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Austria, Finland and Sweden after 10 Years in the EU: Expected and Achieved Integration Effects

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AUSTRIA, FINLAND AND SWEDEN AFTER 10 YEARS IN THE EU: EXPECTED AND ACHIEVED INTEGRATION EFFECTS

Fritz Breuss

Abstract

Austria, Finland and Sweden – all small highly developed industrial and rich countries – entered the EU in 1995. Their macroeconomic performance since then was quite different. Real GDP in Finland und Sweden increased faster than in EU average, while those of Austria fell back. Austria lost its second rank in GDP per capita (at PPS) and is now the fourth richest EU country; Sweden fell back from the seventh to the eight rank, while Finland improved its position from rank 11 to nine. In a referendum in September 2003 Sweden refused to take over the Euro, whereas the other two countries are members of the Euro area. Ex post model simulations indicate that Finland appears to have profited most from EU membership (0.7 percentage point greater annual GDP growth since 1995), followed by Austria (+0.4 percent) and Sweden (+0.3 percent).

Keywords: European integration; Internal Market; Austria; Finland; Sweden; macro model
JEL classification: F15, F17, F20, F41

Contents

1. Introduction

In the fourth round of enlargement, Austria, Finland 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. Again, the most recent EU enlargement of 1 May 2004 decreases the average income per capita of the Union because the 10 new Member States are all "poor" countries.

The accession process of the fourth round of enlargement 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 October 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 and has since negotiated two Bilateral Agreements with the EU which in essence cover the contents of the EEA plus some further elements (Schengen and Agreement of interest income taxation) in Bilateral-II. The three new members were integrated into the EU on the basis of the Treaty of Maastricht: the Internal 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.

This article analyses the experiences Austria, Finland and Sweden have made as members of the EU from an economic point of view. The question "what we wanted and what we got" will be answered. It is documented that the three countries have performed quite differently but overall EU membership was positive. Paradoxically, the economic gains contrast with the bad mood the population expresses when asked for their personal experiences with the EU. The experiences of the three countries are too specific as to be used as a predictor for the economic outcome of the 10 new Member States after the EU enlargement of 2004.

The remainder is organized as follows. The second chapter gives an overview of overall economic developments. The third chapter deals with the trade paradox connected with EU integration. The fourth chapter reports on life in and with the Internal Market. In the fifth chapter we describe the implications of the new economic policy framework and the position towards EMU. In the sixth chapter we first discuss the analytical difficulties of isolating integration effects ex post and then confront expectations with realized integration effects of 10 years EU membership. Finally, new estimates are presented that attempt to isolate and quantify the different integration effects in the three countries by simulating theoretical effects with a common integration model for all three countries over the period 1993 (start with EU's Internal Market) to 2005.

2. Overall economic developments since EU accession

Three small but rich countries: The fourth round of EU enlargement in 1995, including Austria, Finland and Sweden, made the EU „richer" by 0.4 percentage points, as all three countries , while being small with populations between 5.2 (Finland), Austria (8.2) and 9 million (Sweden), are among those with the highest per-capita income in Europe (see Table 1).

The most recent Eurostat data on the development of GDP per capita at purchasing power standards (PPS) in the three countries show that GDP per capita in Austria and Sweden (relative to those of EU-25) decreased, whereas it increased in Finland since EU accession (see Figure 1). In 1995, Austria was the second richest country in the EU (index value 129); in 2003 it ranked only at the fourth place with an index value of 122 (after Luxembourg 215; Ireland 133 and Denmark 123). Sweden's GDP per capita was 18% higher than EU average in 1995, which was rank seven; in 2003 it surpassed EU average only by 15% and ranked eight. After the severe

recession at the beginning of the nineties, in 1995 Finland's GDP per capita was only 6% above EU average (rank 11); since then it improved its income position to a level of 13% above EU average in 2003 (rank nine). However, also GDP per capita of EU-15 declined since 1995 from an index value of 115 to 109 in 2003.

Table 1: Economic indicators for Austria, Finland and Sweden

	Area 1.000 km^2	Popu-lation in 1.000	GDP Bill. PPS[*)]	GDP per capita PPS[*)]	Foreign trade with EU[**)] Shares in % of total trade		International Competitiveness Position[+)]				
					Exports	Imports	**GCI**	MEI	PII	TI	**BCI**
Austria	83.9	8129	202.7	28340	62.2	68.1	17	10	15	22	16
Finland	338.1	5221	120.6	26340	54.6	55.8	1	3	3	3	2
Sweden	450.0	8997	205.5	27120	55.2	66.3	3	17	6	4	4
EU-15	3234.3	381539	8558.9	25420							
EU-25	3972.6	455808	9384.2	23380							

[*)] PPS = Purchasing power standards

[**)] Average trade shares with EU-14 1995-2003 in % of total trade.

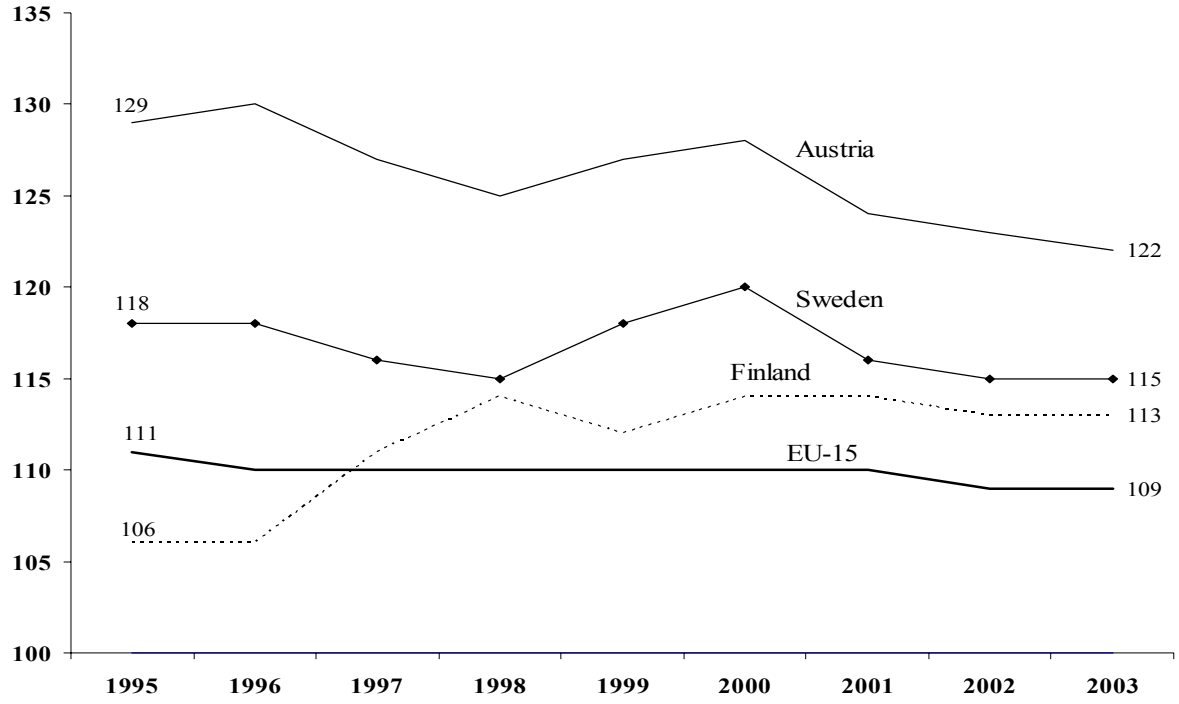
[+)] The figures represent the ranks out of 104 listed countries.

GCI = Growth Competitiveness Index (medium-term macroeconomic approach for sustainable growth); GCI consists of 3 sub-indices: 1) Macroeconomic environment index (MEI), 2) Public institutions index (PII) and 3) Technology index (TI); BCI = Business Competitiveness Index (microeconomic conditions for short-term productivity level).

Sources: *Macroeconomic data:* AMECO database of the European Commission; *International Competitiveness Position:* The Global Competitiveness Report 2004-2005, World Economic Forum, Geneva, autumn 2004.

Corresponding with its high income level the industrial structure is primarily concentrated on services. Sweden holds the biggest share of value added in services in % of GDP (70.6%), followed by Austria (67.3%) and Finland (65.4%). The share of value added in industry is largest in Finland (31.1% of GDP), followed closely by Austria (30.4%) and Sweden (27.5%). The rest concerns agriculture: Finland's share of agricultural value added amounts to 3.5% of GDP, in Austria 2.3% and in Sweden only 1.8%. Being advanced small economies the degree of openness for trade (the exports to GDP ratio is 35.5% in Austria, 33.8% in Finland and 34.4% in Sweden) is larger than in the EU on average.

Figure 1: GDP per capita in Austria, Finland and Sweden, 1995-2003
(Relative to EU-25 = 100; at PPS)



Source: Eurostat, Press release, 145/2004, 3 December 2004.

Different macroeconomic development: An evaluation of the overall development of the three new EU member states since 1995 must be made against the background of the general development in the world and in Europe. Therefore the primary macroeconomic indicators for Austria, Finland and Sweden are compared with a reference small group of countries which are not at all directly involved in EU integration (USA and Japan) and with one EFTA country which is far away from an EU accession (Switzerland).

Comparing the development of the three new members with those of EU average one gets a slight idea whether the economies of the three newcomers performed better or worse; it is, however, not permitted to deduce integration effects from such an exercise. In order to get a rough idea whether the economies of the three countries performed fundamentally differently after EU accession, for some selected macro variables the average performance ten years after EU accession (1995-2004) is compared with those of ten years before (1985-1994). On the one hand, such a procedure excludes randomness since both periods encompass roughly two business

cycles. On the other hand, since the opening-up of Eastern Europe in 1989 additional effects influenced the macro variables chosen.

Table 2 shows that the three economies performed quite differently. Finland and Sweden could increase their GDP growth since 1995 on average compared to the decade before by 2.4 percentage points and 1.4 percentage points, respectively, whereas in Austria GDP growth was lower by 0.8 percentage points on average in the period since 1995. Hence, Austria's development was even worse than those of EU-15 on average (-0.2 percentage points).

Table 2: Macroeconomic developments since EU accession

	GDP, real		GDP per capita (PPS[**)] relative to EU-15=100		Inflation rate HICP[+)]		Budget balance general government in % of GDP		Unemployment rate in %	
	AV[*)]	D[*)]	AV[*)]	D[*)]	AV[*)]	D[*)]	AV[*)]	D[*)]	AV[*)]	D[*)]
Austria	2.11	-0.78	-0.45	-0.77	1.53	-1.09	-1.96	1.44	4.11	0.73
Finland	3.53	2.35	0.95	2.26	1.45	-2.87	1.69	0.95	11.01	3.35
Sweden	2.87	1.41	0.16	1.28	1.63	-3.95	0.25	2.32	7.05	3.04
EU-15	2.20	**-0.21**	-	**0.00**	1.95	**-2.33**	-2.19	**2.27**	8.74	**-0.15**
USA	3.33	0.34	0.32	0.48	2.46	-1.18	-1.63	2.90	5.07	-1.30
Japan	1.57	-1.91	-0.50	-1.48	-0.06	-1.65	-6.77	-6.81	4.39	1.93
Switzerland	1.24	-0.46	-1.37	-0.24	0.85	-2.16	-2.19	-	3.19	1.57

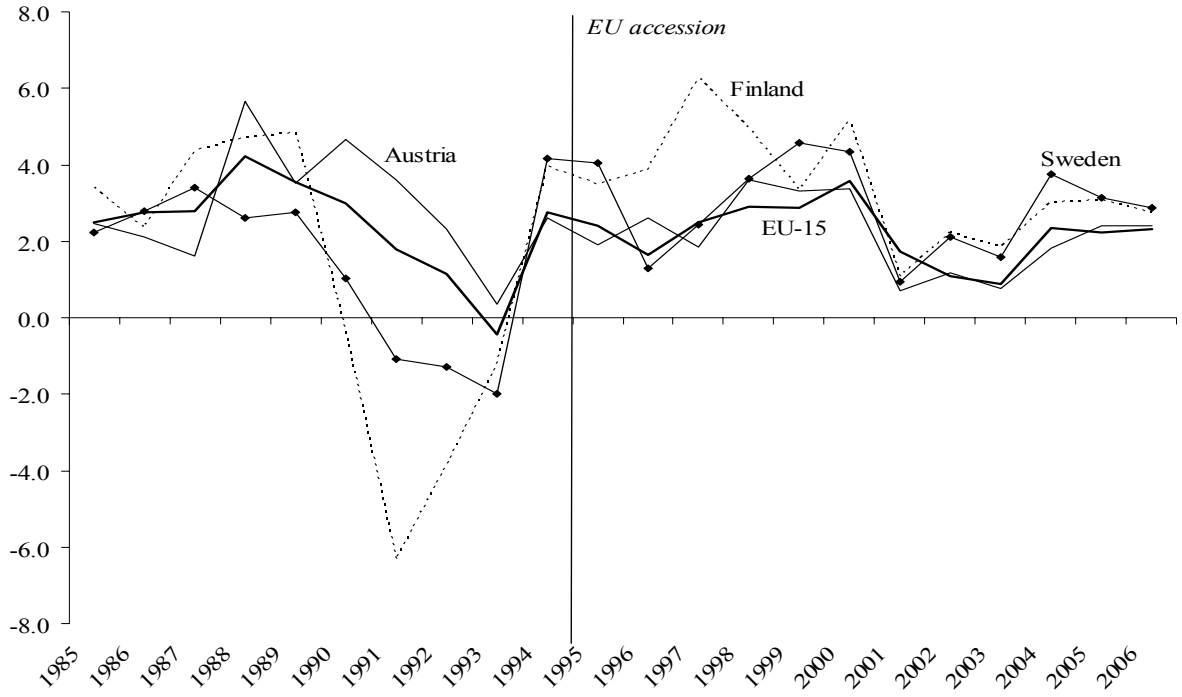
[*)] AV = average annual growth in the period 1995-2004 in %; D = percentage point differences of average growth 10 years after EU accession (1995-2004) compared to 10 years before (1985-1994); budgetary balances and unemployment rates are measured in percentage points.
[**)] PPS = Purchasing power standards
[+)] HICP = consumer price index and harmonized index of consumer prices (in EU Member States)
Sources: Own calculations using data from the AMECO database of the European Commission.

With the exception of Japan the development of real GDP of the reference countries was better than those in Austria since 1995. Considering GDP per capita (at PPS relative to EU-15) – a measure of overall welfare of an economy – one gets a similar, even though a more accentuated picture. The pattern of the change in the decade after EU accession compared to the period before was the same as when using real GDP. Looking only on the development since EU accession, Finland could impressively improve its position in GDP per capita compared to EU average. Sweden was slightly better and Austria – similar to Japan (!) – suffered a loss in GDP growth compared to EU average (see also Figure 1). Switzerland's outstanding position deteriorated considerably vis à vis EU average. In contrast, the United States could enlarge its advantage against the EU.

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 2): It fell into a period of economic recession in Europe, with real GDP contracting in most EU countries. Finland and Sweden – for different reasons - slid into a severe recession in the early nineties. In the wake of the opening of Eastern Europe in 1989 (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 liberalization; 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. In both countries the catch-up in GDP growth was also accompanied by a fundamental reform in the social security system. The Austrian economy performed much more steadily, though it was also hit by the recession of 1993, however, less severe than in the EU. Still, real GDP did not fall in that year (+0.4 percent), and from 1994 Austria participated in the general business cycle upturn. In general, Austria's cycle correlates closer to that of EU average than those of Finland and Sweden. Due to special events in the three countries (recession before EU accession in Finland and Sweden; growth bonus in Austria in the early years of German unification) the comparison of the growth performance 10 years after with 10 years before EU accession cannot be completely assigned to EU membership.

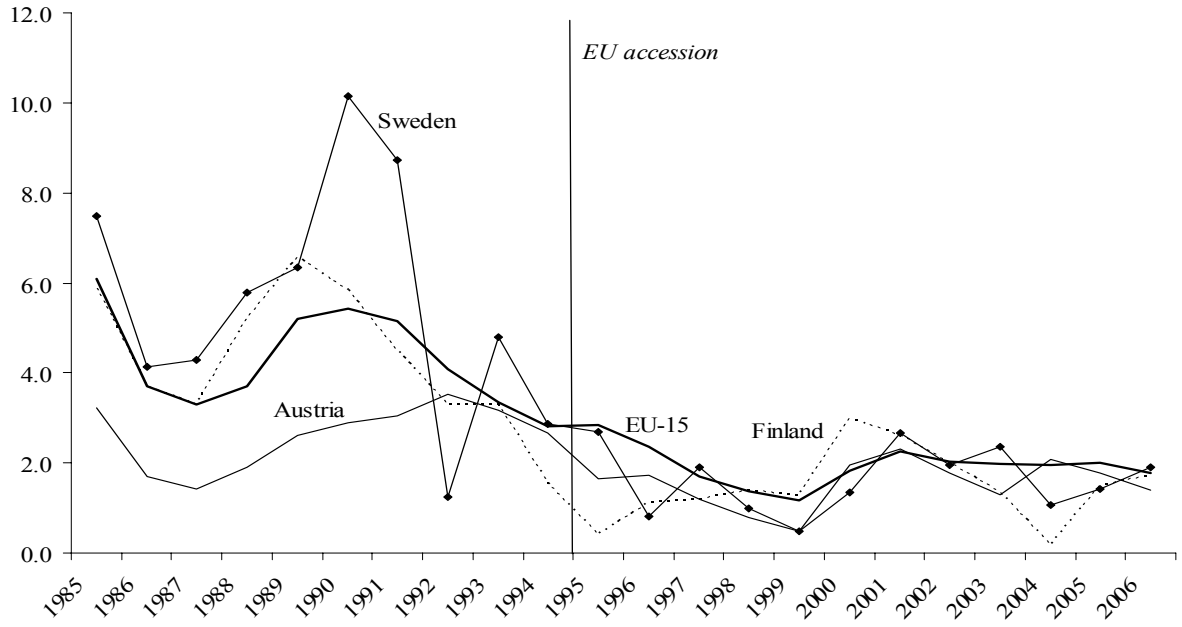
In all countries included in Table 2, the inflation rate since 1995 declined compared to the decade before, the least in Austria (-1.1 percentage points). Inflation abated most significantly in Sweden (-4 percentage points), followed by Finland (-2.9 percentage points). In EU-15, inflation abated by 2.3 percentage points. As can be seen from Figure 3, the improvements in Sweden and Finland are mainly due to the high initial level in the early nineties. In contrast, Austria was always more price stable than the EU on average. The fact that the Euro did not spur inflation in both Euro countries Austria and Finland is documented by the fact their average inflation rate was lower than that in Sweden (see Table 2).

Figure 2: Economic growth before and after EU accession
(Real GDP, percentage change from previous year)



Source: Data from the AMECO database of the European Commission.

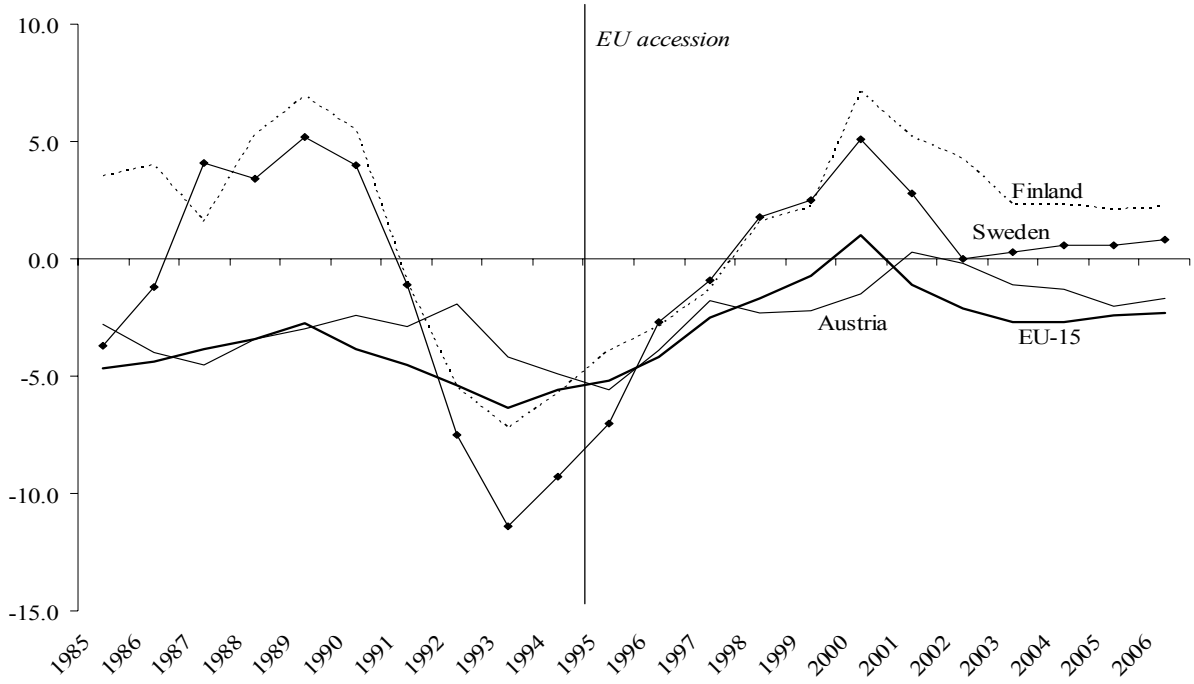
Figure 3: Inflation before and after EU accession
(Harmonized index of consumer prices, percentage change from previous year)



Source: Data from the AMECO database of the European Commission.

In all three countries the budgetary position improved, i.e. the surpluses in the general government budget increased in Finland or the deficits declined in Austria and Finland. However, the improvement was less pronounced than in the EU-15 on average. As the longer-term development shows the severe recessions in Finland and Sweden left its marks also in their budgets (see Figure 4). Only after the growth catch-up and the reform steps in the social security system the budget balances improved significantly in both countries; since the end of the nineties, they exhibit surpluses. The improvement in the budgetary position of Austria since the mid-nineties was not so much due to the upturn in the business cycle – like in Finland and Sweden – but a necessary condition for becoming a member in EMU right from its start in 1999; a sound budgetary position was one of the Maastricht convergence criteria.

Figure 4: Budgetary performance before and after EU accession
(Net lending (+) or net borrowing (-), general government, in % of GDP)

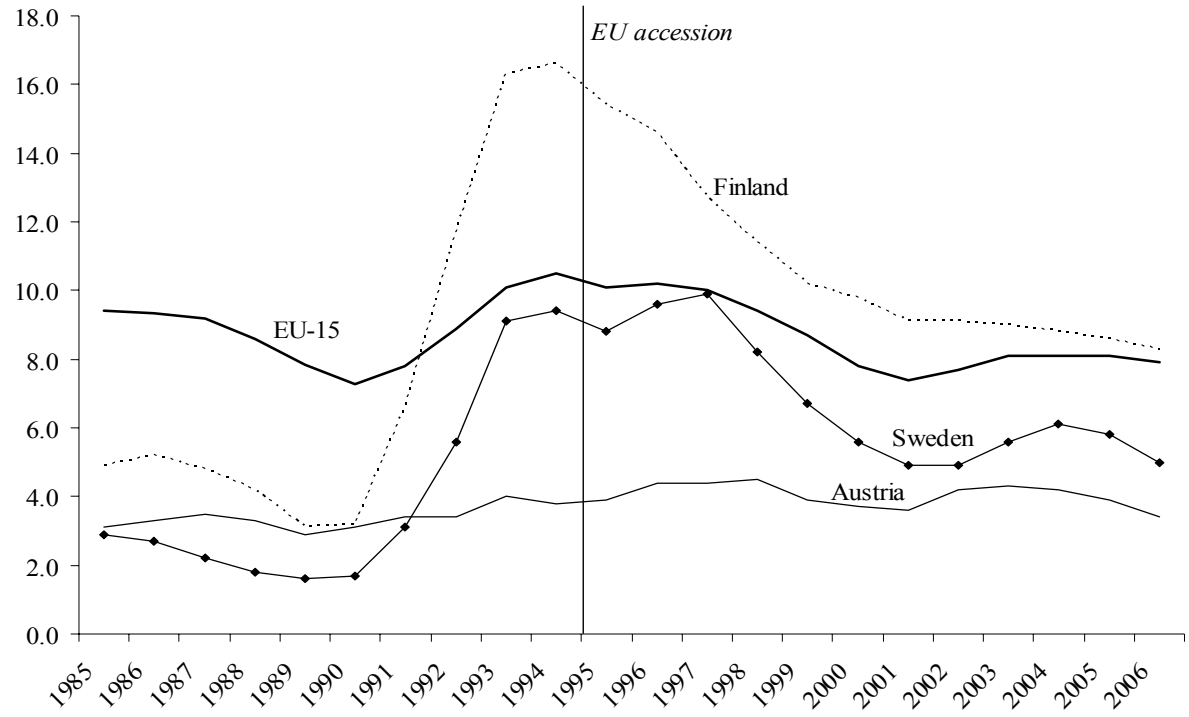


Source: Data from the AMECO database of the European Commission.

In the eighties, Austria's labor market situation was already better than those in the Scandinavian countries with only a slight increase of the unemployment rate. The high jumps in the unemployment rate in Finland and Sweden in the early nineties were the direct consequence of the severe recession (see Figure 5). Since then the situation improved, however, the

unemployment rates are still higher than in Austria where it is only half that of EU average. EU's unemployment rate declined slightly in the last decade, compared to a more pronounced decrease in the United States (see Table 2).

Figure 5: Unemployment rates before and after EU accession
(In percent)



Source: Data from the AMECO database of the European Commission.

Global competitiveness – Finland and Sweden dominate:

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 (SME).

In the list of Europe's 500 largest companies, according to their market value, set up by the Financial Times Deutschland (FT 500), in 2003 Sweden was represented by 23 multinational companies. Ten companies ranked under the top 200: Hennes & Mauritz (retail sales) on rank 71, TelioSonera (telecommunication) on rank 78, Nordera (financial services) on rank 82, Ericsson (IT hardware) on rank 105 etc. Nearly all industrial branches were represented. There is one

world company which dominates the firm structure in Finland, Nokia (rank 9). The next largest company, Stora Enso (pulp and paper) ranks 132, UPM-Kymmene (paper) is on rank 155 and Fortum (oil and gas) on rank 200. Finland is represented with nine companies under Europe's top 500. In Austria not a single company ranks in the top 200. On rank 211 is Telekom Austria, on rank 242 Erste Bank, on rank 318 OMV (oil and gas) and on rank 457 EVN (electricity).

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 (WEF) in its Global Competitiveness Report. The latest issue 2004/05 of the Report shows Finland holding rank 1 as in 2003 among 104 countries according to the Growth Competitiveness Index (GCI), Sweden in rank 3 (as in 2003), and Austria in both years in 17th place (see Table 1). The WEF first introduced the GCI three years ago, in collaboration with Jeffrey Sachs and John McArthur; it is based on three pillars, all of which are widely accepted (also based on the insights of the new growth theory) as being critical to economic growth: a) the quality of the macroeconomic environment (MEI), b) the state of the public institutions (PII), and c) a country's technological readiness (TI). Austria fares only a little bit better in the sub-categories MEI and PII. In TI it ranks only 22. Sweden is rated poorly for its macroeconomic environment (rank 17). A similar picture shows WEF's Business Competitiveness Index (BCI). Here, Finland rank is 2, Sweden 4 and Austria 16 (see Table 1).

As a consequence of the high density of multinational companies, Sweden is ahead as far as expenditure on research and development (R&D) is concerned. Its R&D to GDP ratio was 4 ½% of GDP in 2002. In Finland the R&D ratio amounted to 3 ½% and in Austria to 2 ¼% of GDP in 2003 and 2004, respectively (see Figure 7).

3. Trade paradox – why not more intra-EU trade creation?

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

(a) 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) because it already reached the level of EU's

CCT of 7.5 percent. 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 EU accession (1986-1994), imports from third countries (Non-EU and Non-EFTA countries) accounted for some 25 percent of total imports in Austria, 36 percent in Finland and 27 percent in Sweden. Multiplying these import shares with the changes in the import tariff rates, necessary to adjust to EU's CCT the effects are small. For Sweden, the trade diversion effect should thus have amounted to only about ¼ percent of total imports; in Austria the external trade creation effects should have amounted to some 1¼ percent. In Finland, no such effect accrued, as tariffs did not have to be changed.

(b) Entry into the *Internal* (or *Single) Market* 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.

All calculations, either with gravity models or simulations with computable general equilibrium models (CGE models) EU accession results in considerable trade creating effects in the long-run. Egger (2004) finds in a gravity model approach that the EU accession (measured with a dummy variable) should have contributed to an additional intra-EU trade volume of 4 percentage points. In the case of NAFTA he finds a trade creating effect of even 15 percentage points. Also with a gravity model Badinger-Breuss (2004) estimate that the elimination of tariffs in Europe contributed ¼ to the increase in growth of intra-EU trade after the Second World War. Under the assumption that the participation in the Internal Market led to a reduction of trade costs amounting to 2.5 percent, own simulations with a CGE model (GTAP5 model for 8 regions: Austria, Finland, Sweden, Rest-EU, USA, CEEC, CIS and ROW; 10 sectors with 5 factors of production) resulted also in strong trade creating effects in bilateral trade with EU-12 and vice versa of 5 and 8 percentage points, respectively. The trade creating effects of the three countries with each other are somewhat lower, 2 to 3 ½ percentage points. Trade diverting effects (reduction in exports and imports) can be detected vis à vis all third countries, the effect is strongest between the three countries and third countries, relatively weak it is between EU-12 and

third countries (USA, CEEC, CIS, ROW). The GTAP simulations also indicate that due to the reduction of trade costs of 2.5 percent, welfare should have improved by ½ percentage point and real GDP should have increased by 1/10 of a percentage point in Austria, Finland and Sweden.

Table 3: More Trade Diversion than Trade Creation since EU accession?
(Change between 1986/1994 and 1995/2003)

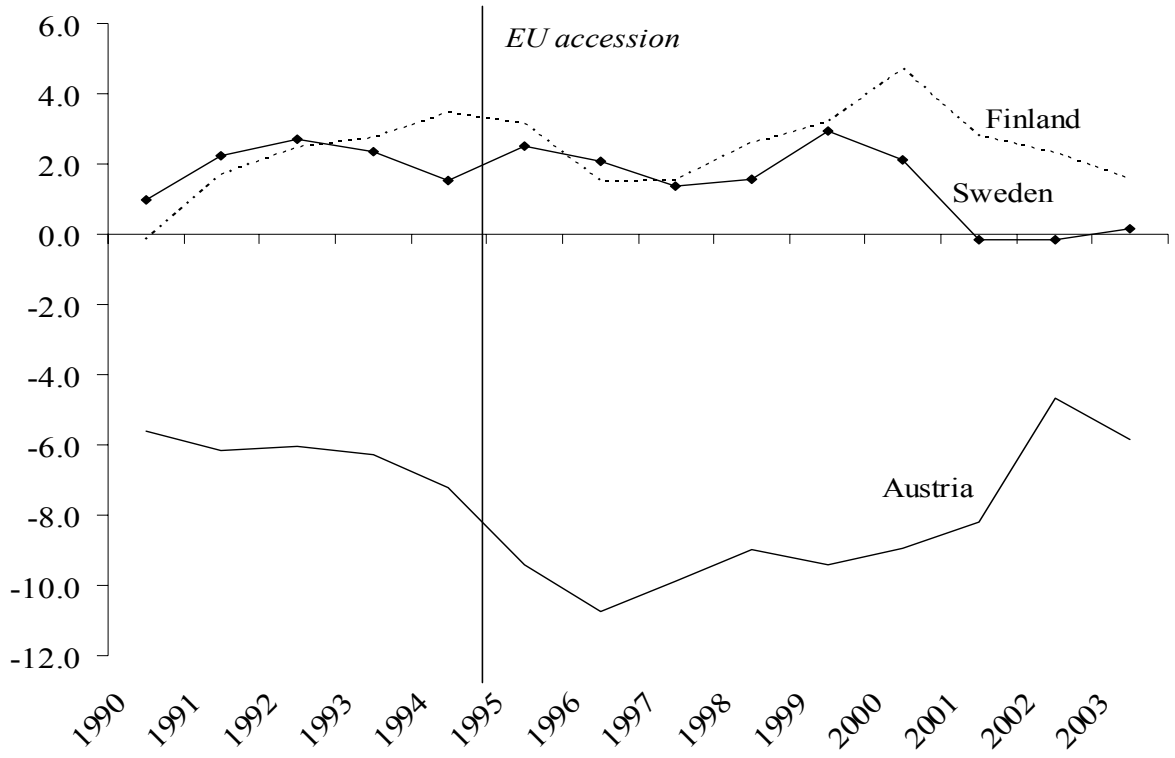
Exporters/ Importers		**Export shares** (Percentage points)	**Import shares** (Percentage points)	**Trade balance** Mill. USD
	with		**EU-14**	
Austria		-4.53	-1.95	-841.2
Finland		-6.21	-3.02	3942.7
Sweden		-5.27	2.13	453.3
	with		**CEEC-10 and CIS (10 New EU Member States)**	
Austria		-7.36 (5.93)	4.83 (4.44)	1091.4 (1301.2)
Finland		0.29 (4.58)	0.67 (2.36)	1099.4 (1380.1)
Sweden		2.99 (2.42)	2.18 (2.64)	1091.4 (363.3)
	with		**EFTA-4**	
Austria		-1.26	-0.99	856.2
Finland		-1.25	-0.23	42.7
Sweden		-1.28	1.06	211.4
	with		**NAFTA**	
Austria		1.04	1.14	80.6
Finland		1.64	0.45	1305.7
Sweden		0.15	-2.74	3863.0
	with		**Other countries**	
Austria		-0.90	-3.03	1439.7
Finland		5.53	2.13	-15363.7
Sweden		3.41	-2.63	6151.7

CEEC = Central and Eastern European countries; CIS = Commonwealth of Independent States; EFTA-4 = Iceland, Liechtenstein, Norway and Switzerland; NAFTA = Canada, Mexico and USA.
Source: Own calculations using OECD data: FTMS – Monthly Statistics of Foreign (International) Trade and Wifo database.

Reality: A comparison of the trade development of the three countries nine years after EU accession with those nine years before shows the following results (see Table 3): Quite in contrast to the theoretical expectation trade shares with the EU declined (with the exception of the EU import shares in Sweden). Austria is more deeply integrated in the EU Internal Market than the other countries (see Table 1). Austria exports 62 percent of its exports to EU-14 (in the period 1995-2003) and imports from EU-14 68% of total imports. Finland exports and imports to and with EU-14 of around 55 percent. Sweden imports more (66 percent) form EU-14 than it exports to it (only 55%). The decline of trade shares is somewhat less with the 4 Rest-EFTA

countries. All three countries exhibited a strong trade increase with the former Eastern European countries (CEEC and CIS), in particular with the 10 new EU Member States. Austria profited the most from the opening-up of Eastern Europe since 1989. Interestingly, the trade shares with third countries (NAFTA and Other countries) mainly increased, in sharp contrast to the theoretical expectation.

Figure 6: Development of trade balances with the EU: Austria, Finland and Sweden, 1990-2003 (Bill. ECU/Euro)



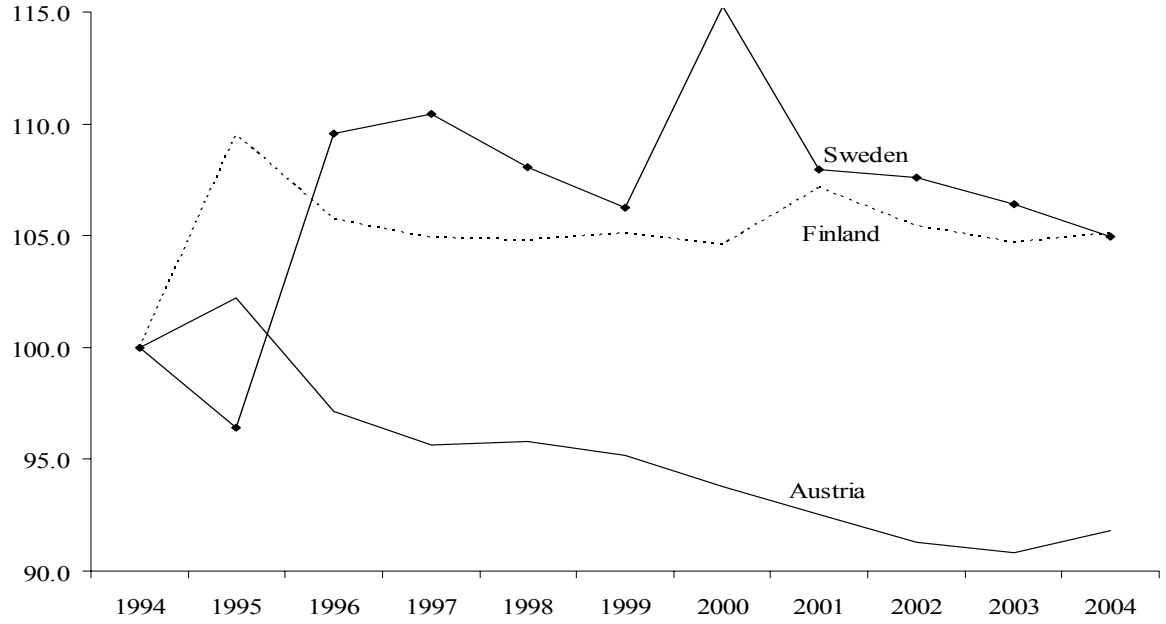
Source: Eurostat (homepage).

As a result of these trends, the trade balance with the EU (measured in Mill. USD) improved in Finland and Sweden, while it deteriorated in Austria. Vis à vis all other regions the trade balanced improved in the decade after 1995 compared to those a decade before (an exception is the trade balance of Finland with "Other countries"; see Table 3). Nevertheless, after a deterioration shortly after EU accession, the trade balance with the EU (measured in Bio. ECU/Euro) showed a strong improving trend in the case of Austria since 1998 (see Figure 6), whereas – after a stagnation – it deteriorated in Finland and Sweden, starting in 2000/2001.

However, the trade balances with the EU were always in surplus in Finland and Sweden, whereas it is still in deficit in Austria.

There is no easy explanation for this trade paradox. The three countries were already strongly integrated into the EU via the Free Trade Agreements of 1973 and the participation in the European Economic Area (EEA) since 1994. Therefore, a further improvement was nearly impossible. Additionally, the effects of the abolition of border controls may have been much lower than expected. The opening-up of Eastern Europe in 1989 – accompanied by the asymmetric tariff liberalization with the Europe Agreements (EAs) – created new "emerging markets" in the neighborhood. Its immense backlog demand may have been a much stronger trade creating effect than the EU integration. Also the weak overall economic development in EU-12 dampened the demand for imports from Austria, Finland and Sweden. The income effect might have been stronger in the last decade then the usual theoretically dominating relative price effect, caused by the abolition of border controls.

Figure 7a: Real effective exchange rates vis à vis members of the Euro area, 1994-2004
(Relative unit labor costs, measured in a common currency; Index, 1994=100)

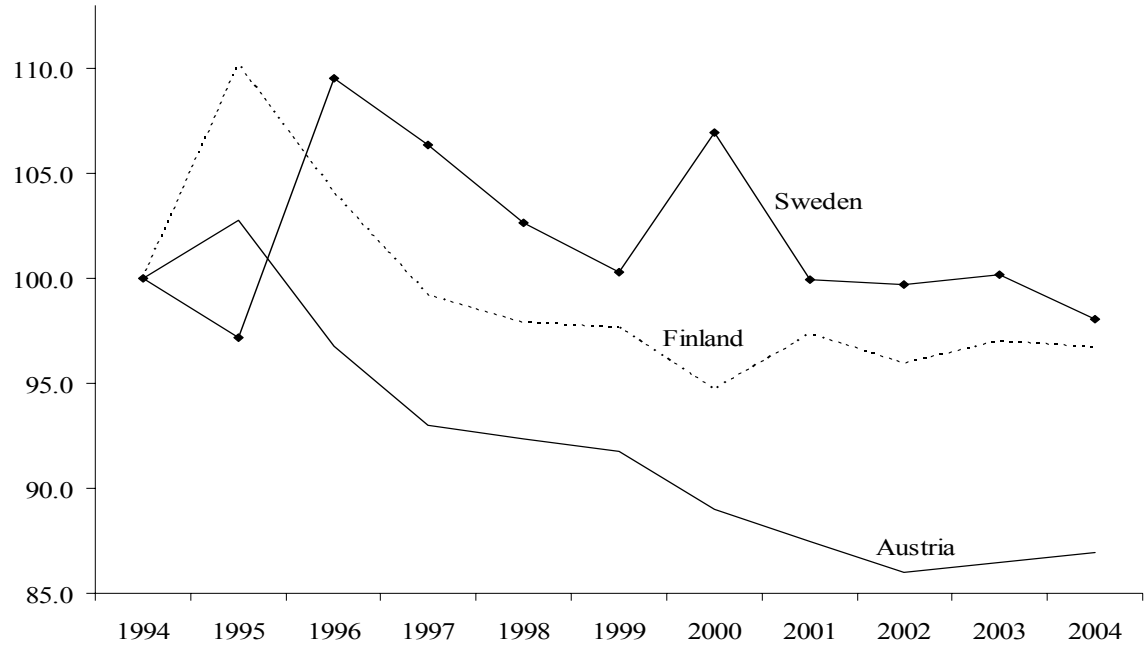


Source: Price and Cost Competitiveness, European Commission, September 2004.

Price competitiveness – measured by the real effective exchange rate (relative unit labor costs) – evolved quite differently in the three countries. Within the Euro area Austria could improve its

price competitiveness by around 8 percentage points since 1994 (see Figure 7a). Finland and Sweden, in contrast deteriorated its position by around 5 percentage points (see also EU, 2004a, p. 81). Since the start of the Economic and Monetary Union (EMU) in 1999, the situation remained constant in Finland, whereas it deteriorated further in the Non-Euro country Sweden.
A similar picture emerges if one looks at the development of price competitiveness within EU-25. Since 1994, Austria improved its price competitiveness even by 13 percentage points, Finland only by 3 percentage points and Sweden only by 2 percentage points (see Figure 7b). The improved competitiveness of the three countries vis à vis EU-24 compared to the Euro area is due primarily to the steady real appreciation of the new Member States (with the exception of Slovenia), a consequence of the Balassa-Samuelson effect (see Breuss, 2003c). These developments might partly explain why the EU export shares declined the least in Austria (see Table 3).

Figure 7b: Real effective exchange rates vis à vis members of EU-24, 1994-2004
(Relative unit labor costs, measured in a common currency; Index, 1994=100)



Source: Price and Cost Competitiveness, European Commission, September 2004.

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 (IIT; see Breuss, 2003b, pp. 109 ff.). Measured the IIT by the "Grubel-Lloyd Index" conveys the following picture for the three new EU members (see Breuss, 2003a, p. 140): Finland exhibits the lowest index value among the three (42 percent in 2000), 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 (76 percent) and Sweden (69 percent) it continued to rise after EU accession, after a temporary levelling-off.

4. Life in and with the Internal Market – grandiose competition effects?

Problems of transformation and acceptance: 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[1] was established only twelve years ago, as from 1 January 1993. Key pillars of the Internal Market Programme (IMP or SMP) are the "four freedoms": free movement of goods, services, capital, and labour[2]. The principle of non-discrimination and of mutual recognition of industrial norms and standards belongs to its fundaments. 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; for more details, see Breuss, 2003a, p. 250). Its transformation into national law required a considerable

[1] In the EC Treaty and also in the "Treaty establishing a Constitution for Europe" (TCE), Title III the official name is "Internal Market" (IM) or "Internal Market Programme" (IMP). Nevertheless, also the Commission uses interchangeably for IM the name "Single Market" (SM) or "Single Market Programme" (SMP). See the new Internal Marekt homepage - http://europa.eu.int/comm/internal_market/index_en.htm - and the homepage "EU Single Market – 10 years" of the European Commission: http://europa.eu.int/comm/internal_market/10years/index_en.htm.

[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.

amount of time and was carried out only gradually. 1500 regulations and 377 directives are the legal basis of the SMP.

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 (see EU, 2002a, pp. 5-7; in 2003 in EU-15 it increased again to 2.9 percent (for EU-25 it was 3.6 percent) as of November 2004, a long way from the 1.5 percent interim target set by successive European Councils; see EU, 2005, p. 17). Sweden had a deficit of 2.0 percent, Austria 2.1 percent and Finland 2.1 percent. However, although Finland and Sweden have already met the 1.5 percent interim target in the past, the transposition deficits got worse, in particular in Finland. If EU directives are implemented in an incomplete manner or not at all, the European Commission will initiate an infringement procedure. The total number of such procedures is very high, with 1,014 open cases in EU-15 as of October 2004. With Austria, there are currently 58 cases pending, as compared with 32 for Finland and only 31 for Sweden (see EU, 2005, p. 21). Since 2001, the European Commission has published an "Internal Market Index" designed to express the functioning of the Internal Market by a single figure (IMI). In 2002, the Index was revised and broadened in scope. It consists of a weighted average of 12 indicators that have been selected as representative for the functioning of the Internal Market by IMAC, the Commission's Internal Market Advisory Committee. In the three new Member States the IMI has risen much faster than in the EU on average (see for more details Breuss, 2003a, pp. 539-540).

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 latest "Eurobarometer" survey this means the following: The question concerning the “Support to the membership of the European Union”, 46 percent of the Austrian answer that it is a good thing (18 percent see it as a bad thing and 32 percent see it as neither good nor bad). In Finland this relationship is 48 percent to 16 percent (with 35 percent not decided) and in Sweden 48 percent to 24 percent (27 percent not decided). In EU-25 on average 56 percent see EU membership a good thing, 13 percent a bad thing and 28 percent neither good nor bad. Only 43 percent of the Austrian sees “Benefits from being a member of the European Union”, 45 percent see no benefits and 12 percent are not decided. In Finland this relationship is somewhat more favourable (49 percent to 45 percent; 7 percent rest). The Swedish population

sees more disadvantages (not benefited) from EU membership (47 percent) than benefits (36 percent) and 17 percent are not decided. Again these opinions are way below the average of EU-25: benefited 53 percent, not benefited 34 percent (rest 12 percent; see Eurobarometer, No. 62, December 2004, pp. 8-10).

More than 10 years Internal Market and disappointment with the Lisbon strategy: The European Union has already more than 10 years experience with the Internal Market. The expected grand growth effects have been realized only to a very modest degree (see more in Breuss, 2003b, pp. 389-398 and EU, 2005). In particular the Internal Market for services is far from being completed. Services markets are still highly fragmented. Therefore the European Commission proposed a new "Services Directive" in early 2004 (see EU, 2004b). Protest by prominent politicians from France and Germany has forced the Commission to draw back its original version and to make a new (may be a diluted) proposal.

In order to speed up the performance of the Internal Market the European Council on its summit in Lisbon on 23-24 March 2003 has set itself a "new strategic goal" for the next decade: *"to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion*." The mid-term review by Kok (2004) and also by the European Commission (see its new Lisbon strategy homepage "growth and jobs": http://europa.eu.int/growthandjobs/) shows that non of the high goals could be fulfilled; neither concerning economic growth (target: annual real GDP growth of 3 percent), nor concerning employment goals and also not the goal to spend 3 percent of GDP for research and development (R&D). The United States out compete Europe in nearly all of the 14 indicators. This is why the new Commission under president José Manual Barroso launched a new start for the Lisbon Strategy on 2 February 2005, concentrating mainly on "growth and jobs" (see also Breuss, 2005a and http://europa.eu.int/growthandjobs/).

Has EU membership triggered an increase in competition? This question has been studied at least for Austria (see Badinger-Breuss, 2004b) with a detailed sectoral analysis (46 sectors over the period 1978 to 2001). It has been tested whether the mark-ups (a measure for the degree of market power) have declined since EU accession due to an intensification of competitive pressure in the Internal Market. The results are mixed. Only in three of six analyzed industry groups

(mining, retail and whole sale, financial services and real estate) the mark-ups declined significantly. Out of the 19 branches in which a break in the competitive behavior could be detected after EU accession the mark-ups declined in five branches; they increased in nine branches; the rest was statistically insignificant. Overall the result was disappointing. One interpretation could be that there was no big change for Austrian companies concerning competitive pressure when participating in the Internal Market because Austria experienced this adaptation already earlier: the Free Trade Agreements of 1973 and the participation in the European Economic Area (EEA) led to a high trade integration into the EU. Only those sectors which were protected before (food, energy, telecommunication and other formerly state-owned industries) were exposed to a strong competitive pressure after EU accession. Badinger (2004) obtains similar results for 10 EU member States and 17 sectors.

5. Fundamental changes in economic policy – with or without the Euro

Similarities: 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, 2002). Many policy areas are already Community matters, such as competition policy, the Common Agricultural Policy (CAP), the Common Trade Policy as well as the structural or regional policy. In the "Treaty establishing a Constitution for Europe" (TCE), the ratification of it is under way the division of competences between the Union and the Member States is rules in Part I, Title III (Union competences). Accordingly, there are six areas of competences: (1) Areas of exclusive competence (of the Union), (2) areas of shared competences, (3) the coordination of economic and employment policies, (4) the common foreign and security policy, (5) areas of supporting, coordinating or complementary action and (6) a flexibility clause.

Besides the common competition law, the CAP, the structural/regional policy and its links with the EU budget it is mainly the coordination of economic policy which led to a fundamental change in the new Member States (for more details in the different policy areas, see Breuss, 2003a, pp. 541-545).

The EU Member States are integrated into EU's budget policy (see Table 4). The member states pay own resources into the EU budget and get transfer payments out of it for the CAP and structural policy measures. All three countries were net contributors to the EU budget in the first

year of EU membership: Finland with -0.08 percent, Austria -0.44 percent and Sweden -0.38 percent of GDP. Whereas Finland succeeded to keep a balanced position vis à vis the EU budget on average, Austria and Sweden remained net contributors. Over time Austria's net position improved gradually (to -0.15 percent of GDP in 2003). Sweden, however, is still a net contributor into the EU budget of around -0.4 percent of GDP. Austria succeeded to draw more and more transfers out of the CAP budget under the title "Rural Development". Austria ranks fourth (after Germany, France, Italy and Spain) in absorbing transfers for "Rural Development" in EU-15.

Table 4: Relations with EU budget: Austria, Finland and Sweden (Mill. Euro)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
					Own resources[1)]				
Austria	1762.9	1874.0	2110.4	2085.8	2053.7	2093.6	2091.0	1808.7	1935.9
Finland	887.4	964.0	1061.9	1145.8	1210.7	1225.6	1233.1	1184.6	1337.9
Sweden	1658.3	1969.0	2326.0	2382.7	2348.8	2632.9	2337.8	2086.1	2501.3
					Operative expenditure total[2)]				
Austria	902.3	1660.5	1386.8	1329.5	1242.0	1398.4	1403.3	1553.6	1576.7
Finland	753.4	1052.0	1118.0	975.1	936.4	1396.3	1020.1	1202.5	1346.6
Sweden	760.7	1312.5	1196.6	1343.7	1164.6	1214.5	1092.9	1245.3	1454.4
Common agricultural policy (CAP): EAGGF- guarantee section:									
Austria	87.5	1214.1	861.3	843.2	844.4	1018.7	1052.6	1092.1	1128.1
Finland	63.3	649.2	570.6	576.4	560.0	727.8	815.8	838.8	876.1
Sweden	76.5	624.1	747.0	770.9	734.8	798.1	780.1	817.6	866.5
Structural policy measures:									
Austria	175.1	270.6	364.0	340.7	296.3	260.8	206.4	185.9	300.5
Finland	173.8	155.9	379.9	256.8	252.7	542.6	83.6	222.7	327.9
Sweden	125.6	132.7	230.6	375.8	287.4	232.2	135.6	237.9	395.7
					Net operative budget balance[3)]				
Austria	-788.0	-264.5	-779.8	-629.2	-628.8	-447.8	-536.4	-223.5	-336.2
Finland	-70.6	72.6	39.8	-102.4	-194.8	274.5	-150.4	-4.1	-20.7
Sweden	-673.6	-587.9	-1097.7	-779.9	-897.3	-1059.5	-973.3	-743.4	-950.4
					in % of GDP				
Austria	-0.44	-0.15	-0.43	-0.34	-0.32	-0.22	-0.26	-0.10	-0.15
Finland	-0.08	0.08	0.04	-0.09	-0.17	0.22	-0.11	0.00	-0.01
Sweden	-0.38	-0.30	-0.54	-0.37	-0.40	-0.44	-0.42	-0.29	-0.36

1) Own resources (transfers to EU budget) consist of: a) traditional own resources (TOR = customs and agricultural duties, sugar levies); b) VAT based resource; c) GNI based resource ("fourth resource"); GNI = gross national income. EAGGF = European Agriculture Guidance and Guarantee Fund.
2) Here only the most important expenditure categories are mentioned (CAP, structural policy); apart from them there are expenditures for internal policies, administrative expenditures and reserves.
3) Positive sign = net receiver, negative sign = net contributor.
Sources: Allocation of 2002, 2002 and 2003 operating expenditure by Member State, European Commission, Brussels, September 2002, 2003 und 2004.

Differences – flexible integration: Two countries with, one without the Euro: Of the three countries surveyed, only Finland and Austria participate in Economic and Monetary Union (EMU) since the start 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. In a referendum on 14 September 2003 56.1 percent of the Swedes refused the introduction of the Euro in its country. 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) of European Monetary System (EMS) without currency depreciation vis-à-vis member states. 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 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.

Although in principle the Member States regard economic policies „as a matter of common concern and shall coordinate them within the Council“ (Art. 99 ECT), only the Member States whose currency is the Euro are strictly involved in the asymmetric economic policy architecture of EMU (central monetary policy fort he members of the Euro area and decentralized fiscal policy, but co-coordinated via the Stability and Growth Pact – SGP; for a more detailed description of EU's economic policy, see Breuss, 2002a, 2005b). This specific economic policy architecture of EMU is often seen as a hindrance for economic growth. The reason is that the SGP and also ECB's monetary policy may be too restrictive in a phase of sluggish growth (or in a recession) – in particular for the large EMU countries.

Euro dividend? Although EMU is relatively young, recent econometric panel estimations answer in the affirmative. Micco-Stein-Ordonez (2003) estimate that the bilateral trade of the 12 Euro zone countries was 4 to 10 percent higher compared to a situation without the Euro. According to estimations by Faruquee (2004) Finland has slightly lost in intra-Euro zone trade after participating in EMU (also Portugal). Austria, in contrast has gained by 8 percent (Euro area on average +7 percent). Accordingly, the biggest winners in intra-Euro area trade are Germany, the

Netherlands and Spain. However, in the light of the decline in trade shares with the EU since 1995, these optimistic results should be taken with care.

6. Which integration effects?

6.1 The difficulty of isolating integration effects

European integration is not a one-dimensional process and does not happen in a vacuum. EU integration is progressing and has reached a high degree of economic maturity with the establishment of EMU and the introduction of the Euro as a common currency. At the same time, EU enlargement is vividly continuing. On 1 May 2004, 10 new member states – mainly from Central and Eastern Europe - acceded to the EU, enlarging it from 15 to 25 Member States. In 2007 Bulgaria and Romania will become EU members. The rest Balkan states (Albania, Bosnia-Herzegovina, FRY Macedonia and Serbia-Montenegro) might follow. Croatia and Macedonia have already applied for EU membership. Accession negotiations with Croatia and with Turkey start in 2005. This might not signal the end of EU enlargement. Maybe, some of the countries, presently members of the "Ring of Friends" (those 16 countries, which are in the box of the European Neighborhood Policy – ENP – and are kept in a waiting line) might become EU members in the next decade. This complex development over time makes it difficult to isolate integration effects for single Member States of the EU.

Surrounding 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 1994 the three countries entered the European Economic Area (EEA) as EFTA members.
- In 1998, the assessment of eligibility of the member states for EMU (fulfillment of the convergence criteria) led to a harmonization of interest rate management and to widespread budgetary consolidation efforts, with substantial repercussions on the real sector of the economies.
- 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 overlapped 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. Generally, the US economy developed much faster than those in Europe in the last decade. Japan has been in a deflation crisis since 1991 which could be overcome only recently.
- In 1995 the WTO was founded and - according to the Uruguay Round Agreements - a further world wide trade liberalization started, bringing tariffs for manufactured goods down to below 3 percent on average.

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 even much more ambitious.

6.2 Ex-ante expectations – integration theory

The theory of regional integration is well developed and enables concrete ex ante estimations to be made using computable general equilibrium (CGE) or macro-economic models. Baldwin-Venables (1995, p. 1601) [3] 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 Austria, Finland and Sweden from their accession to the EU:

(1)
$$\begin{aligned} dV / V_E = {} & \alpha t\, dm - m\, d\left[t - \alpha t\right] - m\, dp \\ & + \left[p + t - a\right] dX - X a_x d_x + (V_n / V_E)\, dn \\ & + (\tilde{r} / \rho - 1)\, dI \,. \end{aligned}$$

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: 1) a *trade volume effect TV* ($\alpha\, t\, dm$), where t . . . vector of trade cost (tariffs, non-tariff trade barriers -

[3] For a similar welfare analysis in case of the recent EU enlargement, see Kohler (2004).

NTBs), m . . . vector of net imports (+ = imports), a . . . parameter ($\alpha = 1$ if tariff receipts accrue for the domestic economy, $\alpha = 0$ trade barriers if no rents, i.e., tariff receipts accrue domestically); 2) a *trade cost effect TC* ($-md[t - \alpha t]$) and 3) a *terms-of-trade effect TOT* ($-mdp$), 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 still existed (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 1973 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 $-mdt$ 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: 1) 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), 2) an *economies-of-scale effect EOS* $-Xa_x d_x$ (a_x . . . average costs, i.e., factor prices for capital and labour in sector x) and 3) 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 pro-competitive effects 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 (see Badinger-Breuss, 2005).

- *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 (R&D) 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 (see Breuss, 2003b, pp. 218-220).

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[4]. 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 Austria, Finland and Sweden are summarised in Table 5.

Table 5: Estimation of integration effects ex ante: Austria, Finland and Sweden

	Austria	**Finland**	**Sweden**
	Net welfare effects as a percentage of GDP		
Flam (1995, p. 465)	+0.08	+0.86	+0.22
Keuschnigg-Kohler (1996, p. 187)	+1.18	+1.00	+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)		+4.20	
Effects after 6 years (Breuss-Kratena-Schebeck, 1994, p. S27)	+2.80		
Long-term effects (Keuschnigg-Kohler, 1996, p. 169)	+1.90		

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

6.3 Ex-post assessment – an integration model

Although the theory of integration considers a host of possible effects, 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 suggested that the expectations were largely met (Breuss, 1999b, 2000).

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

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 model 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[5].

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:

1) EC Internal Market – windfall gains since 1993:

a) *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 (EU, 2002b, 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[6]. 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[7]. The impact of this assumption, in the present model, is confined to higher exports to the EU.

[5] The calculations presented here are based upon a method which was applied for the three countries for the first time in Breuss (2003a)

[6] 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.

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

b) *Stronger competition in the financial sector since 1993:* The Internal Market, and even more EMU, led to stronger competition in the financial sector[8]. It is assumed 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.

c) *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[9]. 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. Only at the beginning this leads to a slight positive GDP effect which, however peters out over time and ends in a slight negative effect at the end of the simulations.

2) EEA effects since 1994:

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[10]. Here, we assume a reduction in the mark-up by 15 percentage points since 1994. In can be expected that the mark-ups may decline further due to the increasing pressure from the acceding countries of Central- and Eastern Europe and in particular after their accession to the EU.

[8] 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).

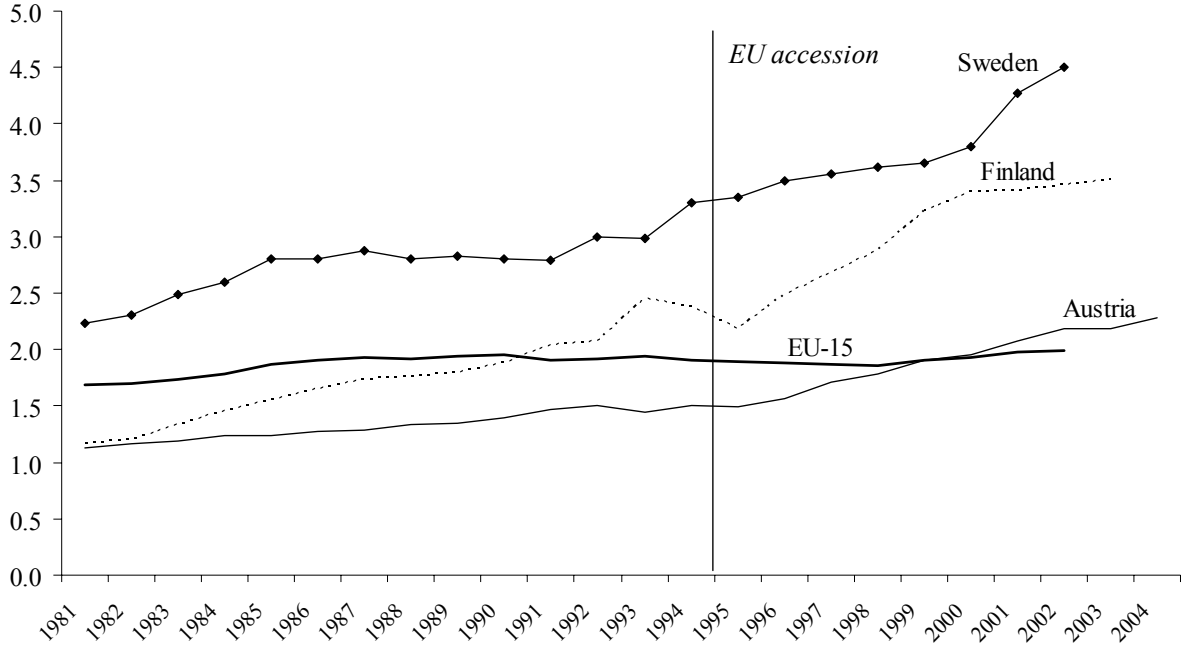
[9] Allen-Gasiorek-Smith (1998) analysed the impact of the completion of the Internal Market on price-over-cost mark-ups for a large number of industrial sectors; they estimate the dampening effect at 3½ percent for the EU average.

[10] 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. Ex post estimation results by Badinger (2004) are mixed.

3) EU accession in 1995:

a) 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. 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. However, they abated pretty soon, resulting only at the beginning slightly positive GDP effects. Due to EU enlargement in 2004 an additional integration effect occurs.

Figure 7: Expenditure on research and development (R&D)
(As a percentage of GDP)



Sources: OECD, Main Science and Technology Indicators 2003/2, Paris 2003; European Commission (Eurostat: Science and technology)

b) *Endogenous growth generated by higher spending on research and development (R&D):* 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 R&D 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 points and increasing to 0.2 percentage points from a baseline scenario without EU membership. From Figure 7 one sees that the trend of R&D expenditures is steeper since EU accession than before. According to this assumption the increase would have been smaller in the baseline scenario than it actually was, yielding strong integration effects for GDP.

Table 6: Foreign direct investment (FDI) flows: Austria, Finland and Sweden

	1990	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
						in % of GDP				
Austria:										
FDI exports:										
EU	0.40	0.26	0.18	0.27	0.45	0.70	0.51	0.31		
Total	1.00	0.60	0.48	0.84	0.97	1.29	0.57	3.01	1.65	2.75
FDI imports:										
EU	0.27	0.30	0.47	1.66	0.81	2.29	1.06	4.45		
Total	0.40	0.66	0.81	1.91	1.29	2.14	1.42	4.63	3.09	0.74
Finland:										
FDI exports:										
EU	1.35	3.97	1.15	2.29	3.07	16.37	3.34			
Total	2.31	4.28	1.15	2.81	4.31	17.70	5.17	18.78	6.91	7.49
FDI imports:										
EU	0.59	1.15	0.48	0.99	1.37	10.98	3.44			
Total	0.70	1.57	0.82	0.87	1.73	11.53	3.61	6.67	3.08	6.92
Sweden:										
FDI exports:										
EU	4.66	1.48	0.64	0.31	0.60	4.30	2.77	8.66	0.14	
Total	6.17	3.13	4.52	1.72	5.10	9.82	8.72	16.90	3.01	4.50
FDI imports:										
EU	0.67	1.32	0.40	1.03	2.27	5.84	20.25	4.47	4.01	
Total	0.83	2.97	5.82	1.87	4.43	7.99	24.19	9.67	5.37	4.59

Sources: Own calculations, using OECD, International Direct Investment Statistics Yearbooks, several annual issues, Paris; UNCTAD, World Investment Report, several issues, New York and Geneva.

c) *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 6). The FDI flows exhibit large annual fluctuations. Nevertheless it is assumed that EU accession led to a steady increase of additional FDI inflows of 0.2 percent of GDP at the beginning up to 1.5 percent of GDP recently. According to the underlying assumptions, the inflow of FDI stimulated capital formation and thereby – in our model via the production function - 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.

d) *Net contributor position vis-à-vis the EU budget:* Net transfers from the EU budget (as a percentage of GDP; Table 4) 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.

6.4 Overall effects

Table 7 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, 2000, 2003a). The reported changes to the average growth rates are not permanent ones, but only temporary (Figure 8; 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 (competition) 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. Since then growth has reverted to its "normal" rate. Due to the EU enlargement of 2004 a new impulse occurred, strongest in Austria because Austria is the country profiting the most from

enlargement (see Breuss, 2002b). Since 1995 the cumulated increase of the levels of real GDP amounted to 4.8 percentage points in Finland, 2.8 percentage points in Austria and 2.2 percentage points in Sweden (see Table 7)[11].

Table 7: Integration effects of EU accession

	Austria	**Finland**	**Sweden**
	Average annual additional percentage change 1995/2005		
GDP, real	0.43	0.67	0.30
GDP, real (cumulated 1995-2005)	*(2.84)*	*(4.82)*	*(2.20)*
Total factor productivity (TFP)	0.17	0.02	0.11
Capital stock	0.15	0.50	0.13
Employment	0.29	0.71	0.21
Unemployment rate (percentage points)	-0.23	-1.27	-0.35
Rate of inflation (HICP)	-0.30	-0.43	-0.45
Unit labor cost	-0.12	-0.29	-0.21
Exports to EU, volume	0.40	0.62	0.27
Imports from EU, volume	0.74	1.25	0.13
Real disposable personal income	0.55	0.83	0.52
GDP per capita, real	0.43	0.67	0.30
GDP per capita, real including net transfers to EU budget	0.31	0.59	0.24

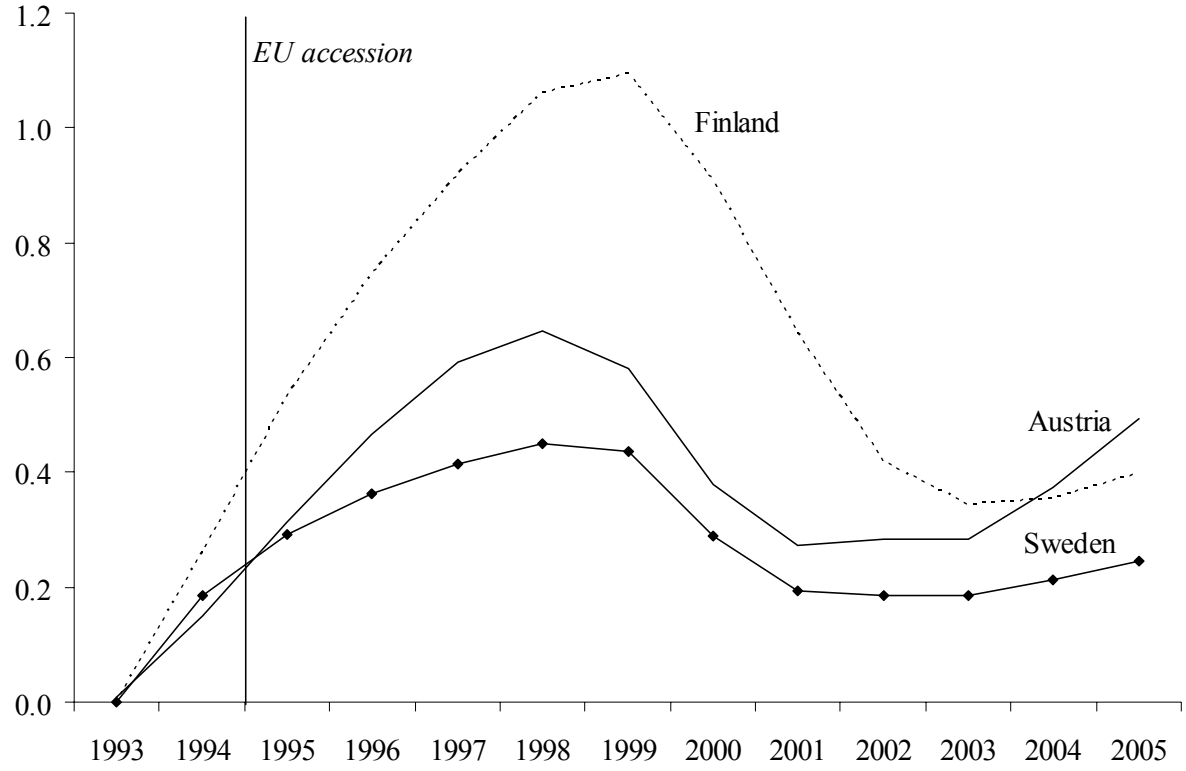
Source: Own estimates with the integration model (see Annex).

The most important impact on economic growth derives from the "modern" integration effects (R&D and FDI effects). The traditional integration effects (trade effects etc.) in contrast are extremely small. The competition effects (decline of mark-ups) result in a dampening of price development. In general, the magnitude of the integration effects can never be assessed precisely,

[11] Catinat-Donni-Italianer (1988) estimated ex ante that the completion of the Internal Market would increase real GDP of EU average by cumulated 4.5 percentage points after six years. 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 those from service sector liberalisation are not (yet) included. The implementation and realisation of the "Directive on services in the internal market" (see EU, 2004b) might induce additional intra-EU trade and FDI flows and hence also more growth and jobs (see the literature survey by Breuss-Badinger, 2005; for specific services studies, see Kox-Lejour-Montizaan, 2004a, 2004b). The liberalisation of various network industries (electricity, gas, and telecommunication) should have raised GDP by an additional 0.6 percent over 10 years (see EU, 2002c, chapter 3).
Demgegenüber hat die Europäische Kommission (siehe Roeger-Sekkat, 2002) ex post für die EU insgesamt nach 10 Jahren Binnenmarkt einen Niveauanstieg des realen BIP von 1,4 Prozentpunkten (mit einer Spannweite von 0,76% und 2,05%) errechnet. Allerdings sind darin nicht alle Binnenmarkteffekte enthalten. Insbesondere sind jene der Liberalisierung des Dienstleistungssektors nicht berücksichtigt. Weiters dürften durch die Liberalisierung diverser Netzwerkindustrien (Strom, Gas, Telekom) nochmals etwa 0,6 Prozentpunkte innerhalb von 10 Jahren dazu kommen (siehe EU, 2002c, chapter 3).

since the "anti-monde" situation, i.e., the behaviour of all variables without integration, is always unknown.

Figure 8: Integration effects of EU accession
(Real GDP, additional percentage change from previous year)



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

Yet, the results are, against the background of the ex-ante estimates, not altogether implausible. No economic 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.

7. Future perspectives

The fourth EU enlargement in 1995 was comfortable in many respects for the European Union. It involved small, highly developed rich industrial countries which were already integrated into the EU to a considerable degree via the Free Trade Agreements of 1973 and the EEA of 1994. Additionally, all three are net contributors to the EU budget. The only obstacle is that Sweden is not (yet) a member of the Euro area. For the newcomers EU accession was – on average - a positive experiment, too. EU membership resulted – to a different degree – in an increase of real GDP. Surprisingly, the theoretically expected increase of trade with the EU (trade creation) did not materialize. In contrast to the positive economic effects of EU membership one can observe an increasing EU scepticism of the population in all three countries (the least in Finland). It seems that new EU members have to live with such paradoxes.

The specific Austrian, Finnish and Swedish experiences after 10 years of EU membership are therefore only partially applicable to the 10 new EU Member States. On the one hand the 2004 EU enlargement encompassed primarily small and poor transformation countries which are still in a process of catching up. For a long time they will burden and not relieve the EU budget. The EU-25 is more heterogeneous and segmented than EU-15 and hence will revive the process of "flexible integration". Until the take-over of the Euro – and that lasts at least until 2007 – we will have more countries outside the Euro area (13) than in the Euro area (12). The huge income differential potentially leads to migration, a problem which has been mitigated and delayed by the seven years transitional arrangements in the accession treaty. On the other hand, the integration of the 10 newcomers into the Internal Market leads to a growth impulse to the economy of the enlarged Union; however, the growth effect is around ten times larger in the new Member States than in the old EU Member States (see Breuss, 2002b). Low wages und a rapid growing economy makes the new member states to "emerging markets" within the Union.

Besides the irresistible drive to EU enlargement – the next enlargement by Bulgaria and Romania is planned for 2007, further countries (Croatia, FRY Macedonia and Turkey) will follow – the question of institutional and political reform of the Union is on the agenda. With the Treaty establishing a Constitution for Europe (TCE), planned to enter into force – after the completion of the complicated ratification procedure (10 member states make referenda) - this should be solved for the time being.

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

1. 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)

2. Total factor productivity (TFP):

$\log(TFP) = f(\log(AP), \log(R\,\&\,D_i), m_i * \log(R\,\&\,D_{EU}), \log(TFP_{-1})$

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

3. Domestic price (private consumption deflator):

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

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

4. Consumer prices (harmonized):

$d\log(HICP) = f(d\log(PK)$

HICP = harmonized index of consumer prices.

5. GDP deflator:

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

PGDP = GDP deflator; PX = export deflator.

6. Per-capita wages (Phillips curve):

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

LB = wages (W) per employee (L); U = unemployment rate.

7. Demand for capital (private sector):

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

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.

8. Interest rate, long-term:

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

R_D = interest rate in Germany.

9. Demand for labor:

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

10. Labor productivity:
$AP = GDP / L$

11. Unit labor cost:
$ULC = LB / (GDP / L) = W / GDP$

12. Unemployment rate (Okun relation):
$U = f(d\log(GDP), U_{-1})$

13. Exports to EU, volume:
$d\log(X_{EU}) = f(d\log(GDP_{EU}), d\log(REER), PROT)$
X_{EU} = real exports to EU; 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).

14. Imports from EU, volume:
$d\log(M_{EU}) = f(d\log(GDP), d\log(PM / PGDP), PROT, d\log(M_{EU-1}))$
M_{EU} = imports from EU, volume.

15. Share of imports from EU:
$m_i = M_{EU} / M_W$
M_W = total imports, volume.

16. Total exports, volume:
$d\log(X_W) = f(d\log(GDP_{EU}), d\log(REER), PROT, d\log(X_{W-1}))$
X_W = total exports, volume.

17. Total Imports, volume:
$d\log(M_W) = f(d\log(GDP), d\log(PM / PGDP), PROT, d\log(M_{W-1}))$

18. Personal disposable income, nominal:
$YD = f(GDPN, YD_{-1})$
YD = personal disposable income; GDPN = nominal GDP.

19. Personal disposable income, real:
$YDR = YD / PK$

20. GDP, nominal:
$GDPN = GDP * PGDP$

21. GDP, real per capita:
$GDPpc = GDP / POP$
GDPpc = real GDP per capita; POP = population.

22. GDP, real per capital including net transfers to EU:
$GDPpc_{EU} = (GDP + (NZ / PGDP)) / POP$
NZ = net transfers from EU budget.

All equations were estimated econometrically with OLS using the programme EViews5.0 on the basis of annual data (whenever available) from 1960 until 2005. 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; the primary data source was the AMECO databank of the European Commission; additionally some data stem from OECD Economic Outlook, various issues, or: http://www.sourceoecd.org.

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