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Effects of Austria's EU Membership

The "Single Market", the core element of European integration, commemorates its 20th anniversary this year. Since its accession to the EU in 1995, Austria has taken part in all steps of deeper integration. Not only from a political perspective has Austria become more modern and European through EU membership, it has also benefited economically at each stage of integration: opening-up of Eastern Europe (additional GDP growth of 0.2 percentage point per year), EU membership (participation in the EU Single Market +0.6 percentage point), participation in EMU (+0.4 percentage point) and EU enlargement (+0.4 percentage point). Overall, the integration effects from participation in all stages have boosted Austria's GDP growth by between $\frac{1}{2}$ and 1 percentage point per year, as derived from model simulations. The plausibility of these results is confirmed by a comparison of Austria's economic performance with that of other EU or third countries. Thus Austria's growth advantage vis-à-vis Germany and Switzerland corresponds to the calculated integration effects. This "growth dividend" is difficult to explain, if at all, when abstracting from the integration effects of Austria's participation in all EU policy moves.

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The EU Single Market, with its "four freedoms" of goods, services, capital and labour exchange being the core element of European integration, turns 20 this year. It started on 1 January 1993 and, in conjunction with uniform competition rules, was intended to create a fair common market for about 500 million citizens and 21 million enterprises, thereby giving an impetus to economic growth. The integration and growth effects predicted by a large number of studies have, however, not materialised to full extent for the EU as a whole. In spite of a further deepening of integration through the creation of Economic and Monetary Union (EMU) with the euro as a common currency and the EU enlargement as from 2004, the hoped-for stronger momentum of EU growth has failed to materialise. Countries which did not experience such integration moves, like the USA, have as a rule enjoyed higher GDP growth than the EU on aggregate. This "integration puzzle" is difficult to explain. Reasons for the theoretical integration effects not being translated into such in practice may be the still imperfect implementation of the Single Market (e.g., the Services Directive has only entered into force in 2010), the fact that not all EU member countries participate in all integration steps (Europe à la carte or multi-speed Europe), or the increase in the EU's internal heterogeneity brought about by the last round of enlargement by mostly "poor" eastern countries.

When it was realised that the hoped-for growth stimulus through the creation of the Single Market did not occur, the EU launched in 2000 a new growth strategy under the heading of the "Lisbon Agenda" that was supposed to make the EU within 10 years "the most competitive and dynamic knowledge-based economy in the world". This goal was also not achieved. Meanwhile, all hopes rest on the new growth strategy of "Europe 2020".

The global financial market and economic crisis 2008-09 that in most of the industrialised countries led to the "Great Recession" of 2009 with the sharpest fall in GDP growth in the post-war era, passed in Europe seamlessly over into a "euro crisis". The latter manifested itself not in a crisis of the currency itself, but in a government debt crisis, starting in Greece and subsequently extending to the entire euro area periphery. The authorities in the EU and notably in the euro area were compelled to take unconventional measures for the resolution of the crisis: rescue and stabilisation fa-

cilities (EFSF, ESM) for Greece, Ireland and Portugal, later for Spain and Cyprus, and new measures within the framework of the "New Economic Governance" ("Six-Pack", "Two-Pack", Fiscal Compact; measures of entry into a "fiscal union"), as well as non-standard monetary policy measures by the ECB (Outright Monetary Transactions – OMTs) and the initiation of a "Banking Union", starting with Europe-wide bank supervision (Single Supervisory Mechanism – SSM) as from 2014.

Against this crisis-ridden background, we set out here to evaluate Austria's EU membership. The following results derive from a more comprehensive study by WIFO (Breuss, 2012). The present article concentrates, however, on the results of model simulations re-assessing the integration effects, whereas the wider analysis of many aspects of European integration for the particular case of Austria (notably in times of crisis in Europe) is left aside. In identifying the integration effects, not only the pure Single Market effects are assessed (when acceding to the EU, each country automatically joins the Single Market), but also the economic effects of all stages of European integration since the fall of communism and the subsequent opening of Eastern Europe in 1989 towards the West. This opening has given rise, via the Europe Agreements between the EU and the Central and Eastern European countries (CEECs), to an asymmetric trade integration between East and West (already before the EU accession of the CEECs) to the extent that the EU reduced its tariffs on imports from the East earlier than, inversely, the East for imports from the West. After its accession to the EU in 1995, Austria became a founding member of EMU in 1999 and introduced the euro in 2002. A further integration move, of particular importance for Austria, was the fifth round of EU enlargement – in two steps: 2004 and 2007. With the accession of Croatia in 2013, the EU will count 28 member countries, with a definitive end to enlargement as yet not in sight.

The theory of integration has a long tradition. It developed partly ahead of the respective integration moves in Europe (e.g., the theory of customs union by Viner¹ from 1950), and partly accompanied the steps towards deeper integration (Single Market, EMU and EU enlargement). While the theoretical explanation of customs union effects (trade creation via enlargement of the integration area, trade diversion due to intensification of intra-area trade at the expense of trade with third countries) is relatively straightforward, complexity increases with integration becoming closer.

Over the last decades, European integration has systematically progressed from a customs union (completed in 1968) towards the Single Market, EMU and enlargement (see Figure 1):

Economies of scale play an important role at the stage of creating the Single Market, as well as competition effects via the harmonisation of competition rules on a common legal base. Liberalisation of certain sectors and privatisation are also part of the Single Market Programme. There are other effects deriving from the implementation of the Common Agricultural Policy (CAP), the common foreign trade policy (as a consequence of the customs union and the dismantling of border controls) and the harmonisation of other policies like regional or structural policy. There is also the EU budget which finances the different policy areas with a view to the aspect of solidarity between member countries, implying a redistribution of funds from "rich" EU members (net contributors) to "poor" ones (net recipients). Overall, the Single Market is supposed to boost intra-EU trade and, via gains in efficiency and productivity, lead to stronger economic growth.

Across the large number of existing integration studies, Single Market effects are estimated using different methods and approaches: macroeconomic models and/or microeconomic models; for individual countries (country studies with single-country

Theory-based expectations from EU integration

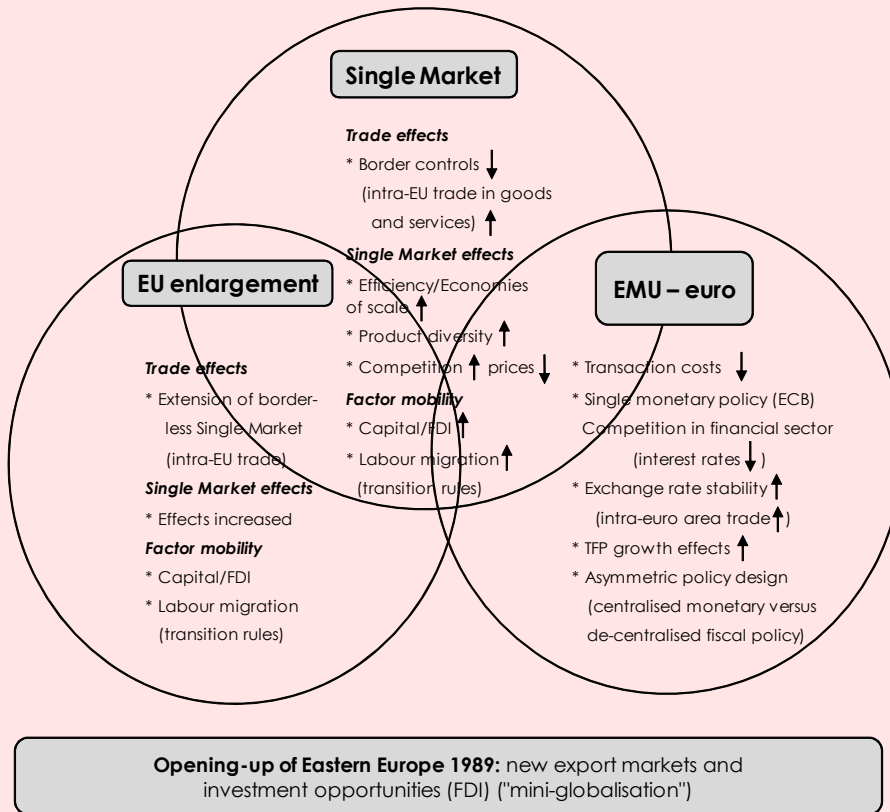
Single Market effects

¹ Detailed information concerning the authors referred to here on an occasional basis can be found in the literature references of Breuss (2012), who confronts the model-based results of integration effects for Austria with those of other authors. The latter, however, are almost entirely integration studies from an ex-ante perspective.

models) and/or for several countries (multi-country models). Among the model approaches there are macromodels or general-equilibrium models. Within the modern theory of endogenous growth there are special derivations for the growth effects of integration.

Figure 1: Effects of Austria's EU integration

Overview of the theoretical integration effects



Source: Breuss (2012), p. 11. ↑ ... increase, ↓ ... decrease, EOS ... economies of scale, TFP ... total factor productivity.

One step more complicated is to capture the integration effects deriving from EU Economic and Monetary Union (EMU) and the introduction of the euro as a common currency. In this respect, theory is virtually entering uncharted waters. Relatively well developed is the theory of "optimal currency areas" (OCA) that explores which countries would be in a sustainable position to share a common currency. Early studies² arrived at the conclusion that in Europe only a small OCA were able to survive. As the current euro-area crisis painfully demonstrates, the project of the euro was driven by political considerations rather than on the basis of economic criteria.

After the fourth round of EU enlargement by Austria, Finland and Sweden, the EU was virtually forced by historical events, i.e., the fall of communism, to an early integration of the former Soviet satellite countries. The countries of East-central Europe were gradually integrated into the EU Single Market which, by its larger dimension, offered a greater trade potential.

The effects of the three integration steps, i.e., Single Market, EMU and enlargement, are overlapping which is illustrated in a summary fashion by Figure 1.

Austria has in a first stage benefited (as a member of EFTA) from the opening-up of Eastern Europe towards the West in 1989. This event suddenly facilitated the access

Effects of entering the EMU

Effects of EU enlargement

² For an overview, see Breuss (2006), p. 386, and Handler (2013).

to eastern markets that hitherto had been severely constrained by the "Iron Curtain", offering new opportunities for export and foreign direct investment. Since the opening of Eastern Europe, Austria has to a greater extent than before taken part in globalisation ("mini-globalisation") as it has moved from a marginal position into the centre of Europe. Adding to this were the integration effects of accession to the EU Single Market in 1995 and creation of the EMU in 1999, as referred to above. These effects were supplemented and reinforced by those generated by the EU enlargement rounds of 2004 and 2007. Austria's ever deeper integration into the EU has, via the operation of the manifold integration effects, in almost all cases led to higher economic growth and greater prosperity. The integration effects outlined here are incorporated into the following model simulations for the purpose of their quantitative measurement.

At the beginning of each integration step, WIFO or authors from other institutions (universities, European Commission, etc.) set out to estimate ex-ante the possible integration effects (for an overview of such studies, see *Breuss*, 2012, p. 43). In the WIFO studies, simulations were mostly carried out by means of the current version of the WIFO macroeconomic model, adapted for the specific purpose.

The present study for the first time proceeds to an ex-post evaluation of integration effects realised over a longer period since the incidence of the respective integration moves. To this end, a dedicated integration model was set up to enable a quantification of possibly all theoretical integration effects referred to above³. The integration effects derived in this way represent the deviations of actual economic developments in Austria from a hypothetical path that the economy had followed if Austria had stayed aside of all integration moves since 1989.

With the opening-up of Eastern Europe towards the West in 1989, Austria gained new markets in its direct neighbourhood. The countries in East-central Europe which transformed from planned economies towards market economies still lag importantly behind the West in income and welfare standards. Both geographical vicinity and close historical ties with Austria contributed to the fact that the Austrian economy made early and ample use of the new opportunities offered. Austria's foreign trade has since seen a distinct geographical shift towards the East. While the export share of the traditional EU markets (EU 15) declined from 66 percent in 1995 to 54 percent in 2011, the share of the CEEC 10 climbed from 7 percent to 16 percent (and that of CEEC 29, i.e., including CIS and Balkan countries, from 10 percent to 22 percent). Austria's favourable starting position was reinforced by the liberalisation of trade between the EU and the CEECs in the context of the Europe Agreements.

In our model calculations, the integration effects of the opening-up of Eastern Europe have been captured via two interventions:

- By means of dummy (auxiliary) variables, changes in the trade regime between the EU and the CEECs within the Europe Agreements (asymmetric East-West trade liberalisation through abolition of tariffs by the EU as from 1997 and by the CEECs as from 2002) were taken into account in the trade and FDI equations.
- In addition, the general growth effect brought about by the enlargement of the EU market was introduced. Real GDP growth for the EU 27 has been exceeding that for the EU 15 by 0.1 percentage point per year.

The isolated effect of opening-up of Eastern Europe is reflected in the simulations (Table 1, Figure 2) by an additional increase in Austria's real GDP growth by 0.2 percentage point p.a. Employment is boosted by around 3,400 jobs per year. The current account balance improved as exports rose faster than imports. Austria's net export position strengthened notably between 1989 and 2003, while the trend has turned around since EU enlargement. Austria's wage share (as a percentage of na-

Realised effects of the opening-up of Eastern Europe and of EU membership

Opening-up of Eastern Europe 1989 – trade gains without cost

³ A detailed description of the integration model can be found in the annex to *Breuss* (2010).

tional income) was squeezed, partly as a result of stronger foreign competition from low-wage countries.

The Single Market Programme is at the core of European integration. With accession to the EU in 1995, Austria took fully part in the Community's Single Market, benefiting from all implicit integration effects: dismantling of border controls, intensification of competition, liberalisation and privatisation of formerly nationalised sectors (telecommunication, transport, infrastructure networks, etc.), efficiency and hence productivity gains, full exploitation of the four freedoms in the exchange of goods, services, capital and labour. The evidence that the Single Market did not generate in full the expected integration impact on GDP growth (projection by the Cecchini Report: GDP around +¾ percentage point per year, inflation rate –1 percentage point p.a.) and employment (+1.9 million after 6 years) is explained mainly by two circumstances: first, not all projects were actually implemented, such as the Single Market for services that was established only in 2010 on the basis of an own Services Directive; second, the successive enlargement rounds increased the internal heterogeneity of the EU, and not all of the new members fully participate in the Single Market ("Europe à la carte").

Participation in the Single Market is associated with entry into the EU Customs Union and the adoption of the Common Customs Tariff (CCT). In the case of Austria, this led to a moderate decline of the customs level from 10.5 percent to 5.7 percent. Apart from the Common Tariff and Trade Policy, the EU conducts the Common Agricultural Policy (CAP) and sets common rules for competition and regional policy. The very adoption of the competition and regional policy framework led to greater transparency and convergence, whereby formerly poor regions (like the Austrian Burgenland) managed to catch up substantially, thanks to their preferential status for receiving financial support ("target 1" area).

The Single Market as the core element of European integration would remain in force even in the most unlikely event of the euro area breaking up. All EU members fully participate in the Single Market, and to a large degree also the EFTA countries, either via the EEA Agreement or via bilateral agreements with the EU (Switzerland).

The Single Market Programme is highly complex. The present model simulations set out to capture as comprehensively as possible the core elements of the integration effects suggested by economic theory (see above). Yet, like in the many ex-ante studies, the effects obtained are only indications for the order of magnitude of the integration effects. Ex-post estimations are further complicated by the fact that the values obtained include many other effects (e.g., overlapping integration steps). The model simulations explicitly capture the following effects of integration into the Single Market:

- *Intensification of competition:* more intense competition has a dampening impact on prices, but hardly affects real GDP, as confirmed by detailed studies on the effects of competition at the aggregate level of Single Market participation. The competition effect is represented here by a dummy variable. Austria's full participation in the EU Single Market is also reflected in a lower degree of product market regulation, as measured by the Product Market Regulation Indicator developed by the OECD (in co-operation with the European Commission).
- *Extension of research and development activities:* an increase in the R&D ratio raises total factor productivity and has a direct bearing on real GDP. Also the possibility to participate in the EU Framework Programmes has significantly boosted the R&D ratio since the mid-1990s. At 2.8 percent of GDP, the ratio reached an all-time high in 2012, although the momentum has slowed since the recession of 2009. The target for the R&D ratio set by the Lisbon strategy is 3 percent of GDP EU-wide. Meanwhile, the "Europe 2020" strategy has adjusted this target for the individual member countries, such that the more advanced countries shall reach higher benchmarks (Finland and Sweden 4 percent, Austria 3.76 percent, Germany 3 percent), whereas the poorer new member countries are expected to meet targets below 3 percent of GDP (e.g., Hungary 1.8 percent). In the model, the increase in the R&D ratio after EU accession is represented by an accession dummy variable.

**EU membership 1995 –
core integration through
participation in the
Single Market**

The increase in total factor productivity (TFP) after EU accession in 1995 was stronger in Finland (+1.4 percent p.a.) and Sweden (+1.5 percent p.a.) than in Austria (+0.9 percent p.a.). This is closely correlated with the more dynamic growth of R&D expenditure in both Nordic countries. However, Austria's lead in TFP-growth vis-à-vis the EU average (+0.5 percent) has widened markedly since EU accession and is also significantly ahead of the trend in Germany (+0.4 percent p.a.).

- *Trade and FDI effects:* participation in the Community's Single Market, allowing the customs-free exchange of goods without border controls, has given impetus to Austria's involvement in globalisation. Export and import ratios (of goods and services) have risen from 33 percent (exports) and 35 percent (imports) in 1994 to 59 percent and 54 percent, respectively, by 2008; after a decline during the recession of 2009, the ratios rebounded to 57 percent and 54 percent, respectively, in 2011. However, EU accession added to import pressure in Austria rather than leading to a rise in exports to the EU. After an adjustment period, the trade balance with the EU 15 weakened as from 2002. Only with the opening-up of Eastern Europe and even more with EU enlargement, Austria's net export position improved markedly, leading to a parallel positive trend in the current account.

A sectoral breakdown of Austria's foreign trade by commodity groups, overall and with EU 15, reveals that Austria has benefited from integration into the Common Agricultural Policy (CAP) since it gave Austria access to new agricultural markets in the EU, in particular in Italy and Germany. This is evidenced by an above-average increase in export shares of EU 15 for the group of "agricultural goods".

The homogeneous legal situation in the EU is also conducive to foreign direct investment. In the wake of accession to the EU, imports of foreign direct investment increased considerably faster than FDI exports. As a EU member, Austria has become markedly more attractive as business target for foreign investors. It was only with the opening-up of Eastern Europe and with EU enlargement that Austria managed to raise direct investment exports more than FDI imports. In the model simulations, trade and FDI effects are accounted for by dummy variables for EU accession.

Due to stronger competition, greater efforts at research and development and more dynamic trade and FDI, real GDP growth was boosted by 0.1 percentage point per year.

- *Productivity shock:* in all ex-ante studies on the integration effects of the Single Market, productivity developments play an important role. The entry into the Single Market triggers a productivity shock. The Cecchini Report (1988) assumes in its original simulations that the adjustment to more intense competition leads in a first stage to a decline of productivity below the baseline solution, and that only in a subsequent stage the dynamic integration effects will lead to an acceleration of productivity and GDP growth. Such a pattern has also been retained here, given the fact that since 1995 total factor productivity in Austria has increased by $\frac{1}{4}$ percentage point p.a. faster than in the EU on average (see the time profile of the integration effects on GDP in Figure 2). As a matter of fact, the productivity shock provided the largest stimulus to real GDP growth, i.e. around 0.4 percentage point per year.
- *Net contributor position:* the model accounts for the actual trend of Austria's net contributions to the EU budget since 1995. It is assumed that they have no (direct) influence on GDP, but only on the domestic budget. The effects of the subsidies from the regional and structural funds are considered to be positive. In the present calculations they are implicitly included in the productivity effects.

Austria is the third-most rich country of the EU 27. In 2011, per-capita GDP, measured at purchasing power standards, equalled € 32,335 (2012: € 33,300), exceeding the EU 27 average by 29 percent. EU membership has made a non-negligible contribution to the rise in GDP per capita. Nevertheless, growth of GDP per capita has been slower during the period since 1995 than before. Since 1995,

Finland (+0.8 percent per year) and Sweden (+0.4 percent) which both became EU members together with Austria in that year, have enjoyed much more dynamic growth than Austria (+0.1 percent). Between 1980 and 1994, Austria's performance (+0.2 percent p.a.) had been above that of Finland (-0.4 percent) and Sweden (-0.5 percent).

Since Austria belongs to the richest EU countries, it is consistently a net contributor to the EU budget. Its net contribution was highest in 1995, with 0.44 percent of GDP, and in 1997 (0.43 percent). Since 2001, the contribution averages 0.2 percent of GDP (2011: 0.27 percent). Austria remains net contributor also within the EU 27, to the amount of 0.3 percent of GDP per year. According to estimates by the Austrian Ministry of Finance, EU enlargement carried "costs" for Austria in the order of 0.1 percent of GDP, which result from an increase in net contributions between the financial periods of 1999-2006 and 2007-2013.

- *Overall effects of Single Market participation:* Austria's EU membership has accelerated growth of real GDP overall by some 0.6 percentage point per year (or € 1.6 billion at 2005 prices). Over the 17 years since EU accession, around 13,000 additional jobs have been created each year (see Table 1 and Figure 2).

With the establishment of EMU in 1999 and the introduction of the common currency in 2002, the EU has reached the highest stage of integration so far. Further moves would be a still closer harmonisation or centralisation of all policy areas ("Political Union") up to the foundation of the "United States of Europe". Such a leap forward is currently utopian, as witnessed by the negative attitude vis-à-vis a "European Federal State" in most EU members and the rejection of the Treaty on a Constitution for Europe in France and the Netherlands in 2005, which the population suspected to include elements of a European Federal State. Indeed, the Treaty of Lisbon could enter into force only after all hints towards a possible European Federal State (down to the "symbols of Europe") had been eliminated. Nevertheless, new proposals for reform of the EU and of EMU in the Barroso Plan ("blueprint" by the European Commission of November 2012) and the Van-Rompuy Plan of December 2012 point again in the direction of more centralisation at EU level ("More Europe").

On the other hand, the Great Recession of 2009 and the subsequent euro area crisis as from 2010 have widely laid open the shortcomings in the design of EMU. The present crisis forces policymakers to address these deficiencies and to improve the economic governance. All measures taken so far, either to rescue and bail out governments or banks in distress, or to tighten control over national fiscal policies through the Six-Pack or the Fiscal Compact, are heading towards a "fiscal union". Also the non-standard measures of the ECB to "rescue of the euro" (sustained low-interest rate policy, "quantitative easing" through government bond purchases on secondary markets, OMT programme) show the readiness of monetary policy to coordinate more closely with fiscal policy than before the onset of the euro area crisis (see Breuss, 2013).

After the more micro-economic harmonisation moves like the implementation of the common competition rules, macroeconomic policy became partly centralised (monetary policy through the ECB) and partly constrained by close co-ordination (fiscal policy through the Stability and Growth Pact – SGP) with the establishment of EMU. With currently 17 out of 27 EU member countries, the euro area comprises fewer members than the Single Market of the enlarged EU.

The integration model accounts for three influence factors to identify the effects of EMU:

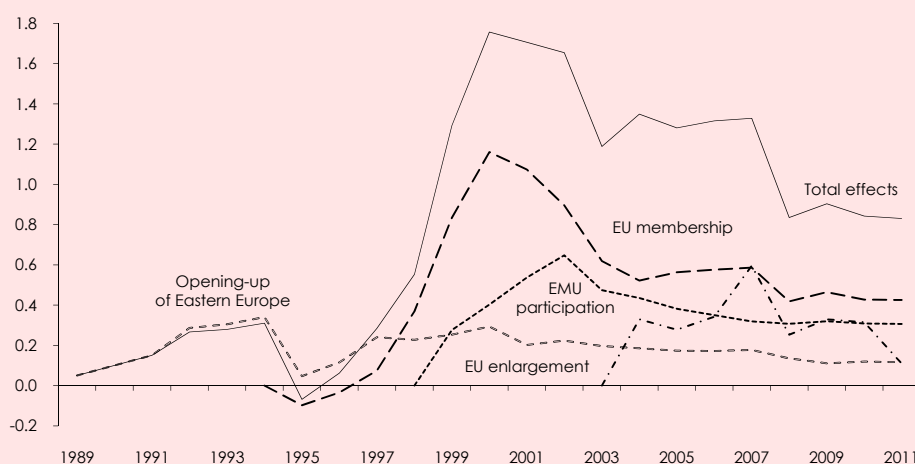
- *Fiscal policy:* entry into EMU obliged Austria (as any other EU member seeking EMU participation) to consolidate public finances and take its general government deficit below 3 percent of GDP, as required by the convergence criteria. Compared with a situation where the deficit ratio, in the absence of this constraint, had been 1 percentage point higher, the consolidation enforced by early EMU participation is deemed to have weighed on GDP growth in a first stage, followed by a positive impact on demand and output. On average over the period of EMU membership, fiscal consolidation is estimated to have raised GDP by

Early participation in EMU 1999 and euro introduction 2002

0.1 percent per year (compared with a scenario without EMU), since deficit reduction reduces the crowding-out of private investment and promotes capital formation. These calculations do, of course, not yet include potential future budgetary costs in the context of the EFSF/ESM rescue operations for Greece, Ireland, Portugal, Spain and Cyprus which only started in 2010. For Austria, the capital transfers to the ESM of € 2.2 billion will take place in several steps starting in 2013.

Figure 2: Effects of Austria's participation in all EU integration steps since 1989

GDP, volume, percentage changes from previous year (moving 4-year averages)



Source: Breuss (2012), p. 44.

- **Exchange rate effect:** before entering EMU, the Austrian schilling appreciated steadily to a substantial extent, both vis-à-vis the ECU and in real terms against the trading partners, thereby straining Austria's competitive position. With the start of EMU, this effect disappeared and Austria saw its price competitiveness increase until 2011, as the real-effective exchange rate fell by around 6 index points. Under the cautious assumption that the depreciation effect since 1999 had been smaller, i.e., that the real-effective exchange rate had declined by 1 percentage point less (and Austria's currency had appreciated), the impact of EMU participation on real GDP is negligible (+0.01 percentage point per year), while it is positive for the current account balance. It is possible, though, that the appreciation assumed in the baseline scenario is under-estimated⁴.
- **Productivity effect:** both labour productivity and total factor productivity (TFP) have been rising faster in Austria since 1999 than in the euro area on average (for TFP since 1995 by about ¼ percentage point per year against the EU 15 average). This productivity advance has lasted until now and has already been accounted for in the simulation of the effects of Austria's EU accession. In the present context, we allow for the additional EMU effect that derives from an increase in R&D expenditure since 1999 (dummy variable in the R&D equation) and in the model has an indirect impact on TFP growth. This leads to an additional increase in real GDP by around 0.4 percentage point per year since 1999. Hence, like in the simulations of EU accession, the productivity effect is the single most important effect on growth resulting from the formation of EMU. It is possible, that in reality the effect has been somewhat smaller than suggested by the simulation results.

⁴ Most empirical studies show positive trade effects as a result of euro introduction. Badinger obtains a trade gain of between 10 percent and 15 percent for the euro area (Austria +17 percent, Germany +22 percent, Greece -4 percent).

- *Overall effects:* over the 12-year period since 1999, Austria recorded real GDP growth of 1.8 percent per year. The three simulated effects of EMU participation yield a growth impulse of 0.4 percentage point per year (see Table 1)⁵. Participation in EMU and euro introduction is estimated to have led to the creation of about 9,000 additional jobs per year. Yet, such simulations can only provide approximate estimates of the intrinsically complex EMU effects. As a dampening factor we may consider the fact that on the basis of the single monetary policy of the ECB the long-term real interest rate in Austria was almost 0.4 percentage point higher since 1999 than on average for the euro area, though hardly above the EU 15 average and lower than in Germany (+0.7 percentage point against the euro area). Still, it is an open question whether the absence of EMU participation would not have produced a similar pattern for Austria.

Table 1: Effects of Austria's participation in all steps of EU integration since 1989

Selected macroeconomic indicators

	Real GDP	CPI (inflation)	Employment	Unemployment rate	Current account balance	Budget balance
		Percent	In 1,000	Percentage points	As a percentage of GDP	
Opening-up of Eastern Europe 1989						
1989-2011						
Cumulated	+ 4.4	+ 0.3	+ 2.1	+ 74.3	- 0.4	- 1.6
p.a.	+ 0.2	+ 0.0	+ 0.1	+ 3.4	- 0.2	0.7
EU membership 1995						
1995-2011						
Cumulated	+ 9.7	- 4.6	+ 5.9	+199.8	- 0.8	- 8.2
p.a.	+ 0.6	- 0.3	+ 0.4	+ 12.6	- 0.4	- 4.3
EMU participation 1999						
1999-2011						
Cumulated	+ 5.6	- 0.1	+ 2.9	+101.5	- 0.5	- 4.8
p.a.	+ 0.4	- 0.1	+ 0.2	+ 8.7	- 0.3	- 3.0
EU enlargement 2004 and 2007						
2004-2011						
Cumulated	+ 2.8	- 0.1	+ 1.5	+ 53.1	- 0.2	- 1.8
p.a.	+ 0.4	- 0.0	+ 0.2	+ 7.6	- 0.2	- 1.2
Overall integration effects since 1989						
1989-2011						
Cumulated	+ 21.1	- 4.6	+ 11.6	+374.9	- 1.7	- 12.5
p.a.	+ 0.9	- 0.2	+ 0.5	+ 17.0	- 0.7	- 3.0

Source: Breuss (2012), p. 43.

With the fifth EU enlargement round by 10 new members in 2004 and another 2 in 2007, the Single Market was extended and the scope for free trade enhanced. From this enlargement, Austria benefited most among all countries of the EU 15. Our own ex-ante model simulations estimated the impact at an increase in real GDP by 0.2 percent per year. The integration effects are shown to be distributed between the countries of the EU 15 and the new EU member countries roughly at a ratio of 1 : 10, i.e., economic growth in the new member countries is raised by 1 percentage point after EU accession, compared with about 0.1 percentage point in the EU 15.

In the new calculations with the integration model, the integration effects of EU enlargement of 2004 and 2007 only enter as additional stimulus to trade and FDI (abolition of border controls, entry into the EU customs union, adjustment to the *acquis communautaire* offering legal security for direct investors) via dummy variables in

**Additional benefit
through the fifth EU
enlargement round of
2004 and 2007**

⁵ According to other studies (e.g., McKinsey Germany), Austria has benefited most of all EMU participants from euro introduction, with an annual boost to GDP of 0.8 percent (Germany: +0.6 percent), the main reason being the strong gain in competitiveness.

the export and import equations or the equation for FDI exports, respectively. The effects emanating from the extension of the Single Market, which are currently still operating, were already captured by the simulations of the opening-up of Eastern Europe.

The results suggest that the EU enlargement of 2004 lifted growth of Austria's real GDP by 0.4 percentage point per year (see Table 1). This goes along with the creation of 7,600 additional jobs each year. Unlike for the separate simulation of the effects of the opening-up of Eastern Europe, the impact on exports is now smaller than that on imports, whereas FDI exports post stronger gains.

Whereas the opening-up of Eastern Europe led to a decline in the wage share (as a percentage of national income), no such effect is observed for the short period since the enlargement round of 2004 and 2007. The restraint on the free mobility of labour through a 7-year transition period (that ended on 1 May 2011 for those eastern countries which joined the EU in 2004) had been actively promoted by Austria for political reasons to which most other member countries, not least Germany, were also receptive; yet, from an economic perspective it would have been preferable to grant full labour mobility from the start, as confirmed by our own ex-ante studies as well as quantitative analyses by the European Commission. According to the latter, Austria has suffered a loss to medium-term GDP growth of 0.35 percentage point by deferring the right to free movement of labour. However, unemployment would have increased somewhat more in the absence of the temporary restriction.

As a small open economy, Austria is more dependent than big countries on access to a larger market without trade- or other restrictions. The Austrian economy has therefore benefited in a substantial way from the steady extension of the trade potential offered by Eastern European transformation and by participation in the enlarging EU Single Market. Over the entire period since the opening of Eastern Europe towards the West in 1989, Austria's real GDP grew 0.5 percentage point p.a. faster than that of the EU 15 as a whole. The growth advantage vis-à-vis Germany is even 0.7 percentage point, vis-à-vis Switzerland 0.6 percentage point. Somewhat stronger growth has only been recorded for the USA. A similar "growth dividend" has been identified for the other integration stages (EU membership, EMU participation and EU enlargement). The global financial market crisis of 2008-09 constituted a major setback to growth not only in the countries of EU 15, but also in the new member countries.

Due to the processes of the opening-up of Eastern Europe, EU accession, EMU and EU enlargement running in parallel, the integration effects of the different stages partly overlap. Hence, the various integration effects do not simply add up. The present new calculations therefore proceed by estimating the effects of each integration move separately within a comprehensive integration model and by eventually simulating the overall effects of the entire integration process. All in all (see Table 1), the integration stages considered here accelerated growth of real GDP in Austria by 0.9 percentage point per year (equivalent to € 2.4 billion at 2005 prices) and created around 17,000 jobs each year. The unemployment rate shifted downwards by 0.7 percentage point, the rate of inflation by 0.2 percentage point. The ratio of imports to GDP increased altogether more than the export ratio. The entire integration process led to a weaker current account balance, mainly brought about by EU membership and EMU participation, but partly offset by the opening-up of Eastern Europe. The latter and EU enlargement improve Austria's opportunities to actively participate in the process of globalisation (or in "mini-globalisation" with regard to Eastern Europe). Austria's welfare standard, as measured by real GDP per capita, has climbed since 1989 by 0.4 percentage point more each year than in the EU 15 as a whole.

The trend of the simulated effects of Austria's integration into the EU shows that for each integration step (EU membership 1995, EMU participation 1999, EU enlargement of 2004 and 2007) the growth effects increase at the beginning and subside thereafter (Figure 2). Only in the case of the opening-up of Eastern Europe, there is a rather stable positive impulse on Austria's economic growth. The growth effects of

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from the European
integration process**

Austria's EU membership and EMU participation have abated particularly in the wake of the Great Recession of 2009 and the euro area crisis.

The effects presented in Table 1 (cumulated and annual averages) blur to some extent the "true" profile of the integration effects calculated, by suggesting that the average growth effects cited would last permanently at that level. In reality, economic integration, i.e., the accession of a country to an integrated community (EU), gives rise to initial positive growth incentives (mainly due to a necessary adjustment and productivity shock) which gradually fade. We therefore observe, as a rule, "falling marginal returns" to integration. Even after the growth effects have faded away, the level of income has been raised by 21 percent as a result of participation in all integration steps. However, the welfare gain brought about by participation in European integration is defined not only by the level and growth of GDP per capita: it also includes the increase in the variety of goods and services supplied and in options for individual action (free movement and the Schengen Agreement facilitate labour mobility and travel, the latter also benefiting from the common currency), as well as the modernisation of political systems by introducing the European dimension. Moreover, full participation in the EU Single Market implies permanent downward pressure on prices and raises private household purchasing power. This effect is prolonged and reinforced by each round of EU enlargement and the accompanying extension of the Single Market. Unlike suggested by some authors of the New Growth Theory of Foreign Trade, integration has no permanent effects on growth rates, but provides one-off incentives to economic growth which raise the level of GDP, but ebb thereafter.

According to the calculations for the present study, Austria has benefited economically from all stages of integration (opening-up of Eastern Europe, EU membership, EMU participation and EU enlargement). The integration effects derived from model simulations for Austria's participation in all EU integration moves are in the order of $\frac{1}{2}$ to 1 percentage point of additional GDP growth per year. The plausibility of these model results is confirmed when Austria's economic performance is compared with that of other countries inside or outside the EU. Thus, Austria's growth advantage vis-à-vis Germany and Switzerland roughly corresponds to the above-cited integration effects. This "growth dividend" is difficult to explain, if at all, when abstracting from the integration effects of Austria's participation in all EU policy moves.

The euro area crisis has confronted the EU with new challenges. The previous governance architecture of EMU did not withstand the test of the crisis. To prevent the euro area from breaking up, the governance of EMU is being readjusted in order to be more resilient to future shocks. High on the agenda are the convergence of competitiveness among euro countries (monitored and steered by the new procedure for "excessive macroeconomic imbalances" within the framework of the Six-Pack and Two-Pack – ideally heading towards a homogeneous European business cycle) and in particular the longer-term reduction of the (in some periphery countries) unsustainably high government debt, coupled with the containment of the debt dynamics through instruments of the Six-Pack already implemented (reform of the Stability and Growth Pact) and accompanying measures provided for by the Fiscal Compact (e.g., debt brakes at national level). Beyond the tools for closer coordination and centralisation of fiscal policy, the EU and notably the euro area now have the European Stability Mechanism (ESM) at their disposal and prepare for forming a "Banking Union" with common bank supervision, resolution and deposit guarantee at EU level. Whether the EU will move even further (as suggested in the plans to reform EMU by Barroso and Van Rompuy) into the direction of centralisation ("Political Union" or the "United States of Europe") is still open (see more in Breuss, 2013A, 2013B). For some member countries such development may go too far and would provoke their early withdrawal (e.g., the UK), or the rifts within the EU and the euro area that have emerged since the crisis may grow even further.

In any case, all historical studies on the reduction of public debt do not bode well for Europe in a medium- and longer-term perspective. All measure to slash government debt by means of fiscal austerity (expenditure cuts and tax increases, as fore-

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seen by the Six-Pack and the Fiscal Compact) dampen medium- and long-term economic growth (see the extremely negative experience of Greece).

Due to these negative perspectives, the "growth dividend" that Austria enjoyed in the past, benefiting from its strong involvement in the Eastern European "emerging markets", may gradually wane. As already signalled by current medium-term projections, also the new member countries in Eastern Europe may move to a slower growth path, as they will be indirectly affected by the euro area crisis and the negative side effects of its resolution (notably the collective de-leveraging).

Nevertheless, the problem countries in the euro area periphery already show encouraging signs of an improving situation: the restoration of competitiveness is making progress, with current account imbalances diminishing. The understanding for the necessity to rein back the dynamics of government debt is growing. The unconventional intervention by the ECB is bearing fruit: interest rates on government debt have fallen markedly for the periphery countries and the euro is re-gaining strength vis-à-vis the US dollar.

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