www.wiiw.at

Wiener Institut für Internationale Wirtschaftsvergleiche

The Vienna Institute for International Economic Studies

Oppolzergasse 6, A-1010 Vienna, Austria, tel. (+43-1) 533 66 10, fax (+43-1) 533 66 10-50, e-mail: wiiw@wiiw.ac.at

wiiw SPRING SEMINAR 2003

The Accession Deal: Consequences for New Members

Friday, 28 March 2003

hosted by

Bank Austria Creditanstalt

A-1010 Vienna, Renngasse 2, 1st floor, 'Festsaal'

Presentations:

Leon Podkaminer (wiiw)
Transition Countries: Overview and Outlook

Sándor Richter (wiiw)
Fiscal and Financial Aspects of EU Enlargement: the Issue of Transfers

Roman Römisch (wiiw)
Fiscal Implications of EU Enlargement for the CEECs

Kazimierz Laski / Roman Römisch (wiiw)
Lessons to be Learnt from Earlier Accessions

Peter Havlik (wiiw)
CEE Industry in an Enlarged EU: Restructuring, Specialization and Competitiveness

Zdenek Lukas / Josef Pöschl (wiiw)
CEE Agriculture in an Enlarged EU: a Hard Landing Ahead?

Hermine Vidovic (wiiw)
The Services Sectors in Central and Eastern Europe

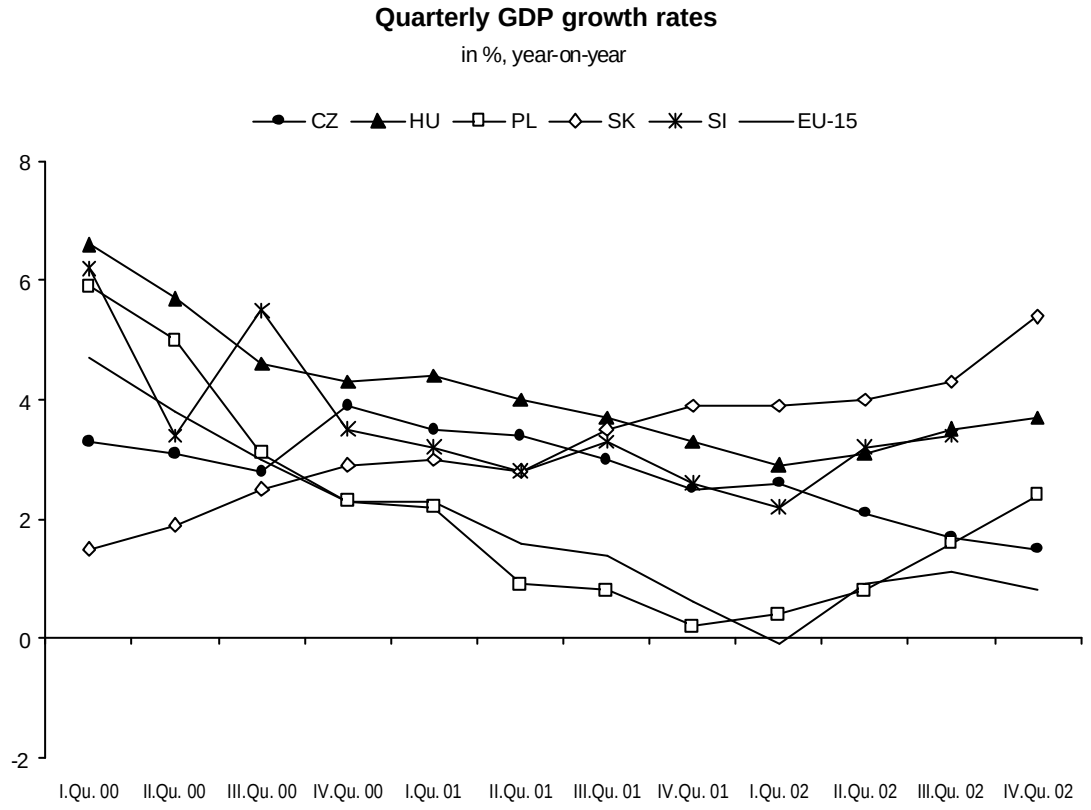
Patrizia Baur (Swiss Re, Zurich)
EU Enlargement: Opportunities and Challenges for Eastern European Insurance Markets

Transition Countries: Overview and Outlook

by Leon Podkaminer

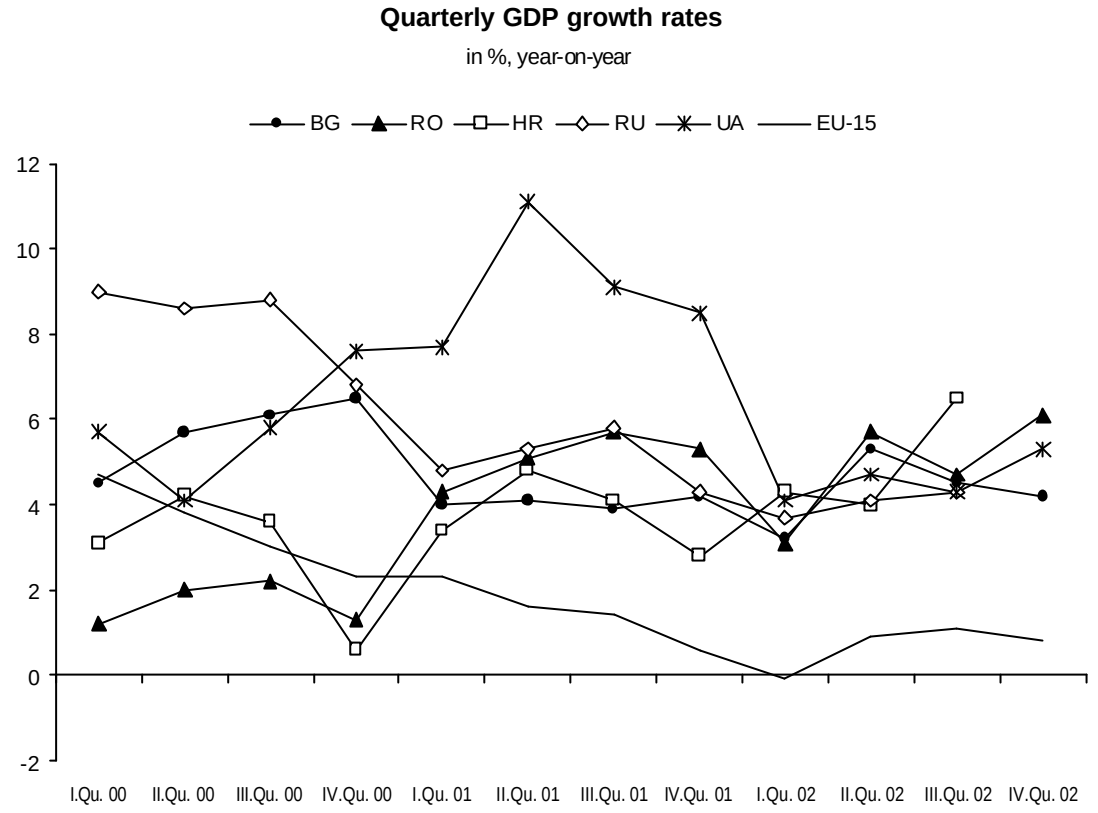
2002 was not a particularly good year for the world economy, and obviously quite bad for the EU and the German economies in particular. Under unfavourable external conditions one should have expected weak growth in the transition countries as well. Such an expectation is based on earlier experience which suggested some correlation of growth rates in the EU and most transition countries. For instance, the year 2000 was quite good for both the EU and the transition countries. And in 2001, as growth slowed down in the EU, there was also a slowdown in the transition countries.

Figure 1a*



* Source of all Figures and Tables: **wiiw** Database.

Figure 1b



Quite unexpectedly, in the second half of 2002 there was a sort of rebound in most transition countries – without much of an acceleration in the EU. Industrial production and exports in the transition countries have generally strengthened since then, though in some of them apparently only temporarily.

Economic policy changes had rather limited impacts on what happened in the course of the last year. Only in two countries: Hungary and Slovakia, there was some fiscal impulse supporting the economic activity. Both countries held parliamentary elections in 2002, and these elections occasioned shows of pre-election generosity. In the second half of 2002 there was also some relaxation of the monetary policy in Poland – a more determined reduction in the interest rates and also a weakening of the currency. But this could not have any impact on the rebound of production because it takes some time for these events to translate into growth.

Rising domestic consumption was the major factor supporting growth in 2002.

Capital formation was generally weak.

Table 1

Gross fixed investment

growth rates in %

	2000	2001	2002
Czech Republic	5.4	5.5	0.6
Hungary	7.7	3.1	6
Poland	2.7	-8.8	-7.2
Slovakia	1.2	9.6	-0.9
Slovenia	0.2	-1.9	3.5
Bulgaria	15.4	19.9	7.4
Romania	4.6	6.6	8.3
Croatia	-3.8	9.7	10
Macedonia	-3.2	.	.
Serbia & Montenegro	13.3	.	.
Russia	17.7	8.7	2.6
Ukraine	14.4	20.8	6.2

Interestingly, last year one observed definitely higher growth rates of capital formation in the erstwhile laggards: Romania, Bulgaria, Croatia and Ukraine. There was disappointingly low growth of investment in Russia. Massive contraction continues in Poland. Perhaps one should add that the relatively high growth rate of investment in Hungary does not represent an expansion of business investment: in the Hungarian corporate sector investment actually contracted strongly.

The contribution of foreign trade to GDP growth in 2002 seems on the whole positive, excepting Russia and most post-Yugoslav countries. Despite weak growth in the EU, exports of the accession countries (and of Ukraine) performed quite well.

The growth rates of exports to the EU are quite high for the accession countries. This is an extraordinary achievement because all EU imports from non-EU countries declined by about 5% in 2002. Clearly the transition countries have managed to out-compete the overseas countries and have been increasing their market shares in the EU.

Table 2

Balance of trade

EUR million

	2000	2001	2002
Czech Republic	-3393	-3424	-2416
Hungary	-4312	-3572	-3416
Poland	-18739	-15848	-14907
Slovakia	-980	-2372	-2263
Slovenia	-1491	-997	-608
Bulgaria	-1832	-2414	-2364
Romania	-2909	-4652	-4220
Croatia	-3770	-5022	-6134
Macedonia	-835	-595	-899
Serbia & Montenegro	-2084	-3291	-4253
Russia	65120	53423	49123
Ukraine	667	547	1037

Table 3

Exports to the EU

growth rates in %

	2000	2001	2002
Czech Republic	26.6	19.0	8.2
Hungary	28.1	10.4	8.4
Poland	32.6	16.2	6.7
Slovakia	33.3	11.1	9.3
Slovenia	14.3	6.2	1.3
Bulgaria	38.2	16.5	5.9
Romania	37.4	20.3	14.2
Croatia	33.6	7.7	-2.8
Macedonia	21.1	2.6	-4.8
Serbia & Montenegro	38.7	28.1	9.5
Russia	71.4	2.4	.
Ukraine	41.7	18.1	1.7

The foreign trade performance is the more surprising as generally the currencies of the transition countries have continued to appreciate in real terms well into 2002.

Figure 2a

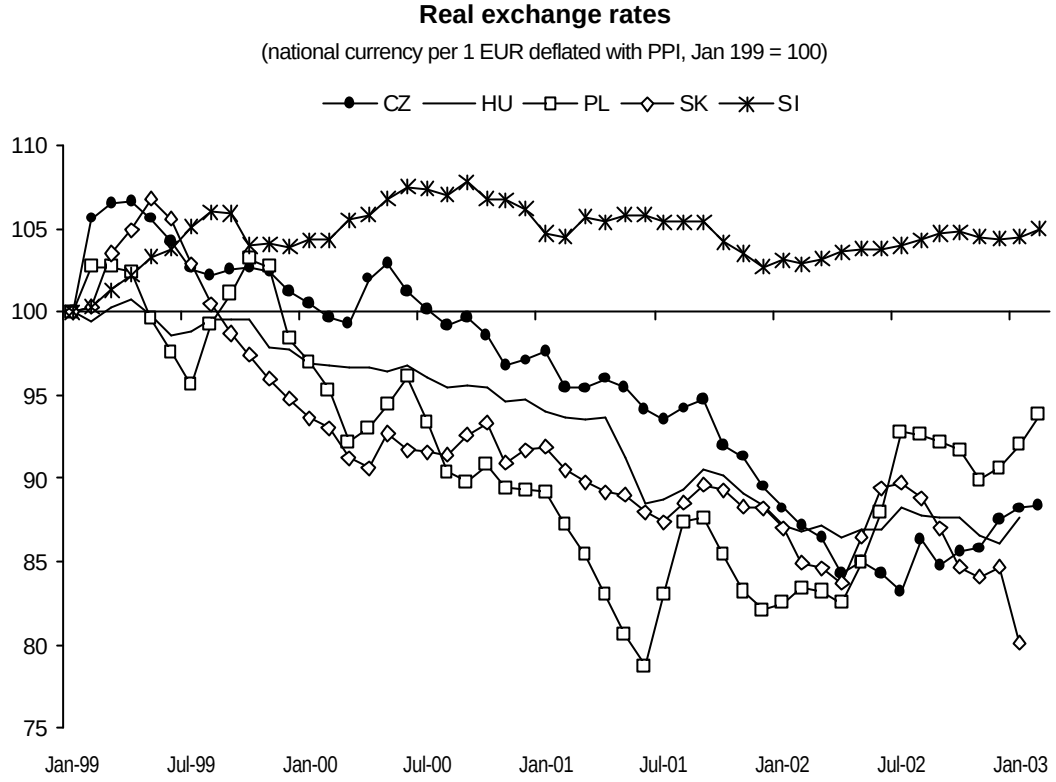
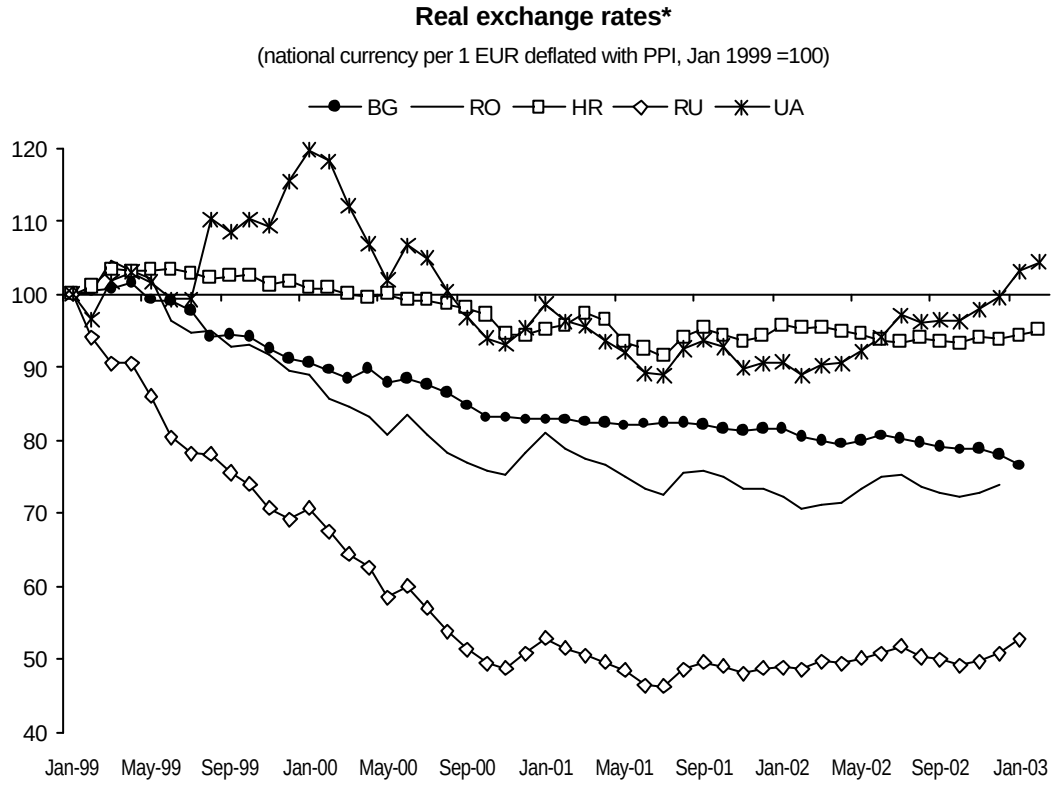


Figure 2b



Note: Declining line means real appreciation.

There are several reasons for the good performance of foreign trade in face of the depressed business climate in the EU and the real appreciation.

Reasons for good trade performance

– moderate GDP growth
– productivity & efficiency & cost gains
– quality/price improvements

The ongoing growth in CEECs' labour productivity and related cost improvements in industry which kept exports competitive will be discussed in some detail later. There is little point in my presenting these issues right now. I would only like to state that in terms of industrial unit labour costs, there has been generally very little real appreciation in most accession countries. In other words, the improvements in labour productivity and unit labour costs appear to have been offsetting the impacts of strengthening currencies.

Strong gains in labour productivity and unit labour cost improvements can however have some bad side-effects. Gains in labour productivity have generally been associated with cuts in employment, adding to unemployment, which is generally high, or very high, and unlikely to go down significantly even in the medium run.

Table 4

Rate of unemployment (LFS)

	2000	2001	2002
Czech Republic	8.8	8.1	7.3
Hungary	6.4	5.7	5.8
Poland	16.1	18.2	19.9
Slovakia	18.6	19.2	18.5
Slovenia	7.0	6.4	6.4
Bulgaria	16.9	19.7	17.8
Romania	7.1	6.6	8.5
Russia	10.5	9.1	7.8
Ukraine	11.7	11.1	9.8

The unemployment problem will be difficult to overcome because of the vital role of cost competitiveness. Preservation of cost competitiveness requires that wage increases are kept in check – otherwise there are problems over trade and current account deficits. But keeping wages in check implies also repression of demand for domestically produced services and goods.

In 2002 there has been a continuous decline in inflation. In most cases the disinflation is gradual and appears to be little affected by fiscal policies. Inertial cost–price adjustments are likely to continue in the foreseeable future.

Especially in Poland and the Czech Republic inflation appears to be very low. Our impression is that the current level of inflation in these countries may be actually too low. It seems incompatible with the process of change in the structure of prices. And the current levels of inflation in Poland and the Czech Republic may well indicate the advent of a deflation. This could have devastating effects on the corporate and banking sector, especially in Poland.

No doubt the strengthening of exchange rates has had a moderating impact on inflation in many countries as well. The recent years' exchange rate trends may have reflected financial (or even speculative) developments so that a potential for adjustments, involving devaluation, may be there. But the likelihood of major adjustments seems rather small because the solid capital inflows will continue even in the medium term, especially in view of the prospective EU membership of the candidate countries. Nonetheless, if successful disinflation continues – which we assume will be the case – the interest rates will also tend to fall and this is likely to curb the appreciation tendencies.

Table 5

Inflation and budget balance

(budget balance as % GDP)

	2000		2001		2002	
	Inflation	**Balance**	**Inflation**	**Balance**	**Inflation**	**Balance**
Czech Republic	3.9	-2.3	4.7	-3.1	1.8	-2.0
Hungary	9.8	-2.8	9.2	-2.7	5.3	-9.1
Poland	10.1	-2.2	5.5	-4.3	1.9	-5.1
Slovakia	12.0	-3.0	7.1	-4.5	3.3	-4.8
Slovenia	8.9	-1.4	8.4	-1.4	7.5	-2.9
Bulgaria	10.3	-0.7	7.4	-2.2	5.8	0.0
Romania	45.7	-3.6	34.5	-3.1	22.5	-3.1
Croatia	6.2	-4.0	4.9	-2.7	2.2	-2.3
Macedonia	10.6	2.3	5.2	-2.5	1.5	-0.5
Serbia & Montenegro	85.6	.	89.0	.	16.5	.
Russia	20.8	1.4	21.6	2.9	16.0	2.1
Ukraine	28.2	0.4	12.0	-0.3	0.8	0.6

Now it is time to speculate about the future. We reckon with private consumption exerting a stabilizing impact on overall growth, even if private incomes do not rise very strongly and also investments increase only moderately. Under such conditions the foreign trade performance will continue to be very important. The general concern over potential loss of competitiveness due to overvaluation remains valid. However, the productivity and efficiency gains are likely to offset the negative consequences of real appreciation. Besides we already observe some weakening of appreciation, for example in Hungary and Poland. This should help. Furthermore, the process of upgrading quality in export activities will be continuing, even if there is some slowdown in the FDI inflows in some countries.

The upcoming EU accession is likely to bring many good things – for example FDI, transfers and easier access to credits. Being a born pessimist I would however point to some possible short-term drawbacks. One such drawback relates to the high fiscal costs of implementing various EU standards. Then, the accession countries would be adopting the external EU tariffs, with possibly negative effects on domestic production of many goods such as textiles or footwear. The biggest threat is inherent in the challenge to domestic fiscal policies. If the accession countries try to meet the Maastricht criteria very soon, they will be conducting a much more restrictive fiscal policy than otherwise required. No doubt this will not be conducive to growth acceleration. But we actually do not know to what extent the governments in the accession countries will take the declared intentions to satisfy the Maastricht criteria seriously.

Obviously, there are other uncertainties as well. One has to be cautious about growth prospects in the EU. And of course there is no certainty about the eventual outcomes of the Iraq war. Higher oil prices will have a negative impact on GDP growth in all countries, except Russia, which alone stands to gain.

Table 6

GDP growth rates 2003 and 2004

	2002	**2003**	**2003**	**2004**
	preliminary	baseline	'oil shock'	baseline
Czech Republic	2.0	**2.5**	2.3	**3.3**
Hungary	3.3	**3.7**	3.6	**4**
Poland	1.3	**2**	1.6	**3**
Slovakia	4.4	**3.5**	2.4	**4.5**
Slovenia	3	**3.3**	2.7	**4**
Bulgaria	4.3	**4.5**	3.2	**5**
Romania	4.9	**4**	3.8	**4**
Russia	4.3	**4**	5.9	**4**
Ukraine	4.6	**4**	2.7	**4**

In our opinion, growth acceleration in 2003-04 is quite possible provided the business climate in the EU finally improves. Because recent estimates indicate the EU growth will be low, possibly below 1% in 2003, also the growth rates in the transition countries will be roughly the same as in 2002. In any case their average rate of catching-up vis-à-vis the EU will stay at about 2 percentage points per year. For most accession countries the way to go remains very, very long.

Appendix

Figure A1a

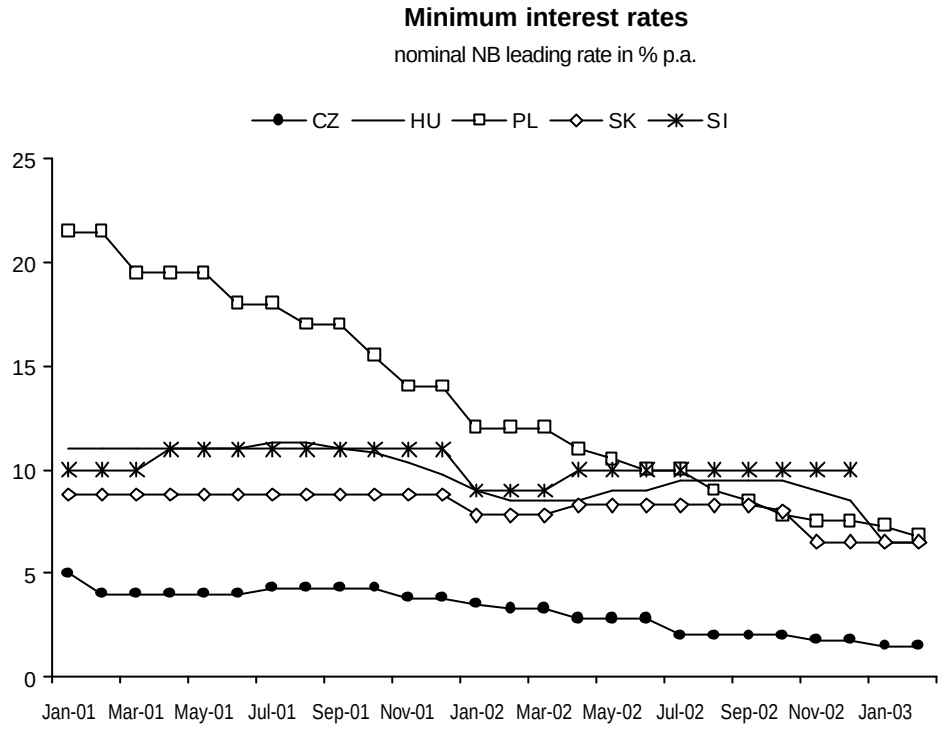


Figure A1b

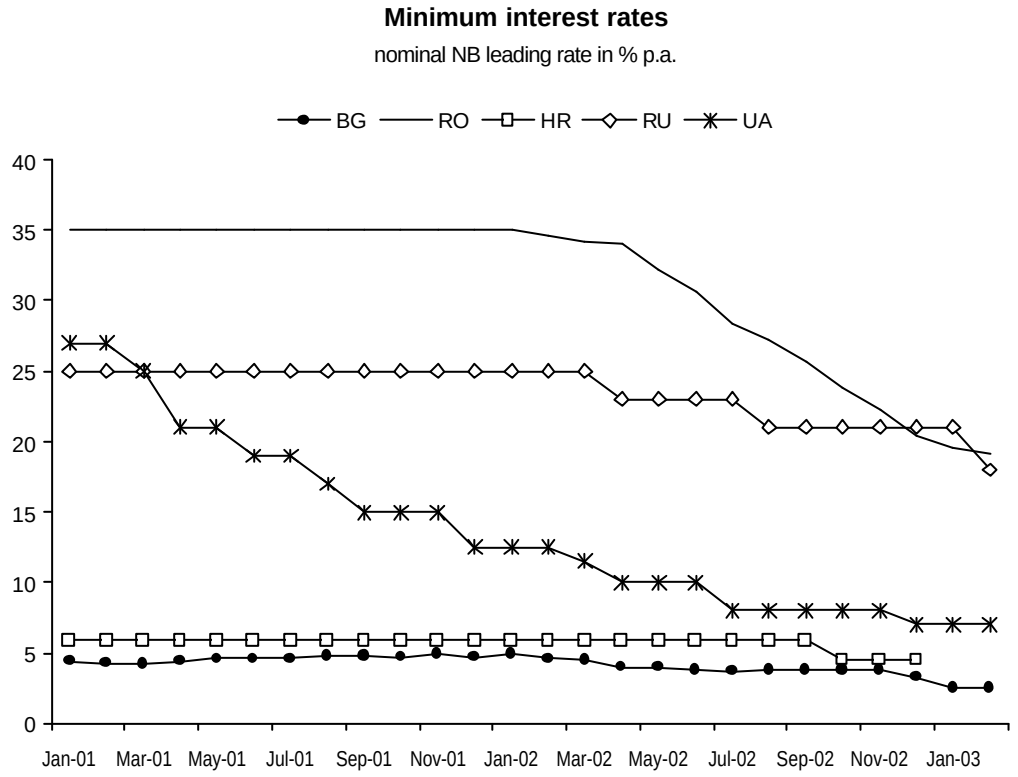


Figure A2a

Nominal exchange rate movements, 2000-2003 (base month January 2000)

(national currency vis-à-vis EUR)

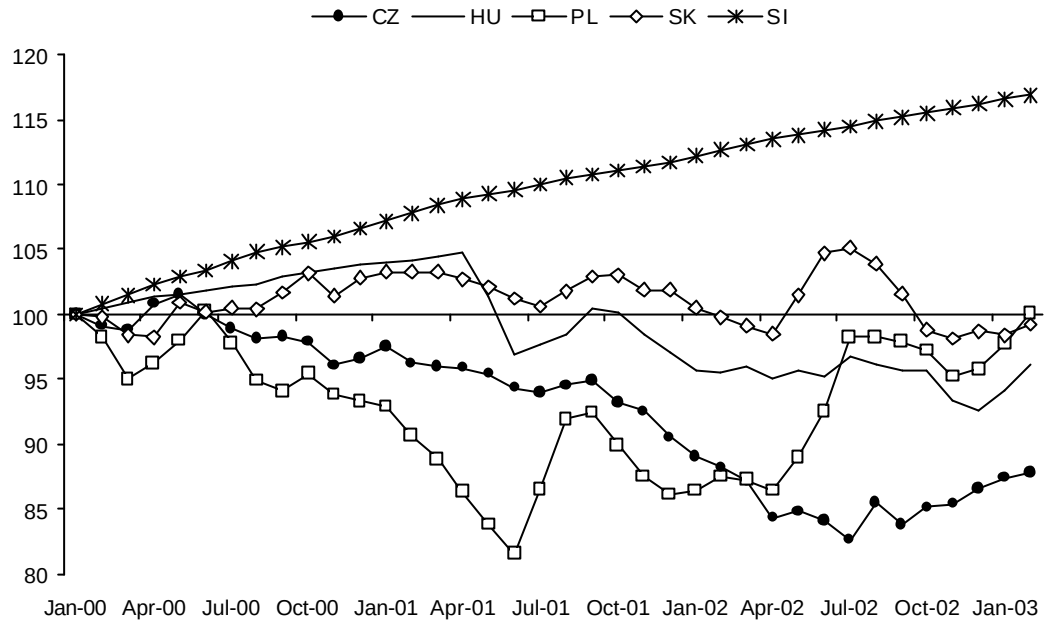
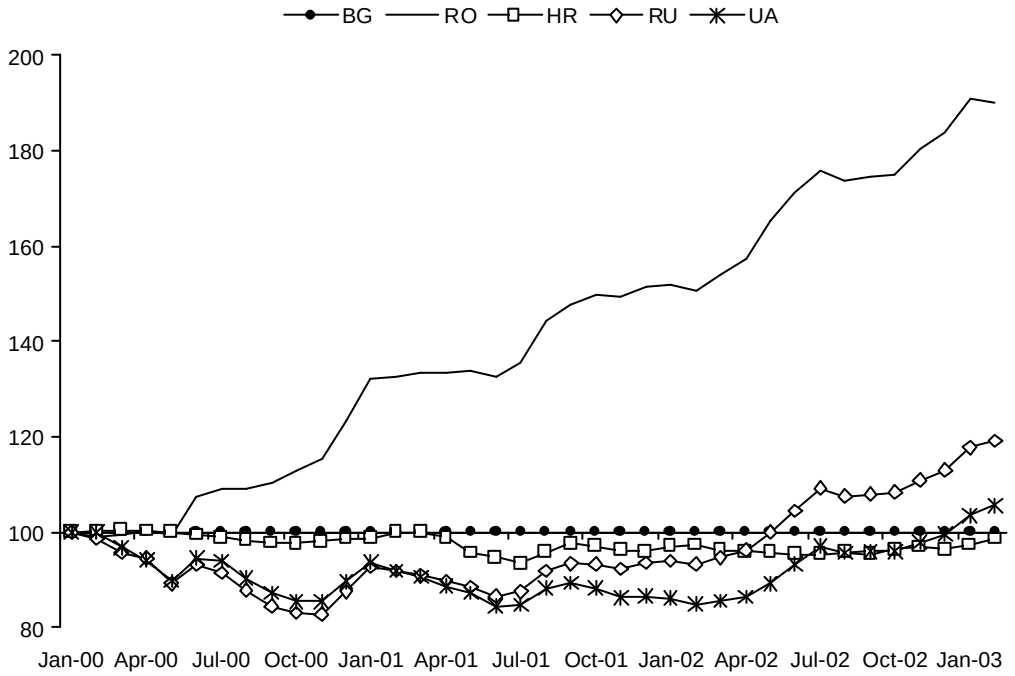


Figure A2b

Nominal exchange rate movements, 2000-2003 (base month January 2000)

(national currency vis-à-vis EUR)



Fiscal and Financial Aspects of EU Enlargement: the Issue of Transfers

by Sándor Richter

This paper focuses on one of the key fiscal and financial issues of EU enlargement: the transfers to and from the EU budget to and from the prospective new members. Another important fiscal and financial aspect of EU enlargement at this year's Spring Seminar, taxation, will be addressed in a separate paper by Roman Römisch.

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.[1] 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 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).[2] 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.

---

1 Communication from the Commission, Information Note Common Financial Framework 2004-2006 for the Accession Negotiations SEC (2002) 102 final, Brussels, 30 January 2002.

2 Financing the European Union, Commission Report on the Operation of the Own Resources System, Annex 3, p. 5, DG XIX, Brussels, 7 October 1998.

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.

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).

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.

In order 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)[3] 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.

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.

[3] 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 S. Richter (2002), 'The EU Enlargement Process: Current State of Play and Stumbling Blocks', *wiiw Current Analyses and Country Profiles*, No. 17, April 2002. For detailed statistics on the success rates of the EU-15, see *Second Report on Economic and Social Cohesion, Statistical Annex*, Table A.35 EUROPA Regional Policy Inforegio, http://europa.eu.int/comm/r...ces/docoffic/official/reports/p31_en.htm

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.[4] 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

[4] Peter Backé, 'Fiscal Effects of the EU Membership for Central European and Baltic EU Accession Countries', *Focus in Transition* 2/2002, p. 153.

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.

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.[5] 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.[6]

Finally, haggling over transfers during the accession negotiations were but a foretaste of the struggle for resource redistribution in the financial framework or 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.

---

5 Backé, op.cit., p. 155.

6 See G. Kopits and I. Székely, 'Fiscal Policy Challenges of EU Accession for Central European Accession Countries', paper presented at the OeNB East West Conference, 3-5 November 2002, forthcoming in G. Tumpel-Gugerell and P. Mooslechner (eds.), *Structural Challenges for Europe*, Edward Elgar Publishing. F. Breuss (2001), 'Macroeconomic Effects of EU Enlargement for Old and New Members', *WIFO Working Papers*, No. 33, Vienna, June. P. Havlik (2002), 'EU Enlargement: Economic Impacts on Austria and the Five Acceding Central European Countries', *wiiw Research Reports*, No. 290, October.

References

Backé, Peter: *Fiscal Effects of the EU Membership for Central European and Baltic EU Accession Countries* Focus in Transition 2/2002.

Breuss, Fritz: *Macroeconomic effects of EU Enlargement for Old and New Members* WIFO Working Papers, No. 33. Vienna June 2001.

Communication from the Commission, Information Note Common Financial Framework 2004-2006 for the Accession Negotiations SEC (2002) 102 final, Brussels, 30 January 2002.

Financing the European Union, Commission Report on the Operation of the Own Resources System, Annex 3, p. 5, DG XIX, Brussels, 7 October 1998.

Havlik, Peter *EU Enlargement: Economic Impacts on Austria and the Five Acceeding Central European Countries* WIIW Research Reports No. 290. October 2002.

Kopits, George and Székely, István: Fiscal Policy Challenges of EU Accession for Central European Accession Countries paper presented at the OeNB East West Conference November 3-5. 2002. Forthcoming in Tumpel-Gugerell, G. and Mooslechner, P. eds. Structural Challenges for Europe, Edward Elgar Publishing.

Richter, Sándor: *The EU Enlargement Process: Current State of the Play and Stumbling Blocks* WIIW Current Analyses No. 17. April 2002.

Second Report on Economic and Social Cohesion, Statistical Annex, Table A.35 EUROPA Regional Policy Inforegio; http://europa.eu.int/comm/r...ces/docoffic/official/reports/p31_en.htm

Fiscal Implications of EU Enlargement for the CEECs*

by Roman Römisch

1 Introduction

The aim of this lecture is firstly to highlight the differences between the tax structures of the current EU member countries and the countries of Central and Eastern Europe (CEECs) countries. Secondly, we shall hint at the impact that application of the tax *acquis* could have on the CEE countries.

The tax structures will be compared in four stages. In the first stage, we will briefly compare the statutory tax rates in the CEECs and the EU. In the second stage, we will demonstrate the importance of tax revenues in the CEECs and the EU. In the third stage, we will analyze the composition of the tax revenues. In the fourth and final stage, we will present - to our knowledge for the first time – the effective average 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

In this section we will use **four** methods to analyse differences in tax structures between the CEECs and the EU:

- **Nominal tax rates as set in tax laws**. These, however, are considered only rough indicators of the actual tax burden as they do not take into account fiscal legislation pertaining to the tax base, nor do they usually pay any regard to interlinkages between different tax rates levied on the same tax base.

* This presentation is based on wiiw Research Report No.292, 'Comparison of Tax Burdens', which was co-authored by Markus Leibrecht, WU-Wien.

Therefore we shall calculate:

- **Ratio of tax revenues to GDP**;
- **Ratio of individual tax revenues to total tax revenue** in order to obtain a more accurate comparison of the importance and structure of tax revenues in the CEECs and the EU.

However, since the above two ratios quotas are not the most optimal tools for reasons of comparability[1], we shall estimate in the final stage:

- **Average effective tax rates**, which have become the standard tool for measuring tax burdens

Nominal tax rates

Table 1a

Corporate and individual income tax rates in the CEECs

Country	Corporate income taxes	Taxes on in individual incomes
Bulgaria	Standard tax rate: 25%; Municipal tax rate: 10% Reduced rate for companies with low profits: 20%	Progressive tax structure: tax rates of 20%, 26%, 32% and 40%.
Czech Republic	Main tax rate: 31% Several withholding taxes rates from 25% to 20% are levied on special taxable bases (e.g. on interest from bonds);	Progressive tax structure: rates ranging from 15% to 32%;
Estonia	26/74 % on distributed profits, fringe benefits	Flat tax rate: 26%
Hungary	Main tax rate: 18%; withholding tax rate for dividends: 20%	Progressive tax structure: rates ranging from 20% to 40%;
Latvia	Main tax rate is 25%; (capital gains included)	Flat tax rate: of 25%;
Lithuania	Main tax rate: 15%; Withholding tax rate on interests and royalties: 10%;	Progressive tax structure: tax rates of 10%, 13%, 20%, 33% and 35%;
Poland	Main tax rate: 28%; the rate will be reduced by 2004 to 22% Withholding rate of 20% applies to several taxable bases (e.g. on profits earned from copyrights);	Three tax rates; 19% 30% and 40%
Romania	Main tax rate: 25%;	Progressive tax structure: tax rates:: 18%, 23%, 28%, 34% and 40; Tax rate for dividends: 5% Tax rate for interest earning: 1%;
Slovakia	Main tax rate: 25%; Special withholding rates ranging from 25% to 0% on Several taxable bases (e.g. on interest on loans);	Progressive tax structure: rates: 12%, 20%, 25%,32%, 40% to 42%; Withholding tax rates are equal to the corresponding Withholding rates on profits;
Slovenia	Main tax rate: 25%; Special withholding tax rates: on dividends paid to residents: 25% on dividends paid to non-residents: 15%;	Progressive tax structure: rates ranging from 17% to 50%;

Source: International Bureau of Fiscal Documentation (2001); Bulgarian Ministry of Finance (2001), Taxation of the Income of Natural Persons Act; Polish Ministry of Finance (1998); White Paper for Taxes

[1] See the wiiw research report No.292 for details.

Table 1b

Corporate and individual income tax rates in the EU

EU-Countries	Corporate income taxes	Federal taxes on individual incomes
Austria	Main tax rate: 34%;	Progressive tax structure: rates ranging from 0% to 50%;
Belgium	Standard tax rate: 39%. A progressive tariff is levied upon the profits of companies, which are not dominated by other companies, at rates ranging from 28 to 41 percent.	Progressive tax structure: rates ranging from 25% to 55% (communities levy an additional tax of 7% upon the tax paid to the federal government)
Denmark	Standard tax rate: 34%;	Three tax rates: 8% on total taxable income; more than 6 % and 15% on incomes above certain higher levels (communities levy an additional tax of 29% upon the taxable income)
Finland	Main tax rate: 29%;	Progressive tax structure: rates ranging from 5,5% to 38%;
France	Main tax rate: 34,33%;	Progressive tax structure: rates ranging from 0% to 52.75%;
Germany	Tax rate of 25%;	Progressive tax structure: rates ranging from 0% to 51.0%;
Greece	Main tax rates (depending on the type of company) range from: 10% to 37.5% (from 2003 onwards 35%)	Progressive tax structure: rates ranging from 5% to 42.5%;
Ireland	Main tax rate: 16% (from 2003 onwards 12.5%)	Annually fixed tax rates; in 2001 two tax rates: 20% and 42%;
Italy	Main tax rate: 37% (from 2003 onwards 35%);	Progressive tax structure: rates ranging from 18,0% to 45%;
Luxembourg	Progressive system: 20% (income up to 400,000 lfr); 80000 lfr * 50% on profits> 400,000lfr and <600,0000 lfr; and 30% on profits above 600,0000 lfr;	Progressive tax structure: rates ranging from 0% to 42%;
The Netherlands	Profits from 0 to 50000 hfl: 30%; above 35%	Progressive tax with tax rates from 32.5% to 52%; Tax rate on incomes from dividends: 25%;
Portugal	Main tax rate: 32%;	Progressive tax structure: rates ranging from 14% to 40%;
Spain	Main tax rate: 35;	Progressive tax structure: rates ranging from 17% to 47.6%;
Sweden	Main tax rate: 28%;	Tax rate on income of self-employed and unemployed, except capital gains income: 0-273800 skr: 200 skr; 273800 – 414200 skr: 200 skr + 20%; from 414200 onwards 200 skr + 5%; tax rate on capital gains: 30%; (communities levy their own proportional tax upon personal income except capital gains income; the average rate is about 30%);
United Kingdom	Main tax rate: 30%; Lower rates on the first 300 000 pounds of 10 and 20%, respectively;	Annually fixed tax rates (inflation adjustment); 2002 the rates are 10%, 22% and 40%;

Sources: Bulgarian Ministry of Finance: www.minfin.government.bg; Czech Invest: www.czechinvest.org; Estonian Investment Agency: www.eia.ee; Hungarian Investment and Trade Development Agency: www.business2hungary.com; Latvian State Revenue Service: www.vid.gov.lv; Lithuanian development agency: www.lda.lt; Polish agency for foreign Investment (PAIZ): www.paiz.gov.pl; Romanian Ministry of Development and Prognosis: www.andr.ro; Slovak Investment and Trade Development Agency: www.sarios.sk; Slovenian Ministry of Finance: www.sigov.si/mf

EU: Mennel, Förster, (editors), Steuern in Europa, Amerika und Asien, Verlag Neue Wirtschafts-Briefe, Herne-Verlag, Berlin, 2000

Bundesministerium für Finanzen (Editor): Volks- und Finanzwirtschaftliche Berichte, Berlin, 2000

Commission of the EC (editor): Inventory of Taxes, Luxembourg, 2000e

Table 2

VAT rates in the EU and the CEECs

	Super reduced rate	Reduced rate	Normal rate	Intermediate rate
EU				
Austria	-	10	20	
Belgium	-	6	21	
Denmark	-	-	25	
Finland	-	8/17	22	
France	2.1	5.5	19.6	
Germany	-	7	16	
Greece	4	8	18	
Ireland	4.2	12.5	21	
Italy	4	10	20	
Luxembourg	3	6/12	15	
Netherlands	-	6	19	
Portugal		5/12	17	
Spain	4	7	16	
Sweden	-	6/12	25	
United Kingdom	0/5-	5	17.5	
CEECs				
Bulgaria	-	-	20	-
Czech Republic*	-	5	22	-
Estonia	-	5	18	-
Hungary*	-	6.8/12	25	-
Latvia	-	-	18	-
Lithuania	-	-	18	-
Poland	-	7	22	-
Romania	-	11	22	-
Slovakia	-	10	23	
Slovenia	3	8	19	-

Sources: Bulgarian Ministry of Finance: www.minfin.government.bg; Czech Invest: www.czechinvest.org; Estonian Investment Agency: www.eia.ee; Hungarian Investment and Trade Development Agency: www.business2hungary.com; Latvian State Revenue Service: www.vid.gov.lv ; Lithuanian development agency: www.lda.lt; Polish agency for foreign Investment (PAIZ): www.paiz.gov.pl; Romanian Ministry of Development and Prognosis: www.andr.ro; Slovak Investment and Trade Development Agency: www.sarios.sk; Slovenian Ministry of Finance: www.sigov.si/mf

EU: European Commission, Die Mehrwertsteuersätze in den Mitgliedstaaten der Europäischen Gemeinschaft, DOC/2206/2000 – DE, 2000.

A simple comparison of statutory tax rates already reveals that on the one hand the CEECs focus much more on indirect taxes than the EU countries, whereas direct taxes are of greater importance in the EU. Hence, averaging out the normal VAT rates in the respective country groups, we find that the mean VAT rate in the EU is 19.3 percent as against 20.8 percent in the CEECs; similarly the median VAT rate in the EU is 18.8 percent as against 22 percent in the CEECs.

In contrast to VAT rates, main corporate income tax rates are significantly lower in the CEECs than in the EU, although there are some outliers among the CEECs, such as the Czech Republic, Romania or Slovakia, whose tax rates are comparable to those in the EU. Nevertheless, in a comparison of (unweighted) main corporate tax rates the CEECs show an average tax rate of 28.9 percent as against an average tax rate of 34.4 per cent in the EU; similarly, the median corporate tax rate in the CEECs stands at 25.5 percent as against 34.5 percent in the EU.

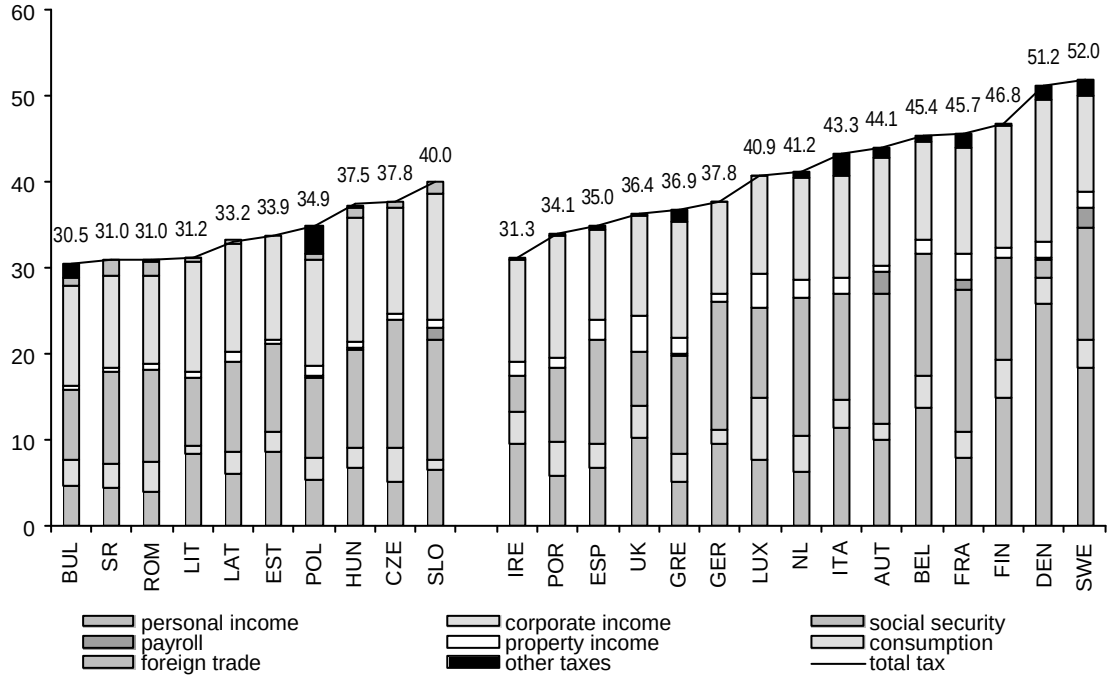
Taking only the tax rates applied to the highest income brackets (except in cases where there is a flat tax rate), a comparison of personal income tax yields findings similar to those results obtained in the comparison of corporate taxes. On average, the highest applicable tax rate in the CEECs is 36.6 percent compared to 48.8 percent in the EU; the median rate in the CEECs is 40 percent as against 48 percent in the EU.

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 CEE-10 and the EU-15 covered by this study.

Figure 1

Tax to GDP ratios, 1999



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

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.

In this respect, it should be added that a number of countries (Hungary, Poland, Bulgaria and Slovakia) used to supplement their tax revenues in part by running extremely large budget deficits in order to fund expenditures. Consequently, if those expenses had had to be met solely from tax revenue, those countries would have found themselves at the upper end of the EU range of ratios.

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.

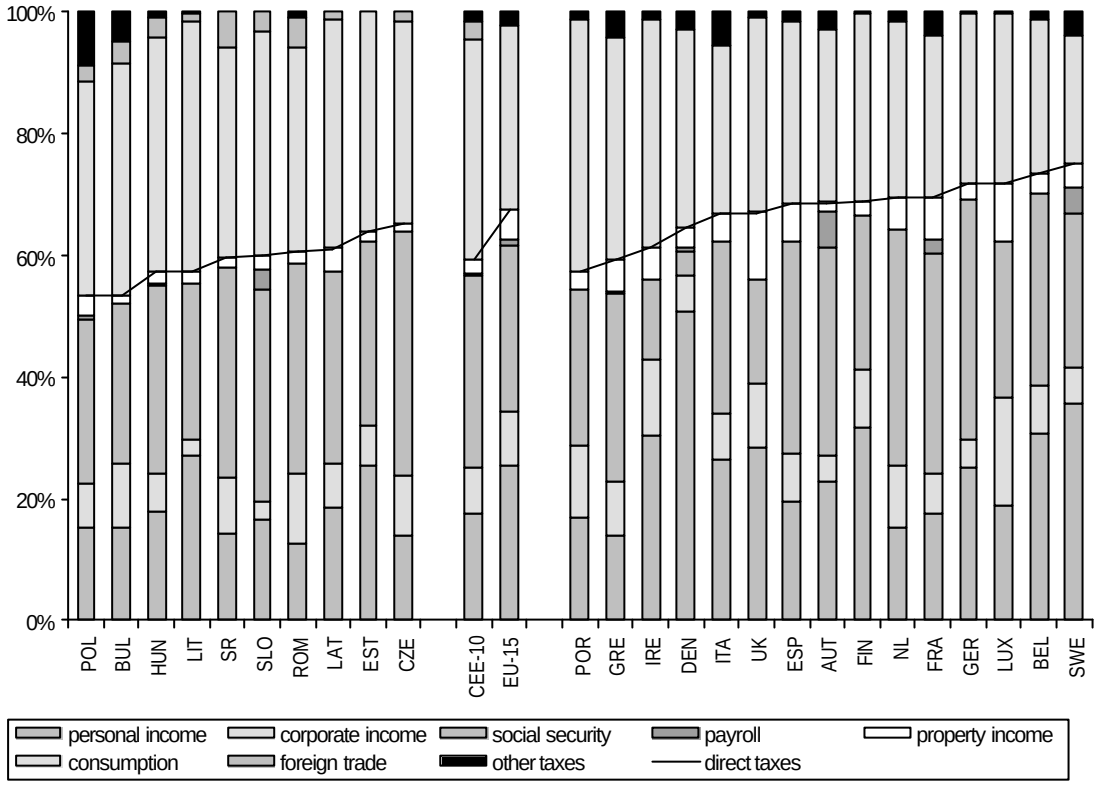
With increased development (not only in administration matters), it can be anticipated that the tax ratios in those four countries will ultimately reach levels comparable to those in the EU; thus, this should not be an obstacle to their entering the EU.

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 CEE-10, as well as the respective country group averages for 1999.

Figure 2

Share of individual taxes in total tax revenue, 1999



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

Scrutiny of the country group averages reveals variances of the EU and CEE tax structures. As suggested in our description of the development of the tax systems in the EU and the CEECs, the share of direct taxes[2] 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 through direct taxes in the EU, whereas direct taxes contribute on average only 59.2 % to total tax revenue in the CEECs.

This is of interest inasmuch 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

[2] Direct taxes include: personal and corporate income taxes, social security contributions, payroll and property taxes.

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 stylised facts we have identified as tax structures undergo transition in the CEECs is the growing importance of personal income taxes, their divergence compared to the average EU share is still large[3], as can be seen from the graph. Furthermore, property taxes are of relatively minor importance in the CEECs compared to the EU countries.

The other side of the coin is of course that the indirect taxes have to play a more prominent role in the CEE countries 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 percent in the CEE countries but only 30.3 percent in the EU countries. More interesting, though, and a source for future concern is the fact that the CEE countries 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 case[4] 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 3 shows average AETRs on consumption, labour, capital and corporations for 11 countries and 9 CEECs countries. Taking into account the data restrictions[5] we encountered, Table 3 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 the Annex.

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

[4] For the various variants of average effective tax rates see again the the **wiiw** research report No.292.

[5] 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 3

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 93-96. - 2) average 93-97. - 3) average 93-98. – 4) average 94-98. – 5) average 95-97. – 6) average 95-98

Looking first at the AETRs for capital and corporate income in Table 3, it becomes immediately apparent that despite the heterogeneity of AETR structures 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, CEEC tax rates do not display such an extreme position; nevertheless, as can be seen in Table 3, those CEEC tax rates are generally at the lower end of the EU range.

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.

At first, this might seem puzzling as one might have expected the CEECs to compete with each other for foreign capital. *Ceteris paribus*, this should lead to a harmonization of the AETRs.

However, if we look at the time trend for the AETRs on corporate income shown in Table 4, the riddle is solved since the AETRs in each country display a clear downward trend towards a homogeneous AETR structure across all CEECs[6].

Taxes on consumption run almost contrary to all other taxes, insofar as CEEC 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 CEEC AETRs is hardly surprising, since it more or less reflects the differences we encountered when using statutory tax rates and tax quotas as yardsticks.

Nevertheless, we might have expected that the differences in the consumption-related AETR on consumption 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 CEE countries (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.

[6] The one exception in this respect is Poland, which in 1998 still recorded a higher AETR on corporate income. However, with the introduction of a tax reform in Poland, which includes a considerable reduction in corporate taxes, even the Polish AETR might be expected to come down to a "normal" CEE level.

Table 4

Average effective tax rates, time-series

	1993	1994	1995	1996	1997	1998		1993	1994	1995	1996	1997	1998
Consumption													
EU							**CEEC**						
Belgium	.	.	21.6	24.8	25.1	24.3	Bulgaria	10.6	16.3	15.1	11.7	12.3	.
Finland	26.7	27.0	26.1	27.8	28.8	29.5	Czech	22.8	21.8	21.9	21.0	21.4	20.5
Germany	18.3	19.4	18.7	17.7	17.4	17.4	Estonia	19.7	23.5	23.7	23.1	26.1	22.4
Greece	.	.	18.4	18.6	19.3	.	Hungary	22.9	18.5	24.2	25.5	27.7	28.5
Ireland	.	.	22.4	23.1	24.0	.	Latvia	.	17.4	19.4	19.9	22.6	23.0
Netherlands	*17.4*	*17.4*	17.6	17.9	18.0	.	Lithuania	11.6	13.7	17.8	17.0	22.0	21.1
Spain	.	.	15.0	15.3	15.7	.	Poland	18.8	19.2	20.0	20.7	21.6	21.1
Sweden	22.8	24.5	23.6	24.9	21.4	20.7	Romania	13.2	10.8	10.4	9.3	9.5	.
United Kingdom	15.9	16.6	16.6	16.6	17.0	16.4	Slovenia	.	25.4	26.0	26.9	28.7	30.5
Labour													
EU							**CEEC**						
Belgium	.	.	47.6	46.5	46.9	46.7	Bulgaria	.	29.0	28.0	27.3	29.2	.
Finland	55.9	50.0	48.7	54.6	54.0	47.9	Czech	34.4	37.7	37.8	37.9	39.3	39.8
Germany	39.8	40.8	41.7	40.8	41.1	41.1	Estonia	34.1	33.1	32.3	33.1	33.4	34.9
Greece	.	.	37.0	37.6	38.9	.	Hungary	38.0	37.3	36.5	34.8	35.3	35.4
Ireland	.	.	25.0	24.9	24.8	.	Latvia	.	29.7	39.3	29.8	29.6	31.4
Netherlands	53.0	53.4	49.5	46.6	47.5	.	Lithuania	24.8	30.3	27.1	27.3	29.0	30.8
Spain	.	.	33.3	32.8	32.9	.	Poland	41.7	37.0	37.3	37.2	36.8	36.6
Sweden	47.7	44.7	51.5	54.5	56.3	53.4	Romania	35.3	33.3	30.4	29.3	31.2	.
United Kingdom	23.6	24.8	24.8	24.5	23.7	26.2	Slovenia	.	.	.	.	.	.
Capital													
EU							**CEEC**						
Belgium	.	.	27.2	25.8	26.7	27.8	Bulgaria	.	16.9	15.5	15.4	16.4	.
Finland	41.6	39.4	35.8	41.1	43.1	37.5	Czech	19.2	17.7	16.3	14.7	13.1	13.4
Germany	29.5	26.6	26.5	26.1	24.9	25.1	Estonia	20.3	20.8	16.7	11.8	11.9	12.9
Greece	.	.	9.6	9.7	10.9	.	Hungary	13.8	13.3	12.5	12.4	11.3	11.6
Ireland	.	.	19.5	20.4	20.3	.	Latvia	.	14.6	13.2	14.4	12.0	12.8
Netherlands	*24.6*	*21.1*	18.9	20.8	21.3	.	Lithuania	15.6	13.7	13.2	11.2	11.6	11.5
Spain	.	.	16.7	16.8	18.6	.	Poland	23.6	20.8	20.4	20.1	19.7	19.1
Sweden	48.3	38.6	40.4	49.1	47.8	52.0	Romania	13.0	12.6	13.3	11.3	11.5	.
United Kingdom	29.1	29.1	31.5	31.9	33.8	35.8	Slovenia	.	.	.	.	.	.
Corporate													
EU							**CEEC**						
Belgium	.	.	14.8	13.7	15.0	17.0	Bulgaria	24.4	33.7	28.5	22.2	31.7	.
Finland	18.4	20.1	21.1	22.8	29.5	28.9	Czech	24.8	19.8	17.6	15.0	12.3	12.4
Germany	22.3	15.5	14.0	19.0	18.0	17.1	Estonia	21.9	22.2	15.4	8.5	8.8	9.9
Greece	.	.	12.9	13.0	16.6	.	Hungary	10.8	10.7	9.7	9.0	8.2	8.7
Ireland	.	.	15.4	16.4	15.2	.	Latvia	.	12.4	9.5	11.3	8.2	8.4
Netherlands	*14.7*	*13.8*	12.4	15.6	17.2	.	Lithuania	19.0	12.2	10.0	7.6	6.6	5.7
Spain	.	.	9.3	10.0	13.8	.	Poland	24.8	19.7	19.0	19.5	18.4	17.3
Sweden	25.5	18.5	24.7	30.2	30.4	36.6	Romania	13.1	12.9	15.3	12.6	15.6	.
United Kingdom	12.3	12.9	15.6	17.0	19.9	19.4	Slovenia	.	6.8	4.8	6.3	7.2	7.1

4 Conclusions

Based on the above findings and given our knowledge of EU tax regulations[7], 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 in 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 positive fiscal impact on the CEECs, since they would be able to collect higher tax revenues.

A similar need for upward adjustment need 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 (€ 5.000) to an appreciable degree (for example,

[7] For details see **wiiw** research report 292.

Slovakia approx. € 40,000, Lithuania: approx. € 28,000, Latvia and Romania approx. €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 percent 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, CEEC 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 CEEC governments will have to meet certain co-financing requirements for the CEE governments, 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.

None the less, 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.[8]

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

[8] 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.

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 - favorable taxation schemes. However these economics 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. (This point is being discussed in the current accession negotiations). As such, if the CEECs abolish harmful 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 CEE countries 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 favorable 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 where to locate in the CEECs as some authors have pointed out (Altzinger, 1998; Bevan and Estrin, 2000; Holland and Pain, 1998; Resmini, 2000; Woodward et al., 1997)

Furthermore, the CEECs' accession to the EU is also assumed to reduce the risks associated with investments in those countries. As we have seen in the empirical evidence, risk does indeed seems to be a factor governing location decisions; thus, 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 CEEC 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 CEE countries to stop or decelerate, a shift in volume might occur within the CEE countries themselves – from high-tax to low-tax countries.

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 direct investment into regions with poor economic performance and so 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 mentioned above to opt for locations that are already developed. EU accession might thus trigger of 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.

Appendix

MRT base their derivation of effective average tax rates on the OECD Revenue Statistics and OECD National Accounts (SNA68) nomenclature. For the purposes of calculating tax revenues, they suggest using the following variables from the Revenue Statistics:

1100 = Taxes on income, profits, and capital gains of individuals
1200 = Taxes on income, profits, and capital gains of corporations
2000 = Total social security contributions
2200 = Employer's contribution to social security
3000 = Taxes on payroll and workforce
4100 = Recurrent taxes on immovable property
4400 = Taxes on financial and capital transactions
5110 = General taxes on goods and services
5121 = Excise taxes

For the purposes of measuring the tax bases, they suggest using the following variables from the National Accounts (SNA68):

C = Private final consumption expenditure
G = Government final consumption expenditure
GW = Compensation of employees paid by producers of government services
OSPUE = Operating surplus of private unincorporated enterprises
PEI = Household's property and entrepreneurial income
W = Wages and salaries
OS = Total operating surplus of the economy

Effective average tax rates on consumption, labour and capital can be easily calculated from those variables.

Effective tax rate on consumption

$$t_C = \left[\frac{5110 + 5121}{C + G - GW - 5110 - 5121} \right] * 100 \qquad (1)$$

Effective tax rate on labour income

This rate is calculated as:

$$t_L = \left[\frac{t_H * W + 2000 + 3000}{W + 2200} \right] * 100 \qquad (2)$$

Whereby as an intermediate step

$$t_H = \left[\frac{1100}{OSPUE + PEI + W} \right] * 100 \qquad (3)$$

The second formula represents the average statutory tax rate on total income from profits, wages and salaries and capital gains of individuals. Therefore one has to assume that all income components of households are taxed at the same rate. That is one has to assume a synthetic personal income tax, where all sort of personal income are taxed with the same tariff.

Effective tax rate on capital income of households and all firms

$$t_K = \left[\frac{t_H * (OSPUE + PEI) + 1200 + 4100 + 4400}{OS} \right] * 100 \qquad (4)$$

Effective tax rate on income of corporations

Mendoza et alt. do not provide an explicit formula for calculating the average tax rate on corporate income (corporate capital), but footnote 9 (in their article) gives an overview how to calculate such a rate.

$$t_{KC} = \left[\frac{1200}{OS - OSPUE} \right] * 100 \qquad (5)$$

Literature

Abeele van den M. (2001), Breakthrough on the taxation package, in: The Key - Taxation and Customs Union, no 15, March, p. 1-5

Altzinger, W. (1998), 'Auswirkungen der österreichischen Direktinvestitionen in Mittel- und Osteuropa auf die heimische Zahlungsbilanz und Beschäftigung', Final Report for the Jubiläumsfonds of Oesterreichische Nationalbank (OeNB), Project No. 6370.

Bevan, A. and S. Estrin (2000), 'The Determinants of Foreign Direct Investment in Transition Economies', Centre for Economic Policy Research, *Discussion Paper* No. 2638.

Caesar R. (2002), Haushalts- und Steuerpolitik in der EU, in: Jahrbücher für Nationalökonomie und Statistik, 222/1, p. 132-150.

Carey D.; Tchilinguarian H. (2000), Average Effective Tax Rates on Labor, Capital and Consumption, OECD Economics Department Working Paper No. 258.

Commission of the EC (1992), Report of the Committee of independent Experts on Company Taxation, Brussels.

Commission of the EC (1996), A common system of VAT: A programme for the Single Market, COM(9), 328 fin

Commission of the EC (1997), Towards tax co-ordination in the European Union, Communication from the Commission to the Council, COM (97) 495 fin.

Commission of the EC (2001a): Steuerpolitik in der Europäischen Union – Prioritäten für die nächsten Jahre, Mitteilung der Kommission an den Rat, das Europäische Parlament und den Wirtschafts- und Sozialausschuss, Kom(2001) 260 end.

Commission of the European Communities (2001b), Company Taxation in the Internal Market, Brussel SEC (2001)1681.

Commission of the EC (2001c), Proposal for a Council directive to ensure effective taxation of savings income in the form of interest payments within the Community, Com(2001) 400 fin.

Devereux M., P.; Griffith R. (1999), The Taxation of Discrete Investment Choices, The Institute for Fiscal Studies, Working Paper Series No. W98/16.

Devereux M, P.; Griffith R. (2002), Evaluating Tax Policy for Location Decisions, CEPR Working Paper No. 3247.

Directives of the European Communities:

(1977), Directive 1977/388/EC

(1992), Directive 92/111/EC

(1992), Directive 92/12/EC

European Commission (2000), Structures of the taxation systems in the European Union 1970-1997, Luxembourg.

Gandhi, V. and D. Mihaljek (1992), 'Scope for Reform of Socialist Tax Systems'. in: V. Tanzi (ed.), *Fiscal Policies in Economies in Transition*, IMF, Washington D.C.

Genser B. (2002), Coordinating VATs between EU member states, CESifo Working Paper No. 648 (1).

Holland, D. and N. Pain (1998), 'The Diffusion of Innovations In Central and Eastern Europe: A Study of the Determinants and Impact of Foreign Direct Investment', National Institute of Economic and Social Research.

Hussain, A.; Stern, N. (1993), The Role of the State, Ownership and Taxation in Transitional Economies, Economics of Transition, Volume 1(1), p. 61-87.

Jacobs O., H.; Spengel Chr. (2002), Effective Tax Burden in Europe, Current Situation, Past Developments and Simulations of Reforms, ZEW Economic Studies 15, Physica Verlag.

Jarras L.; Obermair G.,M. (1997), More Jobs, Less Tax Evasion, Cleaner Environment, Report commissioned by the European Commission.

King M. A.; Fullerton D. (1984), The Taxation of Income from Capital, The University of Chicago Press, Chicago and London.

Leibrecht M.; Römisch R. (2002), Taxation and EU Enlargement. A comparative analysis of the tax systems in the EU and the CEECs and evaluation of the effects of an EU-Enlargement on those tax systems, The Vienna Institute for International Economic Studies.

Martinez-Mongay C. (2000), ECFIN's Effective tax rates. Properties and Comparisons with other tax ndicators, ECFIN Economic Papers No. 146.

Mendoza E. G.; Razin A., Tesar L. L. (1994), Effective tax rates in macroeconomics, Cross-country estimates of tax rates on factor incomes and consumption, in: Journal of Monetary Economics 34, p. 297-323.

Mendoza E., G.; Milesi-Ferretti G., M.; Asea P. (1997), On the ineffectiveness of tax policy in altering long-run economic growth: Harberger's superneutrality conjecture, in: Journal of Public Economics 66, p. 99-126.

Mennel A. (ed.), Steuern in Europa, USA, Kanada und Japan, Binder I-II, Verlag Neue Wirtschaftsbriefe, Herne, Berlin, forthcoming.

Nias P.; Purcell N. (1999), Harmonization moves closer by stage, in: International Tax Review, Jul/Aug 1999, p. 11-13.

Nicodeme Gaetan (2001), Computing effective corporate tax rates: comparisons and results, Directorate General for Economic and Financial Affairs, Economic Paper No. 153.

Organisation for Economic Co-operation and Development (1999), Revenue Statistics 1965-2001, Paris.

Organisation for Economic Co-operation and Development (2000a), Towards Global Tax Co-operation, Report to the 2000 Ministerial Council Meeting, Paris.

Organisation for Economic Co-operation and Development (2000b), Tax Burdens – Alternative Measures, OECD Tax Policy Studies, No. 2, Paris.

Organisation für Wirtschaftliche Zusammenarbeit und Entwicklung (1998), OECD Wirtschaftsberichte 1997-1998, Österreich, Paris.

Resmini, L. (2000), 'The determinants of foreign direct investment in the CEECs', *Economics of Transition*, Vol. 8, No. 3, pp. 665-689.

Spengel Ch.; Lammersen L. (2001), Methoden zur Messung und zum Vergleich von internationalen Steuerbelastungen, Institut für Auländischen und Internationales Finanz- und Steuerwesen (ed.), Hefte zur Internationale Besteuerung, No. 132.

Tanzi, V. (ed.) (1993), 'Transition to Market. Studies in Fiscal Reform', International Monetary Fund.

Volkering B.; de Haan J. (2000), Tax ratios: A critical survey, appeared as OECD Tax Policy Studies No. 5, 2001.

Woodward, D.; R. Rolfe, P. Guimarães and T. Doupnik (1997), 'Taxation and the Location of Foreign Direct Investment in Central Europe', *USC Working Paper*.

Lessons to be Learnt from Earlier Accessions*

by Kazimierz Laski and Roman Römisch

1. A vast amount of literature exists on the topic of the EU eastern enlargement as well as on the lessons that the five accession countries (ACs) in Central and Eastern Europe (Czech Republic, Hungary, Poland, Slovenia and Slovakia) can learn from the experience of the four cohesion counties (CCs) (Ireland, Greece, Portugal and Spain).[1] In the centre of these investigations are the supply side effects of enlargement, mostly in a general equilibrium type of analysis. They neglect as a rule the demand side effects, although supply and demand are two legs of every economic process. We intend to present a more balanced approach with respect to capital inflows, especially foreign direct investment (FDI). Thus the first question we try to answer in this presentation is the influence of capital inflows on the size of GDP and the external position of CCs. The second question is only indirectly related to the first one and deals with the impact of EU accession on the growth of CCs and their convergence with the EU average. In both cases we look for conclusions which can be drawn with respect to ACs.

I Influence of capital inflows, in particular FDI, on GDP and the external position of CCs

2. Investments in the sense of national accounting are activities related to the replacement of old and the creation of new capacity. FDI, on the other hand, has partly the same meaning, partly a different one. Thus FDI in the form of 'green-field investment' or expansion or modernization of already existing capacity (sometimes termed 'brown-field investment') is investment also in the national accounting sense. In contrast, the acquisition of a certain amount of shares in existing enterprises, whether or not related to their privatization, mergers and similar activities do not represent investment in the national accounting sense but rather a special form of capital inflows, often called non-debt creating capital inflows (as opposed to credits). It would be quite interesting to find out which part of

* This lecture is based on the report 'From accession to cohesion: Ireland, Greece, Portugal and Spain and lessons for the next accession', study commissioned by Bank Austria Creditanstalt, preliminary version, wiiw, Vienna, December 2002. The authors are grateful for critical comments by colleagues from wiiw, Hubert Gabrisch (IWH Halle) and Julio Lopez (University of Mexico City).

[1] See e.g. Baldwin, François and Portes (1997).

FDI in ACs belongs to which group. It is being estimated that about half of the past FDI in ACs is not investment in the national accounting sense because FDI-related privatization of already existing capacity has been extremely intensive in these countries. In that sense comparability of FDI in ACs and CCs suffers because in the latter group FDI-related privatization of collectively owned assets has played a rather subordinate role. Nevertheless, even in the case of the CCs we should not forget that statistical data on FDI do not necessarily represent investment in the national accounting sense. This distinction is important as the influence on the size of GDP of that part of FDI which represents investment and of that one which does not, is not only of a different type but may even go in an opposite direction.

To elaborate on this point we use formula (1) which shows the factors determining GDP from the demand side

$$GDP=(I+T)/s \qquad (1)$$

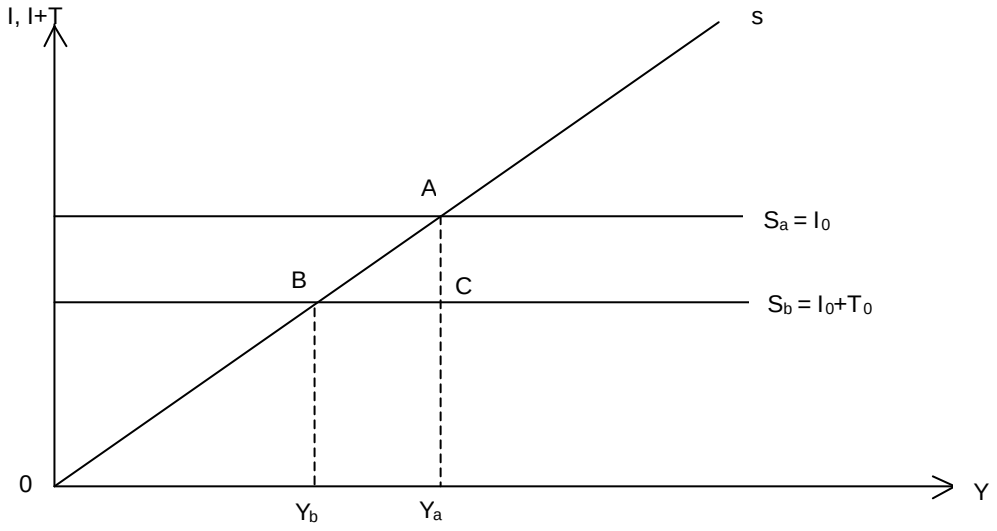
where I, T and s denote domestic investment, trade balance (with goods and non-factor services) and the domestic savings ratio, defined as the relationship between domestic savings S=I+T and GDP, respectively. It should be stressed that in the theory of effective demand the causality runs from investment and trade balance to domestic savings and not in the opposite direction. Formula (1) can be used when capacity and labour force are not fully utilized, a situation quite normal in a capitalist economy. At the very centre of (1) lies the income effect of investment; it is related to primary revenues earned by those involved in the execution of investment orders and to the chain of secondary expenditures on consumer goods financed from the primary revenues. At given s and T, any increase in I causes an increase in GDP, which is a multiple of the investment increase; therefore the whole process is called investment multiplier. The other factor in the numerator of (1) is the trade balance: here too an increase in the trade balance at given s and I causes an increase in GDP, which is a multiple of the trade balance increase; therefore the whole process can be called trade balance multiplier. There are, however, two important differences between I and T. Investment has a domestic capacity effect, because it increases the existing production possibilities: it follows the income effect and materializes only when the income effect is gone. This effect does not exist in the case of the trade balance. The second difference is linked to the fact that I is non-negative; in the extreme case it may become zero. Thus the income effect of I is the smaller the smaller is I, it can never become negative. In contrast, the term T may be positive (export surplus), zero or negative (import surplus). With an export surplus (T>0) domestic savings are larger than domestic investment and at given I and s the final output and employment are larger then they would be otherwise. With an import surplus (T<0) domestic savings are smaller than domestic investment and at given I and s the final output and employment are smaller than they would be otherwise. This is the main reason why capitalist countries try to become net

exporters and to avoid being net importers. In the first case they win jobs from the rest of the world, in the second case they lose them to the rest of the world.

This analysis brings us back to the role played by FDI and capital inflows in general in determining GDP from the demand side by influencing – at given s – both terms I and T.

Figure 1

GDP and Capital Inflows



Point A in Figure 1 represents the initial situation without any FDI. At domestic investment I_0 and a zero trade balance (because the country is assumed to be capable of covering its import requirements via sufficient exports) we have domestic savings $S_a=I_0$ and GDP=Y_a. Now we introduce FDI and investigate two extreme solutions. In the first case FDI causes additional investment equal to ΔI, hence investment amounts to $I_1=I_0+\Delta I$. We also assume that the trade balance moves from zero to a deficit $T_0<0$, where $|T_0|$ denotes the import surplus and $\Delta I=|T_0|$.[2] In this case domestic savings and GDP would remain $S_a=I_1+T_0$ and Y_a, respectively; however, the share of investment in GDP would increase and absorption would amount to $Y_a+|T_0|$. The other extreme possibility is that FDI inflows do not influence domestic investment at all but are one of the main causes of moving the trade balance into deficit at given I and s. Ample foreign capital inflows lead to real appreciation of the domestic currency, making export more difficult and import cheaper. This real appreciation very often follows the use of the exchange rate as an anchor to fight inflation; indeed the idea that the nominal exchange rate should increase more slowly than the domestic price

[2] This can be interpreted in that way that the whole additional investment is being imported from abroad without any domestic input. If $\Delta I>|T_0|$ domestic savings and GDP would be greater than S_a and Y_a, respectively. This case is disregarded for reasons specified in the course of further analysis in the text above.

level means at given foreign prices real appreciation as a direct consequence of a successful use of the foreign exchange anchor in the disinflation process. The other factor that may be responsible for the trade balance deficit, not caused directly by capital inflows but made possible by them, are changes in the distribution of incomes. With growing income inequality a group of private households comes into existence with growing demand for, mostly imported, luxury goods. All these factors increase the import intensity of GDP in the presence of ample capital inflows.[3] Point B in Figure 1 represents the configuration just discussed. At domestic investment remaining at the initial level I_0 and a trade balance $T_0<0$, domestic savings are $S_b=I_o+T_o$, $S_b<S_a$ and GDP is equal to Yb, $Yb<Y_a$. Not only GDP (and of course employment) is smaller in the second case than in the first one, but also absorption (equal to $Y_o+|T0|$) is smaller than Y_0 because, with $0<s<1$, the segment $|T0|=AC$ is smaller than the segment $\Delta Y=Y_a-Y_b=BC$. Point B may be interpreted as presenting the influence of capital inflows exclusively on the trade balance, without any influence on domestic investment.

The real development lies most probably between the two extremes as represented by points A and B. On the one hand FDI causes additional investments, on the other hand FDI causes some deterioration of the trade balance. If $\Delta I<|T_0|$, $\Delta I>0$, $T_0<0$. i.e. domestic investment increases less than does the import surplus, GDP would be greater than Y_b but smaller than Y_a because at given savings ratio s, aggregate demand would suffer, aggregate production would fall and so would employment. Countries achieving an export surplus rightly stress that an increase in the trade balance, $T_0>0$, creates jobs as their GDP would be greater than Y_a. The other side of the story, an aspect mostly neglected in analysis, is the destruction of jobs in countries that have an import surplus which is not fully compensated for by an investment increase. Of course, for all points lying between A and B investment is higher than I_0 as is the increase in capacity compared to the initial situation. When, however, this increased capacity is accompanied by a lower (or even the same) GDP, the degree of capacity utilization deteriorates, investment decisions may suffer and consequently future investment as well.

3. We have discussed the possible consequences of capital inflows upon aggregate demand as well as the question whether these inflows has an impact – and to any satisfactory degree – on domestic investment. In the long run, this is a very important aspect because domestic investment creates new capacities and as a rule those related to FDI display high levels of technical and managerial efficiency in terms of labour productivity and product quality. Even when FDI is limited to privatization alone the consequences are as a rule similar – albeit somewhat belated.

Although very important, the volume of domestic investment is but one side of the problem. The other side relates to their structure. The special (and from our point of view decisive)

[3] See Podkaminer (2000).

question related to capital inflows, especially FDI, is their short- and long-term impact on foreign trade constraints in the host countries. In contrast to other forms of capital imports, FDI inflows play a direct role in modernizing the economy; they thus help to bridge the technological gap between less and more developed countries. This is especially important when a drive towards modernization improves the foreign trade situation by promoting export activities and reducing import requirements. It is, however, not clear whether foreign firms as a whole act along these lines or whether they themselves do not constitute part of the problem. It is understandable that in the investment phase, FDI inflows would have a rather negative impact on the trade balance because of the increased imports of capital goods. The real issue related to the impact of FDI on the balance of trade is the time at which new capacities are put into operation. It may happen that sooner or later foreign firms in a given country become net exporters, however they may also remain ultimately net importers. In many cases major international corporations are interested in local markets, especially in larger countries. They export large quantities, but import large quantities as well. Being international by their very nature, they import components from elsewhere; in that sense they are import-intensive. It may thus happen that foreign firms as a whole not only fail to improve the balance of trade, but they may even be responsible for a large part of the host-country's trade deficit. This situation may change over time for export-intensive firms, especially in the manufacturing sector. When, however, foreign firms are engaged in activities with a low degree of export-intensity (such as telecommunications, energy, banking and insurance or retail trade), they would have a rather negative impact on the trade balance. Thus, by treating all foreign firms as a separate sector, that sector would help to solve the country's foreign trade difficulties only if it becomes a net exporter. This is the crux of the problem because sooner or later a capital-importing country has to balance its trade and current account.

4. Empirical data illustrating this analysis are difficult to present. In reality I and T are influenced by many factors, some of which may be more important than capital inflows. In addition the domestic savings ratio s does not remain constant as assumed in Figure 1. Nevertheless, it may be interesting to take a look at the relevant data. In Table 1 the most important data related to the external position of the four CCs are presented as averages for the last three decennia. We note that the domestic investment ratio (I/GDP) declined in all CCs except Spain where it remained constant. The most marked decline between the eighties and nineties, some 3 percentage points, occurred in Greece and Portugal.

As far as the T/GDP and CA/GDP ratios are concerned, the general picture is similar. Except for Ireland that moved to a strong positive balance of trade and a slightly positive current account, the three other countries continued to report negative external positions. The balance of trade deteriorated in Greece by 3 percentage points; in Portugal and Spain it remained more or less unchanged. The current account deteriorated by about 1 percentage point in Portugal and Spain, yet remained almost constant in Greece.

Table 1

External position of the CCs, 1970-2000 annual averages

(in per cent of GDP)

Ireland	**1970-1979**	**1980-1989**	**1990-2000**
I/GDP	25.8	21.3	20.4
T/GDP	-9.4	-2.3	9.3
(I+T)/GDP	16.3	18.9	29.7
FDI/GDP	1.3	0.6	6.0
CA/GDP	-5.1	-5.3	1.4
Funds / GDP[1]		1.36	2.06
Agricultural subsidies / GDP[1]		3.38	3.19
Total transfers / GDP[1]		4.74	5.31
Net BoP flows / GDP[2]		3.01	4.11
Greece	**1970-1979**	**1980-1989**	**1990-2000**
I/GDP	32.1	24.1	21.4
T/GDP	-5.4	-4.7	-7.9
(I+T)/GDP	26.6	19.4	13.6
FDI/GDP	0.7	1.1	0.9
CA/GDP	-0.7	-2.0	-2.2
Funds / GDP[1]		1.14	2.24
Agricultural subsidies / GDP[1]		2.23	2.79
Total transfers / GDP[1]		3.38	5.12
Net BoP flows / GDP[2]		2.35	3.96
Portugal	**1970-1979**	**1980-1989**	**1990-2000**
I/GDP	29.1	30.0	26.7
T/GDP	-8.9	-8.7	-8.4
(I+T)/GDP	20.3	21.3	18.3
FDI/GDP	0.5	1.1	2.2
CA/GDP	-2.0	-3.8	-4.7
Funds / GDP[1]		1.35	2.98
Agricultural subsidies / GDP[1]		0.39	0.66
Total transfers / GDP[1]		1.74	3.79
Net BoP flows / GDP[2]		1.23	2.38
Spain	**1970-1979**	**1980-1989**	**1990-2000**
I/GDP	27.5	23.0	23.5
T/GDP	-1.6	-0.7	-1.0
(I+T)/GDP	25.9	22.3	22.5
FDI/GDP	0.5	1.3	2.3
CA/GDP	-0.5	-0.9	-1.6
Funds / GDP		0.31	1.01
Agricultural subsidies / GDP		0.46	0.88
Total transfers / GDP		0.77	1.95
Net BoP flows / GDP[2]		0.29	0.80

Notes: 1) Mainly structural and cohesion funds; averages 1987-1989, 1990-1999. - 2) Averages 1987-1989, 1990-1998.

Source: Ameco Database, World Investment Report, UNCTAD, Eurostat New Cronos database, own calculations.

Foreign deficits were covered mainly by FDI flows and Net BoP inflows from the EU. It can be seen that in the 1990s FDI inflows as a percentage of GDP were (with the exception of Greece) higher than previous; in Portugal and Spain they accounted for 2.2% and 2.3%, respectively, and in Ireland for 6.0%. In addition, the CCs have received sizeable transfers from the EU. In the 1990s gross transfers in relation to GDP were far higher than in the 1980s. Gross transfers were highest in Ireland and Greece (above 5%) in comparison to Portugal and Spain (almost 4% and 2%, respectively). It should be added that some of these transfers were linked to the Structural and Cohesion Funds, hence to real investment. The Funds/GDP ratio amounted to about 2% in both Greece and Ireland, to 3% in Portugal and 1% in Spain. Thus, in all four countries the sum of FDI plus transfers related to domestic investment increased substantially in the 1990s. At the same time, as already mentioned, the share of I in GDP declined everywhere - with the sole exception of Spain where it has remained almost constant. *Post hoc non est propter hoc*. Therefore, we do not argue that the drop in the I/GDP ratio was caused by the increase in the sum of FDI flows and EU transfers (in relation to GDP). Perhaps the drop of the investment ratio would have been even stronger without the latter inflows.

It should be added that net flows from the EU to the CCs were quite appreciable. In the 1990s, in relation to GDP they amounted to 4.1% in Ireland, 4% in Greece and 2.4% in Portugal. With the exception of Spain and *ceteris paribus*, the CA/GDP ratios would have been much worse without them.

5. Important developments get lost when only decennial averages are investigated. Sometimes the time profile of certain variables deserves our attention or events not registered in Table 1 should be taken into account in order to understand better the changes in the external position of the countries under examination. In Ireland, the domestic investment ratio increased continuously between 1960 and 1973, together with an increasing import surplus. This development continued until the early 1980s with the I/GDP and |T|/GDP, T<0, ratios reaching record levels in 1979: 31.7% and 16.4%, respectively. The critical external position of Ireland together with a budget deficit of more than 10% required a radical shift towards restrictive policies in the 1980s. The GDP growth decelerated from about 5% p.a. in the 1960s and 1970s to only 2.8% p.a. in the period 1979-1994. Over the same period, domestic investment stagnated and the investment ratio dropped to 16% in 1994; thereafter the I/GDP ratio increased to reach 28% in 2001. The trade balance improved continuously after 1979, the year in which Ireland joined the ERM and broke its link with the British pound. While exports developed normally, imports – which in some years had increased quite strongly before 1979 – even declined thereafter. This was due to Ireland's growth slowing down but probably also to the strong depreciation of the punt against the British pound, the currency of Ireland's main trading partner. The trade balance became positive in 1985 and recorded an average export surplus of over 10% of GDP in the period 1995-2001. At the same time, given the

enormous outflows of NFIfA, the current account was more or less balanced. Three important conclusions can be drawn from this overview: first, the foreign trade bottleneck manifested itself with great intensity in the 1970s; and second, large FDI inflows occurred when Ireland achieved a balanced foreign position. Third, Ireland joined the MU with an exchange rate assuring satisfactory competitiveness inside the EU. Indeed in 1995 the exchange rate of the punt (measured in terms of German DM) was merely 80% of the value in 1986.[4]

6. Since 1960, Greece has been an import surplus country. This surplus increased from over 3% of GDP in 1960 to 9% in 1965 and subsequently diminished almost continuously up until 1981 when it stood at about only 1% of GDP. Since then it has mostly increased, still amounting in 2000 to about 8% of GDP. The current account shadowed this development, but for some years around 1980 it even recorded a surplus. The critical year was 1990 with a foreign trade deficit of over 9% and a current account deficit of almost 5% of GDP. One of the reasons for the deterioration of Greece's foreign position may have been the drop in competitiveness in terms of the changes in relative ULCs measured in EURO. In the period 1981-986 the increase in these costs in Greece was slower than in the EU-15; thereafter, however, the opposite was the case. In the periods 1987–1991 and 1992-1999, the increases were more rapid in Greece than in the EU-15: by 0.5 and 2 percentage points p.a., respectively. This was accompanied by real appreciation of the national currency, although the nominal exchange rate continuously depreciated. Only in the biennium 2000-2001 was this trend reversed.

According to Georgakopoulos (2001) other factors were partly responsible for these developments in the first post-accession years. Although associated with the Community for 20 years, Greek imports were still strongly protected and their exports heavily subsidized. Whereas tariffs were gradually aligned to the EU external tariffs, overall protection continued to increase in other guises such as quantitative restrictions, advance deposit requirements, invoice controls, government procurement policies and, especially, indirect taxes that discriminated blatantly against imports and afforded high protection for manufactured products, i.e. by distinguishing artificially between luxury (imported) and non-luxury (domestic) goods. The mandatory abolition of this informal protection in the 1980s was bound to increase imports, but it did not help exports which had already been enjoying free access to the EU since 1968. On the contrary, the abolition of the extensive subsidies for certain exports ruined their former artificial competitiveness. On the other hand, some cheap Greek imports of meat and butter from third countries had to be replaced by expensive imports from EU countries, thus provoking a sharp increase in internal prices after accession.

[4] See Kowalewski and Reitschuler (2003).

Georgakopoulos also stresses some problems relating to the huge transfers that the Greek economy has received from the EU budget. He argues that these resources were partly offset by direct transfers through trade from Greek consumers to EU producers. As an example, he quotes the fact that Greece is a net importer of cereals and animal products from other EU countries and a net exporter to EU consumers of Mediterranean products. Cereal and animal products, however, are supported by tariffs and levies, while Mediterranean products are mostly supported via the EU budget. He comes to the conclusion that at the outset, the budgetary transfers were offset to a large degree by direct trade transfers. With transfers increasing over time, the direct trade losses now amount to one third of the budgetary transfers. Nevertheless, even the remaining transfers are of a considerable order: 2.5 - 3% of GDP. Its impact upon the economy, however, was disproportionate to its size as the transfers mostly went to the farmers and helped to finance excessive imports. Hence, the transfers did not promote economic activity and employment. The structure of the funds, however, improved gradually by increasing investments in physical and human capital and in 1995 was conducive to a new phase of growth.

7. In the period 1960-1973, Portugal's external position was stable, although the country at that time registered a growth rate of almost 7% p.a. The import surplus mostly hovered around 5% of GDP and in some years the current account even registered a surplus. At the end of this period, the external position visibly deteriorated. In the period 1974-1985 a marked slowdown in growth (related to the revolution of April 1974 that ended an authoritarian regime of 50 years standing) was to be observed and the foreign position continued to deteriorate up until about 1981 when the foreign trade and current account deficits reached some 16% and 12% of GDP, respectively. In the following years, the situation improved markedly and the import surplus declined in 1985 to 3.1% of GDP, while the current account even registered a small surplus. After 1985, GDP growth accelerated and as was to be expected the external position deteriorated. The import surplus as a share in GDP moved from 3.1% to 7.4% in 1994 and to 12.1% in 2000: an increase of 9 percentage points. The development of the current account deficit was similar to that of the trade deficit. One of the reasons for this deterioration was the decreasing competitiveness of Portugal's economy, manifest in a relative increase in the ULCs measured in EUR after accession. Indeed, in the period 1981-1986 ULCs increased by only 4.7% p.a. against 6.2% p.a. in the EU-15, whereas after 1986 the opposite was the case (1987-1981, 1992-1999 and 2000-2001 in per cent p.a.: 7.8 against 4.3, 2.1 against 1.7 and 5.1 against 2.1, respectively). However another factor may have played a more important role. In the period 1986-2002, Portugal's GDP growth rate (3.5%) was approximately 1.1 percentage points higher than in the EU; consequently, Portugal's imports surged ahead of exports, leading to a large gap in the foreign trade balance.

8. The external position of Spain over the past 40 years has also been mostly stable. The trade balance and current account moved in parallel: deficits followed surpluses and vice versa, but the range was rather limited: mostly between plus 2% and minus 5% of GDP (in the mid-sixties and mid-seventies). In the period 1980-1985 Spain's external position improved and reached a modest trade balance and current account surplus. After joining the EU, its external position deteriorated abruptly by about 5 percentage points of GDP; this development was caused to a great degree by the real appreciation (almost 20%) of the national currency in the period 1986-1991. The financial crisis of 1992 followed soon thereafter, although the foreign trade and current account deficits were in the order of 3-4% of GDP. This goes to prove that even minor external deficits in a medium-sized country do not exclude the risk of an efficient speculative attack being launched on a national currency when capital markets are liberalized under conditions marked by major differences in inflation rates and the movement of relative ULCs. Indeed, in the period 1980-1986 ULCs measured in EURO increased in Spain and the EU-15 by 3.4% and 6.2% p.a., respectively, i.e. in Spain they increased much more slowly than in the EU-15. In the period 1987-1991 the situation was reversed: ULCs measured in EUR increased in Spain by 8.8% p.a. while in the EU-15 the increase was only 4.3% p.a. The pronounced nominal and real depreciation of the national currency following the crisis of 1992 caused the ULCs measured in EUR to remain constant in Spain over the period 1992-1999 while in the EU-15 they increased by 1.7% p.a.

In the years immediately preceding the entry of Spain into the MU the Spanish peseta had lost nearly one third of its value against the German mark. Hence, as was the case in Ireland, Spain joined the MU with a competitive exchange rate.[5]

This development underscores the potential significance of sovereign decisions governing exchange rate policy in instances when the financial position of a country takes an unexpected turn. On the other hand, the ACs seem to be well advised not to join the ERM and then the MU with a strong currency based, not on a strong economy, but on continuous capital inflows.

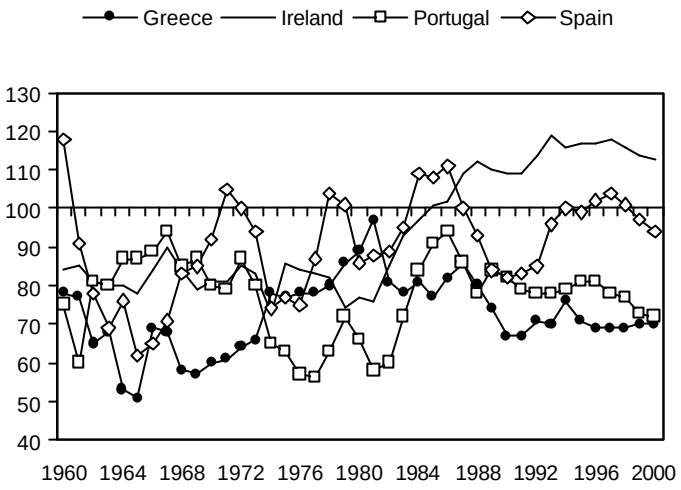
9. It is rather difficult to draw general conclusions from this analysis. One can, however, say that nowhere outside Ireland did the cohesion countries' external position improve. This emerges more clearly from Figure 2 in which exports are measured as per cent of imports. Indeed, at the time of its accession Greece still covered 100% of its imports by exports. From 1981 onwards, the coefficient X/M declined almost systematically; by 2000 it amounted to only 70%. In Portugal, the same coefficient declined from 94% in 1986 to 72% in 2000. In Spain, import coverage by exports improved significantly after the crisis of the early 1990s, yet whereas the coefficient stood at 111% in 1986, it was only 94% in 2000. It should be stressed that at the time of their accession to the EU, all three countries

[5] See Kowalewski and Reitschuler (2003).

were able to cover their import expenditures by exports revenues. Over time, however, they lost that ability to differing degrees. It is easy to imagine the difficulties that an applicant country with a coefficient X/M significantly below 100% might encounter, as is the case with the present ACs.

Figure 2

CC exports as per cent of imports, 1960-2000



10. The persistent trade balance and current account deficits displayed in some CCs raise the question as to their long-term financing. Disregarding FDI and net inflows from the community, this financing implies foreign credits. Can they sustain a steady-state growth at a rate g, g>0, if an import surplus |T|, T<0, being a constant part t, 0<t<1, of GDP persists? In other words can a country indebts itself every year by |T|=tGDP in order to finance its trade deficit as well as its debt service denoted by iD, where i and D denote the constant rate of interest and the accumulated foreign debt, respectively? It can be proved that under certain conditions (g>i) the foreign debt D in relation to GDP would tend to reach a certain limit whereupon it becomes constant. When the rate of interest is lower than the growth rate, i<g, the D/GDP ratio has a limit amounting to t/(g-i). If, for example, t=0.03, g=0.05 and i=0.03, the D/GDP ratio would tend towards the limit [0.03/(0.05-0.03)]=1.5. In other words, foreign debt would increase in relation to GDP until it reached the limit of 1.5, whereupon the ratio would stop increasing (and foreign debt would be one and a half times greater than GDP). We can illustrate this situation using the following figures: at GDP equal to 100 and foreign debt equal to 150, the new credit required would amount to tGDP=3 in order to finance the foreign trade deficit, plus iD=0.03(150)=4.5 in order to service the foreign debt. Taken together, new loans would amount to 3+4.5=7.5; this comprises exactly 5% of the existing foreign debt of 150. Thus, foreign debt would increase apace with GDP by 5% as initially assumed.

This whole construction may seem strange. The rest of the world lends 7.5, of which 4.5 is being used to pay interest due on foreign debt to the rest of the world. If we were dealing with a single bank, the latter would very soon realize that it was funding interest due to none other than the bank itself. If, however, a country is negotiating with a whole array of banks, some of which provide the loans and others fund the interest due on those loans, an arrangement of this kind might last for a time before the anomaly becomes painfully apparent. This indeed is what happens because lenders would carefully observe such parameters as the D/GDB ratio and would hardly be inclined to wait for the ratio to ultimately stabilize. They would also analyse the relationship between export revenues and new credit requirements. Hence, although it could be assumed that under very special circumstances steady-state growth is possible with a constant foreign trade deficit, the whole conclusion is in fact worthless because the lenders would sooner rather than later refuse to finance such an artificial configuration.

11. Nevertheless, it is worth devoting some thought to the problem discussed above when the funds needed to cover the foreign trade deficit are supplied on non-commercial terms. In Germany, the new *Länder* (the provinces comprising the former GDR) are a case in point; they receive huge federal transfers to finance their trade deficit with the rest of the world, mostly with the old *Länder*. In 2000 this deficit amounted to about EUR 100 billion and covered about one third of the internal demand estimated at about EUR 324 billion. Hence GDP of the new *Länder* is estimated to be about EUR 224 billion, i.e. only about 70% of the internal demand.[6] In this way, large transfers artificially support a high level of aggregate demand, especially of consumer spending, but at the same time limit production and employment. It is very difficult to tell what would be the situation in the new *Länder,* had a different policy been chosen in 1990, especially if they had avoided the politically motivated extreme appreciation of the GDR currency, which scuppered the country's competitiveness from one day to the next. In any event, the difference between internal demand and GDP would be much smaller and the employment situation probably much better than it is now. The most important point is that future developments would be much more promising than the cul-de-sac in which the new *Länder* seem to find themselves today.

To some degree, this also applies to the CCs that are recipients of significant non-commercial transfers from the EC although in terms of size they are but a very small fraction of those in Germany. No doubt, such transfers help to keep domestic absorption above the level of GDP. It is less obvious that the very same mechanism keeps GDP and employment below a level that could be achieved, were a different policy to be followed that militated against a constant foreign trade deficit in the first place. We have stressed this possibility when analysing Figure 1. Even if financed on non-commercial terms, a

[6] These estimates have been supplied by Dr. Hubert Gabrisch from the Institute for Economic Research Halle, Germany (IWH), whom I would like to thank for his help.

constant trade balance deficit does not complement domestic savings as is frequently argued. In reality, if it perpetuates constant import surpluses, this kind of financing means lower employment and higher unemployment in the recipient countries. In orthodox theory, an import surplus is termed 'foreign savings'. The term 'import of unemployment' from capital-exporting countries to capital-importing countries would be a more adequate description of the real consequences of such a policy.

12. The ACs harbour the greatest expectations with respect to increased inflows of FDI once they have joined the EU. It is no exaggeration to say that according to the thinking prevailing in those countries, opening up to international trade and capital flows is exactly the right development strategy, not merely part of it. Bearing that attitude in mind, it is interesting to determine at least the approximate dynamics of FDI in the CCs before and after their accession to the Community.

Table 2 shows annual average FDI inflows in the CCs for different periods. In Ireland FDI inflows did not play any relevant role before 1973, nor for a number of years thereafter. Only in the 1990s did these inflows explode. Thus, the date of Ireland's accession had no bearing on FDI inflows in any way, although its membership played a decisive role in attracting them as will be discussed elsewhere. In Greece, likewise, FDI inflows in the period 1981-1985 were less than in the period prior to 1981, before intensifying slightly in the 1990s. Data for Portugal and Spain suggest that in both countries accession was instrumental in attracting FDI. Indeed, after 1986 and especially in the 1990s, the inflow of FDI into the two countries was much greater than in the period before 1986. But this may be a coincidence because the accession of the Iberian countries occurred at the same time at which the flow of FDI in Europe and in the world exploded. Annual FDI to developed countries amounted to USD 26.6 billion in the 1970s, to USD 120.9 billion in the 1980s and to USD 317.5 billion in the 1990s. This factor played a major role. At the same time every country could create more or less favourable conditions for FDI inflows. The example of Greece in the 1990s proves that these conditions were not attractive enough.

Table 2

FDI (yearly average inflows) in the CCs, 1970-2000

USD million

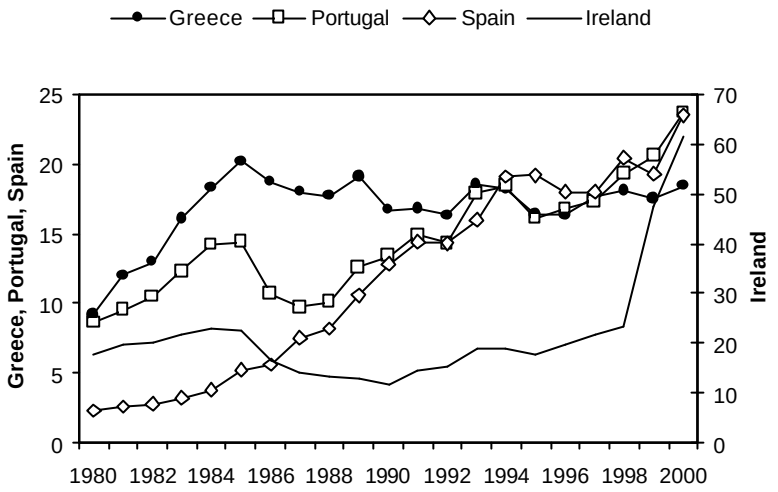
	1970-73		**1974-89**	**1990-2000**
Ireland	35		165	4952
	1976-80	**1981-85**	**1986-89**	**1990-2000**
Greece	481	465	703	918
	1970-85		**1986-89**	**1990-2000**
Portugal	114		841	2083
	1970-85		**1986-89**	**1990-2000**
Spain	1003		5868	13117

Source: World Investment Report, 2001

It is evident that the absorption capacity of inward FDI is limited to some extent by the size of the GDP. Indeed, a certain amount of investment opportunities generally exists in every country; they are determined first of all by the size of the market as represented by its GDP. Once these opportunities have been seized, further FDI materializes only when new openings for profitable investment (new products, new ways of producing old goods) arise. This hypothesis finds some support in data characterizing the relation of FDI stocks to GDP in the CCs.

Figure 3

FDI stocks in relation to GDP (in per cent), 1980-2000



Up until 1998, the FDI-stock/GDP ratio in the CCs had reached the level of about 20-25% and it seems that except for Ireland, this process has since come to a gradual stop. In 1999, the FDI stock/GDP ratio was 50.7% for Ireland and 17-21% for the other three countries. The EU average in the same year was 22.2%. In the transition countries, given the volume of privatization activities that are mainly in the hands of foreign investors, this percentage would probably be much higher: sooner or later, however, it must reach a limit as well. Thereafter the FDI stock would change apace with GDP; hence the flow of FDI as a percentage of GDP would remain more or less constant.[7]. Once the FDI-stock in a country has reached saturation level, the role of current FDI flows as a source of financing the current account shortfall would be very limited as inflows and outflows would for the most part compensate each other.[8]

[7] For example, if the constant ratio of FDI stock to GDP amounts to **a** per cent and the growth rate of GDP **b** per cent, the FDI inflow would constitute **(ab)**/100 per cent. For **a**=50 per cent and **b**=4 per cent, the FDI inflow would be equal to 2 per cent of GDP.

[8] In the previous footnote, we cited as an example the inflow of FDI equal to 2 per cent of GDP in order to keep the existing FDI-stock/GDP ratio constant at the level of 50 per cent. If the ratio of profits to FDI stocks were 5 per cent, the foreign profits in relation to GDP would amount to 0.05(0.5) = 0.025, i.e. to 2.5 per cent. Assume now that only one fifth of total foreign profits, i.e.0.5 per cent of GDP, is distributed while the rest is invested in the country. As long as steady-state growth with these parameters prevails, the net outflows related to FDI would amount to 0.5 per cent of GDP.

The general conclusion of this section of our paper is that with the exception of Ireland, in no country did the external position improve after 1980. We have stressed time and again that if they are to alleviate future foreign trade bottlenecks in growth acceleration, capital inflows, including FDI, should not only help to fund the current account import surplus, but first of all they should create conditions conducive to export expansion and import substitution. A similar role – at least in an indirect manner – should be played by the Structural and Cohesion Funds. The experience of Greece and Portugal would seem to imply that these expectations have not been met, at least not until now.

13. Although in the period 1950-2000 Ireland's GDP grew at the same rate as the other CCs, it is the only country to have grown more quickly after 1973 than before. However, directly after joining the EU, Ireland's growth slowed down markedly. The radical acceleration of growth in Ireland occurred in the 1990s - almost 20 years after Ireland's accession to the Community. The most important factor behind this acceleration was the upsurge in FDI in the 1990s.[9] Ireland is often cited as the best example of a national economy successfully opening up to foreign capital penetration. This is true, albeit with two caveats: (a) opening up was linked to a clear concept of branch-type industrial policy and the special interests of US transnational corporations (TNCs); and (b) the success, although genuine, has been largely overstated by transfer pricing.

Other than linguistic and cultural proximity, the reasons for the concentration of mostly US-dominated FDI in Ireland as a site inside the EU were the specific industrial policy measures linked to major incentives for multinational corporations. The most important incentive has been the 10% corporation tax (as against 30-40% in most competing countries). Tax relief has been granted primarily in respect of profits from the sale of goods manufactured in Ireland. The scope of tax relief, however, has been extended to cover certain well-defined non-manufacturing activities.[10] The success of this policy is borne out by the concentration of foreign businesses in the following sectors:

---

[9] In the period 1974-1989 the average annual inflows of FDI in Ireland amounted to USD 165 million and in the period 1990-2000 to USD 4952 million, i.e. they increased by a factor of 30. At the same time, FDI in the remaining CCs increased by a factor slightly above 2.

[10] These activities include:
- International financial services activities carried on at the International Financial Services Centre, Dublin.
- Certain computer services (software development, data processing and related technical and consultancy services) which have been grant aided.
- Wholesale sales by special trading houses of goods manufactured in Ireland.
- Design and Planning services rendered in Ireland in connection with specified engineering works executed outside the European Union. This applies to services provided by engineers, architects and quantity surveyors.
- Repair or re-manufacture of own manufactured computer equipment.
- Repair of ships, aircraft and aircraft engines or components.
- Certain shipping activities.
- Production of films (movies).
- Fish farming, meat processing, micro-propagation and cloning of plants.

a) Electronics and information technology (supplying one third of Irish exports)
b) Engineering, especially automotive components and aerospace technology
c) Pharmaceutical products
d) Consumer products
e) International services, including software development
f) Financial services.

TNCs focused on export activities in three sectors: computers, chemicals and electrical engineering. O'Hearn (2001) comes to the conclusion that 'Ireland's most important function today is (to be) a site where US companies can shift their products into Europe, while accumulating profits in order to avoid taxation.' One can suspect that Ireland's successes in foreign trade, especially in exports, are partly due to transfer pricing, with the help of which multinational firms shift profits from outside to Ireland as a tax haven.[11] The above hypothesis is supported by the observation that profits made by foreign firms in Ireland are out of all proportion to FDI stock. Indeed, in the 1990s the direct investment income paid in relation to FDI inward stock was in the order of 50 to 100%. In 1998, out of an FDI inward stock of USD 20 billion, direct investment income was USD 22 billion (!). It should also be stressed that the increase in export surpluses in the 1990s has to a great degree been 'sanitized' by Net Factor Income from Abroad (NFIfA) leaving Ireland. In the period 1990-1998, the export surplus increased by about USD 10 billion while the current account increased by USD 1.5 billion only. The unusual amount of NFIfA has also influenced the relationship between GDP and GNP. Whereas in 1960 Ireland's GNP was about 9% higher than GDP, in 2000 it was about 11% lower. Hence, over a period of 40 years the ratio of GNP to GDP declined by some 20 percentage points.

The question arises whether the success of FDI-supported Irish growth in the 1990s can be taken as a model for other countries. The answer seems to be negative. Major US transnational computer, pharmaceutical and electrical engineering enterprises searching for sites within the EU have already found them; it is doubtful whether they need a second site outside Ireland. Tax incentives may work only if other countries do not follow suit. No other CC has recorded results even partly similar to those in Ireland. Last but not least, it is also impossible to find a country outside Europe which has experienced a development such as that recorded in Ireland (with the exception perhaps of such places as Hong Kong or Singapore).

[11] The hypothesis concerning the shift of profits to Ireland as a tax haven is supported by analysis of unit value prices (ECU per ton) in Irish foreign trade conducted by our colleague Mr. Stehrer. He has found that in intra-EU trade in the biennium 1989-1990, the average unit value prices (UVP) of Irish exports were twice as high as those in the EU or UK whereas in the biennium 1997-1998 they were already 3.5 – 4 times higher. On the other hand, in the biennium 1989 – 1990 the average UVPs of Irish imports were equal to those in the EU and about half of those in the UK. During the 1990s, these ratios did not change very much. In extra-EU trade, the results for the same periods were similar, but not so much to Ireland's advantage. These figures may be interpreted as showing that high export prices were used as a vehicle to shift profits to Ireland, especially within the EU.

14. Time and again we have made reference to the lessons that the ACs can learn from the experience of the CCs. At the end of the first part of our study, we would like to recapitulate the most important findings with regard to FDI and competitiveness. The expectations that joining the EU would accelerate the inflows of FDI into the ACs do not seem well founded. This was not the case with earlier rounds of enlargement; it will probably not happen this time round either. It is estimated that something like half of the FDI inflows to the ACs over the past few years were linked to privatization. After the assets to be privatized have been sold off, this source of FDI inflow will dry up. The idea of relatively low labour costs attracting FDI may or will work is not a convincing argument in most cases. It should be recalled that of the four CCs, Ireland was the one with the highest GDP p.c. and the highest labour costs; nevertheless, owing to other factors which cannot be replicated elsewhere, it was Ireland alone that succeeded in attracting the highest FDI inflows per capita or in relation to GDP. Last but not least, the share of FDI-stock in relation to GDP is already relatively higher in the ACs than in the CCs; thus, the ACs are already swiftly approaching what we have termed 'saturation level'. At this level FDI flows can no longer be used to fund foreign trade deficits. On the contrary, even disregarding FDI outward flows which are already occurring and will continue in the future, when things reach the saturation level, net outflows rather than inflows of foreign currency linked with inward FDI are to be expected.

The second topic is competitiveness. The term is to be understood as the ability to cover imports at the required growth rate with adequate exports or, in other words, the ability to overcome the foreign trade bottlenecks that endanger growth acceleration in any country endeavouring to catch up. We have seen that apart from the atypical case of Ireland, no cohesion country has been able to achieve any progress in this direction, despite their starting point having been much better than that now prevailing in the ACs. All three CCs have reported lower exports in relation to imports at the end of the investigation period, i.e. lower import coverage by exports than at the time of their accession. This may be due to a range of exports failing to penetrate foreign markets or excessive ULCs in relation to the main trading partners. Indeed, after joining the community, their ULCs measured in EURO increased mostly more rapidly than in the EU-15, thus competitiveness so measured has deteriorated rather than improved. This has happened despite the countries in question making vigorous use of exchange rate policy in order to offset the excessive growth in nominal ULCs in national currency units. In the light of this experience, the ACs should draw appropriate conclusions with respect to the usefulness of a sovereign exchange rate policy within the Community. In fact, depreciation of the national currency might help to redress a country's foreign position by making imports more expensive, accelerating inflation somewhat and lowering real wages (at given nominal wages and labour productivity). Without national currency the only way a country can redress its foreign position is by cutting nominal and real wages (at given labour productivity) in order to lower ULCs. This may improve the competitiveness of a country, as does depreciation in the

former case; however, domestic demand would suffer much more since the whole burden of necessary adjustment would have to be borne by wage restrictions in the latter case.

II. Convergence of the CCs to the average level of EU

15. The issue of the CCs' catching up with the more developed EU countries can be analysed from two angles. First, did accession to the EU accelerate the growth of the CCs? Secondly, did accession to the EU accelerate their catching-up process?

Let us start with some brief methodological remarks. If we have to compare the size of two baskets with at least two goods, we are able to obtain a clear-cut answer in two very special cases: when either the material structure of the goods or the price structure in both baskets is identical. The real difficulty arises when - as always happens - both the material and price structures differ. Under those circumstances, the size of both baskets and their relationship to each other then depend on the common price system chosen for comparisons. This is the familiar problem associated with the Laspeyres and Paasche quantity indices and arises when two different baskets of goods (e.g. GDP p.c.) are being compared in the same country over time.

When two different countries are being compared, an additional complication emerges. The two price systems differ not only in structural terms, but they are also denominated in different currencies. Comparability thus has to be achieved via exchange rates; either those prevailing in reality or others constructed specifically to that end. It should be clear that what we treat as real values when comparing two baskets over time in the same country is not identical to what we treat as the real values when comparing two baskets over space (i.e. in two different countries) at the same time. In fact, the price systems used in internal and international comparisons are not the same; thus, the results may and do differ substantially. It may even happen that GDP p.c. can be seen to have grown more rapidly in country A than in country B, while the difference between the country A and country B in terms of their GDP p.c. did not increase, remained the same or even diminished. This means that the results of the two approaches are not transitive.[12]

16. In Table 3 the years 1973, 1981 and 1986 divide the 40-year period into corresponding sub-periods. Growth decelerated after every benchmark year in the EU-11 (i.e. the EU-15 minus the four CCs) and three CCs, except for Ireland.[13] It should be stressed that after 1981 growth in Greece was even slower than in the EU-11. In Portugal and Spain (and, of course, Ireland) the opposite was the case. The differences between GDP p.c. growth

[12] From Table 3 it follows that in the period 1960-2000 Turkey experienced a higher GDP p.c. growth than the EU-11 (2.3 per cent as against 1.9%).; however, from Table 4, we learn that the relative position of Turkey in relation to the EU-11 deteriorated instead of improving.

[13] However, in GNP p.c. terms even in Ireland the growth rate after 1973 was slightly lower than that before 1973.

rates in the EU and the three CCs, measured in percentage points, were higher after accession than before: they amounted to 2.8 as against 0.8 in Ireland, to 2.4 as against 1.8 in Portugal and to 1.9 as against 1.3 in Spain. Hence, the differences lay in the range of 1.9 to 2.8 percentage points and disregarding Ireland in the range of 1.9 to 2.4 percentage points. In Greece, however, the growth rate after accession was practically the same as in the EU-11, whereas before accession it was 2.4 percentage points higher.

Table 3

GDP per capita real growth rates in the EU-11, the CCs, Turkey and USA, 1960-2000

(in per cent p.a.)

	1960-1973	**1960-1981**	**1960-1986**	**1973-2000**	**1981-2000**	**1986-2000**	**1960-2000**
EU-11	2.95	2.42	2.31	1.34	1.24	1.03	**1.86**
GRC	8.15	**4.84**	3.73	1.23	**1.22**	1.64	2.91
ESP	6.14	4.08	**3.64**	2.09	2.63	**2.93**	3.39
IRL	**3.71**	3.43	3.03	**4.15**	4.64	5.83	4.01
PRT	6.98	4.76	**4.08**	2.39	2.88	**3.45**	3.86
IRL GNP	**3.55**	3.09	2.49	**3.46**	3.93	5.36	3.49
TUR	2.99	2.38	2.45	2.00	2.26	2.08	**2.32**
USA	3.08	2.50	2.48	2.09	2.32	2.29	**2.41**

Source: Ameco Database.

Table 4

GDP p.c. (in PPS terms) in the CCs, Turkey and USA, 1960-2000

(EU-11 = 100)

	1960	**1973**	**1981**	**1986**	**2000**
EU-11	100.0	100.0	100.0	100.0	100.0
GRC	40.2	67.2	**64.1**	58.5	64.6
ESP	54.1	72.9	67.5	**66.9**	**78.9**
IRL	57.5	**56.7**	62.8	60.8	**110.0**
PRT	36.5	54.8	52.4	**50.7**	**72.8**
IRL GNP	60.7	**60.6**	63.4	57.8	**97.9**
TUR	**29.6**	27.1	26.2	27.3	**27.0**
USA	**148.3**	136.8	134.2	137.1	**148.2**

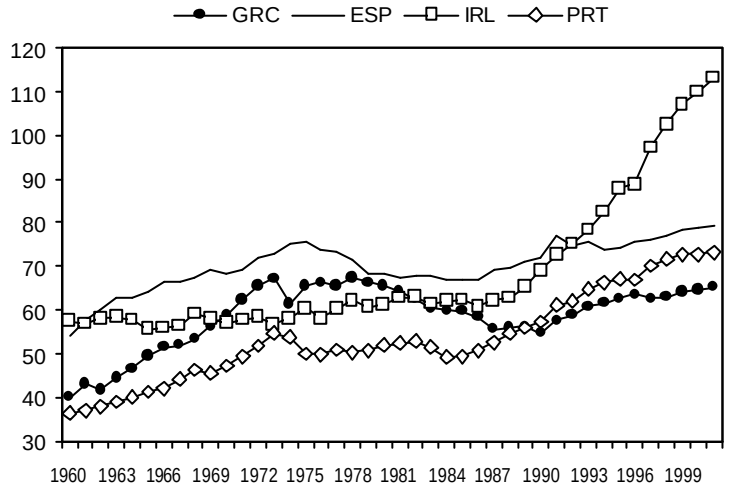
17. For some time now systematic inter-country comparisons (i.e. comparisons in space against comparisons in time that we have just discussed) have been made in terms of purchasing power parities (PPP) and then in terms of purchasing power standards (PPS); they currently cover a relatively long period of time. Table 4 presents some results of these investigations. If we assume the average GDP p.c. in the EU-11 to be 100, we can express the relative position of each country as a percentage of that average. It emerges that in both 1960 and 2000 Ireland was the most developed CC. In 1960 the least developed CC

was Portugal (with 36% of the average) and in 2000 it was Greece (with 65% of the average). However, the relative position of different countries has changed over time. This applies especially to Ireland and Greece. Ireland lost its lead position as early as 1973 and in 1986 it was still trailing behind Spain. As we already know, Ireland's GNP differs substantially from its GDP; in 1986 Ireland's relative GNP was still lower than it had been in 1960 and 1973. However, in 2000 its GNP p.c. was only slightly below the average GDP p.c. of the EU-11, while its GDP p.c. was distinctly above that level. As far as Greece is concerned, its relative position improved appreciably over the period 1960-1973 (from 40% to 67% of the average) and deteriorated thereafter up until 1986. In 2000, the GDP p.c. in Greece was not only the lowest of the CCs, but it was also even lower than it had been in 1973. This short presentation goes to show that the year of accession (1973 for Ireland and 1981 for Greece) did not influence their catching up with the EU-11 average. However, after 1986 when Portugal and Spain joined the Union, an impact on their catching-up process did materialize and partly overcompensated the losses of the preceding years. Figure 4 shows some additional details in comparison to Table 4 because it covers not only the benchmark years, but also the whole 40-year period. Indeed, the direction of changes reported in Figure 4 is not uniform. Ireland's catching-up process really only started in the late 1980s, while Portugal stagnated in the years between the early 1970s and late 1980s. As already mentioned, for most of the 1970s Greece stood higher than the relative position it achieved in the late 1990s, while Spain's relative position in the late 1990s was only slightly better than it had been in the mid-1970s.

Figure 4

GDP p.c. at PPS

(EU-11=100)



18. We have separately analyzed data in constant prices, showing changes over time, and in PPS, showing changes over space in the EU-11 and the four CCs. It is possible to

combine both approaches by using constant PPP or constant PPS. In that case by starting from data of a certain year, we can obtain the ranking over time of countries by using their real growth rates. One should stress, however, that the choice of the year influences the results of the whole exercise. Maddison (2001) produced this kind of data in 1990 international Geary-Khamis (G-K) dollars for almost all countries in a millennial perspective. Ellison (2001) used them to analyse the long-term convergence process among regions in Europe

In that context, he introduced the concept of the CCs as a region and we have adopted his idea in order to analyze the catching-up process in the CCs. The results covering the period 1950-2002 (divided by the CC accession years: 1973, 1981 and 1986) are presented in Table 5 and Figure 5. Although our interest is focused on the CCs and the EU, we have introduced data for some other regions as a useful background for our analysis. According to Table 5, GDP p.c. in the CCs in 1950 represented only 47% of the EU-10 average, yet by1973 it already constituted 68% of that average. The improvement in the CCs' relative position of by 21 percentage points required 23 years. In the period 1973-1986 the relative position of the CCs deteriorated by 5 percentage points and fell back to 64% of the EU-10 average. Over the period 1986-2002 the catching-up process restarted; the CCs' relative position improved by 10 percentage points. In sum since 1973, i.e. in a period of almost 30 years, the position of the CCs in relation to the EU-10 has improved by a mere 9 percentage points, reaching a level of 77% of the EU-10 average in 2002. Data on the individual countries are also interesting. In the period 1950- 1986 (i.e. over 36 years) Ireland lost over 9 percentage points only to gain in the 16 years thereafter almost 60 percentage points (at least in GDP terms; in GNP terms some14 percentage points less). Greece did not improve its position after accession, but was the most successful country before accession. The Iberian countries improved their position by 12 to 14 percentage points after accession and by 14 to 17 percentage points before accession.

An efficient catching-up process was to be observed in Italy - and especially in Austria. Over the period 1950-2002 the latter country grew by 3.3%, an average of 4.9% before 1973 and 2.1% after 1973. In 1950 its GDP p.c. stood at 75.2% and in 1995, the year Austria joined the community, it stood at 101.2% of the EU average. Thus, Austria's catching-up process occurred outside the EU.

A much more spectacular catching-up process has been recorded by the 'Asian Tigers'. In 1950 their GDP p.c. amounted to only 19% of the EU-10 average. However, over the whole period their growth rates were 5.8%: 3 percentage points more than in the EU-10. As a result, in 2002 the GDP p.c. of the 'Asian Tigers' already stood at 79% of the EU-10 average (an improvement of 60 percentage points), slightly above the level reached by the CCs.

Table 5

GDP per capita 1950, 1973, 1981, 1986 and 2002

(in constant 1990 international G-K dollars, EU10=100)

	1950	1973	1981	1986	2002
Austria	75.2	93.3	98.5	98.2	101.7
Belgium	110.8	101.1	102.6	98.9	105.2
Denmark	140.9	115.8	108.4	117.4	118.2
Finland	86.2	92.1	94.3	96.7	102.1
France	106.9	109.0	109.0	105.5	105.7
Germany	78.7	99.4	101.6	101.0	94.3
Italy	71.0	88.4	94.8	94.7	95.0
Netherlands	121.6	108.7	104.3	101.9	108.3
Sweden	136.6	112.1	107.2	107.9	103.6
United Kingdom	140.1	99.9	91.6	96.1	101.2
EU-10	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Ireland	69.9	57.0	62.6	60.4	118.4
Greece	38.8	63.6	63.9	61.5	63.0
Portugal	42.0	61.0	58.3	55.8	70.6
Spain	48.6	72.6	67.7	66.5	78.8
Cohesion countries	**47.2**	**68.5**	**65.3**	**63.6**	**77.3**
Turkey	**36.9**	**31.2**	**29.9**	**31.4**	**30.2**
United States	**193.9**	**138.6**	**135.5**	**138.6**	**148.3**
Asian Tigers	**19.4**	**30.2**	**40.4**	**51.4**	***79.2****

Asian Tigers: Hong Kong, Singapore, South Korea, Taiwan,
*Asian Tigers only up to 1999

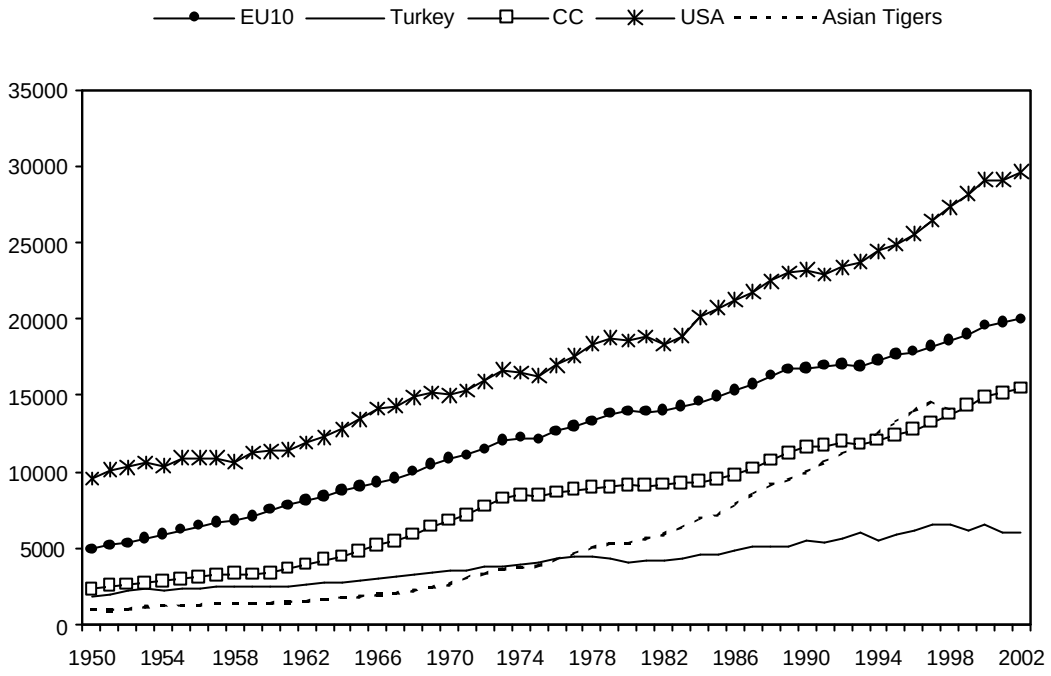
Source: Maddison, 2001, own calculations.

19. Figure 5 records absolute levels of GDP p.c. over time and thus helps us to understand the difference between the catching-up process in percentage and volume terms. The GDP p.c. growth measured in per cent is one side of the story, the basis for the percentage calculation is the other. The greater the initial difference in the level of GDP p.c., the greater the difference in growth rates has to be in order to reduce the difference between the target and catching-up countries in volume terms.

Figure 5

GDP per capita in different areas 1950-2002 according to Maddison

(in constant 1990 international G-K dollars)



Indeed, a successful catching-up process in terms of per cent of the target GDP does not necessarily mean that absolute differences between the countries diminish.[14] This problem is illustrated in Figure 6, in which each point measures the difference between GDP p.c. in any group of countries (or USA) and GDP p.c. in the EU-10 in the period 1950-2002. As we already know, the GDP p.c. in the CCs increased its share in relation to GDP p.c. in the EU-10 from 47% in 1950 to 77% in 2002. However, the absolute difference between both groups increased over the same period from $ 2,605 in 1950 to $ 5,482 in 1989, dropping thereafter to $ 4,545 in 2002.

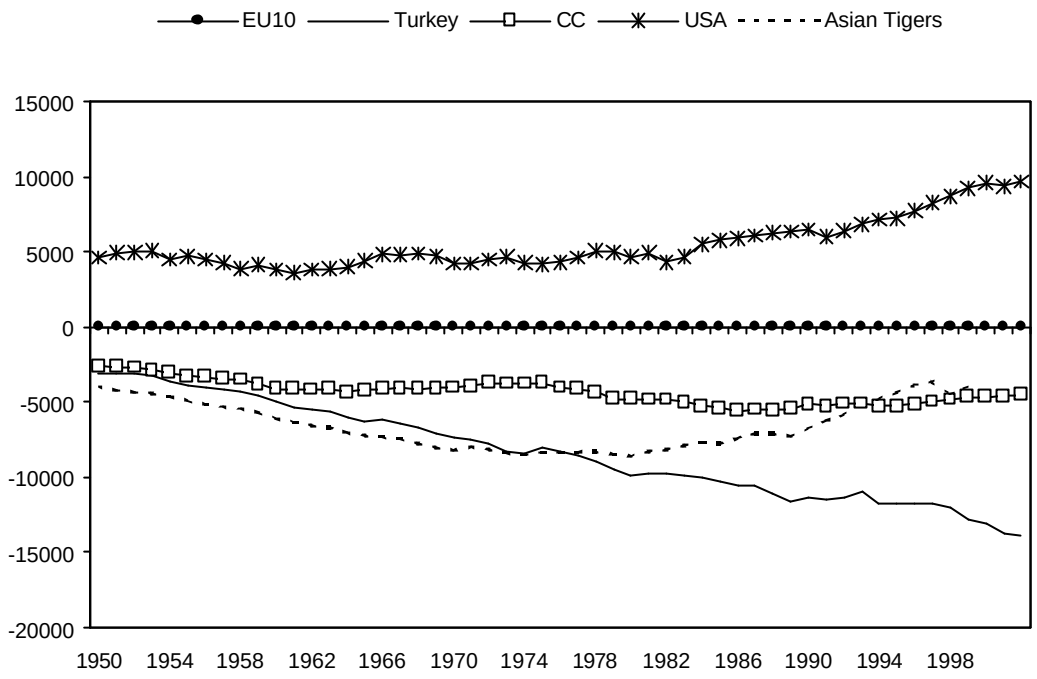
Similarly, the difference in volume terms between the 'Asian Tigers' and the EU-10, which in 1950 amounted to $3,973, continued to increase until about 1980 whereafter it started to decrease and reached the value of $ 4,511 in 1998.

[14] For the distinction between β and σ convergence see Barro, Sala-I-Martin (1995), Economic Growth, McGraw -Hill. Inc., pp. 382 ff.

Figure 6

Differences between GDP p.c. in different countries and GDP p.c. in the EU-10, 1950-2002

(in constant 1990 international G-K dollars)



20. The conclusions to be drawn from this part of our study seem to be rather important for the ACs. First, even in percentage terms it took the CCs half a century to move from 47% to 77% of the GDP p.c. of the EU-10. Over the same period the differences in volume terms almost doubled. Secondly, the substantial part of the catching-up process in percentage terms took place before 1973, a period in which Europe as a whole reported growth rates 'unknown' in history. Thirdly, in that period all the CCs pursued a hyperactive industrial policy of old type, protection levels for the domestic economy were high and capital markets were strictly regulated. This also applies to Austria case but especially to the group of 'Asian Tigers', which were exceptionally successful in catching up with the EU-10

.

Table 6

GDP p.c. in the ACs according to WIIW estimates in PPS, 2002

	Czech Republic	Slovakia	Hungary	Poland	Slovenia	AC5
in EUR	14377	11980	12261	9057	16739	10839
in % of EU15	61.6	51.3	52.5	38.8	71.7	46.4

Data for the ACs are presented in Table 6. In 2002, the average GDP p.c. for the ACs was EUR 10,839 and for the EU-15 EUR 23,337; thus GDP p.c. in the ACs amounted to 46.4% of the EU-5 level in the same year. Within the AC group, major differences are visible: for example, GDP p.c. in the Czech Republic is almost 60% higher than in Poland.

The growth rates for the ACs in the period 1989-2002 are presented in Table 7. It turns out that GDP p.c. increased over the whole period 1989-2002 in ACs slower than in EU-15, however in the sub-period 1995-2002 by 1.5 percentage points faster.

Table 7

Growth of GDP p.c. in the ACs and EU-15, 1989-2002

(in per cent p.a.)

	1989-1995	1995-2002	1989-2002
EU-15	1.3	2.0	1.7
Czech Republic	-1.0	1.9	0.6
Hungary	-2.5	4.1	1.0
Poland	-0.5	4.0	1.9
Slovakia	-3.1	3.7	0.5
Slovenia	-1.2	3.9	1.5
ACs	-1.2	3.5	1.3

Source: wiiw Database.

Let us assume that the EU-15 will grow in the future at 2% p.a., a little more quickly than in the period 1989-2002. Assuming that the ACs enjoy a future growth rate of 3, 4 or 5% p.a., we can determine the number of years they will need to reach 75% and 100% of the EU-15 average. The results are presented in the Table 8. It seems that for the ACs the catching-up process will be at least as difficult as it was for the CCs. Indeed, they would not have the benefit of the period 1950-1973 when growth rates in Europe were extremely high and pronouncedly intervenionist economic policies were all the rage. Even, if they were willing to pursue such policies (which is not the case by any means), once inside the EU measures of that kind would simply be prohibited under the competition policy rules and regulations that are monitored by Brussels. The second factor is the foreign trade bottlenecks that already exist in all ACs today, even though their growth rates are modest when viewed in terms of the requirements for the catching-up process. It is quite probable that any acceleration of growth would very quickly have a negative impact on the trade and current account balances, thus calling for restrictive measures in order to keep the deficits within tolerable limits.

Table 8

Number of years the ACs need to reach 75 and 100 per cent of the EU-15 GDP p.c.

(assuming a 2 per cent p.a. growth rate for the latter and a stagnant population in all countries)

Catching-up measured as percentage of EU-115 GDP p.c.	GDP p.c. growth in the ACs at 3 per cent p.a.	GDP p.c. growth in the ACs at 4 per cent p.a.	GDP p.c. growth in the ACs at 5 per cent p.a.
75 per cent	50 years	27 years	19 years
100 per cent	80 years	42 years	29 years

Under these conditions, it may turn out that it will not be easy to obtain even a 3% variant of GDP p.c. growth. Since we can expect some years with lower growth rates, an average of 3% implies years where growth rates will have to exceed that level. It should be stressed that in the period 1973-2002 the CCs only achieved an average GDP p.c. growth rate of 2.1%. On the other hand, the EU-15 future growth rate of 2 per cent may well be overstated, especially if we take into account their record after 1989. Perhaps 1.5% is a more realistic prognosis for the coming decennia. If we assume that over the next decennia GDP p.c. in the EU-15 and the ACs will grow by 1.5 and 3.5% p.a., respectively, it transpires that in the final analysis the ACs will need close on half a century to achieve about 75% of the average EU-15 level. Of course, if within the AC group the same differences in percentage points apply throughout, Slovenia and the Czech Republic, for example, would reach the 75 % level much more quickly than Poland.

21. There is no doubt that the EU will stabilise the democratic process in the ACs, thus enhancing the political situation in Europe. Seen from this angle, we are at a turning point in the history of Europe. It seems doubtful, however, whether the same factor will actually accelerate growth in the ACs and significantly further the catching-up process[15]. Indeed, the strategy chosen by the ACs in the early 1990s as a way to modernize their economy was rather unique. History seems to be telling us that without exception those countries now considered developed went through a phase in which they protected their infant industries - and only after an appropriate period of time did they open up their markets to foreign competition. That notwithstanding the *Zeitgeist* at the beginning of transition in the early nineties was quite different. The message that most developed countries conveyed to the transition countries at the time was more along the lines of 'Don't do what we did, do what we say!'

[15] Ellison (op. cit., p. 46) goes in his analysis even further: '... government officials and others in the CEEC's frequently point out that they have no choice but to join the European Union in order to become more economically competitive and political stable. Ironically, this one argument may in fact be one of the strongest points for remaining outside. Many countries have successfully promoted economic growth and convergence while remaining outside the EU. Ultimately, this may constitute a more viable alternative.'

Dani Rodrik described this contradiction in very precise terms. We would thus like to conclude this presentation by quoting from his paper 'Development Strategies for the 21st Century' (Rodrik, pp.100-101): ‘No country has developed successfully by turning its back on international trade and long-term capital-flows. … But it is equally true that no country has developed simply by opening to foreign trade and investment. The trick in the successful cases has been to combine the opportunities offered by world markets with a domestic investment and institution building strategy to stimulate the animal spirits of domestic entrepreneurs. … almost all the outstanding cases have involved partial and gradual opening to imports and foreign investment. Multilateral institutions such as the World Bank, International Monetary Fund, and Organisation for Economic Co-operation and Development regularly give advice predicated on the belief that openness generates predictable and positive consequences for growth. Yet there is simply no credible evidence that across-the-board trade liberalization is systematically associated with higher growth rates.’

References

Baldwin, R. E., J. F. Francois and R. Portes (1997), 'The costs and benefits of eastern enlargement', *Economic Policy*, 24, April, pp. 125-176.

Breuss, Fritz (2001), 'Macroeconomic Effects of EU Enlargement for Old and New Members', *WIFO Working Papers*, No. 33, Vienna, June.

Boltho, Andrea (2000), 'What matters for economic success. Greece and Ireland compared', in: Zoltan Bara and Laszlo Csaba (eds.), *Small Economies' Adjustment to Global Tendencies*, Budapest.

Detragiache, Enrica and Alfonso J. Hamann (1997), 'Exchange-Rate-Based Stabilization in Western Europe: Greece, Ireland, Italy and Portugal', *IMF Working Paper* WP/97/75, June.

Ellison, David L. (2001), 'CEEC Prospects for Convergence: A Theoretical and Historical Overview', in: Michael Dauderstädt and Lothar Witte (eds.), *Cohesive Growth in the Enlarging Euroland*, Friedrich-Ebert-Stiftung. International Policy Analysis Unit.

Georgakopoulos, T. N. (2001), 'Cohesive Growth in the Enlarging Euroland: Patterns, Problems ad Policies – Case Study Greece', Athens, May (Paper presented at the conference 'Cohesive Growth in the Enlarging Eoroland: Patterns, Problems and Policies', Berlin, 7-9 June, Friedrich-Ebert-Stiftung / Franziska- and Otto-Bennemann-Stiftung).

Bryant, Ralf C., Nicholas C. Garganas and George S. Tavlas (eds.) (2001), *Greece's Economic Performance and Prospects*, Bank of Greece, Athens, The Brookings Institution, Washington, DC.

Hunya, G. (2002), 'Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries', *wiiw Research Reports*, No. 284, May.

Hunya, G. (2001), 'Auswirkungen der ausländischen Direktinvestitionen auf Wachstum und Umstrukturierung in Mittel und Osteuropa', in: Bundesministerium für Wirtschaft und Arbeit, *Österreichs Aussenwirtschaft 2001/02*, Vienna, pp. 233-253.

Kalecki, Michal (1993), *Collected works*, Vol. IV, edited by Jerzy Osiatynski, Clarendon Press Oxford, pp. 42-50.

Kowalewski, Pawel and Gerhard Reitschuler (2003), 'Experience stemming from the ERM for the Accession Economies willing to join the ERM', OeNB, Vienna, publication in preparation.

O'Hearn, Denis (2001), 'Economic Growth and Social Cohesion in Ireland', Paper presented at the conference 'Cohesive Growth in the Enlarging Euroland: Patterns, Problems and Policies', Berlin, 7-9 June, Friedrich-Ebert-Stiftung / Franziska- and Otto-Bennemann-Stiftung.

Neves. J (1996), 'Portuguese postwar growth: a global approach', in: Nicholas Crafts and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Centre for Economic Policy Research, Cambridge University Press.

Maddison, Angus (2001), *The World Economy. A Millennial Perspective*, OECD.

Pelkmans, Gros and Nunez-Ferrer (2000), 'Long-run Economic Aspects of the EU's Eastern Enlargement', WWR Working Document, the Hague, September (downloadable at http://www.wrr.nl/HTML-EN/BasisPU-EN.html)

Podkaminer, Leon (2000), 'Sustainability of Poland's "import-fed" growth', *The Vienna Institute Monthly Report*, No. 4, April, pp. 2-8.

Rodrik, Dani (2001), 'Development Strategies for the 21st Century', in: Boris Pleskovic and Nicholas Stern (eds.), *Annual World Bank Conference on Development Economics*, The World Bank.

Sanso, M and A. Montanes (2000), 'Cointegration, Error Correction Mechanism and Trade Liberalization: The Case of Spanish Imports of Manufactures', *Applied Economics*, No. 34, pp. 231-240.

Schreyer, Paul and Francette Koechlin (2002), *Purchasing Power Parities 1999 Benchmark Results*, OECD.

wiiw Spring Seminar 2003

CEE Industry in an Enlarged EU: Restructuring, Specialization and Competitiveness

by Peter Havlik

Abstract

The CEECs have gone through a dramatic process of structural adjustment in which their integration into trade and production links with Western Europe has played a major role. In the more advanced CEECs, industry has been able to recover its previous position thanks to active restructuring, fostered especially by inflows of FDI. In a number of cases productivity growth has been higher than in the EU, implying some catching-up. Cross-industry comparisons show that for some countries the productivity catching-up is rather rapid in the medium-/high-tech industries. Over the period 1995-2001, the CEECs have also made inroads to EU markets in a number of widely heterogeneous industries. The market share gains of CEECs occurred mainly at the expense of declining importance of intra-EU trade. Most CEECs do not seem to compete directly with EU cohesion countries, but rather with exports of Austria, France, Germany, Italy and Ireland. The picture which emerges is a strong differentiation by a number of indicators of revealed comparative advantage, in CEECs' production and employment structures and, furthermore, tendencies of trade specialization and quality upgrading. Concerning EU enlargement, the analysis shows that the individual CEECs are in different positions with regard to their achieved and potential levels of catching-up. This also refers to the qualitative nature of their structural transformations and their positions in cross-European production and trade structures. While EU accession will not bring any additional dramatic changes for industry (owing to the already existing high degree of integration in this area), there are some sectors and areas that will be adversely affected.

Keywords: *CEE accession countries, industrial restructuring, competitiveness, trade specialization, EU enlargement effects*

JEL classification*: F14, F15, J31, L6, O14, O57, P23, P42*

CEE Industry in an Enlarged EU: Restructuring, Specialization and Competitiveness*

by Peter Havlik

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 CEECs have gone through a dramatic process of systemic change and structural adjustment in which their integration into the trade and production links with Western Europe has played a major role. EU accession will of course be a major step towards full integration, but the basic outlines of the division of labour which is emerging in this 'enlarged Europe' is already becoming visible. After a brief overview of recent industrial developments in Europe, we take a closer look at structural change within the manufacturing sector and reveals some of the interesting patterns of CEECs' specialization and competitiveness. Drawing on these findings, we first try to illustrate how this has helped the CEECs to resist the effects of the current global economic slowdown. Next – and more speculative – will be an attempt to outline the future patterns of industrial specialization in an enlarged European Union. In conclusion, the paper provides some implications of the CEECs' accession to the EU for industrial competitiveness in an enlarged Europe.

2 Changing role of manufacturing in the CEECs' economies

The majority of CEECs have inherited a huge industrial sector from the period of central planning with its pronounced bias towards heavy industry. In all CEECs, 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. A number of factors such as the loss of traditional export markets, sudden trade liberalization, restrictive macroeconomic policies and insufficient restructuring played a role. 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. The most successful countries in this respect were Hungary and Poland: in the year 2002 their manufacturing output was 80% and more than 90%, respectively, higher than it had been in 1990 (Table 1).

* Research on this paper was partly supported by Bank Austria Creditanstalt.

This feat could not be repeated by other CEECs: the Czech Republic and Slovenia still register a cumulative output decline by about 10%, Slovakia by 14% in that period. Only two CEECs – the Czech Republic and Hungary – could slightly increase their initial shares of manufacturing value added in GDP.

Table 1

Total manufacturing production

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Czech Republic													
annual changes in %	-5.2	-27.6	-8.0	-8.4	0.0	8.4	4.7	7.6	4.4	-1.5	5.6	7.8	4.6
index 1990=100	100	72.4	66.6	61.0	61.0	66.2	69.3	74.5	77.8	76.6	80.9	87.3	91.3
Estonia													
annual changes in %			-39.0	-19.2	-3.9	2.1	2.2	18.4	5.4	-2.6	16.5	7.8	4.5
index 1991=100		100	61.0	49.3	47.3	48.4	49.4	58.5	61.7	60.1	70.0	75.4	78.8
Hungary													
annual changes in %	-11.8	-16.3	-17.5	2.9	9.0	6.5	3.5	16.3	18.9	18.1	22.9	2.0	2.6
index 1990=100	100	83.7	69.1	71.1	77.5	82.5	85.4	99.4	118.1	139.5	171.5	174.9	179.5
Slovak Republic													
annual changes in %	-3.4	-27.0	-15.7	-11.9	1.8	8.9	2.6	2.6	7.5	-2.6	10.6	9.7	6.3
index 1990=100	100	73.0	61.5	54.2	55.2	60.2	61.7	63.3	68.1	66.4	73.4	80.5	85.6
Latvia													
annual changes in %		-0.5	-35.4	-34.8	-11.9	-4.6	7.3	17.1	3.7	-5.7	6.6	9.7	5.8
index 1990=100	100	99.5	64.3	41.9	36.9	35.2	37.8	44.2	45.9	43.3	46.1	50.6	53.5
Lithuania[1)]													
annual changes in %				-42.3	-31.3	-5.0	3.5	8.0	7.0	-8.6	7.1	16.0	7.5
index 1992=100			100	57.7	39.6	37.6	38.9	42.0	45.0	41.1	44.0	51.1	54.9
Poland													
annual changes in %	-25.6	-10.2	4.9	10.2	14.0	11.8	9.8	13.3	5.3	3.9	7.2	-0.5	1.5
index 1990=100	100	89.8	94.2	103.8	118.3	132.3	145.2	164.5	173.3	180.0	193.0	192.1	194.9
Slovenia													
annual changes in %	-8.9	-10.9	-13.9	-4.0	6.2	2.3	-0.4	-2.6	4.5	0.2	7.1	2.9	2.4
index 1990=100	100	89.1	76.7	73.6	78.2	80.1	79.7	77.7	81.2	81.3	87.1	89.6	91.8
Bulgaria													
annual changes in %	-15.8	-23.8	-17.2	-12.7	11.2	5.0	5.7	-13.5	-12.0	-8.9	9.7	-3.6	2.6
index 1990=100	100	76.2	63.1	55.1	61.3	64.3	68.0	58.8	51.7	47.1	51.7	49.8	51.1
Romania													
annual changes in %	-25	-24.4	-23.1	-1.2	3.2	9.9	2.5	-6.7	-11.4	-6.6	10.3	8.1	6.0
index 1990=100	100	75.6	58.1	57.4	59.3	65.1	66.7	62.2	55.2	51.5	56.8	61.4	65.1

Notes: 1) Without tobacco products.

Source: wiiw Industrial Database.

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 (Table 2). This reflects the general labour market developments in the region during the 1990s such as declining overall employment, shifts

Table 2

Total manufacturing employment

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	absolute loss/gain
Czech Republic													**90-01**
annual changes in %	-8.1	-10.7	-13.2	-7.0	-5.0	-2.4	-3.4	-2.4	-1.4	-6.0	-1.5	1.2	-450
index 1990=100	100	89.3	77.5	72.1	68.5	66.8	64.6	63.0	62.1	58.4	57.5	58.2	
Estonia													**94-00**
annual changes in %						-4.5	-7.1	1.9	-5.0	-3.8	0.8	.	-23
index 1994=100					100	95.5	88.7	90.4	85.9	82.6	83.3	.	
Hungary													**90-00**
annual changes in %	-4.6	-9.9	-14.5	-12.9	-9.1	-4.0	-2.9	0.7	3.4	1.2	1.4	.	-364
index 1990=100	100	90.1	77.0	67.1	61.0	58.5	56.8	57.2	59.2	59.9	60.7	.	
Latvia													**93-01**
annual changes in %					-13.1	-6.2	-0.8	-2.9	0.6	-7.6	2.3	1.6	-47
index 1993=100				100	86.9	81.5	80.8	78.5	78.9	72.9	74.6	75.9	
Lithuania[1)]													**92-00**
annual changes in %				-2.9	-12.0	-13.6	-7.2	-0.1	-1.1	-3.8	-1.5	.	-132
index 1992=100			100	97.1	85.5	73.9	68.6	68.5	67.8	65.2	64.3	.	
Poland													**90-01**
annual changes in %	-9.4	-11.4	-13.1	-2.4	-0.3	4.3	-0.2	0.7	-0.7	-6.8	-5.5	-5.2	-675
index 1990=100	100	88.6	77.0	75.2	75.0	78.2	78.0	78.6	78.0	72.7	68.7	65.1	
Slovak Republic													**91-01**
annual changes in %		-15.0	-12.6	-10.4	-5.1	1.0	-1.1	-3.7	-5.3	-5.9	-3.0	1.1	-218
index 1990=100	100	85.0	74.3	66.6	63.2	63.8	63.1	60.8	57.5	54.1	52.5	53.1	
Slovenia													**90-01**
annual changes in %	-4.1	-11.6	-10.1	-9.0	-4.7	-5.1	-5.5	-3.2	-0.8	-1.4	0.1	1.0	-156
index 1990=100	100	88.4	79.5	72.3	68.9	65.4	61.8	59.8	59.4	58.5	58.6	59.2	
Bulgaria													**90-01**
annual changes in %	-7.1	-20.0	-16.3	-13.2	-9.3	-6.0	-6.5	-2.7	-4.3	-10.7	-8.7	-4.2	-781
index 1990=100	100	80.0	67.0	58.1	52.7	49.6	46.3	45.1	43.1	38.5	35.2	33.7	
Romania													**90-01**
annual changes in %		-6.9	-12.5	-7.9	-6.3	-9.6	-2.0	-5.4	-6.2	-13.0	-6.0	-3.0	-1939
index 1990=100	100	93.1	81.5	75.0	70.3	63.6	62.3	58.9	55.3	48.1	45.2	43.8	

Notes: 1) Up to 1995 without tobacco products

Source: wiiw Industrial Database.

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. In the majority of the CEECs, the number of manufacturing jobs has recently stabilized at around 60% of the initial (1990) level. As far as the importance of the manufacturing industry as a job provider is concerned, only Hungary has managed to keep the share of manufacturing industry in total employment at its initial (1990) level; in the remaining CEECs this share has declined significantly. Nevertheless, manufacturing industry is important: the highest employment shares are currently observed in the Czech Republic and in Slovenia (around 30% of the total employment).

Let us now look more closely at the ongoing structural change within the manufacturing sector.[1] Manufacturing production in the CEECs is strongly concentrated today, with the largest three industries accounting for about 50-60% of total manufacturing output (EU: 40%). *Production specialization* in manufacturing has markedly increased between 1990 and 2001 in nearly all CEECs. This was in sharp contrast to the weak tendency towards specialization observed in the EU over the last decade. 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 (DA), textiles (DB), basic metals & fabricated metal products (DJ) and mechanical engineering (DK) sectors.

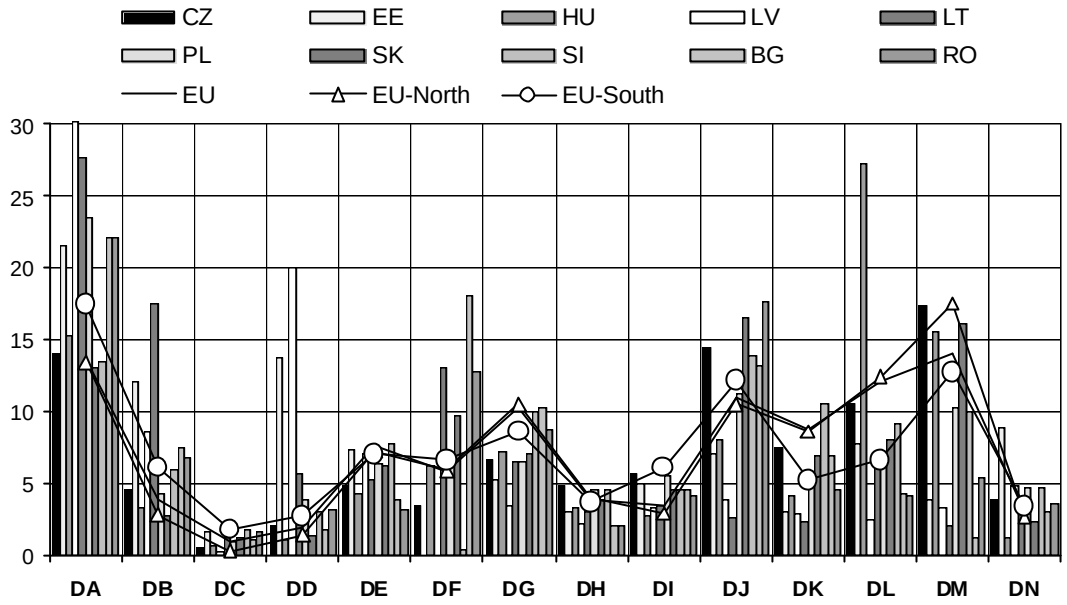
A comparison with the EU shows higher production shares in the CEECs as compared to the EU average in food & beverages (DA), textiles (DB), wood products (DD), coke & petroleum products (DF) and basic metals (DJ). In contrast, the CEECs have lower shares than the present EU member states in paper & printing (DE), chemicals (DG), machinery & equipment (DK) and – with the notable exception of Hungary – in electrical & optical equipment (DL). 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*

[1] The data, mostly collected from national sources, are likely at times to be inconsistent over the years (especially before 1995, e.g. because data sources changed or for methodological reasons, such as coverage of the small enterprise sector). The consistent data set from the wiiw Industrial Database only permits an analysis at the NACE rev. 1 level, for 14 subsections of manufacturing (DA - DN) for the CEECs.

manufacturing industry in the majority of CEECs is now fairly close to the European pattern both in terms of production and employment (see Figures 1a and 1b).

Figure 1a

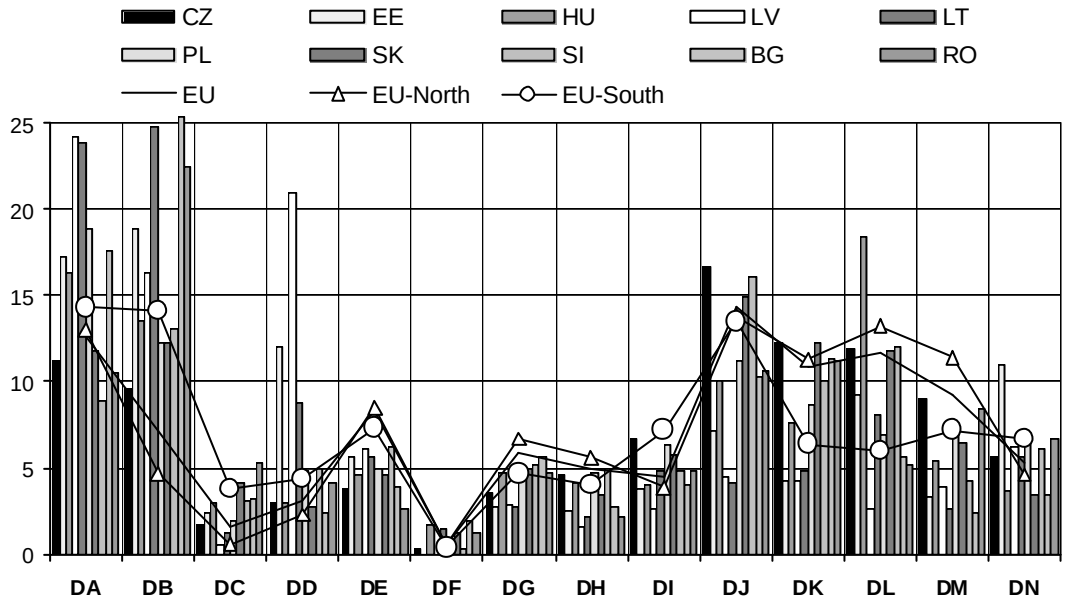
Manufacturing production structure in the EU context, 2001



Source: wiiw Industrial Database, Eurostat NewCronos.

Figure 1b

Manufacturing employment structure in the EU context, 2001



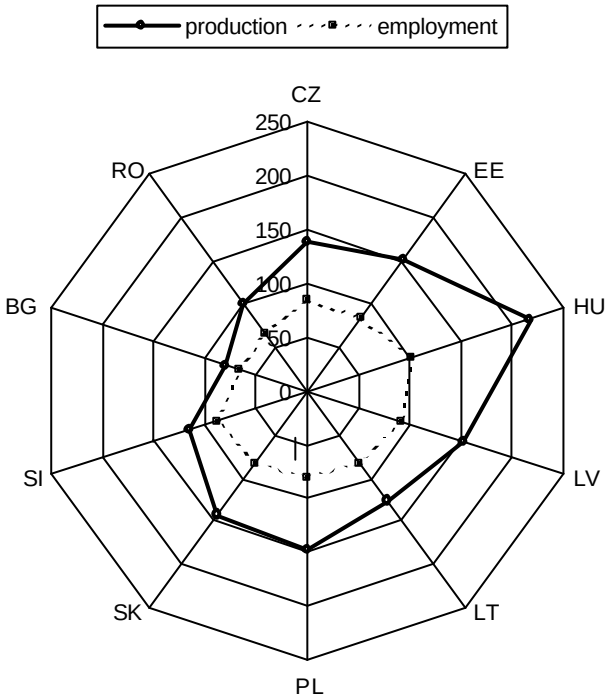
Source: wiiw Industrial Database, Eurostat NewCronos.

3 Productivity and unit labour costs

The developments of production and employment described above indicate substantial structural changes within the manufacturing industry and its individual sectors. Structural changes reflect, *inter alia*, different speeds of restructuring and resulting efficiency gains or losses at the branch level. The changes of production and employment shares translate into different gains (or losses) in labour productivity (estimated here as gross production at constant prices per employed person). Before turning to a more detailed productivity analysis, we shall briefly review recent developments for the aggregate productivity level in manufacturing. Figure 2 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.[2] 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.

Figure 2

Manufacturing labour productivity, 2002
(1995 = 100)



Source: wiiw estimates based on national statistics.

[2] Labour productivity in EU manufacturing industry grew by 2.8% per year during 1993-2002 (USA: 4.1%) – see Aiginger and Landesmann (2002) and European Commission (2003, forthcoming). The estimated annual rate of productivity convergence between East and West German manufacturing industry during 1992-1997 amounted to 7.4% – see Barrel and te Velde (2000), p. 290.

The period of fast industrial restructuring seems to be over in most CEECs and the recent productivity growth displays similar characteristics as in other market economies. 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 (DL), over-performing in all CEECs, followed by the transport equipment industry (DM) and manufacturing n.e.c. (DN; furniture mainly – see Table 3). Typical 'productivity losers' are the food & beverages industry (DA), textiles & textile products (DB), leather & leather products (DC), wood & wood products (DD), paper & printing (DE), coke & petroleum products (DF) and chemicals (DG). In some cases, labour productivity has even declined in absolute terms. In general, we find certain evidence that the technologically more sophisticated industries (DK, DL, DM) in the CEECs have strongly improved their productivity performance, while traditional sectors using standard techniques have been falling behind.

Table 4 provides crude estimates of labour productivity levels (again gross production per employee) in manufacturing industry total and its sectoral variation in all CEECs. For a cross-country comparison, data in national currencies are converted into a common unit (euro) with purchasing power parities.[3] Hungary's productivity leadership among the CEECs (48% of the Austrian level) is confirmed, while Slovenia's productivity is surprisingly low (about the same as in the Czech Republic) given its higher per capita GDP. Furthermore, there are large productivity gaps among the CEECs: in the Baltic states, as well as in Bulgaria and Romania, labour productivity was just one third of the Hungarian level (about 15% of the Austrian level) in 2001.

3 Purchasing power parities were adopted from the ECP 1999 – see OECD (2002). The first data set (PPP99 for GDP) results from national productivity figures converted with 1999 purchasing power parities for the whole GDP. This conversion leads to higher productivity estimates for the CEECs. The second data set uses as a conversion factor partial PPPs for gross fixed capital formation (PPPCAP99) where the price levels in the CEECs are relatively high (presumably due to imports of machinery and equipment). This conversion thus leads to lower productivity estimates for the CEECs. Given the close correspondence of the latter productivity estimates to the theoretically superior UVR-based productivity data for the Czech Republic, Hungary and Poland (which are not available for other candidate countries – see Box 1), and assuming that a similar correspondence between UVR and PPPCAP99 exists for other CEECs as well, one can assume that productivity levels expressed at PPPCAP99 are probably closer to reality, at least for manufacturing industry as a whole.

Table 3

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.

Box 1

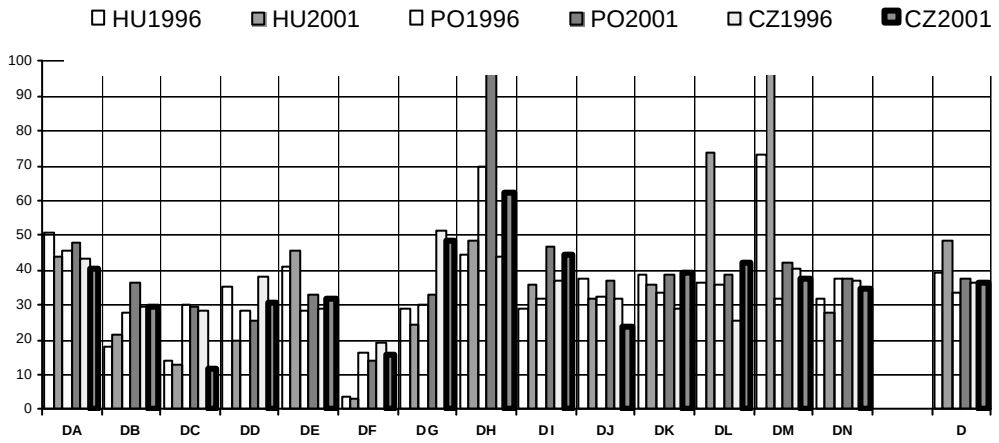
Manufacturing labour productivity in international comparison

International productivity levels comparisons are hampered by the conversion of the national output data to a common currency. The use of market exchange rates is not appropriate for this purpose (especially for CEECs, mainly due to their still grossly undervalued currencies and widely fluctuating exchange rates). Alternative proxy converters are either purchasing power parities (PPPs, see Table 4 below), or – much better – branch-specific **unit value ratios (UVR)** which compare prices of representative products. UVR estimates for 1996 are only available for the Czech Republic, Hungary and Poland relative to Germany from a recently completed research project, jointly conducted by wiiw and the University of Groningen. The estimated Hungarian manufacturing industry labour productivity was slightly less than 40% of the German level in 1996, the respective Czech-German productivity relation was 35%, the Polish-German productivity relation was 25%, all with fairly large sectoral differences.[4] Figure B1 shows productivity level comparisons with Austria for the years 1996 and 2001, the latter after an extrapolation from the 1996 UVR-based benchmarks with country- and branch-specific rates of productivity growth.

Figure B1

Manufacturing labour productivity (UVR-based), years 1996 and 2001

(Austria = 100)



Source: wiiw Database and own estimates based on Monninkhof and van Ark (2002).

By this estimate, Hungarian manufacturing productivity reached nearly half of the Austrian level by 2001 and the productivity gap narrowed by nearly 10 percentage points. In Poland, the narrowing of the gap was much smaller, and there was no productivity catching-up in the Czech Republic's manufacturing. A closer look at the performance of individual branches shows that relatively smaller productivity gaps (and impressive productivity catching-up) were observed especially in manufacturing of electrical equipment (DL) and transport equipment (DM), but virtually none in other branches. Hungary's labour productivity in the transport equipment industry was apparently higher than in Austria. On the other hand, productivity gaps in food & beverages (DA), leather manufacturing (DC), wood products (DD) as well as in manufacturing n.e.c.(DN) were especially large in all three countries and in some cases have even widened since 1996.

[4] It is interesting to note that a productivity gap of about the same order existed between East and West German industries in 1992. By 1997, East German labour productivity reached about 65% of the West German level – see Barrel and te Velde (2000).

Table 4

Productivity levels in the manufacturing industry, year 2001

		Czech Republic	Estonia 2000	Hungary	Latvia	Lithuania 2000	Poland	Slovak Republic	Slovenia	Bulgaria	Romania
	Manufacturing total, productivity in EUR (at PPP99 for GDP)	102092	51974	124958	42657	50402	84403	107569	82728	50842	48567
	Austria 2001 = 100	56.1	28.6	68.7	23.4	27.7	46.4	59.1	45.5	27.9	26.7
	Manufacturing total, productivity in EUR (at PPPCAP99)	70797	30361	83856	25964	28677	63032	63122	70327	32449	34570
	Austria 2001 = 100	40.6	17.4	48.1	14.9	16.5	36.2	36.2	40.4	18.6	19.8
	Manufacturing total = 100										
DA	Food products; beverages and tobacco	132.9	129.1	88.6	126.4 [1)]	113.6 [1)]	118.4	103.7	159.7	133.0	217.4
DB	Textiles and textile products	46.9	64.8	25.3	54.1	68.7	36.9	25.1	48.5	32.6	37.0
DC	Leather and leather products	25.8	67.5	20.3	39.3	96.8	44.0	30.2	44.6	33.7	32.8
DD	Wood and wood products	94.8	113.4	40.3	101.1	69.7	78.0	52.2	54.4	82.7	68.7
DE	Pulp, paper & paper products; publishing & printing	113.7	141.7	94.9	105.3	98.3	128.1	134.8	103.1	95.4	137.3
DF	Coke, refined petroleum products & nuclear fuel	888.5	.	241.2	.	691.8	614.3	609.3	30.8	840.6	801.7
DG	Chemicals, chemical products and man-made fibres	167.8	163.6	128.8	95.7	273.5	157.9	129.5	211.4	183.0	162.8
DH	Rubber and plastic products	107.3	107.1	84.2	160.1	147.1	105.9	110.2	90.2	76.8	102.7
DI	Other non-metallic mineral products	93.3	128.7	69.6	129.2	67.9	87.4	73.2	87.9	119.9	85.2
DJ	Basic metals and fabricated metal products	84.8	89.4	76.3	78.9 [2)]	67.8	98.7	106.6	79.4	132.0	165.8
DK	Machinery and equipment n.e.c.	74.4	79.0	57.6	73.9	44.8	67.2	63.5	114.0	63.9	58.4
DL	Electrical and optical equipment	85.3	80.1	164.1	113.1 [3)]	109.4	113.5	69.9	80.0	78.8	66.7
DM	Manufacture of transport equipment	171.5	112.9	279.9	71.0	85.2	135.3	296.1	237.3	58.5	66.8
DN	Manufacturing n.e.c.	70.0	66.8 [4)]	36.9	78.1	60.8	69.4	76.3	86.0	47.2	52.6
	Others				210.4 [5)]						
	Standard deviation	207.4	30.4	75.8	42.9	161.7	137.7	146.3	59.1	198.2	189.2

Notes 1) Without ISIC 16: Tobacco products. - 2) Without ISIC 27: Basic metals. - 3) Without ISIC 30: Office, accounting and computing machinery and ISIC 33: Medical, precision and optical instruments, watches and clocks. - 4) DF+DN. - 5) ISIC groups 16, 23, 27, 30 and 33.

Sources: WIIW estimates based on national statistics, OECD, EUROSTAT and UNIDO.

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. The relative movements of labour costs (wage rates) and productivity determine the evolution of unit labour costs (ULCs), which are an important measure of (cost) competitiveness. In the CEECs, wages are much lower than in the EU, but productivity is significantly below EU levels as well. ULCs, which combine both effects, are also typically below EU levels, thus giving the CEECs a substantial competitive edge with regard to production costs. There are, however, again large differences between the individual countries and across industries.

Over the period 1995-2001, manufacturing ULCs increased in nearly all CEECs (see Table 5). The only exceptions are Hungary, where ULCs declined at an average annual rate of 7.8%, and Romania, were ULCs have stagnated. Lithuania and Latvia showed the largest increase in ULCs and thus the biggest deterioration in (cost) competitiveness. 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 5) are typically the technologically more sophisticated industries such as electrical & optical equipment (DL) and the transport equipment industry (DM). Industries signalling a weaker competitive performance than average in most CEECs in the period 1995-2001 (with positive sign in Table 5) are mainly the 'productivity losers': the food & beverages industry (DA), textiles (DB), leather & leather products (DC), wood products (DD), paper & printing (DE), coke & petroleum products (DF) and chemicals (DG). 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. This pattern very much confirms the Gerschenkron hypothesis ('advantage of backwardness') as applied to the industry level.

Cross-country comparisons of ULCs are hampered by the same problems as the above discussed productivity level comparisons. Tables 6a and 6b provide two sets of ULC level estimates in relation to the *Austrian* level in 2001.[5] Both estimates show significantly lower ULCs for total manufacturing in the CEECs than in Austria, indicating their *considerable competitive (cost) advantage*. Apart from Bulgaria and Romania, the lowest ULCs can be observed in Hungary and Slovakia, due to a comparatively high labour productivity.

[5] The first estimate is based on productivity levels expressed in purchasing power parities for the whole GDP (PPP99 for GDP), the second on partial PPPs for gross fixed capital formation (PPPCAP99, see Table 4 above). The latter productivity estimates are lower (the price level of gross capital formation is higher in CEECs) and thus yield higher ULC estimates.

Table 5

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	Estonia [2)]	Hungary	Latvia	Lithuania [3)]	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 from 1995-2000 (6.8%). - 3) 1996-2001.

Sources: wiiw estimates based on national statistics.

Table 6a

International comparison of ULCs in manufacturing industry

(year 2001, PPP99 for GDP, Austria 2001=100)

		Czech Republic	Estonia [1] 2000	Hungary	Latvia [1]	Lithuania [1] 2000	Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D	**Manufacturing total**	**27.6**	**40.0**	**26.2**	**29.0**	**31.9**	**42.0**	**20.1**	**71.1**	**16.0**	**22.2**
DA	Food products; beverages and tobacco	23.3	37.3	33.5	28.6	32.6	38.7	20.7	58.2	14.0	10.4
DB	Textiles and textile products	31.9	38.0	47.7	36.9	31.2	55.6	40.9	80.7	26.5	30.9
DC	Leather and leather products	86.0	58.0	95.8	61.7	32.5	77.5	57.2	149.5	38.8	54.5
DD	Wood and wood products	25.5	38.8	45.9	27.4	33.0	43.6	32.3	116.5	15.4	22.7
DE	Pulp, paper & paper products; publishing & printing	27.7	45.4	29.8	38.4	43.1	41.4	17.5	84.9	17.7	20.7
DF	Coke, refined petroleum products & nuclear fuel	26.2	.	136.4	.		75.1	29.7	.	25.5	35.1
DG	Chemicals, chemical products and man-made fibres	25.3	.	40.3	47.4	25.5	49.4	22.8	75.7	15.6	27.7
DH	Rubber and plastic products	21.3	30.7	25.8	12.0	17.3	31.2	17.0	62.1	14.8	18.6
DI	Other non-metallic mineral products	23.5	31.5	29.7	17.0	36.2	37.5	22.2	59.8	11.9	20.1
DJ	Basic metals and fabricated metal products	29.4	43.5	26.3	28.6	37.9	38.9	19.4	75.0	13.6	15.3
DK	Machinery and equipment n.e.c.	33.5	44.2	38.9	31.1	62.9	57.6	27.0	50.2	23.2	38.6
DL	Electrical and optical equipment	29.5	51.5	15.5	23.4	35.0	40.4	24.3	82.3	18.9	37.1
DM	Transport equipment	27.6	59.8	17.1	60.6	78.0	53.2	12.2	44.0	42.7	61.2
DN	Manufacturing n.e.c.	25.8	.	37.3	25.6	35.4	37.1	17.9	54.6	18.8	24.0

Table 6b

International comparison of ULCs in manufacturing industry

(year 2001, PPPCAP99, Austria 2001=100)

		Czech Republic	Estonia [1] 2000	Hungary	Latvia [1]	Lithuania [1] 2000	Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D	**Manufacturing total**	**38.1**	**65.6**	**37.3**	**45.7**	**53.6**	**53.8**	**32.9**	**80.0**	**24.0**	**29.9**
DA	Food products; beverages and tobacco	32.2	61.1	47.7	45.0	54.9	49.6	33.7	65.5	21.0	14.0
DB	Textiles and textile products	44.0	62.2	68.0	58.1	52.4	71.2	66.7	90.9	39.7	41.5
DC	Leather and leather products	118.8	95.0	136.8	97.1	54.7	99.3	93.3	168.4	58.2	73.4
DD	Wood and wood products	35.2	63.6	65.5	43.1	55.5	55.9	52.6	131.2	23.1	30.6
DE	Pulp, paper & paper products; publishing & printing	38.3	74.5	42.5	60.4	72.6	53.0	28.5	95.7	26.6	27.9
DF	Coke, refined petroleum products & nuclear fuel	36.2	.	194.6	.	.	96.3	48.5	.	38.2	47.2
DG	Chemicals, chemical products and man-made fibres	35.0	.	57.5	74.6	42.9	63.3	37.2	85.2	23.5	37.3
DH	Rubber and plastic products	29.5	50.4	36.8	18.8	29.2	40.0	27.7	69.9	22.2	25.0
DI	Other non-metallic mineral products	32.5	51.7	42.3	26.7	60.9	48.0	36.2	67.4	17.9	27.1
DJ	Basic metals and fabricated metal products	40.5	71.4	37.5	45.0	63.8	49.9	31.7	84.4	20.4	20.6
DK	Machinery and equipment n.e.c.	46.3	72.5	55.6	49.0	105.8	73.8	44.0	56.5	34.8	51.9
DL	Electrical and optical equipment	40.7	84.4	22.2	36.8	58.8	51.8	39.7	92.6	28.4	49.9
DM	Transport equipment	38.1	98.0	24.4	95.3	131.2	68.2	20.0	49.6	64.0	82.3
DN	Manufacturing n.e.c.	35.7	.	53.2	40.2	59.6	47.6	29.2	61.5	28.3	32.2

Note: 1) Calculated with gross wages.

Sources: wiiw estimates based on national statistics.

4 Trade specialization of CEECs' manufacturing

This section starts with an overview of the broader patterns of trade performance and then moves towards a more detailed examination of trade specialization in the EU context. 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).

CEECs' manufacturing exports to the EU increased by nearly 160% between 1995 and 2001 in current euro terms (more than 17% per year), much faster than exports of other competitors on the EU market (total extra-EU manufacturing imports grew by 90%).[6] The CEECs' market share in extra-EU imports thus increased from 9.5% in 1995 to 13% in 2001 (5% of total EU imports), and has already by far surpassed the share of Japan. CEECs' manufacturing imports from the EU grew with nearly equal speed during that period (+140%, 15.4% per year), also much faster than overall extra-EU manufacturing industry exports (+70%). About 13% of all extra-EU manufacturing exports went to the CEECs in 2001 (as compared with 9.5% in 1995). A comparison of CEECs' export and import structures in trade with the EU reveals certain similarities – despite the fact that the export structures of individual CEECs (and therefore their trade specialization) differ widely: there is ample evidence for growing intra-industry trade between the more advanced CEECs and the EU.[7] Between 1995 and 2001, intra-industry trade grew most rapidly in the Czech Republic and Poland, whereas it declined slightly in Latvia and Estonia. Also, if measured by high shares in exports and imports, intra-industry trade has been of particular importance in textiles as well as in electrical, optical and transport equipment. However, outward processing trade (OPT) is here important, pointing to vertical intra-industry trade.[8] Table 7 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

[6] In order to analyse the structures and tendencies of the trade specialization of CEECs within manufacturing, we use the Eurostat COMEXT database, which collects all trade with the EU countries as reporting countries. The database includes data at a very detailed (8-digit) level. These detailed data are used when examining relative export prices as indicators for relative product quality. We shall first examine trade structures at 2-digit and 3-digit NACE industries. Later on, industry groupings by factor inputs and skills composition are constructed as aggregates of industries defined at the 3-digit NACE level. These industry groupings are the same ones as were defined for the series of *European Competitiveness Reports* and the *wiiw Competitiveness study* (wiiw, 2001).

[7] This is in line with the 'new' trade theory which suggests that trade among industrialized countries is largely motivated by product differentiation and economies of scale.

[8] Outward processing is a form of international co-operation on a contractual basis between independent firms from different countries. The contractor exports mainly semi-processed goods to the subcontractor, who refines, assembles and finishes the product, which is then re-imported to the contractor's country. Trade for this purpose is called outward processing trade (OPT).

during the period 1995-2001. This enables us to broadly identify strong and weak industries in each of the CEECs. In a sectoral perspective across countries, the 'best' performer is the wood & wood products industry (DD), in which all CEECs enjoy a trade surplus with the EU, followed by manufacturing n.e.c. (DN, mainly furniture) and textiles & textile products (DB). In contrast, serious problems with trade competitiveness are observed for industries such as chemicals (DG), rubber & plastic products (DH), machinery & equipment n.e.c. (DK) as well as paper & printing (DE), 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.

An alternative picture of trade competitiveness is provided by the indicator of 'revealed comparative advantage' (RCA).[9] In 2001 it was only the wood & wood products industry (DD) where all CEECs had a revealed comparative advantage (positive RCA) in trade with the EU (Figure 3a). Besides, nearly all CEECs have positive RCAs also in textiles & textile products (DB; except Hungary), manufacturing n.e.c. (DN, mainly furniture; again except Hungary) and basic metals & fabricated metal products (DJ; except Hungary and Estonia). On the other hand, all CEECs had a comparative disadvantage (negative RCA) in chemicals (DG). Nearly all CEECs have negative RCAs also in rubber & plastic products (DH; except Slovenia) and machinery & equipment n.e.c. (DK; again except Slovenia). The transport equipment industry (DM) has positive RCAs in the more advanced CEECs (the Czech Republic, Hungary, Poland, Slovakia and Slovenia). In line with economic theory, the CEECs seem to have a comparative advantage in labour- (textiles) and resource- (wood products and basic metals) intensive industries, whereas in capital- and technology-intensive industries (e.g. paper, chemicals, electrical equipment) they usually have comparative disadvantages.

Important insights into future changes in competitiveness can be gained from the evolution of RCAs. Their pattern has naturally been changing, due to still ongoing structural adjustments, effects of FDI flows, cyclical fluctuations etc. One possibility to capture these changes in a more systematic manner is to look at RCA improvements (or deterioration) over time. Figure 3b shows average RCAs in 2000-2001 compared to 1995-1996.[10] Most

[9] RCAs compare the relative shares of exports and imports of a particular industry (2-digit NACE) with the share of the country's total manufacturing exports and imports. We use here the following definition of revealed comparative advantage:

$RCA_i = \ln (x_i / m_i) / (x_{tot} / m_{tot}) * 100.$

A higher RCA_i reveals a comparative advantage of industry i.

[10] Measured as RCA (average 2000-2001) – RCA (average 1995-1996). Positive values here indicate either growing revealed comparative advantage (or declining comparative disadvantage) of an industry during the period concerned. Vice versa, negative values reflect either a growing comparative disadvantage (or a declining comparative advantage).

Table 7

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			

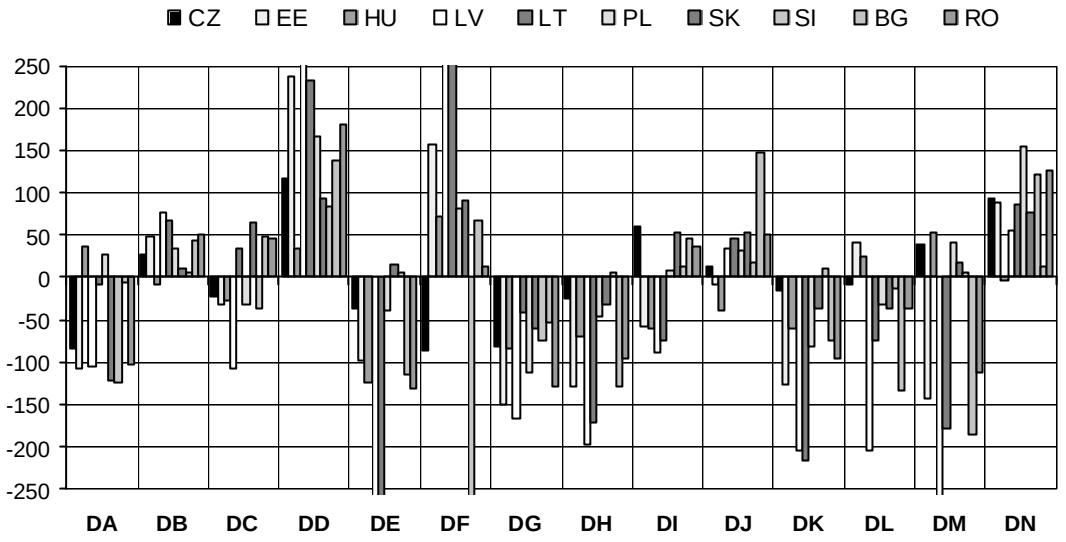
Legend for evaluation:

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

Sources: wiiw evaluation based on EUROSTAT COMEXT Database.

Figure 3a

Revealed comparative advantage of CEECs' manufacturing trade with the EU, year 2001

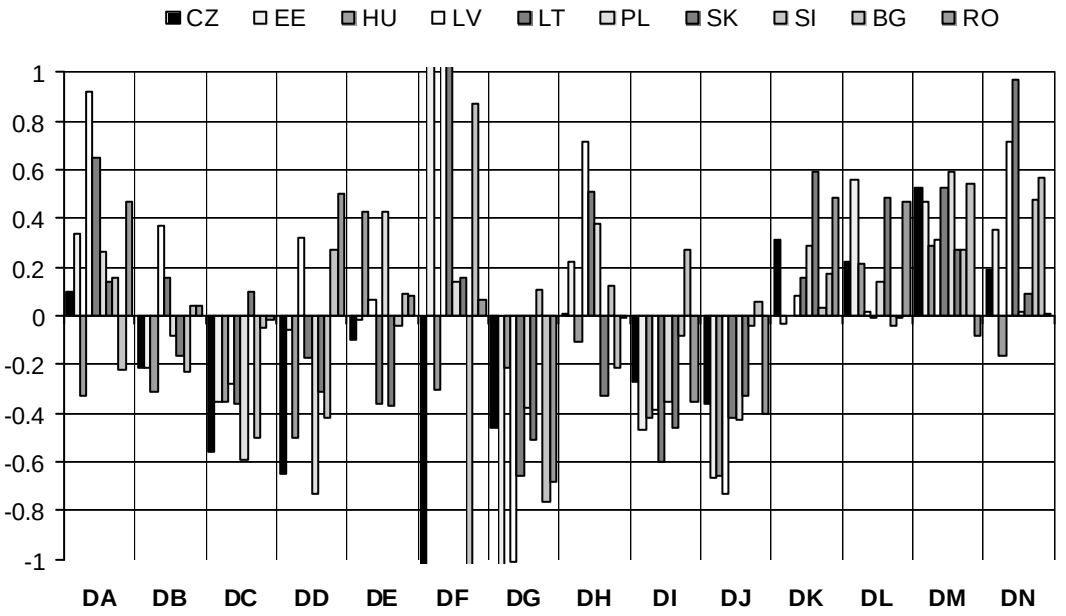


Source: Own calculations based on Eurostat COMEXT Database.

Figure 3b

RCA improvements in CEECs' manufacturing trade with the EU

average 2000-2001 over 1995-1996



Source: Own calculations based on Eurostat COMEXT Database.

CEECs record substantial RCA improvements in machinery & equipment n.e.c. (DK), electrical & optical equipment (DL), transport equipment (DM), manufacturing n.e.c. (DN) as well as in the food & beverages industry (DA). The most pronounced RCA declines, that is deteriorating trade competitiveness, can be observed in chemicals (DG; except Slovenia), other non-metallic mineral products (DI; except Bulgaria) and basic metals & fabricated metal products (DJ; again except Bulgaria). Besides, more advanced CEECs usually have deteriorating RCAs in labour-intensive industries such as textiles, leather and wood industries. All this may signal future specialization patterns of CEECs' industry.

5 Competition on the European market

Over the period 1995-2001, 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 (Table 8). 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 9). 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,[11] 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 9 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:[12] 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.

[11] 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.

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

Table 8

CEEC-10: gaining and losing industries in exports to the EU(15), 1995-2001

	NACE rev.1	Exports 2001 EUR mn	Average annual change in %	Competitive gain,1995-01 EUR mn	Market share in extra EU imports 2001 in %	Market share in total EU imports 2001 in %
30 biggest winners						
Motor vehicles	34.1	12570.5	31.5	8718.89	35.27	6.67
Parts and accessories for motor vehicles	34.3	4897.9	36.3	3706.42	30.76	6.91
TV, radio and recording apparatus	32.3	4054.6	43.2	3332.47	17.24	9.56
TV, and radio transmitters, apparatus for line telephony	32.2	2754.1	89.5	2649.97	11.52	4.92
Office machinery and computers	30.0	2932.3	48.2	2523.17	4.50	2.05
Other wearing apparel and accessories	18.2	8490.2	10.6	1965.74	19.83	12.87
Furniture	36.1	5053.7	16.8	1842.94	45.84	19.77
Electrical equipment n. e. c.	31.6	2853.1	27.4	1795.64	22.56	11.92
Machinery for production, use of mech. power	29.1	2460.8	23.0	1407.87	13.15	5.07
Other general purpose machinery	29.2	1921.3	26.3	1190.33	13.08	4.33
Electricity distribution and control apparatus	31.2	1788.9	27.0	1156.52	20.24	8.04
Other special purpose machinery	29.5	2007.6	20.0	1028.99	12.74	4.60
Rubber products	25.1	1733.3	21.8	971.82	25.92	8.33
Electric motors, generators and transformers	31.1	1944.8	20.0	949.53	21.20	10.03
Other fabricated metal products	28.7	2397.0	14.7	865.62	24.94	9.07
Plastic products	25.2	1545.1	21.1	836.28	13.60	3.76
Electronic valves and tubes, other electronic comp.	32.1	1358.6	25.3	831.34	3.67	2.05
Footwear	19.3	2351.3	14.5	795.06	22.96	11.20
Domestic appliances n. e. c.	29.7	1502.2	17.3	611.01	25.42	7.59
Refined petroleum and nuclear fuel	23.2	2016.9	14.5	601.89	9.80	4.06
Instruments for measuring, checking, testing, navigating	33.2	932.7	26.1	584.26	5.64	2.93
Isolated wire and cable	31.3	1083.2	22.1	568.10	27.21	12.27
Cutlery, tools and general hardware	28.6	821.9	21.6	449.74	12.96	4.75
Structural metal products	28.1	1241.6	15.5	444.04	61.74	19.42
Machine-tools	29.4	937.3	16.5	440.63	9.49	4.44
Sawmilling, planing and impregnation of wood	20.1	1470.7	10.1	426.31	28.04	14.77
Knitted and crocheted articles	17.7	1126.1	16.1	421.78	14.40	8.27
Pulp, paper and paperboard	21.1	1161.9	9.1	393.75	11.11	2.75
Railway locomotives and rolling stock	35.2	613.9	26.9	383.18	53.78	16.49
Articles of paper and paperboard	21.2	664.5	21.4	349.71	26.26	4.69
10 biggest losers						
Pesticides, other agro-chemical products	24.2	25.9	0.3	-5.51	3.22	0.59
Watches and clocks	33.5	21.0	-0.3	-6.36	0.47	0.40
Cutting, shaping, finishing of stone	26.7	50.1	5.9	-9.14	9.91	3.09
Tanning and dressing of leather	19.1	244.4	4.6	-11.80	7.57	4.26
Beverages	15.9	280.4	7.9	-13.75	7.39	1.50
Coke oven products	23.1	414.1	4.7	-34.49	37.10	25.94
Basic chemicals	24.1	3393.7	4.1	-73.33	9.98	2.63
Other first processing of iron and steel	27.3	489.7	-1.5	-145.96	12.89	4.61
Basic iron and steel, ferro-alloys (ECSC)	27.1	2684.0	2.7	-254.83	29.06	6.42
Cement, lime and plaster	26.5	183.4	-11.4	-325.46	25.16	10.38
	Total	**105990.2**	**17.2**	**47838.05**	**13.23**	**5.00**

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

Table 9

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).

6 Emerging shape of specialization in European industry

Earlier studies (see e.g. Landesmann, 2000, Landesmann and Stehrer, 2002) have shown that the Central and East European countries' trading structure with the EU started with a profile typical of less developed economies: the representation of exports of the labour-intensive industrial branches was above average (in relation to EU imports as a whole), in the capital-, R&D- and skill-intensive branches below average (particularly in the latter two), while the representation of exports of energy-intensive branches was above average – which reflected the heritage of cheap energy supplies within the CMEA. Using a qualitative grouping of industries (derived from an aggregation of 3-digit NACE industries) – either by the use of a number of industrial organization and input use criteria (*taxonomy I*), or, alternatively, by skill intensity (low-skill, medium-skill / blue-collar, medium-skill / white-collar, high-skill) (*taxonomy II*) – one can analyse broader patterns of industrial restructuring.

Figures 4 and 5 show the shares of individual industry groupings in exports to the EU in 1995 and 2001. We can see the following:

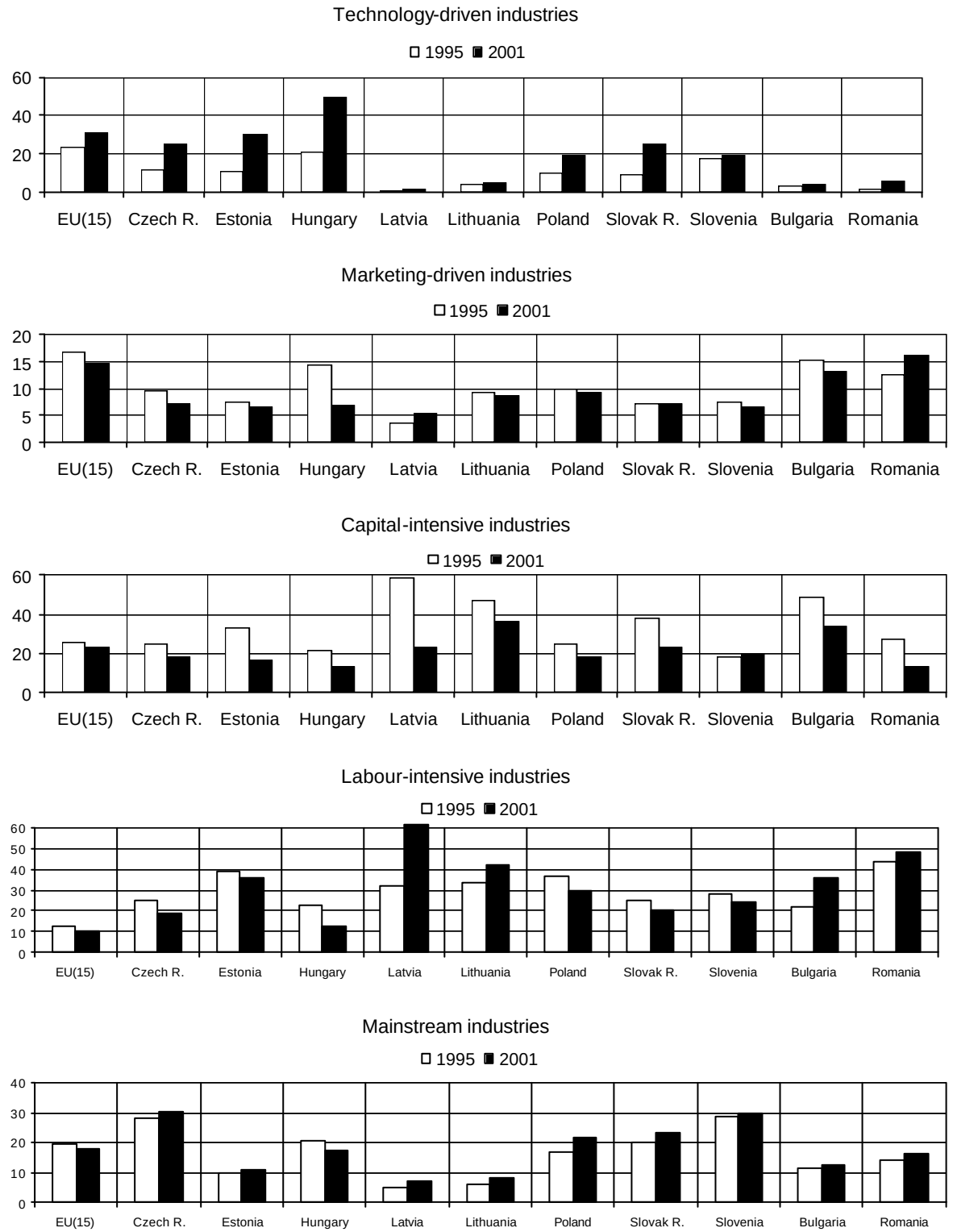
– In general there is still a relatively strong representation of the labour-intensive branches in CEECs' exports to the EU. For Poland and the Baltic states (as well as for Bulgaria and Romania) this dependence is very strong, and for Bulgaria, Romania, Latvia and Lithuania this dependence has, furthermore, increased over the period 1995 to 2001. For the other countries, this 'over-representation' of labour-intensive branches has declined, for some quite sharply. For Hungary a (branch) specialization in this direction no longer exists – just as in the present EU member states.

– With respect to technology-driven branches, which accounted for about 30% of EU exports, the CEECs started off in 1995 (earlier figures would indicate that this was even more the case before then) with sizeable 'deficits'. Over the period 1995 to 2001 these deficits declined substantially in Hungary, the Czech and Slovak Republics, and Estonia (in fact, in Hungary they turned into surpluses). In Bulgaria, Romania and Lithuania the importance of this group of industries in exports to the EU is marginal.

– In the high-skill industries (taxonomy II – see Figure 5), deficits still remain in all CEECs (as they do in Greece, Portugal and Spain), but the picture shows again quite some differentiation across the CEECs: the export shares are relatively high (and increasing) in the case of the Czech Republic, Hungary, Poland, Slovakia and Slovenia. Low-skill industries play a diminishing role in most CEECs (except Bulgaria and Romania); in the Czech Republic, Hungary and Slovenia the export shares were even lower than in present EU member states.

Figure 4

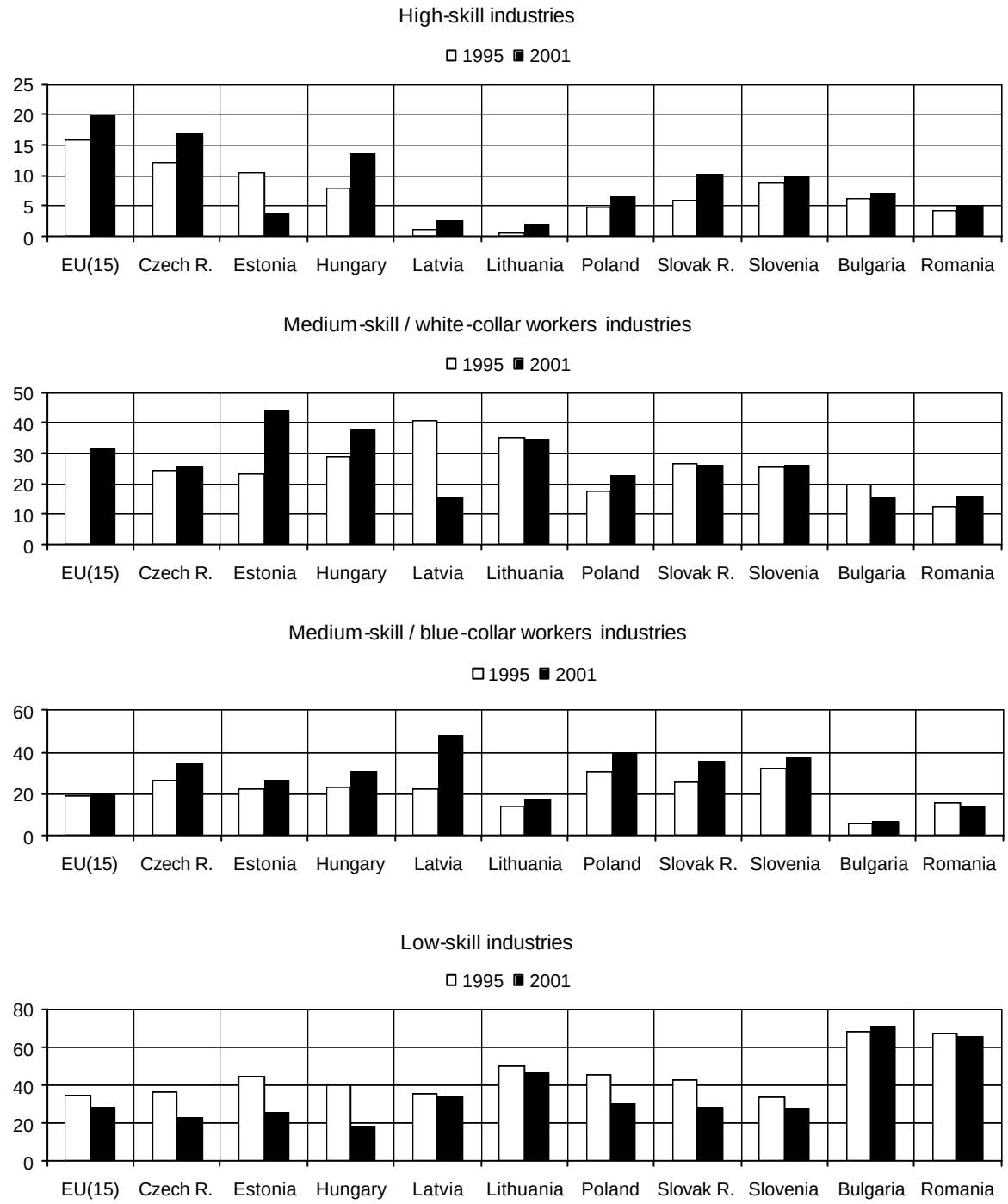
Shares in exports to the EU by factor inputs (taxonomy I)



Source: Own calculations based on Eurostat COMEXT Database.

Figure 5

Shares in exports to the EU by labour skills (taxonomy II)

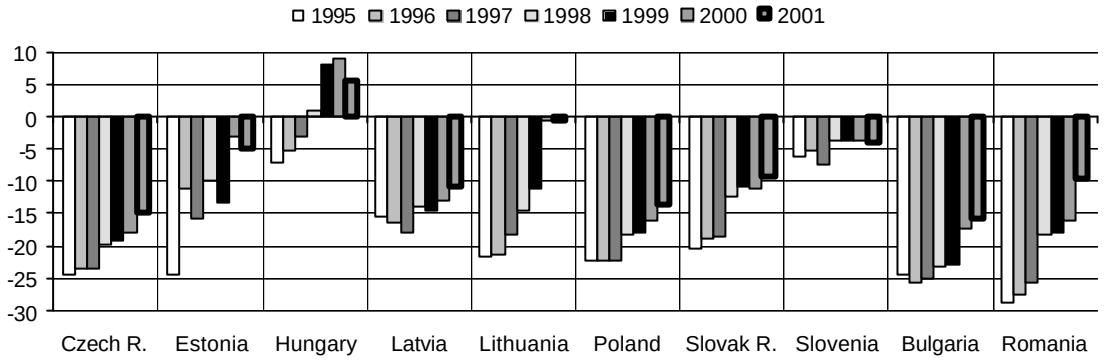


Source: Own calculations based on Eurostat Comext Database.

In addition, the 'export price/quality gaps' at the aggregate level (i.e. calculated across all manufacturing products traded with the EU) shown in Figure 6 indicate that most CEECs still export at prices which are lower than those of other competitors on the EU market.[13] One can see some remarkable differences across the CEECs. In 1995 the best performing countries were Slovenia with a gap of about 6.4% and Hungary with 7.5%. The other countries experienced much larger gaps of up to 29% (Romania). Over time all countries succeeded in catching up in export unit prices, Hungary even managed to reverse the gap completely. Again, this indicates an impressive upgrading of export structures – this time also from the qualitative point of view.

Figure 6

Export price gaps – all manufacturing products traded with the EU
CEE candidate countries in % of average EU import price



Note: Export price gaps have been calculated from detailed product-by-product comparisons and are expressed in percentage deviations from the average price of the products traded in EU markets (i.e. all imports to the EU including intra-EU).

Source: Calculations based on Eurostat Comext Database (see Landesmann and Stehrer, 2002).

Thus 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.

This paper has shown a differentiated picture of the CEECs, with some countries catching up relatively fast in technologically more sophisticated branches and also improving their positions in export product quality. That picture is compatible with an analytical approach in

[13] Remember that the zero level refers to the average price line for total EU imports and the values off the zero price line can be interpreted as (positive or negative) export price gaps relative to that average. For a more detailed analysis and methodology, see Landesmann and Stehrer (2002).

which the potential exists to turn comparative advantages in favour of those areas in which initially bigger gaps (in productivity and product quality) exist. This is an application of the Gerschenkron hypothesis ('advantage of backwardness') at the industrial level. However, the existence of such a potential does not automatically imply its utilization (a point which Abramovitz, 1986, emphasized). The approach makes room for a wide diversity of catching-up patterns and evolving positions in the international division of labour. This is what we observe with respect to the CEECs, where one set of countries got (so far) 'locked in' in a rather traditional pattern of trade and industrial specialization (in low-skill, labour-intensive branches), while others display a much more dynamic pattern of integration into the European division of labour.

Our analysis shows clearly that 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. This, of course, also has implications for the instruments which will be required to deal with the problems of cohesion, which will get further accentuated not only as a result of the accession process itself, but as a result of the existence of a set of other economies which are highly integrated with the EU but will not join in the first round.

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.

Selected references

Abramovitz, M. (1986), 'Catching-up, forging ahead and falling behind', *Journal of Economic History*, vol. 46, pp. 385-406.

Aiginger, K. and M. Landesmann (2002), 'Competitive Economic Performance: USA versus EU', *wiiw Research Reports*, no. 291, The Vienna Institute for International Economic Studies (wiiw), November.

Baldone, S., F. Sdogati and L. Tajoli (2001), 'Patterns and Determinants of International Fragmentation of Production: Evidence from Outward Processing Trade between the EU and Central Eastern European Countries', *Weltwirtschaftliches Archiv*, vol. 137(1), pp. 80-104.

Barrel, R. and D. T. te Velde (2000), 'Catching-up of East German Labour Productivity in the 1990s', *German Economic Review*, vol. (3), August, pp. 271-297.

Commission of the European Communities (2003), *Impact of Enlargement on Industry*', Commission Staff Working Paper SEC(2003) 234, February.

European Commission (2003), *The Competitiveness of European Industry. 2003 Report*, Working document of the services of the European Commission, Luxembourg (forthcoming).

Gerschenkron, A. (1962), *Economic Backwardness in Historical Perspective*, Harvard University Press, Cambridge Mass.

Havlik, P. (2001), 'Patterns of Catching-Up in Candidate Countries' Manufacturing Industry', *wiiw Research Reports*, no. 279, The Vienna Institute for International Economic Studies (wiiw), August.

Havlik, P. (2003), 'Restructuring of Manufacturing Industry in the Central and East European Countries', *Prague Economic Papers*, no. 1, pp. 18-35.

Havlik, P., M. Landesmann and R. Stehrer (2001), 'Competitiveness of CEE Industries: Evidence from Foreign Trade Specialisation and Quality Indicators', *wiiw Research Reports*, no. 278, The Vienna Institute for International Economic Studies (wiiw), July.

Hunya, G. (2002), 'Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries', *wiiw Research Reports*, no. 284, The Vienna Institute for International Economic Studies (wiiw), May.

Landesmann, M. and Stehrer, R. (2002), 'The CEECs in the Enlarged Europe: Convergence Patterns, Specialization and Labour Market Implications', *wiiw Research Reports*, no. 286, The Vienna Institute for International Economic Studies (wiiw), July.

Monnikhof, E. and B. van Ark (2002), *'New estimates of labour productivity in the manufacturing sectors of the Czech Republic, Hungary and Poland, 1996*', Groningen Growth and Development Centre, University of Groningen & The Conference Board, January.

OECD (2002), *Purchasing Power Parities and Real Expenditures. 1999 Benchmark Year*, OECD, Paris.

Peneder, M. (2001), *Entrepreneurial Competition and Industrial Location*, Edward Elgar, Cheltenham, UK.

Podkaminer, L. et al. (2003), 'Transition Countries Resist Global Slowdown: Productivity Gains Offset Effects of Appreciation', *wiiw Research Reports*, no. 293, The Vienna Institute for International Economic Studies (wiiw), February.

Vidovic, H. (2002), 'The Services Sectors in Central and Eastern Europe', The Vienna Institute for International Economic Studies (wiiw), commissioned study.

wiiw (2001), 'Competitiveness of Industry in CEE Candidate Countries', Report to the European Commission, DG Enterprise, Final Report, July 2001; available on the EU DG Enterprise Website.

CEE Agriculture in an Enlarged EU: a Hard Landing Ahead?

by Zdenek Lukas and Josef Pöschl

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.

1.1 Property and farm structure

We can divide the countries under discussion here into two groups[1]. 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

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

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.

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.

1.2 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.

1.3 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 agro-food.

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

2.1 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.

2.2 Impact on the EU-15

2.2.1 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%.

2.2.2 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 (except for Slovenia), farmers will enjoy guaranteed prices, higher than their pre-accession farm gate prices. 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.

2.2.3 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

3.1 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.

3.2 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 an acceleration rather than a deceleration of adjustment pressure.

3.3 Consequences for FDI in agriculture

If farms offer some comparative advantages, attractive to foreigners, foreign companies will buy them up. 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.

3.4 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 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		**Imports from the EU , ths ECU**						
	NACE rev.1	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
Growing of crops; market gardening; horticulture	1.1	918,438	1,315,972	1,237,456	1,163,451	1,159,131	1,463,044	1,636,402
Farming of animals	1.2	118,333	112,807	117,530	121,257	97,461	130,196	156,236
Forestry, logging and related services activities	2.0	31,137	19,564	26,742	39,828	49,415	58,887	62,952
Fishing, operation of fish hatcheries and fish farms	5	21,463	17,975	16,222	26,505	23,912	30,380	31,525
Agro -total		**1,089,371**	**1,466,318**	**1,397,950**	**1,351,041**	**1,329,919**	**1,682,507**	**1,887,115**
Meat products	15.1	460,773	418,290	503,232	563,238	366,487	575,021	598,588
Fish and fish products	15.2	151,151	171,016	177,548	205,049	157,058	178,571	224,910
Fruits and vegetables	15.3	198,872	194,046	243,833	275,479	214,126	227,987	256,807
Vegetable and animal oils and fats	15.4	399,986	358,506	525,552	603,841	491,728	560,537	733,646
Dairy products; ice cream	15.5	150,317	143,489	164,324	174,421	166,671	160,552	129,573
Grain mill products and starches	15.6	93,384	111,472	134,364	129,732	124,130	145,166	167,959
Prepared animal feeds	15.7	144,944	139,806	188,048	246,117	216,225	60,512	349,992
Other food products	15.8	1,175,513	1,165,913	1,191,990	1,239,250	1,108,623	978,267	1,596,829
Beverages	15.9	322,481	340,779	339,691	326,886	339,744	364,680	406,317
Tobacco products	16	135,744	163,272	127,621	157,888	189,894	233,796	210,611
DA-Food - total		**3,233,165**	**3,206,589**	**3,596,203**	**3,921,901**	**3,374,686**	**3,485,089**	**4,675,232**
Agro total plus food total		**4,322,536**	**4,672,907**	**4,994,153**	**5,272,942**	**4,704,605**	**5,167,596**	**6,562,347**
Total		**51,020,106**	**60,770,963**	**73,613,754**	**83,949,940**	**87,690,890**	**107,519,435**	**119,436,129**

Table A3

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

CEEC-10		**Exports in the EU, ths ECU**						
	NACE rev.1	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
Growing of crops; market gardening; horticulture	1.1	630,295	589,498	546,209	640,138	805,900	774,227	919,069
Farming of animals	1.2	346,396	328,360	365,711	326,127	322,327	336,893	408,248
Forestry, logging and related services activities	2.0	460,297	395,719	526,274	594,908	703,721	705,741	651,365
Fishing, operation of fish hatcheries and fish farms	5	54,056	50,749	48,293	50,231	54,402	50,143	50,299
Agro -total		**1,491,044**	**1,364,326**	**1,486,487**	**1,611,404**	**1,886,350**	**1,867,004**	**2,028,981**
Meat products	15.1	663,701	720,651	758,071	725,120	766,999	890,879	1,009,634
Fish and fish products	15.2	140,889	121,004	124,670	170,537	211,927	223,917	250,128
Fruits and vegetables	15.3	497,973	498,450	571,424	587,235	646,920	702,429	807,858
Vegetable and animal oils and fats	15.4	62,416	83,053	75,592	60,108	68,095	80,808	91,535
Dairy products; ice cream	15.5	111,488	148,595	175,190	153,994	164,163	172,628	317,640
Grain mill products and starches	15.6	12,067	13,125	10,427	11,654	18,342	18,731	28,928
Prepared animal feeds	15.7	23,769	40,852	61,971	73,090	73,743	76,969	176,916
Other food products	15.8	176,205	209,302	224,265	238,452	213,710	242,544	370,647
Beverages	15.9	177,500	199,178	220,160	225,041	248,181	276,272	280,444
Tobacco products	16	5,737	1,432	3,508	3,726	2,054	5,794	3,954
DA-Food - total		**1,871,745**	**2,035,642**	**2,225,278**	**2,248,957**	**2,414,134**	**2,690,971**	**3,337,684**
Agro total plus food total		**3,362,789**	**3,399,968**	**3,711,765**	**3,860,361**	**4,300,484**	**4,557,975**	**5,366,665**
Total		**43,779,281**	**46,501,995**	**55,891,948**	**66,783,056**	**75,090,341**	**96,126,112**	**109,901,017**

Table A4

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

CEEC-10		Shares in imports total							Shares in exports total						
	NACE rev.1	1995	1996	1997	1998	1999	2000	2001	1995	1996	1997	1998	1999	2000	2001
Growing of crops; market gardening; horticulture	1.1	1.8	2.2	1.7	1.4	1.3	1.4	1.4	1.4	1.3	1.0	1.0	1.1	0.8	0.8
Farming of animals	1.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.8	0.7	0.7	0.5	0.4	0.4	0.4
Forestry, logging and related services activities	2.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	1.1	0.9	0.9	0.9	0.9	0.7	0.6
Fishing, operation of fish hatcheries and fish farms	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Agro -total		**2.1**	**2.4**	**1.9**	**1.6**	**1.5**	**1.6**	**1.6**	**3.4**	**2.9**	**2.7**	**2.4**	**2.5**	**1.9**	**1.8**
Meat products	15.1	0.9	0.7	0.7	0.7	0.4	0.5	0.5	1.5	1.5	1.4	1.1	1.0	0.9	0.9
Fish and fish products	15.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2
Fruits and vegetables	15.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	1.1	1.1	1.0	0.9	0.9	0.7	0.7
Vegetable and animal oils and fats	15.4	0.8	0.6	0.7	0.7	0.6	0.5	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Dairy products; ice cream	15.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.3
Grain mill products and starches	15.6	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepared animal feeds	15.7	0.3	0.2	0.3	0.3	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Other food products	15.8	2.3	1.9	1.6	1.5	1.3	0.9	1.3	0.4	0.5	0.4	0.4	0.3	0.3	0.3
Beverages	15.9	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Tobacco products	16	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Food - total		**6.3**	**5.3**	**4.9**	**4.7**	**3.8**	**3.2**	**3.9**	**4.3**	**4.4**	**4.0**	**3.4**	**3.2**	**2.8**	**3.0**
Agro total plus food total		**8.5**	**7.7**	**6.8**	**6.3**	**5.4**	**4.8**	**5.5**	**7.7**	**7.3**	**6.6**	**5.8**	**5.7**	**4.7**	**4.9**
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A5

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

CEEC-10		**Exports in % of imports**						
	NACE rev.1	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
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
DA-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
Total		85.8	76.5	75.9	79.6	85.6	89.4	92.0

The Services Sectors in Central and Eastern Europe*

by Hermine Vidovic

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). That growth has been fastest in the market services sectors[1] such as financial, business and personal services, while the relative importance of transport and telecom has been decreasing. By the end of the 1990s, services accounted for nearly 70% of both OECD value added and employment.

The present paper focuses on the development of the services sectors in the Central and East European countries (CEECs), based primarily on national accounts and labour force survey (LFS) data. 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. Many modern services that play an important role in market economies – such as financial, real estate and business services – were simply 'not needed' (Soubbotina and Sheram, 2000). Others, such as wholesale and retail trade, transport and telecom, were centrally organized and under strict state control. Most of the services were provided by the state or by large industrial enterprises (e.g. certain community services such as child care and some health care activities). Thus, at the beginning of the transition, the contribution of the services sector to value added varied between 28% in Romania and 48% in Slovenia. Since the start of the transition the CEECs have been undergoing a reverse process – a

* The findings presented here are based on the study *The services sectors in the Central and East European countries*, commissioned and published by Bank Austria Creditanstalt in July 2002.

[1] The two sub-sectors of the services sector refer to *market services*, comprising trade, transport and finance, and *community services*, comprising public administration, education, health and social work.

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.

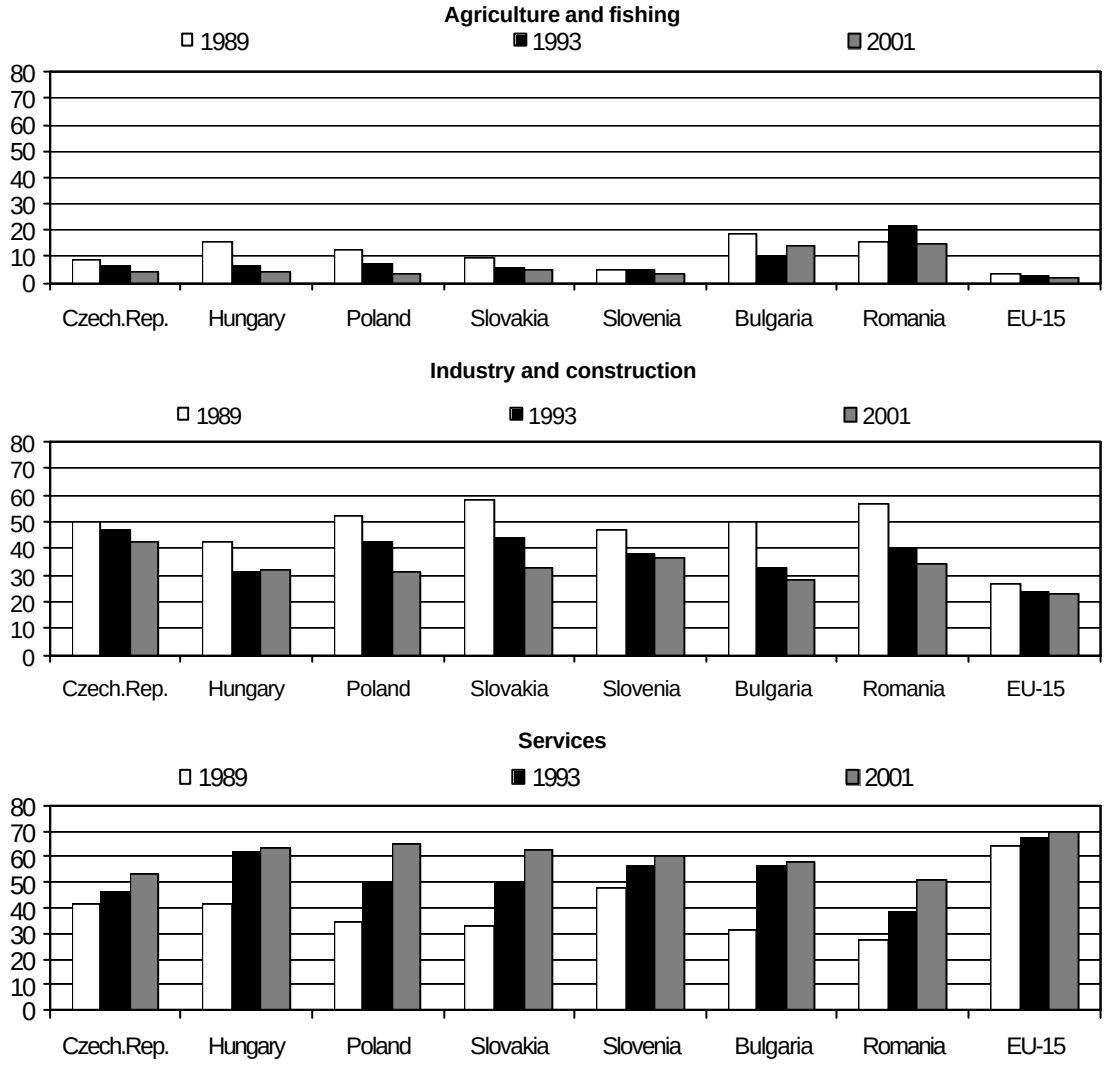
Services sector developments

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).

Figure 1

Value added structures of selected CEECs in 1989, 1993 and 2001

(share in % of total value added)



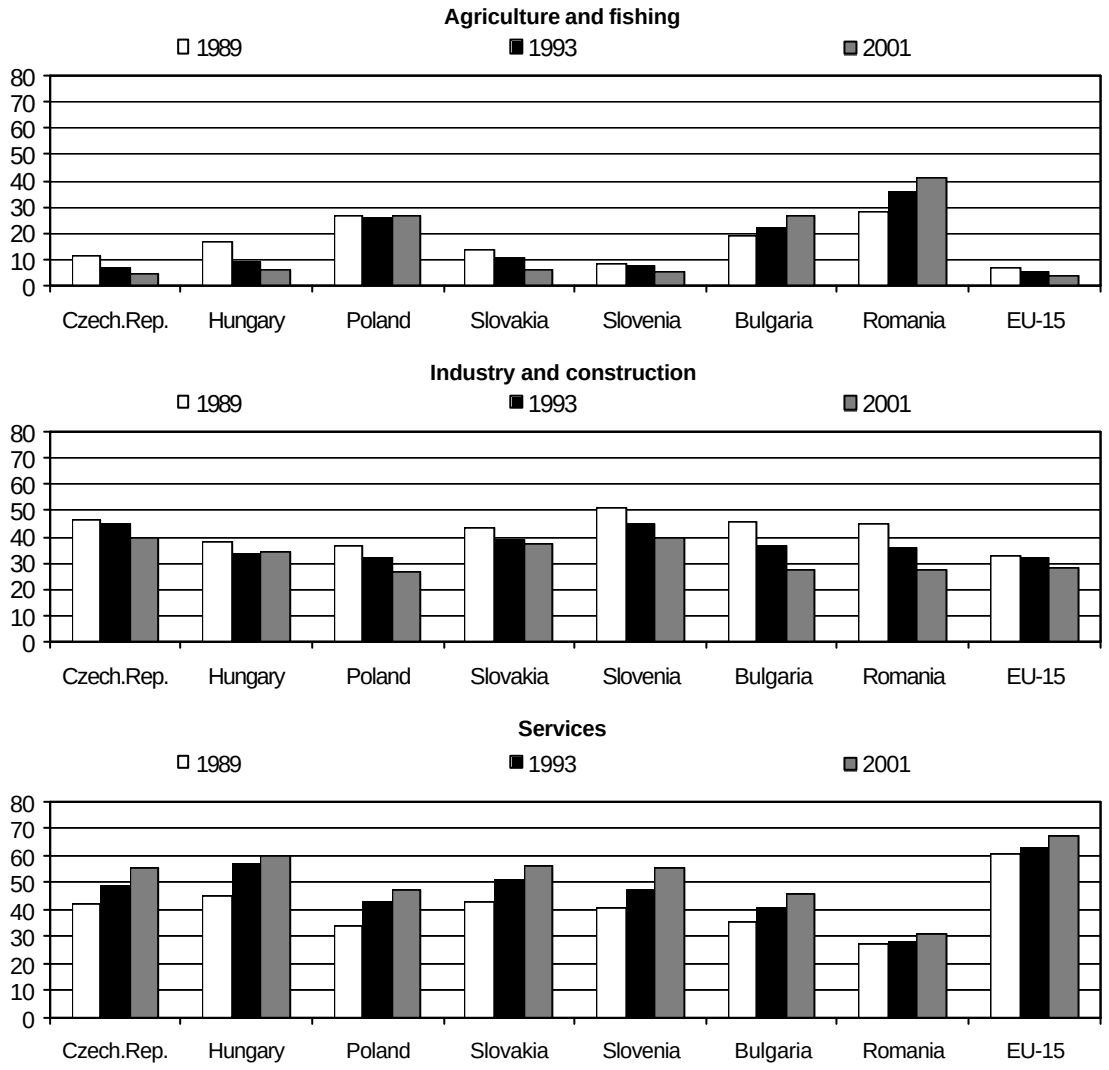
Note: 1) Data for 1989 refer to 1990.

In accordance with declining employment in the secondary sector (industry and construction) and, in a few countries, in the primary sector as well, the share of the *services sector* in total employment increased substantially in all CEECs. 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 disguised a number of service-type jobs, such as transport and distribution, repairs and maintenance and the provision of food and other services to the workers. Thus, a significant portion of the employed registered in the services sector, or of the drop in agriculture, might be the result of methodological changes in statistics rather than of new job creation (see also OECD, 1995, p. 21).

Figure 2

Employment structures of selected CEECs, 1989, 1993 and 2001

(share in % of total employment)



Source: wiiw Database.

Services sector employment accounts for the largest share in total employment in all countries but Romania (Figure 2). Between 1989 and 2001, the proportion of those employed in the services sector rose most rapidly in Hungary and Slovenia, by 15 and 14 percentage points respectively, and in the Czech Republic and in Slovakia. Hungary reports the highest level of services employment among all CEECs – almost 60% of total employment – even though the actual number of people employed in services has been growing only moderately (by 6.1%) over the entire transition period. Compared with other countries of the region, the accelerated development of the services sector started earlier in Hungary, after the adoption of the Enterprise Act in 1989.

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.

As in the European Union, there is no clear relation between the contribution of the services sector to the GDP (or value added) and its share in total employment. 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 employment structures in the CEECs with those in the EU-15 shows surplus industrial employment in all CEECs but Romania and Bulgaria in 2001; the deviations are most pronounced in the Czech Republic, Slovakia and Slovenia, while in Romania the industrial employment share is similar to that in the EU-15, in Poland to EU-South. In agriculture, there is surplus employment in Romania, Poland and Bulgaria as compared with both EU groups; the other CEECs are somewhere in between the EU average and EU-South. The services sector is underdeveloped as compared to the value obtained for the EU-15 countries, implying that in all transition countries there is still a considerable potential in the services sector to absorb labour from other sectors. The imbalance is most pronounced in Romania, where the proportion of those employed in the services sector is only half of that in EU-South.

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 modern market economies 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.[2] The development of the services sector has mainly been driven by market-oriented reforms and the adjustment of industrial production to technological transformation (Stare and Zupancic, 2000, Stare 2001):

(1) In order to manage the adjustment of industrial production to business cycles, to technological changes and to increasing competition, enterprises stepped up their demand for specific services (marketing, information-related services).

(2) Private-sector firms established in the wake of market-oriented reforms are in need of supporting services such as consulting, bookkeeping, accountancy etc. In addition new services supporting the privatization process as a whole (asset valuation, auditing) were created.

(3) The dissolution of large industrial conglomerates into smaller enterprises has required companies to focus on core capabilities, which consequently led to an outsourcing of services (functions) that had previously been performed internally (contributing to some statistical growth of the services sector). Modernizing the production process and the introduction of information-communication technologies required sophisticated services and intensified the linkages between industry and the services sector.

(4) An additional explanation for the accelerating tertiarization process in the transition countries is the growing consumer demand for services, unfulfilled or only insufficiently provided under the previous system. In 2001, three quarters of all firms in the seven CEECs were active in the services sector (Gács, 2001).

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); in the community services sector employment rose only slightly or even declined.[3] Industrial employment, in contrast, has been shrinking in all countries, except in Hungary. Agricultural jobs were only created in Romania. Data indicate that in all CEECs the contribution of the market services sector to total employment is by far higher than that of the community services sector. In Hungary and the Czech Republic the market services sector absorbed about one third of total employment, in Slovenia and Slovakia about 30%. The values obtained for Poland and Bulgaria are slightly below that mark, while market services in Romania accounted for only 17% of total employment. In the following we will concentrate on the development of market services, which are considered the main source of future job creation in the CEECs.

---

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

[3] 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

Overall employment trends in services, 1994-2001 (1994 = 100)

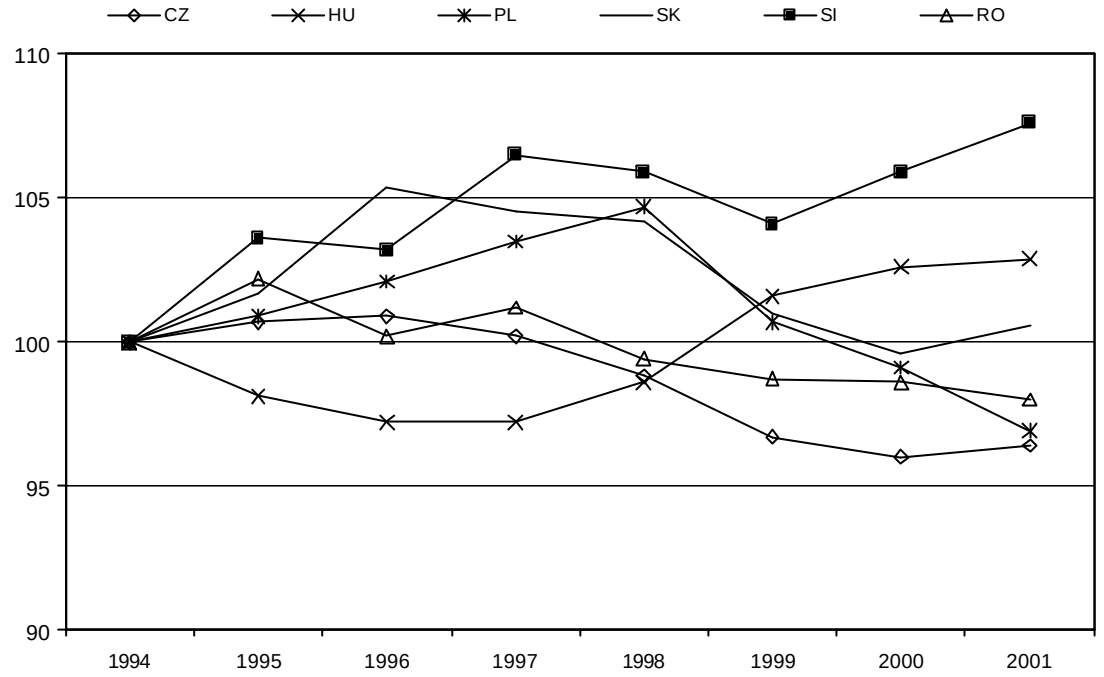
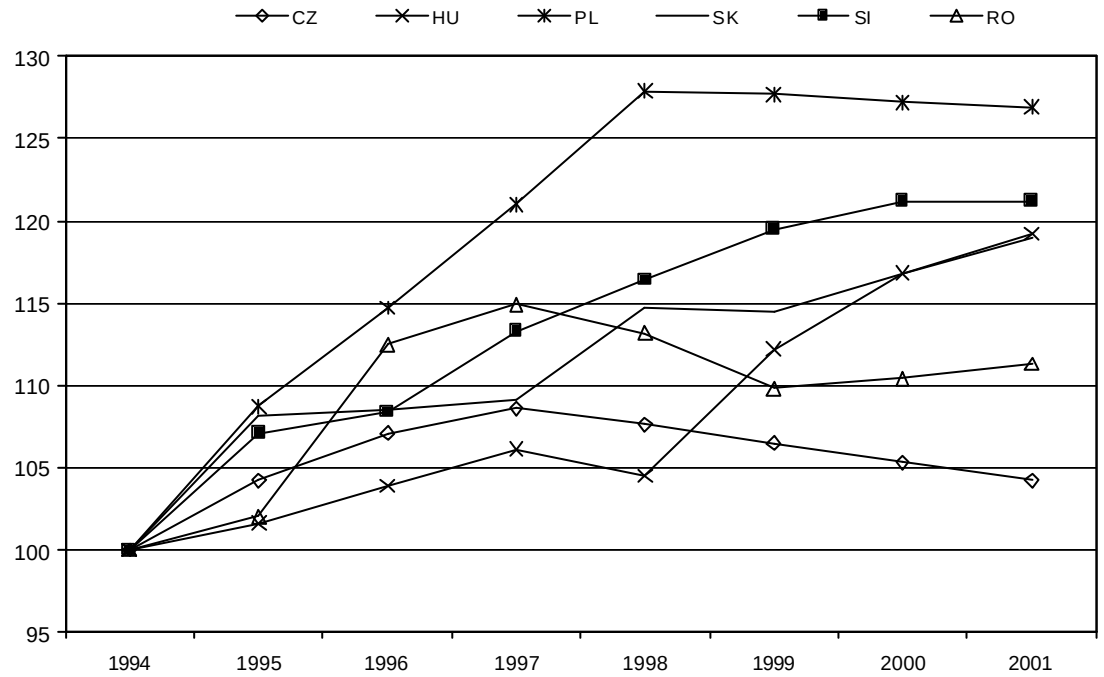


Figure 4

Employment trends in the market services sector, 1994-2001 (1994 = 100)



Source: wiiw Database.

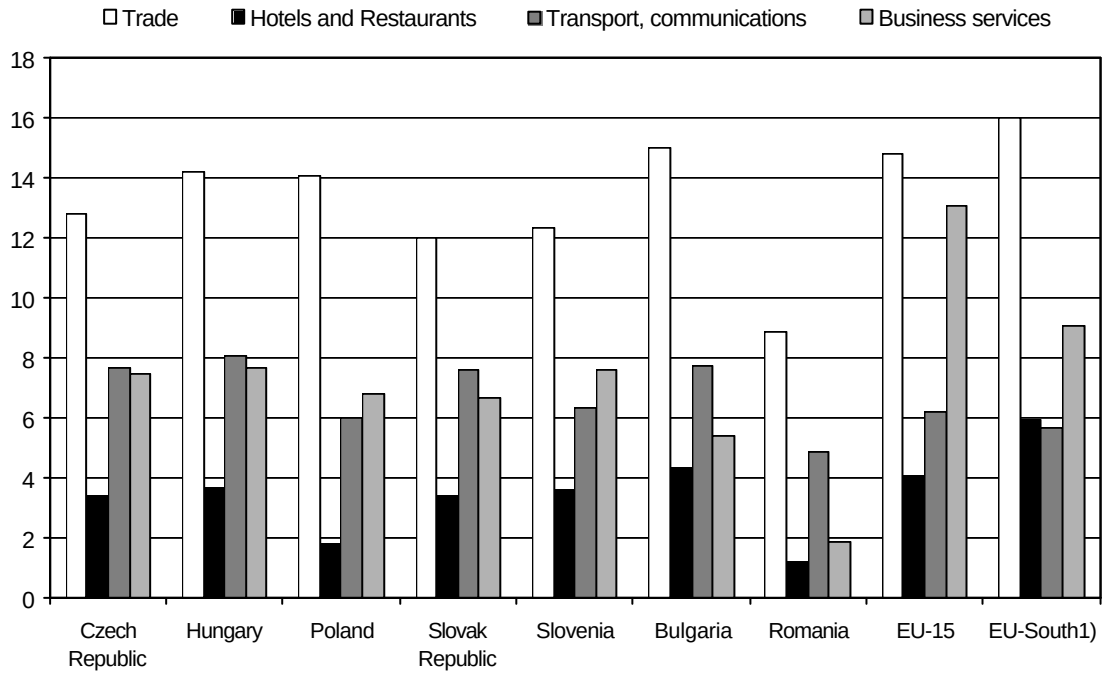
Market services

It was primarily the market services sector that showed remarkable employment growth in the recent period, especially in Poland and Slovenia. Within this sub-sector, *trade* is the dominant segment: in Hungary and Poland it absorbs 14% of total employment, similar to the EU average, in all other CEECs its share is lower (most remarkably so again in Romania). The share of retail/wholesale trade showed a rising tendency in Bulgaria, Hungary and in Slovakia, and remained almost stagnant elsewhere. However, in the period 1994 to 2001 Romania was the only country where trade was the most expanding segment measured in relative terms.

Though experiencing remarkable employment cuts in most countries (except in Slovenia and Poland) over the last decade, the *transport and telecom* segment has maintained its important position as an employer. Considering that the transport sector had to undergo dramatic changes during the transition period, while the telecom sector has developed favourably in most countries, it might be assumed that the major job losses occurred in the former rather than in the latter sector; at least in the case of Hungary this is an established fact. The employment structures in Slovenia and Poland are much the same as in the EU-15, while the proportion employed is exceeding both the EU average and the southern European level in the Czech Republic, Slovakia and in Hungary and is lowest in Romania (Figure 5).

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.

The largest gap between the CEECs and both the EU average and the southern EU countries can be observed in the business services segment (finance, insurance, real estate and other business-related services). This is mainly due to the still low importance of business-related services in these countries – though in Hungary, Poland, Slovenia and Bulgaria new jobs were created primarily in this segment. The proportion of the latter in total employment has been growing in all countries except Romania. Together with the Czech Republic and Hungary, Slovenia exhibits the highest proportion of employed in business services (this trend is also mirrored by soaring FDI).

Measured as a proportion of total employment, *finance and insurance* ranks at the bottom in all countries (except Poland) with an average share of 1.8% in total employment, but was the fastest growing employment segment in the Czech Republic, Slovakia and Romania. Measured as a proportion of total employment, the financial services sector remains underdeveloped in Bulgaria and Romania, absorbing about 1.2% and 0.7% respectively of the total. Compared to the EU-15, where financial sector employment reaches some 3.5% of the total, there is still some room for new job creation in the CEECs. Over the last decade the transition countries' financial sector has undergone dramatic changes, from state monopolies to a two-tier banking system, and a large number of private banks were established. In all countries but Slovenia the privatization process of the banking sector has been completed (the latter is now mostly foreign-owned). The insurance industry (part of the financial intermediation segment) increased at relatively high rates, but the market is still very small and underdeveloped as it started off from very low levels. A detailed overview of the insurance market and its development prospects will be given by Ms. Patrizia Baur from SwissRe following my presentation.

Employment in *tourism* grew most significantly in Poland, which is also confirmed by the significant increase in value added over that period. Strong employment growth is reported for Slovakia and Hungary as well. In contrast, jobs in tourism were lost in Romania, which recorded also the lowest proportion of employed in that segment. Slovenia's proportion of those employed in tourism is higher than the EU average, Hungary's is similar, while all other countries employ less than the EU and much less than the southern EU countries (being traditional tourist destinations).

Despite the progress achieved in the services sector development in the last decade, the CEECs' tertiary sector's level is lagging behind that of the European Union. The main shortcomings consist in the lower efficiency and quality of services in the transition countries, their poor competitiveness on the world market, and the dominance of traditional services sectors (transport, distribution, hotels and restaurants) over higher value-added services sectors (Stare and Zupancic, 2000), which represents also an important obstacle to trade in services.

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 region of Prague and 20% in southwest Romania. The capital regions of Prague, Bratislava, Budapest and Sofia, and Zachodniopomorskie in north-western Poland, where more than two thirds of employed are engaged in services sector activities, are classified as service centres.[4]

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 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.

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'[5] have been reporting persistent deficits in all CEECs but Bulgaria. The composition of the services

---

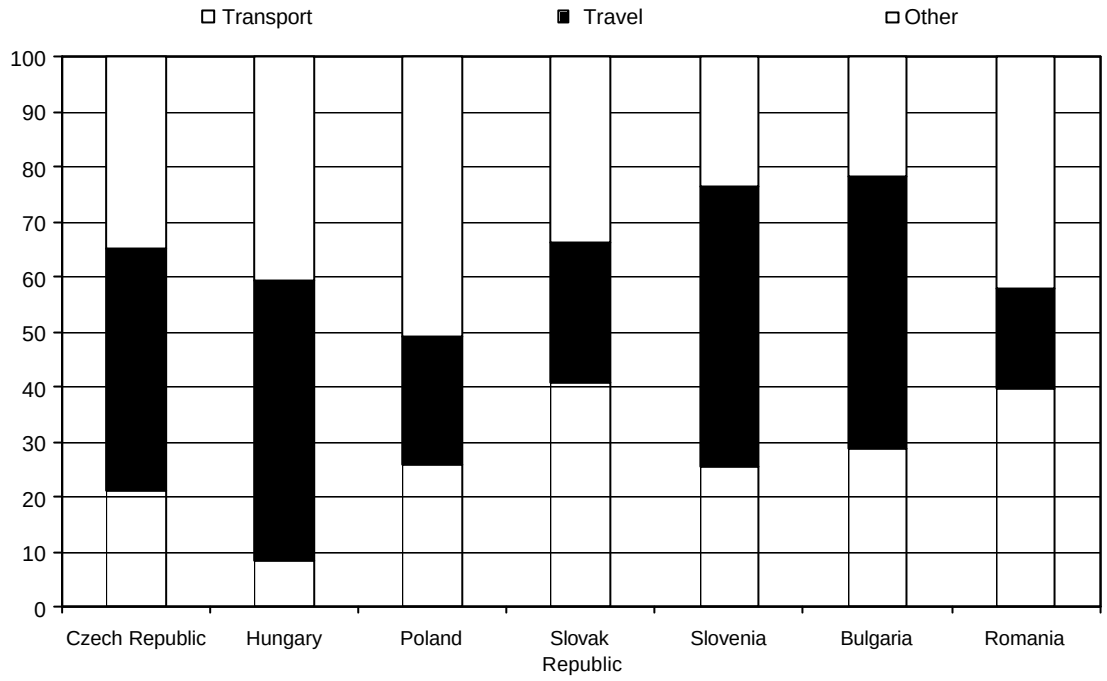
[4] According to the sectoral employment structure, regions can be subsumed under four types (European Commission, 2001):
(1) regions of a strongly agricultural character with employment shares in agriculture of more than 14%: type AG; out of the 50 level 2 regions in the seven CEE countries there are 19 such regions;
(2) regions with an above-average industrial employment share – more than 40%: type IN, 13 regions;
(3) regions which can be called services centres with an employment share exceeding 60% of the total: type SC, 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: type SM, 11 regions.

[5] *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.

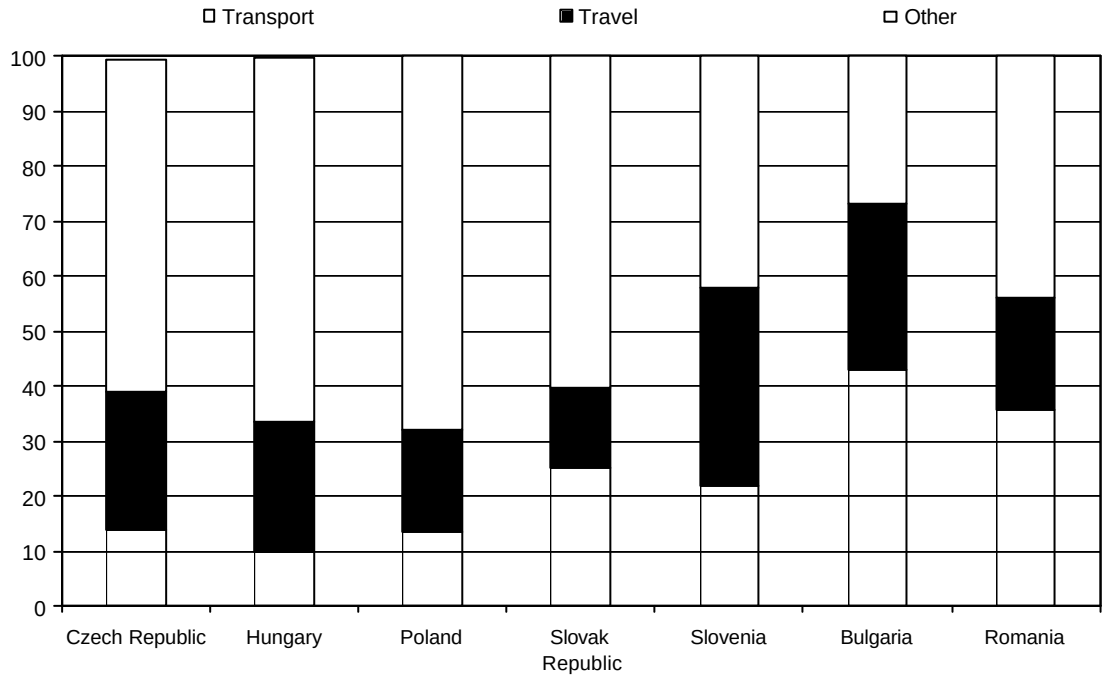
Figure 6

Trade in services, 2001

Exports (share in % of total services exports)



Imports (share in % of total services imports)



Source: wiiw Database.

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.

The services sector and FDI

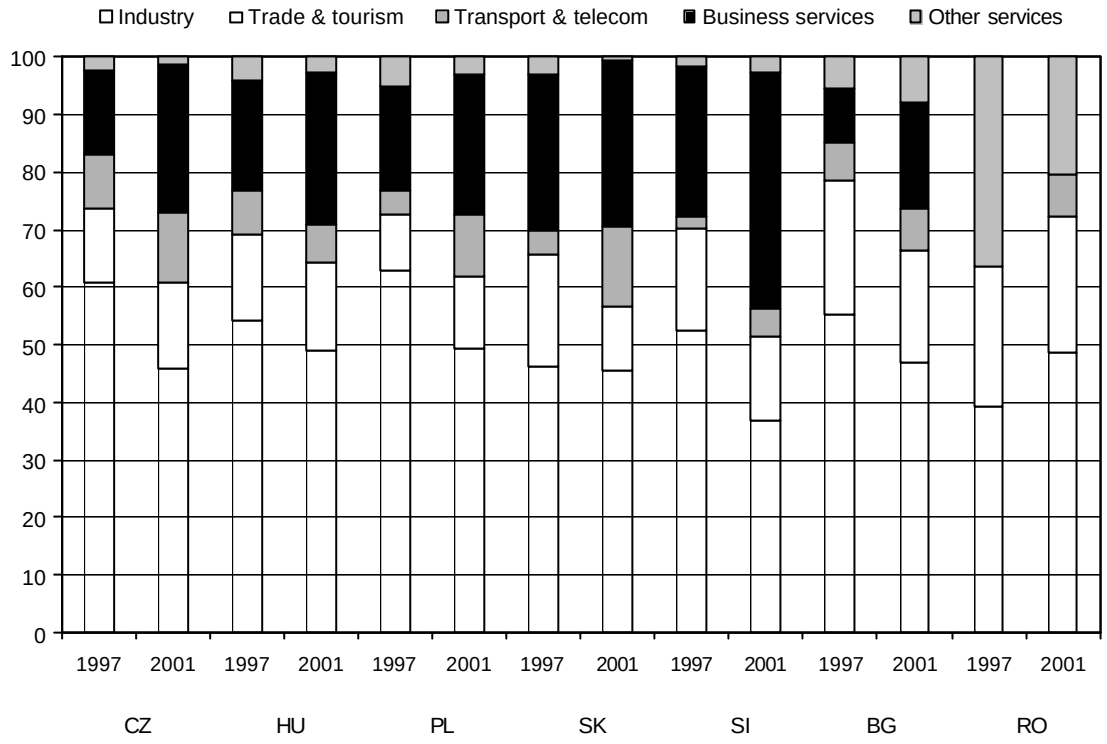
According to UNCTAD estimates, at the end of the 1990s about 60% of the inward FDI stock in developed countries (USA, Canada, the European Union and Japan) was in services (UN/ECE, 2001, p. 81). The increasing importance of the services sector becomes also evident, when looking at FDI inflows in the 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. Today, in all countries but Hungary the share of services in the FDI stock is much higher than that of manufacturing (Figure 7). In general, FDI into the services sector is limited to the market services segment, while FDI in community services is next to negligible. An analysis of FDI stocks shows that in transition economies (just as in OECD countries) foreign direct investment in the services sector is directed towards financial intermediation, wholesale and retail trade, transport and telecom and business related services (OECD, 2000). In all transition countries but Hungary financial intermediation is the main recipient of FDI in the services sector, primarily due to privatization-related takeovers, accounting for 20-25% of the total FDI stock (with the highest ratios recorded for Poland, Slovakia and Slovenia).[6] In Romania wholesale and retail trade represents the major FDI target in the tertiary sector, while this segment ranks second in Bulgaria, Slovenia, Hungary and Poland. Transport and telecom absorb a significant proportion of services sector FDI in Slovakia, Hungary and in Poland, while their share is almost negligible in Slovenia, where privatisation has not yet started. FDI in business related services estate is concentrated in just three countries: Hungary (where it is the leading FDI segment in the services sector), Slovenia and the Czech Republic. Foreign direct investment in hotels and restaurants plays a subordinate role. Only in Bulgaria has the tourism industry attracted a noteworthy share of investment (about 4% of the total FDI stock).

[6] The high share of financial intermediation in the Slovenian FDI stock is reflecting debts of FIEs to their parent companies due to the relatively high interest rates in Slovenia. The privatization of the main state-owned banks is still in its initial phase. Thus, the share of services in general and that of financial intermediation in particular in the total FDI stock is overestimated. See also Stare (2001), p. 32.

Figure 7

FDI stock by major economic activities, 1997 and 2001

(in % of total stock)



Source: wiiw Database.

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 lacking. 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.
- Services exports are dominated by transport and travel services and construction-related services, which are often labour- and energy-intensive and dependent on natural factors ('nature-endowment-intensive'). At the same time they remain net importers of business-to-business services, requiring a good capital basis and highly skilled labour. Most countries record growing an continuous surpluses in the services balance – primarily due to surpluses in travel and transport.

References

Anxo, D. and D. Storrie (eds.) (2000), 'The job creation potential of the service sector in Europe', Final report 2000, European Commission, Directorate-General for Employment and Social Affairs.

Baumol, W. J. (1967), 'Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis', *American Economic Review* 57, June, pp. 415-426.

Dobrinsky, R. (2001), 'Services in the UNECE transition economies: A brief overview', in *Services in Transition Economies*, UNECE, Geneva/New York.

European Commission (2001), *Employment and labour market in Central European countries*, Eurostat, Luxembourg, 2001/1.

Gács, J. (2001), 'Structural Change and Catching Up: Experience of the Ten Candidate Countries', Paper prepared for the East-West Conference on Convergence and Divergence in Europe, organized by the Oesterreichische Nationalbank (OeNB), Vienna, 5-6 November.

Hunya, G. and J. Stankovsky (2003), *wiiw-wifo Database. Foreign Direct Investment in CEECs and the Former Soviet Union, with Special Attention to Austrian FDI Activities*, 14th edition, wiiw and wifo, Vienna, February.

Inman, R. (ed.) (1985), *Managing the service economy. Prospects and problems*, Cambridge University Press.

OECD (1995), *Review of the Labour Market in the Czech Republic*, Paris.

OECD (2000), 'The Service Economy. STI Science Technology Industry', Business and Industry Policy Forum Series, Paris.

Römisch, R. (2001), 'Trade in Services in the Central and East European Countries', *wiiw Research Reports*, No. 274, wiiw, Vienna, January.

Soubbotina, T. and K. Sheram (2000), *Beyond Economic Growth: Meeting the Challenges of Global Development*, The World Bank, October.

Stare, M. (2001), 'Advancing the Development of Producer Services in Slovenia with Foreign Direct Investment', *The Service Industries Journal*, Vol. 21, No. 1, pp. 19-34, published by Frank Cass, London, January.

Stare, M. and S. Zupancic (2000), 'Liberalisation of Trade in Services: Slovenia's Experience', Round Table on 'Ten Years of Trade Liberalisation in Transition Economies', OECD, document CCNM/TD (2000)52.

UN/ECE (2001), 'Services in Transition Economies', Committee for Trade, Industry and Enterprise Development, Geneva/New York.

Vidovic, H. (2002), 'The Services Sectors in Central and Eastern Europe', *wiiw Research Reports*, No. 289, wiiw, Vienna, September.

EU Enlargement: Opportunities and Challenges for Eastern European Insurance Markets*

by Patrizia Baur, Swiss Re Economic Research & Consulting

The EU's enlargement is going to integrate hitherto protected eastern European insurance markets into the European insurance area. This development will bring structural changes to the insurance markets of the acceding countries.[1] Competition will increase as market entry barriers come down. Foreign insurers will gain market share, assisted by the EU directives on solvency rules which will come into effect in 2004. Consolidation in non-life insurance will continue, whereas in life insurance the trend will be towards setting up branch offices following accession to the EU. This divergence stems from the two sectors' different market environments. In non-life insurance, take-overs are a means of acquiring large portfolios and a relatively strong market position. Life insurance, however, is still underdeveloped and the advantages of acquiring a portfolio are limited. In addition, foreign companies already account for a relatively high proportion of the market, which makes it more difficult to execute company take-overs. Market access in the life sector will be mainly achieved by opening branch offices. The former monopolies, which are still publicly owned, will probably, at least to a certain extent, be taken over by foreign companies. Generally speaking, all the former monopolies will lose market share. EU membership will strengthen interest rate convergence, which will force insurers to improve their underwriting results to make up for lower investment returns.

The extent of the anticipated changes varies from state to state: in Hungary the insurance market was liberalized, deregulated and adapted to western European standards shortly after the collapse of communism. Hungary is therefore the best prepared candidate for EU accession. The Polish, Czech and Slovakian markets, on the other hand, have more ground to make up. EU enlargement will therefore cause changes in the regulatory framework which will affect the competitive environment. The three Baltic States Estonia, Latvia and Lithuania have a great deal of catching-up to do; comparatively low premium volumes and fiercer competition caused by entry to the EU will bring about major structural change in the Baltic markets. Increased competition and more market share for foreign companies will be the main consequences of EU entry for Slovenia.

---

* The findings presented are based on Swiss Re's *insights* study ‚The impacts of EU enlargement on the insurance markets of the eastern European candidate countries™, December 2002.

1 The acceding countries are the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

Herausgeber, Verleger, Eigentümer und Hersteller:
Verein "Wiener Institut für Internationale Wirtschaftsvergleiche" (wiiw),
Wien 1, Oppolzergasse 6
Postanschrift: A-1010 Wien, Oppolzergasse 6, tel. [+431] 533 66 10, fax: [+431] 533 66 10 50
Internet: www.wiiw.at

P.b.b. Verlagspostamt 1010 Wien