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COST AND BENEFITS OF EU'S EASTERN EUROPEAN ENLARGEMENT

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95/138/W/9395

1. Introduction[1]

Beginning with the announcement of the single market project in the „white paper" of 1985 the European Community had no time to rest. Milestones of the integration process in the past decade were: the creation of the single market and the European Union (implementation of the Maastricht treaty) in 1993 with the announcement of the economic and monetary union; the formation of the European Economic Area (EEA) in 1994; the third enlargement by Portugal and Spain in 1986 as well as the most recent fourth enlargement (1995) by Austria, Finland and Sweden. Parallel to this integration process in Western Europe, the former integrated Eastern world broke down politically (end of the communism) and economically (dissolution of the CMEA). A process of intensified integration in the west was contrasted by an increasing disintegration in the east. The European Union (EU) reacted quickly to this new challenge and offered trade arrangements to the Central and Eastern European Countries (CEEC). First on an interims basis, later on a broader basis (Europe Agreements - EA) the trade between EU and CEEC was liberalized. Although the EAs with the six associated CEECs include an „accession clause" a time table for accession has not yet been defined. There is a strong desire in the CEECs to become full EU members as soon as possible. This desire contrasts with the hesitation on the side of the EU. The European Council on its Copenhagen summit in June 1993 made the basic decision that those associated CEECs which wish to become members of the EU are welcome. Condition for membership are the implementation and acceptance of the „acquis communautaire" of the EU. On the summit in Essen of December 1994 the European Council offered a „structured dialogue" between both partners. However, no specific time horizon was mentioned. The same is true for the new „White Paper" of the European Commission on Eastern European enlargement of May 3, 1995. It only enumerates in detail the legal and economic conditions the CEECs have to fulfil in order to be taken into the community. The Community is shaking between the chance to enlarge Europe economically and politically peacefully for the first time in history and the fear the economic cost of integrating poor countries could lead to a collapse of the club of the rich.

This paper deals with this kind of ambiguity in future European integration. Three aspects of the problem of enlargement are touched upon. First, we take a look at the performance of the East and the West after the breakdown of communism in 1989. Is it possible to identify the

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winners and losers so far? The second question addresses the potential costs for the EU countries of CEECs full EU membership. In the last part some political arguments pro and con enlargement are put forward.

2. Winners and Losers of the Transformation Process so far

General remarks on East-West trade:

Before 1989 trade relations between east and west were bilaterally regulated, partly based on clearing arrangements. In simple terms, East-West trade was „managed trade" from the side of the CMEA countries. Trade functioned as a buffer in the five-years plans. After the change from planned economies to market economies both sides expected new market potentials: the EU countries in the east, the CEECs in the west. The huge gap in the level of economic development (GDP per capita) as well as in labour costs created a North-South-like trade problem. Heckscher-Ohlin type interpretations seem adequate to describe the comparative advantage pattern: the CEECs should have comparative advantages in labour intensive products, the EU countries should specialize in capital and technology-intensive products. On the other hand a considerable number of sectors in the western economies which were protected against low-labour cost products from the east lost its „artificial" competitiveness. These sectors produced homogenous goods, like cement, chemicals, steel, coal, tractors etc. In the first stage of opening up of the iron curtain these sectors tried to fight with anti-dumping measures against the new competition from the east. In order to prevent the chaos it was necessary to put the trade relations between the east and the west on a sound basis. Looking at the ambitions of the EU, the EFTA followed with similar treaties with the CEECs.

The Europe Agreements:

The Community started with trade and cooperation agreements in 1989 and 1990 which led to the so-called Europe Agreements (EA). The EAs are based on article 238 of the EC treaty, that means that the CEECs were associated countries of the EU. In order to start the liberalization process as quickly as possible Interim Agreements (IA) were put into operation as early in December 1991 with Hungary and Poland. With the latest decisions of the council in December 1994 six CEECs are associated with the EU. With the three Baltic states free trade and cooperation treaties were signed in December 1994. By June 1995, EAs have been signed

Table 1

Trade Arrangements of the EC with the CEEC after 1989

	Signed	In Operation	Legal Base
1. Trade and Cooperation Agreements			
Bulgaria	08 05 1990	01 11 1990	OJ 291/23 10 1990
Czech-Slovak Republic	07 05 1990	01 11 1990	OJ 291/23 10 1990
Hungary *	26 09 1988	01 12 1988	OJ 327/30 11 1988
Poland *	19 09 1989	01 12 1989	OJ 339/22 11 1989
Romania	22 10 1990	01 05 1991	OJ 079/26 03 1991
Estonia	19 12 1994	01 02 1995	OJ 373/21 12 1994
Latvia	19 12 1994	01 02 1995	OJ 375/21 12 1994
Lithuania	19 12 1994	01 02 1995	OJ 374/21 12 1994
2. Interim Agreements (IA) *			
Bulgaria	08 03 1993	31 12 1993	OJ 323/23 12 1993
Czech Republic	16 12 1991**	01 03 1992	OJ 115/30 04 1992
Hungary *	16 12 1991	01 03 1992	OJ 116/30 04 1992
Poland *	16 12 1991	01 03 1992	OJ 144/30 04 1992
Romania	01 02 1993	01 05 1993	OJ 81/02 04 1993
Slovak Republic	16 12 1991**	01 03 1992	OJ 115/30 04 1992
3. Europe Agreements (EA)			
Bulgaria	08 03 1993	01 02 1995	OJ 358/31 12 1994
Czech Republic	04 10 1993	01 02 1995	OJ 360/31 12 1994
Hungary	16 12 1991	01 02 1994	OJ 348/31 12 1993
Poland	16 12 1991	01 02 1994	OJ 347/31 12 1993
Romania	01 02 1993	01 02 1995	OJ 357/31 12 1994
Slovak Republic	04 10 1993	01 02 1995	OJ 359/31 12 1994
Estonia	06 1995		
Latvia	06 1995		
Lithuania	06 1995		
Slowenia	06 1995		

*   replaced by the EA of 01 02 1994
**   based on the IA signed on 16 12 1991 with the fomer Czech-Slovak Republic.
     The supplementary IA protocols take into account the separation of the Czech-Slovak Republic
     (OJ 349/31 12 1993).
*** Supplementary IA/EA protocols (OJ L 25/29 01 1994).

Source: European Economy Supplement A, No. 7, July 1994, p. 16

Time Table for Liberalization of EC's trade with the associated CEECs
(Prototype Interim/Europe Agreements for 6 CEEC for Industrial products)

Table 2

	March* 1992	January 1993	January 1994	January 1995	January 1996	January 1997	January 1998
1. General Rules							
Tariffs	0	0	0	0	0	0	0
Quantitative restrictions	abolished	none	none	none	none	none	none
2. Basic Products							
Annex IIa - Tariffs	50	0	0	0	0	0	0
Annex IIb - Tariffs	80	60	(40) 0	(20) 0	0	0	0
3. Sensitive Products (Annex III)							
below margin	March* 1992	January 1993	July 1993	January 1994	January 1995	January 1996	January 1997
Tariffs	suspended						
Level of quantitative restriction	115	130	(130) 140	(145) 165	(160)	(175)	
above margin	March* 1992	January 1993	January 1994	January 1995	January 1996	January 1997	January 1998
Tariffs	90	80	70	(60) 0	(50) 0	0	0
Quantitative restrictions	abolished	none	none	none	none	none	none
4. ESCE Products (Protocol 2)							
Steel Tariffs	80	60	40	20	(10) 0	0	0
Steel Quantitative restrictions	abolished	none	none	none	none	none	none
Coal Tariffs	100	100	50	50	0	0	0
Coal Quantitative restrictions (Exceptions)		abolished					
Coal Quantitative restrictions (Annex II)					abolished		
5. MFA Products (Protocol 1)							
Tariffs	5/7	5/7	4/7	2/7	1/7	0/(1/7)	(0)
Quantitative restrictions	5/7						

non-specified rate of reduction to 0 after (6) 5 years, beginning with January 1, 1994.

* In Romania the IA came into operation in May 1993, in Bulgaria in December 1993.
The figures relate to the decisions of the European Council in Copenhagen (June 1993) and the supplementary protocols (OJ L 25/January 1, 1994).
The figures in parenthesis refer to the original intentions of the Interims Agreements.
Source: European Economy Supplement A, No. 7, July 1994, pp. 17-19

Table 3

EU's Non-agricultural Imports from the CEEC and Tariff Structure, 1992

	Bulgaria		Czech-Slov. Rep.		Hungary		Poland		Romania	
	share in %	MFN tariff rate	share in %	MFN tariff rate	share in %	MFN tariff rate	share in %	MFN tariff rate	share in %	MFN tariff rate
Basic Products A Annex IIa	0,4	4,0	1,1	5,3	0,2	5,0	0,3	7,5	0,0	4,3
Basic Products B Annex IIb	0,6	3,6	0,0	6,2	0,2	6,0	0,7	3,7	0,4	3,7
Sensitive Products Annex III	8,7	8,7	26,3	8,8	20,1	8,8	23,4	7,9	29,9	7,9
Textils & Apparel Protocol 1	28,1	12,8	12,9	12,1	21,3	12,5	18,8	13,3	37,8	13,3
ESCE Coal (Protocol 2)	0,2	8,3	2,4	1,3	0,0	0,5	7,2	3,4	0,0	0,4
ESCE Steel (Protocol 2)	6,5	3,9	8,2	4,0	3,7	3,5	4,9	3,3	6,5	4,6
Other industrial products (no tariffs according to the general rule since IA came into force)	55,5	4,6	49,1	5,1	54,5	5,1	44,7	3,6	25,4	6,1
Total	100,0	7,2	100,0	6,8	100,0	7,5	100,0	6,4	100,0	8,9
(APS tariff rates, actually payed)		(5,2)		(4,4)		(4,5)		(4,0)		(6,2)

Source: European Economy Supplement A, No. 7, July 1994, p. 6

with four additional CEECs (Slovenia and the three Baltic states; see <u>Table 1</u>). The EAs with all CEECs have more or less the same structure. The association status is valid for a ten year period (article 6). The major purpose is free movement of goods via full liberalization of trade in industrial goods between the CEES and the EU. Trade with agricultural products are only partly liberalized. A prototype scheme of an EA is given in <u>Table 2</u>. Trade in industrial goods are partitioned into basic products (Annexes IIa and IIb), into sensititve products (Annex III) - which differs from country to country -, into textiles & apparel (protocol 1) as well as into ESCE goods (coal and steel, protocol 2). <u>Table 3</u> gives an overview of the importance of these categories of goods in EU's non-agricultural imports. Around 50 percent of EU's industrial imports from the CEECs were tariff-free from the beginning of the IA in 1991. For the other product categories the remaining tariffs and quantitative restrictions will be abolished either in 1995 or in 1996. The EAs are characterized by asymmetry. That means that the EU removed their trade barriers faster than the CEECs for imports from the EU. Whether this asymmetry was beneficial for the CEECs is questioned by representatives of these countries. Simulations with a linked Austria-Hungary CGE model (*Breuss-Tesche, 1994*) suggest that Hungary would benefit more from asymmetry than Austria.

The EAs also include partial elements of the single market concept concerning the freedom of movement of workers as well as the freedom of establishment. Free movements of services is also addressed as well as some obligations to stick to a fair competition policy. However, in all cases of these additional elements, safeguard clauses make sure that no market distortions (e.g. massive migration from east to west) take place.

The IAs also include specific safeguard measures (anti-dumping measures). According to an evaluation of the Interims Agreements by the Commission (*EC,* 1994a, p. 12) the anti-dumping measures against firms of the CEECs have shrunk dramatically. Before the breakdown of communism 20 percent of all anti-dumping measures of the EU were directed towards suppliers of communist countries. Since the opening up of eastern Europe, the number of annually started measures, which were 20 at the beginning, shrank to two cases in 1993. At the end of 1993 ten anti-dumping measures were in operation. Poland (6) and Romania (5) were involved most intensly. The major verdict were price obligations instead of anti-dumping tariffs.. The anti-dumping cases were concentrated in the basic industries steel and chemicals. Only 0.32 percent of total EU imports from the CEEC (or 60 mio. ECU of EU imports from

Redirection of CEEC's Trade

Table 4

(shares of regions in % of total exports/imports)

Country	Region	1989			1993		
		Exports %	Imports %	Balance bn USD	Exports %	Imports %	Balance bn USD
Bulgaria	EU-15	6,0	12,5	-923,7	29,8	34,3	-412,3
	Austria	*0,3*	*1,5*	*-178,9*	*1,2*	*2,8*	*-77,8*
	CEEC	11,6	12,9	-76,6	4,3	4,6	-44,4
	USSR (CIS)	65,2	52,9	2544,0	18,9	35,8	-867,5
	Other	17,2	21,7	-503,8	47,0	25,3	592,1
	Total (bn $)	16210,2	15170,3	1039,9	3582,3	4314,5	-732,2
Czech Rep.	EU-15	31,9	31,8	9,0	63,1	63,3	-262,7
	Austria	*4,0*	*3,9*	*10,6*	*7,7*	*9,4*	*-209,6*
	CEEC	16,0	14,8	128,4	6,9	4,9	185,5
	USSR (CIS)	30,7	32,8	-228,0	7,9	13,6	-634,3
	Other	21,4	20,6	85,0	22,1	18,2	328,7
	Total (bn $)	10769,8	10775,3	-5,5	10214,5	10597,3	-382,8
Hungary	EU-15	33,6	39,7	-268,5	58,1	54,4	-1695,2
	Austria	*6,5*	*8,6*	*-133,4*	*10,1*	*11,6*	*-565,4*
	CEEC	10,4	10,9	39,9	7,5	6,0	-89,7
	USSR (CIS)	25,1	22,1	468,8	15,3	22,2	-1441,0
	Other	30,9	27,3	568,9	19,1	17,4	-496,2
	Total (bn $)	9667,1	8858,0	809,1	8908,2	12630,3	-3722,1
Poland	EU-15	39,6	42,2	995,6	70,3	57,2	-744,8
	Austria	*3,5*	*6,0*	*-145,3*	*3,4*	*4,9*	*-436,0*
	CEEC	9,8	9,6	333,1	4,5	3,4	1,3
	USSR (CIS)	20,8	18,1	940,8	4,4	5,1	-331,6
	Other	29,8	31,1	816,7	20,8	34,3	-3478,0
	Total (bn $)	13466,1	10277,3	3188,8	14195,0	18748,0	-4553,0
Romania*	EU-15	27,6	6,5	2346,2	35,7	41,7	-927,8
	Austria	*1,6*	*0,7*	*108,7*	*2,4*	*3,2*	*-85,8*
	CEEC	10,5	14,4	-113,7	5,9	6,9	-153,8
	USSR (CIS)	22,6	31,5	-287,3	13,0	14,5	-297,4
	Other	39,3	47,6	105,9	45,4	36,9	-227,8
	Total (bn $)	10487,5	8436,4	2051,1	4295,3	5902,1	-1606,8
Slovak. R.*	EU-12	24,4	27,3	-2,5	41,6	34,6	216,9
	Austria	*5,5*	*5,3*	*27,1*	*7,4*	*10,2*	*-116,6*
	CEEC	18,7	26,9	-195,8	12,9	6,2	241,0
	USSR (CIS)	31,1	31,8	93,9	16,7	34,9	-719,1
	Other	25,8	14,0	479,4	28,8	24,3	136,9
	Total (bn $)	3617,7	3242,7	375,0	3712,5	3836,8	-124,3
Slovenia	EU-15	51,3	66,9	-403,1	75,2	73,5	-417,2
	Austria	*5,2*	*8,2*	*-86,5*	*5,9*	*9,5*	*-249,5*
	CEEC	-	-	-	-	-	-
	USSR (CIS)	13,7	7,9	212,9	5,8	3,7	82,1
	Other	35,0	25,2	382,5	19,0	22,8	-350,9
	Total (bn $)	3408,5	3216,3	192,2	5119,0	5805,0	-686,0
CEEC-6 (bn USD)	EU-15	18514,7	16761,8	1752,9	29594,9	33838,1	-4243,2
	Austria	*2123,1*	*2520,9*	*-397,8*	*2891,7*	*4632,4*	*-1740,7*
	CEEC	7706,3	7591,0	115,3	2898,1	2758,1	140,0
	USSR (CIS)	23065,0	19319,9	3745,1	4946,8	9155,5	-4208,7
	Other	18340,9	16406,4	1934,5	12587,0	16082,3	-3495,3
	Total	67626,9	60079,1	7547,8	50026,8	61834,0	-11807,2

* 1992 instead of 1993
Source: Havlik (1995)

Table 5

Market Shares and Importance of Trade with the CEEC
(for some selected OECD countries)

		Market share — OECD countries exports to CEEC in % of OECD total exports to CEEC		Export share — OECD countries exports to CEEC in % of total export		Import share — OECD countries imports from CEEC in % of total import		Trade balance — in OECD countries trade with the CEEC bn USD		Trade balance — cumulative 1990-1994	
		CEEC-4	Former CMEA	CEEC-4	Former CMEA	CEEC-4	Former CMEA	CEEC-4	Former CMEA	CEEC-4	For.CMEA
Austria	1985	7,80	4,30	4,90	12,10	5,01	11,11	-207,5	-245,30		
	1988	6,90	4,50	3,98	9,65	3,69	6,90	-114,8	470,80	3458,3	
	1993*	9,60	6,60	8,28	13,29	5,09	8,25	908	1409,00		5859,90
Finland	1985	1,30	6,50	1,07	23,00	2,29	23,55	-155	23,90		
	1988	1,20	5,50	0,99	16,39	1,89	14,55	-196,7	443,60	458,00	
	1993*	1,80	2,90	3,13	12,09	2,10	12,59	442,3	660,90		12,70
France	1985	4,60	6,40	0,52	3,18	0,57	3,51	-108,4	-673,10		
	1988	4,30	5,40	4,78	2,23	0,52	2,75	-142,3	-1256,10	1029,30	
	1993*	5,30	6,60	9,79	2,27	0,74	2,77	600,6	-1031,30		-6123,50
Germany	1985	51,60	40,20	2,81	9,74	3,01	11,13	408,8	231,30		
	1988	55,30	46,50	2,86	8,92	3,24	10,10	995	3201,90	7117,10	
	1993*	42,00	36,90	4,14	7,78	4,23	8,12	1406,9	2115,70		20292,50
EU-12	1985	76,00	65,40	1,25	4,78	2,27	5,58	-321	-6177,90		
	1988	77,50	69,00	1,28	4,24	1,26	4,54	-83	-4363,00	10410,90	
	1993*	74,80	71,20	1,94	4,16	1,60	4,03	5162	3188,10		103,70
USA	1985	3,60	7,70	0,19	1,75	0,15	0,69	-119,5	1341,50		
	1988	2,40	6,10	0,14	1,31	0,17	0,66	-322,7	1175,70	321,30	
	1993*	4,80	8,10	0,25	1,09	0,24	0,95	-291,2	-704,70		9398,10
Japan	1985	2,00	6,80	0,12	1,85	0,14	1,33	38,1	1532,90		
	1988	2,30	5,80	0,15	1,46	0,21	1,88	11,3	355,00	691,8	
	1993*	1,60	3,00	0,15	0,65	0,13	1,46	233	-1178,30		-3857,80

* for some countries 1994

Source: WIFO

the CEECs) are concerned. The highest share is found for Bulgaria (1.24 percent), second comes Romania (0.7 percent).

On the one hand the impact of anti-dumping measures taken by the EU are overall quantitatively negligible. The major critic, on the other hand, is that they are directed exactly against those kinds of goods where the CEECs have comparative advantages (i.e. steel and chemicals).

Redirection of CEECs trade:

After the breakdown of the CMEA integration one of the biggest challenge for the CEECs was to redirect their trade flows from the CMEA - in particular those with the Soviet Union - towards the west. This process of redirection was executed with an astonishing speed (see Table 4). On the export side all six CEECs redirected their trade from the CEEC and the former USSR to the west, in particular towards the EU. The strongest reshuffling of exports was fulfilled by Bulgaria, followed by the Czech Republic (see also *Drábek-Smith*, 1995). This process would not have been so successful without the help of opening up EU markets via liberalization through the EAs. But it was not costless for the CEECs.

Winners in the West, Losers in the East:

A look into Table 4 reveals that with the exception of Bulgaria all CEECs deteriorated their trade balance position vis à vis the EU. In addition, all six CEECs worsened their position with the former USSR. The deterioration in the trade balance of the CEECs after the opening up of their markets is a first indication that these countries were the losers in trade with the west. Looking from the west (Table 5) one clearly sees that those countries which traditionally were engaged in trade with the East - like Germany, Finland[2], Austria - have been the big winners in the transformation process so far. Whereas the trade balanced more or less before 1989, afterwards the mentioned countries accumulated considerable surpluses in trade with the east. Many other EU countries (only France is mentioned explicitly in Table 5) have lost. Japan, the winner all over the world, however, has been a loser so far in trading with the East.

A first ex-post assessment of the macroeconomic impact of the CEECs opening on the Austrian economy resulted in an 2.2 percentage point increase of real GDP (cumulative over

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[2] Finland, however, suffered a dramatic recession after the sudden breakdown of the former important trade with the Soviet Union.

the period 1990 to 1995), and additional export stimulus of 4.8 percent and an increase of employment of 1.7 percent (or 50.000 newly created jobs; *Schebesch-Wörgötter*, 1995). An earlier WIFO assessment (*Aiginger-Geldner-Peneder-Stankovsky*, 1993; *Kramer*, 1993) finds that the positive net gain in employment is only 15.000 persons (or 0.5 percent of total employment). My own ex-ante calculations with the OEF (Oxford Economic Forecasting) world model suggest that an increase of real GDP of Eastern Europe by 10 percent sees those countries as the largest gainers which are strongly engaged in trade with the CEEC. Austria would gain the most (0.5 percentage points additional real GDP cumulative over the period 1995 to 1999), Germany comes second with and increase of its GDP by 0.4 percent, followed by Italy, Belgium and Spain - each with an increase of GDP by 0.2 percent. Great Britain, the Netherlands and Sweden will gain 0.1 percent (Finland, which is not included in the OEF model probably would gain more than Sweden). In the other OECD countries - in particular those overseas (USA, Japan) - there is virtually no macroeconomic impact at all.

The Pattern of „New" East-West Trade: Inter- versus Intra-industry Trade
Like in the North-South trade debate the East-West trade should be complementary and of an inter-industry nature. It may be best explained with Heckscher-Ohlin arguments. Due to the high level of economic development the West should have comparative advantage in capital and technology-intensive goods, whereas due to the low income level the East should have advantages in labour-intensive goods. Intra-industry trade should increase as the CEECs catch up to western GDP per capita levels, which may take twenty years or more. Recently, many attempts have been made to analyse the change the pattern of the „new" East-West trade is undergoing.

In order to estimate the scope of potential versus actual trade flows between East and West after the opening up gravity models are used (see *Baldwin, 1994*, pp. 82 ff.). Bilateral trade flows are explained by five factors: GDP per capita of both partners (this should be a proxy for the Linder-Hypothesis that the more similar the stage of development between two countries the more intensive are their trade relations; as a special case this variable may also explain the share of intra-industry trade), GDP of the two countries (the volume of trade increases with the absolute size of income of the two countries), their population and the distance between them. In addition one could add variables for the level of protectionism or degree of liberalization. *Helpman and Krugman* (1985, chapter 8) theoretically founded the gravity equation as a means to explain simultaneously inter-industry and intra-industry trade. In

general, the forecasted trade flows by the gravity equation shows that the potential trade flows are higher than the actual flows by the factor 2 (see *Baldwin*, 1994, p. 90).

Landesmann (1995) addressed the question whether there is evidence for a process of „catching-up" or „falling-behind" of CEECs vis-à-vis the EU countries. International trade theory would predict that countries which are at different levels of economic development would see an increase in inter-industry trade (Heckscher-Ohlin-type specialization) if they liberalized trade with each other (Europe Agreements), while countries of similar levels of economic development would experience an increase in intra-industry trade. He concludes that in the first phase of transformation and catching-up would favour inter-industry specialization, to be followed by the next phase of catching-up in which intra-industry trade dominates the trade pattern. He finds strong evidence for the 5 CEECs for the period 1989 to 1993 for a marked pattern of inter-industry specialization à la Heckscher-Ohlin: Although there are already some signs of increased intra-industry trade of the CEECs with the EU „the CEE economies' exports to the EU are strongly biased away from capital-, R&D- and skill-intensive branches and towards energy-intensive (a legacy of cheap oil supplies from the Soviet Union) and labour-intensive branches" (*Landesmann*, 1995, p. 19).

If the CEECs closed the gap of their stage of development (GDP per capita) with those of the EU countries the share of intra-industry trade could increase. This may, however, only happen in 10 to 20 years. *Landesmann* (1995) compared the past development of the Grubel-Lloyd (GL) indices for five CEECs with those of EU total, calculated for each of the 108 3-digit NACE manufacturing industries. While the GL indices are lower in the case of the CEECs than for total EU trade, there are considerable increaes in the GL indices since 1989. In the Czech-Slovak Republic the GL index increased from 0.45 in 1989 to 0.62 in 1993, in Hungary from 0.48 to 0.59, in Bulgaria from 0.50 to 0.55, in Romania from 0.24 to 0.34. In Poland it stagnated (0.42 in 1989 and 0.46 in 1993). The GL index for EU's total trade stagnated at the high level of 0.87 (*Landesmann*, 1995, p. 13). Less significant results were found in testing the Heckscher-Ohlin approach for the bilateral trade flows of Austria with three CEECs (Czechoslovaki, Hungary, Poland; see *Aiginger-Peneder-Stankovsky*, 1994).

Chart 1 Selected Countries in Transition: Foreign Direct Investment, 1992-94 (in millions of U.S. dollars, and percent of total)
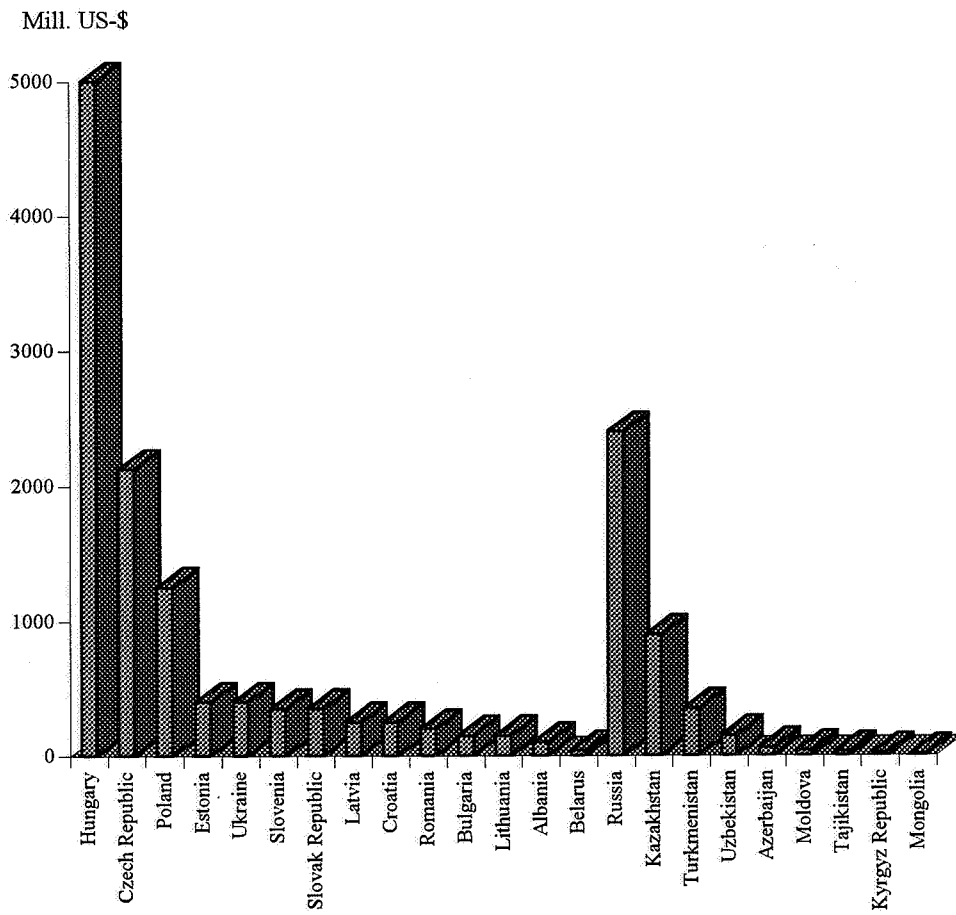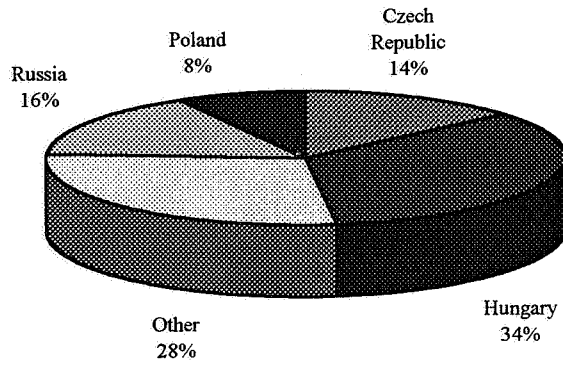
Source: IMF (1995), p. 61.

Chart 2   Countries in Transitions: Foreign Investment Projects, 1990-93
(As a share of total number of announced projects)

By Type of Investment

Greenfield
33%

Joint venture
46%

Acquisition
21%

By Industry

Primary sector
9%

Services
30%

Manufacturing
61%

By Source

Austria
11%

Japan
3%

Germany
15%

Other European
Union
33%

Other
14%

United States
23%
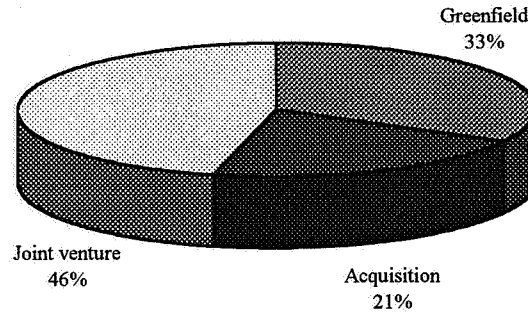
Source: IMF (1995), p. 64.

Foreign Direct Investment - an Alternative or Complement to Trade?

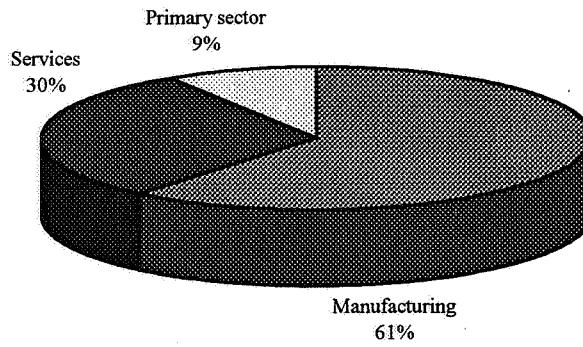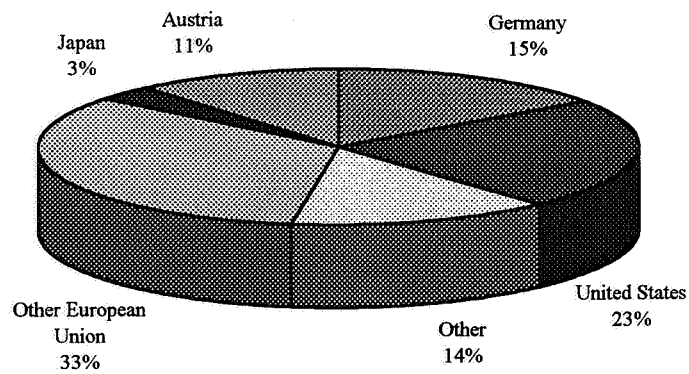Under central planning the Eastern European countries were closed off to foreign investors. Access to foreign direct investment (FDI) marks a turning point for the economies in transition. Via foreign capital the obsolet capital stock could be replaced or renewed. FDIs play a decisive role in sparking and sustaining growth. As the IMF in its latest World Economic Outlook (*IMF*, 1995) states, although the FDIs increased, flows remain modest compared with earlier predictions, mainly due to the deterring effect of macroeconomic instability and insufficient institutional reforms. Although for foreign firms there are strong incentives to invest in the CEECs. Major motives for FDIs in CEECs are the access to an enormous market (including Russia and the CIS a population of over 420 million; see *Stankovsky*, 1995, p. 31). The backwardness of infrastructure (e.g. telecommunications, tapping natural resources like oil and gas in Romania and Russia) provides vast investment opportunities. CEECs are attractive because of lower labour costs. In addition, using eastern Europe as a base for production meets EU criteria for content requirements, thereby providing preferential access into the EU according to the Europe Agreements.

FDI in all transition economies increased from about $200 million in 1989 to about $6 billion in 1993 and then fell somewhat in 1994 (*IMF*, 1995, Part I: Main Report, p. 76). The flows have so far been concentrated in the CEECs. In 1992-94, in Hungary, the Czech Republic and Poland accounted for more than half of the total dollar value of FDI (see Chart 1). Data on the number of announced investment projects indicate a similar pattern. More than half of the announced projects during 1990-93 in the transition economies originated from the USA, Germany and Austria (see Chart 2). Almost half of these were joint ventures as opposed to greenfields or acquisitions. Most of the announced projects in 1990-93 were in the manufacturing sector, particularly in electronics and transport equipment. In services, the largest number of announced projects was in banking and financial services. As demonstrated in the bilateral case Austria-Hungary with a Heckscher-Ohlin-type CGE two-country linked model (*Breuss-Tesche*, 1994, p. 544), the accumulation of capital (e.g., Austrian FDI's in Hungary) has a greater influence on growth than pure trade liberalization measures.

Macroeconomic Indicators of the EU and the CEEC, 1995

Table 6

	Countries		Total area 1.000 km2	Area share EU-15=100	Population 1.000	Population share EU-15=100	Unemploy-ment rate in %	GDP curr.price Bio.ECU	GDP share EU-15=100	GDP per capita ECU (PPP)	GDP per capita EU-15=100
1	Belgium	BE	31	1,0	10085	2,7	11,9	195	3,1	16032	108,6
2	Denmark	DK	43	1,3	5189	1,4	12,2	127	2,0	15836	107,3
3	Germany	DE	357	11,0	81180	21,9	8,8	1748	28,2	15160	102,7
4	Greece	EL	132	4,1	10362	2,8	8,2	61	1,0	7114	48,2
5	Spain	ES	505	15,6	39141	10,6	22,7	416	6,7	10838	73,4
6	France	FR	544	16,8	57327	15,5	11,7	1130	18,2	15308	103,7
7	Ireland	IE	69	2,1	3561	1,0	16,7	45	0,7	11648	78,9
8	Italy	IT	301	9,3	58098	15,7	10,4	841	13,5	14589	98,8
9	Luxemburg	LU	3	0,1	398	0,1	2,1	12	0,2	23521	159,4
10	Netherlands	NL	42	1,3	15290	4,1	8,3	282	4,5	14451	97,9
11	Portugal	PT	92	2,8	9877	2,7	5,5	75	1,2	9666	65,5
12	Great Brit.	GB	244	7,5	58168	15,7	10,2	855	13,8	14117	95,6
13	Austria	AT	84	2,6	7991	2,2	4,2	169	2,7	15743	106,7
14	Finland	FI	338	10,4	5066	1,4	17,9	90	1,5	12869	87,2
15	Sweden	SE	450	13,9	8719	2,4	8,2	163	2,6	13785	93,4
	EU-15		**3235**	**100,0**	**370452**	**100,0**	**11,2**	**6208**	**100,0**	**14761**	**100,0**
16	Bulgaria	BU	111	3,4	8460	2,3	16,4	8	0,1	3295	22,3
17	Czech Rep.	CS	79	2,4	10328	2,8	3,5	33	0,5	6721	45,5
18	Hungary	HU	93	2,9	10278	2,8	12,6	36	0,6	5380	36,4
19	Poland	PO	313	9,7	38505	10,4	16,4	78	1,3	4422	30,0
20	Romania	RO	238	7,4	22755	6,1	10,4	25	0,4	2656	18,0
21	Slovak Rep.	SV	49	1,5	5327	1,4	14,4	11	0,2	5805	39,3
	CEEC 6		**772**	**23,9**	**95653**	**25,8**	**12,3**	**191**	**3,1**	**4713**	**31,9**
22	Slovenia	SL	20	0,6	1991	0,5	15,5	12	0,2	7093	48,1
23	Estonia	EO	45	1,4	1600	0,4	2,6	4	0,1	5708	38,7
24	Latvia	LA	65	2,0	2600	0,7	5,8	5	0,1	4302	29,1
25	Lithuania	LI	65	2,0	3800	1,0	3,4	5	0,1	2629	17,8
	CEEC 10		**967**	**29,9**	**105644**	**28,5**	**10,1**	**217**	**3,5**	**4801**	**32,5**

Sources: ECE (1995), Havlik (1995), WIIW, WIFO

Table 7

Economic Structure of the EU and the CEEC

	Countries		1993 Agric GDP % of total GDP	1993 Manuf GDP % of total GDP	1993 Agric exports % of total exports	1993 Agric imports % of total imports	1995 GDP per capita ECU (PPP)	1995 GDP per capita EU-15=100	2000 GDP per capita ECU (PPP)	2000 GDP per capita EU-15=100
1	Belgium	BE	1,65	22,55	10,80	10,30	16032	108,61	17701	108,61
2	Denmark	DK	3,08	16,58	26,00	13,00	15836	107,28	17484	107,28
3	Germany	DE	1,18	28,72	5,50	9,60	15160	102,70	16739	102,71
4	Greece	EL	12,67	13,07	25,40	12,00	7114	48,19	7854	48,19
5	Spain	ES	3,52	17,47	16,10	12,80	10838	73,42	11966	73,42
6	France	FR	2,82	20,51	15,70	11,10	15308	103,71	16902	103,71
7	Ireland	IE	7,05	25,00	21,90	9,90	11648	78,91	12860	78,91
8	Italy	IT	3,14	20,51	6,90	12,80	14589	98,83	16108	98,83
9	Luxemburg	LU	1,40	24,25	1,00	1,00	23521	159,35	25740	157,94
10	Netherlands	NL	3,63	18,26	21,30	13,50	14451	97,90	15956	97,90
11	Portugal	PT	5,50	27,89	9,20	15,80	9666	65,48	10672	65,48
12	Great Brit.	GB	1,57	19,30	7,70	10,60	14117	95,64	15586	95,64
13	Austria	AT	2,41	25,20	3,50	5,40	15743	106,65	17381	106,65
14	Finland	FI	4,43	19,51	2,00	6,40	12869	87,18	14208	87,18
15	Sweden	SE	2,10	17,59	3,20	7,60	13785	93,39	15220	93,39
	EU-15 % of total		**2,50**	**22,50**	**10,00**	**10,50**	**14761**	**100,00**	**16297**	**100,00**
16	Bulgaria	BU	9,00	35,00	22,00	20,00	3295	22,32	4206	25,81
17	Czech Rep.	CS	4,50	40,00	14,00	8,00	6721	45,53	8578	52,63
18	Hungary	HU	8,50	26,00	20,00	6,00	5380	36,45	6866	42,13
19	Poland	PO	7,00	33,00	13,00	12,00	4422	29,96	5644	34,63
20	Romania	RO	23,00	39,00	6,50	14,00	2656	17,99	3389	20,80
21	Slovak Rep.	SV	6,00	53,00	7,00	7,50	5805	39,33	7409	45,46
	CEEC 6		**9,50**	**37,50**	**13,80**	**11,30**	**4700**	**31,84**	**6015**	**36,91**
22	Slovenia	SL	5,00	31,00	5,00	8,50	7093	48,05	9052	55,54
23	Estonia	EO	11,00	31,00	10,00	10,00	5708	38,67	7538	46,26
24	Latvia	LA	15,00	27,00	10,00	10,00	4302	29,14	5681	34,86
25	Lithuania	LI	11,00	31,00	10,00	10,00	2629	17,81	3473	21,31
	CEEC 10		**10,00**	**34,50**	**11,80**	**10,60**	**4800**	**32,52**	**6184**	**37,94**

Sources: ECE (1995), Buckwell et al. (1994), Havlik (1995), WIIW, WIFO

3. Cost and Consequences of CEEC's full EU membership

The data base:

There are many numbers loitering around about the possible costs of the full integration of the CEECs into the EU. The most prominent source is the study by *Baldwin* (1994). His latest benchmark estimates are for the year 1991. Therefore, we made a new estimate of the budgetary burden of Eastern European enlargment for the EU as a whole and for the member states for the years 1995 and the year 2000. The calculations are based on the actual budget projection of the European Commission (OJ L No. 369/31 12 1994) for the year 1995, therefore encompassing 15 member states (including Austria, Finland and Sweden). As in this budget projection only the receipts are differentiated by member states, we have taken the country structure of expenditures from the report of the court of audit for the year 1993 (94/C 327/01/24 11 1994). With this two informations together the structure of expenditures (agriculture, structural funds, other expenditures) and receipts can be recalculated for the year 1995. This is the basis for estimating the costs of accession of the CEECs.

The pivotal focus is on two areas: the integrating into the CAP and the structural funds. In both cases the costs seem to be tremendous and the uncertainty big. A look at the macroeconomic indicators for 1995 (Table 6) reveals the huge gap in the level of economic development (measured in GDP per capita) between the CEECs and the EU member states. No single CEEC has a higher level of GDP per capita of more than 50 percent of the average of EU-15. The Czech Republik and Slovenia come close to this level. With the exception of Poland all 10 CEECs are small countries, amounting to less than 40 percent of average EU-15 GDP.

Explaining CAP expenditures:

Baldwin (1994, p. 174) regressed expenditures for the CAP and for structural funds per capita on GDP per capita alone in order to estimate their expenditures. We try to introduce a two-stage structural approach. Agricultural expenditures and structural expenditures are related to structural factors and these factors in turn depend on the stage of economic development. Four explanatory variables are used to estimate the costs for integrating the CEECs into the CAP and the structural policy of the EU (Table 7). Three structural variable explain pretty well the pattern of distribution of expenditures under the CAP within the EU-15 (CAP/GDP). The share of agriculture in GDP (AGR/GDP), the share of agricultural exports (EXPAGR) and of

agricultural imports (IMPAGR). The following structural equation was estimated as a cross-section regression for 15 EU member states for the year 1995:

(1) (CAP/GDP) = -0.369 + 0.488*(AGR/GDP) +0.039*(EXPAGR) - 0.066*(IMPAGR)
     t-statistic   (-1.36) (12.79)   (2.48)   (2.15)
     R-squared = 0.96; S.E. of regression 0.34; Durbin-Watson statistic = 1.76

The representation of the CAP as essentially a price support policy can be captured as comprising: (a) import taxes (variable levies) to provide protection against external supliers, and (b) government purchases (intervention buying), and (c) export subsidies (refunds to dispose of „surplus" domestic production). The expenditure side is funded by the European Agricutlural Guarantee and Guidance Fund (EAGGF). The structural equation (1) tries to capture this elements: the higher the share of the agricultural value added in total GDP (AGR/GDP) the more government support must be payed. If the share of agricultural exports in total exports (EXPAGR) increases the needs for export subsidies increase as well. The higher the share of agricultural imports in total imports (IMPAGR)[3] the more tariff income can be expected and hence reduces the expenditures for agricultural policy - measured as CAP expenditures in per cent of GDP (CAP/GDP). In a more sophisticated general equilibrium approach however (*Breuss-Tesche*, 1994; *Morkre-Tarr*, 1995 in the case of Hungary) for instance, one have to consider complicated reactions of importers on tariff and relative price changes.

If one assumes that there will be no further reform of the CAP and that the CEECs may enter this system at the same conditions as the incumbents one can - using the structural data of Table 7 - estimate the budgetary burden of fully integrating the CEECs into the CAP.

Due to the low level of economic development most of the CEECs have a share of agricultural GDP which is higher than the average of the EU. Only Greece's agricultural sector is of comparable size of most of the CEECs. If one neglects the „outlyer" Romania one gets a nice negative relationship between GDP per capita (here measured with the Index: EU-15=100; see Table 7) and share of agricultural GDP, which is documented in the following cross-section regression equation for 25 countries (15 EU and 10 CEEC) for the year 1995:

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[3] In a more detailed analysis one should differentiate between intra-EC and third-countries exports and imports of agricultural products. In this context, however, we abstract from this separation because the necessary data for the CEECs are not readily available.

Table 8

EU Agricultural Trade
(Mio. ECU)

| | Exports to | | | | | | Total EU trade |
	Bulgaria	Ex-CSFR	Hungary	Poland	Romania	Total	Exports to CEEC
1990	83	149	119	615	300	1266	12004
1991	155	267	152	996	243	1813	17538
1992	125	418	225	924	324	2016	21438
1993	195	467	299	973	296	2230	25714

| | Imports from | | | | | | |
	Bulgaria	Ex-CSFR	Hungary	Poland	Romania	Total	Imports from CEEC
1990	152	213	713	1106	41	2225	12967
1991	192	247	920	1080	76	2515	16116
1992	184	277	830	952	78	2321	18897
1993	157	230	624	723	72	1806	20171

| | Trade Balance with | | | | | | |
	Bulgaria	Ex-CSFR	Hungary	Poland	Romania	Total	Total trade balance with CEEC
1990	-69	-64	-594	-491	259	-959	-963
1991	-37	20	-768	-84	167	-702	1422
1992	-59	141	-605	-28	246	-305	2541
1993	38	237	-325	250	224	424	5543

Source: Tarditi et al. (1994), p. 62

Table 9

**Agricultural Support in the EU
and in Hungary and Poland, 1992**
(Percentage PSE)

Product	EU	Hungary	Poland
Wheat	52	4	9
Coarse grains	58	-3	-2
Oilseeds	65	-35	22*
White sugar	73	56	20
Milk	67	33	6
Beef and veal	58	26	-31
Pigmeat	8	-7	17
Poultry	11	14	10
Sheepmeat	71	-20	12
Eggs	-11	37	19
All Commodities	47	8	16

* rapeseed
PSE (Producer subsidy equivalent) expressed as a % of the value of total output
Source: Tarditi et al. (1994), p. 24

Table 10

Producer Prices for Selected Agricultural Products in 1993 (USD)

	Bulgaria	Czech R.	Hungary	Poland	EU*	EU*
Feed wheat	94	93	44	132	180	200
Feed barley	89	93	82	112	173	192
Maize	117	119	96	120	191	211
Sugar	462	391	-	-	621	688
Sugar beet	-	28	26	24	43	48
Milk	185	200	207	129	527	584
Cattle	682	873	859	696	1743	1933
Pork	808	892	988	903	1200	1331
Poultry	710	755	914	911	1126	1249

* different exchange rate assumptions
Source: Buckwell et al. (1994), p. 43

(2)   (AGR/GDP) = 11.373 - 0.081757*(GDP/capita) + 13.10*Dummy-Romania
t-statistic   (10.17)   (-5.89)   (5.07)
R-squared = 0.79; S.E. of regression = 2.42; Durbin-Watson statistic = 1.75

This equation makes the sectoral change in agriculture endogenous in our projections of the accession costs to the EU in the future.

The other explanatory variables in equation (1), the share of agricultural exports and imports are not so far away from EU average (see Table 7). Only Bulgaria and Hungary reach export shares in agricultural trade which are comparable in size with Denmark, Greece Ireland and the Netherlands. That means there is only a weak relationship between agricultural trade and the economic level of development. It has more to due with availability and the trade regime. Agricultural trade makes up some 8 to 9 per cent of total EU trade with the CEECs (see Table 8). Only in 1993 the EU was able to produce a surplus in agricultural trade with the CEEC-6. The biggest deficit are with Hungary.

A comparison of the levels of subsidization reveals that the agricultural support in the EU is much higher than in the CEECs (see Table 9). Similarly, the price level for agricultural products lies way below those of the EU (see Table 10). At present the level of production and because of the lower prices the necessity of public support is low too. Taking one of the major targets of the 1992 CAP reform, the reduction of intervention prices and the increase of direct area payments (see *EC*, 1994b), one comes to the conclusion that the gap between the high EU price levels and the low ones in the CEECs may narrow in the near future. If this happens the integration of the CEECs into the CAP will be cheaper than at present. This will send strong signals to the CEECs not to stimulate their agricultural production in expectation of high agricultural prices after accession (*Munk*, 1995, p. 162).

The Uruguay Round Agreement:
If one tries to extrapolate agricultural trade policy of the EU - besides taking into account the CAP reform 1992 - one has to take into consideration also the agreements on agriculture of the Uruguay Round (see *Breuss*, 1995, p. 369). Three major elements are important: (a) tariffication of NTBs (one third of imports) and subsequent reduction (36 percent overall in six years, 15 percent minimum for each tariff line); 36 percent reduction of the value of export subsidies below the 1986-90 base period level (21 percent reduction in physical volume); 20 percent reduction of domestic support in six years (based on total aggregate measurement of

support (AMS); market access of at least 3 percent of domestic prodcution (increasing to 5 percent in 2000). In the context of our calculations these agreements are considered by reducing the share of agricultural exports by 10 percent and increasing the share of agricultural imports by 10 percent for the year 2000[4].

Explaining Structural Funds Expenditures:

Instead of simply regressing structural funds expenditures of the EU on GDP per capita, we take a similar two-step structural approach as in the case of CAP expentitures. The expenditures for structural funds in the EU-15 (measured in GDP) are explained with the following cross-section regression for the year 1995:

(3) $$(STRU/GDP)=-5.988 + 0.632*(AGR/GDP) + 0.227*(MAN/GDP)$$
t-statistic   (-4.23)   (7.24)   (3.89)
R-squared = 0.81; S.E. of regression = 0.89; Durbin-Watson statistic = 2.08

This equation implies that the less economically developed one country the more financial support it gets from structural funds (STRU/GDP). Secondly, the sectoral structure is decisive for receiving support. As the traditional „three-sectors" hypothesis suggest, countries go through a sectoral change when catching-up in economic development: the agricultural sector (AGR/GDP) shrinks first, then the manufactural sector (MAN/GDP) goes down and at the same time the service sector becomes more and more important. In order to avoid multicolinearity between GDP/capita and the other explanatory variables only the structural variables were included. If one excludes the outliers with Dummies e.g. for Germany, Austria and Finland the fit of the equation would improve considerably (not reported here). However, such equations have the tendency of overestimating the CEECs effects of joining the EU.

Following the logic of the „three-sectors" hypothesis there must be a relationship between the share of manufacturing in total GDP (MAN/GDP) and GDP per capita. This is documented by the following equation (including all 25 countries: 15 EU and 10 CEECs for 1995):

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[4] Hungary, e.g. a member of the „Cairns" group in the Uruguay Round negotiations inititated a CAP type system in 1992. This step can be seen as diametrically opposed to international efforts to liberalize agricultural trade. On the other hand, some officials see this step as a preparority step for joining the EU. In any case, liberalizing agricultural trade on the lines of the Uruguay Round agreement on agriculture would improve welfare for consumers, reduce production in the agricultural sector and increase imports. On the contrary simulation experiments with a single country CGE model for Hungary (Morkre-Tarr, 1995) demonstrate that embarking into a CAP type system would - at present - decrease consumer welfare, increase output and increase the burden of public expenditures.

EU Budget 1995: Cost and Consequences of EU's CEEC Enlargement

Table 11a

#	Countries		Expenditures					Receipts		Net payment (net receipt)	
			CAP Mio.ECU	Structural P. Mio.ECU	Others Mio.ECU	Total Mio.ECU	Total % of GDP	Total Mio.ECU	Total % of GDP	Mio.ECU	% of GDP
1	Belgium	BE	961	356	1770	3086	1,58	2879	1,47	207	0,11
2	Denmark	DK	1537	119	241	1897	1,49	1418	1,12	479	0,38
3	Germany	DE	5379	2373	3448	11200	0,64	22441	1,28	-11241	-0,64
4	Greece	EL	3842	2610	117	6568	10,70	1080	1,76	5488	8,94
5	Spain	ES	4226	4271	789	9287	2,23	4855	1,17	4432	1,07
6	France	FR	8453	1661	2222	12337	1,09	13667	1,21	-1330	-0,12
7	Ireland	IE	1537	2236	86	3859	8,51	832	1,83	3027	6,67
8	Italy	IT	2728	3298	1648	7674	0,91	8914	1,06	-1240	-0,15
9	Luxemburg	LU	19	24	800	842	7,15	170	1,44	672	5,71
10	Netherlands	NL	2305	119	587	3011	1,07	4416	1,57	-1405	-0,50
11	Portugal	PT	1153	4034	142	5328	7,14	1115	1,49	4213	5,65
12	Great Brit.	GB	3982	1889	1727	7598	0,89	9729	1,14	-2131	-0,25
13	Austria	AT	900	280	322	1502	0,89	2066	1,22	-564	-0,33
14	Finland	FI	900	250	171	1321	1,47	1047	1,16	274	0,30
15	Sweden	SE	500	200	309	1009	0,62	1898	1,17	-889	-0,55
	EU-15		38425	23725	14377	76527	1,23	76527	1,23	0	0,00
	% of total		50,20	31,00	18,80	100,00					
	Estimates										
16	Bulgaria	BU	278	601	18	897	11,43	97	1,23	801	10,20
17	Czech Rep.	CS	601	1943	75	2619	8,02	402	1,23	2217	6,79
18	Hungary	HU	1499	1910	83	3492	9,67	444	1,23	3048	8,44
19	Poland	PO	2158	4662	181	7001	8,92	965	1,23	6036	7,69
20	Romania	RO	2530	4332	57	6919	27,81	306	1,23	6613	26,58
21	Slovak Rep.	SV	256	1083	25	1364	12,41	135	1,23	1229	11,18
	CEEC 6		7322	14531	439	22292	11,67	2349	1,23	19943	10,44
22	Slovenia	SL	206	510	28	744	6,15	149	1,23	595	4,92
23	Estonia	EO	198	336	10	543	12,96	52	1,23	491	11,73
24	Latvia	LA	318	459	11	788	16,53	59	1,23	730	15,30
25	Lithuania	LI	223	379	11	613	12,96	58	1,23	555	11,73
	CEEC 10		8267	16215	499	24980	11,52	2666	1,23	22314	10,29

Net receipt of CEEC 6 in % of EU-GDP (of EU Budget) 0,32 26,06
Net receipt of CEEC 10 in % of EU-GDP (of EU Budget) 0,36 29,16

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Table 11b

	Countries		Expenditures CAP % of GDP	Structural P. % of GDP	Others % of GDP	Total % of GDP	Total Mio.ECU	Receipts Total % of GDP	Receipts Total Mio.ECU	Net payment (net receipt) Mio.ECU	Net payment (net receipt) % of GDP
1	Belgium	BE	0,49	0,18	0,91	1,58	3086	1,47	2879	207	0,11
2	Denmark	DK	1,21	0,09	0,19	1,49	1897	1,12	1418	479	0,38
3	Germany	DE	0,31	0,14	0,20	0,64	11199	1,28	22441	-11242	-0,64
4	Greece	EL	6,26	4,25	0,19	10,70	6569	1,76	1080	5489	8,94
5	Spain	ES	1,02	1,03	0,19	2,23	9286	1,17	4855	4431	1,07
6	France	FR	0,75	0,15	0,20	1,09	12337	1,21	13667	-1330	-0,12
7	Ireland	IE	3,39	4,93	0,19	8,51	3859	1,83	832	3027	6,67
8	Italy	IT	0,32	0,39	0,20	0,91	7674	1,06	8914	-1240	-0,15
9	Luxemburg	LU	0,16	0,20	6,79	7,15	843	1,44	170	673	5,71
10	Netherlands	NL	0,82	0,04	0,21	1,07	3011	1,57	4416	-1405	-0,50
11	Portugal	PT	1,54	5,41	0,19	7,14	5328	1,49	1115	4213	5,65
12	Great Brit.	GB	0,47	0,22	0,20	0,89	7607	1,14	9729	-2122	-0,25
13	Austria	AT	0,53	0,17	0,19	0,89	1501	1,22	2066	-565	-0,33
14	Finland	FI	1,00	0,28	0,19	1,47	1321	1,16	1047	274	0,30
15	Sweden	SE	0,31	0,12	0,19	0,62	1009	1,17	1898	-889	-0,55
	EU-15		**0,62**	**0,38**	**0,23**	**1,23**	**76527**	**1,23**	**76527**	**0**	**0,00**
	% of total		50,20	31,00	18,80	100,00					
	Estimates										
16	Bulgaria	BU	3,54	7,66	0,23	11,43	897	1,23	97	801	10,20
17	Czech Rep.	CS	1,84	5,95	0,23	8,02	2619	1,23	402	2217	6,79
18	Hungary	HU	4,15	5,29	0,23	9,67	3492	1,23	444	3048	8,44
19	Poland	PO	2,75	5,94	0,23	8,92	7001	1,23	965	6036	7,69
20	Romania	RO	10,17	17,41	0,23	27,81	6919	1,23	306	6613	26,58
21	Slovak Rep.	SV	2,33	9,85	0,23	12,41	1364	1,23	135	1229	11,18
	CEEC 6		**4,05**	**7,39**	**0,23**	**11,67**	**22292**	**1,23**	**2349**	**19943**	**10,44**
22	Slovenia	SL	1,70	4,22	0,23	6,15	744	1,23	149	595	4,92
23	Estonia	EO	4,72	8,01	0,23	12,96	543	1,23	52	491	11,73
24	Latvia	LA	6,67	9,63	0,23	16,53	788	1,23	59	730	15,30
25	Lithuania	LI	4,72	8,01	0,23	12,96	613	1,23	58	555	11,73
	CEEC 10		**4,26**	**7,03**	**0,23**	**11,52**	**24980**	**1,23**	**2666**	**22314**	**10,29**
	Net receipt of CEEC 6 in % of EU-GDP (of EU Budget)									0,32	26,06
	Net receipt of CEEC 10 in % of EU-GDP (of EU Budget)									0,36	29,16

(4)   (MAN/GDP) = 33.502 - 0.00077*(GDP/capita) + 23.97*Dummy-Slovakia
        t-statistic   (12.58) (3.42)   (3.88)
        R-squared = 0.60; S.E. of regression = 5.96; Durbin-Watson statistic =2.23

This auxiliary equation serves to indicate the structural change in manufacturing endogenously when GDP per capita increases. For the Slovak Republic a Dummy variable had to be introduced to capture its extremely high share of the manufacturing sector of 53 percent of GDP.

All other components of the EU budget (expenditures for education, culture, R&D, energy, single market, external policy measures and costs for administration) are pooled together to one column and are related to GDP.

The Cost of EU's Eastern European Enlargement in 1995:
The estimation of the enlargement costs for the year 1995 is easy, given the two equations (1) and (3) because no changes have to be implemented (no structural change, no forecast of GDP per capita and no consideration of policy changes like the CAP reform or the agreements on agriculture of the Uruguay Round). The results are given in the Tables 11a and 11b. Taking all costs together (CAP, structural funds and other expenditures) and considering the average gross contribution to the EU budget of around 1.23 percent of GDP the net cost would amount to 20 bn ECU for CEEC-6 and to 22 bn ECU for CEEC-10. This net cost would be 0.3 to 0.4 percent of EU-15's GDP or 26 to 29 percent of the total volume of the EU budget expenditures in the year 1995.

A comparison with the estimations of *Baldwin* (1994, p. 175) for the year 1991 shows, that he calculates net budget costs for the CEEC-6 of 23.5 bn ECU and for CEEC-10 of 26.7 bn ECU. Partly these differences may be due to the different estimation method, partly they may be due to the effect of the CAP 92 reform and the increasing preference for structural funds which brought down the share of CAP expenditures in total EU budget expenditures of over 60 percent before the reform in 1991 to 50.2 per cent in 1995. But overall both results are - taking into account the considerable margins of errors - quite close.

Cost and Benefits of EU's Eastern European Enlargement in 2000:
Much more complicated and surrounded with much higher uncertainty are estimations for the future. We try here an estimation for the year 2000, assuming that all or a part of the group of

EU Budget 2000: Cost and Consequences of EU's CEEC Enlargement (with structural change)

Table 12a

		Expenditures					Receipts		Net payment (net receipt)	Net payment (net receipt)
Countries		CAP Mio.ECU	Structural P. Mio.ECU	Others Mio.ECU	Total Mio.ECU	Total % of GDP	Total Mio.ECU	Total % of GDP	Mio.ECU	% of GDP
1 Belgium	BE	1075	510	2838	4423	1,90	3676	1,58	747	0,32
2 Denmark	DK	1720	170	367	2257	1,48	1834	1,20	423	0,28
3 Germany	DE	6019	3401	4997	14417	0,67	27184	1,27	-12767	-0,60
4 Greece	EL	4300	3740	144	8183	11,50	1281	1,80	6902	9,70
5 Spain	ES	4730	6120	1083	11933	2,23	6435	1,20	5498	1,03
6 France	FR	9460	2379	2839	14678	1,10	17130	1,28	-2452	-0,18
7 Ireland	IE	1720	3204	121	5045	8,41	1139	1,90	3906	6,51
8 Italy	IT	3053	4726	2175	9953	0,96	11880	1,15	-1927	-0,19
9 Luxemburg	LU	22	34	955	1011	7,15	212	1,50	799	5,65
10 Netherlands	NL	2580	170	768	3518	1,05	5539	1,65	-2021	-0,60
11 Portugal	PT	1290	5780	194	7264	7,59	1483	1,55	5781	6,04
12 Great Brit.	GB	4456	2720	2282	9459	0,91	12488	1,20	-3029	-0,29
13 Austria	AT	1004	401	401	1806	0,90	2569	1,28	-763	-0,38
14 Finland	FI	1003	358	236	1597	1,36	1508	1,28	89	0,08
15 Sweden	SE	566	287	378	1230	0,65	2417	1,28	-1187	-0,63
EU-15		42997	34000	19778	96775	1,28	96775	1,28	0	0,00
% of total		44,40	35,10	20,50	100,00					
Estimates (incl. structural change, CAP reform, Uruguay R.)										
16 Bulgaria	BU	417	835	33	1285	10,23	161	1,28	1124	8,95
17 Czech Rep.	CS	904	1625	136	2664	5,10	669	1,28	1996	3,82
18 Hungary	HU	2166	2848	150	5165	8,94	739	1,28	4425	7,66
19 Poland	PO	3290	6480	327	10097	8,04	1608	1,28	8490	6,76
20 Romania	RO	3957	6163	104	10223	25,68	510	1,28	9714	24,40
21 Slovak Rep.	SV	396	1705	46	2147	12,21	225	1,28	1921	10,93
CEEC 6		11130	19656	794	31581	10,34	3911	1,28	27670	9,06
22 Slovenia	SL	313	648	50	1011	5,23	248	1,28	764	3,95
23 Estonia	EO	198	351	17	566	8,44	86	1,28	480	7,16
24 Latvia	LA	260	423	20	703	9,21	98	1,28	605	7,93
25 Lithuania	LI	299	541	20	859	11,36	97	1,28	762	10,08
CEEC 10		12200	21618	902	34720	10,01	4439	1,28	30281	8,73
Net receipt of CEEC 6 in % of EU-GDP (EU Budget)							0,37			28,59
Net receipt of CEEC 10 in % of EU-GDP (EU Budget)							0,40			31,29

EU Budget 2000: Cost and Consequences of EU's CEEC Enlargement (with structural change)

	Countries		Expenditures					Receipts		Net payment (net receipt) Mio.ECU	Net payment (net receipt) % of GDP
			CAP % of GDP	Structural P. % of GDP	Others % of GDP	Total % of GDP	Total Mio.ECU	Total % of GDP	Total Mio.ECU		
1	Belgium	BE	0,46	0,22	1,22	1,90	4423	1,58	3676	747	0,32
2	Denmark	DK	1,13	0,11	0,24	1,48	2257	1,20	1834	423	0,28
3	Germany	DE	0,28	0,16	0,23	0,67	14417	1,27	27184	-12767	-0,60
4	Greece	EL	6,04	5,25	0,20	11,50	8183	1,80	1281	6902	9,70
5	Spain	ES	0,88	1,14	0,20	2,23	11933	1,20	6435	5498	1,03
6	France	FR	0,71	0,18	0,21	1,10	14678	1,28	17130	-2452	-0,18
7	Ireland	IE	2,87	5,34	0,20	8,41	5045	1,90	1139	3906	6,51
8	Italy	IT	0,30	0,46	0,21	0,96	9953	1,15	11880	-1927	-0,19
9	Luxemburg	LU	0,15	0,24	6,76	7,15	1011	1,50	212	799	5,65
10	Netherlands	NL	0,77	0,05	0,23	1,05	3518	1,65	5539	-2021	-0,60
11	Portugal	PT	1,35	6,04	0,20	7,59	7264	1,55	1483	5781	6,04
12	Great Brit.	GB	0,43	0,26	0,22	0,91	9459	1,20	12488	-3029	-0,29
13	Austria	AT	0,50	0,20	0,20	0,90	1806	1,28	2569	-763	-0,38
14	Finland	FI	0,85	0,30	0,20	1,36	1597	1,28	1508	89	0,08
15	Sweden	SE	0,30	0,15	0,20	0,65	1230	1,28	2417	-1187	-0,63
	EU-15		0,57	0,45	0,26	1,28	96775	1,28	96775	0	0,00
	% of total		44,40	35,10	20,50	100,00					
	Estimates (incl. structural change, CAP reform, URA)										
16	Bulgaria	BU	3,32	6,65	0,26	10,23	1285	1,28	161	1124	8,95
17	Czech Rep.	CS	1,73	3,11	0,26	5,10	2664	1,28	669	1996	3,82
18	Hungary	HU	3,75	4,93	0,26	8,94	5165	1,28	739	4425	7,66
19	Poland	PO	2,62	5,16	0,26	8,04	10097	1,28	1608	8490	6,76
20	Romania	RO	9,94	15,48	0,26	25,68	10223	1,28	510	9714	24,40
21	Slovak Rep.	SV	2,25	9,70	0,26	12,21	2147	1,28	225	1921	10,93
	CEEC 6		4,08	6,00	0,26	10,34	31581	1,28	3911	27670	9,06
22	Slovenia	SL	1,62	3,35	0,26	5,23	1011	1,28	248	764	3,95
23	Estonia	EO	2,95	5,23	0,26	8,44	566	1,28	86	480	7,16
24	Latvia	LA	3,41	5,54	0,26	9,21	703	1,28	98	605	7,93
25	Lithuania	LI	3,95	7,15	0,26	11,36	859	1,28	97	762	10,08
	CEEC 10		3,30	5,88	0,26	10,01	34720	1,28	4439	30281	8,73
	Net receipt of CEEC 6 in % of EU-GDP (EU Budget)							0,37			28,59
	Net receipt of CEEC 10 in % of EU-GDP (EU Budget)							0,40			31,29

Chart 3: Budgetary Cost of EU Enlargement 2000

Mio.ECU

Legend:
- □ CAP
- ■ Structural Funds

Y-axis values: 0, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000

X-axis categories: BE, DK, DE, EL, ES, FR, IE, IT, LU, NL, PT, GB, AT, FI, SE, BU, CS, HU, PO, RO, SV, SL, EO, LA, LI
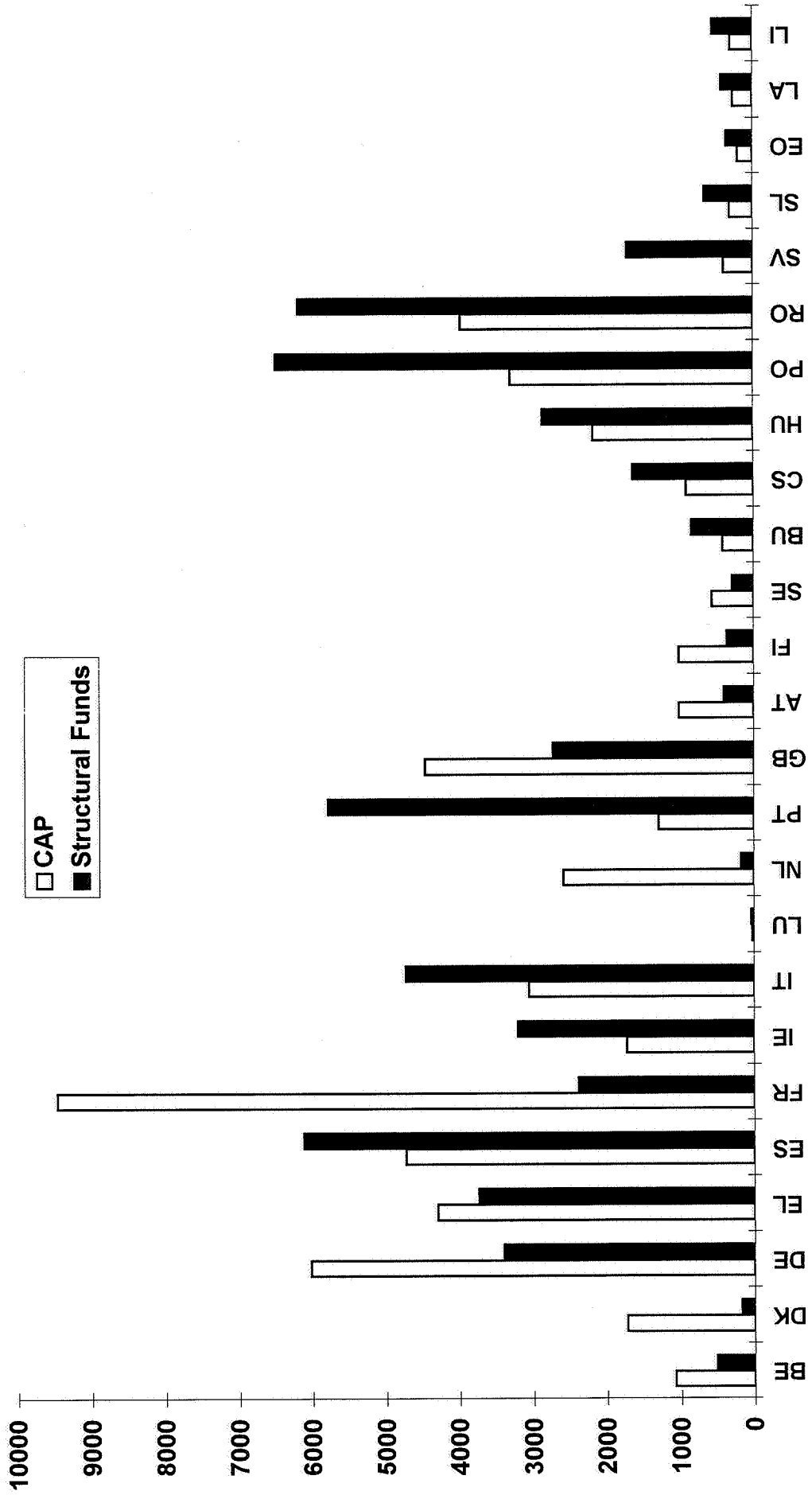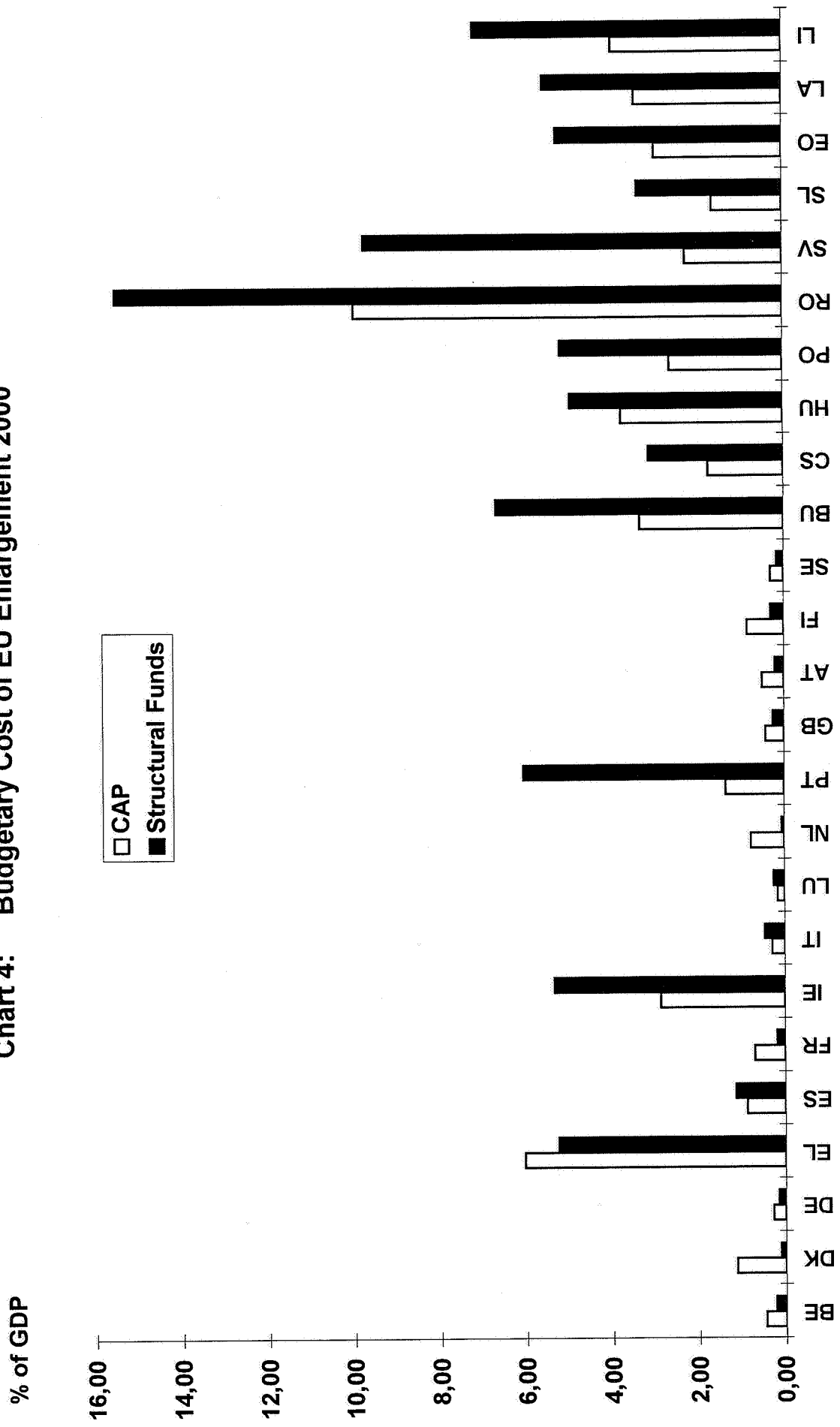
Chart 4:   Budgetary Cost of EU Enlargement 2000

% of GDP

the CEEC-10 will join the EU. In our structural model we need forecasts for GDP per capita. These forcasts are provided by the Vienna Institute for Comparative Economic Studies (WIIW) in Vienna (*Havlik*, 1995) and by the Austrian Institute of Economic Research (WIFO) in Vienna. A look on Table 7 reveals that the average growth of GDP per capita at PPP between 1995 and 2000 is around 2 percent for the EU countries and around 5 to 6 percent for the CEECs. The next exogeneous variables to be estimated are the shares of agricultural exports and imports for the CEECs. Taking into consideration the commitments of the Uruguay Round we simply assume that reducing subsidizing domestic production and exports will reduce the export share of agricultural exports by 10 percent. Similarly, the necessity to open markets to foreing suppliers will result in an increase of the share of agricultural imports by 10 percent. The other structural variables for the agricultural GDP and for the manufacturing GDP are estimated by the equations (2) and (4). However, the following constraint was applied: if the estimated shares result in higher figures than those for the year 1995, the shares of that year are substituted.

Cost of Enlargement:

The results are given in the Tables 12a and 12b and for the CAP and structural funds also in the Charts 3 and 4. The absolute as well as the relative costs of full accession of the CEECs in the EU are higher than in the year 1995. The absolute net cost would amount to 28 bn ECU for the CEEC-6 and to 30 bn ECU for the CEEC-10. This would be a share of 0.4 percent of EU-GDP or 29 to 31 percent of total budget expenditures of the EU in 2000. This would imply that each of the fifteen EU incumbents would have to increase their net payments by 0.4 percent of their GDPs in order to finance the net transfers to the CEECs. One could also imagine an asymmetric contribution to the cost of EU enlargement in the sense that the rich EU member states pay more than the poor ones.

Benefits of Enlargement:

Whether or not this net transfers to the CEECs will be „financed" by an equivalent export demand due to this transfer payments plus positive integration effects for the EU incumbents because of the access to an larger integrated (internal) market is an open question. On average the net transfer payments to the CEECs amount to around 10% of GDP of the ten CEECs per year. As the macroeconomic simulations with the OEF model mentioned above indicate a 10 percent sustained increase of Eastern European real GDP results in GDP increases of between 0.1 and 0.5 percent in the western European countries depending on the trade intensities of the

EU countries with the CEECs. These figures are cumulative over five years, compared to the annual cost of accession of 0.4 percent of EU GDP. In the most optimistic case one could think of an Ohlin-type solution to the „classical transfer problem". In this case the net transfers from the 15 EU members to the CEECs (which must be financed either via taxes, expenditure cuts or via increasing net lending) would enhance an equivalent export demand for the 15 EU member states. However, the experience with the existing intra-EU transfer mechanism (cohesion policy) cast doubt whether one can expect a zero-sum result in the Eastern European enlargement game.

One conclusion of cost calculations is that an immediate accession of the CEECs would be preferable to waiting until those countries will have built up a higher potential for CAP type support. The agreements on agriculture in the Uruguay Round should counteract these tendencies. On the other hand the higher economically developed the CEECs are the less they need transfers from the structural funds. But there are no serious forecasts for these regions which assert a growth of real GDP of more than 5 to 6 percent per annum in the next five years. IMF, ECE and OECD in their recent forecasts are even more cautious. That means even in the most optimistic case some of the CEECs can reach around 50 percent of EU average in the year 2000 (see Table 7). These growth rates are too low and the time horizon is too short for generating a significant structural change necessary to step out of the group of objective one countries (GDP per capita of less than 75 percent of EU average). A hypothetical calculation which implies budget neutrality (i.e. the accession of the CEEC would lead to no extra costs for the EU budget), would need a GDP per capita of the CEECs comparable to the EU average. Under the most optimistic assumptions a growth rate of 7 percent per annum would imply 15 to 20 years for the CEECs to reach budget neutrality. Average EU GDP per capita would also imply something like average EU structure concerning the share of agricultural and manfuacturing GDP and agricultural export and import shares.

4. Political Considerations of Enlargement

Nearly everybody would agree that the economic cost of an immediate economic integration of ten CEECs into the EU are too high. Either one changes the rules of the game concerning the CAP and the structural funds or the accession is financially not feasible. A step by step solution where one starts with the most advanced CEECs is the most plausible answer to the problem of enlargement. The EU-25 (if all CEECs would join) would then consist of a majority of „cohesion countries" (14; 4 EU countries + 10 CEECs) which are net receivers of EU transfers. In addition, if the present voting behaviour in the council of ministers prevails the „havenots" can block virtually every progress (see also *Baldwin*, 1994, pp. 180 et seq.). In addition, if the CEECs as a block or only partially join the EU the cohesion countries in the EU (Greece, Ireland, Portugal and Spain) fear for their structural funds transfers and the survival of the cohesion funds, which was created for them during the Maastricht negotiations. A rapid accession of the CEECs could lead to a political jealousy on the part of the cohesion incumbents in the EU. On the Essen summit the European council already took precaution in announcing parallel to the „structured dialogue" with the east further actions for intensifying the relations with the Mediterranean region.

The recent „White Paper" on the Eastern European enlargement has emphasized very strongly the preconditions for the CEECs to be prepared to enter the EU: harmonization of the legal basis, in particular concerning the competition policy. Even if some of the CEECs which are already ahead of the others (like the Czech Republik, Hungary, Poland, the Slovak Republik and maybe Slovenia - which, however even does not yet have an Europe Agreement with the EU) may join the EU, transitional arrangements for accession in many fields seem reasonable (see also the arguments by *Baldwin*, 1994, pp. 196 et seq.). These arrangements should refer to the integration into the CAP, the structural policy and most important the rules concerning the freedom of labour movement. A complete freedom of labour movement could result in migration flows into the rich Western countries, which would cause severe problems on their labour markets. After 1989 some European „border" states (e.g. Germany and Austria) already had experienced an influx of foreign labour from Eastern European countries with the consequence of an upsurge in labour supply and hence unemployment.

Besides these politico-economic arguments there are pure political pros and cons enlargement. After the breakdown of communism the chance to increase the political power of the EU is

evident. This seems even more feasible as the CEECs are eager to join the Western European block. This includes not only economic but also military integration. Nearly all of the CEEC-10 would like to join the NATO and the EU. Considering the newly arising oppostion of Russia against such demands the desire for NATO membership is even stronger now than some years ago. For Austria (still a neutral country) it would be preferable to have a kind of a „cordon sanitaire" or a security buffer on the Eastern border.

The member states of the EU have different interests: the central and north European border states (Finland, Sweden, Germany, Austria) prefer the Eastern European enlargement more for political than for economic reasons. The western and southern part of the EU prefer closer relations with the Mediteranean countries. Therefore the future discussion on enlargement will probably be dictated by conflicting interest. But - is this new in the EU?

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