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Austria, Finland and Sweden in the European Union

Economic Effects

EU integration has made rapid progress over the past decade. After establishing the Internal Market in 1993, the EU achieved the highest possible level of economic integration in 1999 by completing the economic and monetary union (EMU) with the introduction of the euro as the common currency. Austria, Finland and Sweden joined the EU in 1995, but Sweden is not yet participating in EMU. Against this background, the present article analyses economic developments in these three member states and, using an integration model, sets out to estimate the respective macro-economic effects of EU membership. The results suggest that Finland has benefited most from accession to the EU, ahead of Austria and Sweden.

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In the fourth round of enlargement, Finland, Austria and Sweden joined the European Union on 1 January, 1995, bringing the number of member states to 15. The new members were all "rich" countries, whereas in the two preceding rounds with Greece (1981) and Portugal and Spain (1986) "poor" countries had acceded to the EU. The accession process of the most recent round lasted between three and over five years, counting from the submission of the request for EU membership (Austria 17 July 1989, Finland 18 March 1992, Sweden 1 July 1991; Norway 25 November 1992, Switzerland 20 May 1992). Accession negotiations with Finland, Austria and Sweden started on 1 February 1993 (with Norway on 5 April 1993) and were concluded with accession treaties on 30 March 1994. Austria was the first of the new members where accession was approved by a referendum, on 12 June 1994 by a majority of 66.6 percent of the votes. Finland followed on 16 0ctober 1994 (57 percent approval) and Sweden on 13 November 1994 (52 percent approval). In Norway, the population, for the second time after 1972, voted against EU membership by a 53 percent majority. The Accession Acts were formally signed at the European Council under Greek presidency in Corfu, on 24 and 25 June 1994.

As a consequence of the accession of Finland, Austria and Sweden to the EU, the number of members of EFTA was reduced from seven to four, three of which belong to the European Economic Area (EEA) established on 1 January 1994, Switzerland in a referendum in 1992 having voted against membership. The three new members were integrated into the EU on the basis of the Treaty of Maastricht: the Single Market had been completed by 1 January 1993 and the Economic and Monetary Union (EMU) was due to start in 1999. Finland and Austria have been participating in EMU from the start, while Sweden has so far for political reasons not adopted the common currency. The next major challenge for the EU is the coming fifth round of enlargement in 2004 by ten countries – eight East-central European states plus Malta and Cyprus.

This article analyses the effects of EU membership on Finland, Austria and Sweden, primarily in the economic domain. The first part gives an overview of overall economic developments. The second part discusses the new economic policy framework, the position towards EMU and the next round of EU enlargement, as well as the analytical difficulties of isolating integration effects. Finally, new estimates are pre-

sented that attempt to isolate and quantify the differential integration effects between the three countries.

The fourth round of EU enlargement in 1995, including Finland, Austria and Sweden, made the EU "richer", as all three countries, while being small with populations between 5 and less than 9 million, are among those with the highest per-capita income in Europe (Table 1): GDP per head, measured at purchasing power parities, exceeds the EU average by a sizeable margin. The structure of these economies is strongly oriented towards the provision of services. Given their small size, their degree of openness to foreign trade is higher than the EU average. The respective starting positions when entering the EU customs union were different: in Finland, tariffs for industrial goods were at about the same level in 1994 as in the EU, in Sweden they were lower by 1 percentage point, while Austrian tariffs were 5 percentage points higher. Entry into the EU customs union with its uniform Common Customs Tariff thus implied an upward adjustment for Sweden and a downward adjustment for Austria, to the effect of third countries being marginally discriminated on Swedish and favoured on Austrian markets.

Overall economic developments since EU accession

Three small, but prosperous member states

Table 1: Economic indicators for Finland, Austria and Sweden

	Population	GDP, volume (1995 values)	GDP per capita	Agriculture	Employment Manufacturing	Services	Private consumption per capita	Foreign trade Exports	Imports	Industrial tariffs before Uruguay round
	2002	2002	2001		2000		2000		2001	
	Million	Billion $	PPP[1]		Percentage shares		PPP[1]	As a percentage of GDP		In percent
Finland	5.2	167.8	26,500	6.2	28.0	66.8	11,897	35.2	26.5	5.5
Austria	8.1	274.0	28,200	6.1	30.0	63.9	14,910	35.1	37.2	10.5
Sweden	8.9	300.4	26,000	2.9	24.4	72.7	12,073	34.7	28.9	4.6
EU 15	381.0	10,062.8	25,500	4.3	29.0	66.8	.	13.0[2]	12.0[2]	5.7

Source: OECD; Eurostat; WIFO; *GATT* (1994); OECD, Main Economic Indicators, May 2003; OECD, Economic Surveys, Finland, Vol. 2003/3-March. – [1] At purchasing power parities, dollar basis. – [2] 1999.

An assessment of macro-economic developments in the three new EU member states since 1995 is only meaningful against the background of global trends in the world economy and in Europe. We shall therefore compare in the following, wherever possible, the key macro-economic indicators of Finland, Austria and Sweden with those of the USA as not being affected by EU integration, and with the EFTA member Switzerland, which is still far away from EU membership. A comparison with the EU-15 average, while showing whether the new member states' economies have fared better or worse, does not allow genuine integration effects to be identified. Moreover, drawing a comparison with reference countries outside the EU will highlight deviations from global economic trends (Figure 1).

Macro-economic indicators

Whether the economy is taking a fundamentally different course than before is illustrated by comparing the period 1995-2001 with the earlier seven years 1988-1994. Defining these periods over almost two business cycles, respectively, allows random variations being largely excluded. However, the first period includes the upheavals related to the opening of Eastern Europe (since 1989) which in many ways superseded the integration process within the EU. The macro-economic data (GDP, foreign trade, consumer prices, employment, public finance, etc.) therefore not only mirror "integration effects", but also the impact of global business trends, and for Europe in particular the radical change in relations with the countries of Central and Eastern Europe (CEECs) since the fall of the iron curtain, leading eventually to the next EU enlargement by 10 countries in 2004.

Figure 1: Economic growth

GDP, volume, percentage change from previous year
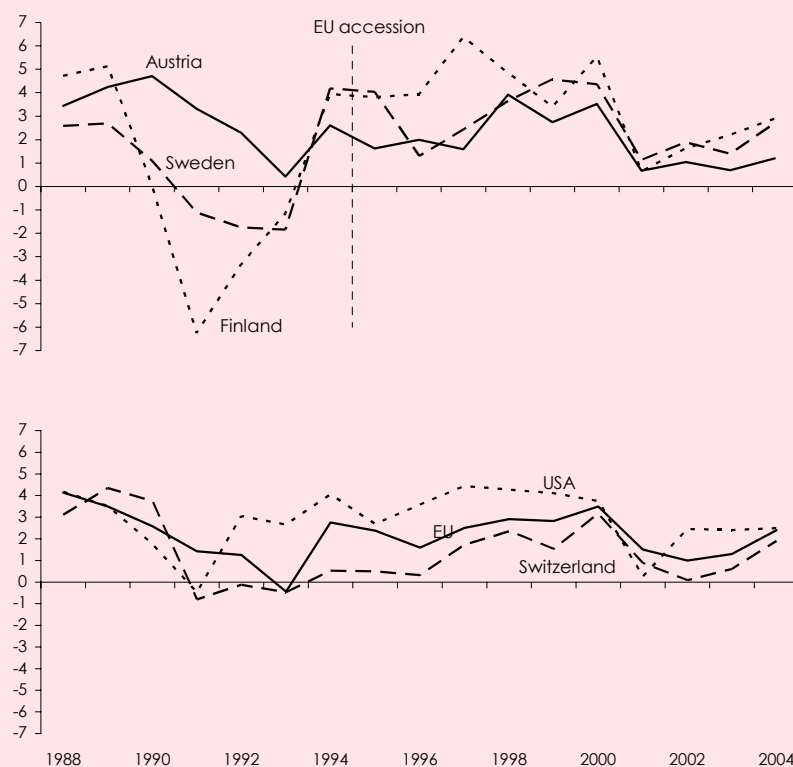
Source: OECD; WIFO; European Commission, "Spring 2003 Economic Forecasts", European Economy, 2003, (2).

The start of the EU Internal Market on 1 January 1993 was, from an economic point of view, by no means successful; one is even inclined to call it a "false start" (Figure 1): It fell into a period of economic recession in Europe, with real GDP contracting in most EU countries. In the wake of the opening of Eastern Europe (the collapse of trade with Russia), Finland slid into the most severe recession of the post-war era: real GDP slumped by 6.3, 3.3 and 1.2 percent in 1991, 1992 and 1993, respectively. However, from the trough activity rebounded steeply and since 1995 annual growth rates have been in the range from 4 to 6 percent. Sweden also struggled against recession between 1991 and 1993, which was triggered by a crisis in the banking sector in the context of financial liberalisation; activity hit its low in 1993, real GDP having declined by 1.1 percent in 1991, 1.7 percent in 1992 and 1.8 percent in 1993. Since then, the economy has recovered, albeit at a lower pace of growth than in Finland. The Austrian economy performed much more steadily, though it was also hit by the recession of 1993. Still, real GDP did not fall in that year (+0.4 percent), and from 1994 Austria participated in the general business cycle upturn.

A comparison of the seven-year periods before and after EU accession 1995 reveals that economic growth, as measured by the annual average rate of change of real GDP (Table 2), was higher after 1995 in Finland by 3.9 percentage points and in Sweden by 2 percentage points, compared with the earlier period. In Austria, post-1995 growth was 0.7 percentage point lower than in the previous period. A similar pattern is conveyed by income developments, using real GDP per capita at purchasing power parities as a yardstick for aggregate welfare. Finland is leading also on this account, gaining 4 percentage points after 1995, ahead of Sweden (+2.5 percentage points) and Austria (–0.1 percentage point). Measuring consumer welfare by real disposable personal income, Finland has gained 3.9 percentage

points, while Sweden and Austria registered marginal losses of 0.2 and 0.4 percentage points, respectively.

*Table 2: Macro-economic developments since 1988*

Annual averages

		Finland			Austria			Sweden			EU 15		
		1988-1994	1995-2001	Change	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
		Percentage changes		Percentage points	Percentage changes		Percentage points	Percentage changes		Percentage points	Percentage changes		Percentage points
GDP, volume		+ 0.45	+ 4.34	+ 3.89	+ 3.01	+ 2.29	– 0.72	+ 0.83	+ 2.82	+ 1.99	+ 2.33	+ 2.48	+ 0.15
GDP per capita, volume (PPS)		+ 0.01	+ 3.95	+ 3.95	+ 2.16	+ 2.11	– 0.05	+ 0.19	+ 2.67	+ 2.48			
Real disposable income		– 0.76	+ 3.15	+ 3.92	+ 1.57	+ 1.20	– 0.37	+ 1.18	+ 1.03	– 0.15			
GDP per capita, value (PPS)	EU = 100	97.81	100.57	+ 2.76	108.50	111.61	+ 3.11	107.10	101.51	– 5.60			
Total factor productivity (TFP)		+ 1.78	+ 2.46	+ 0.68	+ 1.33	+ 0.93	– 0.40	+ 1.52	+ 1.43	– 0.09			
Labour productivity		+ 2.45	+ 2.15	– 0.30	+ 2.36	+ 1.84	– 0.51	+ 2.41	+ 1.70	– 0.71			
Unemployment rate	percent	8.89	11.89	+ 3.00	4.57	5.32	+ 0.75	4.19	6.36	+ 2.18	9.14	9.44	+ 0.30
Consumer prices		+ 4.36	+ 1.57	– 2.80	+ 2.88	+ 1.45	– 1.43	+ 5.88	+ 1.53	– 4.35	+ 4.48	+ 2.13	– 2.35
Long-term interest rate	percent	11.06	5.99	– 5.07	7.56	5.59	– 1.97	10.63	6.48	– 4.16	9.54	6.04	– 3.50
General government balance	as a percentage of GDP	– 0.39	0.95	+ 1.34	– 3.31	– 2.46	+ 0.85	– 2.98	– 0.07	+ 2.91	– 4.64	– 2.03	+ 2.61
Public debt	as a percentage of GDP	31.87	50.22	+ 18.35	59.40	65.51	+ 6.11	58.68	67.51	+ 8.83	58.92	68.52	+ 9.59
Current account balance	as a percentage of GDP	– 3.28	5.61	+ 8.90	– 0.29	– 2.70	– 2.41	– 1.35	3.42	+ 4.77	– 0.39	0.48	+ 0.86
Trade balance	as a percentage of GDP	3.15	9.79	+ 6.64	– 4.15	– 2.02	+ 2.13	2.75	6.98	+ 4.23	0.27	1.30	+ 1.03
Real-effective exchange rate[1]		+ 3.10	+ 3.47	+ 0.37	– 0.18	+ 3.84	+ 4.01	+ 0.96	+ 4.41	+ 3.45			

Source: WIFO calculations using OECD data, Eurostat, WIFO. PPS . . . purchasing power standards. – [1] Increase . . . real-effective depreciation, decline . . . real-effective appreciation.

Figure 2: Income relative to EU 15

GDP per capita at purchasing power standards, EU 15 = 100
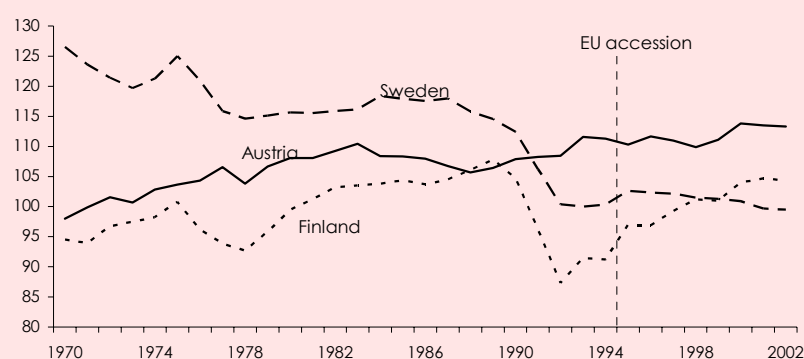

Source: Eurostat.

A different picture is conveyed by a comparison with the EU average. Measured by nominal GDP per capita (at purchasing power parities), Austria fares best (Figure 2). Since 1995 its relative position improved by 3.1 percentage points, that of Finland by 2.8 percentage points, while Sweden fell back by 5.6 percentage points. A higher degree of competition in the EU Internal Market is deemed to spur productivity growth, but its pace actually declined vis-à-vis the earlier period in all three countries (Table 2). In terms of total factor productivity (the weighted average of capital and labour productivity), Finland managed to improve its position, while Austria and Sweden lost ground. In Austria, however, the labour market performed better than in Finland and Sweden. While the unemployment rate has edged up in all three countries since 1995, the increase was most marked in Finland and least in Austria. In absolute terms too, the jobless rate is lowest in Austria. The 1991-92 recession drove up

the unemployment rate also in the USA and in Switzerland; it subsequently came down quickly in the USA, but only with some delay in Switzerland (Figure 3).

The other indicators (inflation, interest rates and public finances) point to marked improvements in Finland, Sweden and Austria since 1995 (Table 2). The rate of inflation moderated in all three countries, most strongly in Sweden. This was in line with the general trend, as inflation abated significantly also in the USA and Switzerland (Figure 4). The long-term interest rate fell most clearly in Finland among the three new EU members, but it also eased in Sweden in spite of that country not being part of Economic and Monetary Union. Owing partly to participation in EMU (i.e., the need for Finland and Austria to comply with the convergence criteria) and partly to strengthening economic growth (Sweden), general government deficits were reduced (Austria and Sweden) or even turned to surpluses (Finland). This gave rise to a remarkable fall in annual public debt ratios since 1995 that is not reflected in the seven-year averages in Table 2. This trend was more pronounced in Finland than in Sweden and Austria.

Figure 3: Unemployment rates

In percent
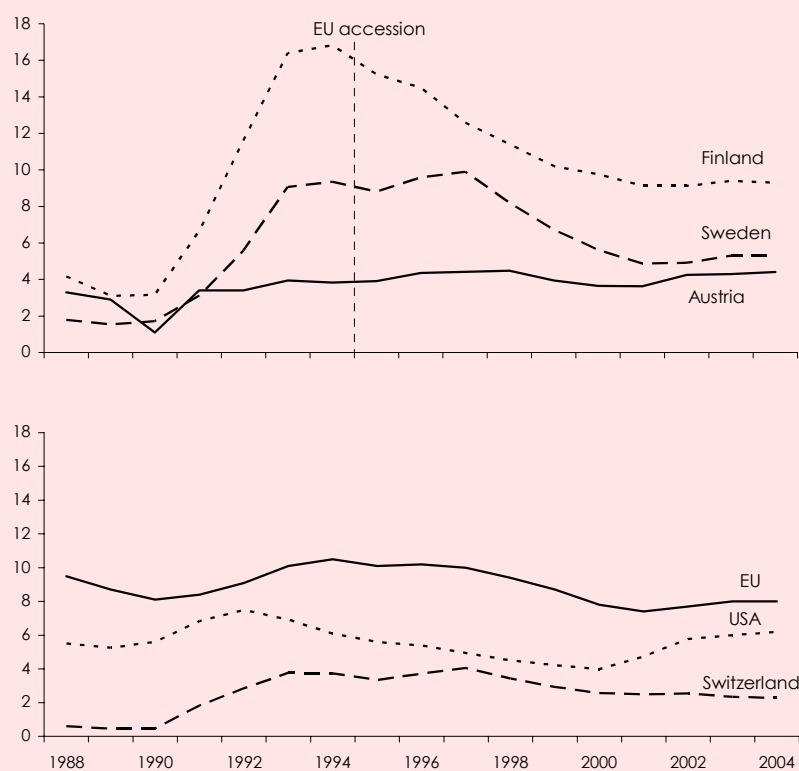
Source: OECD; WIFO; European Commission, "Spring 2003 Economic Forecasts", European Economy, 2003, (2).

Foreign trade developments were shaped by EU membership on the one hand, and by the opening of Eastern Europe on the other. While the current account balances of Finland and Sweden turned from deficit to surplus, the Austrian deficit widened significantly in the seven-year period since 1995, largely due to a structural weakening in the tourism services balance (Table 2). The trade balance improved in all three countries. Even in Austria, whose trade balance was traditionally negative, the deficit narrowed markedly and turned to a surplus for the first time in 2002. The real-effective exchange rate declined in all three countries since 1995, least so in Finland.

Figure 4: Inflation

Consumer price index, percentage change from previous year
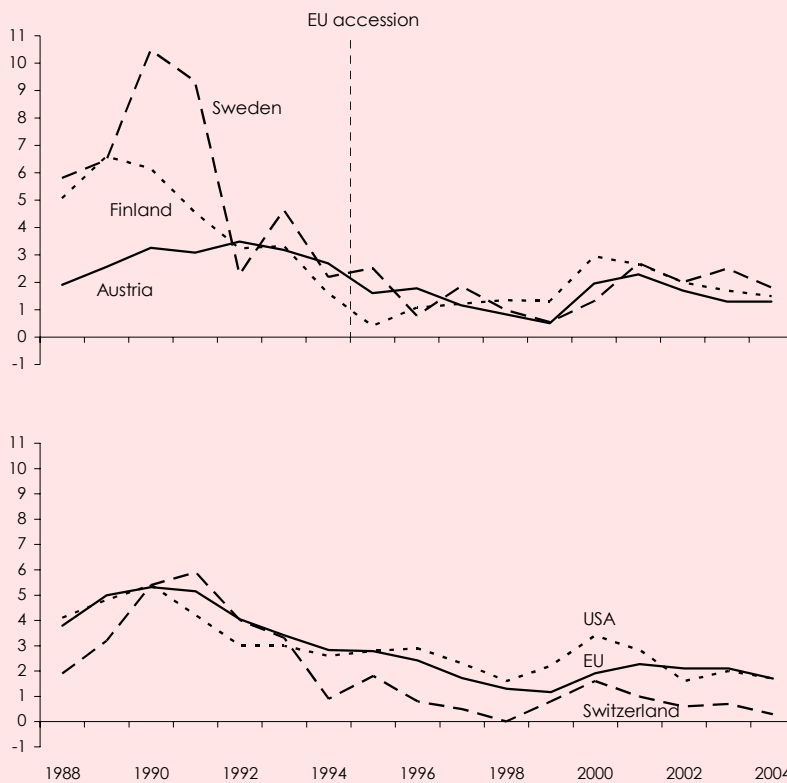
Source: OECD; WIFO; European Commission, "Spring 2003 Economic Forecasts", European Economy, 2003, (2).

While all being rich and highly advanced small economies, the three countries differ markedly in terms of their industrial and corporate structures. While Finland and Sweden host multi-national companies, the Austrian economy is dominated by small and medium-sized enterprises. In the list of the world's 500 largest companies, according to their market value, set up by the Financial Times (Financial Times, "The world's largest companies", 10 May 2002), Sweden is represented by five and Finland by two multi-national enterprises, Austria by none. This differential structure is also reflected in the assessment of the degree of global competitiveness by international business managers, the results of which are summarised annually by the World Economic Forum in its Global Competitiveness Report. The latest issue of the Report shows Finland holding rank 2 in 2002 (top rank in 2001) among 80 countries, Sweden in rank 5 (previously rank 9), and Austria in both years in 18th place. Thereby, all three countries are above the EU average that corresponded to rank 23 in 2002 and 19 in 2001 (Table 3). Austria is rated best of the three in the sub-categories "public institutions" and "micro-economic competitiveness", whereas Sweden is rated poorly for its macro-economic environment.

Table 3: Assessment of global competitiveness

Ranking of 80 countries

	Competitiveness, growth		Technology	Public institutions	Macro-economic framework	Micro-economic competitiveness
	Overall ranking					
	2002	2001	2002	2002	2002	2002
			Rank			
Finland	2	1	3	1	14	2
Austria	18	18	23	11	23	12
Sweden	5	9	4	15	34	6
Reference countries						
USA	1	2	1	16	2	1
Switzerland	6	15	6	8	5	5
Norway	9	6	10	12	7	21
Iceland	12	16	16	3	24	17
Other EU countries						
Denmark	10	14	11	2	31	8
UK	11	12	15	6	16	3
Germany	14	17	12	14	22	4
The Netherlands	15	8	19	10	19	7
Spain	22	22	24	26	15	25
Portugal	23	25	13	21	40	36
Ireland	24	11	31	18	9	20
Belgium	25	19	22	22	26	13
France	30	20	28	29	28	15
Greece	38	36	30	44	47	43
Italy	39	26	39	37	27	24
Average	23	19	22	21	25	18

Source: WEF (2002).

Did EU accession stimulate intra-EU trade?

Integration into an existing trade block provokes, as a rule, an increase in trade volumes (trade creation) and a diversion of trade flows towards the partners of the internal market (trade diversion). EU accession of Finland, Sweden and Austria had the following implications:

The three countries entered into the existing customs union of the EU, their custom tariffs had thus to be adjusted to the Common Customs Tariff (CCT) of the EU. For Finland, this implied no need for adjustment (on average for manufactures; Table 1), Sweden had to raise tariffs by around 1 percentage point on average, whereas Austria had to lower them by around 5 percentage points. Imports from third countries to Austria thereby became cheaper, those to Sweden somewhat more expensive. For all three accession countries, bilateral trade of manufactures with the Community had been exempt from tariffs since mid-1977 on the basis of the Free Trade Agreement between EFTA and EC of 1972 (EC-EFTA Free Trade Zone). Before 1995, imports from third countries accounted for some 28 percent of total imports in Sweden, 25 percent in Austria and 36 percent in Finland. For Sweden, the trade diversion effect resulting from the adjustment towards the CCT should thus have amounted to only about ¼ percent of total imports, compared with some 1¼ percent in Austria. In Finland, no such effect accrued, as tariffs did not have to be changed.

Entry into the Internal Market therefore implied no change in tariffs between the three countries and the EC 12 but, because of the dismantling of border controls (free movement of goods), a reduction in trade costs in the order of an estimated 2.5 to 5 percent of the total trade volume. Assuming the effect of the trade cost reduction at 2.5 percent, the bottom end of the range, and interpreting it as a lowering of tariffs of the three new members vis-à-vis the EC 12 and vice versa, as well as between the three countries, a general equilibrium model[1] yields the following theoretical trade effects:

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[1] These calculations were made using the computable general equilibrium model GTAP5, specified for 8 regions (Finland, Austria, Sweden, EU 12, NAFTA, CEECs, CIS, other countries), 10 sectors and 5 production factors on the basis of 1997 data.

- Exports and imports by Finland (by +8 percent, respectively), Austria (+10 percent) and Sweden (+9 percent) to and from the EC 12 and, to somewhat smaller extent, each country's trade with third countries should be expected to increase.

- Thereby, the trade balances of the three new EU members with the EC 12 should weaken slightly, but improve with the rest of the world. Because of the diversion of trade flows in favour of the Internal Market, trade with non-EU countries should decrease.

- The abolition of border controls, lowering trade costs, would generate positive welfare effects in the order of ½ percent of GDP in each of the three countries. Real GDP would edge up by about 0.1 percent.

For a test of the theory against actual developments, data for the seven-year period preceding EU accession (average 1988-1994) are again compared with the average for the subsequent 1994-2001 period, thereby smoothing for random variations in single years (Table 4). For this purpose, total exports and imports are broken down by five regions of the world (other 14 EU members, 10 CEECs and CIS, EFTA 4, NAFTA, other countries).

- The share of exports to the other 14 EU member states declined in all three countries, the most in Finland. The share of imports from the other 14 EU countries fell in Finland and Austria, but rose in Sweden. Thus, the accession-induced trade creation postulated by theory did not materialise. Only in 1994-95, trade with the EU (exports and imports) increased strongly. On the basis of the Europe Agreements, tariffs for EU imports of manufactures from the CEEC were gradually abolished between 1993 and 1997, those for CEEC imports from the EU until 2002 (asymmetric dismantling of tariffs). Austria's trade with the CEEC increased substantially as from 1995 (exports more than imports), that of Finland and Sweden to somewhat lesser extent. In all three countries, trade with the remaining EFTA countries (Iceland, Liechtenstein, Norway and Switzerland) shrank, in line with expectations. However, imports from other countries also fell, contrary to what theory would have suggested; in Sweden, not only trade with the "other countries" receded, but also with NAFTA.

- As a result of these trends, the trade balance with the EU improved in Finland and Sweden, while it deteriorated in Austria. If one measures the change by the share of the trade balance surplus/deficit accounted for by trade with the EU, there was an improvement relative to the trade balances with other regions of the world, but a weakening for the two other countries.

Modern foreign trade theory claims that with ever closer integration between advanced economies of similar factor endowment, the goods traded become themselves more similar. Suppliers try to maintain or increase their market shares through product differentiation, partly in order to distinguish themselves from competitors, and partly in order to meet the increasingly sophisticated tastes of consumers. This phenomenon is known as "intra-industry" trade. The "Grubel-Lloyd Index" (Table 5) conveys the following picture for the three new EU members: Finland exhibits the lowest index value among the three, since its supply structure is heavily concentrated on two segments, i.e., wood/timber and high-tech products. The share of intra-industry trade with the EU rose nevertheless until accession, but – interestingly – declined thereafter. In Austria and Sweden it continued to rise after EU accession, after a temporary levelling-off.

Table 4: Foreign trade developments in Finland, Austria and Sweden

Finland

	Exports			Imports		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Percentage shares		Percentage points	Percentage shares		Percentage points
EU 14	61.86	54.98	− 6.88	58.78	56.29	− 2.49
CEEC 10	4.95	7.09	+ 2.14	3.28	4.33	+ 1.05
CEEC 10 and GUS	11.57	13.10	+ 1.53	12.16	12.59	+ 0.43
EFTA 4	5.05	4.25	− 0.80	5.66	5.37	− 0.29
NAFTA	7.60	8.72	+ 1.12	7.52	8.04	+ 0.52
Other countries	13.93	18.95	+ 5.02	15.88	17.71	+ 1.83
Total	100.00	100.00		100.00	100.00	

	Trade balance			Trade balance		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Million $		Million $	Percentage shares		Percentage points
EU 14	1,924	5,409	+ 3,485	93.94	51.28	− 42.67
CEEC 10	489	1,618	+ 1,130	23.86	15.34	− 8.52
CEEC 10 and GUS	94	1,528	+ 1,434	4.60	14.48	+ 9.88
EFTA 4	− 23	98	+ 122	− 1.14	0.93	+ 2.07
NAFTA	177	1,139	+ 962	8.65	10.80	+ 2.15
Other countries	− 124	2,375	+ 2,499	− 6.05	22.51	+ 28.56
Total	2,048	10,549	+ 8,501	100.00	100.00	

Austria

	Exports			Imports		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Percentage shares		Percentage points	Percentage shares		Percentage points
EU 14	67.22	62.96	− 4.25	70.18	68.87	− 1.31
CEEC 10	8.32	12.95	+ 4.63	5.29	8.85	+ 3.56
CEEC 10 and GUS	10.39	14.60	+ 4.21	6.99	10.88	+ 3.89
EFTA 4	7.21	6.34	− 0.88	4.51	3.69	− 0.82
NAFTA	4.06	4.99	+ 0.93	4.52	5.68	+ 1.16
Other countries	11.12	11.11	− 0.01	13.80	10.88	− 2.92
Total	100.00	100.00		100.00	100.00	

	Trade balance			Trade balance		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Million $		Million $	Percentage shares		Percentage points
EU 14	− 6,973	− 7,908	− 935	84.12	127.90	+ 43.78
CEEC 10	795	1,979	+ 1,184	− 9.59	− 32.01	− 22.42
CEEC 10 and GUS	785	1,616	+ 830	− 9.47	− 26.13	− 16.66
EFTA 4	675	1,407	+ 733	− 8.14	− 22.76	− 14.62
NAFTA	− 587	− 750	− 163	7.08	12.12	+ 5.05
Other countries	− 2,190	− 548	+ 1,641	26.42	8.87	− 17.55
Total	− 8,289	− 6,183	+ 2,106	100.00	100.00	

Sweden

	Exports			Imports		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Percentage shares		Percentage points	Percentage shares		Percentage points
EU 14	61.19	55.97	− 5.22	63.47	66.90	+ 3.43
CEEC 10	1.90	3.85	+ 1.95	2.13	3.92	+ 1.79
CEEC 10 and GUS	2.47	4.94	+ 2.48	3.18	4.67	+ 1.49
EFTA 4	10.82	10.10	− 0.72	8.84	9.80	+ 0.96
NAFTA	10.52	10.66	+ 0.13	9.18	6.60	− 2.59
Other countries	15.00	18.32	+ 3.32	15.33	12.03	− 3.29
Total	100.00	100.00		100.00	100.00	

	Trade balance			Trade balance		
	1988-1994	1995-2001	Change	1988-1994	1995-2001	Change
	Million $		Million $	Percentage shares		Percentage points
EU 14	2,119	2,418	+ 299	40.13	14.37	− 25.76
CEEC 10	− 8	598	+ 605	− 0.15	3.55	+ 3.70
CEEC 10 and GUS	− 213	1,000	+ 1,213	− 4.04	5.94	+ 9.98
EFTA 4	1,523	1,888	+ 365	28.84	11.22	− 17.62
NAFTA	1,193	4,396	+ 3,203	22.60	26.12	+ 3.53
Other countries	658	7,127	+ 6,468	12.46	42.35	+ 29.89
Total	5,281	16,828	+ 11,547	100.00	100.00	

Source: WIFO calculations based upon OECD data: FTMS - Monthly Statistics of Foreign Trade. CEEC 10 . . . Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Czech Republic, Hungary.

Table 5: Intra-industry trade with EU

SITC-3 digits

	1970	1980	1990	1994	1995	1996	2000
				Grubel-Lloyd-Index			
Finland	34.3	48.3	48.3	48.2	47.2	47.4	41.8
Austria	61.8	70.9	70.2	71.2	67.9	73.1	76.3
Sweden	65.4	65.8	66.0	65.7	63.1	62.4	69.2
EU 15	58.8	60.9	62.0	63.1	62.8	63.3	64.1

Source: WIFO calculations based upon UN global trade statistics. The Grubel-Lloyd-Index for intra-industry trade (IIT) for good i is defined as:
$$IIT_i = 100 - \frac{|X_i - M_i|}{(X_i - M_i)} 100$$
, X_i ... exports of good i, M_i ... imports of good i.

Life in and with the Internal Market

The goal of creating a "common market" has already been laid down in Art.2 of the EEC Treaty of 1957. As a matter of fact, the Internal Market was established only ten years ago, as from 1 January 1993. Key pillars of the Internal Market Programme are the "four freedoms": free movement of goods, services, capital, and labour[2]. The functioning of the Internal Market is secured by a uniform competition law. In the course of time, many sectors hitherto dominated by state intervention (public utilities such as telecommunication, energy supply, railways postal service, etc.) were privatised, requiring wide-ranging adjustment of EU law (directives). Its transformation into national law required a considerable amount of time and was carried out only gradually. In the early stages, the "implementation deficit" of EU law was 21.4 percent according to the Internal Market Monitor, ten years later it had fallen to 2.1 percent. In spite of the large progress made, there remains a need for further liberalisation in the areas of the Internal Market for services (*European Commission*, 2002J) and of financial market integration (*European Commission*, 2003).

Implementation deficit being substantially reduced

The three new member states joined the EU on the basis of the Internal Market established as from 1993. In implementing the implicit rules they exhibited different degrees of ambition. While in Austria, the implementation deficit is still at a level of 2.9 percent, Finland (0.6 percent) and Sweden (0.4 percent) have been much more ambitious in implementing EU law (*European Commission,* 2002A, pp.5-7). In order to reach the target set by the European Commission of an implementation deficit of 1.5 percent by 2004, Austria still has to implement 57 directives (79 directives remain for complete implementation), compared with 24 directives each for Finland and Sweden (of a total of 46).

If EU directives are implemented in an incomplete manner or not at all, the European Commission will initiate a Treaty violation procedure. The total number of such procedures is very high, with 1,500 open cases of late. With Austria, there are currently 79 cases pending, as compared with 39 for Finland and only 32 for Sweden (see European Commission, Internal Market Monitor, November 2002).

Harmonisation versus mutual recognition of norms and standards

In general, the Internal Market Programme is based on the principle of mutual recognition of industrial norms and standards. While for the smooth functioning of the Internal Market and thus the establishment of equal and fair conditions, the complete harmonisation of the many different standards would naturally be desirable, this could not be put into practice. Besides the concept of mutual recognition[3],

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[2] All three countries examined here have acceded to the Schengen Agreement that provides for the free movement of individuals, the abolition of border controls and the reinforcement of controls at the external EU frontiers. With the integration into the Treaty of Amsterdam (in force since 1 May 1999), the Schengen Agreement has become part of EU primary legislation. Finland and Sweden acceded to the Schengen Agreement on 25 March 2001, together with the other Scandinavian countries (Norway and Iceland as associated members), which allowed the Nordic Council (between Iceland, Norway, Denmark, Sweden and Finland) that celebrates its 50th anniversary this year to maintain its passport union. In Austria, the Agreement has been in force since 28 April 1995, with border controls being phased out in two steps, on 1 December 1997 and 1 April 1998.

[3] The sale of a product that has been made and put into circulation in a member state in conformity with its legal provisions cannot be forbidden by another member state, if it offers the same level of protection.

which was introduced in the EU through the ruling of the European Court of Justice in the case of Cassis de Dijon (Cs. 120/78), there are incentives provided by the Commission for harmonisation as well as similar efforts within the institutions in charge of standardisation (CEN, CENELEC, ETSI, ENO, etc; *Paparella*, 2002). Over the last ten years, there has been a steady increase in both the harmonisation initiated by the European Commission and, even more, the standardisation of manufactured goods driven spontaneously by industry (*European Commission,* 2002A, p. 15). As a rule, standardisation in particular instances are implemented by the European standardisation authorities CEN, ETSI, CENELEC (*Paparella*, 2002). The positive effects of greater harmonisation on competitive positions as postulated by theory have, however, not been identified in an unambiguous way so far (*Paparella*, 2002).

According to opinion surveys ("Eurobarometer"), large corporations take a more positive attitude towards the Internal Market Programme than small and medium-sized enterprises (*European Commission*, 2002A, p. 19). All enterprises see a strong influence of the Internal Market on productivity, but a less positive one on profits and employment. The Internal Market is deemed to have highly positive effects on the possibility of selling products within the EU.

Assessment by the citizens

The EU citizens see the positive role of the Internal Market in the fact that it boosts their welfare (*European Commission,* 2002A, pp. 27f). They benefit from lower prices (41 percent), higher product quality (67 percent) and an altogether higher supply of goods (80 percent).

With regard to public approval of the EU and the appraisal of the advantages of membership, Finland, Sweden and Austria differ markedly. Traditionally, scepticism vis-à-vis the EU has been and continues to be highest in Sweden, as witnessed in particular by the country's non-participation in EMU. According to the "Eurobarometer" (*European Commission*, 2002F), 40 percent of the Finnish, 37 percent of the Austrian and 38 percent of the Swedish population call EU membership "a good thing". 41 percent of the Finnish and 40 percent of the Austrian people see themselves benefiting from EU membership, but only 29 percent of the Swedes.

Internal Market Index rising strongly

Since 2001, the European Commission has published an "Internal Market Index" designed to express the functioning of the Internal Market by a single figure. In 2002, the Index was revised and broadened in scope (*European Commission,* 2002A, pp. 32ff). It consists of a weighted average of 12 indicators[4] that have been selected as representative for the functioning of the Internal Market by IMAC, the Commission's Internal Market Advisory Committee (Table 6).

For the EU as a whole, the Internal Market Index rose[5] from 100 in 1992 to 111 in 1995 and 143 in 2001, suggesting a steady implementation of the basic principles of the Internal Market. For the new member states the index has also been calculated as from 1992, although they acceded the EU only in 1995. Overall, the Index rose much faster for the three new member states than for the EU average. This holds particularly for Finland, where the Index went up from 100 in 1992 to 162 in 1995 and 225 by 2001 (having temporarily levelled off at 196 in 1999). For Sweden, the Index rose from 100 in 1992 to 155 in 1995 and 176 in 2001, having peaked at 184 in 2000. In Austria, the implementation of the Internal Market as measured by the Index, also proceeded faster than on EU average: the Index rose from 100 in 1992 to 121 in 1995 and 163 in 2001, slightly down from 165 in 2000.

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[4] For a detailed description of the methodology, see *Tarantola – Saisana – Saltelli* (2002).

[5] We are indebted to the European Commission for the communication of the data. A graphic representation can be found in *European Commission* (2002A).

Table 6: Internal Market Index – variables and sources

Variable	Source	Weight	Sign	Proxy for
Sectoral and ad-hoc state aid, as a percentage of GDP	Eurostat	14%	–	Fair competition
Value of published public procurement, as a percentage of GDP	Eurostat	13%	+	Transparency and market access
Telecommunication costs (10 minutes, local, national and international calls)	Eurostat	9%	–	Market opening in telecommunications sector
Electricity prices (industry and households)	Eurostat	12%	–	Market opening in electricity sector
Gas prices (industry and households)	Eurostat	7%	–	Market opening in gas sector
Relative price level of private final consumption including indirect taxes (EU average = 100)	Eurostat	10%	–	Price divergence by member state from EU average
Intra-EU foreign direct investment inward flows, as a percentage of GDP	Eurostat	12%	+	Free movement of capital between member states
Intra-EU-trade, as a percentage of GDP	Eurostat	14%	+	Free movement of goods between member states
Active population in a member state (aged 15 to 64) originally coming from other member states, as a percentage of total population	Eurostat	3%	+	Free movement of workers between member states
Value of pension fund assets, as a percentage of GDP	European Commission, GD Internal Market	1%	+	Movement from pay-as-you-go to funded pension schemes
Retail lending interest rates over savings interest rates ratio	European Central Bank http://www.ecb.int/stats/	4%	–	Efficiency of the banking sector
Postal tariffs (20 g, standard letter)	European Commission, Internal Market DG	1%	–	Market opening in postal services

Source: *European Commission* (2002A), S. 39.

Internal Market for electricity and gas

An important contribution towards a better functioning of the Internal Market is provided by the completion of a single market for electricity and natural gas supply. Electricity and gas are not only crucial inputs for manufacturing industry, but also components of the consumer price index of private households. If prices decline as a consequence of the opening of previously nationalised electricity and gas markets to competition, it will alleviate not only the production costs of firms, but also charges of private households.

The latest benchmarking report of the *European Commission* (2002B) investigates into the opening of these markets and the implications for prices. The "electricity directive" for the opening of the electricity market has by now been implemented by the three countries surveyed (Finland 1997, Sweden 1998, Austria 2001). The "gas directive" for the opening of the gas market has so far been fully implemented by only three EU member states (in Austria as of 1 October 2002[6], Germany since 2000 and the UK since 1998). In Sweden, liberalisation is planned for 2006, whereas Finland has not yet set up a timetable for the full opening of the gas market.

Liberalisation has so far had rather different effects on prices. While electricity has become cheaper, gas prices have moved upwards. In Finland, retail prices of electricity fell by 18 percent for large-scale industrial users (as from 50 GWh per year) between January 1995 and January 2002, i.e., from € 44 to € 36 per MWh, and by 8 percent for small-scale commercial users (24 GWh p.a.), i.e., from € 61 to € 56 per MWh. For private customers (as from 3.5 GWh per year), electricity costs in January 2002 of € 70 per MWh were back to the level 1995, after prices had eased to € 64 per MWh in 2000.

In Austria, electricity prices for large-scale industrial users fell from € 69 per MWh in 1995 to € 60 in July 1999 (–13 percent, more recent data being unavailable), for small-scale commercial users from € 172 to € 96 per MWh (–44 percent), and for private households from € 103 (January 1996) to € 93 (–10 percent). In Sweden, electricity became 21 percent cheaper for large-scale industrial users (from € 33 per MWh in January 1996 to € 26 in January 2002), 49 percent cheaper for small-scale commercial users (from € 70 per MWh to € 36), but 6 percent more expensive for private households (from € 66 to € 70 per MWh).

On gas markets, prices increased (data are lacking in part, especially for Finland) for all categories of users and in all three countries over the period considered, with the exception of a slight decline for large-scale users in Sweden between January 2001

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[6] For details see *Schwarzbichler* (2003).

an January 2002. In most cases, therefore, private households have so far seen hardly any decline in their energy costs, be it electricity or gas, and thus no tangible welfare gains.

The European Union is (still) based upon a complicated division of responsibilities between the EU- or Community level on the one hand and the national level on the other (*Breuss,* 2002A). Many policy areas are already Community matters, such as competition policy, the Common Agricultural Policy, the Common Trade Policy as well as the structural or regional policy. In the draft EU Constitution that the "Convention on the future of Europe" submitted to the European Council of Thessaloniki in June 2003, the responsibilities of the different government levels are defined in a clearer way. Thus, a distinction is made between exclusive responsibilities of the EU (e.g., monetary policy, Common Trade Policy, customs union), shared responsibilities between the Union and the member states (e.g., Internal Market, Common Agricultural Policy, transport, energy, social policy), and the co-ordination of economic and employment policy.

The EU Internal Market with its "four freedoms" will function only when accompanied by strict control of a common competition law ensuring a level playing field (*Martin,* 2001, pp. 125-142, *Sauter,* 2001, pp. 187ff). This responsibility is taken care of by the European Commission. The Commission watches over the granting of subsidies in conformity with the Common Rules of Competition (Art. 81 to 86 of the EU Treaty relating to cartels, and Art. 87 to 89 concerning government subsidies). Moreover, the Regulation on Merger Control entitles the European Commission to investigate into mergers between companies with a view to market dominance.

The number of international mergers in the EU has been rising steadily since the early 1990s, from 1,434 in 1992 to 4,247 in 2002 (2001: 3,028 cases; *European Commission,* 2001, p. 9). By the end of 2001, a total of 1,908 mergers have been notified to the Commission within the framework of the Regulation on Merger Control[7] in force since 21 September 1990. Of that total, 53 fell only partially or not at all within the area of applicability of the Regulation, and 77 notifications were withdrawn subsequently. Only 18 mergers, less than 1 percent of all cases, were vetoed (*European Commission,* 2001, p. 16). For the three countries considered here, the number of negative decisions has also been quite small (*European Commission,* 2002E, p. 65): in Austria 1 case (0.8 percent of total), in Finland 1 case (1.2 percent), and in Sweden 4 cases (1.5 percent).

The Common Agricultural Policy (CAP), which has been existent already since 1962, regulates the EU agricultural markets almost in the style of a centrally-planned economy. Accession to the EU implies that public agricultural expenditures are no longer financed by the national government, but out of the EU budget. Market regulations exist for all categories of agricultural products, which are periodically adjusted according to strategies for reform (the last such adjustment was made on the basis of a decision by the European Council of March 1999 in Berlin on the Agenda 2000). Further reform proposals, submitted by the European Commission in its Midterm-Review of July 2002 (*European Commission,* 2002G), were first discussed by a Special European Council Meeting in Brussels on 25 and 26 October 2002 in preparation for EU enlargement; a decision was postponed until the Council meeting of 26 June 2003 in Luxembourg, where a compromise was found as regards dissociation of direct payments to farmers from production (for the consequences for Austria, see *Sinabell – Schmid,* 2003).

In each of the countries examined here, Finland, Sweden and Austria, agriculture claims a relatively small share in the overall economy. They therefore receive only modest agricultural funds from the EU budget. Although the share of agriculture in total employment of around 6 percent is about equal in Finland and Austria, the latter has since 1995 received higher amounts from the EU. This is partly due to the fact that Austria, unlike Finland and Sweden, has largely benefited from the new benefit

Fundamental changes in economic policy as a consequence of EU accession

Competition law

Common Agricultural Policy

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[7] Council Regulation (EEC) No. 4064/89 of 21 December 1989, OJ No L 395 of 30 December 1989, modified by Council Regulation (EC) No. 1310/97 of 30 June 1997, OJ No L 180 of 9 July 1997.

category "rural development" (Table 7). In 2001, Austria obtained 2.5 percent of total EU agricultural expenditure (*European Commission – Eurostat*, 2002, p. 115), Finland 2 percent and Sweden 1.9 percent. The share of direct income subsidies to farmers is rather similar for the three countries (Austria and Sweden 1.9 percent each, Finland 1.4 percent). As for export refunds, Finland (2.3 percent) and Sweden (2 percent) are ahead of Austria (1.4 percent). 10.4 percent of EU expenditure for rural development go to Austria, 7.5 percent to Finland and 3.5 percent to Sweden. Austria's share of the resources for storage of 2.2 percent is also significantly higher than those of Sweden (0.6 percent) and Finland (0.2 percent).

Table 7: Relations with EU budget

		1995	1996	1997	1998 Mio. €	1999	2000	2001
Own resources[1]	Finland	887.4	964.0	1,061.9	1,145.8	1,210.7	1,225.7	1,233.2
	Austria	1,762.9	1,874.0	2,110.4	2,085.8	2,053.7	2,093.6	2,091.0
	Sweden	1,658.3	1,969.0	2,326.0	2,382.7	2,348.8	2,632.9	2,337.7
Operative expenditure total[2]	Finland	753.4	1,052.0	1,118.0	975.1	936.4	1,396.3	1,020.1
	Austria	902.3	1,660.5	1,386.8	1,329.5	1,242.0	1,398.4	1,403.3
	Sweden	760.7	1,312.5	1,196.6	1,343.7	1,164.6	1,214.5	1,092.9
Common agricultural policy (CAP): EAGGF – guarantee section	Finland	63.3	649.2	570.6	576.4	560.0	727.8	815.8
	Austria	87.5	1,214.1	861.3	843.2	844.4	1,018.7	1,052.6
	Sweden	76.5	624.1	747.0	770.9	734.8	798.1	780.1
Structural policy measures	Finland	173.8	155.9	379.9	256.8	252.7	542.6	83.6
	Austria	175.1	270.6	364.0	340.7	296.3	260.8	206.4
	Sweden	125.6	132.7	230.6	375.8	287.4	232.2	135.6
Net operative budget balance[3]	Finland	– 70.6	72.6	39.8	– 102.4	– 194.8	274.5	– 150.4
	Austria	– 788.0	– 264.5	– 779.8	– 629.2	– 628.8	– 447.8	– 536.4
	Sweden	– 673.6	– 587.9	– 1,097.7	– 779.9	– 897.3	– 1,059.5	– 973.3
As a percentage of GDP	Finland	– 0.08	0.08	0.04	– 0.09	– 0.17	0.22	– 0.12
	Austria	– 0.44	– 0.15	– 0.43	– 0.34	– 0.32	– 0.22	– 0.26
	Sweden	– 0.38	– 0.30	– 0.54	– 0.38	– 0.41	– 0.45	– 0.44

Source: *European Commission* (2002C). – [1] Transfers to EU budget: traditional own resources (tariffs, agricultural levies, etc.), V.A.T. own resources, GDP own resources. – [2] Apart from CAP and structural policy: internal policies, administrative expenditure. – [3] Positive . . . net receiver, negative . . . net contributor.

Figure 5: Agricultural incomes

Real factor income per employee, 1995 = 100
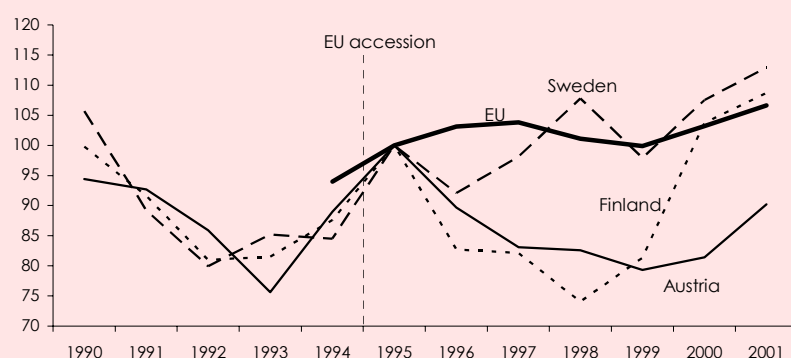
Source: *European Commission – Eurostat* (2002).

In this context the question arises how agricultural incomes in the three countries have developed since they have adopted the CAP. An analysis by the European Commission shows the following results (Figure 5): the index of real (factor) incomes per capita on average for the period 1995-2001, as compared with the period 1990-

1994, rose by 13 percent in Sweden and by 2 percent in Finland, while in Austria it edged down by about 1 percent. From 1995 to 2001, real incomes gained 13 percent in Sweden and 9 percent in Finland (+2 percent and +1.5 percent p.a., respectively), whereas in Austria the index fell by an overall 10 percent or 1.6 percent per year. Over the same period, the index for the EU 15 rose by 7 percent or 1 percent p.a. Thus, the three new member states benefited to a highly different degree from integration into the CAP.

The objective of the EU structural policy is to ". . . promote economic and social cohesion and the solidarity between the member states" (Art. 2 EC Treaty). Therefore, structural policy funds go primarily to the poorer member states. Finland, Sweden and Austria are rich countries with relatively small structural problems. Nevertheless, in the accession negotiations they were seeking to obtain as big a share as possible of the common structural funds resources. In Austria, the Burgenland was granted the "Target-1 area" status, entitling to the highest level of subsidies (the criterion being an area with GDP per capita less than 75 percent of the EU average). Finland and Sweden succeeded (together with Norway) in an additional subsidy target being identified (Target 6: sub-arctic regions with low population density). After the reform of the structural policy in the context of the Agenda 2000, the target catalogue was reduced from six to three as from 2000: Target 1 was maintained for low-income regions, Target 2 addresses poorly industrialised regions, and Target 3 areas with labour market problems. Target 6 was transferred to Target 1 for Finland and Sweden.

An analysis of the operational expenditures shows that the three countries benefited to fairly equal extent from EU budgetary transfers under the heading of "structural policy measures". The top position among the three varied from year to year, the latest figures for 2001 showing Austria as claiming the highest amount (Table 7).

In 2001, Finland obtained 0.4 percent of the EU funds for structural policy measures, Austria 0.9 percent and Sweden 0.6 percent (*European Commission,* 2002C, p. 115). Broken down by Target areas, Austria received most of Target-2 resources (2.7 percent as compared with 0.7 percent for Finland and 0.9 percent for Sweden), Sweden of Target-3 funds (4.4 percent; Austria 3.9 percent and Finland 1 percent), whereas Austria and Finland claimed an equal share of 0.2 percent of total Target-1 subsidies (Sweden 0.1 percent). Sweden receives substantially more EU funds for innovative measures and technical assistance (3.7 percent as compared with 2 percent for Finland and 1.7 percent for Austria), whereas Austria participates to a higher degree in Community initiatives (1.8 percent) than Finland and Sweden (0.9 percent, respectively).

The difference between the own resources which each member state contributes to the EU budget up to a ceiling of 1.27 percent of GDP (Table 7) and the operational expenditures (mainly for the CAP and structural policy measures) yields the operational budget balance. Thereby, Austria and Sweden are net contributors to an amount of around ½ percent of their GDP, whereas for Finland the balance is close to zero. The net budgetary position is part of the national welfare accounting. Thus, aggregate welfare is reduced for net contributors and enhanced for net recipients.

Of the three countries surveyed, only Finland and Austria participate in Economic and Monetary Union (EMU) since the entry into force of Stage Three on 1 January 1999. Sweden did not adopt the common currency out of political considerations and also based on an economic study: *Calmfors et al.* (1997) argue that the Swedish business cycle is more closely correlated with that of the UK and the USA than with the other EU members. Precondition for entry into EMU was the fulfilment of the convergence criteria as laid down in the Maastricht Treaty: the rate of inflation, budgetary criteria (deficit and debt level), interest rates and participation in the exchange rate mechanism (ERM)[8] of EMS without currency depreciation vis-à-vis member states.

Structural policy

Net contributors to the EU Budget

Inside and outside EMU

Finland, Austria and Sweden: two "ins" and one "pre-in"

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[8] In the old ERM participants committed themselves to common foreign exchange market interventions in case of exchange rate fluctuations exceeding the agreed corridor.

According to the examination by the *European Commission* (1998) and the *EMI* (1998) in March 1998, all criteria were fulfilled by Finland and Austria. Unlike Austria (since 9 January 1995) and Finland (since 14 October 1996), Sweden never participated in the ERM and thus did not meet one of the five convergence criteria. Sweden and also the UK have not joined the Exchange Rate Mechanism II (ERM II), whereby the member states not participating in EMU (four EU members in the beginning, since the EMU entry of Greece on 1 January 2001 only Denmark, the UK and Sweden) should tie their exchange rates to the euro in relatively narrow bands (up to ±15 percent); responding to a request from the UK, participation in ERM II is not mandatory. The ERM II is designed to prevent the EMU "outs" from distorting the EC Internal Market via unfair currency depreciation. Presently, the Danish krona is the only member of ERM II. It has a central rate against the euro, and a fluctuation band of ±2.25 percent (before joining the euro zone for the Greek drachma the band was ±15 percent.

The Swedish krona first appreciated against the euro (from early 1999 until spring 2000 by around 15 percent), then declined (until autumn 2001 by some 18 percent), before re-gaining ground (up to end 2002 some 8 percent); since early 2003 it has trended downwards. Over the whole period since the beginning of 1999, the Swedish krona has gained some 4 percent against the euro. Sweden's relative competitiveness, as measured by the real-effective exchange rate (relative unit labour costs vis-à-vis 22 industrialised countries on a dollar basis) has been subject to strong variations since the beginning of EMU. According to the *European Commission* (2002D), it improved by 4.1 percent in 1999 (real depreciation), weakened by 3.3 percent in the following year (real appreciation) and rebounded markedly in 2001 (real depreciation by 6.9 percent). Developments have been smoother in the two EMU members Finland and Austria. In Austria, price competitiveness rose in all three years since the beginning of EMU (real depreciation; 1999 –1.7 percent, 2000 –4.5 percent, 2001 –0.5 percent); in Finland, competitiveness rose in the first two years (1999 –2.5 percent, 2000 –6.8 percent) and weakened in 2001 (real appreciation of 3.4 percent).

EMU represents an economic and monetary policy framework that is characterised by notable asymmetry (*Breuss,* 2002A): responsibility for monetary policy is with the European Central Bank (ECB), whereas for the other policy areas (particularly budgetary policy) responsibility remains with the member states. This arrangement calls for the co-ordination of economic policy, which is organised at different levels and within a larger number of processes. An important instrument of co-ordination and surveillance is the Stability and Growth Pact (SGP). The member states participating in EMU (such as Finland and Austria) have transferred their responsibility in monetary and exchange rate matters to the ECB, implying a loss in economic sovereignty. The non-EMU countries (e.g., Sweden) can continue with their own monetary and exchange rate policy. Nevertheless, the EU member states regard economic policy (meaning in particular budgetary policy) ". . . as a matter of common concern and co-ordinate it in the Council . . ."(Art. 99/1 EU Treaty). Therefore, also the non-participating member states in EMU are bound by common goals. In the context of the multilateral surveillance process of budgetary policy, the EMU members have to submit annual stability programmes, and the non-participants annual convergence programmes; these medium-term budgetary plans are assessed by the Commission, on the basis of which the Council formulates an opinion.

Economic policy in EMU

Yet, the institutional framework provides for differences between the "ins" (e.g., EMU participants) and the "pre-ins", i.e., those countries not yet having adopted the euro. The former are represented in the informal euro group that meets regularly ahead of the official Ecofin Council and prepares all economic policy decisions within the euro area. Also, the "pre-ins" are not represented in the ECB Council which defines monetary policy for the euro area, but only in the Enlarged ECB Council (Art. 45 of the EU Treaty Protocol on the Statute of the European System of Central Banks and of the European Central Bank), which has limited rights of co-decision (e.g., on statistics). The advantage of autonomy in monetary and exchange rate policy matters is

to be set against the considerable disadvantage of being excluded from major decision fora of the euro area.

Following the successful introduction of euro notes and coins on 1 January 2002, the "pre-ins" are reconsidering their position on EMU participation. On 14 September 2003, in a referendum the Swedish population voted against the euro with a 56 percent majority (already on 28 September 2000, the Danish voted with a 53 percent majority against the adoption of the euro).

It is still too early to judge whether and to what extent EMU has led to a synchronisation of the European business cycle[9]. If this were the case, one economic argument from the Calmfors Report (*Calmfors et al.,* 1997) would become irrelevant, namely that a precondition for successful EMU participation would be a close correlation of business cycles, as indeed EMU participation would produce that very result (hypothesis of an "endogenous optimal currency area"; *Frankel – Rose,* 1998). However, the trade creation effects from participation in a fixed exchange rate system (currency union) claimed by *Rose* (2000) would appear largely exaggerated. In any case, the three- to fourfold increase in intra-euro-area trade derived by him on the basis of a gravity estimation approach for 186 countries for the period from 1870 to 1990 has (so far) not materialised. The estimates by Rose have been heavily criticised by *Persson* (2001 – response from *Rose,* 2001), who obtained a – still enormous – trade gain of 40 percent from the establishment of a currency union. First estimations indicate that the introduction of the euro could have stimulated intra-EU trade by 4 percent to 10 percent (*Micco – Stein – Ordonez,* 2003).

A macro-economic analysis of advantages and disadvantages of participation in EMU, based upon simulations with a world macro model by Oxford Economic Forecasting yielded the following results[10] (*Breuss,* 1997): for hard-currency countries the advantages of participation in EMU are greater than for soft-currency countries[11]. Thereby, the cumulative gain in Austrian real GDP after five years in EMU would amount to 2.2 percentage points (total for all hard-currency countries +1.9 percent, soft-currency countries +1.4 percent, EU average +1.7 percent). This results from several EMU effects: lower transaction costs from abolition of currency change; heightened competition in the financial sector from national segmentation being overcome; benefits from exchange rate stability and a positive growth effect claimed by Baldwin (rise in total factor productivity).

European integration is not a one-dimensional process. EU integration is progressing and has reached a high degree of economic maturity with the establishment of monetary union and the introduction of the euro as a common currency. At the same time, new integration steps are in preparation. In 2004, 10 new member states – mainly from Central and Eastern Europe – will accede to the EU, the Balkan countries may follow and, in the last instance, Turkey. This complex time dimension creates a problem for isolating integration effects for single EU member states.

Since the accession of Finland, Austria and Sweden, the following developments occurred inside and outside the EU:

- In the EU, the Internal Market was established in 1993, but was implemented only gradually.

- In 1998, the assessment of eligibility of the member states for EMU (fulfilment of the convergence criteria) led to a harmonisation of interest rate management and to widespread budgetary consolidation efforts, with substantial repercussions on the real sector of the economies.

Euro dividend?

**Integration effects
ex ante and ex post**

**The difficulty of isolating
integration effects**

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[9] For the respective pros and cons see *Breuss* (2000B).

[10] For a comprehensive analysis of the consequences of EMU for Austria, see *Baumgartner et al.* (1997).

[11] Hard-currency countries are considered to be those having in the past tied their currencies to the German mark, such as Austria. Among the soft-currency countries are also Finland and Sweden, since their exchange rates have varied strongly up to the mid-1990s; at that time it was widely assumed that both Finland and Sweden would participate in EMU.

- In 1999, EMU started with 11 member states, with Greece joining subsequently in 2001.

- On the external front, trade with the Central and Eastern European countries expanded fast since the opening of these economies in 1989 – particularly for those member states which had already before maintained close trade relations with the East, such as Finland and Austria, but somewhat less Sweden. The integration effects deriving from EU accession were thus superseded by the substantial expansion of trade with the East.

- Under the impact of a global cyclical slowdown the EU economy slipped into recession in 1993; while it has recovered since, the upturn proceeded more slowly than in the USA. Japan has been in a deflation crisis since 1991.

In view of this rather complex economic reality it becomes clear that, whereas an ex-ante evaluation of integration effects on the basis of theoretical expectations is difficult, an ex-post quantification of such effects is still much more ambitious.

The theory of regional integration is well developed and enables concrete estimations to be made using computable general equilibrium (CGE) models. *Baldwin – Venables* (1995, p. 1601) derive a prototype equation incorporating all conceivable effects of regional integration (deduction of welfare effects from an indirect utility function). This equation is applied here to the integration effects in Finland, Austria and Sweden from their accession to the EU:

$$(1) \quad \frac{dV}{V_E} = \alpha\, t\, dm - m\, d[t - \alpha\, t] - m\, dp +$$

$$+ [p + t - a]\, dX - X\, a_x\, dx + \frac{V_n}{V_E}\, dn +$$

$$+ (\tilde{r}/\rho - 1)\, dI \, .$$

The change in welfare (dV , d . . . difference operator) of a representative consumer in relation to the marginal utility of consumption expenditure (V_E) is theoretically dependent from the following partial integration effects:

- *Traditional trade effects* in a situation of perfect competition: the right-hand side of the first line in equation *(1)* includes the trade effects, consisting of three sub-effects: a *trade volume effect TV* ($\alpha\, t\, dm$), where t . . . vector of trade cost (tariffs, non-tariff trade barriers), m . . . vector of net imports (+ = imports), a . . . parameter (α=1 if tariff receipts accrue for the domestic economy, α=0 if no rents, i.e., tariff receipts accrue domestically); a *trade cost effect TC* ($- m\, d[t - \alpha\, t]$) and a *terms-of-trade effect TOT* ($- m\, dp$), where p . . . vector of prices at the border.

  The *TV* effects would only materialise if between the EU and the three new member states, before their accession, tariffs would still exist (entry into a customs union with a common external tariff would produce trade creation and trade diversion effects). Actually, however, tariffs had already been phased out ($t = 0$) through the free trade agreements of 1972 between EC and EFTA. Therefore, at the entry into the Internal Market only *TC* effects played a role, via the dismantling of non-tariff trade barriers (for this reason, $\alpha = 0$), and only the term $- m\, dt$ remains relevant. EU accession has a welfare-enhancing effect, because trade barriers (equivalent to tariffs) such as trade costs of border controls are abolished. Since the three new member states are small countries, unable to influence world market prices and thus the terms-of-trade, the *TOT* effect also becomes zero (the third term on the right hand side in the first line of equation *(1)*: $dp = 0$).

- *Modern integration effects* under imperfect competition: the second line of equation *(1)* contains three integration effects identified my modern foreign trade theory: a *production effect PE* $[p + t - a]\, dX$ (the term in brackets corresponds to profits, i.e., revenues $p + t$ minus costs a , dX . . . change in production vector), an *economies-of-scale effect EOS* $- X\, a_x\, dx$ (a_x . . . average costs, i.e.,

factor prices for capital and labour in sector x) and a *product variation effect* VE ($(V_n/V_E) dn$, V_n ... marginal utility of a product variation n).

In theory, accession to the Internal Market may produce all three sub-effects. It leads to an increase in production (*PE* effect), and the expansion of trade within the Internal Market stimulates in turn intra-industry trade which itself can be explained by imperfect (monopolistic) competition. Integration into a larger market enables participants to benefit from *EOS* effects. The potential reinforcement of market-dominating positions may be countered by the higher degree of competition as a consequence of higher intra-EU trade (loss of monopoly positions). If, however, in the Internal Market the ideal of the perfect market became reality, prices would be equal to costs in the industrial equilibrium, implying that both *PE* and *EOS* effects would disappear with only the *VE* effect remaining. Participation in the large Internal Market may on the one hand entail a shift of production towards the Internal Market and, on the other, the maintenance of product-related monopoly positions in favour of increasing product differentiation and thus a widening of product variation (*VE* effect). The magnitude of this effect is difficult to test empirically. The hypothesis by *Casella* (1996) whereby small countries benefit more from integration into a larger community than big countries, because the former should reap larger economies of scale, appears plausible but cannot be entirely confirmed empirically (*Badinger – Breuss*, 2002).

- *Accumulation or growth effects* AE: $(\tilde{r}/\rho - 1) dI$, where $\tilde{r}$ ... social rate of return of capital, ρ ... rate of discount, I ... investment (third line in equation *(1)*). The key question arising in the context of integration moves is whether they will boost economic growth. That is the case if integration leads to higher returns on investment in physical or human capital. A further question is whether the dynamic (or growth) effects will accrue only in the short run or permanently. In the former case, integration into a larger community will lead to a one-time level shift, e.g., of real GDP, with subsequent developments following a normal trend. In the latter case, growth rates of real GDP would stay permanently higher than before (higher steady state growth). Participation in the Internal Market also gives rise to acquisition and diversion of investment. While new members become attractive for foreign direct investment (FDI), the remaining EFTA countries see a drain in investment. In the long run, accession to the EU could raise the pace of growth via technical spill-overs (*Coe – Helpman,* 1995), either as a consequence of rising intra-EU trade or because of the promotion of scientific exchange (EU framework programmes), thereby boosting investment in research and development and, indirectly, long-term economic growth. The issue of location effects accruing from EU accession could also be explored by the modern approach of Economic Geography (*Krugman,* 1991, *Baldwin – Venables,* 1995, p. 1619); this branch of trade theory is empirically still poorly developed.

Only very few CGE and macro-economic models lend themselves for quantifying all these theoretically conceivable integration effects. The dynamic CGE model by *Keuschnigg – Kohler* (1996) provides the best approach towards this theoretical neo-classical ideal. Before and shortly after joining the EU, a large number of studies on the potential integration effects of this move were presented in the three new member states[12]. At the same time, the integration effects within EFTA were analysed using CGE models (e.g., *Norman,* 1989), or those within the EU and EFTA compared (*Haaland,* 1993). The major results for Finland, Austria and Sweden are summarised in Table 8.

All these studies held relatively high expectations from EU accession of the three countries, although the quantitative results were rather different. While the analysis for Austria by *Breuss – Kratena – Schebeck* (1994) consisted in simulations with a joint macro-input-output model, and with a dynamic multi-sector CGE model by *Keuschnigg – Kohler* (1996), the results for the other countries are derived in a rather simple way from supposed trade, price and competition effects (e.g., *Flam,* 1995; also

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[12] For a survey see *Widgrén* (1999) for Finland, *Breuss* (1995, 1996, 1999A) for Austria and *Dahl* (1999) as well as *Kokko* (1994) for Sweden.

Keuschnigg – Kohler, 1996, for Finland and Sweden only derived from model elasticities of the Austrian model).

Table 8: Estimation of integration effects ex ante			
	Finland	Austria	Sweden
	Net welfare effects as a percentage of GDP		
Flam (1995, p. 465)	+ 0.86	+ 0.08	+ 0.22
Keuschnigg – Kohler (1996, p. 187)	+ 1.00	+ 1.18	+ 0.59
	Cumulative deviation of real GDP from baseline scenario without EU accession, in percent		
Permanent effects (*Alho – Erkkilä – Kotilainen,* 1996, *Widgrén,* 1999, p. 83)	+ 4.2		
Effects after 6 years (*Breuss – Kratena – Schebeck,* 1994, p. S27)		+ 2.8	
Long-term effects (*Keuschnigg – Kohler,* 1996, p. 169)		+ 1.9	

Although the theory of integration considers a host of effects as possible, it is certainly easier, as stated above, to postulate certain integration effects ex-ante than to verify or falsify them ex-post. A first attempt to quantify the economic consequences of EU membership for Austria and compare them with ex-ante expectations (*Breuss,* 1999B, 2000A) suggested that the expectations were largely met.

Following the presentation of economic developments in the three new member states on the basis of key performance data, and the attempt of identifying integration effects by comparing the periods before and after accession, we now intend to estimate by a common empirical approach the impact of the different channels of integration in the three countries. For all three countries the same model, a small essentially supply-side-oriented macro model, is being developed and the necessary equations econometrically estimated for each country (see Annex). The integration effects are then derived via simulation.

The integration model sets off from the establishment of the EC Internal Market in 1993 and, in the course of time, allows the following effects being quantified:

- *Acceleration of GDP growth in the EU:* The assumption that over the last ten years the Internal Market has added 0.2 percentage point p.a. to real GDP growth in the EU is derived from the works of *Badinger* (2001, 2003). The *European Commission* (2002H, pp. 2-3), in its ex-post evaluation "10 Years of Internal Market" based upon simulations with the macro model QUEST II, concludes that since 1992 EU-wide 2.5 million new jobs have been created and the level of real GDP in 2002 has been boosted by 1.8 percentage points or € 164.5 billion, compared with a baseline scenario without the Internal Market[13]. This is in line with the assumption made here of an annual acceleration of EU real GDP growth by some 0.2 percentage point. The European Commission, in its Cecchini Report, had claimed somewhat higher GDP effects. *Catinat – Donni – Italianer* (1988) found a cumulative increase in EU real GDP of 4.5 percent after six years[14]. The impact of this assumption, in the present model, is confined to higher exports to the EU.

- *Stronger competition in the financial sector since 1993:* The Internal Market, and even more EMU, led to stronger competition in the financial sector[15]. It is as-

Ex-post assessment – an integration model

EC Internal Market – windfall gains since 1993

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[13] The simulated GDP effects of participation in the EU Internal Market over 10 years are based upon the following inputs in the QUEST II model: a decline in price mark-ups on costs by some 0.9 percentage point due to stronger price competition, and an increase in total factor productivity (TFP) by around 0.5 percent due to efficiency gains from liberalisation, deregulation and privatisation (*Roeger – Sekkat,* 2002). The TFP model input results from findings from different studies on the impact of market opening (liberalisation, deregulation and privatisation) at the sectoral and the overall economic level – such as *Nicoletti – Scarpetta* (2003) and *Salgado* (2002), who both analyse the impact of liberalisation (reform of goods and labour markets) on TFP at the sectoral and the overall economic level using panel data for the OECD industrialised countries.

[14] The results of the Cecchini Report were largely confirmed by an intermediate review by the *European Commission* (1996).

[15] The growth effect of a full integration of European financial markets is estimated at around 1 percentage point (acceleration of GDP growth per year) for most EU member states (*Gianetti et al.,* 2002).

sumed here that thereby long-term nominal interest rates in Germany edged down by 0.1 percentage point per year. This implies in the present model also a decline in interest rates in the three new member states, which benefited capital formation and gave a slight positive impulse to GDP growth.

- *General increase in competition in the Internal Market since 1993:* The Cecchini Report (*Catinat – Donni – Italianer,* 1988) claims that stronger competitive pressure in the Internal Market dampens consumer price inflation by a cumulative 6 percentage points over six years; this would also lead to a slower pace of export prices by 5½ percentage points[16]. We assume here that the moderation of export prices lowered import prices in the three new member states by 0.5 percentage point per year. The lower imported inflation exerts downward pressure on the domestic price level and is reflected in a deceleration of consumer price inflation.

The three countries examined here, as members of EFTA, participated already in 1994 in the EEA. Apart from the four freedoms postulated by the EEA agreement (which were, however, only partially implemented), it was notably competition policy that was harmonised. It is assumed here that this gave rise to stronger price competition already ahead of EU membership. This effect is taken into account through an adjustment of the mark-up in the price equation, leading to a change in relative factor prices. The resulting decline in the domestic price level raises real disposable incomes and consumer welfare. The magnitude of the competition effect is difficult to assess empirically[17]. Here, we assume a reduction in the mark-up by 15 percentage points since 1994.

EEA effects since 1994

- *Trade effects:* Both in 1994 and 1995, EU exports and imports of the three accession countries rose strongly, but abated subsequently towards more "normal" rates of growth, yielding only initially slight gains in GDP. The equations for both real exports to and real imports from the EU include an integration variable as applied by *Badinger* (2001) for his growth estimates. The reduction in trade costs by around 5 percent due to the abolition of border controls is partially allowed for since 1994 and fully since 1995. In the simulations it is assumed that without the implementation of the Internal Market trade costs would not have been lowered. In this way, the jump in exports and imports soon after EU accession is reflected by the model.

EU accession in 1995

- *Endogenous growth generated by higher spending on research and development:* The integration model presented here with a production function included treats technical progress as endogenous according to the method by *Coe – Helpman* (1995). The development in total factor productivity is explained by that of labour productivity and the domestic expenditure on research and development as well as by spill-overs of research activities from the EU. The spill-overs are obtained by multiplying the research and development/GDP ratio of the EU with the share of imports from the EU as determined endogenously by the model. In the simulations it is assumed that by participating in the EU framework programmes the research and development/GDP ratio of the three new member states was raised by 0.1 percentage point from a baseline scenario without EU membership (Figure 6). According to this assumption the increase would have been smaller in the baseline scenario than it actually was, yielding strong integration effects for GDP.

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[16] *Allen – Gasiorek – Smith* (1998) analysed the impact of the completion of the Internal Market on price-over-cost mark-ups for a large number of industrial sectors; they estimate the dampening effect at 3½ percent for the EU average.

[17] First estimates in this regard have been presented by *Allen – Gasiorek – Smith* (1998) after the entry into force of the Internal Market, albeit only for manufacturing industry.

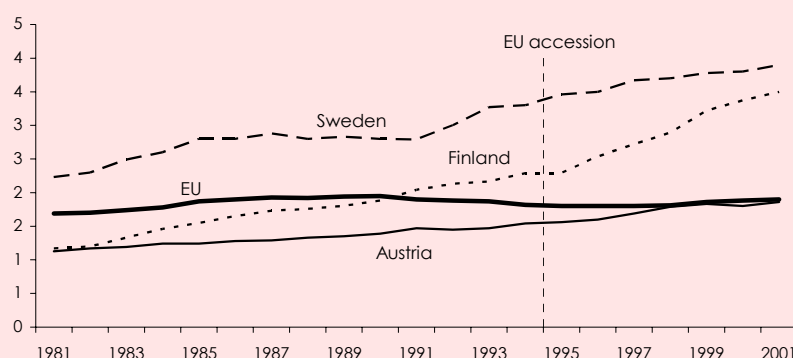*Figure 6: Expenditure on research and development*

As a percentage of GDP

Source: OECD, Main Science and Technology Indicators; http://www.sourceoecd.org.

Table 9: Foreign direct investment (flows)

	1990	1994	1995	1996	1997	1998	1999	2000	2001
					As a percentage of GDP				
Finland									
FDI exports									
EU according to OECD	4.17	12.14	3.84	7.90	11.48	54.25	14.00	.	.
Total according to OECD	7.14	13.21	3.85	9.72	16.15	58.63	21.72	91.25	.
Total according to UNCTAD	2.32	4.30	1.16	2.82	4.31	1.45	5.15	19.87	6.01
FDI imports									
EU according to OECD	1.82	3.56	1.62	3.43	5.12	36.37	14.45	.	.
Total according to OECD	2.17	4.85	2.73	3.00	6.46	38.18	15.14	33.54	.
Total according to UNCTAD	0.70	1.58	0.82	0.87	1.73	9.41	3.59	7.31	2.99
Austria									
FDI exports									
EU according to OECD	0.54	0.45	0.32	0.50	0.84	1.37	1.04	0.66	.
Total according to OECD	1.38	1.02	0.85	1.52	1.81	2.53	3.17	3.72	.
Total according to UNCTAD	1.01	0.60	0.48	0.84	0.97	1.30	1.57	3.04	1.57
FDI imports									
EU according to OECD	0.37	0.50	0.82	3.02	1.53	4.48	2.14	9.44	.
Total according to OECD	0.55	1.12	1.43	3.49	2.41	4.18	2.86	10.43	.
Total according to UNCTAD	0.40	0.66	0.81	1.91	1.29	2.15	1.42	4.68	3.13
Sweden									
FDI exports									
EU according to OECD	12.08	4.47	2.08	1.04	2.07	15.57	10.55	34.91	0.58
Total according to OECD	16.01	9.48	14.67	5.74	17.71	35.53	33.23	68.18	14.51
Total according to UNCTAD	6.19	3.24	4.67	1.78	5.29	10.17	9.04	17.72	3.42
FDI ilmports									
EU according to OECD	1.75	4.00	1.31	3.44	7.89	21.13	77.16	18.01	16.67
Total according to OECD	2.14	8.99	18.90	6.24	15.36	28.52	92.21	39.26	23.95
Total according to UNCTAD	0.83	3.07	6.02	1.94	4.59	8.16	25.08	10.20	6.07

Source: 1996-2001: UNCTAD, World Investment Report 2002, Washington D.C., 2002. 1988-1995: OECD, International Direct Investment Statistics Yearbook, 1980/2000-2001, Paris, 2002, http://www.sourceoecd.org.

- *Inflow of foreign direct investment (FDI) from the EU:* Accession to the EU markedly improved the attractiveness of the three new member states as investment target. Since 1995, there has been a massive inflow of foreign direct investment (not only) from the EU. FDI statistics by OECD and UNCTAD differ markedly in this regard. For the present calculations OECD data were used (Table 9). According to the underlying assumptions, the inflow of FDI stimulated capital formation and thereby boosted economic growth. Without EU membership, so the hypothesis, FDI would have been less buoyant or would have followed the previous trend. The FDI inflow gives rise to substantial positive effects on GDP, particularly for Finland.

- *Net contributor position vis-à-vis the EU budget:* Net transfers from the EU budget (as a percentage of GDP; Table 7) are included in the GDP per capita in order to obtain net welfare measure. The latter are consistently negative for the net contributors Austria and Sweden, and close to zero for Finland.

Table 10 presents the overall effects for the major macro-economic variables for the three countries. It suggests that Finland recorded the strongest positive GDP effect from EU accession, ahead of Austria and Sweden. The ex-post effects derived here are very similar to those obtained by *Breuss* (1999B, 2000A). The reported changes to the average growth rates are not permanent ones, but only temporary (Figure 7; this corresponds to the results of *Badinger,* 2001, 2003). After the original deadweight effects stemming from the establishment of the EC Internal Market in 1993 and the parallel effect of the EEA in 1994, the "genuine" effects of EU accession were brought to bear, which then tapered off after five to six years. Accession to the EU therefore did not raise the "steady state" growth rate of GDP, but was confined to a level shift, causing a one-time jump of the new member states' real GDP after their accession to the EU[18]. Since then growth has reverted to its "normal" rate.

Overall effects

Table 10: Integration effects of EU accession

|	Finland	Austria	Sweden
	Average annual additional percentage change 1995-2001		
GDP, real	+ 0.83	+ 0.42	+ 0.30
Total factor productivity (TFP)	+ 0.26	+ 0.24	+ 0.20
Capital stock	+ 0.12	+ 0.09	+ 0.04
Employment	+ 0.70	+ 0.20	+ 0.11
Unemployment rate percentage points	− 0.83	− 0.14	− 0.16
Rate of inflation (HICP)	− 0.32	− 0.32	− 0.52
Unit labour cost	− 0.12	− 0.27	− 0.29
Exports to EU, volume	+ 1.91	+ 1.33	+ 0.79
Imports from EU, volume	+ 3.86	+ 1.64	+ 0.82
Real disposable personal income	+ 0.82	+ 0.55	+ 0.49
GDP per capita, real	+ 0.83	+ 0.42	+ 0.30
Including net transfers to EU budget	+ 0.81	+ 0.38	+ 0.23

Source: WIFO estimates with the integration model (see Annex).

The most important impact on economic growth derives from the "modern" integration effects (research and development, foreign direct investment). Their magnitude can never be assessed precisely, since the "anti-monde" situation, i.e., the behaviour of all variables without integration, is always unknown. Yet, the results are, against the background of the ex-ante estimates, not altogether implausible. No econometric model can ever incorporate all theoretically conceivable integration effects, let alone deliver precise quantitative estimates ex-post for them. A non-model-based approach of assessing integration effects would consist in comparing the economic performance of the three new member states with selected reference countries outside the EU – as has been done in the introductory part of this paper, with the USA and Switzerland as the reference cases. However, even following that approach, the differences between the EU "ins" and the EU "outs" can never be entirely attributed to integration effects.

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[18] The level of real GDP increased, due to the windfall gains of the EU Internal Market and accession to the EU, between 1993 and 2001 by a cumulated 6 percent in Finland, 3 percent in Austria and only 2½ percent in Sweden. By way of contrast, the European Commission (*Roeger – Sekkat,* 2002) arrived, for the EU as a whole, at a cumulative level increase in real GDP by 1.4 percent within 10 years as a result of Internal Market integration (with a range from +0.76 percent to +2.05 percent). However, not all internal market effects are included in that calculation, in particular not those from service sector liberalisation. The liberalisation of various network industries (electricity, gas, telecommunication) should have raised GDP by an additional 0.6 percent over 10 years (*European Commission,* 2002I, Chapter 3).

Figure 7: Integration effects of EU accession

Real GDP, additional percentage change from previous year

Source: WIFO estimates with the integration model (see Annex).

Future perspectives
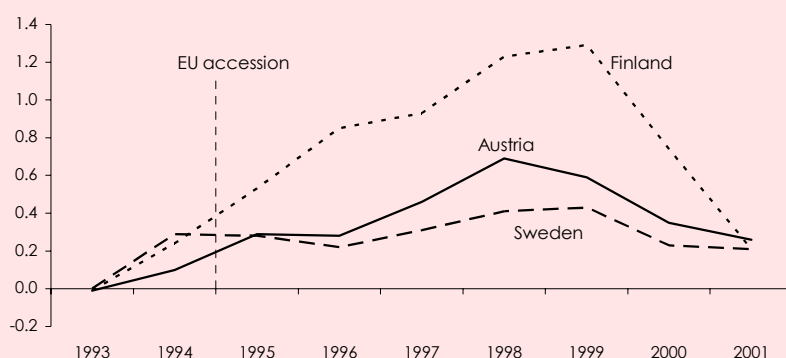
In more than one regard, the EU is in a process of transition. By adopting 10 new members, it will soon enlarge to a total of 25 member states, posing a severe challenge for internal cohesion of the Community. Whether the new provisions of the Treaty of Nice with respect to the EU institutions (Commission, Council, European Parliament) can effectively respond to these challenges is still uncertain. The new EU Constitution will not enter into force before 2009.

Through the imminent enlargement by mostly "poor" countries, the EU will on average become "poorer", but will gain a vast potential of new markets in eastern Europe with, moreover, a low level of labour cost. Estimates of the effects of this next round of enlargement (*Breuss,* 2001) suggest relatively higher growth opportunities for Austria (cumulative increase in GDP over 10 years +½ percent) than for Finland (+0.3 percent) and Sweden (+0 percent). Whether the enlargement will put at risk macro-economic stability or whether the new member states will insert themselves smoothly into the strict economic policy framework of the euro area, remains to be seen (*Breuss,* 2002B).

Annex: A common integration model for Finland, Austria and Sweden

- Production function (Cobb-Douglas):

  $GDP = TFP \, K^{\alpha} \, L^{1-\alpha}$,

  GDP . . . real GDP, TFP . . total factor productivity (technical progress), K . . .capital stock, volume, L . . . employment, α . . . factor shares in national income (net national product).

- Total factor productivity (TFP):

  $\log (TFP) = f \left((\log (AP), Log \, (R \& D_i), m_i \cdot \log (R \& D_{Eu}), \log (TFP_{-1}) \right)$,

  $R\&D$ . . . research and development expenditure, as a percentage of GDP, AP . . . labour productivity, m_i . . . share of EU imports of country i in total imports, i . . . countries (Finland, Austria and Sweden).

- Domestic price (private consumption deflator):

  $d \log (PK) = f \left(mu \cdot d \log (ULC), d \log (PM), d \log (PK_{-1}) \right)$,

  PK . . . private consumption deflator, mu . . . mark-up (dummy for price competition), ULC . . . unit labour cost (compensation of employees as a percentage of GDP, volume), PM . . . import deflator.

- Consumer prices (harmonised):

  $d \log (HICP) = f \left(d \log(PK) \right)$,

HICP . . . harmonised index of consumer prices.

- GDP deflator:

  $$d \log (PGDP) = f \left(d \log (PK), d \log (PX), d \log (PM) \right),$$

  PGDP . . . GDP deflator, *PX* . . . export deflator .

- Per-capita wages (Phillips curve):

  $$d \log (LB) = f \left(d \log (HICP), d \log (AP), (1/U), d \log (LB_{-1}) \right),$$

  LB . . . wages (W) per employee (L), *U* . . . unemployment rate.

- Demand for capital (private sector):

  $$d \log (K) = f \left(Bud, d \log (GDP), d \log (FDI), R, LB \right),$$

  Bud . . . general government balance, as a percentage of GDP, *FDI* . . . inflow of FDI from EU, as a percentage of GDP, *R* . . long-term nominal interest rate.

- Interest rate, long-term:

  $$R = f \left(GDPN, R_D, R_{-1} \right),$$

  R_D . . . interest rate in Germany.

- Demand for labour:

  $$d \log (L) = f \left(d \log (GDP), d \log (LB), d \log (L_{-1}) \right).$$

- Labour productivity:

  $$AP = GDP/L.$$

- Unit labour cost:

  $$ULC = LB/(GDP/L) = W/GDP.$$

- Unemployment rate (Okun relation):

  $$U = f \left(d \log (GDP), U_{-1} \right).$$

- Exports to EU, volume:

  $$d \log (X_{EU}) = f \left(d \log (GDP_{EU}), d \log (REER), PROT \right),$$

  GDP_{EU} . . . EU real GDP , *REER* . . . real-effective exchange rate (relative consumer prices in a common currency), *PROT* . . . protectionism dummy (reduction in tariffs and trade cost).

- Imports from EU, volume:

  $$d \log (M_{EU}) = f \left(d \log (GDP), d \log (REER), PROT, d \log (M_{EU_{-1}}) \right).$$

- Share of imports from EU:

  $$m_i = M_{EU}/M_W,$$

  M_W . . . total imports, volume.

- Total exports, volume:

  $$d \log (X_W) = f \left(d \log (X_{EU}), d \log (X_{W_{-1}}) \right).$$

- Total imports, volume:

  $$d \log (M_W) = f \left(d \log (M_{EU}), d \log (M_{W-1}) \right).$$

- Personal disposable income, nominal:

  $$YD = f \left(GDPN, YD_{-1} \right),$$

  GDPN . . . GDP, nominal.

- Personal disposable income, real:

  $$YDR = YD/PK.$$

- GDP, nominal:

  $$GDPN = GDP \cdot PGDP.$$

- GDP, real (at purchasing power parities) per capita:

  $GDPpc = GDP/POP$,

  POP. . . population.

- GDP, real (at purchasing power parities) per capita including net transfers to EU:

  $GDPpc_{EU} = (GDP + NZ)/POP$,

  NZ . . . net transfers from EU budget.

All equations were estimated econometrically with OLS using the programme EVIEWS 4.0, on the basis of annual data (wherever available) from 1960 until 2001 (OECD Economic Outlook, various issues, or http://www.sourceoecd.org). The different dummy variables as necessary for each of the three countries to accommodate for special factors are not reproduced here; $d \log$ . . . rate of change.

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Austria, Finland and Sweden in the European Union

Economic effects – Summary

The European Union is faced with the most far-reaching enlargement in its history. Economic integration has made rapid progress over the past decade. After establishing the Internal Market in 1993, the EU achieved the highest possible level of economic integration by introducing its single currency (the euro) within the scope of Economic and Monetary Union (EMU) in 1999.

Austria, Finland and Sweden joined the EU in 1995. Whereas both Finland and Austria are members of the Internal Market and EMU, Sweden has so far held back in introducing the euro. Overall, the three countries have taken different courses in their economic development. Since 1995, real GDP has grown faster in Finland and Sweden than in Austria. Finland and Sweden benefited from a strong catching-up process following a major recession in the early 1990s. On the other hand, Austria could boost its per-capita GDP to a higher extent than the two other countries. Measured by per-capita GDP at purchasing power parities in 2002, Austria is the fourth-richest country (one rank up from 2001) among the EU 15, following Luxembourg, Ireland and Denmark, with Sweden ranking eighth (one rank down) and Finland at tenth position in both years.

At over 9 percent, unemployment in Finland is still double that of Austria and Sweden, in spite of its high growth rate in recent years. In all the three countries, inflation has converged towards the EU average of about 2 percent.

Economic structures differ greatly between the three countries: whereas Austria is still dominated by small and medium-sized enterprises, both Sweden and Finland host multinationals of global standing. Interestingly enough, neither of the three countries has experienced the trade-generating effects expected from EU membership. Both exports into and imports from the EU have actually declined when measured against figures previous to 1995. What did rise was trade with Central and Eastern European countries.

The extent to which citizens are satisfied with membership in the European Union is also mirrored by its effect on the economy. According to a Eurobarometer poll, Swedes are least convinced of the benefits of EU membership, whereas a large and broadly equal number of Finns and Austrians approve of membership.

An integration model is used to estimate the overall economic effects of EU integration in the three countries. According to this model, Finland appears to have benefited most from EU membership in economic terms (0.8 percentage point higher annual GDP growth since 1995), followed by Austria (+0.4 percentage point) and Sweden (+0.3 percentage point). Competitive pressure has contributed to a slowdown of inflation in all three countries.