

Fritz Breuss

Austria and Switzerland – Experiences with and without EU Membership

Austria and Switzerland pursue different strategies with regard to European integration: Austria, a member of the EU since 1995, also participates in the Economic and Monetary Union since 1999. Switzerland has since the rejection of the EEA agreement in 1992 adopted a course of bilateral approach towards the EU, with the conclusion of two bilateral agreements so far. For Austria, the balance of pros and cons of ten years of EU membership is positive, with an acceleration of GDP growth by an estimated ½ percentage point on annual average. The bilateral approach of Switzerland allows the country to negotiate in the context of sectoral agreements only those items considered as being in the national interest. Switzerland can continue to conduct an autonomous economic policy and avoid the burden of being a net contributor to the EU budget. Overall, Switzerland is likely to have suffered welfare losses over the last decade.

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Austria and Switzerland, two small countries of almost equal size in the centre of Europe, have since the mid-1990s followed different routes in the European integration process, after having shared as member of EFTA the same integration policy strategy as from the early 1960s:

- Austria, having joined the European Economic Area (EEA) for one year, became a member of the European Union in 1995 and participates in the EU Economic and Monetary Union since 1999.
- Switzerland has since the rejection of the EEA Agreement in a popular referendum in 1992 pursued a strategy of gradual approach towards the EU via bilateral agreements. The "Bilateral Agreements I" have been in force since 2002, and some elements of the partial "Bilaterals II" agreements have already taken effect in 2005. Switzerland has thereby adopted ex post the essentials of the EEA Agreement. The Bilaterals II take some integration steps going beyond the EEA Agreement (participation in the Schengen Agreement, agreement on the taxation of interest income) that facilitate a high degree of economic integration into the EU. By opting for this strategy, Switzerland avoids certain drawbacks of EU membership, such as the financial burden of being a net contributor to the EU budget, and remains autonomous in its political decisions. It retains its specific model of direct democracy, while for Austria the decisions, notably in the economic policy area, are largely taken at EU level.

The following comparative analysis examines in which way the two different integration strategies are being reflected by economic developments and relative performance. Quantifying integration effects is always difficult since the complex economic developments of countries are the result not only of integration effects. In order to estimate integration effects (of EU membership in the case of Austria versus non-membership in the case of Switzerland), the study will also rely on model-based analysis.

First common, then different routes in integration policy

Austria and Switzerland, both politically neutral states in the West-East divide, followed the same route in the European integration process for a long time (from 1960 to 1993), before choosing separate ways as from 1994 (Table 1). The completion of the EFTA free trade zone at the end of 1966 had brought about an intensified exchange of goods between the EFTA member states, thus also between the neighbours Austria and Switzerland. At the same time, both countries were discriminated in trade policy terms on the EEC markets as from 1 July 1967, when the EEC customs union was implemented.

The two-track integration policy in Europe was put to an end on 1 January 1973, when free trade agreements were concluded between the EEC and the ECCS on the one side and the remaining EFTA members on the other, coinciding with the first EC enlargement (to become EC 9). The free trade agreements of 1972 created by mid-1977 a "large area of free trade" EC-EFTA, in which trade in manufactures was no longer subject to tariffs and case-by-case exemption rules applied for agricultural products.

The Bilaterals II build upon the bilateral agreements I of 1999, thereby continuing the bilateral approach. The EU linked two important concerns vis-à-vis Switzerland with the initiation of negotiations: Switzerland was to be integrated into the cross-border system of interest taxation designed by the EU, and was to co-operate with the EU in fighting indirect tax evasion and fraud (notably with regard to illegal imports of cigarettes). Beyond these issues, Switzerland also wanted the negotiations to be extended to other "leftovers" from the bilateral agreements I¹ (Table 1).

On 1 June 2002, the seven bilateral agreements between Switzerland and the European Union (Bilaterals I) entered into force. One of them, the agreement on free movement, will introduce stepwise the free personal mobility for all citizens of the EU member states and of Switzerland across both territories.

With the EU enlargement as from 1 May 2004, all bilateral agreements between Switzerland and the EU (Bilaterals I) have been extended to the ten new EU member states, with the exception of the agreement on free personal movement. In a supplementary protocol to the agreement on free personal movement of 1999, a transition clause has been settled for the new Eastern European EU member states providing for a gradual and regulated opening of the Swiss labour market. Restrictions, such as priority granted to domestic workers, quotas or control of wages and working conditions, may be extended until 30 April 2011.

The Swiss Parliament, in its winter 2004 session, has adopted the supplementary protocol, together with a revision of accompanying measures against wage and social dumping. Both draft bills were combined to a Federal resolution that was subject to the optional referendum. With the approval of the opening of its labour market also to the ten new EU member states in the referendum of 25 September 2005, Switzerland avoided the potential termination of the other six sectoral agreements by the EU (for the reason of unequal treatment of its member states)².

With the participation in EMU since 1999 and the adoption of the euro as legal tender since 2002, Austria has moved to the highest step of economic integration in the EU – with all implicit advantages and drawbacks. Switzerland, according to the vote of its population, has opted for an alternative integration strategy consisting in a bilateral and selective approach to the EU, which carries its own advantages and disadvantages. While not being bound by the budgetary rules applying to full EU Members, the Swiss Federal Council on 12 May 2004 decided on a contribution towards the promotion of social and economic cohesion in Europe to the amount of CHF 1 billion (some € 650 million; Calmy-Rey, 2004, p. 6, <http://www.europa.dmin.ch/europapol/themen/kohaesion/d/index.htm>). With this contribution, Switzerland reconfirmed its solidarity with Eastern Europe (having supported the East-European countries already between 1991 and 2001 with an amount of CHF 2.5 bil-

¹ Switzerland continues to pursue the strategy of bilateral approach towards the EU, heading for an agreement for the electricity market (Neue Zürcher Zeitung, 30 September 2005, p. 7)

² For the Bilaterals I a "guillotine clause" applied: all seven agreements can only enter into force or be terminated together (in order to prevent a policy of "raisin picking").

lion; Neue Zürcher Zeitung, 10 February 2004, p. 15) and helps narrowing the economic and social discrepancy between "old" and "new" EU member states. The support is taking the form of projects selected and carried out by Switzerland in an autonomous way. Its financing is supposed to be "budgetary-neutral".

Table 1: History of Austria's and Switzerland's integration policy

Common integration steps: membership in EFTA 1960-1993

1960	European Free Trade Association (EFTA): Denmark, UK, Norway, Austria, Portugal, Sweden, Switzerland and Liechtenstein (since 1991 independent member); Finland (associated member since 1961) full member as of 1986, Iceland membership 1970 3 May: EFTA convention entering into force
1966	31 December: abolition of remaining EFTA-internal tariffs – free trade zone "EFTA" implemented
1973	In parallel with the "first (northern) enlargement" of the EC by Denmark, UK and Ireland, free trade agreements take effect on 1 January between the EEC, ECCS and the remaining EFTA countries (Iceland, Austria, Portugal, Sweden and Switzerland. Due to the interim agreement with the EEC and ECCS in force since 1 October 1972, Austria had a small tariff advantage vis-à-vis the other EFTA countries.
1977	Free trade agreements abolish by 1 July all tariff and non-tariff trade barriers between EC and EFTA for manufactures (special regulations for agricultural products). Mid-1977: "Large free trade area" EC-EFTA implemented

Different strategies of approach towards EU 1994-2005

1992	20 May: Switzerland applies for full EU membership; request not further pursued, neither by EU nor Switzerland 6 December: Switzerland in a referendum rejects EEA Agreement by majority of 50.3 percent, remaining EFTA member, but not participating in EEA; starts bilateral negotiations with EU
1994	1 January: Agreement on European Economic Area (EEA Agreement) between EC-12 and the EFTA countries Finland, Iceland, Liechtenstein, Norway, Austria and Sweden enters into force; in the economic legal framework partial harmonisation with EC law (acquis communautaire), implying partial participation in Internal Market programme
1995	1 January: EU enlargement by three former EFTA members (Finland, Austria, Sweden) to EU 15 EFTA remaining with only four members (Iceland, Liechtenstein, Norway, Switzerland), of which only three participate in EEA
1999	EU Economic and Monetary Union enters into force with 11 members (one of which Austria)
2001	1 January: Greece participates in Monetary Union
2002	1 January: Euro becomes legal tender in the euro area In order to mitigate the negative consequences of non-participation in EEA, Switzerland has negotiated with the EU since 1994 a bilateral agreement covering seven sectors (individual transport, air traffic, ground traffic, agriculture, technical trade barriers, public procurement, research – participation in the 5. EU Framework Programme). The agreement (Bilaterals I) ¹ was signed on 21 June 1999 and, after approval in a Swiss referendum (6 May 2000), enters into force on 1 June 2002. Thereby, a revision of the EFTA Convention becomes necessary.
2004	1 May: EU enlargement by 10 members to EU 25 Since 17 June 2002, Switzerland negotiates with EU a second bilateral agreement (Bilaterals II) ² on 10 dossiers, which is concluded on 19 May 2004. 8 agreements (processed agricultural products, statistics, retirement benefits, environment, MEDIA, Schengen, respectively, Dublin, fight against fraud, interest taxation) have to be adopted by parliament. Three of the agreements (MEDIA, Schengen, respectively, Dublin, interest taxation) require adjustment of legal base for implementation. For the area of education – vocational training – youth, the negotiating parties agree on a declaration of intention. 26 October: Bilaterals II signed in Luxembourg Since Switzerland is not a member of the EU customs union, border controls are maintained (Schengen special case)
2005	5 June: Switzerland, in a popular referendum approves (by majority of 54.6 percent) participation in Schengen- respectively Dublin Agreement Bilaterals II ratified in partial steps ³ 1 July: interest taxation agreement between Switzerland and EU enters into force 25 September: Switzerland, in a popular referendum (majority of 56 percent) approves free movement of individuals being extended to 10 new EU member states; like in EU countries (exceptions: UK, Ireland and Sweden) transition regulations up to 7 years

¹ Original texts of the bilateral agreements I ("Bilaterals I") between Switzerland and the EU of 1999: <http://www.europa.admin.ch/ba/off/abkommen/d/index.htm>. – ² Original texts of the bilateral agreements II ("Bilaterals II") between Switzerland and the EU: <http://www.europa.admin.ch/nbv/off/abkommen/d/index.htm>. – ³ Time schedule for ratification of the partial agreements: <http://www.europa.admin.ch/nbv/ratifikation/d/index.htm>.

By the surface of its territory, Switzerland is half the size of Austria, its population of 7.4 million is slightly smaller than Austria's 8.2 million. Although still ranking among the world's richest countries, it has over the last decades lost its sizeable advantage of the early post-war period.

Austria has succeeded in catching up strongly in terms of GDP per capita (at purchasing power standards) and is today the fourth-richest country in the EU (Table 2).

Overall economic developments since 1995

Two small, but rich neighbouring countries

Table 2: Comparative economic size

	Surface 1,000 km ²	Population 2004 Million	GDP		Trade with EU 15 Exports Imports Ø 1995-2004 As a percentage of total trade		Overall	International competitive position ¹ GCI ²			BCI ³
			Total 2004 Billion KKS ⁴	Per capita 2004 KKS ⁴	As a percentage of total trade	As a percentage of total trade		MEI	2005 PII	TI	
Austria	84	8.17	220	27,070	62.0	68.0	21	22	11	21	10
Switzerland	41	7.42	213	28,740	60.3	77.8	8	13	9	6	7
EU 15	3,236	383.42	9,316	24,300							
EU 25	3,975	457.54	10,213	22,320							

Source: Eurostat; OECD; World Economic Forum, The Global Competitiveness Report 2005-2006; WIKIPEDIA; WIFO calculations. – ¹ Rank among 117 countries. – ² Growth Competitiveness Index (medium-term conditions for sustained growth) with three sub-indices: Macroeconomic Environment Index (MEI), Public Institutions Index (PII), Technology Index (TI). – ³ Business Competitiveness Index (micro-economic conditions for short-term productivity level). – ⁴ In purchasing power parities.

Switzerland as one of the most highly developed economies of the world is characterised by a high share of services in total national output and income, in line with the 3-sector-hypothesis formulated by Clark, Fourastié and Fisher. The broad sectoral pattern is similar to that of Austria. Whereas in Switzerland financial and commercial services dominate (with the banking sector alone claiming a share of 15 percent of total value added), Austrian services are more concentrated in the areas of trade, restaurants and tourism as well as transport. This overall pattern has changed only little in the last ten years. The share of financial and commercial services has increased in both countries – in Austria at the expense of "other" services, while in Switzerland the share of manufacturing declined. According to the OECD Observer 2004 (presenting data for 2003), 4.1 percent of the Swiss labour force were employed in agriculture and fishery (in Austria 5.6 percent of the total), 23.9 percent (29.6 percent) in manufacturing and 72 percent (64.8 percent) in services.

A comparison of the overall economic performance ten years before and ten years after 1995 between the two neighbouring countries, the overseas countries USA and Japan and the EU 15 average will give some indication of whether the Austrian economy, due to EU membership, fared better or worse than the Swiss economy, even if genuine integration effects may not be derived from such a comparison. The USA and Japan are taken as references, because they are only indirectly affected by European integration. With the comparison stretching over ten-year periods, random variations should have been eliminated (each period covering roughly two business cycles), although all macro-economic variables will thereby also include the effects of the transition to market economies in Eastern Europe since 1989.

Switzerland's more modern economic structure

Differences in macro-economic performance

Table 3: Macro-economic developments since Austria's accession to the EU

	GDP, volume		GDP per capita, in purchasing power standards, relative to EU 15		Consumer prices		General government balance		Unemployment rate	
	AG	D	AG	D	AG	D	DA	D	DA	D
Austria	+ 2.17	– 0.51	– 0.43	– 0.74	+ 1.77	– 1.03	– 1.96	+ 1.53	4.18	0.80
Switzerland	+ 1.31	– 0.49	– 1.24	– 0.20	+ 0.87	– 2.13	– 0.84	– 0.49	3.48	1.76
EU 15	+ 2.25	– 0.05			+ 2.18	– 2.27	– 2.22	+ 1.91	8.65	– 0.29
USA	+ 3.33	+ 0.30	+ 0.36	+ 0.55	+ 2.47	– 1.16	– 1.86	+ 2.67	5.14	– 1.27
Japan	+ 1.22	– 2.24	– 0.85	– 1.81	– 0.06	– 1.63	– 6.76	– 6.55	4.43	1.95

Source: Eurostat, OECD, WIFO. – DA . . . Ø 1995-2005 as a percentage of GDP, respectively, in percent, AG . . . average percentage change 1994-2005 p.a., D . . . difference between DA, respectively, AG and the average of the 10 years before Austria's EU accession in percentage points.

Switzerland and Austria have experienced rather different economic developments since 1995, with most macro-indicators showing Switzerland in a more favourable position (Table 3). The deceleration of average economic growth in the ten-year period after 1995 compared with the ten years before has been of equal size,

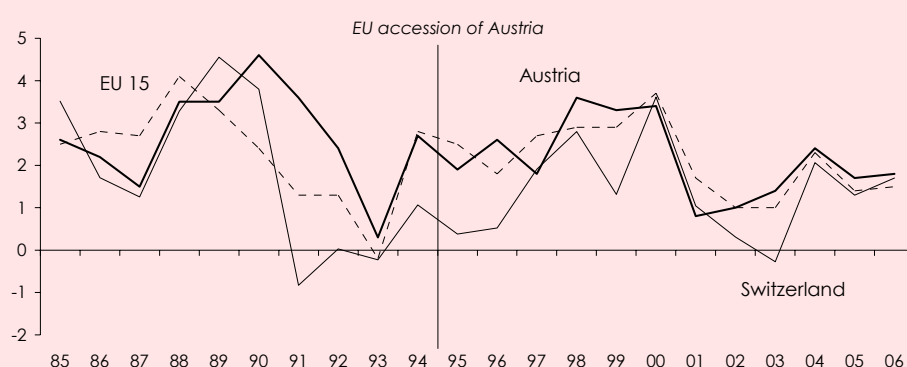
roughly ½ percentage point in both countries. The increase in GDP per capita flattened somewhat more strongly in Austria, and Switzerland was also more successful in dampening inflation. In turn, Austria's performance was relatively better with regard to budgetary consolidation and to stemming the rise in unemployment.

The Swiss economy moved from a cyclical over-heating to a sharp downturn in the early 1990s (with a mild recession in 1991), from which it recovered only as from 1997. Growth was stimulated notably by a strongly expansionary stance of monetary policy (lower interest rates than in the euro area). In 2003, Switzerland slipped again into a small recession.

In the aftermath of German re-unification, Austria benefited from a boom in external demand which slackened only in 1993. Overall, the profile of real GDP growth follows closely the EU 15 average, with a positive gap before 1995, but little difference since (Figure 1).

Figure 1: Economic growth before and after Austria's accession to the EU

Percent



Source: OECD, Statistics Austria, WIFO calculations. 2005 and 2006: forecast.

In both countries therefore, special factors have influenced economic developments, one of which was participation or non-participation in EU integration.

In all countries shown in Table 3, inflation has come down since 1995 as compared with the previous decade, in Austria to a smaller extent (–1.0 percentage point) than elsewhere. In Switzerland, the decline by 2.1 percentage points was almost as marked as for the EU average (–2.3 percentage points).

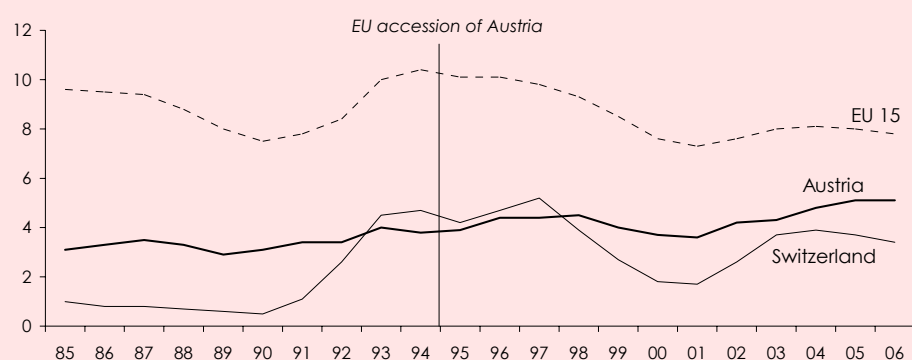
Developments in government finances of Switzerland and Austria mirror the differences in the room for manoeuvre of fiscal policy. Before entering EMU, EU member states made strong efforts to meet the Maastricht convergence criteria, one of which was the reduction of the general government deficit below 3 percent of GDP (assessed in May 1998 on the basis of 1997 data). The improvement in Austria's budgetary position since the mid-1990s was therefore not primarily cyclically-induced, but rather reflecting the fact that this was a necessary condition for EMU entry.

As a member of Monetary Union, Austria is bound by the Stability and Growth Pact to achieve a balanced government budget over the medium term and to keep a general government deficit in any year below 3 percent of GDP. Since a couple of years, Switzerland has to some extent committed itself to similar fiscal rules ("debt brake" or "*Schuldenbremse*"). Nevertheless, budgetary developments since 1995 have on the whole been better in Austria than in Switzerland.

One advantage of a country deciding not to participate in Monetary Union is that it retains its autonomy over monetary policy. By applying a low-interest-rate policy, Switzerland managed to stimulate economic activity. The interest rate bonus vis-à-vis the euro area amounts to between 1½ and 2 percentage points.

The labour market situation in the 1970s and 1980s was more benign in Austria than in most other European countries (Figure 2). Nevertheless, since the late 1980s, Austria has seen its unemployment rate rising slowly, but steadily. In Switzerland, the extended cyclical sluggishness of the early 1990s led to a jump of the hitherto extremely low unemployment rate to a level higher than in Austria. Since the end of the 1990s, the rate has dropped again below the Austrian reference value. However, the employment rate (i.e., active population aged 15 to 64 as percent of total population of the same age group; 2004: Switzerland 77.4 percent, Austria 66.5 percent; OECD, 2005) is higher by some 10 percentage points in Switzerland than in Austria, despite a lower average rate of economic growth.

Figure 2: Unemployment rates before and after Austria's accession to the EU
As a percentage of the labour force



Source: Eurostat, OECD. 2005 and 2006: forecast.

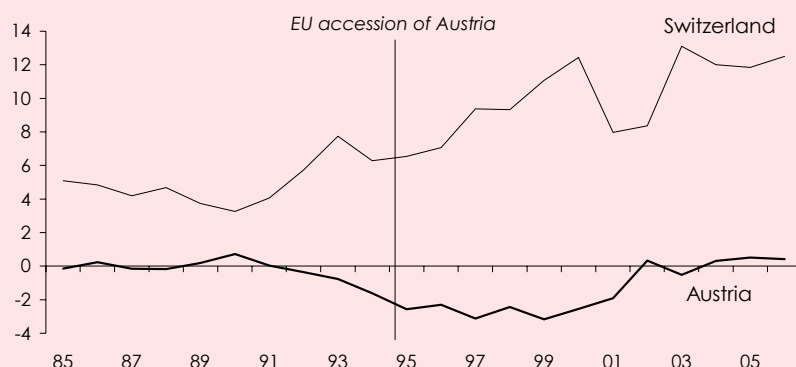
Austria's external position, as measured by the merchandise trade account balance as percent of GDP, improved markedly, not least due to EU accession. The main contribution to this improvement came from trade with East-central Europe and the rest of the world, and not so much from the exchange of goods with the EU member states (Table 4). In Switzerland, the trade account has been close to balance already since the early 1990s.

After a sharp deterioration, partly caused by the net transfers to the EU budget and dwindling competitiveness in tourism, Austria's current external account has been in surplus since 2002 (Figure 3). The negative balance vis-à-vis the euro area has widened, however, since 1995. The overall consolidation has largely been supported by net gains in trade with the new EU member states and with third countries. Switzerland's current account surplus, already high at the outset, has been widening steadily since the early 1990s, in spite of the country's non-participation in EU integration (Figure 3). The improvement is concentrated in the incomes balance and in particular in the repatriation of returns from Swiss multinational companies' foreign direct investment.

The strengthening of Austria's international price competitiveness (as reflected by the trade balance and the current account) derives to a major extent from a steady decline in the real effective exchange rate (measured by relative unit labour costs against 24 trade partners) since Austria's accession to the EU 1995 and EMU entry 1999. Earlier on, at least since Austria adopted the "hard currency" policy in 1981 by tying the schilling to the DM, the real effective exchange rate had been broadly stable. Switzerland, for its part, has seen an almost continuous real-effective appreciation of the Swiss franc.

Figure 3: Current account

As a percentage of GDP



Source: OECD, OeNB, WIFO. 2005 and 2006: forecast.

While Austria, with EMU entry and the adoption of the euro, has reached the highest stage of economic integration, Switzerland, with its bilateral approach, has remained on the first step (free-trade zone on the basis of EFTA membership), supplemented by several bilateral sectoral agreements with the EU (Bilaterals I and II). The following analysis focuses on the differential degree of integration of the two countries with regard to particular dimensions of integration and its consequences.

Integration into an existing trade block normally leads to a higher trade volume (trade creation) and to a shift of trade from the traditional trade partners outside the trade block towards the members of the latter (trade diversion). Austria's accession to the EU had essentially two trade policy implications: First, national tariffs had to be aligned to the EU General Customs Tariff (GCT), leading to an average cut in tariffs by some 5 percentage points. Thereby, roughly 25 percent of Austria's imports from third countries (other non-EU countries and remaining EFTA countries in 1995) enjoyed a more favourable tariff status. Multiplying the import volume by the change in tariffs yields a small external trade creation effect of 1¼ percent. Second, the entry into the EU Internal Market was associated with the abolition of border controls (free movement of goods) and thus with a lowering of trade costs. From a theoretical perspective, intra-EU trade should have increased since Austria's EU accession (see e.g., *Badinger – Breuss, 2004*).

In Switzerland, there have been only few changes in trade policy vis-à-vis the EU since the free trade agreement of 1972 entered into force. The agreement covered only manufactures, but not agricultural products. Tariffs for bilateral trade with the EU were phased out as from 1 July 1997; since then, there is free trade in manufactured goods between the EU and EFTA. The agricultural agreements in the context of the Bilaterals I and II were intended to liberalise to a large extent also trade in agricultural goods. Although the Bilaterals I facilitated mutual trade and market access, not all "agricultural products" were included. With the agricultural agreement in the context of the Bilaterals II, Protocol Nr.2 of the free trade agreement of 1972 was revised and improved in two respects, implying a further opening for processed agricultural goods (*Integration Office EDA/EVD, 2005B, p. 27ff*):

Different steps of integration and their effects

Trade-policy-related integration

What would be expected from a theoretical perspective?

Possible Effects of a Customs Union between Switzerland and the EU

The option of a customs union is the subject of both public and academic debate in Switzerland. The economics editors of *Neue Zürcher Zeitung* (27 to 28 March 2004, p. 15), after weighing all pros and cons, come to the conclusion that the disadvantages of a customs union without EU accession would outweigh the benefits, whereas *Minsch – Moser* (2004) find the option of a customs union worth considering. The customs union would carry the advantage of border controls and certificates of origin (as being part of the EFTA trade regime) becoming obsolete, which would reduce trade costs (to an amount yet to be determined).

Simulation exercises of a potential customs union between Switzerland and the EU (elimination of all trade obstacles, notably agricultural tariffs) using a numerical general equilibrium model (GTAP6-model with 12 regions: Austria, Finland, Sweden, other EU, Switzerland, other EFTA, CEEC, Balkan countries, CIS, Turkey, NAFTA, other countries; 3 sectors – food, manufactures, services – and 5 factors of production) based on 2001 data yields the following result:

- Switzerland could raise its trade with the EU by around 3 percent, trade between Austria and Switzerland could be boosted by 2 percent. A large potential may be mobilised in trade with Turkey, which is in a customs union with the EU already since 1996.
- Switzerland would reap welfare gains of about 0.2 percent of GDP; in the EU, the corresponding effects would amount to only one-tenth that magnitude; Turkey would benefit somewhat, Austria only to a small extent.
- Switzerland's real GDP would edge up by 0.2 percent; for all other regions, growth effects would only be marginal.

Foreign trade of Austria and Switzerland is concentrated on the EU to a different degree, not least due to the different intensity of integration with the EU. In 2004, Austria delivered 59.1 percent of its exports to the EU 15 and 71.8 percent to the EU 25. In Switzerland, the share of the EU 15 of 58.9 percent was almost as high, but that of the EU 25 at 62.0 percent much lower than in Austria. On the import side, the EU 15 is much more important for Switzerland than for Austria, with a share of total imports of 79.2 percent compared with 66.5 percent (EU 25: 81.4 percent versus 77.1 percent).

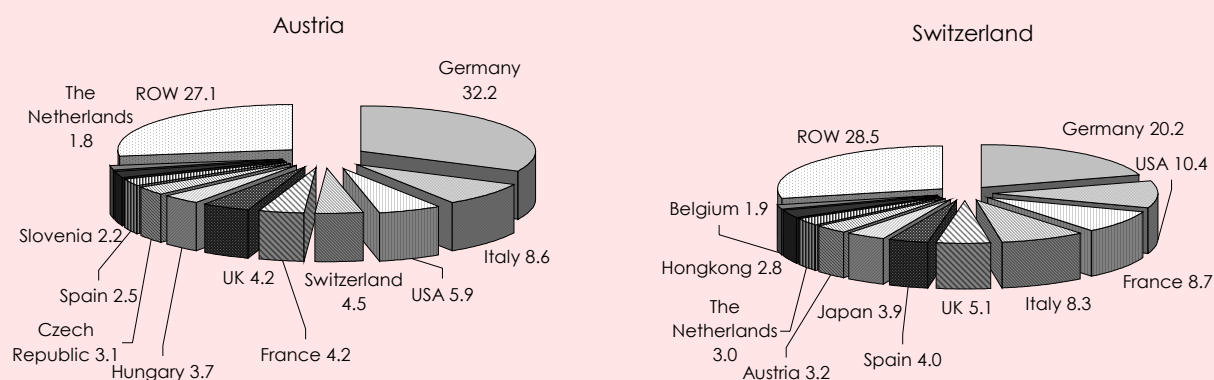
The by far largest export market for Austria (with 32.2 percent of total exports) and Switzerland (20.2 percent) is Germany. The shares of the other markets follow a different pattern (Figure 4): Austria's second most important export market is Italy (8.6 percent), followed by the USA (5.9 percent) and Switzerland (4.5 percent). In 2004, Hungary held rank 7, behind France and the UK. For Switzerland, neighbouring Austria is only number 8 in the list of the major trading partners, behind Germany, the USA, France, Italy, UK, Japan and Spain. Among the top ten Swiss trading partners figures none of the new EU member states. The latter therefore play only a minor role for the Swiss export industry, whereas for Austria they have gained in importance since the opening of Eastern Europe in 1989. Generally speaking, Austria's export is to a higher degree concentrated on Europe than Swiss exports which reach out geographically much more widely. This is partly a consequence of the commodity structure of Swiss exports being more concentrated on goods of higher value added.

A comparison of both countries' foreign trade in the ten years since Austria's accession to the EU with the previous period, while giving primarily indications for integration effects in Austria, also allows some conclusions to be drawn on the relations between the Swiss economy and the EU (Table 4). Contrary to what theoretical considerations would suggest, Austria's share of trade with the EU 15 decreased. Switzerland's trade share with the EU also declined, albeit to a smaller extent. Whereas Austria, following the opening of Eastern Europe, strongly expanded its trade with the ten new EU member states, the corresponding effect was only marginal in Switzerland. In line with economic theory, Austria's trade share with the EFTA countries diminished, but so did also the Swiss trade share (against theory), although Switzerland remained a member of EFTA. Over the same period, the share of trade with NAFTA increased in both countries.

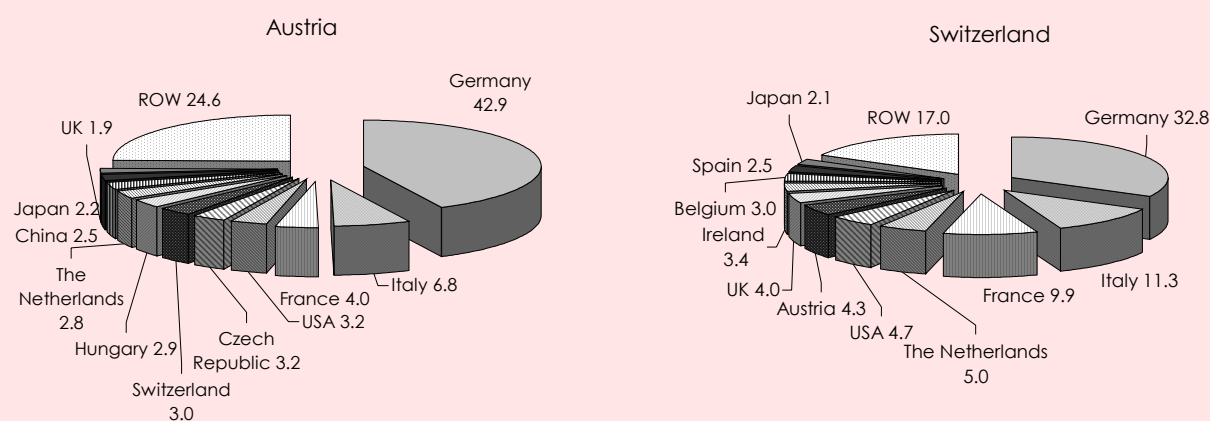
Actual shifts in trade

Figure 4: Trade partners of Switzerland and Austria, 2004

Export shares in percent



Import shares in percent



Source: OECD. ROW ... Rest of the world.

Table 4: Regional trade patterns of Austria and Switzerland

	Export shares				Import shares				Trade balance			
	Austria		Switzerland		Austria		Switzerland		Austria		Switzerland	
	A	D	A	D	A	D	A	D	A	D	A	D
EU 25	74.2	+ 0.74	62.9	- 1.76	77.1	+ 2.25	79.3	+ 0.27	- 5,796	- 164	- 13,267	- 3,256
EU 15	62.0	- 4.25	60.3	- 2.59	68.0	- 1.67	77.8	- 0.43	- 7,575	- 1,461	- 14,248	- 3,726
New EU members	12.3	+ 4.99	2.6	+ 0.83	9.0	+ 3.92	1.5	+ 0.70	1,779	1,297	981	470
CIS	1.8	- 0.58	0.8	- 0.05	2.1	+ 0.00	1.4	+ 0.76	- 344	- 295	- 505	- 593
EFTA 4	6.2	- 1.40	0.5	- 0.18	3.7	- 1.06	0.3	- 0.27	1,532	922	172	147
NAFTA	5.4	+ 1.08	12.4	+ 2.17	5.3	+ 0.95	6.9	+ 0.43	26	434	4,945	3,258
Rest of the world	12.4	+ 0.15	23.5	- 0.18	11.8	- 2.15	12.1	- 1.18	- 86	1,578	10,035	4,910

Source: OECD, WIFO. - A ... Ø 1995-2004 in percent (export-, respectively, import shares) respectively, million \$ (trade balance), D ... difference between A and the average for the 10 years before EU accession of Austria, in percentage points, respectively, million \$.

As a result of these trends, the trade balances with the EU weakened, though less for Austria than for Switzerland (Table 4). The improvement in the overall net balance of merchandise trade since 1995 has in both countries been generated essentially by the exchange of goods with other regions (for Austria in particular with the ten new EU member states and the rest of the world). Developments in the Austrian current account broken down by regions followed the same pattern: since 1995, the deficit vis-à-vis the euro area has been widening, while the surplus in the transactions with the new EU members and third countries has grown.

The degree of openness of the economy, as measured by the sum of exports and imports of goods and services as a percent of GDP is much higher in Austria than in Switzerland (2004 Austria 97 percent, Switzerland 87 percent). As will be shown below, Switzerland's relatively lower degree of openness to foreign trade is counter-balanced by a higher degree of internationalisation, due to Switzerland hosting a larger number of multinational companies.

The high degree of internationalisation has a long tradition in Switzerland. For the activities of Swiss multinational companies abroad, *Borner – Wehrle* (1984) coined the term of the "sixth Switzerland"³. The large amount of foreign activities is also reflected by the sizeable difference between gross domestic product and gross national income (formerly: "gross national product"). Since the latter includes the re-transfers (net) of income from foreign direct investment, it exceeds in the case of Switzerland the gross domestic product by roughly 5 percent.

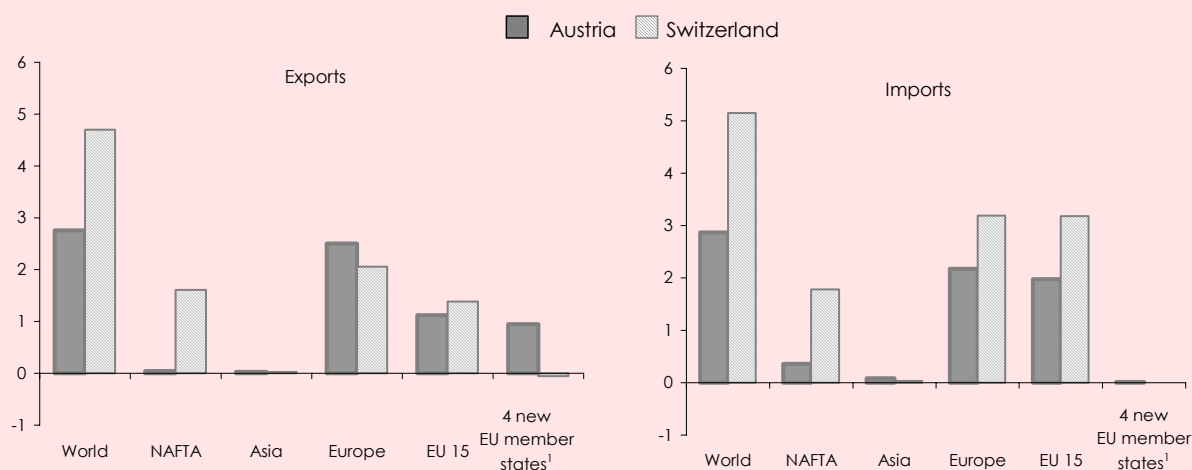
The different degree of integration of the two countries into international financial markets is witnessed by the structure of the balance of payments. Switzerland is an important exporter of capital, in the form of portfolio investment even more than via direct investment. The earnings abroad of Swiss multinational companies are mirrored by the positive balance on "income from capital" to the amount of CHF 45 billion. This item accounts for one-third of the traditionally high current account surplus of around 12 percent of GDP (Figure 3). The outstanding position of Switzerland as international banking headquarter is reflected by the current account item of "banking commissions" which, at a total CHF 11 billion, represented one-half of the surplus of the services balance in the last few years, considerably more than the net earnings from tourism. In Austria, financial services play a minor role as compared with tourism revenues.

Integration into international capital markets

Switzerland has closer ties with the European markets through foreign direct investment, Austria via foreign trade.

Figure 5: Direct investment in 2003 by country groups

Flows as a percentage of GDP



Source: OECD. – ¹ Poland, Slovakia, Czech Republic, Hungary.

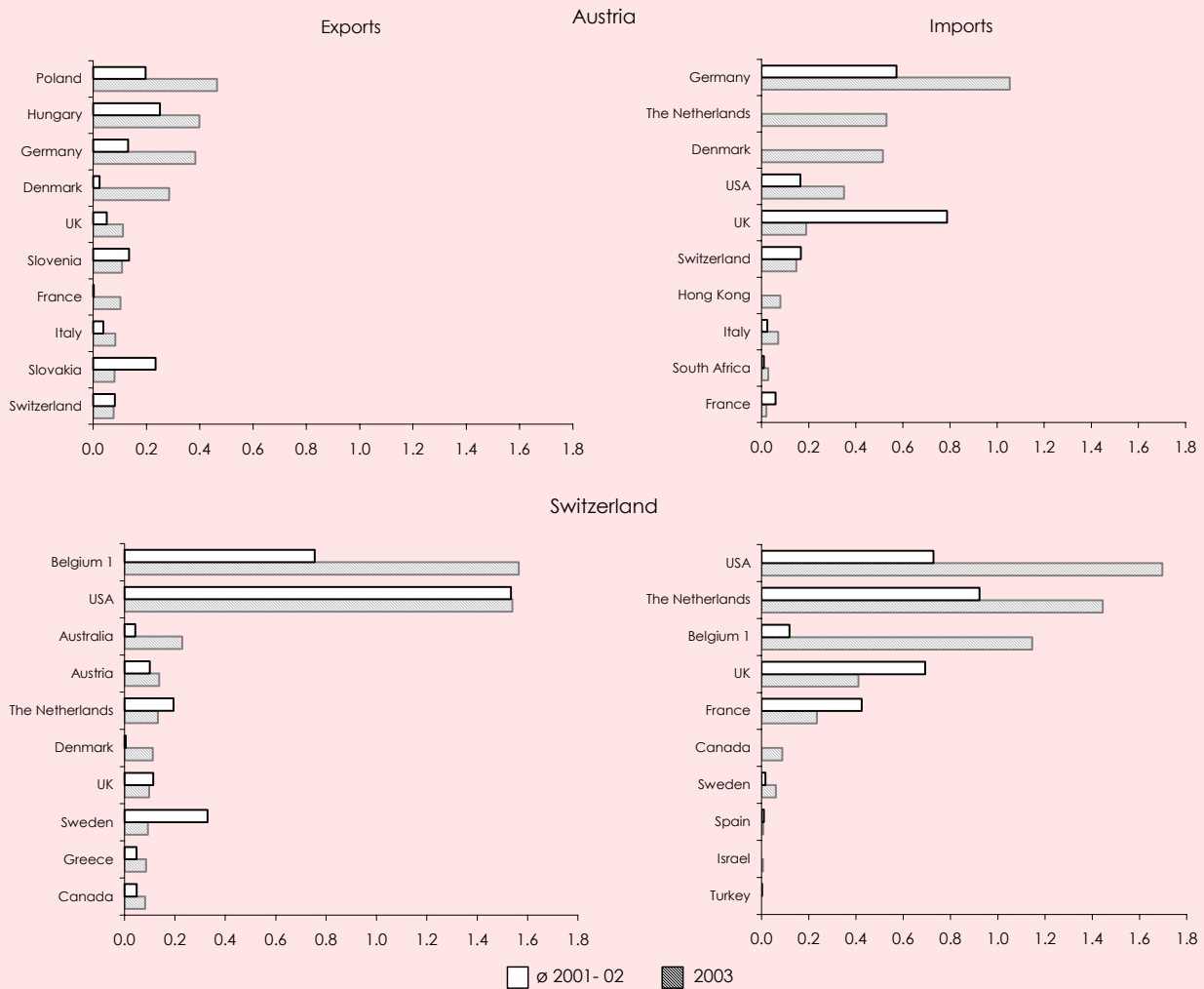
Foreign direct investment, as measured by the flows, is almost twice as high in Switzerland as in Austria (Figure 5). In 2000, it reached a peak at 18 percent of GDP (Austria 3 percent). Since then, it has abated somewhat to 4.7 percent and 2.8 percent of GDP, respectively (2003). While foreign direct investment flows in Switzerland have traditionally added to a net surplus, Austria has until recently been a net importer of direct investment, before the heavy involvement in Eastern Europe turned the balance around.

³ Because of the three national languages of German, French and Italian, there were "three kinds" of Switzerland. During the First World War, the term of the "fourth Switzerland" was used to designate the Swiss nationals living abroad. Finally, the "fifth Switzerland" was created with the recognition of Roman as official language in 1938.

The range and dispersion across destinations of foreign direct investment differ markedly between the two countries. In Austria, internationalisation in the proper sense only set in with the opening of Eastern Europe and the country's membership in the EU. Since accession, Austria enjoys increasing inflows of foreign direct investment, due to more attractive business conditions. Germany is the most important investor, ahead of the Netherlands, Denmark and the USA. Neighbouring Switzerland is holding sixth place, behind the UK (Figure 6). Austrian companies invest predominantly in the new EU member states Poland and Hungary, followed by Germany. Switzerland holds only rank 10.

Figure 6: Direct investment by country of destination/origin

Flows as a percentage of GDP



Source: OECD. – ¹ Including Luxembourg.

For Switzerland, the new EU members play as yet only a negligible role as investment destinations. By tradition, Switzerland is strongly represented in Belgium and Luxembourg, the USA, Australia and, in fourth place, Austria (Figure 6). Switzerland mainly attracts investors from the USA, the Netherlands, Belgium, Luxembourg and the UK.

Switzerland's relative advantage with regard to the degree of internationalisation is illustrated most clearly by the stocks of foreign direct investment. According to the latest available figures (2003; from OECD), foreign direct investment by Swiss companies, totalling \$ 343 billion roughly equivalent to 100 percent of GDP, were about seven times higher than that of Austrian firms (17 percent of GDP). The stock of foreign companies' investment in Switzerland of about \$ 162 billion (some 50 percent of

GDP) was only three times higher than in Austria (19 percent of GDP). Switzerland thereby is one of the economies with the highest degree of foreign involvement relative to its economic potential. In the ranking according to stocks of outward foreign direct investment, Switzerland is number 7, behind the USA, UK, Germany, France, the Netherlands and Japan. On average for the EU 15, outward foreign direct investment stocks correspond to roughly 40 percent of GDP.

The size of the "sixth Switzerland" is highlighted also by the number of multinational companies. According to *Financial Times Deutschland* of June 2005, among the largest 500 companies of the world, Switzerland has been represented by 12 multinational companies (mainly in the sectors of pharmaceuticals and biotechnology, processed food and banks), Austria by none. The two rich and highly developed small economies differ therefore markedly as to their relative industrial and corporate structure: while Switzerland hosts by long tradition multinational companies, Austria's economic structure is dominated by small and medium-sized enterprises.

According to international managers' assessment of global competitiveness, as summarised by the Global Competitiveness Report published by the World Economic Forum, Switzerland ranks far ahead of Austria on all indicators. On the overall index of competitiveness and growth (GCI) 2005, Switzerland holds rank 8 among 117 countries (rank 8 also in 2004), Austria rank 21 (down from 17 in 2004; Table 2).

The GCI is based on three indicators which according to the new growth theory represent key explanatory variables of economic growth: macro-economic environment (MEI), quality of public institutions (PII) and technology and technological progress (TI). Austria fares reasonably well only on the second indicator (rank 11), on the two others it holds ranks 21 and 22, respectively. Switzerland is on all indicators in a range between ranks 6 and 13.

Likewise, on the Business Competitiveness Index (BCI), Switzerland is number 7 (rank 5 in 2004), Austria number 10 (2004 rank 16; Table 2). The ranking of "Doing Business in 2006 – Creating Jobs" (International Finance Corporation; <http://www.doing-business.org>) confers a similarly dominant position to Switzerland as investment location: among 155 countries, Switzerland is listed on 17th place, Austria on 32nd place. The top ranks are held by New Zealand, Singapore and the USA.

Not least due to the higher density of multinational companies, Switzerland is also ahead in the importance of research. Expenditure on research and development amounted to 2.7 percent of GDP in 2000, slightly up from 2.6 percent in 1989. While the ratio of research to GDP has thus remained broadly flat in Switzerland, Austria has been catching up strongly in this respect, partly due to its active participation in EU research programmes: from a share of 1½ percent of GDP in the early 1990s to 2¼ percent in 2004 (Figure 7). Whereas in Austria 40.9 percent of expenditure on research and development is financed by the government and 40.3 percent by industry, the respective shares for Switzerland are 23.2 percent and 69.1 percent, according to the OECD. Switzerland maintains a total of 4,785 research co-operation arrangements with institutions in the 25 EU member states, Austria only 3,242 (data from 2003). 355 research contacts of Switzerland are with the accession candidates (Bulgaria, Croatia and Romania) and the associated countries (Iceland, Liechtenstein, Norway and Israel), compared with only 309 in the case of Austria (*Europäische Kommission*, 2005A). In the context of the negotiations for the Bilaterals II, the EU and Switzerland consented to renew the agreement on scientific and technical co-operation from the Bilaterals I, allowing Switzerland to participate, as an associated member, in the 6th Framework Programme of the EU and Euratom (*Europäische Kommission*, 2005C).

**Switzerland: small economy
with multinational
companies**

**Global competitiveness:
Switzerland ahead of
Austria**

**Private research
dominating in Switzerland**

The next higher step in economic integration after the customs union is the participation in the Internal Market. With its accession in 1995, Austria joined both the EU customs union and the Internal Market. The goal of establishing a "common market" had already been laid down in Article 2 of the EEC Treaty of 1957. In reality, the Internal Market was finally completed only as from 1 January 1993.

The cornerstone of the Internal Market Programme is the implementation of the "four freedoms": free movement of goods, services, capital and labour⁴. It is based on the principle of mutual recognition of industrial norms and standards. The functioning of the Internal Market is secured by common competition legislation.

In addition, many industries have been privatised over time, which previously were under state control (public utilities such as telecommunication, energy supply, railways, postal service etc.; for the liberalisation of the electricity market see *Böheim, 2005*). This required the comprehensive adjustment of EU legislation. 1,530 directives and 377 regulations currently refer to the Internal Market as defined in the EC Treaty. Their translation into national legislation took considerable time. While at the outset the implementation deficit of EU legislation amounted to 21.4 percent in the whole EU, this proportion was reduced to 2.1 percent within ten years. In 2003, it went up again to 2.9 percent in the EU 15 (in the EU 25 3.6 percent in November 2004). These ratios deviate markedly from the target set by the European Council (*European Commission, 2005, p. 17*). Austria exhibited of late an implementation deficit of 2.1 percent.

Badinger – Breuss (2005), in a detailed sectoral analysis for Austria (46 sectors, 1978-2001), examine whether competitive pressure (as measured by mark-ups as an indicator of market dominance) has increased as a consequence of EU membership. The results suggest that only in three out of six industry groups (mining, retail and wholesale trade as well as financial and real estate services) market dominance has diminished significantly. Out of 19 branches in which a break in competitive behaviour has been observed after EU accession, mark-ups went down in 5 and up in 9 (the results for the other branches not being statistically significant). Overall, this result does not confirm earlier expectations. One interpretation may be that competition did not intensify as a result of participation in the Internal Market, since Austria had already been fully exposed to European competition through its close trade links with the EU on the basis of the free trade agreements and the EEA. Only those branches and sectors which had up to then been sheltered, came under stronger pressure from the Internal Market. Similarly ambiguous results were obtained by *Badinger (2004)* for 10 EU member states and 17 sectors.

Besides full integration into the customs union, the implementation of the "four freedoms" and a harmonised competition policy, EU membership also means the full participation in the solidarity goal of the Union and thereby in the financing system of the EU budget. Rich countries like Austria contribute as a rule more to the EU household than they receive from it in transfer payments.

The EU member states are in many ways involved in policy relating to the EU budget. One aspect is the contribution of own budgetary resources and the payment of transfers from the EU budget in the context of the Common Agricultural Policy (CAP) and of structural policy. Since its accession, Austria is a net contributor to the EU budget, although the balance has been reduced over time (with the exception of administrative expenditure): from ECU 788.1 million or 0.44 percent of GDP in 1995 to € 365,1 million or 0.16 percent of GDP in 2004 (*Europäische Kommission, 2005D, p. 142*). Austria received in the area of the CAP an increasing amount of transfers from the EU budget by claiming funds for "rural development", which in 2004 accounted for no less than one-third of Austria's total payments to the EU (*Europäische Kommission, 2005D, p. 67*). From the total budget allocated to the "rural development", Austria is the fifth-largest recipient of funds, behind Germany, France, Italy and Spain (*Breuss, 2005A*).

Full versus partial participation in the Internal Market

Objectives and their implementation

Heightened competitive pressure as a consequence of EU membership?

Austria: net contributor to the EU budget

⁴ In Austria, the Schengen Agreement entered into force on 8 April 1995; border controls were abolished in two steps, on 1 December 1997 and 1 April 1998.

Switzerland, due to its "non-participation" in the EEA and its "non-accession" to the EU, is not liable to (potentially high) net contributions to the EU budget. The two bilateral agreements include only parts of the EEA agreement and of the Internal Market programme regulations, they foresee neither a customs union nor a harmonised competition policy. According to the Swiss federal budget, the cost of the Bilaterals I amounts to CHF 404 million per year (*Eidgenössisches Volkswirtschaftliches Departement, 1999, p. 23, Integrationsbüro EDA/EVD, 2005A*). The Bilaterals II, extrapolated for 2007, even imply an exoneration on balance (compared with a hypothetical situation without agreement with the EU) of CHF 1 million (*Integrationsbüro EDA/EVD, 2005B, p. 51*). Costs arise, e.g., from the partial agreement on processed agricultural products (CHF 40 million) and statistics (CHF 14 million). Savings derive from the Schengen agreement and the Dublin agreement (CHF -73 million). However, due to non-participation in the EEA and to non-membership in the EU, there has probably been less pressure on Switzerland than on the EU countries (Internal Market Programme) to liberalise its key network industries (natural gas, electricity, post and telecommunications, air traffic, railways, road transport). This is illustrated by the respective OECD indicators on the liberalisation of goods markets from 1978 to 1998 (*OECD, 2001*). This backlog of structural reform is for some Swiss authors one of the main reasons for the lower momentum of economic growth observed over the last ten years (*Rentsch et al., 2004, S. 19*).

Integration Model

For Switzerland, in a similar way as for Austria (*Breuss, 2003, 2005A*), a small supply-side macro model with equations for the period 1960-2005 was estimated. The starting point is a calibrated Cobb-Douglas production function for the determination of real GDP through capital, labour and total factor productivity. The latter is explained by the trend in labour productivity, the ratio of research and development and the influence of trade relations with the EU (growth of exports to the EU). Demand for capital and labour is estimated in a standardised way from the trend in GDP and relative factor prices (interest rate and wage rate). The price system is based on traditional equations for inflation with domestic price components (mark-up on unit labour costs) and imported inflation as explanatory variables. Per-capita wages are derived from a Phillips curve. The unemployment rate is obtained from an Okun equation, i.e., depending from GDP growth. Interest rates are modelled in a different way for the two countries: short-term interest rates for Austria are defined exogenously by the ECB, for Switzerland they follow a simple Taylor rule. Long-term interest rates are a function of short-term rates. An important component are the export and import functions for trade with the EU and with third countries, depending in each case in a standardised way on an income term and on relative prices. In the case of Switzerland, an equation explains exports by foreign direct investment. A distinction is made between Gross Domestic Product and Gross National Income (GNI).

For the estimation of the quantitative impact of the integration steps in the last ten years, the present analysis uses for each of the two countries its own integration model that is, nevertheless, comparable in its structure (see Box "Integration Model").

For Austria, possible spill-over effects from the establishment of the European Internal Market as from 1993 ("passive integration effects") are estimated first, and in a second step the Internal Market effects proper deriving from the full participation in the Internal Market.

After the disappointing start of the Internal Market, the European Council of Lisbon (23 to 24 March 2000) formulated the following strategic objective for the full mobilisation of the potential inherent in the Internal Market in the next 10 years: ". . . for the Union to become the most competitive and dynamic knowledge-based economic area in the world – an economic area capable to achieve sustained economic growth with more and better jobs and greater social cohesion". The mid-term review came, however, to a disenchanting conclusion (*Kok, 2004, Breuss, 2005B*). In spring 2005, the President of the European Commission, José Manuel Barroso, initiated therefore a relaunch of the Lisbon strategy under the heading of "growth and employment" (*Europäische Kommission, 2005B*).

Internal Market effects in Austria

The modest pace of economic growth, notably when compared with the USA, in the EU in the last ten years suggests that the growth impulse expected from the completion of the Internal Market in the Cecchini Report (*Catinat – Donni – Italianer, 1988, Emerson et al., 1988*) has not (yet) materialised to full extent. In theory, however, also non-EU countries such as Austria at the time have benefited since 1993 from the creation of the European Internal Market in a passive way via three channels:

- Estimates by *Badinger (2005)* suggest that the creation of the Internal Market has raised real GDP in the EU 15 by 1.8 percent within 10 years. Growth effects of similar magnitude have been found by *Roeger – Sekkat (2002)* in the study "10 years of Internal Market" (*Europäische Kommission, 2002*), on the basis of simulations with the QUEST-II-model of the European Commission. This would imply an annual boost to the growth rate of real GDP of the EU 15 by about 0.2 percentage point. Simulations with the WIFO integration model on this basis arrive at an incremental growth impulse for Austria of less than 0.1 percentage point per year until 2005⁵.
- The liberalisation of capital movements, accelerated by the creation of EMU, should have reduced the level of long-term interest rates in the EU 15 by 0.1 percentage point in each year; for Austria, this would yield an indirect positive effect on GDP growth by 0.1 percentage point per year.
- The higher degree of price competition has reduced the price level in the EU 15 and therefore Austrian import prices by an assumed ¼ percent per year. For Austria this means that essentially only the pace of inflation has been slowed, the impact on real GDP being marginally negative.

Overall, the "passive" integration effect via the creation of the European Internal Market may have raised the growth rate of real GDP in Austria by about 0.1 percentage point per year.

The effects of *full participation in the European Internal Market* have been quantified under several aspects:

- Participation in the Internal Market intensifies competition, squeezing mark-ups on unit labour costs; this effect, while dampening inflation, hardly boosts real GDP.
- Apart from the abolition of tariffs which for industrial manufactures had been implemented by the free trade agreements of 1972, participation in the Internal Market implies the elimination of all remaining trade barriers for agricultural trade (within the framework of the CAP) and, by removing border controls for merchandise trade, a reduction in trade costs by about 2½ percent. As a consequence, exports to the EU increased, particularly in the first period after EU accession. Via an indirect positive impact on productivity, this manifested itself in a slight increase in real GDP. In Austria, the closer integration into the Internal Market led to an initial level shift of GDP by roughly +¼ percent, which abated subsequently.
- A relatively greater impact on productivity derives from the increasing integration of Austria into research co-operation within the EU (participation in research programmes). The increase in spending on research and development raised total factor productivity and thus strengthened growth of real GDP by around 0.17 percentage point per year⁶.
- EU accession raises Austria's economic attractiveness, which is reflected by a rapid increase in foreign direct investment. The induced capital formation and upgrading of the capital stock has increased real GDP growth by 0.1 percentage point per year.

⁵ In the following, the average growth effects cited refer to the period 1995-2005 in each case.

⁶ Raising the R&D expenditure ratio by 1 percentage point leads in the integration model for Austria to an acceleration of long-term growth of total factor productivity (TFP) by some 0.3 percentage point. In the Swiss integration model, the TFP elasticity with respect to the R&D ratio is somewhat higher, at 0.4.

- The net transfers to the EU budget have no direct impact on GDP, but reduce Austria's welfare by 0.3 to 0.5 percent of GDP.

Overall, Austria's participation in the European Internal Market is likely to have generated an additional growth impulse of some 0.3 percentage point per year over the last ten years. Adding to this the passive effect from the creation of the European Internal Market yields a total positive growth impulse of slightly above 0.4 percentage point per year.

In the passive way, Switzerland also benefited from the *creation of the European Internal Market (spill-over-effects)*. According to the simulations with the integration model, this effect in total (considering the same three components as in the case of Austria) raised GDP growth by almost 0.2 percentage point per year, twice as much as for Austria. The main reason is the higher income elasticity of EU demand for Swiss goods.

Integration effects obtained and foregone by Switzerland

Growth Effects Foregone Because of Switzerland's non-Participation in EEA?

Several Swiss authors see in the Swiss rejection of EEA participation since 1994 a missed opportunity and regret the loss of possible long-term integration benefits (*Wagschal – Ganser – Rentsch, 2002, Zimmermann, 1999*). Others, to the contrary, interpret the rejection of the EEU agreement as an opportunity (*Hauser, 1993*). Some authors also criticise that the opportunities inherent in the go-it-alone option pursued with the Bilaterals I and II have not been seized, as witnessed by the fact that the Swiss economy is lagging far behind growth in other European economies ("Verpasste Chancen des Alleingangs", *Neue Zürcher Zeitung*, 27. November 2002, p. 23). In the run-up to the referendum on the EEA agreement between Switzerland and the EU, a larger number of studies tried to estimate the possible long-term effects. A comprehensive analysis by *Hauser – Bradke (1992)* contrasts EEA participation with other integration options, i.e., EU accession and go-it-alone strategy. *Antille et al. (1993)* run simulations for several integration scenarios with a numerical general equilibrium model (CGE model). Their results suggest that the free access to the European Internal Market via the removal of all remaining tariff and non-tariff barriers (without customs union) would raise real GDP by ¼ percent (long-term level effect). Participation in the Internal Market through the abolition of cartels and monopolies (intensified competition) should increase GDP by nearly ½ percent. The migration scenario, assuming on the basis of free movement of labour an immigration into Switzerland to the amount of 1¼ percent of the population, yields an increase in GDP by the same amount in the long term. In a scenario with all elements of discrimination against Switzerland being removed (including those in public procurement), real GDP would be raised by 0.03 percent. In total (for the four partial scenarios), full participation in EEA would lead in the long term to an increase in real GDP by 2.7 percent, but on a per-capita basis by only 0.6 percent.

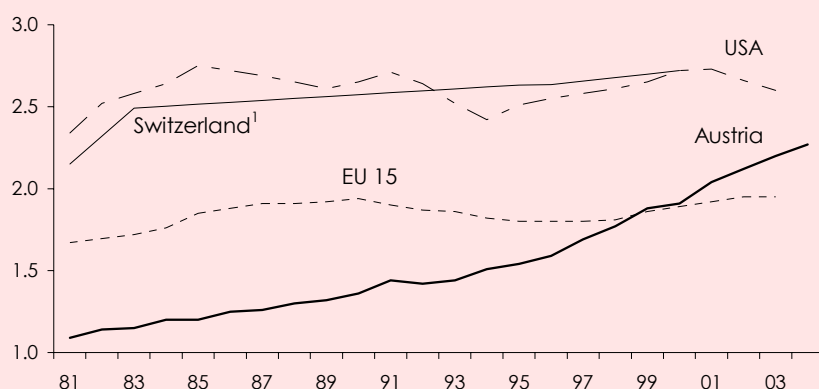
The effects of Austria's participation in EEA, as estimated with the WIFO macro model by *Breuss – Schebeck (1991)*, amount to a medium-term GDP increase of 0.3 percent, much lower than the result for Switzerland.

The following points summarise the possible negative effects of Switzerland's non-participation in the EU customs union and in the European Internal Market, or the positive effects of the Bilaterals I and II, respectively, as derived from the integration model for Switzerland. For the sake of comparability, all figures refer to the average for the period 1995-2005:

- The only partial participation in the European Internal Market according to the Bilaterals I makes for a significantly smaller increase in competitive pressure than what could be expected from full integration (backlog of structural reform; *Rentsch et al., 2004*). Therefore, the decline in mark-ups on unit labour costs should turn out smaller than for Austria. While leading to a deceleration of inflation, it will hardly have an effect (or even a slightly negative one) on real GDP. However, these effects have been operating only since the Bilaterals I entered into force, i.e., since mid-2002.
- The Bilaterals I and II imply only a partial participation in the EU customs union and the European Internal Market, respectively. Moreover, the integration effects will materialise with a considerable lag, since the EEA agreement entered into force in 1994, the Bilaterals I only in mid-2002 (partly providing for long transition periods) and the Bilaterals II (liberalisation of agricultural trade) partly only in 2005. The positive impact on real GDP growth from reinforced trade with the EU since 2002 is well below 0.1 percentage point per year.

Figure 7: Expenditure on research and development

As a percentage of GDP

Source: OECD. ¹ Switzerland: partly interpolated.

- At 2.7 percent of GDP (2000), the ratio of expenditure on research and development is higher in Switzerland than in Austria (2000 1.9 percent, 2004 2.3 percent). However, unlike in Austria, the Swiss ratio has remained flat over the last 10 years (Figure 7). Although Switzerland fully participates as associated member in the EU Framework Programmes (*Europäische Kommission, 2005A, 2005C*), this has not led to a further increase in the R&D ratio. Taking, in the simulation exercises with the integration model for Switzerland, in the same way as for Austria, the absence of an increase in the R&D ratio as dampening overall productivity, there is a negative effect on GDP growth of $\frac{1}{4}$ percentage point per year. However, these estimates are subject to a considerable margin of uncertainty, since recent information on the Swiss R&D ratio is not available and the ratio had to be estimated.
- Switzerland is one of the largest net "exporter" of foreign direct investment, dynamism of which exceeds that of Austria by far. Non-participation in the European Internal Market has probably undermined this strong position. From that source, domestic capital formation has not received the same stimulus as in Austria, raising GDP growth by less than 0.1 percentage point per year.

Possible Advantages Offered by the Bilateral Agreements I and II

Since, from an integration policy point of view, the Bilateral Agreements I and II fall far short from the EEA Agreement, their macro-economic effects should accordingly be expected smaller and materialising with long time lags (*Hauser – Zimmermann, 1999*). The EEA effect could have operated since 1994, that of the Bilaterals I only since their coming into force in mid-2002 and with further important delays caused by transition clauses.

The impact of the Bilaterals I has been estimated by several research institutes (see the compilation by *Bundesamt für Wirtschaft und Arbeit (1999)* as well as *Müller – von Neuwkoop, 2000*; various expertises under http://www.europa.admin.ch/europapol/off/ri_1999/d/; *Grether – Müller, 2000*). ECOPLAN and LEA (Laboratoire d'économie appliquée, Geneva) conclude that the Bilaterals I would raise real GDP per capita by 0.6 percent in the medium and longer term. This would be in line with the original expectations for the participation in the EEA. The impact of the Bilaterals II has so far not been subject to a comprehensive economic analysis.

All in all, the loss of GDP growth suffered by Switzerland on account of its non-participation in the European Internal Market and the belated and partial participation via the Bilaterals I, estimated at nearly 0.2 percentage point p.a. between 1995 and 2005, should have been largely offset by positive spill-overs from the creation of the Internal Market.

Austria's participation in the highest stage of economic integration, the Economic and Monetary Union (EMU), as from 1999 and the changeover to the euro as legal tender from 2002 had important implications for economic policy. Austria is thereby involved in the particular policy architecture of EMU, where monetary policy is centralised for the euro area members and fiscal policy de-centralised, but co-ordinated by the Stability and Growth Pact; see *Breuss, 2002, 2005C*).

The European Union is characterised by a complex distribution of government responsibilities between the EU- or Community level and the national level (*Breuss, 2005C*). For a number of policy areas, responsibility has already been transferred to the Community level, such as for competition policy, the Common Agricultural Policy (CAP), the Common Trade Policy as well as for structural and regional policy.

While, according to Art. 99 EC-Treaty, the member states "shall regard their economic policies as a matter of common concern and shall co-ordinate them within the Council", the strict integration into the asymmetric economic policy architecture extends essentially only to the participants in EMU. The construction of the EU is frequently seen as inhibiting economic growth, with the argument that both the Stability and Growth Pact and the monetary policy of the European Central Bank (ECB) would be too restrictive in a period of slowdown in growth or recession, particularly for the larger EU member states.

Integration into EU economic policy for the euro area versus autonomous economic policy

Integration Scenarios for Switzerland: Bilateral Agreements, EU Accession and Participation in Economic and Monetary Union

Ex-ante studies on possible participation of Switzerland in EMU generally arrive at a negative assessment. Using a CGE model with three regions (Switzerland, EU 15, rest of the world) and 26 branches, *Grether – Müller (2000)* simulate three scenarios: Bilaterals I, EU accession and participation in EMU. The Bilaterals I (implicitly also Bilaterals II) would thereby lead to a long-term increase in real GDP by 2.0 percent (or of GNI by 2.2 percent), EU accession alone would raise GDP by 2.9 percent and GNI by 3.3 percent. EU accession plus EMU participation would, however, boost real GDP only by 2.2 percent in the long term, but GNI by 3.8 percent; this scenario would therefore lead to a "loss" of GDP by 0.7 percent and a "gain" of GNI by 0.5 percent.

These simulations are based on the assumption of free movement of individuals being fully implemented. This leads in all three scenarios to an increase in population and in labour supply by 1.4 percentage points each. Meaningful is therefore only a comparison of the per-capita figures. Thereby, real GDP per capita would in the "Bilaterals I" scenario be raised by 0.6 percentage point, in the "EU accession" scenario by 1.5 percentage points and with an additional EMU participation by 0.8 percentage point. The negative EMU effect is explained by the implicit necessity of aligning the low Swiss interest rates to the higher ones of the euro area (loss of the Swiss interest rate bonus). ECOPLAN and LEA, balancing the negative interest rate effect with the positive effects of savings in transaction costs (the latter are estimated at a high 1.6 percent of GDP) and higher price transparency, arrive at slightly positive effects of a participation of Switzerland in EMU (*Müller – Neuwkoop, 2000*).

Latest estimates confirm that the creation of EMU has yielded a "euro dividend". *Micco – Stein – Ordonez (2003)* claim that bilateral trade of the 12 euro area countries was higher by 4 percent to 10 percent than without participation in the monetary union. According to the findings of *Faruquee (2004)*, Finland (and also Portugal) lost slightly in intra-EMU trade after the introduction of the common currency, whereas Austria should have gained by about 8 percent (euro area average +7 percent). Thereby, Germany, the Netherlands and Spain have been the largest beneficiaries. Against the observed decline in the shares of trade with the EU since 1995, such optimistic results should be interpreted with caution. There are indeed more critical studies which do not identify any additional impulse for intra-euro-area trade generated by EMU (e.g., *Berger – Nitsch, 2005*).

Ex-ante studies on the macro-economic effects of EMU concluded that the major beneficiaries would be the hard-currency countries Germany and Austria. For Aus-

Euro dividend?

Effects expected from participation in EMU

tria, the medium-term GDP effect was estimated at +2.2 percentage points (EU +1.7 percentage points; *Breuss, 1997*). The positive effect derives from the lower transaction costs (with an end to currency change), stronger competition in the financial sector (lower interest rates), higher exchange rate stability (benefiting mainly the former hard-currency countries) and increased market efficiency (stimulating growth via an increase in total factor productivity).

Austria participates in EMU since 1999. The ex-post effects of EMU participation are difficult to quantify; the approach presented here is based on the WIFO integration model:

- As regards interest rate policy, Austria had no need for adjustment, since with the hard currency policy interest rates were aligned to those in Germany (while short-term interest rates for the euro area are set by the ECB, the initial rates corresponded to the German level).
- Likewise, EMU entry required no adjustment of exchange rate policy, since Austria had tied the Schilling to the Deutschemark since 1981. Simulations of the EMU effect nevertheless allow (hypothetically) for the fact that with Austria's entry into EMU (fixing the exchange vis-à-vis the euro) the trend appreciation observed since the mid-1970s was arrested. Allowing for a hypothetical continuation of this trend (e.g., appreciation by 1 percent at the beginning of EMU participation) yields an increase in net exports to the EU and thus an increase in real GDP by initially slightly less than 0.2 percentage point, tapering off thereafter. For the 1995-2005 period average, the positive GDP effect amounts to nearly 0.1 percentage point. Simulations along the same lines with the Oxford Economic Forecasting Model (OEF-model) show an initial GDP impulse of $\frac{1}{3}$ percent, abating subsequently, such that for the seven-year period of EMU participation the overall GDP effect is neutral.
- EMU participation formally leaves the responsibility for an autonomous fiscal policy at the national level. Nevertheless, member states' autonomy is importantly constrained by the need for co-ordination at the euro area level, e.g., via the Stability and Growth Pact. In the simulations it was taken that the budgetary consolidation driven by the need to meet the entry- or convergence criteria up to 1998 and beyond would have been pursued less forcefully without this constraint; it is assumed that without EMU, the budget deficit would have turned out higher by around 1 percent of GDP. Thus, at the outset of EMU, the impact on real GDP would have been positive, but in more recent years rather negative. On average for the period 1999-2005, the GDP effect is only marginally positive at 0.1 percentage point per year. The simulation with the integration model hypothesises a weakening of the balance by 1 percent of GDP, caused to equal extent by higher expenditure and lower revenues. By simulating, e.g., with the OEF model, an increase in the budget deficit by 1 percent of GDP only from the expenditure side, one obtains a negative fiscal multiplier of originally 0.6 percent of GDP that fades quickly, giving way to positive effects on GDP. After seven years of budgetary retrenchment, the result is a slightly positive to neutral impact on GDP, like in the integration model.
- Since 1999, economic growth in the euro area lagged behind the EU 15 by an annual average of almost 0.2 percentage point. This negative spill-over is taken up in the model calculations, yielding for Austria a slightly negative GDP effect.

Overall, participation in EMU may have resulted in an (additional) increase in Austria's real GDP by less than 0.1 percentage point per year. The OEF model shows, after an initially negative impact, for the whole seven-year period in EMU a neutral GDP effect.

These preliminary results for the impact of EMU participation so far do not allow for the potential effects of monetary union cited in the ex-ante studies (lower transaction costs from currency exchange; heightened competition in the banking sector and, more generally in the goods sector by easier price comparability; removal of exchange rate risk; growth effects via increase in total factor productivity; *Breuss, 1997*).

Preliminary estimates of the effects of participation and non-participation in EMU since 1999

For *Switzerland*, the integration model explores what effect the non-participation in EMU has had since 1999:

- On account of its policy of extremely low interest rates, Switzerland enjoys an "interest rate bonus". Both short- and long-term interest rates are by 1½ to 2 percentage points lower than in the euro area. This stimulates both domestic investment and foreign demand for Swiss-Franc loans. LEA and ECOPLAN have estimated that participation in EMU would lower real GDP by between 0.9 and 1.3 percentage points. The integration model takes into account the loss of autonomy in monetary policy matters with regard to short-term interest rates (set by the ECB) and the convergence of long-term interest rates towards those in the euro area or Germany (+1.2 to +2 percentage points). As a result of Switzerland's non-participation in EMU ("interest bonus" retained), real GDP has grown faster since 1999 by 0.3 percentage point p.a., compared with a participation scenario. Simulations with the OEF model show similar results.
- Switzerland first revalued the Swiss Franc against the euro by 1½ percent to 3 percent (1999-2002), before devaluing it by a similar margin thereafter. In the case of EMU participation, the exchange rate of the Swiss Franc would have been fixed against the euro at the rate of end-1998. The exchange rate effect, i.e., a situation of flexible exchange rates compared with a fixed link to the euro, is found to have shaved 0.3 percentage point off annual GDP growth over the period 1999-2005. In this regard, the OEF model produces a much smaller effect of -0.04 percentage point.
- Because of staying outside EMU, Switzerland has retained autonomy not only in monetary, but also in fiscal policy matters. While members of the euro area are bound by the rules of the Stability and Growth Pact to observe budgetary discipline (with the objective of a balanced budget over the business cycle), Switzerland is subject to a self-imposed debt constraint ("*Schuldenbremse*"; *Haniotis*, 1999; a proposal for its application in Austria is presented in *Brandner et al.*, 2005). The aim is to control government expenditure in order to avoid a steady increase in the government debt ratio. The simulations do not allow for an impact on fiscal policy.
- In the case of Switzerland it is not straightforward whether, as for Austria, the model calculations should include any negative or even positive spill-over effects from overall economic developments abroad. On the one hand the Swiss economy, being integrated with the euro area via foreign trade, would be affected by the economic sluggishness prevailing there; on the other, it is also influenced by the somewhat stronger economic growth in the EU 15 since 1999. While negative spill-overs would have reduced Switzerland's real GDP growth by almost 0.1 percentage point p.a., the positive effects would have raised it by the same amount.

All in all, according to the preliminary results, the impact of Switzerland's non-participation in EMU on growth of its GDP has been broadly neutral (abstracting from growth spill-overs). The advantage of the "interest rate bonus" has been largely offset by the negative repercussions of exchange rate volatility. According to the OEF simulations, the "interest rate bonus" would dominate the exchange rate effect, i.e., Switzerland's GDP growth was boosted by non-participation to the tune of ¼ percentage point per year over the period 1999-2005.

Small economies are heavily influenced by cyclical developments in neighbouring countries. From this point of view, Austria, being more closely integrated into the EU than Switzerland, should exhibit a cyclical profile relatively closer to that of the EU.

A simple test for cyclical interdependence and convergence since the creation of EMU in 1999 is provided by the correlation of cyclical movements (as measured by annual average GDP growth over the sub-periods 1961-1998 and 1999-2005, and over the entire period 1961-2005; Table 5).

**Integration into the
"European business
cycle"**

Table 5: Connections between the business cycle in Austria and Switzerland

Correlation between average growth rates of real GDP 1960-2005

	Austria	Switzerland	EU 15	Euro area	Germany
1961 to 1998					
Austria	1.00	0.58	0.74	0.76	0.67
Switzerland		1.00	0.70	0.72	0.57
EU 15			1.00	0.98	0.82
Euro area				1.00	0.85
Germany					1.00
1999 to 2005					
Austria	1.00	0.76	0.90	0.90	0.88
Switzerland		1.00	0.93	0.92	0.92
EU 15			1.00	1.00	0.99
Euro area				1.00	0.99
Germany					1.00
1961 to 2005					
Austria	1.00	0.60	0.77	0.79	0.71
Switzerland		1.00	0.71	0.74	0.59
EU 15			1.00	0.97	0.98
Euro area				1.00	0.87
Germany					1.00

Source: Eurostat, WIFO calculations.

Before the creation of the monetary union (1961 to 1998), the cyclical profile of Austria was more in phase with that of the EU and the euro area than was the Swiss business cycle. Since the formation of EMU (1999 to 2005), there has been greater cyclical convergence with the EU and the euro area in both countries – in Switzerland even more than in Austria. Also the bilateral correlation has become closer.

Hence, Switzerland, although not a member of EU or EMU and although conducting economic policy in an autonomous way, is by the pattern of its business cycle equally closely "integrated" with the EU as Austria. Since the Bilateral Agreements I and II took only effect as from 2002, this connection is not so much the result of integration with regard to trade policy (which is weaker compared with Austria) than of Switzerland's close integration into European capital markets.

Switzerland continues to be one of the richest countries in the world. The latest World Development Report 2005 (UNDP, 2005) shows Switzerland as number 7 in the ranking by the Human Development Index⁷, behind Norway, Iceland, Australia, Luxembourg, Canada and Sweden. Austria holds rank 17. On a new gauge of wealth⁸, Switzerland with a total of \$ 648,241 per head of the population (2000) holds the top rank among 120 countries (World Bank, 2005). Austria with a figure of \$ 493,080 is number 7, behind Switzerland, Denmark, Sweden, the USA, Germany and Japan. Switzerland, with a GDP per capita of 29.560 purchasing power standards (PPS; 2005), exceeds the EU 15 average by 18 percent. In Europe, only Luxembourg (+102 percent), Norway (+40 percent) and Ireland (+26 percent) have higher incomes than Switzerland, overseas only the USA (+44 percent). With a per-capita income of 28.340 PPS (12 percent above the EU 15 average), Austria is the fourth-richest country in the EU⁹.

In order to assess the impact of the different integration strategies pursued by Austria and Switzerland on each country's overall economic welfare as measured by GDP per capita, we have to go beyond the analysis of partial integration effects and examine the long-term performance of real GDP per capita since 1950 with a view to any "breaks" that may be attributed to integration effects. For this purpose, we will

⁷ The Human Development Index (HDI) measures the "human welfare"; it is based on three subindicators: income, education and health (UNDP, 2005, p. 21).

⁸ "Wealth" is composed of three components: natural resources, capital stock accumulated through investment, and immaterial capital stock (education, human capital, form of government). In Switzerland, as in Austria, total wealth is distributed at the proportions of 1 : 15 : 84 percent.

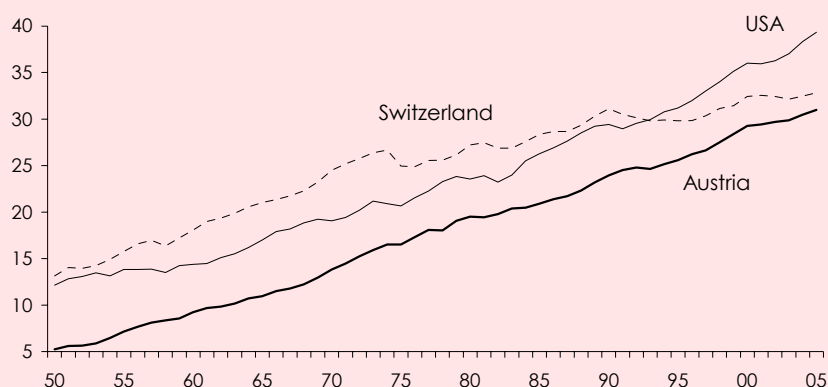
⁹ Unlike GDP, gross national income (GNI, formerly GNP) also includes the repatriation of multinational companies' earnings; for Switzerland, GNI is on average 5 percent higher than GDP, because of the importance of the "sixth Switzerland".

Growth and welfare effects of EU membership and non-membership

rely on the data material from the project "Penn World Tables" (PWT 6.1) of the Center for International Comparisons at the University of Pennsylvania (<http://pwt.econ.upenn.edu/>) as well as on GDP data from the Groningen Growth and Development Centre (GGDC; Total Economy Database, August 2005, <http://www.ggdc.net>). The reference country selected is the USA, whose economic development has not been directly affected by European integration.

Figure 8: Levels of welfare in Austria, Switzerland and the USA

Real GDP per capita in EKS\$ of 2002



Source: Penn World Tables (PWT6.1), Groningen Growth and Development Centre (GGDC). EKS\$. . . purchasing power parities, aggregated according to the method developed by Elteto – Köves – Szulc.

The analysis shows that Switzerland still figures among the richest countries (Figure 8), but the positive gap vis-à-vis the USA has disappeared. While GDP per capita in the USA rose swiftly in the early 1990s on the back of an unusually strong and durable cyclical upswing, it slackened markedly in Switzerland, remaining virtually unchanged (see also *Rentsch et al.*, 2004). The welfare indicator for Austria, however, after catching up in the early post-war era, has maintained an upward trend since the early 1990s.

Table 6: Growth equations for Austria and Switzerland

1950 to 2005

Austria	$Y_t =$	+ 0.23 (2.36)	+ 0.05 IQ_t (2.25)	+ 0.10 OG_t (3.20)	+ 0.92 Y_{t-1} (52.21)	$R^2 = 0.998$	$DW = 1.52$
Switzerland	$Y_t =$	+ 0.07 (0.55)	+ 0.09 IQ_t (5.39)	+ 0.17 OG_t (5.88)	+ 0.89 Y_{t-1} (53.71)	$R^2 = 0.996$	$DW = 1.42$

Source: WIFO-estimates using data from Penn World Tables (PWT6.1) and Groningen Growth and Development Centre (GGDC). Y . . . Real GDP per capita in EKS\$ of 2002 (aggregated according to the method of Elteto – Köves – Szulc), IQ . . . investment ratio (investment as percent of GDP), OG . . . degree of openness (exports plus imports, as percent of GDP); all variables have been transformed into logarithms; figures in brackets in italics. . . t statistics.

Income growth in Switzerland suffered a setback twice over the observation period: in the early 1970s in the wake of the first oil price shock, and at the beginning of the 1990s – possibly as a consequence of the renouncement of further EU integration. In order to test whether the breaks can also be traced statistically, homogeneous (growth) equations have been estimated to obtain GDP per capita in absolute figures. In this exercise, GDP per capita is explained by capital accumulation as defined by the investment ratio and by the degree of openness as indicator for total factor productivity¹⁰ and the lagged dependent variable (Table 6).

¹⁰ *Lewer – Van den Berg* (2003), in a comprehensive literature survey of empirical studies in general, have found that an acceleration of export growth by 1 percentage point raises GDP growth by 0.2 percentage point. Following *Badinger* (2005), the stepwise integration from the EEC to the EC and the EU since the late

According to the Chow test, the structural break in the trend of Austria's GDP per capita in the early 1990s was not statistically significant. For Switzerland, the Chow test suggests a structural break for the year 1991.

Austria's economy was lagging considerably behind after the Second World War. Over the period from 1951 to 2005, it grew 1½ percentage point faster on annual average than the Swiss economy and about 1 percentage point faster than the US economy (Table 7). In the last ten years, Austria's growth advantage vis-à-vis Switzerland amounted to about 1 percentage point. It was only as from the 1980s that the US economy enjoyed above-average growth; since the early 1990s, the USA income level has exceeded that of Switzerland (Figure 8).

Table 7: Income growth

Real GDP per capita in EKS\$ of 2002

	Austria	Switzerland Average year-to-year percentage change	USA
1950 to 1960	+ 5.86	+ 3.28	+ 1.75
1960 to 1970	+ 4.12	+ 3.11	+ 2.89
1970 to 1980	+ 3.53	+ 1.10	+ 2.17
1980 to 1990	+ 2.09	+ 1.37	+ 2.27
1990 to 2005	+ 1.74	+ 0.37	+ 1.97
1983 to 1994	+ 1.94	+ 0.99	+ 2.31
1994 to 2005	+ 1.91	+ 0.86	+ 2.26
1950 to 2005	+ 3.31	+ 1.71	+ 2.19

Source: Penn World Tables (PWT6.1), Groningen Growth and Development Centre (GGDC, <http://www.gdpc.net>). EKS\$... purchasing power parities, aggregated according to the method of Elteto – Köves – Szulc.

Taking into account the (on balance) positive effects of EU accession on the Austrian economy and the overall neutral effects for Switzerland, as derived from the analysis above, the structural break in the 1990s may be interpreted in the sense that the lagged approach to the EU led to welfare losses for Switzerland, while Austria managed to avoid a break in the income trend by becoming a member of the EU.

On 1 May 2004, the EU, in its biggest move of enlargement so far, accepted 10 new member states, mainly from East-Central Europe. Studies on the subject suggest that the new member states benefited from this move about ten times as much as the old members.

Due to their large catching-up potential, the new markets are more dynamic than those of the EU 15 and are, indeed, "emerging markets" in close neighbourhood. Not only are they a key export destination, but they also need a renovation of their capital stock. The low labour costs and the need for a speedy catching up increasingly attract direct investment by multinational companies in the EU 15. Those economies will benefit most from this new development which have entertained close trade ties with the new markets ever since the opening of the East in 1989. Among these economies are notably Austria (the increase in real GDP induced by the EU enlargement of 2004 is estimated at 0.8 percentage point over the period until 2010, i.e., nearly ¼ percentage point per year), Germany (level effect of +0.7 percentage point) and Italy (+0.6 percentage point). Real GDP of the EU 15 may be boosted by a cumulated 0.5 percentage point until 2010, equivalent to an additional annual increase of around 0.1 percentage point (Breuss, 2002).

As illustrated by Table 4 and Figure 4, trade links between Austria and the new member states are very close. In the last ten years, Austrian exports to these new markets averaged 12.3 percent of its total exports, whereas the corresponding export share for Switzerland was only 2.6 percent. 9 percent of all Austrian imports came from the new EU member states, compared with a share of 1.5 percent for Switzerland.

1950s had no lasting growth effect, but gave at each instance rise to an upward level shift of GDP. He claims that without European integration, GDP per capita in the EU today would be lower by one-fifth.

Due to the country's lower degree of involvement and its non-membership in the enlarged European Union, Switzerland stands to benefit to a considerably lower degree than Austria from the economic repercussions of the 2004 EU enlargement. By way of comparison, the Netherlands as a EU member state with foreign trade shares of the new member states similar to those of Switzerland, receive a growth impulse of less than 0.1 percentage point from enlargement.

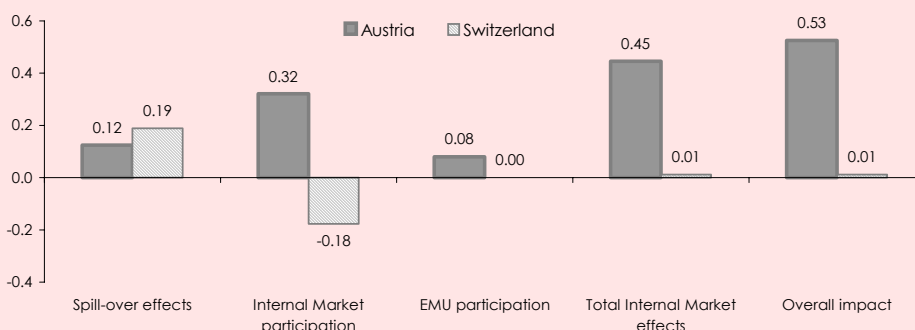
In the course of enlargement, the ten new member states adopted the "acquis communautaire" and thereby also the free trade agreement between Switzerland and the EU as well as the respective amendments (e.g., in the areas of agriculture and free movement of labour) of the Bilaterals I and II. The free trade area between the EU and EFTA (EEA) is being extended to the enlarged Union, with the reservation that Switzerland is not part of the EU customs union (and therefore border controls for the transport of goods are kept up) and special provisions apply for trade in agricultural goods (in the partial agreements of the Bilaterals I and II; no full integration into the CAP). These privileged relations should improve Switzerland's export opportunities in the dynamic markets of the new member states in East-Central Europe. Also, direct investment of Swiss companies becomes more attractive in these countries.

Swiss studies (e. g., Wäfler, 2005, p. 23) assume, in alignment with estimates carried out by the European Commission (forecast: GDP of EU 15 +0.5 to +0.7 percentage point until around 2010; *European Commission*, 2001), that Switzerland's real GDP will be raised by EU enlargement by an overall 0.2 to 0.5 percentage point over the period 2005 to 2010, which would correspond to an annual GDP increase by 0.04 to 0.10 percentage point (similar to *Calmy-Rey*, 2004, p. 6). These estimates rather represent the upper limit for the potential growth effects, since Switzerland is integrated only partially into the European Internal Market, via the Bilaterals I and II.

Austria has consistently followed all steps of European integration, from membership in the free trade zone EFTA via the participation in the EEA to EU accession and membership in EMU, the highest stage of economic integration in the EU. Switzerland did not go beyond the stage of EFTA membership, with participation in the EEA having been rejected 1992 in a popular referendum. Via bilateral agreements with the EU, which partly fall short of the EEA integration level and partly go beyond (Schengen- and Dublin Agreement, respectively; agreement on taxation of capital gains), Switzerland has meanwhile also been integrated to some degree into the European Internal Market.

An overall assessment

Figure 9: Integration effects in Austria and Switzerland,
Real GDP, annual average percentage change 1994 to 2005



Source: Calculations based on the WIFO integration model.

The estimate of the overall economic effects of the different integration strategies of the two countries leads to the conclusion that Austria has probably benefited from EU membership and EMU participation, while the delayed and only partial integra-

tion of Switzerland into the EU Internal Market has been economically neutral at best (Figure 9). Full participation in the Internal Market is likely to have raised economic growth, as measured by real GDP, in Austria by around $\frac{1}{3}$ percentage point per year. The passive integration effects from the creation of the Internal Market since 1993 may have added a further 0.1 percentage point, yielding a total annual growth effect of slightly more than 0.4 percentage point. Participation in EMU accelerated GDP growth by around 0.1 percentage point, according to preliminary estimates. Therefore, Austria's full integration into the EU Internal Market and EMU is deemed to have boosted economic growth by $\frac{1}{2}$ percentage point per year. The EU enlargement of 2004 may provide a further positive impulse of around $\frac{1}{4}$ percentage point in the medium term.

In Switzerland, the positive spill-over effects from the creation of the European Internal Market have probably outweighed the negative effects of non-participation. Together with the on balance neutral effects from non-participation in EMU, the overall result for Switzerland from its Bilateral Integration strategy may also be considered as broadly neutral.

Switzerland is ahead of Austria on all indicators of international competitiveness, and it continues to be one of the richest countries in the world. However, economic growth has for some time now lagged behind that of Austria. Switzerland's domestic performance is much less buoyant than its activity abroad, giving rise to sizeable repatriation of foreign earnings of Swiss multinational companies ("sixth Switzerland"). As a result, gross national income exceeds GDP by around 5 percent. This may explain why despite slower GDP growth and a higher employment ratio, the unemployment rate is lower than in Austria.

Austria's growth advantage over Switzerland of around 1 percentage point per year over the last decade can be taken as the result of the following factors:

- The (gradually abating) catching-up effect of some $\frac{1}{3}$ percentage point per year drives the convergence of GDP per capita between the two countries.
- The impact of the creation of the Internal Market and EMU (accelerated productivity growth due to stronger competitive pressure, a higher reform momentum and increased spending on research and development) is estimated at some $\frac{1}{3}$ percentage point per year.
- Austria benefited to a high degree from the opening of Eastern Europe (since 1989). The effect on growth may also amount to $\frac{1}{3}$ percentage point per year. With the EU enlargement of 2004, Austria continues to enjoy this growth "bonus", albeit to a somewhat lower degree.

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Austria and Switzerland – Experiences With and Without EU Membership – Summary

Austria and Switzerland have chosen to follow entirely different paths towards European integration: Austria, joining the EU in 1995, became a member of the Economic and Monetary Union in 1999. Switzerland, on the other hand, rejected the EEA treaty in 1992 and opted for a strategy of bilateral approach to the EU, with the result that today it is linked to the EU in key areas of economic integration. Austria, benefiting from its position of full economic integration, can exploit the potential integration effects of the Internal Market and EMU, but, being a full-fledged EU and euro area member, is subject to the economic policy constraints implied by such membership. Moreover, rich EU countries tend to be net contributors to the EU budget. Altogether, after ten years of EU membership, Austria comes out on the positive side: its GDP appears to have grown by up to ½ percentage point p.a. more rapidly on average than might have been the case without EU integration. Switzerland, through its lagged and partial participation in the EU's Internal Market, gained only a few advantages from this type of approach to the EU. Nevertheless, its bilateral strategy allows it to pick out, through sectoral treaties, only those integration aspects that are in its national interest. In this way, Switzerland evades the disadvantage of being a net contributor to the EU budget and is able to continue pursuing its own economic policy. Still, on balance Switzerland appears to have suffered welfare losses over the last decade.