

Output Growth in Austria and Germany: What Explains the Growth Differentials since the Early 1990s?

This paper attempts to explain the positive growth differential Austria has had over Germany since the early 1990s. While German output growth was dampened in the aftermath of unification, the Austrian economy benefited from a number of positive one-off shocks in the 1990s. Austria has been able to make the most of the opening up of Eastern Europe and witnessed a surge in productivity following EU accession. Moreover, given the predominance of small and medium-sized businesses in Austria, outsourcing abroad was much less of a problem for Austrian employees than for German employees. Finally, Germany saw a marked drop in full-time equivalent employment, which in turn adversely affected consumption and investment. While fiscal policies were not instrumental in generating growth differentials in the 1990s, they have played a role since 2002, as Austria, unlike Germany, has pursued an expansionary fiscal policy course. Differences in the wage-setting process and in corporate taxation provide very little, if any, explanation for the growth differential. Thus, Austria's positive growth differential basically reflects asymmetric one-off shocks with an effect on current GDP levels rather than on the long-term growth rate. Hence, once the effects of these one-off shocks have subsided, the growth differential is likely to shrink.

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1 Introduction

The Austrian economy has outperformed the German economy for years, as is evidenced by a broad range of economic indicators. Following a decade and a half of perceptibly higher output growth in Austria than in Germany, Austrian GDP per capita has even risen above the levels observed in western Germany, the Austrian unemployment rate is markedly lower, and Austria's public finances are healthier.

Given these differences, a number of comparative studies have attempted to provide insights into the reasons for this uneven performance from a German perspective: Comparing output growth developments especially

against the backdrop of labor market structures, Wahl (2004) highlights the fact that official labor market data lead to an overly optimistic assessment of Austria's performance. The official data overstate employment in Austria, given the high incidence of early retirement, the coverage of recipients of child-care benefits and of participants in employment training programs, double counting problems and other special factors, such as agricultural subsidies. The actual unemployment rate is thus higher than the official data imply. In a paper that aims at identifying the factors determining the employment differentials between Germany, Austria and Switzerland, Wahl and Schulte (2005)

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single out the role of the more employment-friendly framework conditions in Austria and Switzerland. In their conclusions for the German labor market, they underline the need to carefully coordinate individual measures. Comparing the institutional framework for fiscal, labor market, social and location policies in Austria and Germany, a study of the Ifo Institute for Economic Research (Büttner et al., 2006) finds urgent need for reform in Germany in all areas under review. Grohmann (2006) traces Austria's economic success to a different mindset and a different social structure. In a recent comprehensive comparison from an Austrian perspective, Breuss (2006b), finally, attributes Austria's higher growth rates to the following key factors: the burden of German unification, Austria's lead over Germany in using the opportunities provided by European integration, the asymmetric design of EMU macro policies and the stronger negative impact of globalization on Germany.

In attempting to explain the growth differentials between Germany and Austria, this paper adds further perspectives to the debate. In addition to a comprehensive discussion of the traditional arguments, including German unification, widening and deepening of EU integration as well as Germany's labor market problems and globalization, we highlight above all the influence of country and firm size ("small is beautiful") as well as the role wages play for price competitiveness and domestic demand.

This paper is structured as follows: Section 2 provides a descriptive overview of growth differentials between Austria and Germany as well as a supply- and demand-side analysis

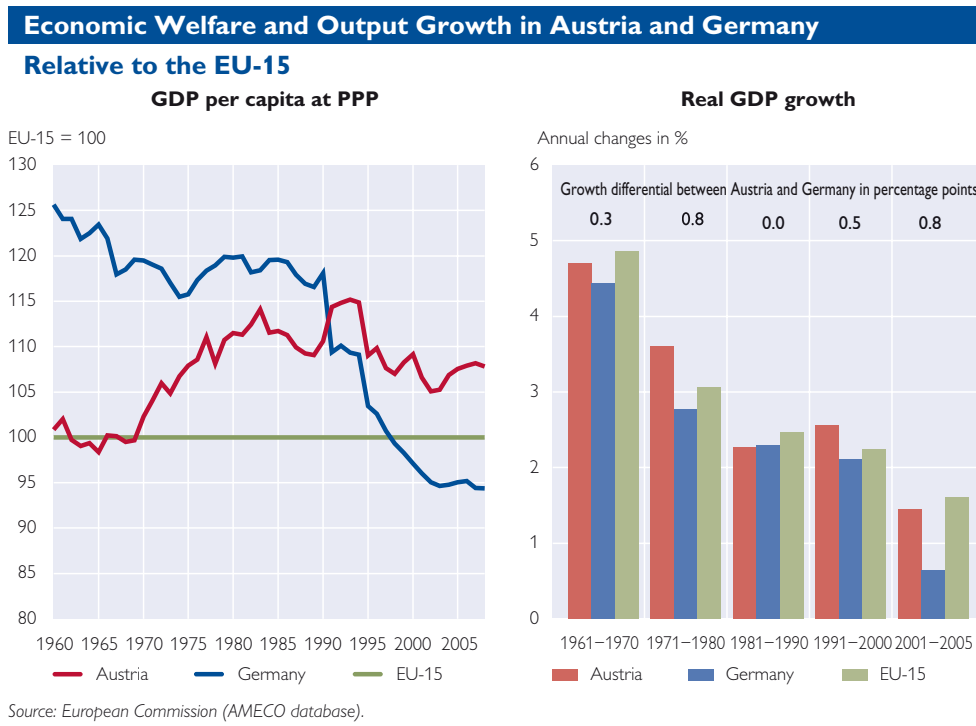
of contributions to growth. The remainder of the paper basically presents and analyzes two kinds of arguments – one-off historical events (sections 3 and 4) and selected differences in the economic structures and policies of the two countries (sections 5 to 9). More specifically, section 3 discusses the effects of the following factors for Austria: the opening up of Eastern Europe, the creation of a single market in Europe, Austria's accession to the EU and participation in EMU, as well as EU enlargement. Section 4 assesses the effects of German unification. Turning to the selected differences between the two countries, section 5 evaluates the influence of country and firm size on economic growth at the firm and macro levels, while section 6 deals with the potential impact of fiscal policy on the emergence of growth differentials. Section 7 compares institutional aspects of the labor markets, section 8 discusses wage levels and international competitiveness and section 9 analyzes key differences in corporate taxation. Section 10 concludes with a summary of the key findings.

2 Macroeconomic Performance

2.1 Austria's Level of Economic Welfare Now Exceeds German Standards

Ranging among the weakest economies in Europe after World War II, Austria lagged considerably behind Germany for many years. During the post-war boom years up to the end of the 1960s, both countries experienced very high growth. In the 1970s, which were marked by the end of the Bretton Woods era and the first oil price shock, Austria outperformed Germany, in no small part because

Chart 1



of its commitment to anticyclical fiscal policy and to its hard currency policy.

In the 1980s, both economies grew at roughly the same rates. Austria had to overcome difficulties posed by budget consolidation measures and a crisis of the nationalized industries, while Germany underwent a paradigm shift in monetary policy, namely the transition to monetary targeting in the early 1980s. German unification in 1990 led to a temporary growth spurt in Germany, which also fed through to Austria. Thereafter, economic growth was dampened by a number of domestic crises as well as external shocks in the 1990s (EMS crisis in 1993, Mexico crisis in 1995, Asian crisis in 1998). The global recession in 2001, triggered by the U.S.A., precipitated another period of weak growth in Europe, above all in Germany.

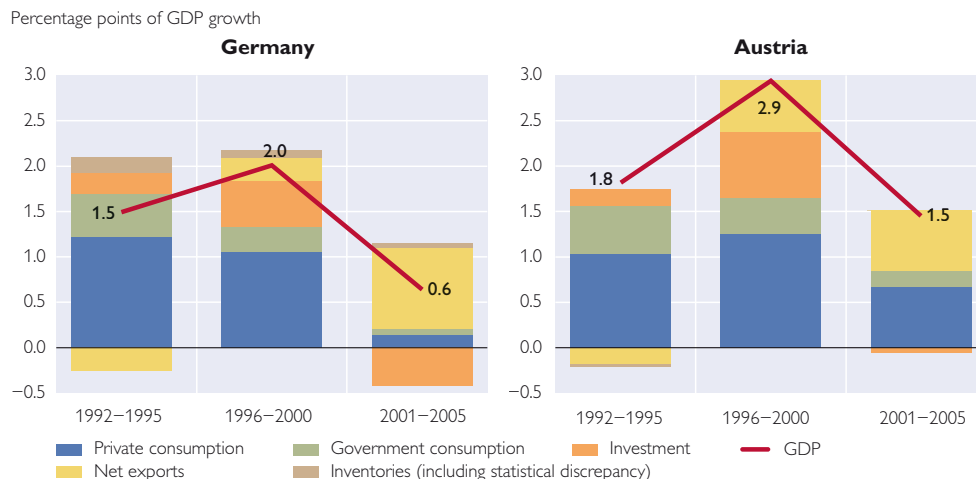
Given the differences in growth dynamics since the 1990s, Austria's

level of economic welfare (measured in terms of GDP per capita at purchasing power parity) has come to surpass that of Germany. Unification, which depressed Germany's GDP per capita, has no doubt played a big role in this process. Yet since 2004 Austria has exceeded even western Germany in terms of economic welfare (section 4).

2.2 Demand Side: Marked Weakness in Consumption and Investment in Germany

Following unification, wages rose sharply in eastern Germany in 1991 and 1992, turning private consumption and construction investment into the key engines of growth in the unification boom. Yet from the mid-1990s onward, high and rising unemployment produced a regime shift in German wage policies, with the objective of regaining price competitiveness. Indeed, total unit labor costs declined by 16% between 1995 and

Marked Weakness of Domestic Demand in Germany since 2001



Source: European Commission (Cronos database).

2005 relative to the remaining EU-14 excluding Luxembourg (AMECO database of the European Commission). At the same time, however, the funds available for public spending – above all government investment – dropped sharply, given the high fiscal burden of unification.

The growth contributions of the demand components to real GDP growth (chart 2) show which factors are to blame most for Germany's sluggish growth performance since 2001. While net exports fueled growth, domestic demand was dampening growth, with both private and government consumption stagnating. The subdued development of private consumption since 2001 can be attributed to a number of factors: Disposable household income has declined, owing to a drop in full-time equivalent employment reflecting job cuts and a sharp rise in part-time employment. Precautionary saving has increased, albeit by a small degree, given past pension and labor market reforms as well as uncertainty about

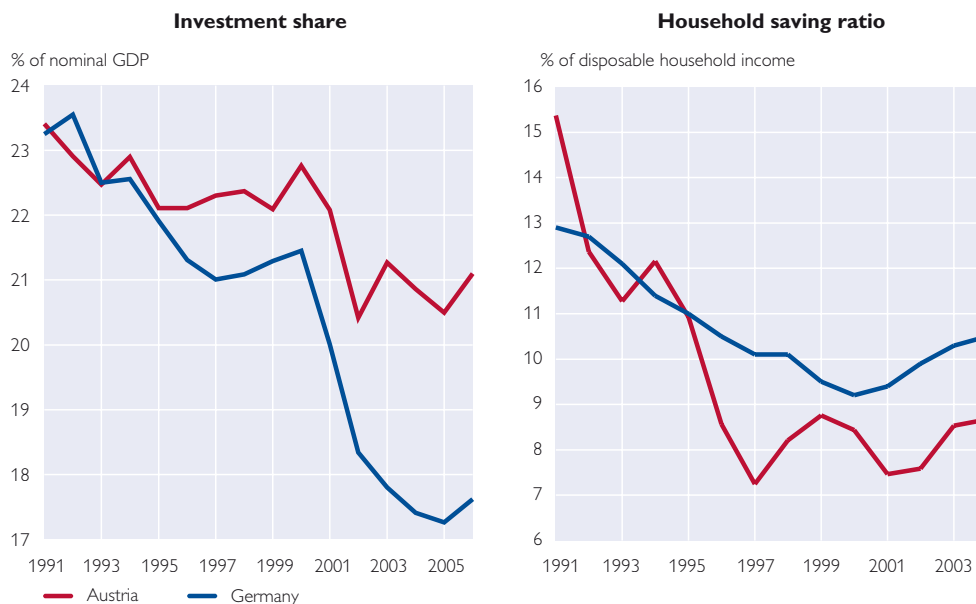
future cuts (chart 3). GDP growth decelerated perceptibly in 2001 despite the tax reform of 2000. Furthermore, consumption may have slowed down as a result of developments in the real estate market, which stagnated in Germany unlike in most other EU countries.

In Austria, private consumption growth decelerated as well, but at a considerably slower rate. While also facing large cuts in future pension benefits, Austrian consumers reacted with less apprehension. As a case in point, the consumer confidence indicator compiled by the European Commission remained at its long-term average for Austria while dropping markedly below this threshold for Germany for the period from 2002 to 2005.

Cyclical fluctuations apart, the investment share was fairly constant in Germany from the 1970s to the 1990s, but has declined markedly since 2001. For Austria, the cyclical decline of the investment share was, again, considerably slower (chart 3).

Chart 3

Lower Investment Share and Higher Saving Ratio in Germany



Source: European Commission AMECO database (investment shares), Statistics Austria, Statistisches Landesamt Baden-Württemberg (saving ratios).

The crumbling of the German construction sector, inflated in the years after unification, appears to have come to a halt in 2006. In Austria, investment did not contribute to growth either in the first half of the current decade, but the decline in the investment share was less pronounced, possibly reflecting public works projects launched under the economic stimulus packages of December 2001 and September 2002.

2.3 Supply Side: Growth Driven More by Production Factors in Austria than in Germany

Our assessment of supply-side growth factors is based on a growth accounting exercise using data from the Total Economy Growth Accounting Database of the Groningen Growth and Development Centre (GGDC, 2005). Growth accounting breaks down eco-

nomical growth into components associated with changes in factor inputs (labor, capital and other factors) as well as technological progress.

In this respect, table 1 shows remarkable differences in the composition of growth between Germany and Austria. While labor and capital contribute more substantially to growth in Austria than in Germany, factor productivity plays a bigger role in supporting growth in Germany.

The contribution of labor to growth has been negative in Germany since the early 1980s, reflecting both a sharp rise in unemployment² and continual cuts in working hours. Annual hours worked dropped from an average of 1,636 hours in 1980 to 1,446 hours in 2004 (GGDC, 2005). Austria, where hours worked actually dropped more in this period (from 1,755 hours to 1,498 hours), was sig-

² In western Germany the unemployment rate rose from 2.7% in 1980 to 9.1% in 2006. The nationwide unemployment rate averaged 10.8% in 2006.

Table 1

Contributions to GDP Growth in Austria and Germany						
Percentage points						
	Labor	of which		Capital	Total factor productivity (TFP)	Real GDP
		Hours worked	Employment			
Austria						
1981 to 1990	0.4	-0.3	0.7	1.3	0.5	2.2
1991 to 2000	0.0	-0.6	0.6	1.2	1.2	2.4
2001 to 2004	-0.1	-0.3	0.2	1.1	0.2	1.1
1981 to 2004	0.1	-0.4	0.6	1.2	0.7	2.1
Germany						
1981 to 1990	-0.3	-0.4	0.2	0.9	1.5	2.2
1991 to 2000	-0.6	-0.4	-0.2	0.8	1.6	1.8
2001 to 2004	-0.5	-0.2	-0.3	0.4	0.6	0.5
1981 to 2004	-0.4	-0.4	-0.1	0.8	1.4	1.7

Source: GGDC, Total Economy Growth Accounting Database.

nificantly better at increasing employment, whereas Germany's employment figures have in fact been declining slightly since the early 1980s (section 7). A comparison of the GDP growth contributions of capital shows a drop to a much lower level in Germany than in Austria as well as a decline over time.

Consequently, the residual measure of total factor productivity³ (TFP), which determines the long-term growth rate, contributed far more substantially to growth in Germany than in Austria in the period under review: In Germany, more than three-quarters of GDP growth

were attributable to TFP, compared with one-third in Austria.⁴

In Austria, TFP expanded visibly around the time of EU accession.⁵ This intensification of research and development (R&D) and the implementation of structural reforms are likely to have been spurred also by the rapid continued internationalization of the Austrian economy. Following the international economic setback in 2001, both countries experienced a sharp drop in TFP shares. Given labor hoarding in 2001, the growth contribution of TFP even turned negative in Austria at the time. While this decline matches the EU-

³ TFP may be understood as an integral measure of technological progress (innovations, creation of know-how, improved production conditions). As a residual measure, however, TFP does not reflect technological progress alone but also cyclical volatilities induced by demand fluctuations as well as measurement errors. The contributions to growth of labor and capital are significantly less volatile than overall GDP growth, given rigidities in product markets (Peneder et al., 2006).

⁴ Other studies for Austria yield qualitatively similar results, even though the empirical results differ on account of divergent data sources and horizons as well as differing methods. Gnan et al. (2004) find that roughly one-half of Austria's GDP growth between 1981 and 2002 is attributable to TFP growth. The growth accounting exercise of Peneder et al. (2006) yields a share of 36% for technological progress in the period from 1990 to 2004. Taking into consideration quality effects from the rising use of more sophisticated production factors (growing importance of new information and communications technologies, bigger share of higher-skilled labor, declining demand for simple commodities) Peneder et al. find technological progress overall to account for two-thirds of growth.

⁵ Apparent data problems relating to the input factor labor (strongly negative contributions to growth in 1995 and 1997) are likely to have overstated this increase in the latter half of the 1990s.

Chart 4

Austria Has Stronger Ties to the New EU Member States (EU-10)



Source: Eurostat.

wide trend, the U.S.A. and Canada – but also Finland and Sweden – have seen an acceleration of TFP growth (GGDC).

The development of TFP is basically influenced by two factors: the accumulation of human capital (Lucas, 1988) and technological advances induced by R&D (Romer, 1990; Grossman and Helpman, 1994). Common indicators, such as spending on education, R&D or the number of new patents, fail to sufficiently explain Germany's higher TFP.⁶ While Germany ranks ahead of Austria in terms of TFP per capita, Austria has caught up considerably since EU accession, benefiting from access to EU research programs (Breuss, 2006b).

3 Vast Benefits for Austria from Integration Steps in the 1990s

The fall of the Iron Curtain triggered sweeping economic changes, which also had an impact on western Europe. Given its favorable geopolitical position as well as long-standing economic relations with the former Eastern bloc countries, Austria stood to benefit substantially from these changes during the 1990s.

The regional allocation of export flows (chart 4) shows clearly that exports to the new EU Member States play a more important role for Austria than for Germany. Austria's strong ties with Central, Eastern and Southeastern European countries are even more evident from the figures on foreign direct investment (FDI). While Germany is the leading investor in Eastern Europe in absolute numbers, in terms of GDP, FDI plays a much larger role for Austria.

⁶ Koman and Marin (1999) show in an empirical analysis that the growth differentials between Germany and Austria can be traced to differences in technology rather than in human capital.

In addition, Austria's accession to the EU in 1995 brought a number of sweeping changes. Austria became a full-fledged member of the Single Market and the EU's customs union while ceding competence for key policy areas to the EU authorities. Productivity gains reflect above all the higher competitive pressure (at least in previously sheltered sectors) as well as participation in EU research framework programs. Austria has also become more attractive as a business location since EU entry. These positive effects come at the cost of contributions to the EU budget. Like Germany, Austria is a net contributor to the EU budget, but the net burden has been declining for both countries. Germany's net contributions to the EU have sunk from 0.58% of GDP in 1995 to 0.27% in 2005; Austria's net contributions have dropped from 0.44% of GDP to 0.11% over the same period. With Austria contributing between 0.1 and 0.2 percentage point of GDP less than Germany to the EU budget, its relative financial burden is thus lower. Given more or less equal gross contributions (as a percentage of GDP), this difference may be attributed to higher agricultural subsidies flowing back to Austria.

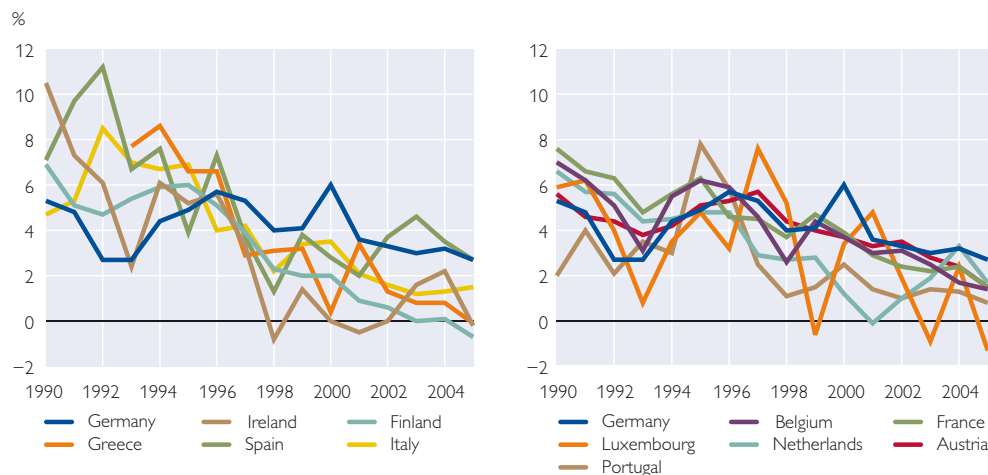
Model simulations of WIFO, the Austrian Institute of Economic Research, show Austria to have gained a total of 3.5% of GDP growth from export opportunities created by the opening up of Eastern Europe in the 1990s (Breuss, 2006a). The establishment of a Single European Market, EU accession, and the introduction of the euro boosted growth by a further 4.5%. Breuss (2006a) expects the effects of EU expansion toward

the east in 2004 to remain comparatively smaller at around 1%, as trade had already been broadly liberalized by then. In total this adds up to a growth effect of around 9% of GDP created in the 1990s. The bulk of this effect materialized in the 1990s and – to a lesser extent – at the beginning of the current decade, so that no sizeable growth effects are likely in the future. No directly comparable simulations exist for Germany. However, Germany's comparatively weaker economic ties would imply that it has benefited less than Austria from the opening up of Eastern Europe. Moreover, as a founding member of the European Economic Area, Germany did not witness the kind of productivity-increasing effects that Austria benefited from after EU entry.

To some extent, Germany's anemic growth has repeatedly been attributed to EMU, above all within Germany (e.g. Bohley, 2004), which does not come as big surprise given the strong emotional *ties* Germans had to the *Deutsche mark* and their prevailing skepticism vis-à-vis the euro. It has often been argued that Germany's competitiveness has dropped as a result of *real interest rates converging* at the low German level within the euro area. Above all Finland, Italy and Greece have benefited strongly from sinking real interest rates; yet it should not be overlooked that real interest rates have dropped in Germany as well (chart 5). It is thus important to separate the relative from the absolute thread of the argument. One may conclude that, compared with most other euro area countries, Germany benefited considerably less from the decline in real interest rates.

Chart 5

Real Interest Rates Decline and Converge in the Euro Area as a Result of EMU



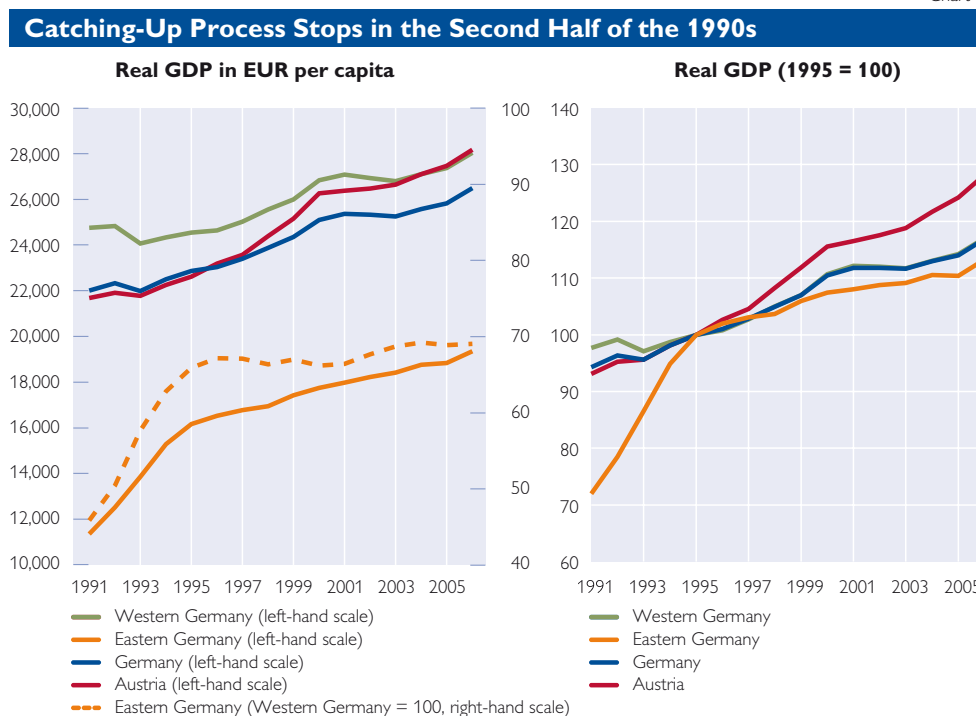
Source: European Commission (AMECO database).

At any rate, a strong commitment to wage moderation in the interest of maintaining international competitiveness secured Germany a rank among the euro area countries with the lowest inflation rates – and thus with the highest real interest rates – since the mid-1990s. A low inflation rate does indeed boost price competitiveness in external trade. In contrast, according to the Sachverständigenrat (2004), there is no convincing empirical evidence for another often cited argument, namely that Germany entered the euro area at too high an exchange rate. Accordingly, Germany’s EMU entry exchange rate corresponded to the equilibrium exchange rate determined by long-term factors. As this argument holds for Austria as well, given Austria’s de facto currency union with Germany at the time, the exchange rate must, however, be dismissed as a factor explaining the growth differential between the two countries.

4 Unification Dampened Germany’s Growth Dynamics

Germany’s unification was an exceptional political event with major consequences. From an economic perspective, though, the integration of eastern Germany did not run smoothly. While massive financial transfers and the transfer of tried-and-trusted institutions from western Germany secured eastern Germany a clear head start over other former eastern bloc countries, the fact remains that one of the world’s cutting-edge economies was joining forces with a command economy burdened by an overly mature capital stock and low productivity. Thus, eastern Germany’s manufacturing industry faced very strong competition from western Germany at a time when it was already suffering from the loss of its traditional sales markets. The adjustment difficulties were exacerbated by the massive overvaluation of the Ostmark, given its conversion into Deutsche mark at a rate of 1:1, as well by the strong mismatch between wage and productivity growth in the first

Chart 6



few years. In the first year following unification, industrial output dropped by 50% in eastern Germany. Driven by the political will to rapidly harmonize living standards and favored by a vacuum of regulatory power⁷ unit labor costs rose by 150% in the period from 1990 to 1993 (Horn et al., 2000; Sinn, 2000).

While eastern Germany's GDP per capita had jumped from a mere 46% of the western German level in 1991 to 66% in 1995, this catching-up process came to a halt in the second half of the 1990s. The following ten years up to 2006 witnessed only a modest rise to 69%. Even those fig-

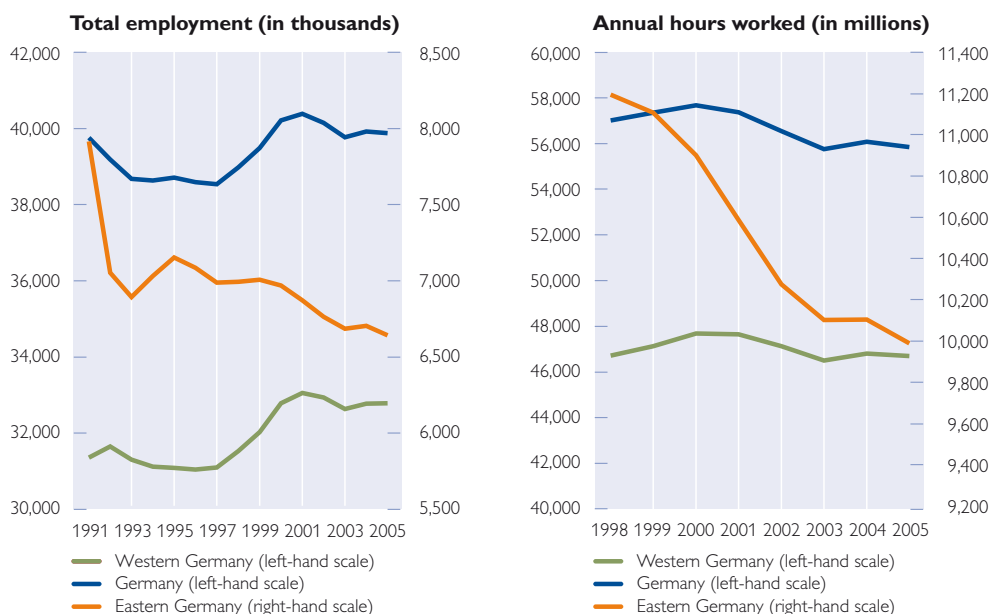
ures are in fact overstated; calculations for the "sustainable" part of the economy – excluding the public sector and the construction industry (which are both heavily subsidized by western Germany) – yield GDP per capita figures that are even significantly lower than the above figures in relation to western German levels (European Commission, 2007). In fact, this per capita comparison paints a favorable picture for eastern Germany, as the population has dwindled substantially in the east.⁸ In absolute figures, GDP growth in eastern Germany (13%) even lagged behind western German GDP growth (17%) from

⁷ In 1991 multi-year wage settlements and thus long-term wage paths were agreed for eastern Germany. Apart from the Treuhand Agency, which administered eastern Germany's industrial heritage and took a passive stance in those negotiations, eastern Germany's corporate sector was not represented in those negotiations and could not press for productivity-oriented wage settlements. Western German corporate representatives and trade union representatives had an inherent interest in high wage increases, in part to defuse competition from eastern Germany, in part in support of traditional trade union interests.

⁸ The population of eastern Germany dropped by 8% between 1991 and 2006.

Chart 7

Significant Job Cuts in Eastern Germany



Source: Statistical offices of the German Laender (2006).

1995 to 2006.⁹ Any hopes put into a rapid, self-supporting recovery thus failed to materialize. The reindustrialization of eastern Germany following the collapse of the nationalized industries has not been fully successful. Sinn (2000) enumerates a number of reasons for this stagnation. Apart from the wide gap between wage increases and productivity gains, the provisions governing subsidies favored an inefficient allocation of capital. The high level of social assistance (that is, at least before the labor market reforms were implemented under the Hartz concept) has also drawn repeated criticism, as it implied high minimum wages and created negative incentives for work (Sinn, 2000; European Commission, 2002 and 2007).

While 1 million jobs vanished in eastern Germany during the transformation process from 1991 to 1993, nationwide employment figures rebounded until 2001. From 1993 to 2001, yet another 0.3 million eastern Germans (3.7%) lost their jobs, while 1.5 million new jobs were created in the same period in western Germany. This increase must be interpreted with caution, as it was associated with a rise in part-time employment. Based on annual hours worked – data which are available only from 1998 onward – full-time equivalent employment edged up by 0.1% in western Germany from 1998 to 2005 while falling by 10.8% in eastern Germany and dropping by 2.1% on a nationwide basis.

⁹ Austrian GDP grew by 28% in this period.

Construction Investment Has Dampened German Growth

since the Mid-1990s



Source: European Commission (AMECO database).

The eastern German Laender continue to depend heavily on transfers from the western parts of the country: In 1995 and 1996, such transfer payments accounted for 41% of the eastern German GDP. By 2003 and 2004 this share had sunk to close to 22% (European Commission, 2007). On average, these transfers correspond to around 4% of western German GDP. While these transfers no doubt constitute a high fiscal burden, the western German economy benefited from the expansion of the market and from the addition of human capital through east-west migration. The European Commission (2002) simulated the effects of (tax-financed) transfer payments on overall output growth, taking into consideration the crowding out of private investment and labor market effects. According to these simulations, the transfers dampened growth by an average of 0.3 percentage point per annum in the 1990s. These simulations

did not reflect negative competition effects resulting from the rise in unit labor costs (which were, however, reversed from the mid-1990s onward through wage moderation) and the (at least indirect) appreciation of the Deutsche mark as a result of unification. In addition, it was noted that the decline in public sector spending might affect potential output in the medium to long term.

Given enormous catching-up needs, above all in infrastructure, and generous subsidies, the construction industry created high contributions to growth in the first few years following unification. Yet in the mid-1990s, construction activity slumped in both eastern and western Germany. Real estate prices have been on a gradual decline in eastern Germany since 1993. In the period from 1996 to 2005, the construction industry dampened German output growth by 0.2 percentage point per year, while Austria's construction industry pro-

vided a slightly positive contribution to growth (0.1 percentage point) in this period. The European Commission (2002) estimates that the crumbling of the construction industry (in Germany as a whole) after the rush of building following unification accounts for about one-third of Germany's negative growth differential vis-à-vis the other EU countries in the 1990s. The contraction of building activity is likely to have come to a halt in 2006, though.

5 Impact of Country and Firm Size

While Germany and its 80 million inhabitants create one-fifth of the total output of the EU-25, Austria has only one-tenth the population and ranges among the smaller EU economies. The different national size has also translated into different business structures. Whereas size is often an advantage, Austria may in fact have better mastered the challenges of

European integration and globalization than Germany for the very reason that its political and economic structures are smaller.

5.1 Predominance of Small Enterprises Cushions the Negative Impact of Globalization in Austria

In the German debate, globalization typically crops up as the key reason for anemic job creation. From an economic perspective, one of the key features of globalization is the growing international division of labor in the production of goods and services. The production of labor-intensive goods is typically shifted from industrialized countries to low-wage countries, thus allowing companies to strengthen their price competitiveness. In the home country, this development generally leads to redundancies depending on firm size, type of industry, skill intensity, etc.

Box 1

Is Germany Turning into a Bazaar Economy?

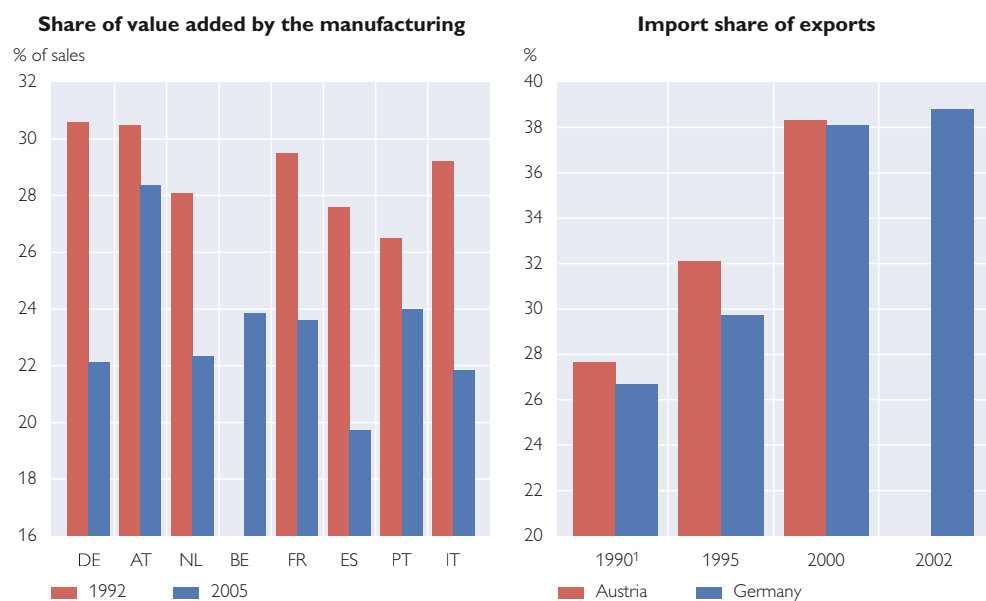
One of the best-known hypotheses about the globalization impact on the German economy is Sinn's hypothesis of a bazaar economy (2001), which implies that the domestic share of value added shrinks as production becomes more globalized. German manufacturers have been increasingly shifting labor-intensive parts of production abroad to avoid a high domestic wage burden. As a result, Sinn claims, Germany is turning more and more into a bazaar economy with high export volumes but low domestic value added. In other words, rising export figures do not automatically add domestic value or create domestic jobs. While a declining domestic share of value added is generally considered to follow logically from the international division of labor, Sinn's hypothesis has caused much dispute for a number of reasons, one being the very term "bazaar," i.e. the somewhat provocative wording. Another controversy surrounds the fact that Sinn deduces the need for more wage flexibility from his hypothesis and blames Germany's high social standards for preventing necessary structural change. Sinn's hypothesis has also been questioned for its link to the concept of a "pathological export boom," which cites Germany's high wage level as the very reason why the country is such a successful exporter. Sinn argues that the lack of wage flexibility causes the labor-intensive sectors facing low-wage competition abroad to shrink more than necessary. Some of the capital and labor they shed are absorbed by the capital-intensive export sectors, which causes exports to rise, while imports rise because the labor-intensive goods no longer produced domestically must, of course, be imported.

Can Germany's weaker growth performance be explained with the fact German companies outsource more heavily than Austrian firms? Principally, manufacturing value added as a percentage of a company's sales shows whether and to what extent produc-

tion is outsourced (either to other domestic firms or to foreign firms). In this respect, manufacturing production is found to differ heavily between Germany and Austria. While value added as a share of sales was roughly equally high in both countries

Chart 9

Declining Share of Value Added and Rising Share of Imports as a Result of Production Outsourcing

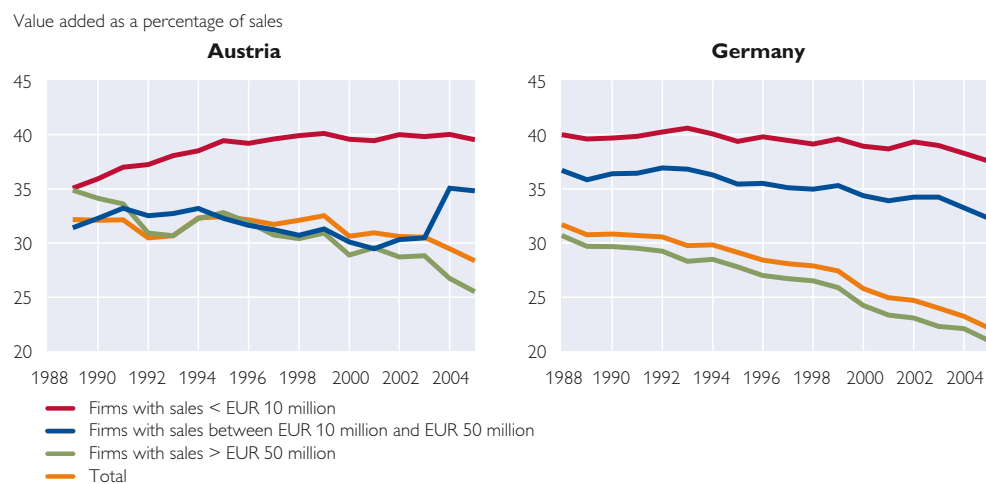


Source: European Commission (BACH database), OeNB calculations on the basis of Statistics Austria's input-output accounts, Federal Statistical Office Germany (2004).

¹ Austria: 1991.

Chart 10

Large German Corporations Outsource Production Heavily



Source: European Commission (BACH database).

Table 2

Manufacturing Firm Size Distribution in Austria and Germany in 2005

% of all firms

	Firm size based on annual sales (EUR million)			
	Small	Medium-sized	Large	Total
	(< 10)	(10–50)	(> 50)	
Number of firms				
Austria	82.0	10.3	7.8	100
Germany	50.1	17.7	32.2	100
Employees				
Austria	21.9	18.5	59.6	100
Germany	3.5	14.1	82.4	100
Sales				
Austria	11.8	12.9	75.3	100
Germany	1.8	7.4	90.8	100

Source: European Commission (BACH database).

in 1992 (Germany: 30.6%, Austria: 30.5%), this share sank to 22.1% for Germany but only to 28.4% for Austria up to 2005. Austria's domestic share of value added is fairly high in an international comparison (chart 9).

These differences can be attributed to the different firm size structure in the two countries (table 2).¹⁰ Austria has considerably higher shares of both small and medium-sized firms than Germany. As production outsourcing is, as a rule, more relevant for large firms, Germany has witnessed a markedly sharper decline in its share of value added.

The breakdowns made so far do not indicate whether production was outsourced to domestic or foreign firms. Such insights can be gained through input-output accounts, which reflect the flow of goods and services between individual industries in an

economy. Calculating the import share of exports as an indicator of the international division of labor yields an identical import share of 38% for the year 2000 for both Austria and Germany. This fact is noteworthy indeed, as large countries tend to have lower import shares than small countries; in the case at hand, this figure underlines the prominent role of exports for Germany. Imports have risen sharply in both countries since the early 1990s, in Germany even more so than in Austria (chart 10). This would imply that the declining share of domestic value added in manufacturing can be attributed at least in part to offshoring or outsourcing to other countries and thus to imports of intermediary goods and services.¹¹ Analyzing the development of intermediary imports of seven EU countries (Austria, Denmark, Finland, Germany, Italy, the Netherlands

¹⁰ Given different compilation methods, the results of table 2 are biased toward large firms in Germany, while Austria's medium-sized firms are somewhat underrepresented. Caution is therefore warranted when interpreting these figures.

¹¹ Offshoring refers to the relocation of organizational processes to a foreign country, regardless of whether the work stays in the group or not – the organizational function may be transferred to a third party located abroad, or it may be assumed by joint ventures or subsidiaries located abroad. Outsourcing is defined as the delegation of internal production processes to an external entity.

and Sweden) in the period from 1995 to 2000, Falk and Wolfmayr (2005) find imports of intermediary inputs to have risen most in Austria and Germany. This evidence supports the above reasoning.

Empirical evidence on the relationship between firm size and outsourcing or offshoring is limited.¹² Yet the larger a firm is, the higher the probability is that it will undertake direct investments abroad, especially because large corporations have better access to financing (Kinoshita, 1998).¹³

Next to offshoring, outsourcing within Germany or Austria, above all in the services industry, may also explain the declining share of domestic value added. In the period from 1997 to 2005, the growth rate of business-related services (sections I to K under the EU's NACE classification) exceeded manufacturing sales growth by 11% in Austria but lagged manufacturing sales growth by 8% in Germany. This may imply that German firms may have contracted out fewer business-related services within Germany and therefore relied more heavily on offshoring.

A comparison of absolute manufacturing sales yields an even bleaker picture for Germany. While value added in manufacturing doubled in Austria between 1992 and 2005 (+103%), it increased by just 21% for

Germany. Furthermore, employment levels dropped more sharply in Germany than in Austria. Hence, given the predominance of large corporations in Germany's industry, Germany was evidently hit harder by outsourcing than Austria.

5.2 Country Size, Integration and Output Growth

The deepening and widening of the European Union has benefited individual EU Member States to different extents. There is no conclusive theoretical and empirical evidence linking country size and output growth or integration gains.

Larger countries have a number of advantages over smaller countries, primarily because they serve bigger home markets. Larger countries are also better placed to assert their interests in a common economic area.¹⁴ At the same time, size may affect economic performance when preferences are highly heterogeneous. Theory broadly adheres to the proposition that size has a positive impact on output growth, but the empirical evidence in support of this claim is limited in the literature (Alesina et al., 2005). Microeconomic studies have found evidence of economies of scale at a sectoral level, but macroeconomic evidence is more difficult to provide.

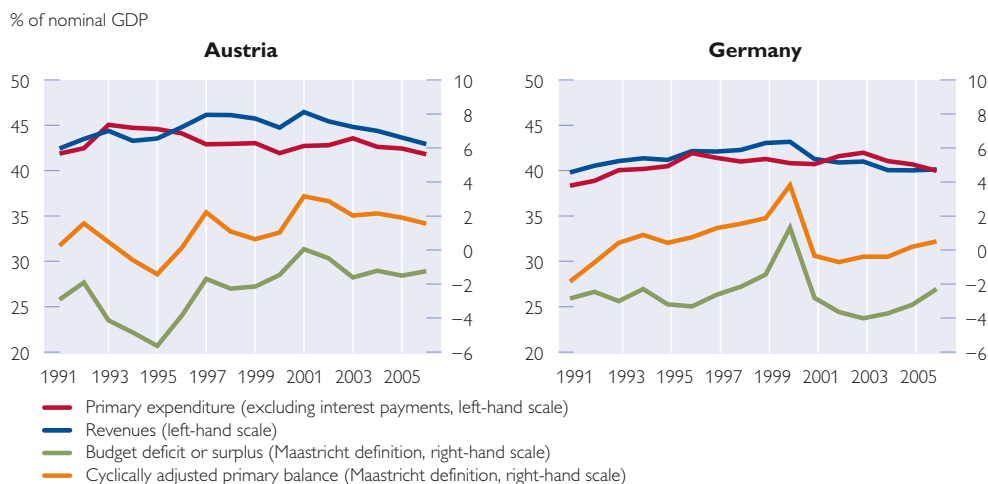
¹² There is, however, a comprehensive strand of theoretical and empirical literature on other aspects with partly contradictory findings (for a comprehensive literature survey, we recommend Egger et al., 2001). The Sachverständigenrat (2004, p. 369) concludes that inward FDI does not have strong repercussions on the labor market. For a comparison of different determinants of offshoring and outsourcing in Austria and Germany, see Marin (2006).

¹³ In a study on Lombardy, Cusmano et al. (2006) state that the internationalization of production is pursued above all by large and export-oriented firms. FDI plays only a minor role in this respect, though. Looking into the FDI activities of German companies in Central and Eastern Europe, Buch and Kleinert (2006) find a positive correlation between firm size and the probability of FDI in Central and Eastern Europe. In contrast, corporate size is negatively correlated with the probability of FDI in Western Europe.

¹⁴ As a case in point, failure to comply with the Stability and Growth Pact (SGP) did not have any consequences for Germany and France but led instead to a softening of SGP provisions.

Chart 11

Development of Public Finances



Source: European Commission (AMECO database).

Moreover, the size of a country influences the share of final demand that can be served by domestic manufacturers. Larger countries tend to have lower import ratios, which is why changes in domestic demand drive value added up or down more strongly in such countries. According to the input-output tables for 2000 (Statistics Austria, 2004) one unit of private consumption (100%) in Austria triggered 0.27 units (27%) of imports. For government consumption this share lies at 11%. In Germany, the import share of households' consumption expenditure totaled 22% in 2002 (Federal Statistical Office Germany, 2006); no figures are available for Germany government consumption. In themselves, these differences do not explain the divergent growth rates in countries of different sizes; yet when demand shrinks – in a phase of fiscal consolidation like in the past decade in both Austria and Germany – the larger country will face (somewhat) stronger negative value added effects.

According to Casella (1996), smaller countries benefit more from a

widening of a common economic area, as they gain access to a larger market, whereas after the deepening of EU, the erstwhile home market advantage of larger countries weighs less heavily in their favor. Badinger and Breuss (2006) test Casella's hypothesis for European integration. Their findings are not conclusive, however. While access to a common market improves the competitiveness of smaller countries, other forces are at play that cause the larger countries to benefit more heavily from integration. These factors include the share of multinational corporations, which is typically larger in larger countries, as well as the stronger market power and related terms-of-trade effects. In industries with rising economies of scale, the higher absolute factor endowment and the broader product range of large countries adds to competitiveness.

Another mechanism that may have asymmetric effects is the stronger commitment to structural reforms that small EU countries have shown in the past (Mongelli and Vega, 2006).

6 Fiscal Policy

Germany's weak economic performance is often blamed on fiscal policy (e.g. Bibow, 2004; or Schulmeister, 2004). In the first half of the 1990s, economic developments were clearly influenced by unification (chart 11), which pushed up government expenditure and consequently increased the fiscal burden. Initial consolidation through spending restraint – given increasing debt and requirements for EMU accession – was undertaken from the mid-1990s onward. In Austria this consolidation phase started already in 1993. In both countries, spending cuts were accompanied by a rise of the fiscal burden.

To assess the impact of fiscal policy on the real economy, it is important to distinguish between the effects of government receipt and expenditure levels and their changes. Public spending as a share of GDP, for instance, is visibly higher in Austria than in Germany, whereas the general government deficit is much higher in Germany as a result of unification. These comparisons do not adequately reflect the cyclical impact of fiscal policy, though. A meaningful indicator of the impact of fiscal policy is the fiscal stance, which shows how the cyclically adjusted primary bal-

ance (i.e. the general government surplus or deficit excluding interest payments for government debt) changed over the previous year. In other words, the fiscal stance reflects the thrust of discretionary spending decisions. A positive figure indicates a tightening of fiscal policy while a negative figure implies a more accommodative policy relative to the preceding year. The relationship between the fiscal stance and the output gap¹⁵ signals whether fiscal policy has tended to have a procyclical or an anticyclical effect.

Chart 12 shows that Germany pursued a policy of consolidating the budget through a series of small steps while providing little fiscal stimulation.¹⁶ The big exception was the tax reform of 2000 that entered into force in 2001.¹⁷ Yet households must have put much of the additional income into savings – the saving ratio has been increasing since 2000 (chart 3). As a result of spending cuts, Germany's fiscal policy again turned restrictive in 2003. The fiscal burden has stagnated since 2003. From 2002 up to 2005 Germany exceeded a deficit ratio of 3%, thus failing to comply with SGP provisions, before managing to push the deficit below 3% again in 2006.¹⁸

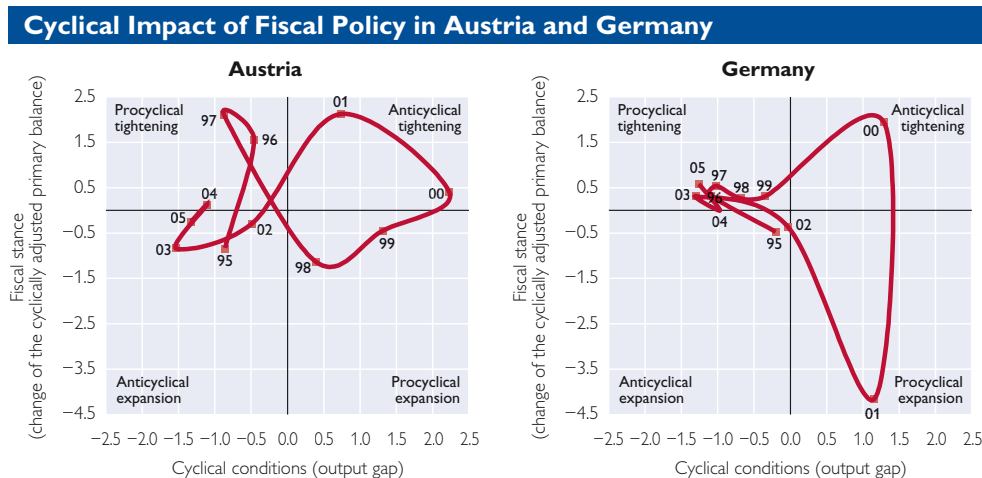
¹⁵ The output gap is defined as the difference between actual and potential output.

¹⁶ The budget surplus of 2000 is fully attributable to the sale of UMTS licenses.

¹⁷ The reform of 2000 decreased the tax burden of both companies and households, which benefited from a gradual reduction of personal income tax rates. Tax revenues sank by DEM 28 billion in 2001 compared with the previous year as a result of the personal income tax reform, and by DEM 17 billion as a result of corporate income tax reform. On balance, the tax burden was thus lowered by DEM 45 billion or 1.1% of GDP (Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute, 2001). Between 2000 and 2004, the fiscal burden dropped from 43.1% to 40.1% (AMECO database). The strongest decline occurred in 2001 with –1.9 percentage points.

¹⁸ The excessive deficit procedure initiated against Germany (and France) was suspended by the European Commission. Instead, the SGP was reformed in 2005. The revised SGP contains more flexible deficit and debt rules. Thus, it takes greater account of current economic developments and country-specific factors, and countries subject to excessive deficit procedures are given longer deadlines to remedy the situation.

Chart 12



Source: European Commission (AMECO database), OeNB calculations.

In Austria, the fiscal stance varied more strongly. In the first two years following EU accession, public households were consolidated. In 1998 and 1999, fiscal policy had an expansionary effect, while 2000 and 2001 were characterized by consolidation efforts to reach a balanced budget. From 2002 the government implemented another series of accommodative measures.¹⁹ The OeNB estimates the measures taken since 2002 to have contributed around ¼% of GDP a year to output growth in Austria.

To sum it up, fiscal policies were restrictive in the 1990s in both Austria and Germany, which is why they do not provide meaningful explanations for the divergent growth paths.²⁰ Germany's tax reform of 2000 pushed up the budget deficit but was unable

to prevent a growth slowdown. Austria's fiscal policy has been on a slightly expansionary course since 2002, while Germany's fiscal policy continues to be marked by fiscal consolidation efforts.

7 Labor Markets – Institutional Aspects

Labor market developments have been considerably less favorable in Germany since the early 1990s than in Austria (charts 13 and 14): While employment has stagnated or slightly dropped in Germany since 1991, it has risen in Austria. Taking into account the rising share of part-time employment, full-time equivalent employment has even declined substantially in Germany. Besides a higher level of general unemploy-

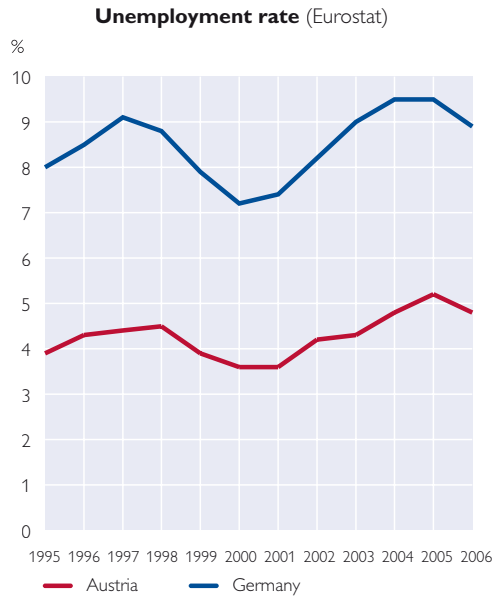
¹⁹ The economic stimulus packages of December 2001 and September 2002 basically provided EUR 4.2 billion for spending on infrastructure and tax measures from 2002 to 2006, which corresponds to 0.3% of nominal GDP per year. The growth and location package of 2003 mainly consisted of structural measures, influencing above all the long-term growth potential rather than economic activity in the short run. The two stages of the tax reform (2004 and 2005) reduced the net tax burden for households and businesses by a total of 0.6% of GDP from 2004 to 2007. In 2005, finally, the government endorsed a reform dialogue for growth and employment, a regional employment and growth campaign for 2005 and 2006 as well as a qualification campaign and the introduction of a wage top-up model.

²⁰ This finding refers only to changes of the cyclically adjusted primary balance. The transfer payments to eastern Germany naturally also have an effect on the structure of public spending, with government investment expenditure having gone down especially strongly.

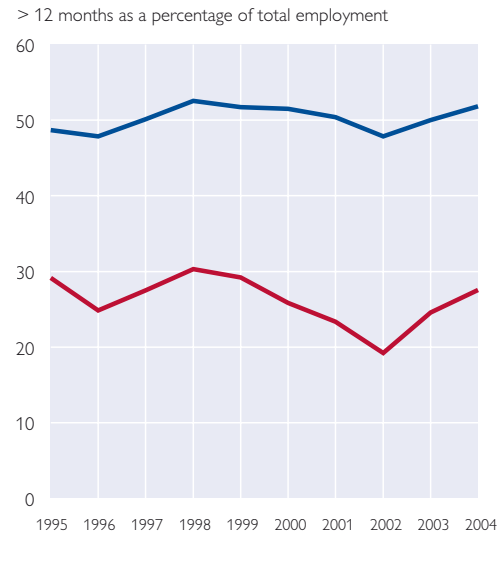
Chart 13

Higher Overall Level of Unemployment and Higher Share of Long-Term

Unemployment in Germany



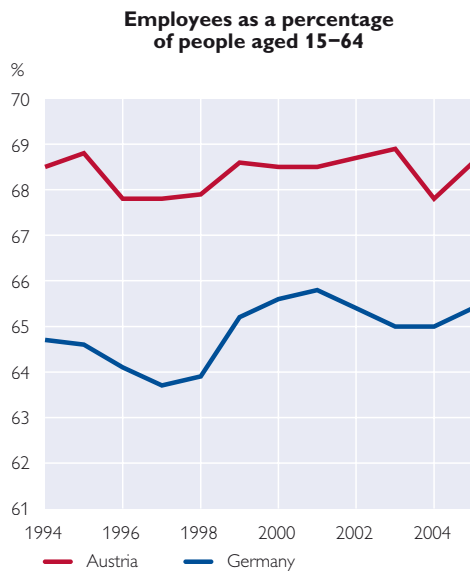
Long-term unemployment



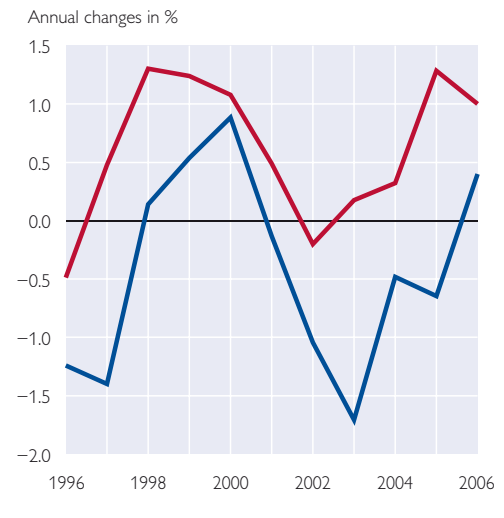
Source: European Commission (AMECO database).

Chart 14

Higher Employment Rate and Higher Employment Growth in Austria



Employment growth (in full-time equivalents)



Source: Eurostat (participation rate); AMECO database (job growth).

ment, Germany also reports markedly higher shares of long-term unemployment and of low-skilled jobless persons.

Apart from macroeconomic effects and the specific situation in the

eastern German Laender, the diverging labor market performance may also be explained by differences in the structure of the labor markets and in the efficiency of labor market institutions. Dismissal protection is stron-

ger in Germany than in Austria, severely limiting the conditions under which workers with a regular contract may be dismissed from companies beyond a given size (e.g. Bonin, 2004). In Austria, the new severance pay regime introduced for staff recruited since 2003 has increased flexibility for employers and employees.

According to Wahl and Schulte (2005) active labor market policies work more effectively in Austria, too, thanks to a more favorable job seeker/case manager ratio, better-skilled job placement staff and a higher success rate in securing employment in applicants' fields of training.

Box 2

Labor Market Reforms in Germany: Hartz I-IV

Germany's prereform labor market policies were conceived in times of robust economic activity and geared to the economic framework conditions prevailing at the time: full employment, standard job contracts (for men), single-income families, etc. The design of the unemployment entitlement period and the amount of unemployment benefits were targeted at preserving the social status of the insured rather than setting incentives for rapid labor force reentry. Sesselmeier et al. (2006) characterize Germany's former labor market policies as a "policy of exclusion." However, in response to the bleaker economic conditions, supply-side-oriented reform measures have been implemented since 2003 in a series of so-called "Hartz laws" named after the head of the labor market reform commission.

One core element of the Hartz reform is the move to blend the previous unemployment assistance with welfare benefits into "unemployment benefits II," which replace unemployment benefits I after 12 months (18 months for older workers). Unemployment benefits II are means-tested rather than based on the previous salary level and subject to stricter suitability criteria; in addition, a number of measures were implemented in the realm of active labor market policies. These measures include the restructuring of placement through the launch of "Personal-Service-Agenturen" (personnel services agencies), subsidies for one-person start-ups ("Ich-AG"), subsidies for the integration of disadvantaged groups into the labor market and salary protection for older workers, employee leasing as well as the promotion of low-paying "mini" and "midi" jobs (Caliendo and Steiner, 2006).

The Hartz laws also provide for an evaluation of the measures implemented, to be undertaken by 20 different research institutions, which ensures a comprehensive assessment. Subsidies for start-ups and for the integration of older workers or the creation of mini jobs tend to improve employment opportunities. Reservation wages were lowered through the cuts of transfer benefits for jobless workers. At the same time other instruments, such as the launch of personnel service agencies or job creation schemes, delay sustained integration into the labor market (Kaltenborn et al., 2006).

The process of wage formation reflects a number of similarities in both countries. Both countries have dual systems in place, in which the wage rate is negotiated both at the industry level and at the company level. Wage settlements in Germany are based on collective wage settlements for individual industries, largely concluded at

regional levels. Recently, more and more collective wage agreements contain opening clauses, which allow employers to pay less under certain conditions. In Austria, wage bargaining rounds are coordinated informally; the degree of formal coordination is low (Pollan, 2004a). At the same time, the trade union density ratio

and the coverage of collective bargaining are markedly higher in Austria than in Germany (OECD, 2004). In both countries, the metal engineering industry traditionally sets the tone for wage negotiations in other industries.

The wage formation process as such differs in two major aspects between the two countries. First, this process is oriented more strongly on macroeconomic conditions in Austria than in Germany, a fact that may be attributed to the established role of the social partners and Austria's smaller size.²¹ Second, wage differentiation is much higher in Austria than in Germany (OECD, 2004). This points to a more productivity-oriented wage policy in Austria, but might also be explained by Austria's sectoral structure. On the one hand, tourism plays an important role as a low-wage industry; on the other hand, the wage level of the formerly quasi-public energy utilities is disproportionately high. In Germany, the low degree of wage differentiation is a problem above all in the eastern Laender.

Thus, the comparison of the institutional characteristics of the two labor markets shows that the Austrian labor market is somewhat more flexible on balance. Yet the empirical relationship between these factors and the growth performance of a country is not obvious, and it is hard to produce meaningful empirical evidence.

The empirical literature is divided as to whether different dismissal protection provisions affect the employment level at all (Bonin, 2004). What is obvious is that stronger dismissal protection widens the gap between employed and job-seeking persons, and increases the length of unemployment spells. While a more efficient job placement system should provide for better matching and a better overall labor market performance, we are not aware of any empirical studies on ensuing potential growth differentials between Germany and Austria, or studies on growth differentials resulting solely from differences in the national wage formation process.²²

8 Wage Level, Competitiveness and Consumption

As the major income factor of households and a major cost factor for businesses, the wage level is a key indicator in every economy. In external trade, the wage level relative to other countries is a key indicator of international competitiveness. In the domestic economy, a high wage level influences consumer demand positively, while it negatively affects profit performance and thus investment activity in an economy.

8.1 Sinking Relative Unit Labor Costs Boost Competitiveness

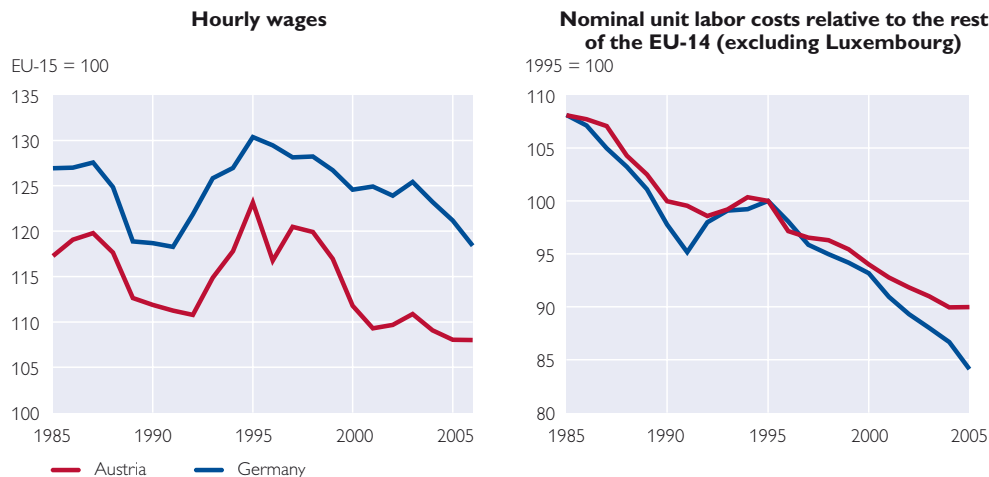
The economic success of the past decades warranted high wage increases and thus secured a high welfare level

²¹ To add some anecdotal evidence, Austria's social partners start their debate on the basis of a common economic outlook (WIFO's economic outlook), whereas perspectives are far more heterogeneous in Germany. Wahl and Schulte (2005) also stress the advantages Austria and Switzerland have as small countries, in which political structures work more smoothly than in Germany.

²² Regarding the general debate on wage negotiation processes and labor market performance, a comprehensive strand of literature – starting with Calmfors and Driffill (1988) – has evolved. For a more recent overview see OECD (2004) and Pollan (2004b). An empirical comparison of growth effects of the wage bargaining systems of Austria and Germany is also exacerbated by the fact that the literature is divided even as to whether wage bargaining is highly centralized or coordinated in Austria (Pollan, 2004b).

Chart 15

Development of Price Competitiveness in Germany and Austria



Source: European Commission (AMECO database), Groningen Growth Accounting Data Base, OeNB calculations.

in Germany and Austria. In 1995, average hourly wages exceeded the EU average by 30% in Germany and by 23% in Austria. Pressure on Germany's competitiveness was further exacerbated by the appreciation of the Deutsche mark in the first half of the 1990s. Through persistent wage moderation, both countries managed to lower hourly wages and unit labor costs over time, thus aligning them more closely with the EU average (chart 15). In 2006, the hourly wage rate in Germany equaled EUR 29.0 (Austria: 26.4 EUR). This implies that the wage differential of Germany and Austria over the EU-15 average narrowed to 18% and 8%, respectively. This development contributed substantially to raising price competi-

tiveness.²³ Relative to the rest of the EU-14, total unit labor costs dropped even more sharply in Germany than in Austria (chart 15).²⁴ Unit labor costs²⁵ are substantially influenced, apart from the wage level, by labor productivity per hour, which is markedly higher in Germany with its fewer annual hours worked than in Austria.

8.2 Consumption Demand in Germany Sinks Following a Decline in Employment against the Backdrop of Rising Real Wages

The wage level is of crucial importance for domestic demand. In line with shrinking full-time equivalent employment, Germany's wage share has fallen since 2002. This decline

²³ More and more companies use alternative ways to cut wage costs, for instance by cutting down on regular contracts or by increasing hours worked without increasing wages (Breuss, 2006b).

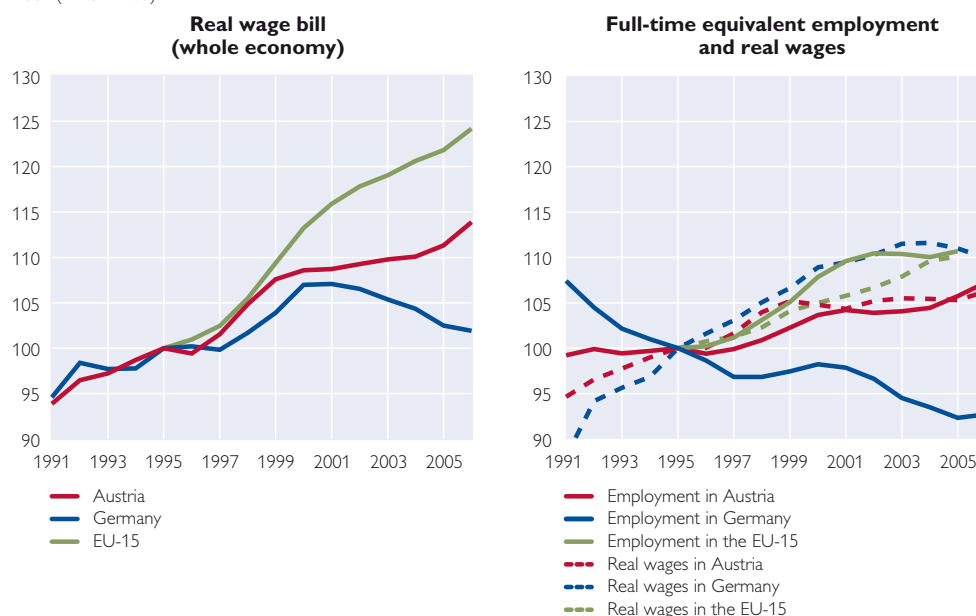
²⁴ In a direct comparison with Germany, Austria was able to cut unit labor costs by 0.3% per year from 1995 to 2000; from 2000 to 2005, however, unit labor costs rose faster than in Germany by 0.2% on average (Guger, 2006).

²⁵ Sinn (2005) criticizes the argument that low unit labor costs would confirm that the German economy is competitive internationally as a whole despite high wages, as the calculation of unit labor costs (defined as the ratio of wage rate and average labor productivity) is based only on existing jobs, not taking into account, by definition, jobs with low productivity that do not materialize in the first place as a result of high wages. Consequently, labor productivity is biased upward in a country with high unemployment, such as Germany; while unit labor costs are biased downward.

Declining Employment despite Rising Real Wages Reduces

German Wage Bill

Index (1995 = 100)



Source: European Commission (AMECO database), OeNB calculations.

reflects, above all, an increase in part-time employment, which rose from 20.3% to 24% from 2001 to 2005 alone, and to a lesser extent the drop in the number of employees. At the same time, *real wages per employee (in full-time equivalents)* grew faster in Germany than in the EU-15.²⁶ Austria reported an increase in full-time equivalent employment and a markedly smaller rise in real wages than Germany.

The relatively higher increase in real wages in Germany cannot be explained by higher wage settlements – on the contrary, nominal wage settlements were lower in Germany than in Austria. In contrast, real agreed wages developed along fairly similar

lines, purely on account of inflation differentials between the two countries. This leaves only remuneration in excess of collectively agreed wages and higher flexible wage components (such as overtime or bonuses) or structural effects resulting from job cuts in the low-wage segment as explanations for the differences between average wages. A rise of flexible wage components appears improbable, especially in times of an economic slowdown. Therefore, the reduction of wage income, which is responsible for the marked drop in consumer demand in Germany from 2002 onward, reflects the development of employment rather than the development of wages.

²⁶ This is no contradiction to chart 14, which shows a decline in relative nominal hourly wages for Germany and Austria relative to the EU-15, as inflation has been markedly lower in both countries than in the EU-15 since 1995. From 1995 to 2005, the deflator of private consumption rose by 12% in Germany, by 16% in Austria and by 26% in the EU-15.

The arguments put forth so far have been based on gross wages. For an analysis of net wage developments, it is important to take into account the tax wedge. The tax wedge²⁷ in Austria increased from 40.1% in 2000 to 41.1% in 2006, while in Germany it decreased from 46.0% to 44.8%. On average, the EU-15 recorded a decline from 37.8% to 36.4%. Consequently, the rise of real net wages relative to gross wages was weaker in Austria.

9 Austria and Germany in International Tax Competition

From a corporate perspective, the national tax regime, above all corporate taxation, plays a crucial role in

the international *competition of locations*. While it is in the interest of companies to have a low tax burden, governments face the trade-off of creating incentives for businesses to locate in a given area (or to decide not to relocate) and cushioning the budgetary burden of forgoing tax revenues. While corporate profits are subject just to corporate taxation in Austria, they are also subject to a local business income tax and a solidarity surcharge in Germany. For a direct comparison of the tax burden based on different tax rates see box 3.

The *nominal* average tax rate on corporate profits is visibly higher in Germany than in Austria, even though this rate has declined at a consider-

Box 3

Nominal, Effective and Implicit Tax Rates

Comparing the nominal tax rates of two countries is fairly straightforward. However, these rates simply reflect the legislative design of the tax rates without giving any insights into the level of taxable income or the actual tax burden.

Effective tax rates are fictitious tax rates established *ex ante* for “typical” tax cases. They specifically refer to the prevailing tax regime (including key characteristics of the tax regime), but they do not relate to actual tax payments. The data on effective tax rates used in this paper are based on Devereux et al. (2002) and were compiled by the Institute for Fiscal Studies in London (IFS). The effective average corporate tax rate established by the IFS is deemed to be a good available indicator for international location decisions (Breuss and Schratzenstaller, 2004). For an exact definition see Devereux and Griffith (2003).

Implicit tax rates are indicators established *ex post* with a view to measuring the tax burden. They are calculated as the ratio of total tax revenues to the respective tax base.¹ For Germany, no data on corporate tax revenues alone are available. For a country comparison, we therefore use implicit tax rates on all corporate and capital profits. The implicit tax rates used to this effect were taken from the latest tax report of the European Commission (2006).

¹ Taxes paid are also referred to as backward-looking tax rates on actual tax liabilities (Breuss and Schratzenstaller, 2004).

²⁷ The tax wedge is defined as difference in percent between the employers’ wage costs and net wages. The figures indicated here are unweighted averages of the eight income levels and family types published by the OECD.

Convergence in Corporate Tax Competition



Source: IFS, European Commission (2006).

ably faster rate in Germany since 1990. Germany's tax reform of 2000, implemented in 2001, cut the corporate income tax rate to 25%. In Austria, the corporate income tax rate was also cut to 25%, from 34%, during the second stage of the tax reform of 2004 to 2005. At the same time, Austria introduced group taxation with the possibility of an intragroup loss transfer. Therefore, since 2005, differences in the nominal corporate tax rate between the two countries have been due to different local business income taxes only. The nominal average tax rate in Austria is thus slightly below the rate of the EU-13 (= EU-15 excluding Luxembourg and Denmark), while that of Germany continues to visibly exceed this average, despite a marked reduction in 2001 (chart 17).

The *effective* average tax rate on corporate profits also declined markedly in both countries from 1990 to

2005, namely from 42% to 32% in Germany, and from 25% to 22% in Austria. In Austria, the cut of the corporate income tax rate in 2005 coincided with a broadening of the tax base, so that the effective burden of corporate taxation dropped by just 2 percentage points to 22%. From a long-term perspective Austria's effective tax rate broadly matches the EU-13 average; both have been declining somewhat in parallel. Germany's effective tax rate has dropped more sharply, but continues to exceed the Austrian level considerably.

A comparison of *implicit* average tax rates shows, however, that the actual tax burden is higher in Austria.²⁸ The European Commission (2007) pinpoints the lower corporate tax revenues in Germany despite high nominal rates to the narrow definition of the tax base and the transfer of corporate profits abroad.²⁹ Jarass (2005) lists other reasons, namely,

²⁸ The peak in 2001 for Austria reflects high prepayments of corporate income tax when Austria started to levy interest on unpaid tax liabilities.

²⁹ Büttner et al. (2006) describe this effect (rising tax revenues despite falling tax rates) as the "higher tax efficiency" of the Austrian tax regime.

apart from tax rate cuts, the tax exemption of the sale of assets and ensuing profits as well as the wide range of possibilities to retain profits before tax as hidden reserves or to transfer them into other EU countries.

A comparison of the nominal, effective and implicit tax rates thus does not yield conclusive evidence of a possible locational advantage for Austria. It is also debatable in how far the advantage or disadvantage (which differs in size depending on the underlying tax rate) actually translates into a significant number of businesses locating in Austria or making direct investments in Austria. Breuss and Schratzenstaller (2004) estimate that the cut of corporate income tax in 2005 may increase the volume of gross fixed capital formation by between 2% and 12%. As Germany's nominal corporate income tax rate will drop from 38% to 29% in 2008,³⁰ Austria stands to lose some of its advantages relative to Germany in the future.

10 Summary and Outlook

A considerable share of the growth differential between Austria and Germany may be attributed to one-off historical events with major consequences. First, *Germany's unification* dampened overall growth in Germany because the catching-up process in the eastern part of the country stalled in the second half of the 1990s, western Germany was burdened by transfer payments, and building activity slumped across Germany following the rush of building after the unification boom. Second, Austria benefited from the *milestones of European integration* in the 1990s to a

larger extent than Germany. Third, given the small size of Austria and the predominance of small businesses, Austria was better placed to meet the challenges of globalization. The establishment of the Single Market, Austria's accession to the EU, entry into the third stage of EMU as well as EU enlargement contributed to substantially improving Austria's economic situation. Conversely, Germany lost part of its home market advantage as a result of EU enlargement. Fourth, Germany was harder hit than Austria by the global recession at the start of the new millennium, as domestic demand slumped at the same time. Fifth, Germany's wage bill has even declined since 2002, as full-time equivalent employment dropped markedly.

The effects of the other policy areas on the growth differential have been limited in contrast. As a result of the *convergence of interest rates* in the euro area triggered by EMU, Germany (like Austria) lost its relative real interest advantage and became one of the countries with the highest real interest rates in the euro area, but it also benefited from the sinking nominal interest rate level. Likewise, differences in *fiscal policy* explain the growth differential only to a very limited degree. Fiscal policies were broadly restrictive in both Austria and Germany in the 1990s. Germany's tax reform of 2000, while providing considerable tax relief, had hardly any influence on the real economy. Austria's fiscal policy has been on an expansionary path since 2002. Sinking relative *unit labor costs* from 1995 improved the international

³⁰ Furthermore, the tax base will be broadened, and it will become more difficult to transfer profits abroad. This move partly offsets the loss in revenues triggered by the cuts in the tax rate. Yet the European Commission (2007) expects the implicit tax rate to decline as a result of the reform.

competitiveness of both countries. While it can be argued that the Austrian *labor market* works better (weaker dismissal protection, better coordination and higher productivity orientation of the wage-setting process, more efficient labor market institutions), there is a lack of evidence that these differences might explain the growth differential. The same holds true for differences in *corporate taxation*. Moreover, the effects of German labor market reform would be expected to materialize to the full extent only after a certain lag.

In other words, Austria's current positive growth differential basically reflects a number of asymmetrically working one-off shocks. These shocks

trigger one-off base effects rather than pushing up potential growth. Once these effects have vanished, the growth advantage is likely to disappear as well.

Austria's economic policymakers would thus be well advised to acknowledge the need for reform created by upcoming challenges (such as population aging, globalization, sinking productivity growth) and not to loosen the reins of reform simply because Austria is currently faring better than Germany. Much rather, given the long lag of economic policy measures, policymakers would be well advised to take swift and consistent action to secure Austrians' welfare in the long run.

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