

OPENING UP OF EASTERN
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EUROPEAN ENLARGEMENT

THE IMPACT ON THE AUSTRIAN ECONOMY

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1. Introduction¹⁾

Two economic projects keep the European Union on the move for the near future. One is the European monetary union with the introduction of a single currency in Europe and the other is the eastern European enlargement.

For the latter the stage has already been set. The European Council at its Copenhagen summit in June 1993 made the basic decision that those associated Central and Eastern European countries (CEECs) which wished to enter into the European Union are welcome. Conditions for membership are the implementation and acceptance of the "acquis communautaire" of the EU. At the summit in Essen in December 1994 the European Council offered the CEECs a "structured dialogue". The European Commission presented them a catalogue of tasks in the "White Paper on the Eastern Enlargement" of May 3, 1995, focusing on the legal preparation of becoming full members of the Single Market. At the summit of the European Council in Cannes, which took place June 26-27, 1995, for the first time the associated states were invited to participate in the discussions. The next summit in Madrid in December 1995 should deal with the cost of enlargement and possible reform steps in the Common Agricultural Policy (CAP) and in the structural policy of the EU in order to afford an enlargement towards the East.

By June 1995 Europe Agreements (EAs) were signed for 10 CEECs, six of which had already come into force as of February 1994 and of February 1995, respectively (for Bulgaria, Poland, the Czech Republic, Hungary, Romania, and Slovakia). According to Article 238 of the EC Treaty, the EU establishes an association with the CEECs by concluding Europe Agreements. The Europe Agreements are based on a structure common for all CEECs. The Preambles contain an "option of accession" ("...having in mind that the final objective of (name of CEEC) is to become a member of the Community and that this association, in the view of the Parties, will help to achieve this reach objective, ..."). Although all steps have been prepared, the EU has neither defined a time table for accession, nor revealed their preferences whether all ten CEECs will become members at the same time or whether a step by step solution will be followed. Nearly everybody agrees that the economic cost of an immediate admission of ten CEECs at the same time are too high. Five of the CEECs – Hungary, Poland, Romania, Slovakia and Latvia – have already formally applied for EU membership.

¹⁾ An earlier version of this paper was published as "EU-Osterweiterung: Gesamtwirtschaftliche Auswirkungen auf Österreich. Berechnungen mit dem WIFO-Makromodell", in: "EUROPA 1996: Auswirkungen einer EU-Osterweiterung", Schriftenreihe Europa des Bundeskanzleramtes, Wien 1995, pp. 129-156.

On the one hand the eastern enlargement of the European Union involves considerable costs, but on the other hand – like any kind of integration – it offers the opportunity of a larger market with the prospect of more trade, of economic growth and thus welfare gains for the whole society. This study aims at providing an estimation of the possible effects of an eastern enlargement on the Austrian economy. The impact of the opening up of Eastern Europe on the Austrian economy after the breakdown of communism in 1989 may be seen as an indicator for the possible future effects of eastern enlargement. Thus the first part of this study is an analysis of the effects the new situation in the East had on the Austrian economy during the years 1989 to 1994. In the second part we try to quantify possible effects of an EU membership of the CEECs on the Austrian economy, calculated for the period 2000 to 2008. We express the integration effects as additional effects of EU membership of the CEECs, compared to an extrapolated situation of these countries as EU associates. The simulation of future integration effects is carried out with the WIFO macroeconomic model. As baseline scenario we use an updated version of the medium-term forecast by the Austrian Institute of Economic Research (WIFO) (Schebeck, 1995), which implicitly assumed an association status (via Europe Agreements) for the CEECs.

The decision which candidate of the CEECs should be the first entrant into the EU, or how many should be considered to entry at the same time and when this should happen is highly political. Many think that the first membership of a CEEC is not feasible before 2010. Each EU country has different preferences – e.g. Germany would prefer Poland, the Scandinavians favour the Baltic states. The Southern EU members are interested in free trade arrangements with the African Mediterranean countries (Euro-Mediterranean Conference in Barcelona, November 27/28, 1995). Finally, there will be a grand deal between the Northern members, having more proximity to the East, and the Southern states. It is more plausible that the EU will favour a step by step solution, in order not to overstress its institutions and budget. Therefore, in the case of Austria we searched for the "optimal package" of CEECs entering the EU. The first group of countries consists of the four neighbouring CEECs, Czech Republic, Hungary, Slovakia, and Slovenia. For these CEECs the benefits in terms of additional real GDP outweighs the cost of enlargement in terms of budgetary burden. In the next simulation we study the effects of the former group, inclusive Poland. The additional cost for Poland are not compensated by an increase in economic gains. The last simulation exercise is carried out with all ten CEECs. In our simulations fictitiously we let all countries enter the EU in the year 2000.

2. Opening Up of the East: The Austrian Experience, 1989 to 1994

2.1 Reorientation of EU's Commercial Policy

The collapse of communism in 1989 and the dissolution of the CMEA in 1991 led to a political vacuum in the trade relations between East and West. The EU filled this vacuum rather quickly by

reorienting its commercial policy toward the CEECs. As soon as in 1989/90 it concluded trade and co-operation agreements with most of the CEECs, followed by Interim Agreements between the EU and certain CEECs as of 1992, regulating the asymmetric tariff reduction for industrial goods (see *Breuss*, 1995, Tables 1 and 2; *EC*, 1994). These Interim Agreements were the forerunners of the association agreements ("Europe Agreements"), which had come into operation as of 1994 and 1995 respectively for six CEECs. Economic relations have gained a new quality, as in addition to the intended liberalisation of East-West trade, certain elements of the Single Market conception have already been regulated (freedom of movement of goods and services, of workers, of establishment and some agricultural aspects). The Europe Agreements may be regarded as sort of pre-steps to participation in the Single Market, despite the fact that they ignore harmonisation in the field of legal aspects of competition. Sometimes it was suggested that – as an intermediate step in adjusting to EU's *acquis* – a modified EEA could be as helpful for the CEECs as it was the case of the new EU entrants Austria, Finland and Sweden. But politicians of the CEECs always wanted to get no less than full EU membership.

As a result of the Interim and Europe Agreements, East-West trade between EU and the CEECs in basic industrial products is free of tariffs (about 50 percent of the EU's imports of industrial goods from the CEECs) since January 1993. Trade barriers (tariffs and quotas) for certain sensible products and for steel, coal and textile and apparels will be abolished by 1996 and 1997, respectively. Analogous to the EU's efforts, the EFTA states, too, concluded free trade agreements with the CEECs, which have, however, a considerable lower quality of integration compared to the Europe Agreements.

2.2 *Austria's Relations with the CEECs*

2.2.1 **Improved Trade Position**

Since January 1, 1995 Austria is an EU member. During the period from 1989 to 1994 Austria was a member of EFTA. Thus liberalisation of trade with the CEECs was determined by the free trade agreements, analogous to those of the other EFTA members. As a consequence of trade relations in times of the Austrian-Hungarian Monarchy, Austria's trade was strongly linked with its ancient provinces during the years between the two World Wars. In 1937, 53.3 percent of Austria's overall exports went to Western Europe, and 32.9 percent to Eastern Europe (including Yugoslavia). Austria imported roughly the same amount from Western and from Eastern Europe (40.4 percent and 39.2 percent respectively) (see *Breuss*, 1983, pp. 266-267). Shortly after the Second World War roughly 20 percent of Austria's trade was carried out with Eastern Europe. Then this share declined steadily until the ratification of the State Treaty in 1955. After a gradual increase of the trade shares with the East it settled at about 15 to 20 percent for exports and 10 percent for imports. At the same

time, due to the progressing European integration Austria's trade with Western Europe constantly increased to three quarters of total trade. On the export side Austria's trade with the East (COMECON) reached its peak in 1975, with a share of 20 percent; in the same year imports from COMECON amounted only to 10.3 percent of the overall imports. Further, restrictions imposed by the balance of payments due to increasing debts forced the Eastern states to reduce their imports. This policy is reflected in a steady decrease of Austrian exports to the East (see Table 1) to a share of 9.6 percent in the year 1988. The imports decreased to 6.9 percent in 1988 (Table 2).

Austria's exporters have taken advantage of the new situation given by the opening of the eastern borders. In 1994 its exports into the former Eastern European countries reached a peak with a share of 13.6 percent. As the import penetration has not increased at the same pace (imports from the East: 8.5 percent in 1994), Austria gained a high surplus in the balance of trade with Eastern Europe (in 1994 16.5 bill. ATS), after years of balanced trade before the historic changes in the East; (see Table 3).

Overall, Austria has been a winner in trade with the East since 1989. A look at different economic sectors reveals problems in those industries, where the CEECs could exploit their comparative advantages. The branches particularly concerned have been products like cement, steel, textiles and clothes and agricultural machines (see *Aiginger*, 1995 as well as *Dietz – Havlik*, 1995). Quota regulations and anti-dumping measures were an attempt to gain time and to adapt these branches in Austria. The liberalisation of East-West trade has revealed a clear pattern of comparative advantages: Austria's comparative advantage lies in the export of products intensive in capital, human capital or high-technology, whereas the Eastern states have more favourable conditions for products intensive in labour, energy and raw material. As pointed out in Tables 4 and 5, the complementary character of East-West trade has sharply declined since 1989. Austria increasingly imports manufactures from CEECs, at the same time reducing the imports of raw materials and fuels from these countries. There are already some signs of increased intra-industry trade of the CEECs with the EU (see *Breuss*, 1995, p. 6).

2.2.2 Foreign Direct Investment: Enhancing or Replacing Trade?

Not only has Austria intensified its trade relations with the East since 1989, it also has increasingly engaged in direct investment in the CEECs (see *Stankovsky*, 1995). However, the following questions remain unanswered: Will foreign direct investments in Eastern Europe (relocation of production sites) substitute Austrian exports or will they induce additional exports? Will domestic production be partially replaced by imports as a consequence of direct investments? (For similar argumentation see *Baldwin*, 1994; *Sheehy*, 1994.) Therefore the ex-post-analysis of the transformation of the East is based on the hypothesis that Austria's increasing foreign direct investments in the CEECs have had a neutral effect on foreign trade (Table 6).

Austria's Exports to Eastern Europe

Year	Former CSFR	Czech Republic	Slovakia	Poland	Hungary	Bulgaria	Romania	6 CEECs				Former Yugoslavia	Slovenia	Estonia	Latvia	Lithuania	10 CEECs	Former USSR	Eastern Europe
								Yugoslavia	Slovenia	Estonia	Latvia								
As percent of total exports																			
1970	2.16			1.56	2.81	0.93	1.64	9.10	4.64								2.87	16.61	
1971	2.19			1.58	2.81	0.95	1.42	8.95	4.22								2.20	15.37	
1972	1.84			2.03	2.41	0.61	1.33	8.22	3.20								2.43	13.85	
1973	1.95			2.44	2.53	0.64	1.21	8.77	3.88								1.74	14.39	
1974	2.15			3.26	3.80	0.79	1.17	11.17	5.11								2.63	18.91	
1975	2.54			4.42	3.59	0.89	1.16	12.60	4.57								2.87	20.04	
1976	2.10			4.41	2.94	0.62	1.09	11.16	3.65								2.79	17.60	
1977	2.17			3.64	3.08	0.50	1.16	10.55	3.70								2.85	17.10	
1978	1.83			3.05	3.08	0.51	1.20	9.67	3.49								3.05	16.21	
1979	1.40			2.82	2.29	0.61	1.39	8.51	3.97								3.31	15.79	
1980	1.35			2.68	2.18	0.67	1.13	8.01	3.26								2.73	14.00	
1981	1.30			1.40	2.66	0.75	0.91	7.02	3.01								3.07	13.10	
1982	1.57			0.85	2.41	0.78	0.62	6.23	2.92								3.53	12.68	
1983	1.29			1.12	2.21	0.94	0.37	5.93	2.60								3.89	12.42	
1984	1.11			1.08	2.21	0.73	0.36	5.49	2.44								4.47	12.40	
1985	1.10			1.21	2.59	0.76	0.32	5.98	2.33								3.79	12.10	
1986	1.17			1.00	2.28	0.71	0.29	5.45	2.24								3.06	10.75	
1987	1.15			0.87	1.93	0.56	0.26	4.77	1.98								2.48	9.23	
1988	1.22			0.97	1.78	0.63	0.13	4.73	2.03								2.88	9.64	
1989	1.17			1.22	2.02	0.48	0.12	5.01	2.14								2.67	9.82	
1990	1.85			0.94	2.25	0.30	0.22	5.56	2.66								2.16	10.38	
1991	1.91			1.56	3.03	0.29	0.22	7.01	2.00								1.95	10.96	
1992	2.83			1.45	3.19	0.28	0.25	8.00	1.91	1.16	0.00	0.00	0.00	0.00	0.01	9.19	1.66	11.57	
1993	-	2.43	0.88	1.38	3.54	0.29	0.28	8.80	2.23	1.46	0.00	0.00	0.00	0.01	10.30	1.67	12.70		
1994	-	2.62	0.88	1.17	3.91	0.26	0.29	9.13	2.61	1.56	0.02	0.02	0.02	0.02	10.75	1.84	13.58		

6 CEECs = Former CSFR + Hungary + Poland + Bulgaria + Romania. 10 CEECs = 6 CEECs + Slovenia + Estonia + Latvia + Lithuania.

Austria's Imports from Eastern Europe

	Former CSFR	Czech Republic	Slovakia	Poland	Hungary	Bulgaria	Romania	6 CEECs	Former Yugoslavia	Slovenia	Estonia	Latvia	Lithuania	10 CEECs	Former USSR	Eastern Europe
	As percent of total imports															
1970	1.90			1.63	1.68	0.31	0.81	6.33	1.40						2.24	9.97
1971	2.03			1.30	1.48	0.29	0.81	5.91	1.14						2.57	9.62
1972	1.66			1.32	1.64	0.30	0.62	5.54	1.02						2.17	8.73
1973	1.61			1.24	1.85	0.27	0.74	5.71	1.04						1.92	8.67
1974	1.84			1.42	1.93	0.33	0.73	6.25	1.02						2.63	9.90
1975	2.04			1.56	1.48	0.26	0.69	6.03	0.87						3.39	10.29
1976	1.50			1.32	1.53	0.24	0.61	5.20	0.83						3.66	9.69
1977	1.40			1.04	1.40	0.25	0.51	4.60	0.76						3.59	8.95
1978	1.52			0.94	1.14	0.23	0.51	4.34	0.70						3.83	8.87
1979	1.59			1.00	1.19	0.20	0.42	4.40	0.81						3.81	9.02
1980	1.85			0.98	1.38	0.19	0.43	4.83	0.81						4.20	9.84
1981	1.88			0.78	1.51	0.21	0.50	4.88	0.75						6.23	11.86
1982	2.19			0.96	1.43	0.17	0.39	5.14	0.88						5.07	11.09
1983	2.12			1.02	1.70	0.13	0.45	5.42	1.00						4.26	10.68
1984	2.01			1.28	2.07	0.17	0.43	5.96	1.12						5.01	12.09
1985	1.93			1.11	1.97	0.18	0.37	5.56	1.10						4.44	11.10
1986	1.60			1.06	1.63	0.11	0.27	4.67	0.97						3.06	8.70
1987	1.44			0.98	1.50	0.09	0.22	4.23	0.95						2.06	7.24
1988	1.34			0.94	1.41	0.08	0.19	3.96	1.04						1.91	6.91
1989	1.31			0.85	1.52	0.09	0.17	3.94	1.17						1.66	6.77
1990	1.15			0.90	1.57	0.10	0.10	3.82	1.16						1.84	6.82
1991	1.26			0.96	1.94	0.10	0.13	4.39	0.99						1.65	7.03
1992	1.87			0.84	2.01	0.12	0.17	5.01	0.86	0.50	0.00	0.00	0.00	5.53	1.46	7.33
1993	-	1.62	0.56	0.83	1.92	0.10	0.15	5.17	0.87	0.60	0.00	0.00	0.00	5.79	1.57	7.61
1994	-	1.80	0.66	0.82	2.04	0.11	0.21	5.64	0.92	0.65	0.00	0.00	0.00	6.31	1.91	8.47

6 CEECs = Former CSFR + Hungary + Poland + Bulgaria + Romania. 10 CEECs = 6 CEECs + Slovenia + Estonia + Latvia + Lithuania.

Austria's Trade Balance with Eastern Europe

	Former CSFR	Czech Republic	Slovakia	Poland	Hungary	Bulgaria	Romania	6 CEECs Yugoslavia	Former Slovenia	Estonia	Latvia	Lithuania	10 CEECs	Former USSR	Eastern Europe
	Million Austrian Schilling														
1970	- 147.5			- 345.4	540.8	404.9	469.7	922.5	2,147.4					66.3	3,136.2
1971	- 389.3			- 112.1	673.7	449.3	275.8	897.4	2,140.2					- 946.8	2,090.8
1972	- 352.3			238.8	186.3	185.0	442.7	700.5	1,645.9					- 444.0	1,902.4
1973	- 229.5			781.6	29.6	274.9	218.6	1,075.2	2,523.5					- 874.2	2,724.5
1974	- 220.3			1,957.3	1,816.3	492.4	343.7	4,389.4	5,106.5					- 911.9	8,584.0
1975	- 6.8			3,226.1	2,281.5	732.1	402.2	6,635.1	4,564.0					- 1,781.6	9,417.5
1976	99.7			3,979.2	1,321.2	464.3	415.5	6,279.9	3,824.7					- 3,288.6	6,816.0
1977	237.9			3,443.3	1,684.6	219.0	687.5	6,272.3	4,201.8					- 3,814.4	6,659.7
1978	- 303.3			3,207.0	2,778.3	371.1	943.8	6,996.9	4,508.7					- 3,494.8	8,010.8
1979	- 1,395.7			3,109.8	1,514.0	731.4	1,732.0	5,691.5	6,016.8					- 3,446.9	8,261.4
1980	- 2,785.4			2,948.8	572.6	930.3	1,176.2	2,842.5	4,802.7					- 7,085.1	560.1
1981	- 3,020.2			911.9	1,652.7	1,179.2	624.6	1,348.2	5,069.2					- 13,135.9	- 6,718.5
1982	- 3,094.8			- 930.2	1,668.7	1,517.2	369.5	- 469.6	4,840.8					- 7,457.1	- 3,085.9
1983	- 3,782.7			- 460.1	182.2	2,134.6	- 544.2	- 2,470.2	3,718.5					- 4,073.7	- 2,825.4
1984	- 4,364.9			- 1,634.2	- 1,151.1	1,622.0	- 581.0	- 6,109.2	3,258.5					- 5,552.4	- 8,403.1
1985	- 4,440.8			- 484.9	660.2	1,941.8	- 478.8	- 2,802.5	3,499.5					- 5,741.0	- 5,044.0
1986	- 2,547.7			- 908.1	1,157.1	1,995.9	- 91.6	- 394.4	3,699.3					- 2,013.9	1,291.0
1987	- 1,982.1			- 1,031.3	445.9	1,572.0	13.1	- 982.4	2,851.9					1.8	1,871.3
1988	- 1,359.2			- 515.6	457.0	2,067.5	- 331.0	318.7	3,105.8					2,389.1	5,813.6
1989	- 1,724.6			887.6	837.1	1,569.7	- 386.5	1,183.3	3,200.0					2,951.1	7,334.4
1990	2,235.3			- 638.0	1,740.7	836.9	455.5	4,630.4	5,987.1					- 166.7	10,450.8
1991	1,728.9			1,819.7	3,047.0	785.3	302.5	7,683.4	3,720.7					- 416.5	10,987.6
1992	2,738.4			2,047.8	3,599.2	693.6	210.4	9,289.4	4,185.6			30.4	11,970.8	- 550.6	12,924.4
1993	-	2,213.4	949.4	1,755.3	5,723.6	779.3	438.7	11,859.7	5,476.1	0.8	13.9	11.7	15,320.1	- 1,069.2	16,266.6
1994	-	2,136.4	366.7	855.5	7,219.2	627.9	198.8	11,404.5	7,628.6	39.5	75.9	42.3	15,503.1	- 2,525.4	16,507.7

6 CEECs = Former CSFR + Hungary + Poland + Bulgaria + Romania. 10 CEECs = 6 CEECs + Slovenia + Estonia + Latvia + Lithuania.

Austria's Exports to Eastern Europe by Commodities

SITC	Food	Crude materials	Minerals, Fuels	Chemicals	Semi-finished products	Textiles excl. cloth.	Iron, Steel	Machinery, Transport equipment	Miscellan. manufact. goods	Clothing accessories	Agricultural products Crude material, Fuels	Manufact. goods
	As percent of Austrian Exports to Eastern Europe											
1970	2.5	6.7	2.0	15.1	40.1	-	-	27.3	6.0	-	11.4	88.6
1975	2.1	5.1	2.4	16.9	36.8	-	-	30.6	5.9	-	9.8	90.2
1980	4.2	7.7	1.7	15.6	39.0	-	-	26.1	5.5	-	13.9	86.1
1982	4.7	6.9	1.7	15.6	38.6	2.2	20.1	25.6	6.3	0.6	13.8	86.2
1985	5.1	3.9	5.3	14.5	36.6	2.4	19.1	25.1	9.2	1.3	14.7	85.3
1990	6.2	5.1	1.9	13.4	25.7	2.3	9.8	35.0	10.9	1.9	15.0	85.0
1994	6.7	2.6	3.3	12.6	23.0	2.6	4.6	36.3	13.2	2.3	14.9	85.1

Austria's Imports from Eastern Europe by Commodities

SITC	Food	Crude materials	Minerals, Fuels	Petroleum	Chemicals	Semi-finished products	Textiles excl. cloth.	Iron, Steel	Machinery, Transport equipment	Miscellan. manufact. goods	Clothing accessories	Agricultural products Crude material, Fuels	Manufact. goods
	As percent of Austrian Imports from Eastern Europe												
1970	13.5	15.8	38.1	-	6.0	14.3	-	-	5.7	2.6	-	17.4	28.7
1975	10.9	15.2	47.3	-	5.4	9.5	-	-	5.5	2.9	-	14.1	23.3
1980	6.7	15.9	55.6	-	5.0	9.2	-	-	3.6	2.5	-	8.0	20.5
1982	5.7	14.5	58.6	15.7	6.7	7.6	1.2	3.0	3.0	2.5	0.9	6.9	20.0
1985	5.7	14.4	57.9	6.3	7.2	8.3	1.2	2.5	2.9	2.4	0.8	7.0	20.7
1990	7.9	13.6	38.6	3.6	8.6	13.8	1.6	4.1	8.5	8.0	2.9	8.9	38.9
1994	5.8	11.6	23.1	2.5	6.0	23.4	1.8	4.3	14.8	14.8	7.0	6.3	59.1

Foreign Direct Investment by Origin of Investment
(% of foreign capital inflow)

Countries of origin	Former CSFR		Hungary		Poland		Romania		Bulgaria	
	1.4.1991	1.10.1992	1.4.1993	1.1.1991	1.1.1992	1.1.1991	1.1.1992	1.7.1992	1.7.1993	1.1.1991
EC + EFTA	54.6	66.8	57.5	61.7	79.3	80.0	58.5	40.4	67.3	60.0
EC	40.6	60.2	53.1	29.9	53.4	58.0	50.6	38.1	63.2	53.0
Germany	9.7	39.8	32.2	9.3	29.2	14.0	6.5	14.0	8.0	
Belgium	0.1	5.8	7.1	6.6	2.2	0.2	0.2	0.0	0.2	
Italy	0.2	0.0	0.0	5.1	5.2	5.1	30.1	5.1	12.7	
France	9.9	14.6	13.8	1.0	3.8	14.1	2.0	14.1	11.3	
United Kingdom	5.0	0.0	0.0	5.2	3.7	0.0	2.6	0.0	12.0	
Netherlands	6.3	0.0	0.0	2.0	7.1	4.9	5.9	4.9	8.1	
Denmark	9.4	0.0	0.0	0.7	2.2	0.0	2.6	0.0	0.0	
Other EC										10.8
EFTA	14.0	6.6	4.4	31.8	25.9	22.0	7.9	2.3	4.1	7.0
Austria	9.0	6.6	4.4	23.7	5.9		1.7	2.3	1.4	
Switzerland	4.8	0.0	0.0	3.6	3.9		1.0	0.0	1.4	
Finland	0.0	0.0	0.0	0.0	5.3		0.1	0.0	0.0	
Sweden	0.2	0.0	0.0	1.7	8.7		1.6	0.0	0.5	
Japan	0.0	0.0	0.0	0.1	0.3	0.5	0.2	0.0	0.1	
USA	0.0	21.1	29.5	10.8	7.9	14.0	38.9	11.4	9.9	9.0
Others	32.5	12.1	13.0	25.5	17.2		2.4		22.7	

Source: Sheehy (1994), p. 139.

2.2.3 The Overall Economic Impact

First, the opening up of Eastern Europe had primarily a "*trade creating effect*". Assuming that Austria's exports to and imports from Eastern Europe would have stabilised on the pre-1989 shares (9.5 percent on the export side, 7 percent on the import side), the difference to the actual development is considered as the "*direct trade creating effect*". Therefore, until 1994, real GDP increased by 1.3 percent and the number of newly created jobs amounted to 20,000 (Table 7a).

Second, the historical political changes after the opening up of Eastern Europe also made possible the German reunification. In order to quantify the total economic impact of the political and economic change in Eastern Europe since 1989, we therefore add to the "*direct trade creation effects*" in Austria also two other effects: those of *German unification* and of increased *immigration*. The growth impulses from German unification is considered by assuming that it caused an additional growth of real GDP in Germany of 2 percent in the years 1990 and 1991 respectively; a spill-over to Europe to an extent of 0.5 percent more real GDP in 1990 and 1991 and of 0.2 percent in 1992. The break down of communism and the opening up of the East induced a flow of immigration. For the period 1989 to 1994 we take into account an additional influx of about 100,000 immigrants.

According to our ex-post model simulations, *trade creation, German unification and immigration* had the following overall economic effects in Austria (Table 7b): Cumulated from 1989 to 1994, the transformation processes in the East contributed to an increase of real GDP by 2.4 percent. The additional net-export impulse stimulated production and income and caused an increase in domestic demand by 1.9 percent. The number of employees was increased by 1.9 percent (56,000 persons).

Because of an even stronger increase of the labour force due to migration by 3.9 percent, the unemployment rate increased by a considerable 1.8 percentage points. Excess labour supply (due to migration) caused pressure on the dynamic of wages and restrained the upturn in prices by 0.9 percent, measured by the CPI. The current balance clearly improved due to the positive effects of the transformation in the East (by 0.3 percent of the GDP until 1994). With the gradual deceleration of unemployment after 1992, transfer expenditures for social purposes could be reduced, which slightly eased the burden for the budget. Up to the year 1994, net lending improved by 0.5 percent of the GDP.

2.2.4 Immigration

Shortly after the breakdown of communism in 1989, migration of foreign manpower rose sharply, declining only gradually after Austria had tightened its conditions of access to the labour market. In 1989 overall labour supply increased by 1.4 percent, in 1990 and 1991 by 2.8 percent, in 1992 by 2.1 percent and slowed down to 0.9 percent in 1993 and 0.3 percent in 1994. The model simulations

Table 7a

**Opening Up of Eastern Europe:
Effects of Trade Creation for Austria**
(Deviation from the baseline scenario in percent)¹⁾

	1989	1990	1991	1992	1993	1994
Real private consumption	± 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.5	+ 0.7
Real government consumption	± 0.0	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1
Real gross fixed capital formation	± 0.0	+ 0.4	+ 0.7	+ 1.1	+ 1.8	+ 2.4
Real exports of goods and services	± 0.0	+ 0.6	+ 1.0	+ 1.5	+ 2.2	+ 2.8
Goods	± 0.0	+ 0.8	+ 1.4	+ 2.0	+ 3.0	+ 3.7
Real imports of goods and services	± 0.0	+ 0.5	+ 0.8	+ 1.1	+ 1.7	+ 2.2
Goods	± 0.0	+ 0.6	+ 0.9	+ 1.3	+ 2.0	+ 2.5
Real gross domestic product (GDP)	± 0.0	+ 0.2	+ 0.4	+ 0.6	+ 1.0	+ 1.3
Current balance (percent of GDP)	± 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.2
Private consumption deflator	± 0.0	± 0.0	- 0.1	- 0.1	- 0.2	- 0.2
GDP deflator	± 0.0	- 0.0	- 0.1	- 0.2	- 0.3	- 0.3
Terms of trade: goods	± 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.1
Real disposable income	± 0.0	+ 0.2	+ 0.3	+ 0.5	+ 0.7	+ 1.0
Compensation of employees (percent of national income)	± 0.0	- 0.1	- 0.1	- 0.2	- 0.3	- 0.3
Dependent employment	± 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.5	+ 0.7
Thousands of persons	± 0.0	+ 2.1	+ 5.1	+ 9.0	+ 14.6	+ 20.8
Unemployment rate	± 0.0	- 0.1	- 0.1	- 0.1	- 0.2	- 0.3
Labour productivity	± 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.5	+ 0.6
Net lending (percent of GDP)	± 0.0	+ 0.1	+ 0.1	+ 0.2	+ 0.3	+ 0.4
(bn ATS)	± 0.0	+ 0.9	+ 1.9	+ 3.5	+ 5.7	+ 8.1

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of simulation scenario from the baseline scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

Table 7b

**Opening Up of Eastern Europe:
Trade Effects, Effects of Immigration and of German Unification for Austria**
(Deviation from the baseline scenario in percent)¹⁾

	1989	1990	1991	1992	1993	1994
Real private consumption	+ 0.0	+ 0.3	+ 0.6	+ 0.8	+ 1.0	+ 1.3
Real government consumption	+ 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.4	+ 0.4
Real gross fixed capital formation	- 0.0	+ 0.7	+ 1.4	+ 2.3	+ 3.6	+ 4.5
Real exports of goods and services	+ 0.0	+ 1.7	+ 3.0	+ 3.7	+ 4.4	+ 5.0
Goods	+ 0.0	+ 2.2	+ 3.6	+ 4.4	+ 5.4	+ 6.1
Real imports of goods and services	+ 0.0	+ 1.3	+ 2.2	+ 2.6	+ 3.2	+ 3.8
Goods	- 0.0	+ 1.5	+ 2.5	+ 3.1	+ 3.8	+ 4.5
Real gross domestic product (GDP)	+ 0.0	+ 0.5	+ 1.1	+ 1.6	+ 2.1	+ 2.4
Current balance (percent of GDP)	- 0.0	+ 0.1	+ 0.2	+ 0.2	+ 0.3	+ 0.2
Private consumption deflator	± 0.0	- 0.2	- 0.5	- 0.8	- 0.9	- 0.9
GDP deflator	± 0.0	- 0.3	- 0.8	- 1.2	- 1.3	- 1.3
Terms of trade: goods	+ 0.0	- 0.1	- 0.2	- 0.3	- 0.3	- 0.3
Real disposable income	+ 0.0	+ 0.6	+ 1.1	+ 1.4	+ 1.6	+ 1.9
Compensation of employees (percent of national income)	- 0.0	- 0.4	- 0.9	- 1.1	- 1.1	- 1.1
Dependent employment	+ 0.0	+ 0.2	+ 0.6	+ 1.0	+ 1.5	+ 1.9
Thousands of persons	+ 0.1	+ 6.4	+17.0	+30.3	+44.2	+56.3
Unemployment rate	+ 0.3	+ 1.4	+ 2.3	+ 2.3	+ 2.0	+ 1.8
Labour productivity	+ 0.0	+ 0.3	+ 0.5	+ 0.6	+ 0.6	+ 0.6
Net lending (percent of GDP)	- 0.0	- 0.1	- 0.1	+ 0.1	+ 0.4	+ 0.5
(bn ATS)	- 0.7	- 1.3	- 1.4	+ 2.0	+ 7.0	+11.0

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of simulation scenario from the baseline scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

are based on the assumption that, as a consequence of immigration, labour supply was extended by approximately 100,000 persons in the period 1989 to 1992, the majority of which originating from former Yugoslavia and Turkey, only a small part from the CEECs (see also *Biffi*, 1992).

The effects of migration depend on a variety of circumstances. The target country is faced with increasing excess labour supply, which generally leads to a reduction of the price for labour. The country of origin is confronted with the inverse situation (see Figure 1). However, the actual effects on unemployment and on wages is contingent upon the wage regime (rigid or flexible) and upon the parallel development of the factor capital in the target country (expansion of production capacity). There are also differences between short-term, medium-term and long-term effects. When wages and employment are fixed in the short term, immigration will lead to an increase in labour supply and thus to higher unemployment. In the medium-run and long-run flexible wages may reduce unemployment (see *Weyerbrock*, 1995 and *Breuss – Tesche*, 1994 in the case of Austria-Hungary).

The isolated effects of immigration during the period 1989 to 1994 can be summarized as follows: Austria's wage flexibility increased considerably. The strong influx of labour force during the years 1989 to 1992 soon entailed a distinct cut-down of wages. Compared to the baseline scenario, between 1989 and 1992 compensation per employees dropped by 2¼ percent. As a consequence, excess supply of labour could be partly absorbed. The downward pressure on compensation of employees cushioned the upward trend in prices, which led to a slight increase in total real demand. Until 1994, real GDP rose by 0.2 percent. The sharp increase in unemployment burdened the budget by rising unemployment benefits. However, with restrictions of access to the Austrian labour market some alleviation set in (Table 8).

3. EU's Eastern European Enlargement: Impact on the Austrian Economy, 2000 to 2008

3.1 How to Deal With Integration Effects in Economies in Transition?

Economic literature is providing a variety of approaches to deal empirically with trade effects caused by integration. The gravitation model, representing one of these approaches, explains bilateral trade flows by five determinants as follows: (1) GDP per capita in both countries should approximately measure the fact that the more similar countries are in its economic development the more intensive is the exchange between them (Linder-hypothesis). As a special case this variable may also explain the proportion of intra-industrial trade. (2) GDP of the countries measuring incomes; (3) Population; (4) Distance; (5) Degree of liberalisation.

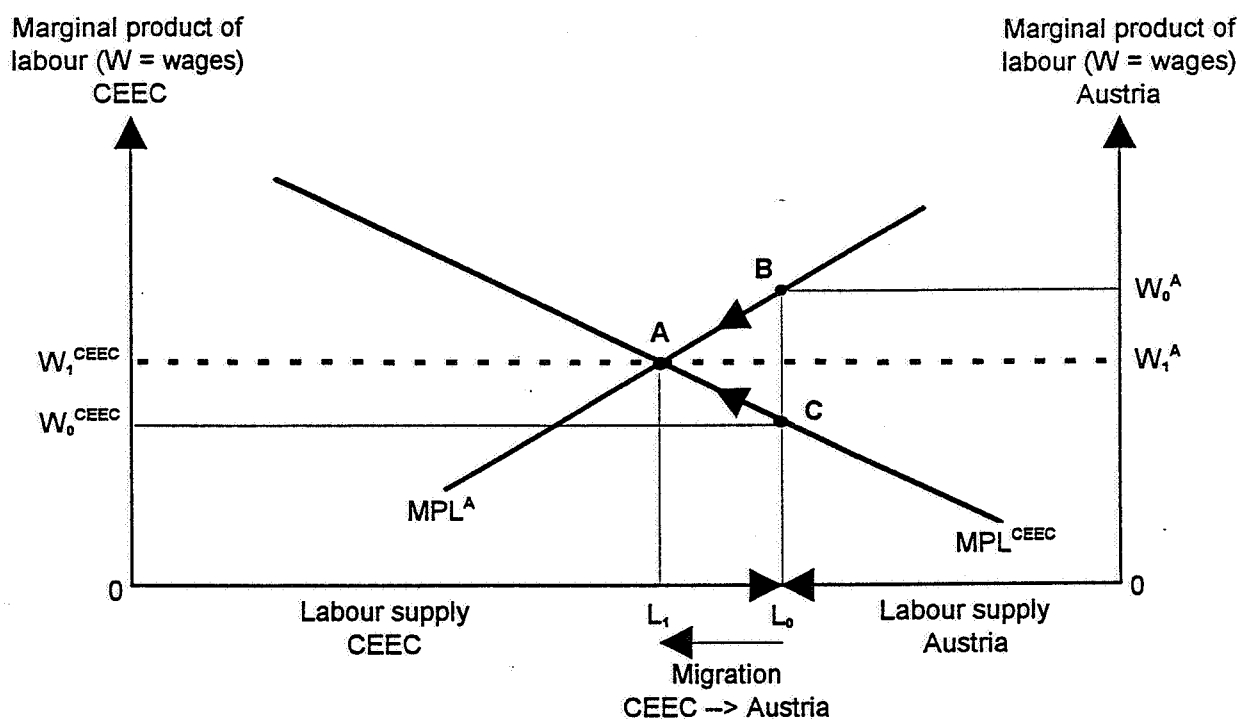
**Opening Up of Eastern Europe:
Effects of Immigration for Austria**

(Deviations from the baseline scenario in percent)¹⁾

	1989	1990	1991	1992	1993	1994
Real private consumption	+ 0.0	+ 0.1	+ 0.2	+ 0.1	+ 0.1	+ 0.0
Real government consumption	+ 0.0	+ 0.0	+ 0.1	+ 0.2	+ 0.2	+ 0.2
Real gross fixed capital formation	- 0.0	- 0.2	- 0.4	- 0.3	+ 0.1	+ 0.3
Real exports of goods and services	+ 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.3	+ 0.2
Goods	+ 0.0	+ 0.0	+ 0.1	+ 0.2	+ 0.2	+ 0.1
Real imports of goods and services	+ 0.0	+ 0.0	- 0.0	- 0.0	+ 0.0	+ 0.1
Goods	- 0.0	- 0.0	- 0.0	+ 0.0	+ 0.2	+ 0.2
Real gross domestic product (GDP)	+ 0.0	+ 0.0	+ 0.1	+ 0.2	+ 0.2	+ 0.2
Current balance (percent of GDP)	- 0.0	- 0.0	+ 0.8	+ 0.0	- 0.0	- 0.0
Private consumption deflator	± 0.0	- 0.1	- 0.4	- 0.5	- 0.6	- 0.6
GDP deflator	± 0.0	- 0.2	- 0.6	- 0.8	- 0.9	- 0.9
Terms of trade: goods	- 0.0	- 0.1	- 0.2	- 0.2	- 0.2	- 0.2
Real disposable income	+ 0.0	+ 0.2	+ 0.3	+ 0.3	+ 0.2	+ 0.1
Compensation of employees (percent of national income)	- 0.0	- 0.2	- 0.5	- 0.7	- 0.6	- 0.6
Dependent employment	+ 0.0	+ 0.0	+ 0.1	+ 0.3	+ 0.5	+ 0.6
Thousands of persons	+ 0.1	+ 1.0	+ 3.9	+ 9.0	+ 14.2	+ 18.0
Unemployment rate	+ 0.3	+ 1.5	+ 2.6	+ 2.6	+ 2.4	+ 2.3
Labour productivity	± 0.0	± 0.0	± 0.0	- 0.1	- 0.3	- 0.4
Net lending (percent of GDP)	- 0.0	- 0.2	- 0.4	- 0.3	- 0.3	- 0.2
(bn ATS)	- 0.7	- 3.7	- 6.6	- 6.3	- 4.9	- 4.1

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of simulation scenario from the baseline scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

Figure 1: Migration and Wage Level



These models predict that countries, having had tight trade relations with eastern countries before World War Two, would revert to the trade intensity experienced then, when trade barriers are removed (liberalisation according to Europe Agreements or EU membership). *Hamilton – Winters* (1992) forecast a quadruplication of the bilateral trade potential between the EU and the CEECs (see also *Gasiorek – Smith – Venables*, 1994). However, it is not made clear how long it would take to realize these predictions. In our model simulations for Austria we are aiming at showing the consequences of CEECs' EU entry numerically until the year 2008. The starting point (and main input) of our calculations are estimates of integration effects on CEECs' foreign trade by *Landesmann – Pöschl* (1995). Using a balance of payments restricted growth model developed by *Thirlwall* (1979) they designed two scenarios (association and EU membership) for five CEECs. Taking the trade flows estimated for these scenarios (Table 9) we calculated Austrian exports to and imports from these countries.

Instead of relying on a specific integration theory in deriving the growth effects for the CEECs in case of EU membership *Landesmann – Pöschl* (1995, pp. 319-320) estimate the growth potential of these countries by applying a modified Thirlwall model. Accordingly, EU membership relaxes the balance of payments constraints and allows for higher GDP growth. The relaxation is working through the following channels:

- (i) Accelerated catching-up in productivity and product quality;
- (ii) faster wage adjustment;
- (iii) more rapid modernisation of foreign trade's goods structure with an increased share of intra-industrial trade;
- (iv) expansion of the trade in services;
- (v) increased FDIs in the CEECs and easier access to the international capital markets;
- (vi) EU membership may reduce the importance of exchange rate changes as a policy instrument;
- (vii) access to the EU market improves export possibilities.

3.2 *Influence of CEECs' EU Membership on the Austrian Economy*

3.2.1 **Assumptions for Model Simulations**

In order to evaluate the macroeconomic effects on the Austrian economy when CEECs are becoming EU members simulations are made with the WIFO-macromodel. This model was used several times to deal with similar problems, for instance, estimating the consequences of Austria's EU membership

Growth and Trade Scenarios for the CEECs, 2000 to 2008

	EU Membership										Europe Agreement Association							
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Percentage changes over previous year																	
Czech Republic	GDP	7.8	7.7	7.7	6.7	7.8	6.8	5.9	4.8	4.6	5.8	5.5	5.2	4.9	4.7	4.5	4.1	3.9
	Exports	2.5	2.7	2.6	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.0	1.9	1.8	1.8	1.7	1.6
	Imports	9.9	10.1	10.2	9.1	10.6	9.5	8.6	7.4	7.4	7.3	7.6	7.4	7.2	7.0	6.8	6.5	6.4
Slovakia	GDP	7.7	7.5	7.6	6.8	7.8	7.0	6.5	5.8	5.9	5.0	5.0	5.0	5.0	5.1	5.2	5.2	5.3
	Exports	5.9	6.1	6.2	6.4	6.6	6.9	7.1	7.4	7.7	3.9	4.3	4.6	5.0	5.4	5.8	6.1	7.0
	Imports	14.9	14.4	14.3	12.5	14.1	12.4	11.0	9.4	9.2	10.6	10.2	9.9	9.6	9.3	9.0	8.7	7.9
Hungary	GDP	6.0	6.0	6.9	7.2	8.2	8.0	7.6	6.5	6.2	5.2	5.4	5.3	5.2	5.1	5.0	4.9	4.8
	Exports	6.6	6.3	6.3	6.2	6.2	5.9	5.7	5.6	5.5	6.1	6.0	5.8	5.7	5.6	5.5	5.4	5.4
	Imports	4.5	4.6	5.7	6.1	7.4	7.4	7.2	6.1	5.8	3.1	3.7	3.7	3.6	3.6	3.6	3.6	3.6
Slovenia	GDP	7.2	7.1	7.1	6.5	7.2	6.7	6.3	5.8	5.8	5.0	4.9	4.9	4.9	4.9	4.9	4.9	5.3
	Exports	9.3	9.0	8.8	8.5	8.3	8.1	7.9	7.8	7.6	7.8	7.6	7.5	7.3	7.2	7.1	6.9	6.7
	Imports	11.1	10.8	10.8	9.8	11.0	10.0	9.2	8.3	8.2	7.2	7.1	7.0	6.9	6.8	6.8	6.6	7.3
Poland	GDP	6.7	6.7	6.6	6.5	6.1	5.7	5.3	5.1	4.8	5.1	5.0	4.9	4.9	4.9	4.9	4.7	4.6
	Exports	7.5	7.5	7.3	7.1	6.9	6.7	6.5	6.4	6.3	6.2	6.1	6.1	6.0	5.9	5.9	5.8	5.7
	Imports	4.5	4.7	4.9	5.0	4.8	4.5	4.2	4.1	3.9	3.3	3.4	3.3	3.5	3.6	3.6	3.7	3.6

Source: Landesmann - Pöschl (1995), pp. 338-352.

(Breuss – Kratena – Schebeck, 1994). Unfortunately, the WIFO-macromodel does not provide a regional specification and disaggregation of foreign trade because series on foreign trade prices for regions are not available in Austria.

To arrive at the total effects of CEECs' EU membership a couple of impulses have to be taken into consideration:

1. Direct trade effects (trade creation). The input is Austria's additional export caused by the EU entry of CEECs; it is derived from the scenarios by *Landesmann – Pöschl* (1995) mentioned above.
2. Indirect trade effects. Trade creation takes place not only in Austria but also in the rest of the EU, thus, additional demand spills over to Austria.
3. Costs of CEECs' EU membership. Participation of CEECs in the EU's internal market will considerably increase transfers (for CAP and structural funds) within the EU. This means a marked higher burden for the old members.
4. Transfer problem. The inflow of (additional) transfers for structural funds and payments within the CAP into the CEECs relieves restrictions imposed by the current account, thus enabling more economic growth and additional trade creation.

In order to grasp *direct trade effects* the following technical assumptions were made:

- Foreign trade flows at current prices between Austria and CEECs in 1994 are taken as starting values.
- Using deflators for total exports and imports trade flows are transformed in terms of constant 1983 prices.
- Applying the growth rates for exports and imports of each CEEC estimated by *Landesmann – Pöschl* (1995, Appendix, Tables 6.2.1 to 6.2.5) time series for real trade flows between those countries and Austria are calculated. This procedure implies that these trade flows are growing by the same rate as CEECs' total exports and imports.
- Finally, it is assumed that in both scenarios Austria can keep constant shares in the CEECs markets.

From these assumptions the following model inputs result: If four CEECs were entering the EU by the year 2000 in 2008 Austria's exports and imports of goods would be higher by 2 percent and 0.3 percent, respectively. Including Poland the effect would hardly become bigger (2.1 and

0.4 percent). Any influence of the remaining CEECs (Bulgaria, Romania and the Baltic states) can be neglected owing to their small relevance for Austria's foreign trade (Tables 1 and 2). The results for the CEECs' shares in Austria's exports and imports are shown in Tables 10 and 11. An EU membership of the five CEECs is associated with a gain in Austria's exports.

Implementing the *indirect trade effect* it is assumed that trade creation in the EU caused by its eastern enlargement affects economic growth only half as much as was estimated for Austria. This assumption is roughly confirmed by simulations with the OEF-world-model (Breuss 1995, p.5).

Introducing the *costs of enlargement* Austria would incur in the case the CEECs are joining the EU we rely on calculations made by Breuss (1995, Table 12a). Estimating these costs it is assumed the CEECs are entering the EU (and the CAP) under the now ruling conditions²). Probably, until the time the CEECs are becoming EU members the CAP will be reformed and the conditions under which structural funds are appropriated will be changed. Therefore, Breuss' estimates may be considered representing rather an upper limit. Although, estimates by other authors are even higher (Baldwin, 1994). In the year 2000 10 CEECs would get net transfers amounting to 30 bill. ECU or 0.4 percent of EU's GDP (15 members), this corresponds to 31 percent of the Union's budget (Table 12). We simply assume that this additional burden is distributed equally amongst the 15 EU members. Further, we imply that in the course of improving economic development accompanied by further reforms of the common agricultural and structural policies the rate of the burden for the old members could be halved. Hence, we anticipate necessary reforms in these fields.

In 2000, the net transfer requirements would be for four CEECs (Czech Republic, Hungary, Slovakia, Slovenia) 9.106 bill. ECU, for Poland 8.49 bill. ECU and for the remaining CEECs (Bulgaria, Romania and the three Baltic states) 12.685 bill. ECU.

With the enlargement of the EU a "*transfer problem*" arises. The funds flowing to the new member states according to the rules of the CAP and structural funds are ear-marked. As is well known from the classical debate between Keynes and Ohlin on transfers after World War One the problem is how much of the transfers are flowing back as payments for imports from the donor countries (see Krugman – Obstfeld, 1994, pp. 98-100). It is assumed that CEECs would use roughly half of the received net transfers for imports. Thus, the restrictions imposed by the current account can be relieved compared to the values estimated by Landesmann – Pöschl (1995). Therefore, given the market shares in the new member states, an additional demand for Austria's exports will come forth.

²) In a strategic paper the European Commissioner, Franz Fischler, offers three solutions for integrating the agricultural sectors of the CEECs into that of the Union. In case of integrating CEEC agriculture in an unchanged CAP the budgetary impact is estimated at 12 bill. ECU per year after a transition period until 2010 (Agence Europe No. 6615, November 29, 1995, p. 10). According to Breuss' (1995) estimations CAP cost would amount to 12.2 bill. ECU per year, beginning with the year 2000.

Table 10

Austria's Export Performance for two Integration Scenarios

	EU Membership			Europe Agreement Association		
	1994	2000	2008	1994	2000	2008
	As percent of total exports					
Czech Republic	2.6	2.9	3.5	2.6	2.7	2.9
Slovakia	0.9	1.2	1.7	0.9	1.0	1.3
Hungary	3.9	4.1	4.0	3.9	3.7	3.1
Slovenia	1.6	1.7	2.2	1.6	1.6	1.8
Poland	1.2	1.4	1.1	1.2	1.1	0.9

Table 11

Austria's Import Performance for two Integration Scenarios

	EU Membership			Europe Agreement Association		
	1994	2000	2008	1994	2000	2008
	As percent of total imports					
Czech Republic	1.8	1.6	1.2	1.8	1.6	1.2
Slovakia	0.7	0.6	0.7	0.7	0.6	0.6
Hungary	2.0	2.1	2.1	2.0	2.0	2.1
Slovenia	0.6	0.7	0.8	0.6	0.7	0.8
Poland	0.8	0.8	0.9	0.8	0.8	0.9

Table 12

Cost of EU's CEEC Enlargement in 2000

Countries	EU Budget Expenditures			EU Budget Receipts		Net Payment (net receipt) % of GDP		
	CAP Mill. ECU	Struct. Policy Mill. ECU	Others Mill. ECU	Total Mill. ECU	Total % of GDP		Total % of GDP	
								Net Payment (net receipt) Mill. ECU
1 Belgium	1,075	510	2,838	4,423	1.90	1.58	747	0.32
2 Denmark	1,720	170	367	2,257	1.48	1.20	423	0.28
3 Germany	6,019	3,401	4,997	14,417	0.67	1.27	- 12,767	- 0.60
4 Greece	4,300	3,740	144	8,183	11.50	1.80	6,902	9.70
5 Spain	4,730	6,120	1,083	11,933	2.23	1.20	5,498	1.03
6 France	9,460	2,379	2,839	14,678	1.10	1.28	- 2,452	- 0.18
7 Ireland	1,720	3,204	121	5,045	8.41	1.90	3,906	6.51
8 Italy	3,053	4,726	2,175	9,953	0.96	1.15	- 1,927	- 0.19
9 Luxembourg	22	34	955	1,011	7.15	1.50	799	5.65
10 Netherlands	2,580	170	768	3,518	1.05	1.65	- 2,021	- 0.60
11 Portugal	1,290	5,780	194	7,264	7.59	1.55	5,781	6.04
12 Great Britain	4,456	2,720	2,282	9,459	0.91	1.20	- 3,029	- 0.29
13 Austria	1,004	401	401	1,806	0.90	1.28	- 763	- 0.38
14 Finland	1,003	358	236	1,597	1.36	1.28	89	0.08
15 Sweden	566	287	378	1,230	0.65	1.28	- 1,187	- 0.63
EU 15	42,997	34,000	19,778	96,775	1.28	1.28	0	0.00
% of total	44.40	35.10	20.50	100.00				

Estimates (incl. structural change, CAP reform, Uruguay Round) of the Cost of CEEC's EU - Membership

16 Bulgaria	417	835	33	1,285	10.23	1.28	1,124	8.95
17 Czech Rep.	904	1,625	136	2,664	5.10	1.28	1,996	3.82
18 Hungary	2,166	2,848	150	5,165	8.94	1.28	4,425	7.66
19 Poland	3,290	6,480	327	10,097	8.04	1.28	8,490	6.76
20 Romania	3,957	6,163	104	10,223	25.68	1.28	9,714	24.40
21 Slovakia	396	1,705	46	2,147	12.21	1.28	1,921	10.93
CEE6	11,130	19,656	794	31,581	10.34	1.28	27,670	9.06
22 Slovenia	313	648	50	1,011	5.23	1.28	764	3.95
23 Estonia	198	351	17	566	8.44	1.28	480	7.16
24 Latvia	260	423	20	703	9.21	1.28	605	7.93
25 Lithuania	299	541	20	859	11.36	1.28	762	10.08
CEE10	12,200	21,618	902	34,720	10.01	1.28	30,281	8.73
Net receipt of CEE6 in % of EU-GDP (EU Budget)							0.37	28.59
Net receipt of CEE10 in % of EU-GDP (EU Budget)							0.40	31.29

Source: Breuss (1995).

Integration effects on tourism, direct investment and migration are not taken into consideration. Practically no net effects on tourism are expected from an EU membership of CEECs. As far as direct investment are concerned it is not clear whether direct investment are substituting or inducing exports. If social policy in the EU will be highly harmonized (nearly equal labour market conditions; Council directive concerning the posting of workers in the framework of the provision, COM/93/225 FINAL-SYN 346) incentives to migrate from CEECs to old EU countries will diminish. Moreover, regulated migration during a period of transition can be thought of. Therefore, we decided to neglect the migration problem in our simulations.

Given the assumptions described so far simulations are run for three alternative packages of countries entering the EU simultaneously at the beginning of the year 2000.

1. *4 CEECs package*: Czech Republic, Hungary, Slovakia and Slovenia are joining the EU.
2. *5 CEECs package*: The previous group is supplemented by Poland.
3. *10 CEECs package*: Bulgaria, Romania and the Baltic states are completing the CEEC-members.

3.2.2 Simulation Results

3.2.2.1 Four CEECs

After nine years, e.i. in 2008, the simulation summing up all effects results in a cumulated increase of real GDP by 1.5 percent (Table 13b). This increase is composed of a direct trade effect of +0.8 percent (Table 13a), a indirect trade effect of +0.4 percent and demand effects induced by transfers of +0.3 percent. Exports of goods improve by 3.5 percent and stimulate via multiplier effects domestic demand (+1.5 percent). This increase is distributed differently on the components of demand. While gross fixed capital formation exceeds the level in the baseline scenario by 3 percent, real expenditures of private households are only higher by 1 percent. Increased domestic and foreign demand induce additional imports (+3 percent). Therefore, the current account of the balance of payments could only improve slightly (by 0.1 percentage points of GDP in 2008). Increased total production is also reflected in the labour market: dependend employment steps up by 1 percent and the rate of unemployment decreases somewhat.

In general, there is some concern that the burden of the costs new EU members are imposing on the government's budgets of the old members can not be compensated by additional tax receipts emanating from stimulated economic activity. As the simulation for the case of the 4 CEECs shows general government deficit would only slightly increase at the beginning, but in the course of time an

EU Membership of 4 CEECs:

(Effects of Direct Trade Creation for Austria)

(Deviation of EU membership scenario from association scenario in percent)¹⁾

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Real private consumption	+ 0.0	+ 0.1	+ 0.1	+ 0.2	+ 0.2	+ 0.3	+ 0.4	+ 0.5	+ 0.6
Real government consumption	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0
Real gross fixed capital formation	+ 0.0	+ 0.1	+ 0.3	+ 0.4	+ 0.7	+ 0.9	+ 1.2	+ 1.4	+ 1.5
Real exports of goods and services	+ 0.2	+ 0.3	+ 0.5	+ 0.7	+ 1.0	+ 1.2	+ 1.4	+ 1.6	+ 1.7
Goods	+ 0.2	+ 0.4	+ 0.7	+ 0.9	+ 1.2	+ 1.5	+ 1.8	+ 1.9	+ 2.0
Real imports of goods and services	+ 0.2	+ 0.3	+ 0.5	+ 0.7	+ 0.9	+ 1.2	+ 1.4	+ 1.5	+ 1.7
Goods	+ 0.2	+ 0.4	+ 0.6	+ 0.8	+ 1.1	+ 1.3	+ 1.6	+ 1.7	+ 1.9
Real gross domestic product (GDP)	+ 0.0	+ 0.1	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	+ 0.7	+ 0.8
Current balance (percent of GDP)	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Private consumption deflator	± 0.0	± 0.0	- 0.0	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
GDP deflator	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Terms of trade: goods	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
Real disposable income	+ 0.0	+ 0.1	+ 0.2	+ 0.2	+ 0.4	+ 0.5	+ 0.6	+ 0.7	+ 0.8
Compensation of employees (percent of national income)	- 0.0	- 0.1	- 0.1	- 0.1	- 0.2	- 0.2	- 0.3	- 0.3	- 0.3
Dependent employment Thousands of persons	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.2	+ 0.3	+ 0.3	+ 0.4	+ 0.5
Unemployment rate	- 0.0	- 0.0	- 0.0	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.2
Labour productivity	± 0.0	± 0.0	+ 0.1	+ 0.1	+ 0.2	+ 0.2	+ 0.3	+ 0.3	+ 0.3
Net lending (percent of GDP) (bn ATS)	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.2	+ 0.2	+ 0.3	+ 0.3
	+ 0.2	+ 0.6	+ 1.4	+ 2.3	+ 3.8	+ 5.5	+ 7.6	+ 9.8	+ 12.1

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of EU membership scenario from the association scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

**EU Membership of 4 CEECs:
Overall Economic Effects for Austria**

(Deviation of EU membership scenario from association scenario in percent)¹⁾

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Real private consumption	+ 0.1	+ 0.2	+ 0.3	+ 0.5	+ 0.6	+ 0.7	+ 0.9	+ 1.0	+ 1.1
Real government consumption	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Real gross fixed capital formation	+ 0.6	+ 0.8	+ 1.0	+ 1.4	+ 1.8	+ 2.0	+ 2.4	+ 2.6	+ 2.9
Real exports of goods and services	+ 1.0	+ 1.1	+ 1.3	+ 1.6	+ 2.0	+ 2.2	+ 2.5	+ 2.6	+ 2.9
Goods	+ 1.3	+ 1.4	+ 1.6	+ 2.0	+ 2.5	+ 2.7	+ 3.1	+ 3.2	+ 3.5
Real imports of goods and services	+ 0.8	+ 1.0	+ 1.2	+ 1.5	+ 1.9	+ 2.1	+ 2.5	+ 2.6	+ 2.9
Goods	+ 1.0	+ 1.1	+ 1.3	+ 1.7	+ 2.1	+ 2.4	+ 2.8	+ 2.9	+ 3.2
Real gross domestic product (GDP)	+ 0.3	+ 0.4	+ 0.5	+ 0.7	+ 0.9	+ 1.1	+ 1.2	+ 1.4	+ 1.5
Current balance (percent of GDP)	- 0.1	- 0.0	- 0.0	- 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.1
Private consumption deflator	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
GDP deflator	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.0	± 0.0
Terms of trade: goods	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Real disposable income	+ 0.3	+ 0.4	+ 0.5	+ 0.7	+ 0.8	+ 1.0	+ 1.2	+ 1.3	+ 1.4
Compensation of employees (percent of national income)	- 0.1	- 0.2	- 0.2	- 0.3	- 0.3	- 0.4	- 0.4	- 0.4	- 0.4
Dependent employment Thousands of persons	+ 0.1	+ 0.2	+ 0.3	+ 0.4	+ 0.5	+ 0.6	+ 0.7	+ 0.8	+ 0.9
Unemployment rate	+ 3.4	+ 6.1	+ 9.0	+ 12.2	+ 16.1	+ 19.6	+ 23.6	+ 26.8	+ 30.2
Labour productivity	- 0.1	- 0.1	- 0.1	- 0.1	- 0.2	- 0.2	- 0.3	- 0.3	- 0.4
	+ 0.2	+ 0.2	+ 0.3	+ 0.3	+ 0.4	+ 0.4	+ 0.5	+ 0.5	+ 0.6
Net lending (percent of GDP) (bn ATS)	- 0.0	- 0.0	+ 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.3	+ 0.4	+ 0.5
	- 1.6	- 0.6	+ 0.9	+ 2.8	+ 5.5	+ 8.3	+ 11.8	+ 15.2	+ 19.4

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of EU membership scenario from the association scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

improvement sets in leading until the year 2008 to a lower deficit (0.5 percentage points of GDP) than in the baseline solution. This favourable result depends on the assumption of diminishing transfers to the new member countries and on the fact that no inflation curbing effects are expected from the Eastern enlargement. With prices increasing at a slower pace tax receipts would be lower. Normally, it is assumed that more integration means more competition and, therefore, reduced inflation (see the case of Austria' EU entry; *Breuss – Kratena – Schebeck 1994*).

3.2.2.2 *Five CEECs*

For Austria, the economic effects an EU entry of a CEEC bring about depends on two initial conditions: The higher Austria's market share in a country the bigger are trade and growth effects; the lower a country's degree of development the higher is the transfer in the framework of CAP and structural funds, and, therefore, the burden for the Austrian government budget. While in the case of an EU membership of the 4-CEECs trade creation is dominating adverse budget effects the contrary is true if other CEECs were entering the EU. This is strikingly seen in the case of Poland. The trade creating impulse amounting only to one quarter percent of Austrian exports can not induce any effects on economic growth or employment. However, the burden for the budget of the general government would be significant. Beginning with 2 bill. ATS in the first year the augmentation of the annual deficits reduces to 1 bill. ATS until the year 2008. Nevertheless, at the end of the simulation period 14 bill. ATS additional government debt would have accumulated (Table 14).

Including also Poland in the group of new EU members Austria's real GDP could be higher by 1.6 percent in 2008 (Table 15).

3.2.2.3 *Ten CEECs*

Owing to poor trade relations between Austria and the remaining CEECs (Bulgaria, Romania and the Baltic states) expected trade creating effects of an EU entry are not noteworthy. Only the transfers to these countries could stimulate slightly foreign trade (0.1 percent more exports from Austria).

According to the simulations the five CEECs considered now are producing similar integration effects as Poland. Real GDP and the number of employees could be higher by only 0.1 percent each. However, the government's household has to incur an increase in its deficit which is twice as high as in the case of Poland's EU membership (Table 16).

Full integration of all CEECs into the EU would positively affect the Austrian economy. In 2008 real GDP would be higher by 1.7 percent. The initial growth impulse in 2000 is 0.5 percent followed by 0.2 percentage points additional average annual increases of GDP in the next years. As a consequence of the net transfers to all ten CEECs Austria's general government deficit would

EU Membership: Poland
Overall Economic Effects for Austria

(Deviation of EU membership scenario from association scenario in percent)¹⁾

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Real private consumption	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Real government consumption	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	- 0.0
Real gross fixed capital formation	+ 0.2	+ 0.2	+ 0.2	+ 0.3	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2
Real exports of goods and services	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.2	+ 0.2	+ 0.2	+ 0.2
Goods	+ 0.4	+ 0.4	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.2
Real imports of goods and services	+ 0.2	+ 0.2	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.2
Goods	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3	+ 0.3
Real gross domestic product (GDP)	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Current balance (percent of GDP)	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.0	- 0.0
Private consumption deflator	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
GDP deflator	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Terms of trade: goods	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Real disposable income	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.2	+ 0.2	+ 0.2	+ 0.1	+ 0.1
Compensation of employees (percent of national income)	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
Dependent employment Thousands of persons	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Unemployment rate	+ 1.0	+ 1.7	+ 2.2	+ 2.5	+ 2.6	+ 2.6	+ 2.5	+ 2.4	+ 2.2
Labour productivity	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
	+ 0.1	+ 0.1	+ 0.1	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Net lending (percent of GDP)	- 0.1	- 0.1	- 0.1	- 0.1	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
(bn ATS)	- 2.1	- 2.0	- 1.8	- 1.6	- 1.5	- 1.4	- 1.3	- 1.2	- 1.1

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of EU membership scenario from the association scenario in the *r*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

**EU Membership of 5 CEECs:
Overall Economic Effects for Austria**

(Deviation of EU membership scenario from association scenario in percent)¹⁾

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Real private consumption	+ 0.2	+ 0.3	+ 0.4	+ 0.6	+ 0.7	+ 0.9	+ 1.0	+ 1.1	+ 1.2
Real government consumption	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Real gross fixed capital formation	+ 0.7	+ 1.0	+ 1.3	+ 1.6	+ 2.0	+ 2.3	+ 2.6	+ 2.8	+ 3.1
Real exports of goods and services	+ 1.3	+ 1.4	+ 1.6	+ 1.9	+ 2.3	+ 2.4	+ 2.8	+ 2.8	+ 3.1
Goods	+ 1.6	+ 1.7	+ 2.0	+ 2.3	+ 2.8	+ 3.0	+ 3.4	+ 3.4	+ 3.7
Real imports of goods and services	+ 1.1	+ 1.2	+ 1.4	+ 1.7	+ 2.2	+ 2.4	+ 2.7	+ 2.8	+ 3.1
Goods	+ 1.3	+ 1.4	+ 1.6	+ 2.0	+ 2.4	+ 2.7	+ 3.1	+ 3.2	+ 3.5
Real gross domestic product (GDP)	+ 0.4	+ 0.5	+ 0.7	+ 0.8	+ 1.0	+ 1.2	+ 1.4	+ 1.5	+ 1.6
Current balance (percent of GDP)	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.0	- 0.0	- 0.0	- 0.0
Private consumption deflator	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
GDP deflator	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.0	- 0.0	± 0.0	+ 0.0
Terms of trade: goods	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Real disposable income	+ 0.3	+ 0.5	+ 0.6	+ 0.8	+ 1.0	+ 1.1	+ 1.3	+ 1.4	+ 1.5
Compensation of employees (percent of national income)	- 0.2	- 0.2	- 0.2	- 0.3	- 0.4	- 0.4	- 0.4	- 0.5	- 0.5
Dependent employment Thousands of persons	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	+ 0.7	+ 0.8	+ 0.9	+ 1.0
Unemployment rate	+ 4.4	+ 7.8	+ 11.1	+ 14.7	+ 18.7	+ 22.3	+ 26.2	+ 29.2	+ 32.4
Labour productivity	- 0.1	- 0.1	- 0.1	- 0.2	- 0.2	- 0.2	- 0.3	- 0.3	- 0.4
Net lending (percent of GDP)	+ 0.3	+ 0.3	+ 0.3	+ 0.4	+ 0.4	+ 0.5	+ 0.5	+ 0.5	+ 0.6
(bn ATS)	- 0.1	- 0.1	- 0.0	+ 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.4	+ 0.5
	- 3.7	- 2.6	- 0.9	+ 1.2	+ 4.0	+ 6.9	+ 10.6	+ 14.0	+ 18.3

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of EU membership scenario from the association scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

**EU Membership of the Remaining 5 CEECs:
Overall Economic Effects for Austria**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
(Deviation of EU membership scenario from association scenario in percent) ¹⁾									
Real private consumption	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Real government consumption	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.0	- 0.0	- 0.0	- 0.0
Real gross fixed capital formation	+ 0.1	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.1
Real exports of goods and services	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Goods	+ 0.3	+ 0.3	+ 0.3	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.1	+ 0.1
Real imports of goods and services	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2
Goods	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2
Real gross domestic product (GDP)	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Current balance (percent of GDP)	- 0.2	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
Private consumption deflator	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
GDP deflator	± 0.0	- 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Terms of trade: goods	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Real disposable income	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Compensation of employees (percent of national income)	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
Dependent employment	+ 0.0	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Thousands of persons	+ 0.8	+ 1.4	+ 1.9	+ 2.1	+ 2.2	+ 2.2	+ 2.2	+ 2.0	+ 1.9
Unemployment rate	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0
Labour productivity	+ 0.1	+ 0.1	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Net lending (percent of GDP) (bn ATS)	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
	- 4.0	- 4.0	- 3.9	- 3.9	- 3.9	- 3.9	- 3.9	- 3.9	- 3.9

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of EU membership scenario from the association scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

increase for four years but afterwards, positive effects would prevail. Still, it should be kept in mind that these positive effects are solely due to the integration of the four neighbour countries (Table 17).

4. Conclusions

With these simulations a first attempt was made to evaluate the possible effects an EU eastern enlargement could have on the Austrian economy. Being rather unlikely that ten CEECs are becoming EU members at the same time eastern enlargement was simulated in three steps.

With a high probability the group of the economically most developed CEECs (Czech Republic, Hungary, Slovakia and Slovenia) could become full members of the EU in 2000. These are the countries with the most intensive trade relations to Austria. Therefore, Austria would earn considerable positive integration effects, even if unavoidable costs (CAP, structural funds) are taken into consideration. Trade creation induces economic growth, thus, allowing for higher tax receipts which more than compensate additional expenses in the budget.

If Poland and other CEECs were joining the EU Austria had to provide a considerable amount for transfers in its government budget profiting only from a minor trade creating effect.

Mainly, these conclusions are valid only for Austria. Other EU members having different trade relations to CEECs would prefer a different sequence of entry into the EU. Finland's foreign trade with the Baltic states is very intensive and Germany's exchange with Poland exceeds that of Austria's by far.

**EU Membership of 10 CEECs:
Overall Economic Effects for Austria**
(Deviation of EU membership scenario from association scenario)¹⁾

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Real private consumption	+ 0.2	+ 0.3	+ 0.5	+ 0.7	+ 0.8	+ 1.0	+ 1.1	+ 1.3	+ 1.4
Real government consumption	+ 0.0	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1
Real gross fixed capital formation	+ 0.9	+ 1.2	+ 1.5	+ 1.8	+ 2.2	+ 2.5	+ 2.8	+ 3.0	+ 3.2
Real exports of goods and services	+ 1.5	+ 1.6	+ 1.8	+ 2.0	+ 2.4	+ 2.6	+ 2.9	+ 3.0	+ 3.2
Goods	+ 1.9	+ 2.0	+ 2.2	+ 2.5	+ 3.0	+ 3.2	+ 3.5	+ 3.6	+ 3.8
Real imports of goods and services	+ 1.3	+ 1.4	+ 1.6	+ 1.9	+ 2.3	+ 2.6	+ 2.9	+ 3.0	+ 3.3
Goods	+ 1.5	+ 1.6	+ 1.8	+ 2.2	+ 2.7	+ 2.9	+ 3.3	+ 3.4	+ 3.6
Real gross domestic product (GDP)	+ 0.5	+ 0.6	+ 0.8	+ 0.9	+ 1.1	+ 1.3	+ 1.5	+ 1.5	+ 1.7
Current balance (percent of GDP)	- 0.3	- 0.3	- 0.2	- 0.2	- 0.2	- 0.2	- 0.1	- 0.1	- 0.1
Private consumption deflator	- 0.1	- 0.2	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1	- 0.1
GDP deflator	- 0.1	- 0.2	- 0.1	- 0.1	- 0.1	- 0.0	± 0.0	± 0.0	+ 0.1
Terms of trade: goods	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0	± 0.0
Real disposable income	+ 0.4	+ 0.6	+ 0.8	+ 0.9	+ 1.1	+ 1.3	+ 1.5	+ 1.6	+ 1.7
Compensation of employees (percent of national income)	- 0.2	- 0.3	- 0.3	- 0.3	- 0.4	- 0.4	- 0.5	- 0.5	- 0.5
Dependent employment	+ 0.2	+ 0.3	+ 0.4	+ 0.5	+ 0.7	+ 0.8	+ 0.9	+ 1.0	+ 1.1
Thousands of persons	+ 5.3	+ 9.2	+ 13.0	+ 16.8	+ 2.1	+ 24.5	+ 28.4	+ 31.3	+ 34.3
Unemployment rate	- 0.2	- 0.1	- 0.1	- 0.2	- 0.2	- 0.3	- 0.3	- 0.4	- 0.4
Labour productivity	+ 0.3	+ 0.4	+ 0.4	+ 0.4	+ 0.5	+ 0.5	+ 0.6	+ 0.6	+ 0.6
Net lending (percent of GDP)	- 0.3	- 0.2	- 0.2	- 0.1	+ 0.0	+ 0.1	+ 0.2	+ 0.3	+ 0.4
(bn ATS)	- 7.8	- 6.6	- 4.8	- 2.7	+ 0.1	+ 3.0	+ 6.6	+ 10.1	+ 14.4

¹⁾ Figures for GDP, deflators, household disposable income, dependent employment and labour productivity indicate the cumulative deviations of the EU membership scenario from the association scenario in the *n*th year in percent, whereas the figures for current balance, terms of trade, compensation of employees, unemployment rate and net lending are shown as percentage point deviations.

References:

- Aiginger, K., "Die Wirkung der Ostöffnung auf die Struktur der österreichischen Industrie", in: EUROPA 1996. Auswirkungen einer EU-Osterweiterung, Schriftenreihe Europa des Bundeskanzleramts, Wien 1995, pp. 191-259.
- Baldwin, R.E.; Towards an Integrated Europe, London 1994.
- Biffi, G., "Auswirkungen des Ausländerzuströms auf den Arbeitsmarkt", WIFO-Monatsberichte 65(10), S. 526-535.
- Breuss, F., Österreichs Außenwirtschaft 1945-1982, Signum-Verlag, Wien 1983.
- Breuss, F., Cost and Benefits of EU's Eastern European Enlargement, WIFO Working Papers, No. 78, June 1995.
- Breuss, F., Kratena, K., Schebeck, F., "Effekte eines EU-Beitritts für die Gesamtwirtschaft und für die einzelnen Sektoren", in: "Österreich in der Europäischen Union. Anforderungen und Chancen für die Wirtschaft", WIFO-Monatsberichte, Sonderheft, Mai 1994, S. S18-S33.
- Breuss, F., Tesche, J., "A General Equilibrium Evaluation of Trade and Industrial Policy Changes in Austria and Hungary", Weltwirtschaftliches Archiv/Review of World Economics, Vol. 130, Issue 3, 1994, pp. 534-552.
- Dietz, R., Havlik, P., "Auswirkungen der EU-Ost-Integration auf den österreichischen und den EU-Osthandel", in: EUROPA 1996. Auswirkungen einer EU-Osterweiterung, Schriftenreihe Europa des Bundeskanzleramts, Wien 1995, pp. 87-127.
- EC, The Economic Interpenetration between the European Union and Eastern Europe, European Economy, Reports and Studies, No. 6, Brussels 1994.
- Gasiorek, M., Smith, A., Venables, A., "Modelling the effect of Central and East European trade on the European Community", in: EC, The Economic Interpenetration between the European Union and Eastern Europe, European Economy, Reports and Studies, No. 6, Brussels 1994, S. 521-538.
- Hamilton, C., Winters, L.A., "Opening up international trade with Eastern Europe", Economic Policy, No. 14, 1992, S. 77-116.
- Krugman, Paul, R., Obstfeld, Maurice, International Economics. Theory and Policy, Third Edition, New York 1994.
- Landesmann, M., Pöschl, J., "Die Zahlungsbilanz als Begrenzungsfaktor des Wirtschaftswachstums in Ost-Mitteleuropa", in: EUROPA 1996. Auswirkungen einer EU-Osterweiterung, Schriftenreihe Europa des Bundeskanzleramts, Wien 1995, pp. 299-357.
- Schebeck, F., "Exporte stützen Wachstum – Budgetkonsolidierung schwächt Inlandsnachfrage. Prognose der österreichischen Wirtschaft bis 1999", WIFO-Monatsberichte, 68(3), S. 159-164.
- Sheehy, J., "Foreign Direct Investment in the CEECs", in: EC, The Economic Interpenetration between the European Union and Eastern Europe, European Economy, Reports and Studies, No. 6, Brussels 1994, S. 131-148.
- Stankovsky, J., "Österreichische Direktinvestitionen in Osteuropa", in: EUROPA 1996. Auswirkungen einer EU-Osterweiterung, Schriftenreihe Europa des Bundeskanzleramts, Wien 1995, pp. 157-192.
- Thirlwall, A.P., "The Balance of Payments Constraints as an Explanation of International Growth Rate Differences", Banca Nazionale del Lavoro, Quarterly Review, No. 128, March 1979, S. 45-53.

Weyerbrock, S., "Can the European Community Absorb More Immigrants? A General Equilibrium Analysis of the Labor Market and Macroeconomic Effects of East-West Migration in Europe", *Journal of Policy Modeling*, 17(2), pp. 85-120.

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