044	503	531	-27
RO045	530	518	12
RO051	863	797	65
RO052	314	351	-37
RO053	551	604	-53
RO054	1.715	1.654	61
RO061	1.272	1.186	86
RO062	577	546	32
RO063	1.771	1.837	-66
RO064	719	660	59
RO065	586	548	38
RO066	290	288	2
RO071	594	611	-17
RO072	1.574	1.783	-210
RO073	451	422	30
RO074	698	618	80
RO075	1.395	1.353	42
RO076	1.385	1.375	10
RO08	6.253	6.555	-302

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 11: Decomposition of the "exports industry-mix" subcomponent for the regions of Hungary, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{X_{it} - X_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{X_t - X_0}{Q_0} \right)$	(1)-(2)
HU011	435.636	337.201	98.434
HU012	46.646	40.422	6.225
HU021	27.790	21.022	6.768
HU022	11.116	15.347	-4.230
HU023	19.004	21.241	-2.237
HU031	39.481	34.314	5.168
HU032	8.838	10.847	-2.010
HU033	10.325	14.698	-4.373
HU041	8.579	16.132	-7.553
HU042	7.330	8.751	-1.421
HU043	4.164	7.286	-3.122
HU051	32.356	42.269	-9.913
HU052	12.932	12.090	843
HU053	8.207	8.056	151
HU061	25.271	26.694	-1.423
HU062	22.076	19.053	3.023
HU063	9.960	15.867	-5.907
HU071	17.106	22.914	-5.808
HU072	8.566	16.124	-7.559
HU073	13.269	18.853	-5.584

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 12: Decomposition of the "exports industry-mix" subcomponent for the regions of Slovenia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{X_{it} - X_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{X_t - X_0}{Q_0} \right)$	(1)-(2)
SI001	5.170	7.898	-2.728
SI002	12.993	12.930	63
SI003	4.843	4.087	756
SI004	13.843	12.719	1.124
SI005	2.342	1.645	697
SI006	1.063	1.999	-936
SI009	14.069	14.225	-156
SI00A	1.944	1.969	-25
SI00B	6.221	5.702	519
SI00C	2.972	2.685	287
SI00D	7.930	7.901	29
SI00E	49.326	51.098	-1.772

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 13: Decomposition of the "exports industry-mix" subcomponent for the regions of Estonia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{X_{it} - X_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{X_t - X_0}{Q_0} \right)$	(1)-(2)
EE001	92.340	91.560	780
EE004	4.420	4.224	196
EE006	34.748	36.812	-2.064
EE007	3.058	2.963	95
EE008	6.107	5.824	283

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 14: Decomposition of the "imports industry-mix" subcomponent for the regions of Bulgaria, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{M_{it} - M_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{M_i - M_0}{Q_0} \right)$	-[(1)-(2)]
BG011	380	329	-51
BG012	445	462	17
BG013	514	495	-18
BG021	448	486	38
BG022	744	764	20
BG023	602	597	-5
BG024	506	550	44
BG025	736	720	-16
BG031	767	716	-51
BG032	400	465	65
BG033	568	517	-51
BG034	171	195	24
BG035	494	429	-65
BG036	216	254	39
BG041	2.832	2.635	-197
BG042	743	748	5
BG043	1.015	1.104	90
BG044	529	422	-108
BG045	543	562	19
BG051	1.552	1.603	51
BG052	495	487	-8
BG053	418	441	24
BG054	1.120	1.166	46
BG055	256	291	35
BG056	230	244	14
BG061	629	565	-64
BG062	400	435	35
BG063	267	267	0

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 15: Decomposition of the "imports industry-mix" subcomponent for the regions of Romania, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{M_{it} - M_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{M_i - M_0}{Q_0} \right)$	-[(1)-(2)]
RO011	538	600	62
RO012	320	349	29
RO013	706	712	6
RO014	695	758	63
RO015	715	841	127
RO016	291	292	1
RO021	386	387	1
RO022	712	744	32
RO023	577	571	-6
RO024	547	533	-14
RO025	193	209	16
RO026	272	303	32
RO031	1.253	1.190	-62
RO032	146	162	17
RO033	647	570	-77
RO034	69	73	4
RO035	115	137	22
RO036	965	923	-42
RO037	236	238	2
RO041	835	793	-42
RO042	332	316	-17
RO043	238	232	-6
RO044	396	394	-2
RO045	365	385	20
RO051	566	590	25
RO052	273	261	-12
RO053	443	450	7
RO054	1.205	1.226	20
RO061	834	879	45
RO062	387	405	18
RO063	1.321	1.366	45
RO064	443	489	46
RO065	387	406	20
RO066	185	214	29
RO071	468	454	-14
RO072	1.534	1.322	-212
RO073	305	312	7
RO074	404	458	54
RO075	948	1.004	57
RO076	1.012	1.020	8
RO08	5.167	4.860	-307

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 16: Decomposition of the "imports industry-mix" subcomponent for the regions of Hungary, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{M_{it} - M_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{M_i - M_0}{Q_0} \right)$	-[(1)-(2)]
HU011	368.750	294.475	-74.275
HU012	38.225	35.301	-2.924
HU021	23.762	18.358	-5.404
HU022	11.774	13.405	1.632
HU023	20.435	18.553	-1.881
HU031	31.266	29.967	-1.299
HU032	7.115	9.474	2.359
HU033	9.208	12.838	3.631
HU041	9.017	14.092	5.075
HU042	6.248	7.643	1.395
HU043	4.098	6.364	2.266
HU051	39.077	36.922	-2.155
HU052	11.109	10.558	-550
HU053	8.236	7.036	-1.200
HU061	20.555	23.314	2.759
HU062	16.688	16.639	-50
HU063	10.512	13.860	3.348
HU071	14.995	20.015	5.020
HU072	8.299	14.085	5.786
HU073	12.199	16.467	4.268

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 17: Decomposition of the "imports industry-mix" subcomponent for the regions of Slovenia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{M_{it} - M_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{M_i - M_0}{Q_0} \right)$	-[(1)-(2)]
SI001	5.210	7.580	2.370
SI002	12.872	12.410	-461
SI003	5.031	3.923	-1.108
SI004	14.145	12.208	-1.937
SI005	2.150	1.579	-571
SI006	1.082	1.919	837
SI009	13.989	13.653	-336
SI00A	2.063	1.890	-174
SI00B	4.853	5.473	620
SI00C	2.773	2.577	-196
SI00D	7.372	7.584	211
SI00E	45.169	49.043	3.874

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 18: Decomposition of the "imports industry-mix" subcomponent for the regions of Estonia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r \left(\frac{M_{it} - M_{i0}}{Q_{i0}} \right)$	$\sum_i E_{i0}^r \left(\frac{M_i - M_0}{Q_0} \right)$	$-[(1)-(2)]$
EE001 CAP	216.087	212.799	-3.288
EE004 BNM	9.247	9.817	570
EE006 BEU	88.606	85.556	-3.050
EE007 BEU	6.098	6.885	788
EE008 BNM	12.615	13.536	921

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 19: Decomposition of the "labor productivity industry-mix" subcomponent for the regions of Bulgaria, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r (e_i - q_i)$	$\sum_i E_{i0}^r (e - q)$	$(1)-(2)$
BG011	-4.448	-3.873	-574
BG012	-5.733	-5.432	-301
BG013	-6.326	-5.828	-498
BG021	-5.948	-5.717	-231
BG022	-8.991	-8.990	1
BG023	-7.188	-7.027	-161
BG024	-6.365	-6.469	104
BG025	-8.855	-8.474	-381
BG031	-9.057	-8.420	-637
BG032	-5.621	-5.474	-147
BG033	-6.953	-6.082	-871
BG034	-2.396	-2.294	-102
BG035	-5.949	-5.042	-907
BG036	-3.079	-2.989	-89
BG041	-32.874	-30.994	-1.880
BG042	-9.060	-8.803	-257
BG043	-12.967	-12.991	24
BG044	-5.638	-4.963	-675
BG045	-6.908	-6.614	-294
BG051	-18.952	-18.856	-96
BG052	-5.469	-5.734	265
BG053	-5.717	-5.194	-523
BG054	-14.588	-13.713	-875
BG055	-3.651	-3.428	-223
BG056	-3.164	-2.873	-291
BG061	-7.729	-6.641	-1.087
BG062	-5.285	-5.118	-167
BG063	-3.396	-3.143	-254

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 20: Decomposition of the "labor productivity industry-mix" subcomponent for the regions of Romania, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r(e_i - q_i)$	$\sum_i E_{i0}^r(e - q)$	(1)-(2)
RO011 INT	-11.154	-10.430	-724
RO012 BEX	-6.492	-6.119	-373
RO013 BEX	-12.527	-12.444	-83
RO014 INT	-13.775	-13.105	-670
RO015 BEX	-16.428	-14.784	-1.644
RO016 BEX	-5.178	-5.134	-44
RO021 INT	-6.788	-6.769	-19
RO022 INT	-13.162	-12.871	-290
RO023 BNM	-9.863	-9.955	92
RO024 BEX	-8.932	-9.202	270
RO025 BEX	-3.834	-3.645	-189
RO026 INT	-5.705	-5.305	-400
RO031 INT	-20.030	-20.799	769
RO032 BNM	-3.008	-2.816	-192
RO033 INT	-9.000	-9.956	956
RO034 BNM	-1.321	-1.270	-51
RO035 INT	-2.679	-2.402	-278
RO036 INT	-15.338	-15.979	640
RO037 BNM	-4.171	-4.152	-19
RO041 BNM	-13.382	-13.881	498
RO042 INT	-5.303	-5.512	208
RO043 BNM	-4.048	-4.093	46
RO044 BNM	-6.770	-6.839	69
RO045 INT	-6.922	-6.700	-222
RO051 BNM	-10.737	-10.378	-358
RO052 BEX	-4.321	-4.511	190
RO053 INT	-7.724	-7.740	16
RO054 BNM	-21.779	-21.475	-304
RO061 BNM	-16.017	-15.414	-603
RO062 INT	-7.322	-7.086	-235
RO063 INT	-23.996	-23.633	-364
RO064 BEX	-9.124	-8.550	-574
RO065 BNM	-7.391	-7.125	-266
RO066 INT	-3.993	-3.681	-311
RO071 INT	-7.743	-7.922	179
RO072 INT	-20.601	-23.165	2.564
RO073 INT	-5.613	-5.491	-122
RO074 INT	-8.717	-8.027	-690
RO075 INT	-18.151	-17.494	-657
RO076 INT	-17.903	-17.810	-93
RO08 CAP	-81.288	-85.008	3,720

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 21: Decomposition of the "labor productivity industry-mix" subcomponent for the regions of Hungary, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r(e_i - q_i)$	$\sum_i E_{i0}^r(e - q)$	(1)-(2)
HU011	-122.820	-113.979	-8.841
HU012	-14.213	-13.663	-550
HU021	-7.718	-7.106	-612
HU022	-4.932	-5.187	256
HU023	-7.165	-7.180	15
HU031	-12.021	-11.599	-423
HU032	-3.503	-3.667	163
HU033	-4.639	-4.968	329
HU041	-4.899	-5.453	554
HU042	-2.854	-2.958	104
HU043	-2.230	-2.463	233
HU051	-13.895	-14.288	392
HU052	-4.182	-4.086	-96
HU053	-2.790	-2.723	-67
HU061	-8.920	-9.023	103
HU062	-6.662	-6.440	-222
HU063	-4.958	-5.363	405
HU071	-7.310	-7.745	435
HU072	-4.874	-5.450	577
HU073	-5.964	-6.372	408

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 22: Decomposition of the "labor productivity industry-mix" subcomponent for the regions of Slovenia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r(e_i - q_i)$	$\sum_i E_{i0}^r(e - q)$	(1)-(2)
SI001	-3.551	-3.629	78
SI002	-5.899	-5.969	70
SI003	-1.864	-1.891	27
SI004	-5.796	-5.878	82
SI005	-772	-764	-8
SI006	-894	-917	23
SI009	-6.483	-6.565	83
SI00A	-890	-909	19
SI00B	-2.684	-2.637	-47
SI00C	-1.239	-1.241	2
SI00D	-3.632	-3.648	16
SI00E	-23.486	-23.580	95

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration

Table 23: Decomposition of the "labor productivity industry-mix" subcomponent for the regions of Estonia, Period 1991-2000

	(1)	(2)	
	$\sum_i E_{i0}^r(e_i - q_i)$	$\sum_i E_{i0}^r(e - q)$	(1)-(2)
EE001 CAP	-47.235	-49.439	2.205
EE004 BNM	-2.344	-2.281	-64
EE006 BEU	-19.990	-19.872	-118
EE007 BEU	-1.823	-1.599	-224
EE008 BNM	-3.275	-3.145	-131

Sources: Data from REGSTAT (ZEI) and COMEXT (EUROSTAT) Databases / Own elaboration