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**The Accession Treaty
and Consequences
for New EU Members**

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Executive summary

Now that the Accession Treaty is signed and the 'rules of the game' are set, the possible consequences of the EU accession for the prospective new members get into a new perspective. Various aspects (transfers, taxes, industry, agriculture and the services sector) of the impact of EU accession on the economy of the new EU member states are addressed in this study.

Out of the EUR 41 billion commitments for transfers to the new members in 2004-2006, not more than EUR 5 to 10 billion net additional financial resources will be available. This latter figure represents the real cost of enlargement for the EU-15. However, the very modest overall net financial gain (0.4% to 0.8% of the new members' GDP) should not be mixed up with the impact of transfers. Transfers from the Structural and Cohesion Funds will be concentrated in certain segments of the economy (transport, other infrastructure, environment, education and training, etc.) and their impact, provided the absorption capacity is there, may be quite large. At the same time, contributions to the EU budget and co-financing of EU projects will create serious fiscal tensions.

The impact of changes in taxation is controversial. Revenues from VAT will increase. The same applies to excise taxes on cigarettes and alcohol. Customs duties will be channelled to Brussels, a painful loss to the central budget. Pre-accession tax allowances for foreign investors have already ceased. Possible negative effects will be compensated by decreasing risk and new opportunities to participate in EU co-financed projects.

Some accession countries have been highly successful in productivity catching-up in several medium- and high-tech industries and reported considerable market share gains in the EU. A closer look at the winner and loser industries (in terms of market shares) suggests that manufacturing in the core EU countries may face challenges after enlargement. Most CEECs do not compete with the EU cohesion countries (Greece, Portugal and Spain), but rather with Austria, France, Germany, Italy and Ireland.

CEE agriculture will face serious difficulties after accession. Strict EU rules will force many small family farms to leave the market. Large farms will have to cope with rising costs. Modernization will become crucial, but the lack of funds will be a constraint. In the new members' trade in processed food products with the EU-15, the trade balance may worsen initially, but will probably improve in the longer run due to foreign direct investment.

The accession countries have successfully departed from their industry-dominated economic structure. Their GDP structure already resembles that of the developed market economies with a high share of the services sector. However, traditional services activities such as trade, transport and telecommunications dominate while segments with higher value added, especially business services, are lagging behind. The latter offer new opportunities for trade and investments.

Keywords: *EU enlargement, accession countries, transfers, budget, taxation, direct and indirect taxes, industry, industrial branches competitiveness, agriculture, CAP, direct payments, food industry, services, tertiary sector, business services*

JEL classification: *F15, F14, F36, H20, L8, L6, Q10, Q14*

Sándor Richter

Foreword

The signing of the Accession Treaty in Athens on 16 April 2003 has been one of the most important milestones in the process of the European Union's enlargement. The task of creating the appropriate financial, regulative and political framework for the smoothest possible landing of ten new EU member states in the Union has now been completed. The 'rules of the game' are set, officially approved by the governments of the old and the prospective new members. What still remains to be done is, first, the ratification of the Accession Treaty by the legislative bodies in the countries involved and, second, the successful implementation of the outstanding referenda in six of the accession countries. Both political acts are of vital importance but will not influence the above-mentioned framework of enlargement. From 16 April the 'take it or leave it' approach prevails.

Now that the accession deal is sealed, the possible consequences for the prospective new EU member states get into a new perspective. The number of alternative scenarios has shrunk as the conditions of accession are laid down and, as opposed to the situation just a year ago, there are no longer several alternative sets of hypothetical conditions that have to be reckoned with.

The present analysis by wiiw addresses the impact of accession on the prospective new EU member states in five areas: industry, services, agriculture, transfers and taxation.

In the first contribution, Sándor Richter looks at the issue of transfers from and to the common EU budget, from the viewpoint of the new EU members. Relying on the figures approved at the December 2002 Copenhagen summit, an attempt is made to assess the extent of transfers to be disbursed in the first three years after accession (2004-2006). The chapter also analyses the likely impact of these transfers, and is concluded by an outlook for the new financial perspective of the enlarged EU for 2007-2013.

The second chapter by Roman Römisch addresses the question of tax harmonization, an area characterized by important changes both before and after accession. The author investigates the existing differences between present and future EU members regarding tax structures and evaluates the impact of a complete takeover of the taxation *acquis*; this is done from the point of view of both the fiscal stance and the competitive position vis-à-vis other potential recipients of FDI in the world economy.

In the next contribution, Peter Havlik summarizes the spectacular changes that have taken place in the accession countries' manufacturing industry. He shows a highly differentiated picture across countries and individual industries, concerning both productivity and cost catching-up. A closer look at the competitive position of the old and new EU member states on the European market reveals how the present EU members (as well as China, Japan, USA and South Korea) have coped with market share gains of the accession countries.

In the fourth chapter, Zdenek Lukas and Josef Pöschl investigate the specific problems facing agriculture in the context of EU enlargement. With regard to the results of the Copenhagen summit concerning CAP direct payments, the authors deal with the diversity of the individual accession countries as concerns farm size, opportunities for additional budgetary support for farmers and the growing adjustment pressure in the wake of the CAP implementation in the new EU member states. Consequences for the food processing industry (adoption of the strict EU phytosanitary, veterinary and environmental rules) are briefly discussed as well.

The last contribution, by Hermine Vidovic, details the sectoral shifts that have occurred in the accession countries' economies with particular focus on the services sector. She shows how the tertiary sector is still dominated by traditional activities such as trade, transport and telecommunications, while most higher value added segments of services, especially business and financial services, are yet lagging behind.

All five chapters summarize the latest key results of wiiw research.¹ These short contributions are to be seen as snapshots of the 'work in progress' currently being done at the institute. More detailed information on the issues addressed here are available upon contacting the individual authors or the wiiw secretariat (see also wiiw's website at www.wiiw.at).

¹ Earlier versions of the papers assembled in this report were presented at the *Spring Seminar 2003* of the Vienna Institute for International Economic Studies, held in Vienna on 28 March 2003.

EU enlargement: the issue of transfers

1 Transfers: the amounts

The European Union deviates substantially from other integrated economic blocs in the world inasmuch as the redistribution of resources among its member states as a means of enhancing the convergence of development levels within the Union has been a pillar of the Union's philosophy and it has been the practice for more than two decades. Over and above the political and security considerations and the prospect of accession to a market of about 380 million consumers, the chance to benefit from the redistribution system was the main motive for the countries of Central and Eastern Europe to seek membership in the European Union. With free trade agreements for industrial products already in force and arrangements being made for the progressive liberalization of agricultural trade, the integration of the prospective new members in the Union's redistribution systems became the key issue in the accession negotiations. It is thus no surprise that precisely this issue, which came to the fore in the chapters on *Agriculture* and *Finance and Budget*, was left to the very end of the negotiations. Those two chapters bear the most far-reaching financial implications for both the present and future members of the European Union.

By the beginning of the Copenhagen summit in December last year, it was clear that the room for manoeuvre was rather limited and the financial framework for the new members laid out in 1999 in Berlin could not be enlarged. The stakes were high for the candidate countries. Would they be able to secure the maximum resources permitted under the 1999 Berlin framework in the first three years of membership? Would they return from the summit with results that they could present to their constituents without loss of face? Would solutions be found whereby none of the new members would become net contributors to the EU budget in the first three years of membership? Would agreement be reached on direct payments to farmers in the new member states that guaranteed fair competition between farmers in old and new member states once agricultural trade had been liberalized and the Common Agricultural Policy introduced in the new member countries?

The outcome of the long and hard negotiations in Copenhagen was that the total financial commitments for the ten new members for the three-year period 2004-2006 would amount to EUR 40.85 billion. This is less than the sum cited in the 1999 Berlin resolution, EUR 42.59 billion, yet somewhat more than the one stipulated in the Commission's Information Note of January 2002, EUR 40.16 billion.² At the Brussels summit in October, as a result of a German initiative, appropriations for structural actions in the new member states were cut by two and half billion euro. As a consequence, the total financial package

² European Commission (2002).

offered by the Union dropped to EUR 40 billion. In Copenhagen the prospective new members' position improved appreciably (by EUR 800 million). This helped 'sell' the outcome as success, even if the final result was less favourable than that envisaged in the Berlin financial framework of 1999.

For the EU applicant countries it was an issue of vital importance to ensure that they avert the possibility of their becoming net payers in the initial years of membership. They rejected the notion that new members that were at a substantially lower level of economic development than the incumbent members would have to contribute more to the common budget than they received from the same. Any negotiating government to accept conditions for entry that might lead to such a situation would be a sure loser at the next elections.

Although the Commission declared several times that it would not allow the new members to become net contributors to the EU budget, the candidate countries' concerns have been justified. Contributions to the EU budget, termed 'own resources', can be predicted quite accurately (customs duties and agricultural levies; VAT-based resources and GNP-based revenue components).³ Transfers from the EU budget, however, are much more uncertain. It is very important to distinguish between planned and actual transfers. Commitment appropriations and payment appropriations are both planning categories. The first category, commitment appropriations, represents resources available in a given year to support EU co-financed projects. Actual expenditures on individual projects need not necessarily start or end in that year. The second category, payment appropriations, stands for expenditures earmarked in the given year for ongoing EU co-financed projects. This sum, however, is still a far cry from actually disbursed resources that are, to a large extent, dependent on the success/failure rate of applications for EU co-financed projects.

Transfers from the EU budget reach the target countries through a variety of channels. One group of transfers is not project-related and in that context payment appropriations can be taken as real future disbursements. This group consists of *direct payments* in a simplified version for new members, *market interventions* in agriculture, *internal actions* and *additional expenditures*.

The other group consists of project-related transfers where the sum to be disbursed in a given year is determined by the amount of EU co-financing successfully secured for individual projects. This group includes transfers from the *Structural Funds* and the *Cohesion Fund* and *Rural Development*, as well as the residuals from *Pre-Accession Aid*. Project-related transfers require national co-financing. The typical amounts are 25% for transfers from the Structural Funds, 15% from the Cohesion Fund and 20% for rural development. Project-related transfers are, in this sense, 'expensive' compared to the first group of transfers which do not call for national co-financing.

³ European Commission (1998), Annex 3, p. 5.

At the Copenhagen summit one of the candidate countries' main targets was to maximize those transfers that are really disbursed, first by increasing the total sum of commitments, secondly by increasing the share of non-project-related transfers within total transfers. As discussed above, the first attempt failed to yield any real success. The second attempt was successful, as neither the additional expenditures budgeted at the Copenhagen Summit for strengthening the prospective new Schengen borders nor the lump-sum transfers to be disbursed so as to avoid the net payer position are not project-related items. The opportunity for partially redirecting rural development resources to 'top up' direct payments to farmers was a further change that augmented the share of non-project-related, hence less risky and expensive, transfers. Poland's special deal was the reallocation of EUR 1 billion from structural actions in part to (a) unconditional lump-sum payments and in part to (b) project-related payments, yet without national co-financing. The purpose of the deal was to reduce the budget deficit that would have come about as a result of having to top up direct payments to Polish farmers. The Czech Republic managed to secure a similar deal for EUR 100 million.

Will all these changes suffice to avoid having the new members end up as net payers? Of the EUR 40.85 billion available for enlargement over the period 2004-2006 as commitment appropriations, EUR 27.88 billion will be budgeted as payment appropriations. Of this latter sum some 50-60% will be project-related, 40-50% is non-project related. In financial terms, that is equivalent to some EUR 13.9-16.7 billion in project-related transfers and EUR 11.2 to 13.9 billion in non-project-related transfers. Own resources, i.e. the new members' contribution to the EU budget, will amount to approximately EUR 14.7 billion. The sum of these figures and an estimated success/failure rate for the project-related transfers provide a basis for the calculation of the net financial position that the ten new members can expect as a group (the net position of individual members within the group may vary considerably).

To calculate the new members' prospective net financial position, we need an assessment of their prospective success rate where project-related resources are concerned. Assuming a success rate of 50% (pessimistic scenario) or 70% (optimistic scenario)⁴ with respect to the receipt of project-related transfers, overall net flows disbursed to new members in the period 2004-2006 will range between EUR 5 and 10 billion.

⁴ 70% corresponds to the (rounded) average success rate of the EU-15, 50% reflects the (rounded) average of the weakest performers in the EU-15 in their worst years, both in the period 1994-1999. For an explanation for choosing these two rates, see Richter (2002). For detailed statistics on the success rates of the EU-15, see European Commission (2001), Statistical Annex, Table A.35.

Table 1

Net budgetary positions of the new members after enlargement, 2004-2006*(Payment appropriations)*

EUR million

	CY	CZ	EE	HU	PL	SI	LT	LV	SK	MT	TOTAL
2003											
pre-accession aid	16	170	55	197	844	45	115	84	123	11	1,661
2004											
Pre-accession aid	11	181	67	235	970	51	127	99	120	7	1,869
Agriculture	12	100	29	125	426	43	73	42	57	3	911
Structural actions	6	169	39	209	859	27	94	66	118	7	1,594
Internal actions	5	44	5	42	154	12	11	10	19	2	305
Additional expenditure	0	7	25	58	131	38	84	28	21	0	392
Cash flow lump sum	28	175	16	155	443	65	35	19	63	12	1,011
Budgetary compensation	69	125	0	0	0	30	0	0	0	38	262
Total allocated expenditure	131	801	181	824	2,983	267	423	264	398	70	6,343
Trad. own resources	-27	-66	-8	-97	-123	-18	-22	-7	-33	-14	-415
VAT resources	-10	-74	-6	-61	-194	-22	-14	-8	-26	-4	-420
GNP resources	-60	-426	-37	-349	-1,114	-129	-78	-48	-148	-23	-2,412
UK rebate	-8	-56	-5	-46	-148	-17	-10	-6	-20	-3	-320
Total own resources	-105	-623	-56	-554	-1,579	-187	-124	-70	-225	-43	-3,566
Net balance	27	178	125	270	1,404	80	299	195	173	26	2,777
2005											
Pre-accession aid	6	153	57	199	823	43	110	86	102	2	1,581
Agriculture	37	392	82	544	1,512	125	228	116	205	8	3,248
Structural actions	14	355	88	438	1,776	59	203	151	244	13	3,343
Internal actions	9	76	9	72	266	21	18	17	33	4	524
Additional expenditure	1	9	26	61	141	38	109	29	52	0	466
Cash flow lump sum	5	92	3	28	550	18	6	3	11	27	744
Budgetary compensation	119	178	0	0	0	66	0	0	0	66	429
Total allocated expenditure	191	1,255	266	1,342	5,068	370	674	402	647	119	10,334
Trad. own resources	-40	-105	-12	-150	-213	-29	-33	-11	-54	-21	-667
VAT resources	-16	-116	-10	-95	-304	-35	-21	-13	-40	-6	-657
GNP resources	-91	-653	-57	-535	-1,707	-198	-120	-74	-226	-35	-3,697
UK rebate	-12	-88	-8	-72	-230	-27	-16	-10	-30	-5	-497
Total own resources	-160	-963	-86	-853	-2,454	-288	-191	-107	-350	-66	-5,518
Net balance	31	293	179	490	2,614	82	483	295	297	53	4,816

(Table 1 continued)

Table 1 (continued)

	CY	CZ	EE	HU	PL	SI	LT	LV	SK	MT	TOTAL
2006											
Pre-accession aid	1	98	35	124	509	27	66	52	64	0	976
Agriculture	46	483	102	653	1,934	158	294	156	260	10	4,095
Structural actions	18	427	110	524	2,107	73	248	189	289	15	3,998
Internal actions	12	102	12	97	359	28	25	22	45	5	708
Additional expenditure	1	9	26	61	140	38	127	28	52	0	481
Cash flow lump sum	5	92	3	28	450	18	6	3	11	27	644
Budgetary compensation	112	85	0	0	0	36	0	0	0	63	296
Total allocated expenditure	194	1,294	288	1,487	5,498	378	766	451	720	121	11,198
Trad. own resources	-40	-105	-12	-150	-213	-29	-33	-11	-54	-21	-667
VAT resources	-17	-119	-10	-97	-310	-36	-22	-13	-41	-6	-671
GNP resources	-94	-670	-58	-549	-1,752	-203	-123	-76	-232	-36	-3,793
UK rebate	-13	-93	-8	-77	-244	-28	-17	-11	-32	-5	-529
Total own resources	-163	-988	-89	-873	-2,519	-296	-196	-110	-359	-68	-5,660
Net balance	31	307	200	614	2,979	82	570	341	361	53	5,538

Note: In the event of a political settlement being reached in the case of Cyprus, an additional amount of EUR 127 million in payments should be foreseen for the triennium 2004/2005/2006.

Source: European Commission.

This sum amounts to EUR 1.7 to 3.3 billion annually, with lower values in the first year and higher values in the third year. It accounts for 0.4% to 0.8% of the new members' annual GDP or, expressed in other terms, it represents 0.02% to 0.04% of the annual aggregate EU-15 GDP in the period 2004-2006.

The expected net financial position for the new members can be interpreted as the real costs of enlargement (in terms of budgetary transfers) accruing to the 15 incumbent members of the Union in the first three years after enlargement. Contrary to widespread perceptions, the above figures testify to the negligible costs involved.

2 Transfers: the impact

Before addressing the issue of the economic impact that transfers will have on the new members' economies, it is important to deal with the political implications. The agreement on transfers reached in Copenhagen was the outcome of a very difficult bargaining process. It was a compromise: something that was far from satisfactory for the prospective new members and not something that could be presented as a great success in the domestic political arena. None the less, it is not an unacceptable outcome and in the short run that outweighs everything else. Had the outcome of the negotiations been a possibly negative net financial position, the governments would in all likelihood not have been able

to 'sell' accession either to their legislative bodies or to the voters in the upcoming referenda. The issue could have developed into a crucially important argument for the opponents to EU accession in the applicant countries.

What will the economic impact of the transfers be? At the first sight, the impact would appear negligible. Additional resources of EUR 5 to 10 billion for the ten new members over a period of three years can well bear comparison to a probable net FDI inflow of EUR 50 billion: a wiiw estimate of the inflow of funds to the prospective new EU members (without Cyprus and Malta) in the final three pre-accession years (2001-2003). Even this sum is five to ten times greater than the estimated net inflow of EU transfers over the same period. Compared in another way, the applicant countries' cumulative current account deficit is estimated to amount to about EUR 50 billion over the same three final pre-accession years.

Although calculating the balance of transfers to and from the EU budget provides valuable information about the magnitude of additional financial resources available to the new member states' economies on account of accession to the EU, the 'net position' approach is unsuited to assessing the impact of the EU transfers on their economies. Both the transfers to and from the EU budget will appear in different segments of the economy, thus causing significant variances in individual, distinctly separate fields.

Cohesion Fund transfers make up about one third of the total structural actions (transfers from the Structural Funds and the Cohesion Fund) and 11% of the total payment appropriations for the period 2004-2006. An important feature of these transfers is that they are absorbed by the national budgets. Depending on the success rate with the projects involved, Cohesion Fund transfers create an additional revenue of 0.11 to 0.15% of the applicants' GDP (after deducting 15% national co-financing). This is a modest impact in macro-economic terms; however, at the level of public investment in the *environment* and *transport infrastructure* the impact will be considerable.

Structural Funds transfers will contribute to financing projects in *education and training*, *infrastructure* and the *enterprise sector*. In this case, the revenue side is much less concentrated than in the case of Cohesion Fund transfers, as the main recipients will be regions. Here again, overall additional financing may be negligible in a countrywide comparison, yet the impact will be significant at the regional, sub-regional or local levels, or in a limited group of activities (e.g. a new centre for higher education in a certain discipline, etc.). All this refers to transfers for rural development and the residuals from the pre-accession aid.

All project-related transfers require national co-financing. Whether co-financing requires additional expenditures from the national budget, whether already budgeted items will obtain additional external financing through EU transfers or whether existing national structural expenditures can be replaced by EU resources are questions that cannot be answered in general terms as things may differ from item to item. It is permitted to use Cohesion Fund transfers to finance ongoing programmes, while the *additionality principle applies* to Structural Funds transfers and requires that the level of public investment in the recipient country must at least be maintained, compared to a past reference period. This means that national structural spending cannot diminish, but can be restructured to cover co-financing needs.⁵ Restructuring expenditures along these lines may lead to serious problems in areas that lose out in the process: those receiving less support than before owing to the co-financing requirements of projects in preferred areas supported by transfers from the EU. This issue is unlikely to be so important given the low initial level of transfers, but as 'phasing in' progresses and the transfers increase, it may become a significant source of conflict.

Direct payments to farmers are a specific form of transfers. They replace national agricultural subsidy systems and thus reduce overall national budget expenditures. For the new members this will not be so simple. In an important last-minute concession at the Copenhagen Summit, the prospective new members were offered the option of paying national top-ups for their farmers from the national budget. This will have a dual impact. First, the competitive position of the farmers in the new member countries will improve to a considerable extent during the first years of membership; secondly, national budgets will have to cope with a serious additional burden. New members will have to contribute to the EU budget 'to pay for the direct payments', but the expenditure side of their national budget will know no relief as the respective expenditures will remain more or less at pre-accession levels on account of the top-ups.

As for the impact of transfers on the farmers, it must be underlined that transfers will be only one of three major impacts related to EU accession. The other two are: (a) extension of the CAP to the new members (market intervention); and (b) increased competition following the introduction of free trade for agricultural products. These two aspects will be addressed in another presentation later today.

In concluding, it is quite obvious that the new members' national budgets will feel the impact of the transfers to and from the EU most.

⁵ Backé (2002). p. 153.

It is a relatively simple matter where 'own resources' are concerned: an item of expenditure equivalent to about 1.1% of the GDP can be safely assessed. On the revenue side, however, the impact is much more difficult to assess owing to the unpredictable value of inflows to project-related items. It is also difficult to estimate the expenditures required to cover co-financing requirements for reasons mentioned earlier. Peter Backé, a researcher at the Austrian National Bank (OeNB), attempted (even before the Copenhagen Summit) to assess the budgetary effects of structural actions: the impact of the transfers from the Structural Funds and the Cohesion Fund. He found that the fiscal impact may range between -0.9 and +1.3% of the new members' GDP.⁶ The message of this result may be as follows: the overall impact may be either negative or positive, but it will definitely be moderate. That notwithstanding, this moderate overall impact may mask quite substantial partial changes, radical restructuring in individual sections of the budget, and the work involved in managing these significant changes should not be underestimated.

It is important to point out that transfers are only one aspect of the multiple implications that EU accession bears for the new members' budgets. The costs of complying with the *acquis* (especially in environmental protection, where the necessary investments are estimated to amount to EUR 100 billion over ten years), phasing out production subsidies, tax harmonization, reduced risk premia in financing and finally the positive growth effects deriving from EU membership will have significant repercussions for the prospective new members' national budgets.⁷

Finally, haggling over transfers during the accession negotiations were but a foretaste of the struggle for resource redistribution in the financial framework of the EU-25 in the period 2007-2013. Experts often say that to all intents and purposes the countries of Central and Eastern Europe are already in the EU, given the intensity of their trade and FDI relations with the Union. We can stand this statement on its head and point out that enlargement can only be considered successfully completed once agreement has been reached on the financial framework for 2007-2013.

⁶ Backé (2002), p. 155.

⁷ See Kopits and Székely (2002), Breuss (2001), Havlik (2002), Fidrmuc et al. (2002).

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Taxation and enlargement: the impact on the new members

1 Introduction

In the following we are going to, firstly, highlight the differences between the tax structures of the current EU member countries and the countries of Central and Eastern Europe (CEECs). Secondly, we shall hint at the impact that application of the tax *acquis* could have on the CEECs.

The tax structures will be compared in three stages. In the first stage, we will demonstrate the importance of tax revenues in the CEECs and the EU. In the second stage, the composition of the tax revenues will be analysed. In the third and final stage, we will present the average effective tax rates (AETR) levied upon consumption, labour income, capital income and corporate income in the CEECs and contrast those measures with the rates applied in the current EU member states.

With this information to hand, we shall draw conclusions as to the possible impact upon the CEECs of adopting EU tax regulations.

2 Differences in tax structures

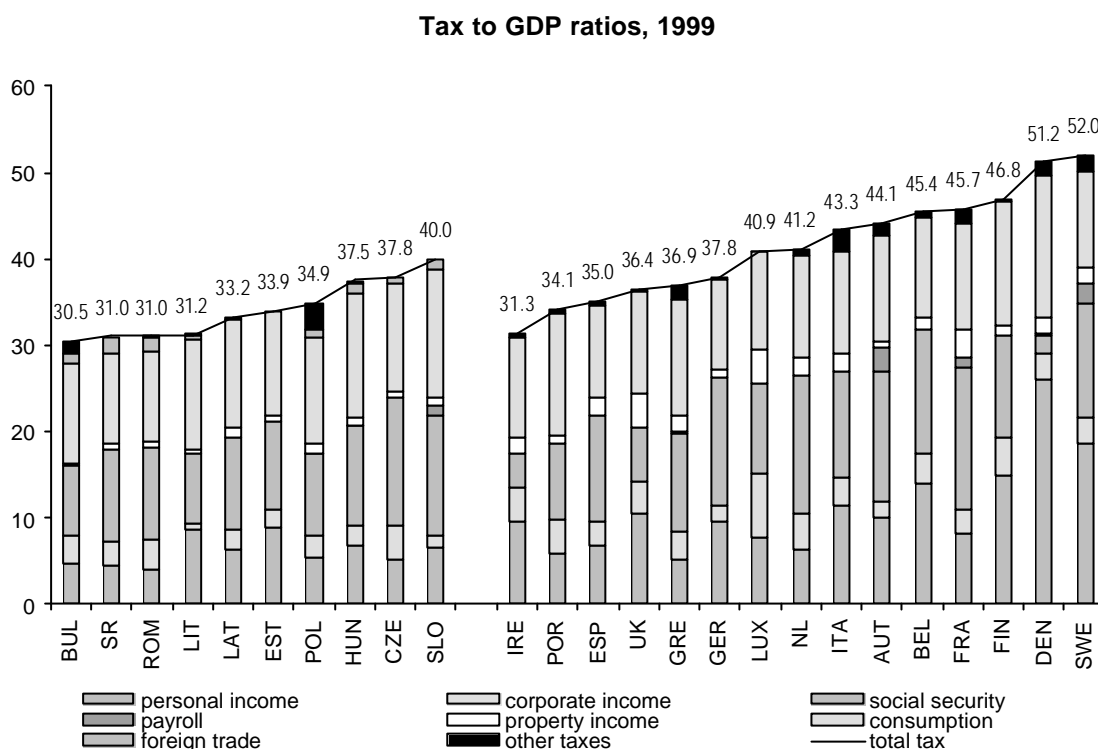
Ratio of tax revenues to GDP

Turning to the tax to GDP ratios, Figure 1 presents the tax revenues for 1999 at the general government level (including social security payments) for the CEEC-10 and the EU-15 covered by this study.

The ratios of total tax revenue to GDP shown in Figure 1 do not actually provide much insight into the compatibility of the two tax systems. In fact, they only permit conclusions to be drawn on such aspects as the degree of paternalism in certain states or the amount of a country's GDP that is allocated politically. Furthermore, as the graph shows, all but four CEECs are within the bandwidth of the EU tax ratios. However, it is also apparent that the tax to GDP ratios in the CEECs are at the lower end of the EU range of tax to GDP ratios.

Taking into account the fact that: (a) tax administration in many accession countries is still far from efficient and (b) their tax to GDP ratios are likely to increase in the future simply on account of improved tax administration, it can be concluded that as far as total tax to GDP ratios are concerned, the CEE countries should ultimately fit into the current EU tax system.

Figure 1



Data Source: CEECs: Government Finance Statistics, IMF, *wiiv* ; EU: OECD Revenue Statistics; own calculations.

Interesting are the four CEECs that are outside the EU range: Romania, Bulgaria, Lithuania and Slovakia. These countries obviously encounter more problems in generating tax revenues than the others, mainly on account of the extremely poor tax administration.

With increased development (not only in administration matters), it can be anticipated that the tax ratios in those four countries will ultimately reach levels comparable to those in the EU; thus, this should not be an obstacle to their entering the EU.

Tax revenue structures

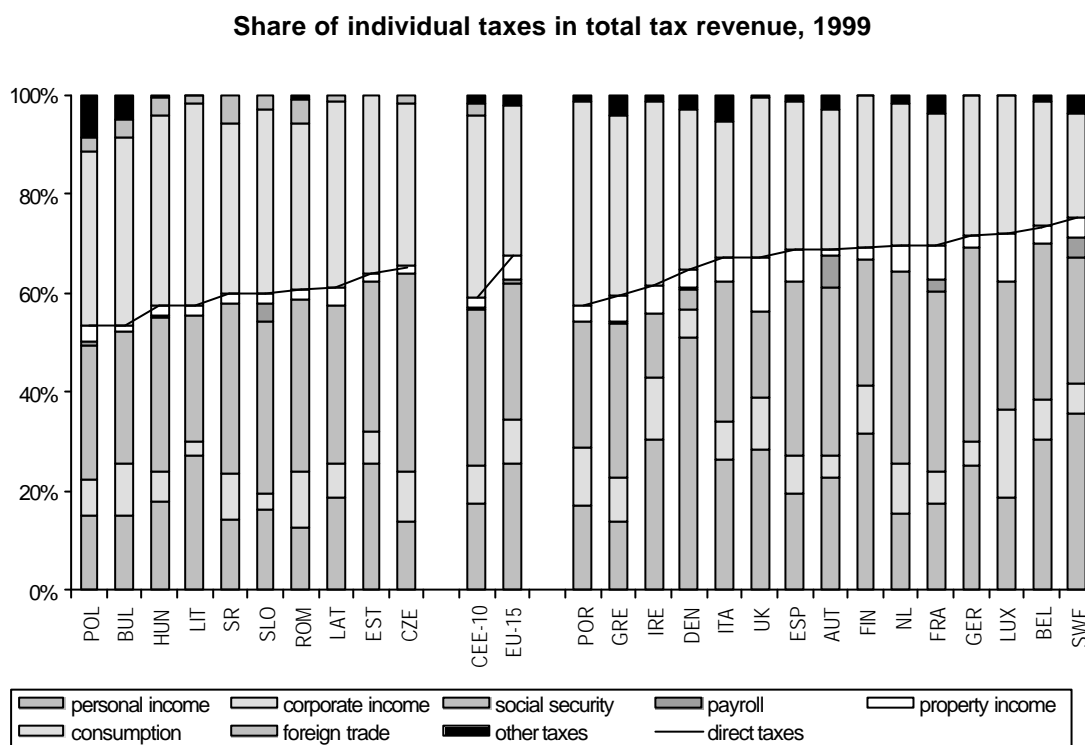
The total tax ratio is another ratio that provides a rough indication of the differences in tax structures between the EU and the CEECs. Figure 2 shows the share of each tax in total tax revenues for each country in the EU-15 and CEEC-10, as well as the respective country group averages for 1999.

Scrutiny of the country group averages reveals variances of the EU and CEECs' tax structures. The share of direct taxes⁸ in total tax revenues is on average higher in the EU countries than in the CEECs. Thus, on average 67.6% of total tax revenues are collected

⁸ Direct taxes include: personal and corporate income taxes, social security contributions, payroll and property taxes.

through direct taxes in the EU, whereas direct taxes contribute on average only 59.2% to total tax revenue in the CEECs.

Figure 2



Data Source: CEECs: Government Finance Statistics, IMF, **wiiw** ; EU: OECD Revenue Statistics; own calculations

This is of interest in as much as the literature on taxation and development has come up with a benchmark (more a rule of thumb) for determining whether a tax system is that of a developed or developing country. According to the benchmark, the ratio of direct to indirect taxes in a developed country is approximately 2 to 1. Whereas the EU average easily outstrips this benchmark, it is still beyond the reach of the candidate countries. Thus, although the accession countries should not be dismissed as developing countries, the design of their tax systems cannot be judged up to EU standards, either. At best, it can be said that, although it is ultimately planned to have the tax systems move in the direction of developed country tax systems, this plan is still constrained by inadequate administrative capacities (to stress a point once more) and a relatively low level of economic development (thus limiting, for example, the extent of personal taxation). Thus, although one of the stylized facts we have identified in the transition of tax structures in the CEECs is the growing importance of personal income taxes, their divergence compared to the average EU share is still large⁹, as can be seen from Figure 2. Furthermore, property taxes are of relatively minor importance in the CEECs compared to the EU countries.

⁹ This divergence lessens when personal income taxes and social security contributions are combined, although the change is only marginal.

The other side of the coin is of course that the indirect taxes have to play a more prominent role in the CEECs than in the EU. This is obvious for consumption taxes (VAT and excise taxes), where the average share in total tax revenues was 36.4% in the CEECs but only 30.3% in the EU countries. More interesting, though, and a source for future concern is the fact that the CEECs on average are still to quite a considerable amount dependent on foreign trade taxes – a source which is not available for EU countries governments, since its revenues go off to the EU budget.

Average effective tax rates

In our case¹⁰ average effective tax rates (AETRs) are based on aggregate data (National Accounts and government revenue): they are designed to measure the average tax burden on a specific economic resource that generates portions of the total value-added, such as consumption, labour, capital and corporations. Moreover, as AETRs comprise aggregate information on statutory tax rates, tax credits, tax deductions and tax exemptions implicit in National Accounts and revenue statistics (Mendoza et al., 1994, p. 302), they are able to circumvent all the problems associated with measuring tax burdens mentioned above. This means that AETRs are an attempt to measure the average amount of tax effectively paid on a particular resource.

Table 1 shows average AETRs on consumption, labour, capital and corporations for 11 EU countries and 9 CEECs. Taking into account the data restrictions¹¹ we encountered, Table 1 shows AETRs calculated using SNA79 data as well as AETRs calculated using SNA93 / ESA95 data. All the AETRS have been calculated by using the formulas given in Leibrecht and Römisch (2002).

Looking first at the AETRs for capital and corporate income in Table 1, it becomes immediately apparent that despite the heterogeneity of AETR structures in the EU, with high-tax countries at the one extreme and particularly low-tax countries at the other, the CEECs still tend to have AETRs below the lower EU extreme – or at least tax rates to be found at the lower end of the EU range.

Obviously this holds true for taxes on capital income where the AETRs for almost all CEECs are below the rates applied in the EU countries, with the exception of Greece. As far as AETRs for labour are concerned, CEE tax rates do not display such an extreme position; nevertheless, as can be seen in Table 1, those CEE tax rates are generally at the lower end of the EU range.

¹⁰ For the various variants of average effective tax rates see again Leibrecht and Römisch (2002).

¹¹ As our AETRs are based on National Accounts data, we had to face the change in the national accounting systems from the old SNA68/ESA79 system to the new SNA93/ESA95 system.

Table 1

Average effective tax rates

	Consumption		Labour		Capital		Corporate	
	SNA79	SNA93/ ESA95	SNA79	SNA93/ ESA95	SNA79	SNA93/ ESA95	SNA79	SNA93/ ESA95
Belgium	21.7 ¹	23.9 ⁶	47.1 ¹	46.9 ⁶	35.5 ¹	26.9 ⁶	27.6 ¹	15.1 ⁶
Denmark	36.3 ³		40.9 ³		33.4 ³		10.9 ³	
Finland	27.1 ¹	27.6 ³	52.5 ¹	51.9 ³	37.4 ¹	39.8 ³	20.4 ¹	23.4 ³
France	18.9 ¹		45.7 ¹		17.0 ¹		21.3 ¹	
Germany	19.2 ¹	18.1 ³	42.6 ¹	40.9 ³	25.1 ¹	26.4 ³		17.6 ³
Greece		18.8 ⁵		37.8 ⁵		10.1 ⁵		14.2 ⁵
Ireland	22.4 ²	23.2 ⁵	24.9 ²	24.9 ⁵	20.1 ²	20.1 ⁵	17.2 ²	15.7 ⁵
Netherlands	17.7 ¹	17.6 ²	52.2 ¹	50.0 ²	31.0 ¹	21.3 ²	24.1 ¹	14.7 ²
Spain	14.6 ¹	15.3 ⁵	34.0 ¹	33.0 ⁵	20.7 ¹	17.4 ⁵	19.2 ¹	11.1 ⁵
Sweden	24.4 ¹	23.0 ³	49.6 ¹	51.3 ³	46.6 ¹	46.1 ³	31.6 ¹	27.6 ³
United Kingdom	15.6 ¹	16.5 ³	24.9 ¹	24.6 ³	45.8 ¹	31.9 ³	38.4 ¹	16.2 ³
Bulgaria		13.2 ²		28.4 ²		16.0 ²		28.1 ²
Czech		21.6 ³		37.8 ³		15.8 ³		17.0 ³
Estonia		23.1 ³		33.5 ³		15.7 ³		14.4 ³
Hungary		24.5 ³		36.2 ³		12.5 ³		9.5 ³
Latvia		20.5 ³		32.0 ³		13.4 ³		10.0 ³
Lithuania		17.2 ³		28.2 ³		12.8 ³		10.2 ³
Poland		20.2 ³		37.8 ³		20.6 ³		19.8 ³
Romania	10.7 ²		31.9 ²		12.3 ²		13.9 ²	
Slovenia		27.5 ⁴						6.4 ⁴

Notes: 1) Average 1993-96. - 2) Average 1993-97. - 3) Average 1993-98. - 4) Average 1994-98. - 5) Average 1995-97. - 6) Average 1995-98.

Also striking is that the differences between AETRs in the EU and the CEECs are not that pronounced, while within the CEECs themselves AETRs on corporate income vary widely.

Taxes on consumption run almost contrary to all other taxes, in so far as CEE tax rates are to be found at the upper end of the EU range of consumption-related AETRs.

In summary, the impression we get from a comparison of EU and CEE AETRs is hardly surprising, since it more or less reflects the differences we would also encounter when using statutory tax rates and tax quotas as yardsticks (for statutory tax rates see Leibrecht and Römisch, 2002).

Nevertheless, we might have expected that the differences in the consumption-related AETRs to have been higher, since value-added and excise taxes are accorded much

greater weight in the CEECs than in the EU. The absence of any major differences in the AETRs on consumption in some CEECs (such as Poland, Latvia and Lithuania) compared to EU countries might be explained by the fact that the tax bases (VAT and excise duty) are still too narrow and tax collection might still pose some problems. This is especially true for Bulgaria and Romania, which are in the peculiar position of having much lower AETRs on consumption than any other EU country or CEEC.

3 Adopting the tax *acquis* – effects on the accession countries

Based on the above findings and given our knowledge of EU tax regulations¹², it is possible to anticipate the impact that adoption of the EU tax *acquis* might have on the CEECs in the event of EU eastern enlargement.

For the sake of convenience, we have split the following discussion into: (a) the economic impact induced by indirect taxes and (b) the economic impact induced by direct taxes.

Indirect taxes

In general, the CEECs have higher VAT rates (in terms of both statutory and average effective rates) than the EU countries. However, as the EU currently applies, or will apply in the near future, the destination principle and only prescribes minimum VAT rates (5% for the reduced rate and 15% for the normal rate), the CEECs will be able to maintain their high tax rates; hence, neither tax rates nor tax revenues will be subject to downward pressure.

It would rather seem that EU accession will exert upward pressure on tax rates because, although VAT legislation in the CEECs is for the most part in line with the 6th VAT directive of the EU and other legislation pertaining to VAT, some points of divergence persist; they might have an undesirable fiscal and non-fiscal effect on the CEECs.

The first aspect in this respect is that many CEECs still apply zero or reduced VAT rates to certain goods and services: this runs counter to EU legislation. For example, the Czech Republic, Estonia and Hungary apply reduced VAT rates to heating, or elsewhere the Czech Republic, Slovakia and Slovenia levy VAT at the reduced rate on construction operations. In both examples, however, on becoming members of the EU each country would have to apply its normal VAT rate; this in effect means *ceteris paribus* that EU accession would have a positive fiscal impact on the CEECs, since they would be able to collect higher tax revenues.

¹² For details see Leibrecht and Römisch (2002).

A similar need for upward adjustment is to be found in the excise tax legislation applied in the CEECs. In many CEECs, excise duties, especially those on cigarettes and alcohol, are still too low compared to EU regulations. Thus, EU membership will also call for an increase in those taxes.

A third aspect is that adoption of the current EU legislation will compel the new entrants to lower the turnover level below which entrepreneurs are not subject to VAT. At present, the variance on this point between the CEECs and the EU is quite substantial, since the CEECs deviate from the EU threshold (EUR 5000) to an appreciable degree (for example, Slovakia approximately EUR 40,000, Lithuania approximately EUR 28,000, Latvia and Romania approximately EUR 20,000 each). Thus, application of the tax *acquis* by the CEECs will result in an increase in the number of business entities subject to VAT in the respective countries; this, in turn, will also increase VAT revenue.

One notable factor will reduce indirect tax revenues in the CEECs after EU accession: the changes in the foreign trade tariff system. Not only will tariff rates for foreign trade undergo a change on accession to the single market, but tariff revenues will also have to be transferred to the EU for financing purposes (with the exception of 10% of the tariff revenue that a country may retain to cover administrative costs). Bearing in mind that tariff revenues account on average for over 4% of total tax revenues in the CEECs, it is obvious that these changes in the tariff system will have a drastic negative fiscal impact on the accession countries.

Overall, in the very short term, EU accession can be expected to have a negative impact on indirect taxation in the CEECs because many countries have requested – for reasons relating to points below – a transitional period prior to the full introduction of the *acquis*, where such open issues in VAT and excise tax legislation are concerned. Thus, whereas the effects that generate tax revenue will be postponed to a later point in time, the reduction in tax revenues following changes in the tariff system will enter into effect from the very outset of EU membership. Although the new members will in principle also have access to resources from various EU funds, which could provide some fiscal relief, the experience of other EU members shows that in the early stages of EU membership the opportunities to exploit those funds are generally limited; thus, they were only able to secure a small fraction of the funds to which they were entitled.

Seen from the perspective of current budgetary deficits in the CEECs and given the plans to reduce those deficits by cutting back on expenditures, CEE membership in the EU might bring about a shift in public expenditure structures. On the one hand the CEECs will be obliged to finance the EU (partly) via tariff and VAT revenues, while on the other hand they will be entitled to funding under the various EU funds. The point here is that prior to EU enlargement, the CEECs were permitted to use tariff and tax revenues, which will have to

be transferred to the EU after accession, for virtually any kind of public good or services, whereas the resources emanating from EU funds are mostly directly targeted towards infrastructure and environmental investments. Thus, it seems highly probable that the structure of public goods might shift in the case of EU enlargement, all the more so as CEE governments will have to meet certain co-financing requirements, even though the volume of public goods overall might not be jeopardized – and it might even expand.

In the short term, the positive fiscal effects of the full adoption of the *acquis*, together with the expected increase in economic growth, will offset the initial loss in indirect tax revenues.

Nonetheless, the rise in indirect taxation will probably be accompanied by increased consumer prices. Thus, depending on the intensity of competition in specific goods and services markets, price changes will more or less reflect the rise in tax rates. Although it is very speculative (at least from our position) to offer an estimate of the expected tax incidence, it can be safely assumed that an increase in indirect taxes will have at least some effect on prices – and thus on inflation as well. It thus seems possible that full application of the *acquis* in this respect might possibly endanger the inflation targets set for those countries. At present, this point bears some far-reaching implications, given that some of the CEECs are already displaying real and nominal appreciation against the euro. An increase in inflation would thus mean additional thrust towards real appreciation which, in turn, might militate against the competitive position of the CEECs.

Furthermore, the requirement that the VAT threshold above which entrepreneurs are subject to VAT legislation be lowered might well jeopardize the development of small-sized enterprises, since it imposes additional burdens on them in the form of administrative costs, even if the firms are able to shift the tax burden onto the consumers. Bearing in mind that the CEECs are still not as advanced in this field as the current EU members and recalling that small-sized enterprises are a not unimportant source of economic growth, the immediate introduction of this EU law might have a negative impact on economic development and growth in the CEECs.¹³

Since indirect taxes have a regressive effect on income distribution, the increase in indirect taxation will also be accompanied by negative distributional effects and the increase in VAT and excise tax rates already mentioned will have a negative short-term impact on (secondary) income distribution. Furthermore, knowing that many CEECs will have to adjust their VAT rates, especially for such goods as heating and electricity, the lowest income groups in those countries will *ceteris paribus* be affected most by the adoption of

¹³ Moreover, the change in the tariff system in the case of EU accession will change the EU entrants' relative foreign trade price structure, thus having an impact on trade creation or trade redirection effects. Unfortunately, in this paper here we are confined to simply addressing this issue; any estimation of that impact will have to be left to further research.

the EU *acquis*. This holds all the more true since in the short term CEE governments might not be able to offset this burden for want of budgetary resources.

Direct taxes

Assuming that in the short term no substantial progress will be achieved in respect of tax harmonization within the EU prior to the CEECs entering the EU, we can draw some conclusions.

Where FDI is concerned it can be said that upon EU eastern enlargement, the countries entering the EU will in general be countries that apply significantly lower corporate income tax rates (in terms of both statutory and average effective rates). Furthermore, some countries (such as Poland, Hungary, Slovenia and Slovakia) have set up special economic zones (also called enterprise zones), designed to attract investors (both foreign and domestic) to certain, mostly economically disadvantaged regions by offering – besides other incentives – favourable taxation schemes. However these economic zones and especially the associated tax incentives would seem to contravene EU legislation, especially the regulations on state aid (Article 87 ff. EU treaty). As was the case with Ireland, the prospective EU members will have to abandon these tax measures at least in the short to medium term. As such, if the CEECs abolish illegal tax practices, it should *ceteris paribus* have an expanding effect on tax revenues from corporate profits. This however might not be the case, if the CEECs react to the requirement that they abandon special tax concessions by lowering the nominal tax rate on corporate profits. Indeed, there might be some reason for the CEECs to do so. For example, with EU membership in sight, Poland plans to reduce (or has already partly reduced) its corporate tax rate stepwise from 34% in 1999 to 22% in 2004.

As already mentioned, some CEECs operate special economic zones with favourable tax arrangements or generally offer discriminatory tax incentives to foreign investors. On accession these practices would have to cease. Consequently one is tempted to assume that the abolition of tax incentives, which also served to compensate the investor for disadvantages of investing in the CEECs, might pose an obstacle to the future inflow of FDI. It is hard to predict what will actually happen since taxes, of course, are not the sole determinants when taking a decision on the location of new FDI projects (see Leibrecht and Römisch, 2002, for an overview on this subject).

Furthermore, the CEECs' accession to the EU is also assumed to reduce the risks associated with investments in those countries. In this context EU membership might even have a positive impact on FDI inflows into the CEECs.

Moreover, in the light of the empirical evidence we might also argue that even in the cost sensitive area of FDI the change in CEE tax behaviour might have little effect on FDI

inflows because, as far as costs in a narrow sense are concerned, the CEECs still have (far) lower labour costs than EU countries. This should offset any possible increases in tax rates.

Although the tax-related effects of EU enlargement might not cause overall FDI inflows into the CEECs to stop or decelerate, a shift in volume might occur within the group of CEECs themselves – from high-tax to low-tax members of the group.

In addition, it is possible that a regional shift in FDI inflows might occur within any one CEEC. As mentioned before, the CEECs used tax incentives partly to channel investment into regions with poor economic performance and so to stimulate growth there. If these incentives now have to be abolished, the CEECs can still rely on transfers from the EU funds already mentioned. The pitfall there is that all CEE regions, with the exception of two, will be regarded as Objective 1 regions; thus the regions performing well will have the same opportunities to attract funds as those performing poorly. As the new economic geography has shown us, investors tend for a variety of reasons to opt for locations that are already developed. EU accession might thus trigger off a shift of FDI inflows to the more developed regions, as FDI will enjoy the same support regardless of the region's stage of development.

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CEE industry in an enlarged EU: restructuring, specialization and competitiveness

1 Introduction

This paper deals with industrial developments in the Central and East European accession countries, in the following called CEECs: the Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Poland (PL), the Slovak Republic (SK), Slovenia (SI), Bulgaria (BG) and Romania (RO). Special attention is paid to the likely implications of their accession to the EU on manufacturing industry competitiveness of an enlarged Europe.

The majority of CEECs have inherited a huge industrial sector from the period of central planning with its pronounced bias towards heavy industry. Industry initially suffered over-proportionally from the 'transformational recession' and especially its manufacturing part declined in both absolute and relative terms during the last decade. In the more advanced CEECs, industry has been able to recover its previous position during the second half of the 1990s, thanks to active restructuring and privatization efforts, fostered especially by inflows of FDI. Manufacturing employment underwent even more dramatic changes during the last decade. As a rule, employment declined more than output and nearly five million manufacturing jobs were lost. This reflects the general labour market developments in the region during the 1990s such as declining overall employment, shifts from industry to the service sector and, last but not least, the emergence of open unemployment. In the second half of the 1990s, only Hungary could modestly increase manufacturing employment; recently a weak upward trend can also be detected in the Czech Republic, Slovakia, Slovenia, Latvia and Estonia.

2 Structural changes in CEE manufacturing

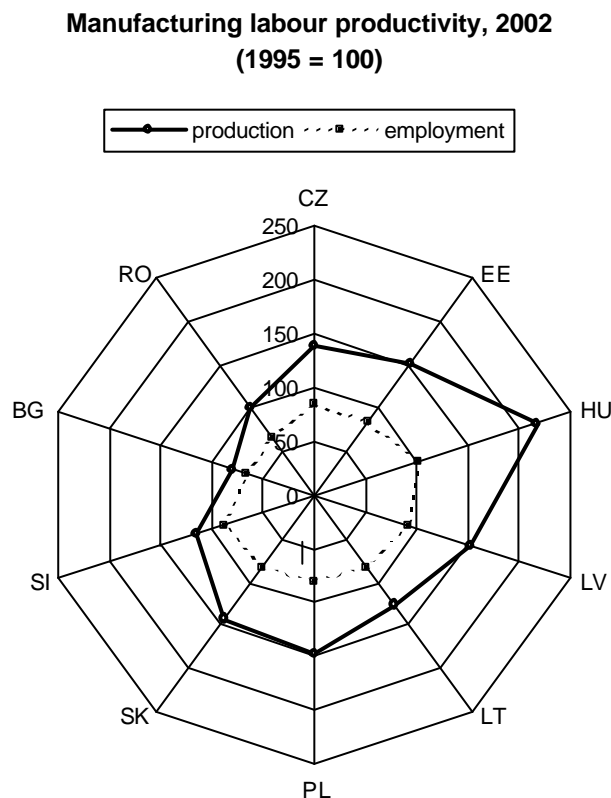
Let us first look more closely at the ongoing structural change within the manufacturing sector. Generally, manufacturing industry production in the CEECs is now *more specialized* than in the EU and thus potentially more vulnerable to various shocks. After 1995, structural shifts among the three major industries occurred in Hungary, Poland, the Slovak Republic and Estonia. These shifts were characterized, on the one hand, by the rising importance of the transport equipment industry and, in Hungary, of the electrical & optical equipment industry (Estonia: wood industry). On the other hand, there was a general decline of the chemicals industry. In terms of employment, the CEECs' specialization of manufacturing industry is somewhat less pronounced. The largest employers are the food & beverages, textiles, basic metals & fabricated metal products and mechanical engineering sectors.

A comparison with the EU shows higher production shares in the CEECs as compared to the EU average in food & beverages, textiles, wood products and basic metals. In contrast, the CEECs have lower shares than the present EU member states in paper & printing, chemicals, machinery & equipment and – with the notable exception of Hungary – in electrical & optical equipment. The CEECs now have an industrial structure that is positioned somewhere between the industrially less advanced EU-South and the more advanced EU-North countries. After a decade of downsizing and re-shaping, *the structure of manufacturing industry* in the majority of CEECs is now fairly close to the European pattern both in terms of production and employment.

3 Productivity and unit labour costs

Before turning to a more detailed productivity analysis, we shall briefly review recent developments for the aggregate productivity level in manufacturing. Figure 1 shows indices of production and employment for the period 1995-2002 which indicate an impressive *productivity recovery* in most CEECs, but hardly any growth of employment. In most cases productivity growth has been higher than in the EU, implying some productivity catching-up.

Figure 1



Source: **wiiw** estimates based on national statistics.

Table 1

Relative productivity gains, winner and loser branches 1995-2001(average annual change in % for total manufacturing (D) and relative gains DA to DN, in percentage points)¹⁾

	Czech Republic	Estonia ²⁾	Hungary	Latvia	Lithuania ²⁾	Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D Manufacturing total	7.2	10.6	12.7	7.5	6.4	9.6	8.2	3.6	2.2	5.4
DA Food products; beverages and tobacco	-3.9	-7.2	-8.8	-4.8	-4.3	-3.6	-4.1	-0.6	-2.0	6.7
DB Textiles and textile products	-4.9	2.8	-6.5	0.5	-2.3	-1.4	-8.6	0.2	-0.6	-5.1
DC Leather and leather products	-16.1	3.7	-9.1	-2.1	9.8	-2.6	0.3	-6.0	-2.0	-2.8
DD Wood and wood products	-1.8	15.4	-8.0	-2.0	0.1	-1.7	-2.9	-8.6	6.1	-4.2
DE Pulp, paper & paper products; publishing & printing	-1.7	0.8	-0.8	-0.6	-5.2	-1.2	3.6	-7.0	-4.9	-8.2
DF Coke, refined petroleum products & nuclear fuel	-2.6	.	-7.9	.	-12.2	-4.7	-4.0	.	-1.5	0.5
DG Chemicals, chemical products and man-made fibres	0.4	4.8	-9.5	-4.2	11.2	-0.8	-2.2	2.3	1.3	-3.6
DH Rubber and plastic products	1.4	-2.6	-7.4	10.2	0.0	-0.2	-2.9	-2.0	-2.2	-7.6
DI Other non-metallic mineral products	-0.4	4.6	-5.0	11.2	1.3	1.0	-2.4	1.6	5.3	1.1
DJ Basic metals and fabricated metal products	-6.8	4.1	-6.1	3.3	-3.2	-1.7	-6.7	-2.1	2.8	-0.8
DK Machinery and equipment n.e.c.	5.4	3.7	-6.9	-5.3	-2.7	0.7	-0.2	-1.5	3.3	4.6
DL Electrical and optical equipment	13.3	7.0	18.7	18.1	24.0	4.4	2.7	3.3	7.4	-0.8
DM Transport equipment	2.8	5.6	6.7	-0.2	13.3	6.3	18.8	6.5	-3.2	6.0
DN Manufacturing n.e.c.	1.2	1.2	-5.3	1.0	-4.2	-0.6	0.8	3.1	7.2	6.3

Notes: 1) Calculations of relative gains DA (1995-2001) – D (1995-2001) = relative gain DA. - 2) 1995-2000.

Sources: **wiiw** estimates based on national statistics, own calculations.

Table 2

Relative changes in unit labour costs, 1995 to 2001
(average annual change in % for total manufacturing (D) and relative gains DA to DN, in percentage points)¹⁾

	Czech Republic	Estonia²⁾	Hungary	Latvia	Lithuania³⁾	Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D Manufacturing total	3.3	2.4	-7.8	6.0	13.8	3.0	1.5	3.6	4.7	0.0
DA Food products; beverages and tobacco	4.0	2.9	7.1	0.7	2.6	3.5	3.9	0.3	0.8	-5.8
DB Textiles and textile products	4.1	-3.3	5.8	0.8	-0.3	0.5	8.5	-2.8	1.9	2.5
DC Leather and leather products	14.9	-4.6	9.8	2.0	-11.5	0.4	-1.1	5.7	2.1	-1.1
DD Wood and wood products	1.0	-10.0	6.5	2.4	-5.3	2.3	-0.4	6.2	-4.5	1.3
DE Pulp, paper & paper products; publishing & printing	2.9	3.8	-0.2	4.9	6.5	1.7	-1.0	9.3	6.5	6.7
DF Coke, refined petroleum products & nuclear fuel	5.1	.	11.1	.	.	2.1	2.1	.	-1.8	6.4
DG Chemicals, chemical products and man-made fibres	1.9	.	11.7	4.0	-9.7	2.9	1.6	1.9	-1.9	7.0
DH Rubber and plastic products	-1.3	0.1	9.5	-13.2	9.2	-1.7	2.2	0.0	-0.4	6.7
DI Other non-metallic mineral products	0.4	1.3	6.8	-5.4	-3.7	0.4	3.3	-0.4	-3.6	-1.8
DJ Basic metals and fabricated metal products	4.6	-2.4	4.5	0.8	-0.6	-0.7	5.4	-0.4	-2.5	0.9
DK Machinery and equipment n.e.c.	-4.4	-1.7	5.8	6.1	5.2	-1.0	-0.8	2.4	9.7	-2.5
DL Electrical and optical equipment	-10.8	-1.7	-13.1	-10.2	-5.9	-3.5	-2.2	-4.7	-5.3	2.6
DM Transport equipment	-2.6	-4.8	-9.4	2.1	-10.7	-4.8	-14.4	-5.5	-0.1	-1.7
DN Manufacturing n.e.c.	-1.6	n.a.	4.9	-1.9	4.7	-1.1	-1.9	-1.0	-7.7	-8.7

Notes: 1) Calculation of relative gains DA (1995-2001) minus D (1995-2001) = relative change DA. Positive values indicate weaker, negative values better competitive (cost) performance than total manufacturing (D). - 2) Data for individual industries only available from 1995 onwards. However, average annual change for total manufacturing is available for the period 1995-2000 (6.8%). - 3) 1996-2001.

Sources: **wiiw** estimates based on national statistics.

In selected CEECs and a few industrial branches, there has been a remarkable productivity catching-up in the period after 1995. Comparing productivity changes across individual industries, a quite clear pattern emerges: The most obvious 'productivity winner' in the period 1995-2001 was the electrical & optical equipment industry, over-performing in all CEECs, followed by the transport equipment industry and manufacturing n.e.c. (mainly furniture – see Table 1). Typical 'productivity losers' are the food & beverages industry, textiles & textile products, leather & leather products, wood & wood products, paper & printing and chemicals. In general, we find certain evidence that the technologically more sophisticated industries in the CEECs have strongly improved their productivity performance, while traditional sectors using standard techniques have been falling behind.

Not only productivity matters for competitiveness but also wage rates play their role in shaping relative cost structures and hence the competitive position of different industries from the cost side. Over the period 1995-2001, unit labour costs in manufacturing (ULC) increased in nearly all CEECs (see Table 2). The only exceptions are Hungary, where ULC declined at an average annual rate of 7.8%, and Romania, where ULC have stagnated. Sectoral disparities of ULC changes are mainly caused by varying dynamics of labour productivity: typically, changes in wage rates differ much less across industries and are positively associated with productivity changes. Industries that provide evidence for a better competitive performance than average (with a negative sign in Table 2) are typically the technologically more sophisticated industries such as electrical & optical equipment and the transport equipment industry. Industries signalling a weaker competitive performance than average in most CEECs in the period 1995-2001 (with positive sign in Table 2) are mainly the 'productivity losers': the food & beverages industry, textiles, leather & leather products, wood products, paper & printing and chemicals. The important point which emerges from cross-industry comparisons is that for some countries the productivity catching-up (closure of the gap) is quite rapid in the medium-/high-tech industries in which the initial gaps were the highest.

4 Trade specialization and competitiveness of CEECs' manufacturing

During the 1990s, trade integration between the EU and the CEECs progressed with remarkable speed: the EU is now their most important trading partner. From this point of view, most CEECs are thus already now more integrated into the EU than many present EU member states. Most CEECs are having negative trade balances with the EU (especially with Germany, Italy and Austria). Only Hungary (since 1997), the Czech Republic and Slovakia (both since 1999) record trade surpluses with the EU. Preliminary data from national statistics indicate a further improvement of CEECs' trade balances and additional market share gains in the EU during 2002 (see Podkaminer et al., 2003).

Table 3 provides a crude 'qualitative' assessment of the competitiveness of individual 2-digit NACE industries based on the evolution of sectoral trade balances with the EU during the period 1995-2001. In a sectoral perspective across countries, the 'best' performer is the wood & wood products industry, in which all CEECs enjoy a trade surplus with the EU, followed by manufacturing n.e.c. (mainly furniture) and textiles & textile products. In contrast, serious problems with trade competitiveness are observed for industries such as chemicals, rubber & plastic products, machinery & equipment n.e.c. as well as paper & printing, all with a high frequency of trade deficits. In a cross-country perspective, Slovak manufacturing has the highest number of surplus industries and scores best also in terms of the number of '+' cases (about 48% of the maximum score). The weakest competitive position has been found for manufacturing in Slovenia and Poland.

The CEECs have made the strongest inroads into EU markets in a number of widely heterogeneous industries: apart from motor vehicles as well as TV, radio and telecom equipment, which have been the clear leaders, the biggest market share gains in the EU were achieved in railway stocks, metal products, furniture, accumulators and steam generators. In some of these industries, the CEECs already became major suppliers to the EU market. The aggregate market share gain of CEECs in total (both extra and intra) EU imports (1.8 percentage points between 1995 and 2001) occurred mainly at the expense of declining importance of intra-EU trade (-4.6 percentage points loss of market share), as well as EU imports from Japan (-0.7 percentage points – Table 4). The USA, South Korea and especially China recorded market share gains in the EU as well. Measured by the correlation between the respective market share gains and losses in the EU across all 95 individual 3-digit NACE industries,¹⁴ most CEECs do not seem to compete directly with the EU cohesion countries (Greece, Portugal and Spain). Rather, their market share gains were correlated with declining market shares of industries in overall intra-EU trade (including exports of Austria, France, Germany, Italy and Ireland), as well as with EU imports from South Korea. However, only a limited number of the correlation coefficients shown in Table 4 are statistically significant (these are marked with '*'). Based on this evidence, the Czech Republic competes on the EU market with Germany and Ireland; Hungary with Japan, Austria and France; Poland with Austria and France. Interestingly, Austria and France seem to be the two EU member states which compete most with CEECs:¹⁵ both Austria and France have lost market shares in the EU (just as Germany, Italy, Sweden and Finland did) and their market shares losses were significantly correlated with market share gains of CEECs.

¹⁴ Positive correlation indicates market share gains (losses) in the same industries whereas negative correlation suggests that market share gains (losses) were associated with losses (gains) by other competitors on the EU market.

¹⁵ However, both Austrian and French trade with CEECs has been in surplus during the period.

Table 3

Qualitative assessment of manufacturing industry trade competitiveness

(based on sectoral trade balances with the EU during 1995-2001)

		CZ	EE	HU	LV	LT	PL	SK	SI	BG	RO	Positive countries	Number of "+" cases (30 max)	Number of "-" cases (30 max)
DA	Food products; beverages and tobacco	---	--	++	--	-	-	--	--	++	--	2	4	15
DB	Textiles and textile products	+++	+++	+	+++	+++	+	++	---	+++	+++	9	22	3
DC	Leather and leather products	--	--	--	--	+	---	+++	---	++	+++	4	9	14
DD	Wood and wood products	++	+++	+	+++	++	+++	+++	+	++	+++	10	23	0
DE	Pulp, paper & paper products; publishing & printing	--	-	--	---	--	--	+	---	--	---	1	1	20
DF	Coke, refined petroleum products & nuclear fuel	---	+++	++	++	+++	-	+	---	-	--	5	11	10
DG	Chemicals, chemical products and man-made fibres	---	---	---	---	--	---	---	---	---	---	0	0	29
DH	Rubber and plastic products	---	---	---	---	---	---	---	-	---	---	0	0	28
DI	Other non-metallic mineral products	+++	--	---	--	--	--	++	-	+	+	4	7	12
DJ	Basic metals and fabricated metal products	+	--	---	+	+	+	++	-	+++	++	7	11	6
DK	Machinery and equipment n.e.c.	-	---	---	---	---	---	-	-	---	--	0	0	23
DL	Electrical and optical equipment	-	+++	+++	---	---	---	--	---	---	---	2	6	21
DM	Transport equipment	+++	---	+++	---	---	---	+++	-	---	---	3	9	19
DN	Manufacturing n.e.c.	+++	+++	+	+	+++	+++	+++	+++	-	+++	9	23	1
Number of positive sectors		6	5	7	5	6	4	9	2	6	6			
Number of "+" cases (out of 42 max)		15	15	13	10	13	8	20	4	13	15			
% of "+" cases		35.7	35.7	31.0	23.8	31.0	19.0	47.6	9.5	31.0	35.7			
Number of "-" cases (out of 42 max)		18	21	19	24	19	24	11	25	19	21			
% of "-" cases		42.9	50.0	45.2	57.1	45.2	57.1	26.2	59.5	45.2	50.0			

Legend for evaluation:

- Rising deficits
- Low or stable deficits
- Declining deficits
- + Small or declining surplus
- ++ Stable surplus
- +++ Growing surplus

Sources: **wiiw** evaluation based on EUROSTAT COMEXT Database.

Table 4

Correlations of market share gains/losses in the EU between 1995 and 2001

	Bulgaria	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovak Rep.	Slovenia	CEEC-10	CEEC-8
Market share gain/loss in total EU imports	0.03	0.50	0.07	0.56	0.01	0.05	0.33	0.18	0.14	-0.02	1.83	1.63
Correlations of market share gain/loss												
EU(intra)	-0.19 *	-0.28 *	-0.19 *	-0.12	0.02	-0.06	-0.21 *	-0.19 *	-0.06	-0.12	-0.30 *	-0.27 *
Greece	-0.25 *	0.23 *	-0.14	0.07	0.05	0.11	0.21 *	-0.07	0.46 *	0.04	0.24 *	0.28 *
Ireland	-0.06	-0.20 *	-0.01	0.00	0.05	0.07	-0.16	-0.05	0.03	-0.02	-0.14	-0.14
Portugal	-0.39 *	0.01	-0.12	0.08	-0.05	-0.20 *	-0.01	-0.44 *	-0.08	0.16	-0.10	-0.01
Spain	-0.09	-0.16	-0.13	0.02	0.03	0.01	-0.11	-0.09	-0.32 *	0.02	-0.17	-0.16
USA	-0.07	0.04	-0.10	0.02	-0.05	0.14	-0.01	-0.08	0.02	0.02	-0.01	0.01
Japan	0.11	-0.06	0.03	-0.22 *	-0.01	0.06	0.01	0.16	-0.14	0.00	-0.03	-0.07
China	0.05	0.10	0.00	0.02	-0.03	-0.05	0.07	0.14	0.01	0.13	0.11	0.08
South Korea	0.06	-0.18	0.00	-0.04	-0.01	0.00	-0.12	-0.02	-0.02	0.00	-0.13	-0.14
GR,IR,PO,SP	-0.32 *	-0.17	-0.18	0.07	0.05	0.01	-0.12	-0.28	-0.11	0.07	-0.18	-0.13
Austria	-0.19 *	-0.11	-0.09	-0.22 *	0.09	0.20 *	-0.25 *	-0.01	-0.08	-0.23 *	-0.24 *	-0.24 *
GR,PO,SP	-0.33 *	-0.05	-0.21 *	0.08	0.02	-0.05	-0.02	-0.30 *	-0.15	0.10	-0.11	-0.04
Germany	0.04	-0.19 *	-0.06	-0.17	0.10	0.10	-0.07	0.09	-0.02	-0.24 *	-0.12	-0.15
Italy	-0.21	0.02	0.16	0.09	0.06	0.01	0.03	-0.29 *	-0.12	0.06	-0.01	0.06
France	0.07	-0.12	-0.12	-0.22 *	0.01	-0.07	-0.25 *	-0.16	0.06	-0.08	-0.25 *	-0.23 *
Sweden	0.05	-0.05	-0.48 *	-0.01	-0.44 *	-0.17	0.04	-0.16	-0.09	0.38 *	-0.11	-0.08
Finland	-0.06	-0.02	0.18	0.14	-0.22 *	-0.03	0.11	-0.09	0.05	0.02	0.06	0.08
	Greece	Portugal	Spain	Ireland	Austria	France	Italy	EU intra	USA	Japan	China	S. Korea
Market share gain/loss in total EU imports	-0.07	0.08	0.25	0.76	-0.05	-0.98	-1.15	-4.56	1.18	-0.66	1.51	0.17
Correlations of market share gain/loss												
EU(intra)	0.16	0.32 *	0.18	0.06	0.21 *	0.51 *	0.33 *	1.00	-0.27 *	-0.11	-0.46 *	-0.27 *
Greece	1.00	0.13	-0.01	0.08	-0.03	-0.03	0.05	0.16	0.08	-0.08	-0.06	-0.01
Ireland	0.08	-0.03	-0.15	1.00	-0.11	0.01	-0.05	0.06	0.06	-0.06	-0.17	0.36 *
Portugal	0.13	1.00	-0.02	-0.03	0.12	0.05	0.48 *	0.32 *	0.15	0.00	-0.12	-0.06
Spain	-0.01	-0.02	1.00	-0.15	0.01	-0.21 *	0.00	0.18	-0.09	0.26 *	-0.22 *	-0.03
USA	0.08	0.15	-0.09	0.06	0.03	-0.23 *	0.02	-0.27 *	1.00	-0.10	-0.06	-0.11
Japan	-0.08	0.00	0.26 *	-0.06	-0.07	-0.05	0.09	-0.11	-0.10	1.00	-0.13	0.18
China	-0.06	-0.12	-0.22 *	-0.17	0.03	-0.12	-0.31 *	-0.46 *	-0.06	-0.13	1.00	-0.18
South Korea	-0.01	-0.06	-0.03	0.36 *	-0.09	-0.09	-0.08	-0.27 *	-0.11	0.18	-0.18	1.00
GR,IR,PO,SP	0.37 *	0.39 *	0.57 *	0.55 *	-0.02	-0.12	0.17	0.33 *	0.06	0.12	-0.32 *	0.19 *
Austria	-0.03	0.12	0.01	-0.11	1.00	0.16	0.02	0.21 *	0.03	-0.07	0.03	-0.09
GR,PO,SP	0.37 *	0.50 *	0.80 *	-0.11	0.06	-0.16	0.24 *	0.34 *	0.02	0.19	-0.26 *	-0.05
Germany	0.08	0.00	0.18	-0.07	0.32 *	0.24 *	-0.13	0.51 *	-0.11	-0.01	-0.32 *	-0.13
Italy	0.05	0.48 *	0.00	-0.05	0.02	-0.02	1.00	0.33 *	0.02	0.09	-0.31 *	-0.08
France	-0.03	0.05	-0.21 *	0.01	0.16	1.00	-0.02	0.51 *	-0.23 *	-0.05	-0.12	-0.09
Sweden	-0.04	0.01	0.19	-0.05	-0.36 *	-0.01	0.01	0.12	-0.01	0.16	-0.06	-0.02
Finland	0.00	-0.03	-0.11	0.01	-0.51 *	-0.21 *	0.14	-0.04	-0.11	0.07	-0.05	0.02

Note: * = significant at 5% level.

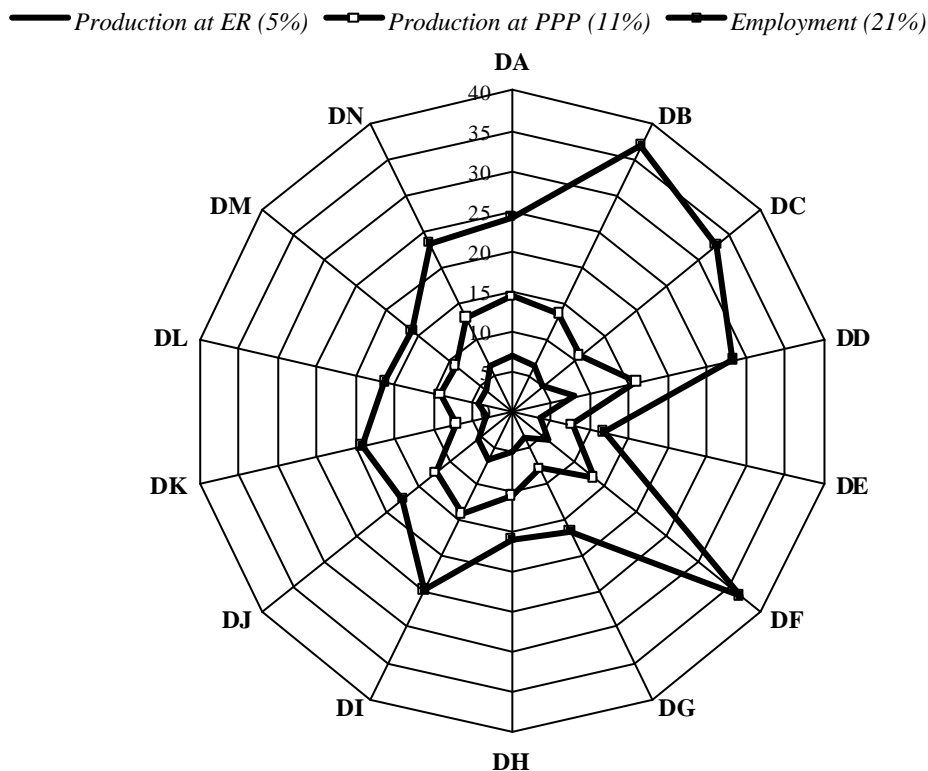
Source: Own calculations based on Eurostat COMEXT database (95 3-digit NACE industries).

5 Enlargement and challenges for European industry

The picture which emerges is that of a strong differentiation across the CEECs by a number of indicators of revealed comparative advantage, in their production and employment structures and, furthermore, as concerns tendencies of trade specialization and quality upgrading. While some CEECs have dramatically reduced (or even completely eliminated) their inter-industry specialization in labour-intensive, low-skill branches and made inroads into technology-driven and skill-intensive sectors, others show clearly that their specialization structures got 'locked in' (at least so far) in the labour-intensive, low-skill sectors and their specialization pattern remains one typical of less advanced economies. The individual CEECs are in different positions with regard to catching-up, and this refers not only to overall levels but – probably more importantly – to the qualitative nature of their structural transformations and their positions in cross-European production and trade structures. We expect such differentiation to have a bearing on how the CEECs will cope with the additional adjustments required by the accession process itself and on what footing they will be able to participate in the integrated structures of the enlarged European economy.

Figure 2

Shares of CEECs in manufacturing industry of an enlarged EU-25, 2000, in %



Note: Production values in 2000 converted with current exchange rates (ER) and with purchasing power parities for 1999 (PPP99), respectively.

Source: **wiiw** estimates based on national statistics and AMECO.

CEECs' manufacturing sector, compared to aggregate production in the EU, is relatively small: Taken together, manufacturing production of all ten CEECs in the year 2000 made up only about 5% of the total production in the enlarged EU-25. However, in view of the still grossly undervalued currencies, the 'real' shares of CEECs' manufacturing are much higher – around 10% of the total EU-25 manufacturing, and in some industries such as wood products, non-metallic minerals, food & beverages and manufacturing n.e.c. (mainly furniture) even more than that – see Figure 2, which shows aggregates at both exchange rates and PPPs. Industries which are particularly small in relation to the EU are, for instance, machinery and equipment n.e.c. and chemicals. As far as employment is concerned, the accession countries account for one fifth of EU-25 manufacturing jobs, with particularly high employment shares in the textiles and leather industries.

While EU accession will not bring any additional dramatic changes for industry (owing to the already existing high degree of integration in this area) in either 'old' or 'new' EU member states, there will be some sectors (e.g. steel in several CEECs) and areas (SMEs, border regions in both 'old' and 'new' member states) that might be adversely affected. The takeover of the environmental *acquis communautaire* will be costly (the investments required are estimated to exceed EUR 100 billion in the CEECs – see Commission of the European Communities, 2003), and the ability of domestically owned SMEs to cope with increased competition is still generally low. Promotion of SMEs, networking and cross-border cooperation, as well as improved administrative capacities, will be crucial for overcoming potential problems arising in the enlarged European market. In the present EU member states, new opportunities for investment and cost-optimizing strategies will open possibilities for the creation of more complex production networks that draw on complementary production factors, thus making it possible to enhance the competitiveness of European companies in the global context. In the context of the EU's Lisbon Strategy, which aims at both improved competitiveness and high employment growth, the main accent in the new EU member states should be focused on, at least, retaining existing jobs while simultaneously maintaining the recent pace of productivity improvements.

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CEE agriculture in an enlarged EU: a hard landing ahead?

1 Outcome of past reforms

In the accession countries of Central and Eastern Europe (CEECs) the share of agriculture in both Gross Domestic Product (GDP) and total labour force has diminished in the course of transition; that notwithstanding, at least in most cases, the shares are greater than the EU average. In Poland and Romania in particular, the agricultural sector has too large a workforce and labour productivity is correspondingly low. However, this does mean that persons who would otherwise be unemployed are actively engaged in farming, even though frequently at the subsistence level. Furthermore, it helps to reduce the country's extremely high rate of unemployment.

Property and farm structure

We can divide the countries under discussion here into two groups¹⁶. In the first group, Poland and Slovenia, the communist governments left family farming in place as the dominant form of agricultural activity. As a consequence, the systemic change required during transition was minor. In the second group, the Czech Republic, Hungary and Slovakia, the communist governments marginalized family farming; on the threshold to transition large state-owned or collective farms worked the land. In the latter group of countries farming was industrialized so to speak: a mode of operation that was, and still is, the ideal of many modernizers in East and West alike. The reformers in these countries who had their roots in the major political parties and were vociferous agrarian lobbyists thus had two conflicting reform targets:

- Restitution or compensation of farmland to former owners
- Securing the continuation of large-scale farming

Both targets were achieved. Today, over 90% of the agricultural land in the CEECs is in private hands. However, despite fragmented land ownership, farms are relatively large given the propensity to lease land. The agricultural enterprises located in favourable locations – organized as joint stock companies, limited liability companies or co-operatives – stand a good chance of making a profit, yet frequently make a loss elsewhere. In Hungary, good locations are in the majority, hence loss-making farms are less of a problem.

¹⁶ We are dealing here mainly with the CEEC-5: the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

In Poland and Slovenia small family-owned farms predominate and debt is less of an alarming problem in their case. In Poland, some of these family farms work at subsistence level and the technologies they use are obsolete. Much less so in Slovenia, where the degree of subsidization is the highest of the CEEC-5 and is as high as or even higher than levels in the EU countries.

Diminishing importance

In the initial years of transition, the CEE governments, fired by a spirit of economic liberalism, yet lacking funds, cut back agricultural subsidies drastically – with the exception of Slovenia. This dealt agriculture a major blow. The farms could no longer afford to purchase the same amount of inputs as before: chemicals such as herbicides, pesticides, feed concentrates, fuel oil, seeds, machinery and equipment. At the same time, given the competition of imports, the demand for domestic foodstuffs dropped; this resulted in low procurement prices for agricultural raw materials. Consequently, part of the production became unprofitable and ultimately the sector's output declined dramatically. Farm production has never fully recovered since. Hitherto, much of the farm output, especially in animal husbandry, is still below pre-transition levels.

Growing agro-food trade deficits

At the beginning of the nineties, agriculture in the CEECs lost its traditional export markets: the former Soviet market collapsed, as did trade between the CEECs. The individual countries started re-directing their agro-food exports towards the EU. At the same time, they signed association agreements with the EU as a first preparatory step for future membership. This gave rise to step-wise liberalization, especially where trade in industrial goods was concerned, but much less so in farm products. In subsequent years, trade balances for agro-food products deteriorated rapidly owing to a large deficit in the food processing sector. Today, of the countries discussed here, Hungary is the only country registering a trade surplus in the agro-food sector.

During the nineties real incomes declined to such an extent that people cut back on their consumption of foodstuffs with high value-added. As a result, the food processing industry recorded greater output losses than manufacturing in general, except for Poland. As income levels became increasingly differentiated, the more affluent people developed a liking for imported food, regardless of the higher prices. Domestic food producers lost market shares despite their prices in the initial period of transition being much lower than those of competing imports. A few years later, powerful western competitors started to acquire lucrative segments of the CEE food-processing industry. However, FDI penetration is more marked in the retail sector than in the food processing sector. In the meantime, foreign investors have secured control of most of the major retail chains. Here again, Slovenia differs from the other CEECs in terms of food processing and foreign direct

investment. As early as the late eighties, its food processing industry was more market-oriented; its market share loss was less and foreign direct investors were not made as welcome as in the other CEECs – regardless whether it was food processing or the retail business.

2 Copenhagen Agreement

Results for accession countries

For agriculture in the CEECs, the Copenhagen summit in December 2002 yielded first of all the following results:

- (1) The new member states would adopt the quota system to regulate the output of certain products. Quotas would be based on production results relating to the most recent three years available at the time of the Copenhagen summit. The CEECs failed to push through their proposal that the last years prior to transition be taken as reference years that would have resulted in more favourable production quotas.
- (2) Farmers in the new member states would be entitled to receive direct payments. These payments would only reach their final full dimensions in 2013; in 2005, the second year of membership, EU payments would start at only 25% of the full amount. In subsequent years, that percentage would rise gradually. The new member countries would have the right to add direct payments from their national budgets. The EU also accepted a reshuffling of EU funds. Up to 2006 the governments would be free to increase direct payments by partly using funds originally earmarked for rural development. Poland was also given the go-ahead to shift resources from structural funds to direct payments. Even if the CEECs were to avail themselves of all these opportunities to reshuffle funds and top up payments from national sources, direct payments, compared to the projected final level, would amount to only 55% of the EU average in 2005 and to 60% in 2006. In Copenhagen, the negotiators agreed on the total amounts to be allocated to the individual countries from the CAP direct payment fund. The distribution of those totals among farmers would be the task of national and regional authorities.
- (3) The new member countries would enjoy immediate free access to the EU markets for agricultural products and foodstuffs, the precondition being that they met EU quality standards and observed EU phytosanitary, veterinary, animal welfare and environmental rules and regulations.
- (4) The rapid development of rural areas was a priority target. The related funds should help to bring about a better infrastructure and open up new employment opportunities beyond agriculture. Early retirement schemes for farmers would be introduced, environmental protection improved, finance programmes launched to facilitate the closure of subsistence farms and schemes introduced for the forestation of agricultural land.

Impact on the EU-15

Budget: Compared to the gross domestic product of the EU-15 or the entire EU budget, direct payments to farmers in the new member states, out of the Common Agricultural Funds, will be negligible in size in 2005. In that year, the first year of direct payments to farmers in the new member countries, total payments will amount to about 3% of the Union's entire agricultural budget for the EU-15; in other words, to roughly 0.01% of the Gross Domestic Product (GDP) of the EU-15. Measured in terms of the new members' GDP, it will amount to about 0.25%.

Agriculture: Upon accession the final trade barriers between the new member states and the EU will be removed. The Common Agricultural Policy (CAP) implies guaranteed prices for the most important agricultural mass products such as grain, rice and sugar and milk. In order to prevent actual market prices from falling below the guaranteed level, the CAP authorities will intervene with purchases, build up stocks and subsidize their export. In the CEECs farmers will enjoy guaranteed prices, higher than their pre-accession farm gate prices (except for Slovenia). However, quantity restrictions – quotas and the like – will discourage them from increasing output. The quota system will ensure that agricultural surpluses will not explode after enlargement.

By insisting on production quotas being based on yields in past years, the EU Commission wanted to guard against future CEE output surpassing recent levels. Technically, the potential for output increases is given. Should the EU eliminate its output restrictions schemes for main products at some future point in time, this potential could start to play a role. However, such a scenario is unlikely, even in the long run. Of course, in the case of unregulated products lacking guaranteed prices, the new member states will be free to expand production, if they are able to cover their total costs without subsidies and sell their products. However, EU-15 market prices for such commodities (e.g. pork and poultry) have seldom differed to any significant degree from those in the accession countries.

Food processing: After May 2004 the new member states will also operate in an enormous single market comprising the EU-25. Full compliance with EU quality standards and phytosanitary, veterinary, animal welfare and environmental rules and regulations will impose massive investment requirements on farmers, food processing plants as well as enterprises concerned with the storage, transportation and distribution of food. For some time at least, these very strict rules will protect the EU-15 agro-food sector in a manner similar to non-tariff barriers, as observance of the same will call for massive investments and be very time-consuming. So, there will be new opportunities for foreign food processing companies to expand in the new member states.

3 Consequences for accession countries

Consequences for farmers

Starting from a very low level, input prices rose more rapidly than output prices throughout the past decade. As a result the farmers' 'terms of trade' worsened. For a very short time after accession, some two years, the CEECs (except Slovenia) may profit from price increases on the output side while prices for most of their inputs will rise less sharply. However, most of the inputs are tradable, so further convergence with EU price levels is likely. As for agricultural land and labour, the current price gap is very large. With the liberalization of the real estate market, land prices will rise appreciably. Labour costs will also go up. Ultimately after accession, the CEE farmers will be confronted with EU price levels on both the output and input side, at which time those who are technologically disadvantaged will be in trouble. In the new member states livestock producers in particular will have to cope with additional costs stemming from strict EU sanitary and animal welfare regulations.

It is estimated that in 2005 direct payments per hectare of total used agricultural land will average about € 30 in the new CEE member states as against some € 130 Euros in the incumbent member states. The figure of €30 is a weighted average; as in the present EU, the differences between individual countries are large. However, compared to the EU-15 countries the purchasing power of one euro is much greater in the CEECs, and this will still be the case in 2005. Taking this into account, the direct payment per hectare of total used agricultural land will come close to 50% of the EU level.

A 1,000 hectare farm producing crops, a common enough size in the Czech Republic and Slovakia, will receive direct payments ranging between €30,000 and 40,000 in 2005. This can be regarded as a very modest contribution to the purchase of new machinery and equipment. On the other hand, a 10 hectare farm likewise producing crops, a size to be found predominantly in Poland and Slovenia, will only receive some €300. The subsidies, from both the EU and national sources, will not be enough to provide for technical upgrading, even though during a transitional period the restrictions on funding from national sources will be less strictly applied.

In the initial post-accession years, the majority of CEE governments will face enormous budgetary problems. This does not hold true for Slovenia where the budget has always been balanced and an agricultural policy similar to the EU's CAP is already in place. In the other CEECs, the budget deficit ranged between 4% (Poland) and 9% (Hungary) in 2002. The governments will have to pay the annual EU membership fee, yet they will not be in receipt of most of the EU transfers. On the contrary, many of the EU payments entering the country will require government co-financing. The farmers' organizations will urge the governments to top up direct payments to the maximum limit permitted by the EU. The

governments will not be in a position to do so. All the more so as the EU will urge governments to bear in mind that slowly but surely they will have to start observing the stability criteria as defined in Maastricht treaty.

Differences in individual countries

In Poland small semi-subsistence farms that produce in part for the local market and a few large commercial companies will encounter problems in supplying goods that meet EU quality standards. As a result, even more farmers will revert to subsistence agriculture.

In most farming families in Slovenia, at least one member of the family has a job outside farming; more often than not part of that person's income goes to co-financing the purchase of new farm equipment. Slovenia's budgetary situation is sound; furthermore, after entering the EU, the government can afford to make small-scale family farming viable by lending massive support not only to subsistence or semi-subsistence farms, but also to commercial operations. Slovenia has decided to top up CAP payments from national sources.

Czech, Hungarian and Slovak farms dispose of large areas of agricultural land enough to facilitate the application of modern agro-industrial technologies (economies of scale). After entering the EU, prices for the main agricultural products will rise. On the input side, this will hold especially true for land, labour and some goods and services that are currently not (or not yet) imported. The large-scale farms have predominantly operated on leased land and have hired labour, thus especially after the land and labour markets have opened up, production costs may well rise.

On the whole, the agricultural sector in the new member states will experience increasing adjustment pressure.

Consequences for FDI in agriculture

Where farms offer some comparative advantages attractive to foreigners, foreign companies will be interested in taking them over (through leasing, in cases where the purchase of land is provisionally restricted, later also buying them). The decisive issues here are favourable production conditions, location close to the EU-15 borders and large-scale farms, which have an optimal size for economies of scale. Small family farms, owning and cultivating their own land, are more resistant to FDI. Besides, foreign investors are hardly interested in small plots of a few hectares.

Consequences for food processing

For the CEE food processing plants and agro-food businesses, a basic problem will be posed by the new EU quality standards and phytosanitary, veterinary, animal welfare and

environmental rules and regulations. Only after massive investments will the food processing plants as well as the sector providing of transport, storage and distribution services be able to comply with these standards and rules. As the EU-15 has not accepted that there be a transition period in which to implement these rules as requested by several candidate states, enormous adjustment pressure will build up in the short period prior to and immediately following accession.

In the new member states, some food processing plants will be utterly incapable of meeting these requirements: small enterprises in particular will not survive, while the larger enterprises familiar with local markets will in all likelihood be bought up by international corporations with capital resources.

In the Copenhagen agreement, the chapter related to agriculture reflects the Commission's interest in freezing agricultural production in volume terms in the new EU member states, despite the fact that except for Hungary, all of them are already net importers of agro-food. Currently, living standards in the candidate countries are significantly lower than those in the EU-15. However, as the catching-up process moves ahead and GDP per capita rises, the demand for higher quality foodstuffs will also increase. Today, despite a slight drop the EU-15 states are still producing agro-food surpluses; they can only export these surpluses by resorting to massive export subsidies. Given the CAP philosophy on common agro-food markets within the club, the agro-food surpluses from the EU-15 states will simply be 'delivered' to the 'new' EU states over the short term. This would provide the EU-15 with a very convenient means of reducing their agro-food surpluses, while obviating the need to fund export subsidies.

In the long run, however, we can expect some differentiation in the structure of the agro-food trade balance. As mentioned above, the CEECs have run up major deficits, especially where trade in processed food is concerned. As for agricultural raw materials, the CEECs are net exporters. As FDI flows into the food processing sector in the new member states, the output of foodstuffs with high value-added will increase and a larger share of the rising demand for higher quality food will thus be covered gradually by domestic supplies. At the same time, domestic demand for agricultural raw materials driven by foreign-owned companies will expand. As a result, over the long term total agro-food deficits may well drop in the new member states.

4 Summary and outlook

As the strict EU standards and rules will force many family farms to leave the market, they will probably decline in number. Large farms, cultivating leased land, will face rising labour and land-related costs. In order to survive, high technological standards will become a decisive issue. However, lack of funds – from own or external sources - will limit enterprise

modernization. EU standards will also affect food processing plants. Compliance with the same will call for investment on a massive scale. Not every enterprise will master the situation. Indeed, if a farm or food processing plant displays some comparative advantages of interest to investors from abroad, foreign companies will lease or acquire them.

For some of the most important products, production quotas will restrict output expansion. At the same time, given rising incomes in the non-agricultural segments of the population the demand for high quality food will increase. As a consequence, in the initial post-enlargement period, additional demand will be covered by agro-food surpluses from the EU-15. Agro-food trade deficits will rise. However, in the long run more FDI in the food processing sector will lead to the output of processed food expanding. That will gradually cover a larger proportion of rising domestic demand. As a result, agro-food trade deficits may well drop over the long term.

Assessing long-term prospects, however, has also been made particularly complicated by the EU commission having presented a new reform package pertaining to the Common Agricultural Policy up to 2014. The outcome of discussions in the EU-25 is thus completely unpredictable.

An additional uncertainty is the outcome of the upcoming WTO negotiations; they may well change the rules of the game.

Appendix (Tables)

Table A1

	Main indicators 2001 ¹⁾									
	Bulgaria	Czech Republic	Hungary	Estonia	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia
Total territory, mn hectare	11.099	7.887	9.303	4.523	6.459	6.530	31.268	23.839	4.904	2.026
Population, annual average										
Total, mn persons	8.0	10.3	10.2	1.4	2.4	3.5	38.6	22.4	5.4	2.0
Employment in agriculture										
mn persons	0.8	0.2	0.2	0.04	0.2	0.3	3.9	3.6	0.1	0.04 ²⁾
in % of total employment	26.3	3.9	6.5	6.7	14.7	17.7	25.6	41.4	6.7	5.2
Used agricultural land (UAL)										
mn hectare	6.252	4.280	5.853	0.890	2.480	3.370	18.413	14.731	2.442	0.486
% of total	56.3	54.3	62.9	19.7	38.4	51.6	58.9	61.8	49.8	24.0
Hectare per person employed in agriculture	0.778	0.416	0.574	0.653	1.052	0.966	0.477	0.657	0.454	0.244
Gross domestic product (GDP)										
EUR bn at current exchange rates	13.6	63.0	58.0	6.2	8.4	13.4	196.9	44.3	22.3	21.0
Per capita (EUR at current exchange rates)	1884	6120	5690	4465	3572	3836	5096	1979	4122	10564
pro capita (EUR at purchasing power parities)	5980	13710	11760	9330	7040	7230	9110	6410	11040	16440
Average share of food purchases in total household income, in %	44.9	21.5	29.5	35.1	36.5	35.0	31.2	53.4 ²⁾	23.5	17.7

Notes: 1) Preliminary estimate. - 2) Including beverages and tobacco.

Source: **wiiw** Database based on national statistics and WIFO database.

Table A2

Accession countries: Trade of agro products and processed food with EU-15

CEEC-10	NACE rev.1	1995	1996	1997	1998	1999	2000	2001
		Exports in % of imports						
Growing of crops; market gardening; horticulture	1.1	68.6	44.8	44.1	55.0	69.5	52.9	56.2
Farming of animals	1.2	292.7	291.1	311.2	269.0	330.7	258.8	261.3
Forestry, logging and related services activities	2.0	1478.3	2022.7	1968.0	1493.7	1424.1	1198.5	1034.7
Fishing, operation of fish hatcheries and fish farms	5	251.9	282.3	297.7	189.5	227.5	165.1	159.6
Agro-total		136.9	93.0	106.3	119.3	141.8	111.0	107.5
Meat products	15.1	144.0	172.3	150.6	128.7	209.3	154.9	168.7
Fish and fish products	15.2	93.2	70.8	70.2	83.2	134.9	125.4	111.2
Fruits and vegetables	15.3	250.4	256.9	234.4	213.2	302.1	308.1	314.6
Vegetable and animal oils and fats	15.4	15.6	23.2	14.4	10.0	13.8	14.4	12.5
Dairy products; ice cream	15.5	74.2	103.6	106.6	88.3	98.5	107.5	245.1
Grain mill products and starches	15.6	12.9	11.8	7.8	9.0	14.8	12.9	17.2
Prepared animal feeds	15.7	16.4	29.2	33.0	29.7	34.1	127.2	50.5
Other food products	15.8	15.0	18.0	18.8	19.2	19.3	24.8	23.2
Beverages	15.9	55.0	58.4	64.8	68.8	73.0	75.8	69.0
Tobacco products	16	4.2	0.9	2.7	2.4	1.1	2.5	1.9
Food-total		57.9	63.5	61.9	57.3	71.5	77.2	71.4
Agro-total plus food-total		77.8	72.8	74.3	73.2	91.4	88.2	81.8
Exports-total		85.8	76.5	75.9	79.6	85.6	89.4	92.0
		Imports in EUR, current prices, current exchange rate						
Agro-total		1.1	1.5	1.4	1.4	1.3	1.7	1.9
Food-total		3.2	3.2	3.6	3.9	3.4	3.5	4.7
Imports-total		51.0	60.8	73.6	83.9	87.7	107.5	119.4

Source: **wiiw** Database based on national statistics and WIFO database.

The services sectors in Central and Eastern Europe*

1 Introduction

The outstanding growth of the services sector has been the major feature of structural change in the developed market economies during the last decades. From the beginning of the 1980s until the end of the 1990s, in the OECD countries the number of jobs created in the services sector was higher than that of jobs created overall; thus services-related jobs more than compensated for employment losses in other sectors (OECD, 2000). Today services account for nearly 70% of both OECD value added and employment.

In the transition countries, the tertiary sector was almost completely neglected in the period of central planning; economic activities were mainly concentrated in (heavy) industry, and in some countries also agriculture absorbed a considerable proportion of total employment. Most services were considered 'unproductive labour' and their contribution to the efficient functioning of the economy was neglected (Stare and Zupancic, 2000). As a result some services were either rarely provided on the market or simply non-existent. Others, such as wholesale and retail trade, transport and telecom, were centrally organized and under strict state control. Consequently, by the end of the 1980s the services sector played only a minor role in the CEE economies. Since the start of the transition the CEECs have been undergoing a reverse process – a rapid de-industrialization and, in most countries, also a de-agrarization process; consequently the share of services in both value added and employment has expanded, at least in statistical terms.

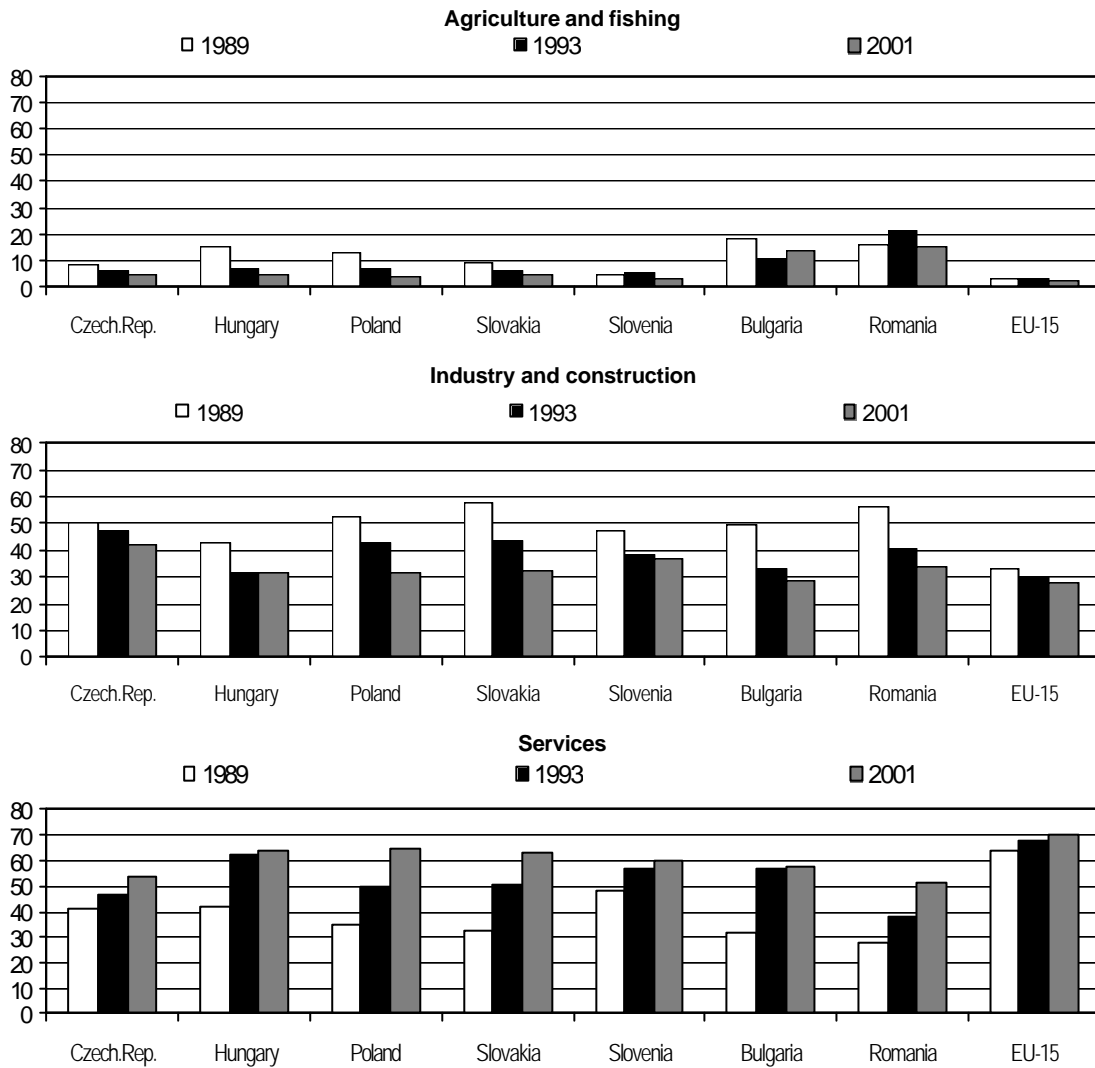
2 Services sector developments

Available data show a diverse picture of the development of the services sector. Some CEECs have already a significant services sector with a share in value added ranging between 63% (Hungary) and close to 60% (Slovakia, Poland and Slovenia). Others still have a strong orientation towards manufacturing (e.g. the Czech Republic) or agriculture, (Bulgaria and Romania). In general, the trend towards a services economy is more pronounced in terms of value added than in terms of employment (see below), this points to a catching up process in productivity (Figure 1).

* This chapter is based on the author's study *The services sectors in the Central and East European countries*, commissioned and published by Bank Austria Creditanstalt, Vienna, 2002.

Figure 1

Value added structures of selected CEECs in 1989, 1993 and 2001
(share in % of total value added)

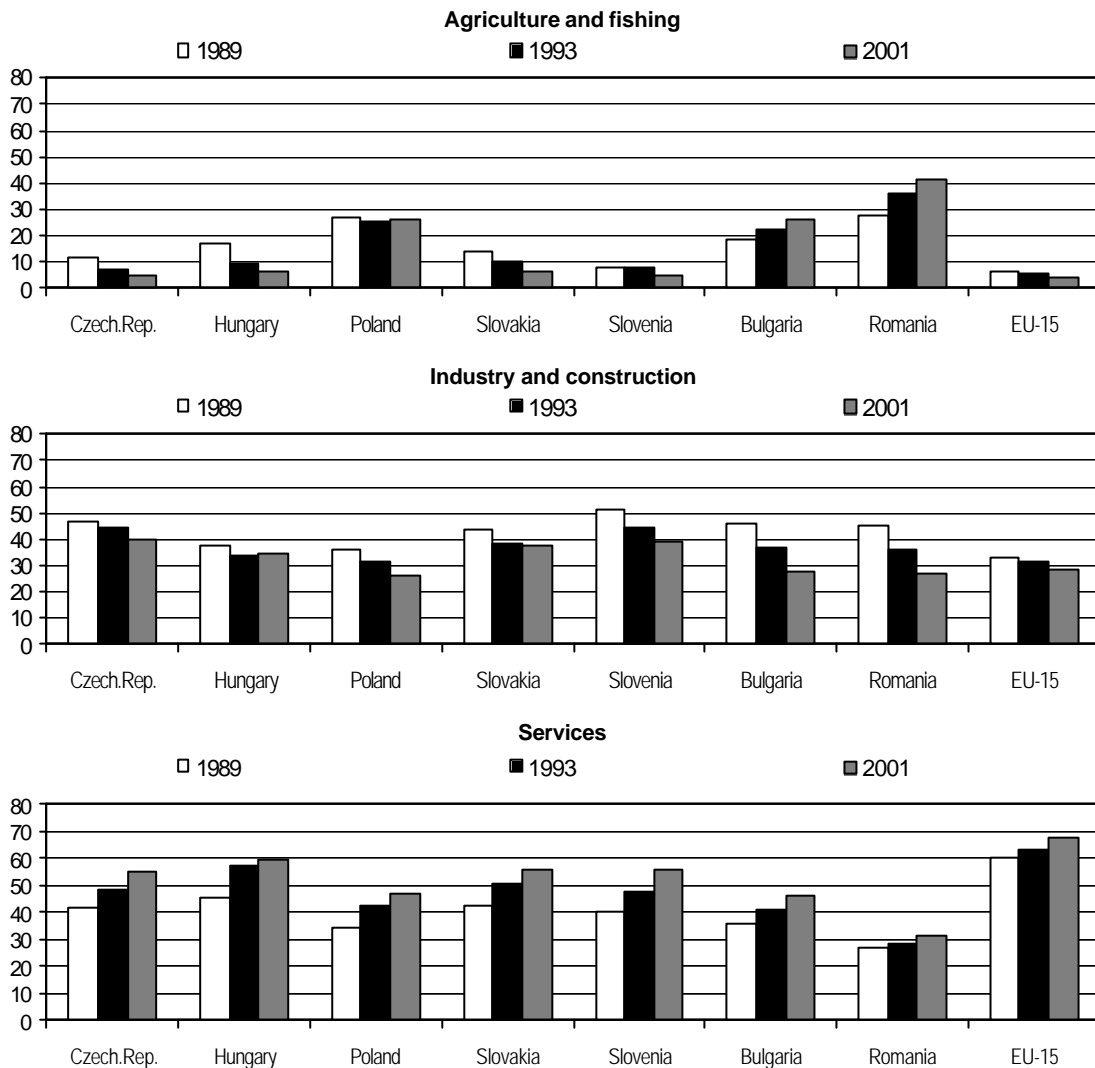


Source: **wiiw** Database.

Services sector employment accounts for the largest share in total employment in all countries but Romania (Figure 2). However, compared with the huge job losses in industry and agriculture, the services sector employment increases in absolute terms were rather modest in most countries and far from sufficient to offset the job losses in the other two sectors. In the whole region services jobs grew by an estimated 1.5 million (the bulk of which in Poland) during the period 1990-2001, while in agriculture and industry about 9.1 million jobs were lost.

Figure 2

Employment structures of selected CEECs, 1989, 1993 and 2001
(share in % of total employment)



Source: **wiiw** Database.

Part of these rapid structural changes was of a 'passive nature', mostly reflecting a less pronounced decline in the services sectors than in manufacturing and agriculture (see also Dobrinsky, 2001). It should also be noted that in the past, industry and to some extent agriculture masked a number of service-type activities, such as transport and distribution, repairs and maintenance and the provision of food and other services to the workers. Thus, a significant portion of employment and value added attributed to the services sector, or of the drop in agriculture and industry, might be the result of methodological changes in statistics rather than of new job creation (see also OECD, 1995, p. 21).

In all CEECs under review, the proportion of the services sector in value added is higher than its share in employment. This points to the high value added per employee in the services sector, traditionally attributed to the shift in relative prices towards the sector with low productivity growth – known as the ‘Baumol effect’ in economic literature (Baumol, 1967, Inman, 1985).

A comparison of value added and employment structures in the CEECs with those in the EU-15 shows that the services sector is underdeveloped in all countries, but the gap is less pronounced in terms of value added than in terms of employment .

3 The services sector in detail

At the beginning of the transition the CEECs started upgrading their (business) services sectors and improving the quality of services in order to develop an efficient and dynamic market economy. In the latter an adequate level and growth of services is not only a result of, but also a precondition for the development of other economic sectors, e.g. manufacturing.¹⁷ What were/are the driving forces behind the services sector development in the CEECs? (see also Stare and Zupancic, 2000, Stare 2001):

- (1) The outsourcing of non-core functions that had previously been performed internally by huge industrial enterprises.
- (2) The growing consumer demand for services, that had been unfulfilled or only insufficiently provided under the previous system.
- (3) The need of newly established private firms for supporting services such as consulting, bookkeeping, accountancy etc. Additionally new services supporting the privatisation process as a whole (asset valuation, auditing) were created.
- (4) The demand of industrial enterprises for specific services, such as marketing and information related services.

The structural shift towards a service economy is evident when looking at the growth segments of employment in the transition countries. These are all in the services sector, especially within market services employment (Figures 3 and 4); employment in community services rose only slightly or even declined.¹⁸ Industrial employment, in contrast, has been shrinking in all countries, except Hungary, while agricultural jobs were only created in Romania.

¹⁷ In a historical perspective, the development of services is considered to be a demand-driven phenomenon, a function of productivity growth and rising incomes.

¹⁸ The increasing importance of the services sector in contributing to the CEECs' GDP has also been proved by Gács (2001). Accordingly, in 1988 all candidate countries were located far below the main trend of development (in a comparison of 124 countries) while in 1999 already six out of ten candidate countries were above the normal level of services intensity and all candidate countries had joined the mainstream.

Figure 3

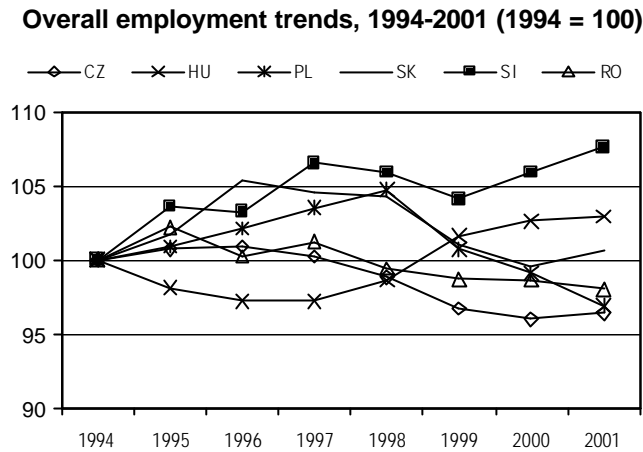
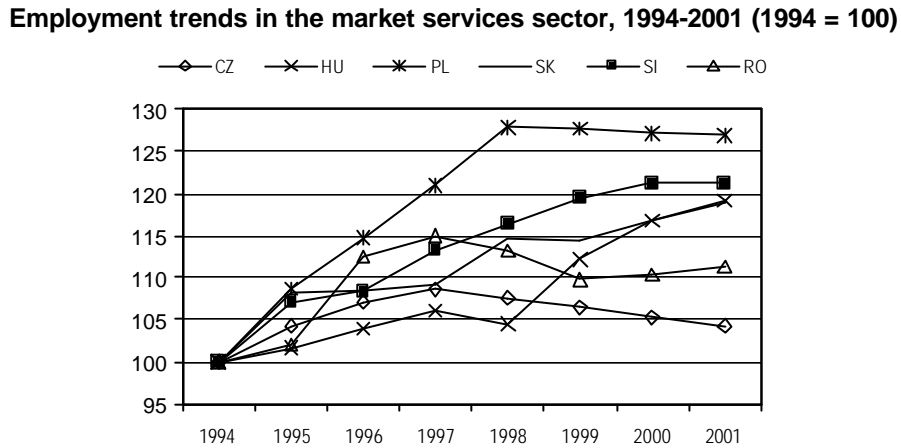


Figure 4

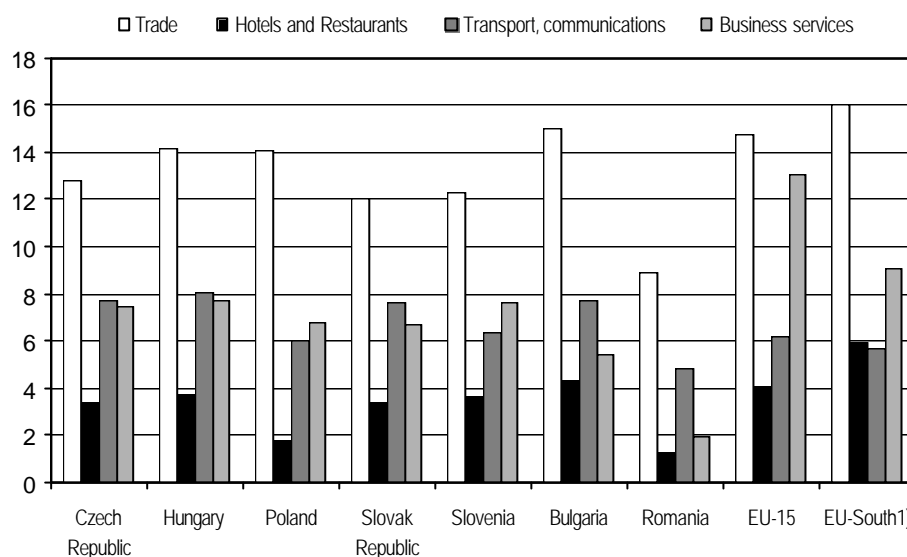


Source: wiiw Database.

Activities of the *market services sector* are still concentrated on traditional segments such as trade, tourism and transport (Figure 5). Higher value added segments are underdeveloped, which can be illustrated best by the large gap observed in the business services segment (made up of finance, insurance, real estate and other business related services) vis-à-vis both the EU average and that of EU-South. So far only the Czech Republic, Hungary and Slovenia are adjusting to EU-South levels, a trend which is mirrored also by soaring FDI. However, it should be noted that most countries have been recording strong growth rates both in terms of employment and value added over the past few years, pointing to a catching up in this particular segment of the services sector.

Figure 5

CEECs' market services sector employment compared with EU-15 and EU-South, 2001



Note: 1) EU-South: Greece, Portugal, Spain.
Source: *wiiw* Database.

4 Regional concentration of the services sector

Services sector expansion is primarily a big-city phenomenon. Growth of employment has been concentrated in the large urban areas, especially in the capital cities. Employment in the tertiary sector varies in the CEE regions, between 80% in the regions of Prague and Bratislava and 20% in southwest Romania. Apart from the two former regions Eurostat has classified Budapest, Sofia and Zachodniopomorskie in north-western Poland as service centres.¹⁹

As in western market economies, high-skill, expert-oriented and knowledge-intensive industries are concentrated in metropolitan areas in the CEECs, while low-skill services have a stronger propensity to locate either in the centre of agglomerated areas or at the

¹⁹ According to the sectoral employment structure, regions can be subsumed under four types (European Commission, 2001):
 (1) regions of a strongly agricultural character with employment shares in agriculture of more than 14%: out of the 50 level 2 regions in the seven CEE countries there are 19 such regions;
 (2) regions with an above-average industrial employment share – more than 40%: 13 regions;
 (3) regions which can be called services centres with an employment share exceeding 60% of the total: 5 regions identified (not including Bucharest, Ljubljana and Warsaw);
 (4) regions with a mixed sectoral structure, a less pronounced industrial sector, in which services constitute the largest sector: 11 regions.

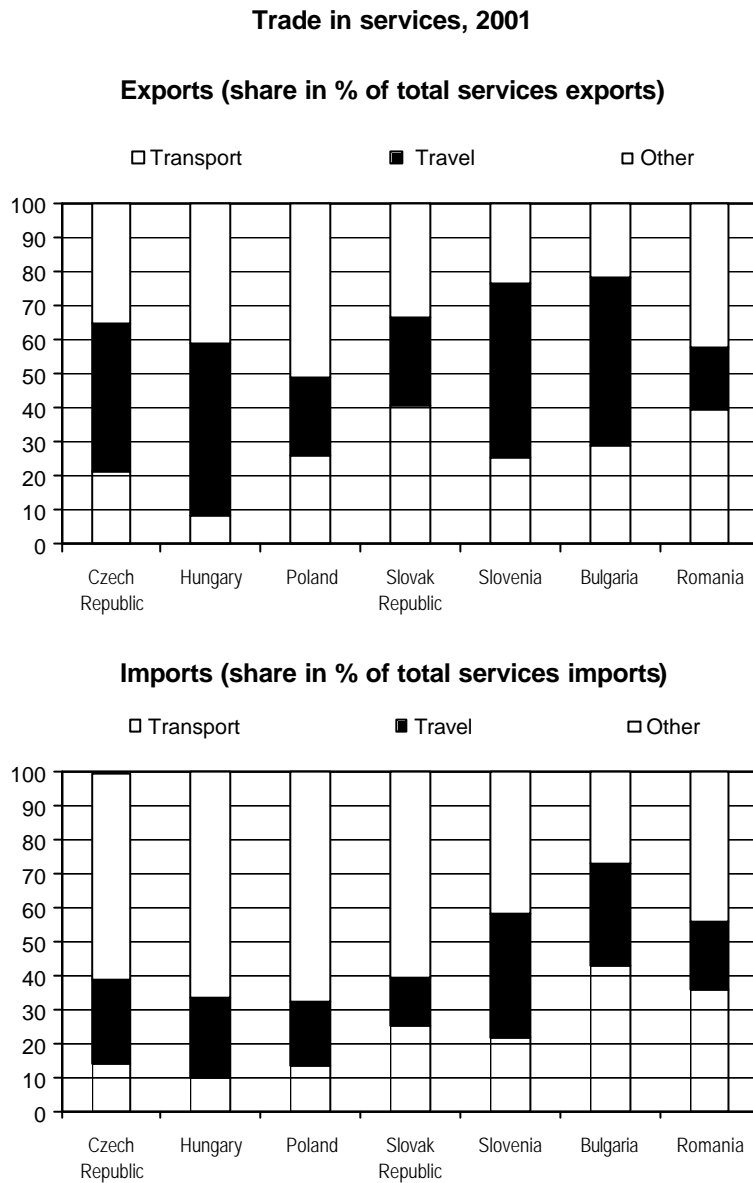
rural periphery (see also Anxo and Storrie, 2000). This may be illustrated by the example of Bratislava, which features the highest level of education and concentrates more than 90% of all Slovak employees in the banking and insurance sectors and more than 40% of R&D and business services employees. Bratislava is the leading region in market services, with particular emphasis on growth in information technology, real estate activities and leasing of machinery and equipment.

5 Trade in services

In the past most services were considered non-tradables, but with the advance of modern technologies an increasing number of services becomes subject to international trade, gaining an important role in modern trade (see Römisch, 2001). Over the last decade both exports and imports of services grew substantially in all transition countries, but at lower rates than commodity exports. Only in Bulgaria and Romania did the rise of services trade exceed that in commodities. While in commodity trade all CEECs have been reporting high and some countries growing deficits over the past decade, most countries have recorded continuous and growing surpluses in the services balance. Most countries record large surpluses in travel and transport, while 'other services'²⁰ have been reporting persistent deficits in all CEECs but Bulgaria. The composition of the services trade flows shows considerable differences among the individual countries: Travel accounts for about half of total services exports in Bulgaria, Hungary and Slovenia and for over 40% in the Czech Republic, while Romania and Slovakia are specialized in the export of transport services (Figure 6). In Poland 'other services' is the dominant services export item, comprising first of all 'other business-related services' and construction-related services. On the import side, 'other services' – comprising communication, financial and other business services – account for up to two thirds of total services imports in the Czech Republic, Slovakia, Poland and Hungary. In Slovenia and Romania this share is at around 40% and in Bulgaria only about one quarter. In the two Southeast European countries transport services imports make up a significant portion of services imports.

²⁰ *Other services* comprise communication services, construction services, insurance, finance, computer and information services, royalties and licence fees, other business services, personal, cultural and recreational services and government services.

Figure 6



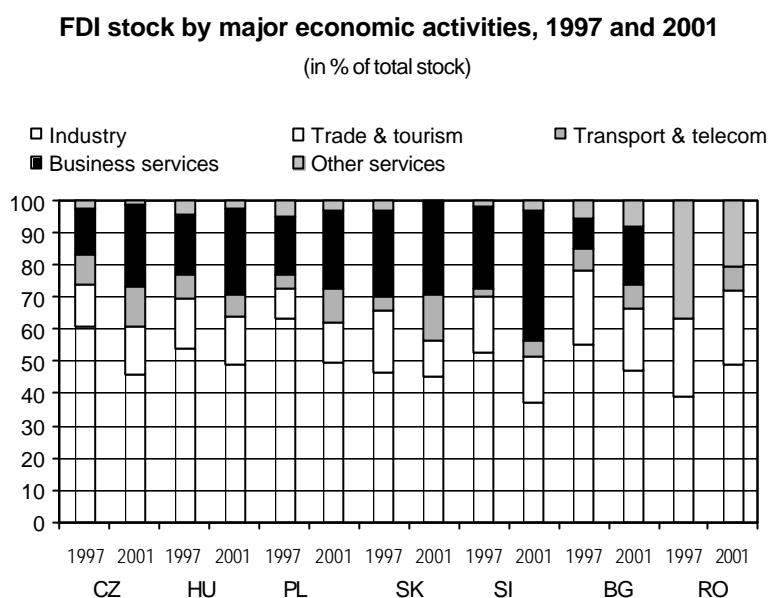
Source: **wiiw** Database.

6 The services sector and FDI

According to UNCTAD estimates, at the end of the 1990s about 60% of the inward FDI stock in developed countries (USA, Canada, the European Union and Japan) was in services (UN/ECE, 2001, p. 81). The increasing importance of the services sector becomes also evident, when looking at FDI inflows in the candidate countries over recent years. While in the first half of the past decade manufacturing was the main FDI target, it was the services sector in the following years. In general, FDI into the services sector is limited to the market services segment, while FDI in community services is next to

negligible. Generally, FDI inflows in the services sector have been directed towards trade, transport and telecom and business related services, reflecting to some extent the privatisation policies pursued by the individual countries. In all transition countries but Hungary financial intermediation is the main recipient of FDI in the services sector, primarily due to privatization-related takeovers.

Figure 7



Source: **wiiw** Database.

7 Conclusions and implications of EU accession

- There are considerable inter-country differences in the importance of the services sector in general and individual segments in particular – a trend that will continue.
- The services sector (in particular market services) has become the main source of employment in the CEECs. But employment creation in the services sector has been far from sufficient to offset job cuts in manufacturing and agriculture.
- The tertiary sector is still dominated by traditional segments such as wholesale/retail trade and transport, while most higher value-added segments such as business services are lagging behind. This opens up further investment and trade opportunities for the current EU member states.
- The development level of the services sector both in terms of value added and employment lags behind that of the EU member states; measured in terms of value added the gap is more pronounced in the market services segment than in community services.

- The trend towards a services economy is more pronounced in terms of value added than in terms of employment, implying a catching-up process in productivity.
- There is still a high potential for strengthening the role of the services sector, especially that of market services. Its further development will depend on the overall economic growth in general and on real incomes in particular, since services are in most instances characterized by high income elasticities.
- Another important factor to increase services sector employment is the establishment of small and medium-sized enterprises and the transition countries' ability to succeed in attracting further FDI in this sector.
- The continuing of the tertiarization process in the CEECs is also confirmed by the Joint Assessments of the Employment Policy Priorities – prepared by the individual countries and the European Commission – emphasizing the further development of services sector employment as one of the main future priorities.

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