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Stability and Security.

# MONETARY POLICY & THE ECONOMY

Quarterly Review of Economic Policy

10 Years of Austrian EU Membership



EUROSYSTEM

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Opinions expressed by the authors of studies do not necessarily reflect the official viewpoint of the OeNB.

Austria's accession to the European Union (EU) on January 1, 1995, was motivated by numerous guiding purposes. In the light of Austria's strong international ties, economic arguments – especially integration into the Single Market and unrestricted access to European markets – played an important (maybe even dominant<sup>1</sup>) role. After ten years of EU membership, it is now time to assess the impact of Austria's EU entry and to possibly draw conclusions for the future. This special issue of “Monetary Policy & the Economy” begins with an overview of the implications of EU accession for the Oesterreichische Nationalbank (OeNB) as an institution and then analyzes topics that may be grouped in three thematic categories: first, changes at the macroeconomic level (monetary policy regime, inflation, growth, fiscal policy); second, repercussions on the Austrian financial markets (financial structure, internationalization, financial stability); and third, effects on the structure of the Austrian economy (labor market, foreign trade, liberalization effects in network industries).

The OeNB has always actively supported Austria's integration into the EU. In preparing and implementing Stage Three of Economic and Monetary Union (EMU) and by introducing the euro, the OeNB assumed responsibility for a central pillar of the EU's economic policy agenda in Austria. The euro has, indeed, changed the OeNB's role among Austria's economic and monetary policy-making institutions. The hard currency policy agreed upon by the OeNB, the Austrian federal government and the social partners was given up in favor of the monetary policy of the Eurosystem, which now defines the framework for Austria's economic policymaking. At the same time, the OeNB's tasks, and methods of accomplishing them, have been transformed fundamentally since Austria joined the EU and the OeNB became an integral part of the European System of Central Banks (ESCB). In a way, the situation at the OeNB can be regarded as a microcosm reflecting the sweeping changes triggered by EU accession, which will continue to make themselves felt for quite a while in Austria's economic policymaking institutions in general.<sup>2</sup> The trend toward benchmarking economic policy-making institutions across EU Member States also enhances the quality, consistency and transparency of economic policy decisions in Austria.

The euro has proved as stable as the Austrian schilling and, moreover, offers a number of advantages on account of its more widespread use. Austria's first ten years of EU membership were an era of price stability, with average annual HICP inflation coming to 1.5%. Prices – in particular for agricultural products and tradable goods as well as in the network industries, which saw far-reaching liberalization across the EU – developed at a modest pace after 1995. The euro cash changeover hardly affected the general price level. In fact, the euro has had a more stabilizing effect on Austria's external environment for prices than the hard currency policy ever had. At the same time, this implies that in EMU wage and price moderation is of key importance for preserving Austria's competitiveness.

Since the late 1980s, Austria's economic policy has experienced a fundamental reorientation. The greater openness of the Austrian economy – with the full liberalization of capital transactions in 1991 a case in point – and the pronounced growth of public debt considerably reduced the scope for autonomous economic policymaking at the national level. In this situation, EU accession was a catalyst for forthcoming structural reforms.

Major efforts to consolidate public finances were taken in 1996 and 1997 with a view to fulfilling the Maastricht convergence criteria to qualify for participation in Stage Three of EMU. Prompted by the provisions of the Stability and Growth Pact and the EU-wide debate on the quality of public finances, the objectives of balancing the general government budget, reducing the govern-

<sup>1</sup> See Pelinka, A. 2002. *Innensicht. Rollenbild und Rollenwahrnehmung Österreichs als Akteur in der EU*. In: Neisser, H. and S. Puntcher-Riekmann (eds.). *Europäisierung der österreichischen Politik. Konsequenzen der EU-Mitgliedschaft*. Vienna.

<sup>2</sup> See Kramer, H. 2002. *Österreichs Wirtschaftspolitik im Rahmen der EU*. In: Neisser, H. and S. Puntcher-Riekmann (eds.). *Europäisierung der österreichischen Politik. Konsequenzen der EU-Mitgliedschaft*. Vienna.

ment spending ratio and creating a public expenditure and revenue structure that promotes growth in the long run have become guideposts for fiscal policy since the turn of the millennium.

To be able to react swiftly to changes in international competition and to smoothly absorb shocks, economic structures within the Single Market and EMU have to be highly flexible. The EU undertook to intensify competition by opening up economic sectors that used to be protected by national regulations on competition. The liberalization of network industries is one example of how the EU acts as a catalyst for reforms that entail cost reductions in other areas of the economy and thus dampen inflation. EU accession and participation in EMU also helped further strengthen economic ties between Austria and the other EU Member States.

As a consequence of increasing internationalization, the Austrian labor market had been going through a process of change even before Austria joined the EU. EU accession then opened up the domestic labor market for all EU citizens. Structural challenges that have existed for quite some time – such as the unrealized potential of raising the labor participation of older persons and women – will need to be tackled when implementing the Lisbon strategy.

EU membership has accelerated the liberalization of the Austrian financial market and substantially expanded the financing options for Austrian businesses. Austrian banks have reacted to the challenges of EU integration by stepping up mergers and acquisitions, focusing on cost savings and playing a proactive role in internationalization, in particular training their sights on Central, Eastern and Southeastern Europe. Austria's international financial integration has increased strongly over the last decade. Greater efficiency in capital allocation and broader risk diversification have strengthened the stability of the Austrian financial system. Financial stability is also enhanced by close cooperation at the European level in the regulation and supervision of financial institutions, in which the OeNB is actively involved.

All in all, EU membership has had a positive effect on the Austrian economy. Aside from the direct integration effects of the Single Market and EMU, it has triggered a reform process in Austrian economic policy. Furthermore, Austria saw the benefits of EU membership increase following EU enlargement. Austrian decision-making bodies and the general public came to realize after some years that they can profit more from EU membership by playing a proactive role in shaping the European integration process in all its different aspects. However, there is still ample scope for extending the potential of EU integration both for Austria and for the EU as a whole. To this effect, it is necessary to readily embrace the dynamic economic development in an ever deepening Single Market as well as in a globalized environment. As an EU member in the heart of Europe, Austria is in an excellent position to continue to raise its level of wealth over the next ten years, provided that it is able and willing to make use of the wide range of new opportunities in this environment.

Klaus Liebscher, Josef Christl, Peter Mooslechner, Ernest Gnan



# ANALYSES

# Temporary Slowdown of Economic Activity in Austria Expected to Be Overcome Fast, but Downside Risks Increased

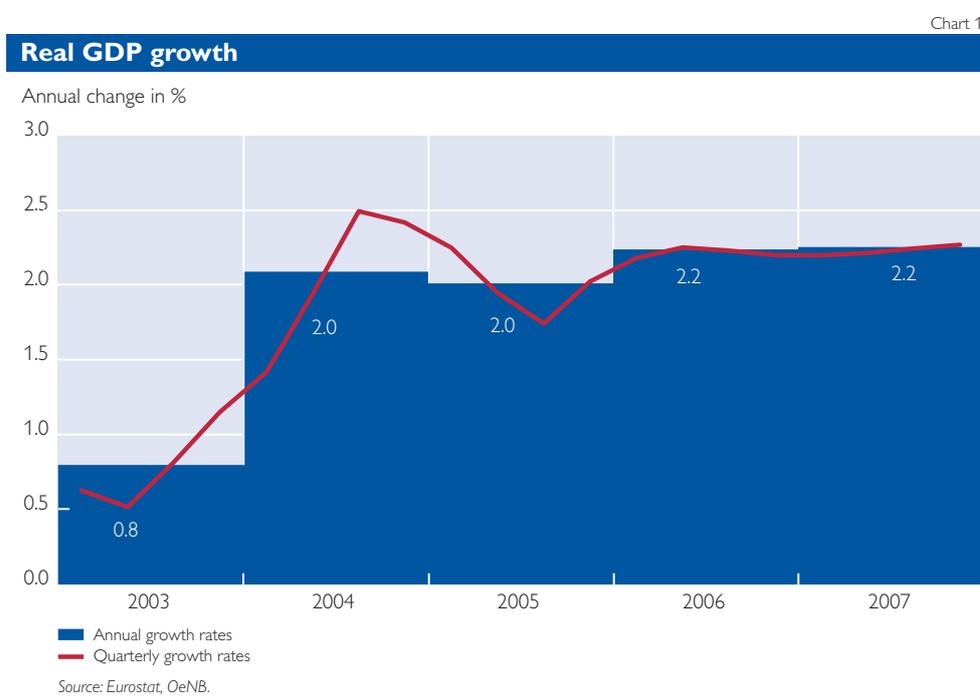
Economic Outlook for Austria from 2005 to 2007 (June 2005)

Gerhard Fenz,  
Johann Scharler

## 1 Summary

According to the June 2005 economic outlook of the Oesterreichische Nationalbank (OeNB), Austria's real gross domestic product (GDP) is projected to grow 2.0% in 2005 and to advance to 2.2% both in 2006 and 2007. Fueled by the oil price surge, inflation as measured by the Harmonised Index of Consumer Prices (HICP) will rise to 2.3%

in 2005 before dropping noticeably below the 2 percent mark in subsequent years. The second stage of the tax reform will result in the budget deficit (Maastricht definition) declining temporarily to 1.8% and 1.7% of GDP in 2005 and 2006, respectively. In 2007, the budget balance will improve to -1.3% of GDP.



In line with the development of the euro area economy, economic growth in Austria slowed down considerably toward the end of 2004 owing to the steep rise in oil prices and the appreciation of the euro. The OeNB expects economic activity in Austria and the euro area to cool only temporarily and predicts growth to pick up again notably already in mid-2005.

Global economic growth has stabilized at a high level after peaking in 2004. Therefore, exports will continue to be the major engine driving Austria's

economy in the upcoming years. The dampening effects on price competitiveness induced by the appreciation of the euro will slowly subside in 2005. At about 7%, Austria's export growth will more or less equal demand on export markets in subsequent years. The current account surplus is expected to rise to about 1% of GDP until 2007.

Private households are facing real wage losses amid high inflation and modest wage settlements. Against this background, the second stage of the

tax reform – which amounts to a net relief of about EUR 1 billion – provides an important growth stimulus. However, the expansionary effects of the tax reform are not likely to take full effect before the second half of 2005: given increased unemployment rates, consumer confidence was still low at the beginning of the year. Hence, the OeNB expects households to invest somewhat more than half of the net relief in saving schemes in 2005.

In the first half of 2005, investment growth is expected to lose considerable momentum on the back of declining capacity utilization, significant scaling back of corporate investment plans and the phasing out of a special investment subsidy in Austria at the end of 2004, which prompted companies to frontload investment. In 2006, investment growth is expected to recover again owing to favorable financing conditions, a rebound in corporate profits and continued dynamic export growth.

The same factors that temporarily dampened private consumption and investment prevented the vigorous export activity from feeding through to domestic demand as strongly as in previous economic cycles. Thus, economic conditions in Austria are predicted to improve only marginally: after overcoming the current downturn, economic growth is expected to expand merely insignificantly above potential growth.

Employment growth is likely to be high over the entire forecast horizon. However, the unemployment rate will fall only slightly given the sharp increase in labor supply resulting from the pension reforms and the strong influx of foreign labor into Austria.

Against the background of significantly increased oil prices and housing costs, HICP inflation will accelerate to 2.3% in 2005. The inflationary pres-

ures triggered by the oil price surge are expected to subside slowly in 2006 and 2007; the rate of inflation is pegged to drop below 2%. The current inflation forecast does not anticipate substantial second-round effects in the form of higher wage settlements and confirms the continued absence of any signs of demand-pull inflation. The output gap will remain negative over the entire forecast horizon.

Typical of cyclical turning points, there is still major uncertainty about when and to what extent domestic demand will recover. In such phases of the business cycle the economy is also more susceptible to external shocks such as higher oil prices over a protracted period of time, a further appreciation of the euro as well as a rise in long-term interest rates. Thus, the risks predicted in this forecast mostly point downward.

## 2 Technical Assumptions

The OeNB compiled this forecast as its input for the Eurosystem's June 2005 staff projections for macroeconomic trends in the euro area. The forecast horizon ranges from the first quarter of 2005 to the fourth quarter of 2007. May 12, 2005, was the cutoff date for the underlying assumptions on global economic trends and for the technical assumptions on interest rates, exchange rates and crude oil prices. The OeNB used its macroeconomic quarterly model to prepare the projections for Austria.

The forecast is based on the assumption that the monetary policy framework will remain unchanged. It therefore presupposes constant levels of both short-term nominal interest rates and the nominal effective exchange rate of the euro over the entire forecast horizon. The underlying short-term interest rate (three-month

EURIBOR) is based on the two-week average prior to May 12, 2005 (2.13%).

Long-term interest rates, which are in tune with market expectations for ten-year government bonds, are set at 3.6% (2005), 3.8% (2006) and 4.1% (2007). A constant rate of USD/EUR 1.29 is assumed for future

USD/EUR exchange rate trends. In this forecast, oil prices are assumed to decline gradually from just below USD 52 per barrel (Brent) in the second quarter of 2005 to just over USD 48 per barrel (Brent) in the fourth quarter of 2007. This projection is based on futures prices.

Table 1

### OeNB June 2005 Outlook for Austria – Key Results

	2004	2005	2006	2007
<b>Economic activity</b>				
<i>Annual change in % (real)</i>				
Gross domestic product	+2.0	+2.0	+2.2	+2.2
Private consumption	+1.5	+1.7	+2.3	+2.2
Government consumption	+1.1	+0.5	+0.7	+1.0
Gross fixed capital formation	+4.8	+1.8	+2.5	+2.9
Exports of goods and services	+9.0	+4.9	+7.0	+6.7
Imports of goods and services	+5.7	+4.6	+7.3	+7.1
<i>% of nominal GDP</i>				
Current account balance	+0.3	+0.7	+0.9	+1.0
<b>Contribution to real GDP growth</b>				
<i>Percentage points of GDP</i>				
Private consumption	+0.8	+1.0	+1.3	+1.2
Government consumption	+0.2	+0.1	+0.1	+0.2
Gross fixed capital formation	+1.1	+0.4	+0.6	+0.7
Domestic demand (excl. changes in inventories)	+2.1	+1.5	+1.9	+2.0
Net exports	+1.8	+0.3	+0.2	+0.1
Changes in inventories (incl. statistical discrepancy)	-1.8	+0.1	+0.1	+0.0
<b>Prices</b>				
<i>Annual change in %</i>				
Harmonised Index of Consumer Prices (HICP)	+2.0	+2.3	+1.7	+1.6
Private consumption expenditure (PCE) deflator	+1.8	+2.4	+1.8	+1.7
GDP deflator	+1.9	+2.0	+1.8	+1.7
Unit labor costs in the total economy	+1.0	+1.2	+1.3	+1.3
Compensation per employee (at current prices)	+2.3	+2.4	+2.6	+2.6
Productivity (whole economy)	+1.2	+1.2	+1.2	+1.2
Compensation per employee	+0.4	+0.0	+0.7	+0.8
Import prices	+0.2	+1.2	+1.7	+1.6
Export prices	-0.1	+0.7	+1.6	+1.5
Terms of Trade	-0.3	-0.4	-0.1	+0.0
<b>Income and savings<sup>1)</sup></b>				
<i>Annual change in %</i>				
Real disposable household income	+1.7	+2.0	+2.0	+1.8
<i>% of nominal disposable household income</i>				
Saving ratio	9.3	9.7	9.6	9.4
<b>Labor market</b>				
<i>Annual change in %</i>				
Payroll employment	+0.8	+1.0	+1.1	+1.1
<i>%</i>				
Unemployment rate (Eurostat definition)	+4.5	+4.5	+4.4	+4.3
<i>% of nominal GDP</i>				
<b>Budget</b>				
Budget balance (Maastricht definition)	-1.2	-1.8	-1.7	-1.3
Government debt	64.2	63.5	62.9	61.9

Source: 2004: Eurostat, Statistics Austria; 2005 to 2007: OeNB June 2005 outlook.

<sup>1)</sup> 2004: OeNB estimate.

### 3 Global Economic Growth Already Past Its Peak

#### 3.1 Growth in World Economy Outside Euro Area Remains Dynamic Despite Slight Slowdown

Global economic growth is expected to slow down slightly in 2005 after showing great momentum in 2004. Nevertheless, the global economy will continue to post robust growth rates. While growth was primarily led by the U.S.A. and Asia (excluding Japan) in 2004, the contributions by the different regions to global economic growth are now expected to be distributed more evenly, as economic growth in the U.S.A. and in China is projected to slow down.

Owing to less expansionary monetary and fiscal policies, growth in the U.S.A. is expected to weaken over the forecast horizon, thus approaching potential growth. Investment and consumption expenditure were found to be robust in the second half of 2004, whereas net exports fell short of expectations in the fourth quarter of 2004. Private consumption is likely to decline as a result of both higher interest rates and the continuing necessity of raising the household saving rate to a level that is sustainable in the medium term. Investment will also slow down to some extent in the medium term. Given strong domestic demand and high corporate profits, however, investment growth is assumed to maintain its momentum in the short term.

The pace of Japan's economic growth slowed significantly in 2004, while picking up speed in the first quarter of 2005. There are signs of short-term uncertainty, but cyclical dynamics are still expected to gather considerable steam in the second half of 2005. Private consumption is currently in a phase of economic downturn due

to tight labor market conditions; however, the projected labor market developments and wage increases will stimulate consumer demand. Toward the end of the forecast horizon, investment demand is also expected to contribute substantially to growth thanks to high corporate profits, improved balance sheets and favorable financing conditions.

After decelerating slightly in the second half of 2004, growth in *Asia (excluding Japan)* has picked up again since the beginning of 2005. Current indicators suggest that the remarkably robust growth in China will continue at a slightly slower but – in the long run – sustainable pace. Domestic demand, above all, is estimated to be lively. While private consumption is supported by the favorable labor market situation, investment growth benefits from rising corporate profits.

The assessment of the *United Kingdom's* positive growth prospects remains largely unchanged compared with previous forecasts. In the short run, growth is likely to slow down to some extent as a result of the latest interest rate hikes; especially consumption growth is expected to be somewhat subdued. By contrast, investment is predicted to continue growing strongly. On the back of exchange rate developments, net exports will profit from increased competitiveness and are expected to surge in 2005.

*Switzerland* experienced a slight economic slowdown toward the end of 2004, and current economic indicators suggest that growth will accelerate only in the second half of 2005. Private consumption is assumed to provide strong growth stimuli as labor market conditions and consumer confidence have improved. In addition, net exports are also likely to make a positive contribution to growth as exports

will profit from the economic recovery in the euro area.

Economic conditions in the *new EU Member States* took a positive turn in the course of 2004. Driven mainly by investment and private consumption, growth is anticipated to remain strong over the entire forecast horizon.

### 3.2 Recovery in the Euro Area Continues after Temporary Slowdown

The pace of economic growth in the euro area slowed toward the end of 2004. There are, however, indications that this was only a temporary slump and that growth rates will approach potential growth again toward the end of 2005. Export growth is expected to accelerate as global demand gathers considerable momentum and the negative effects of the euro's appreciation are likely to subside in 2005. In addition, the effects of the

rise in oil prices will decline, which will result in domestic demand making a bigger contribution to growth again.

Investment growth is expected to be robust over the entire forecast horizon. In the medium term, it will be supported both by improved corporate balance sheets as well as favorable financing conditions and by strong export market growth. Gains in construction investment are expected to decelerate from 2006 onward, as the rise of real estate prices is anticipated to slow. In 2004, private consumption grew at a merely modest pace as a result of tight labor market conditions and the steep increase in energy prices. From 2005 onward, private consumption is likely to profit from an improved employment scenario and the associated increase in disposable income as well as from declining inflation. However, saving rates are expected to mount in a slightly more pronounced

Table 2

#### Underlying Global Economic Conditions

	2004	2005	2006	2007
<i>Annual change in % (real)</i>				
<b>Gross domestic product</b>				
World GDP growth outside the euro area	+5.7	+4.8	+4.6	+4.5
U.S.A.	+4.4	+3.4	+3.2	+3.1
Japan	+2.6	+1.6	+1.7	+1.7
Asia excluding Japan	+7.7	+6.9	+6.6	+6.7
Latin America	+4.9	+4.4	+4.1	+4.0
United Kingdom	+3.1	+2.7	+2.7	+2.7
New EU Member States	+4.6	+4.4	+4.7	+4.7
Switzerland	+1.7	+1.4	+1.9	+1.8
Euro area <sup>1)</sup>	+1.8	1.1–1.7	1.5–2.5	x
<b>World trade</b>				
Imports of goods and services World economy	+9.4	+7.3	+6.7	+6.6
Non-euro area countries	+10.8	+8.6	+7.0	+6.9
Real growth of euro-area export markets	+10.0	+8.3	+7.3	+6.9
Real growth of Austria's export markets	+7.7	+5.7	+6.9	+6.8
<b>Prices</b>				
Oil price (in USD/barrel of Brent)	38.3	50.6	50.7	49.0
Three-month interest rate in %	2.1	2.1	2.1	2.1
Long-term interest rate in %	4.1	3.6	3.8	4.1
USD/EUR exchange rate	1.24	1.29	1.29	1.29
Nominal effective exchange rate	104.18	105.60	105.13	105.13

Source: ESCB.

<sup>1)</sup> Results of Eurosystem's June 2005 projections. The ECB presents the results in ranges based upon average differences between actual outcomes and previous projections.

fashion than is usual because of the public debate about pension and health reforms in several countries.

Inflation is likely to remain just above 2% in 2005 and to edge back down over the remaining forecast horizon, as oil prices are expected to decline. On average, inflation in the euro area is forecast to increase only insignificantly thanks to modest wage growth and continued low capacity utilization levels.

Economic growth in *Germany*, Austria's main trading partner, has regained momentum in the first quarter of 2005, thus continuing the recovery that had ground to a halt in the second half of 2004. However, the unexpectedly strong GDP growth in the first quarter of 2005 is almost exclusively due to the fact that exports increased while imports declined. Furthermore, various economic indicators, e.g. the ifo business climate index, suggest that the economy will slow again in the short term. Thus, a sustainable recovery is likely to occur only in the second half of 2005. Economic growth in *Italy* slowed significantly in the fourth quarter of 2004, with net exports growing only slightly, which was ascribable to a deterioration of price competitiveness. Two other factors that contributed to this slowdown were the absence of growth stimuli from domestic demand and a strong – and possibly unintentional – buildup of inventories in the fourth quarter of 2004. Economic growth in *France* was characterized by relatively high real GDP growth compared with the euro area. Strong domestic demand was the main driving force behind this favorable development. By contrast, the French economy profited only to a limited degree from the dynamic growth in world trade; this is reflected in the negative

contribution of net exports to growth. As price competitiveness is anticipated to improve, however, external trade is expected to recover.

#### **4 Dynamic Foreign Demand Backs Austria's Economy**

World trade is expected to grow dynamically over the entire forecast horizon, thus also boosting foreign demand for Austrian goods and services. However, growth in Austria's export markets is not expected to peak before 2006, as the economic recovery in the euro area (and of Austria's key trading partner Germany, in particular) is lagging behind.

Austrian exporters will continue to lose market share in 2005 – a delayed effect of the euro appreciation and the associated deterioration in price competitiveness. This negative effect, which is partially offset by a – by international standards – favorable trend of unit labor costs, is expected to subside by the end of 2005, and no further loss in market share seems to be in store for 2006 and 2007. However, future export growth rates are not expected to be as high as in 2004. The OeNB projects real exports to grow 4.9% in 2005, a slowdown by almost 4 percentage points against 2004, followed by increases to 7.0% in 2006 and 6.7% in 2007.

With burgeoning domestic demand, import growth will also gather momentum, thus resulting in a positive (albeit relatively low) contribution of net exports to growth. The contribution of net exports to real GDP growth, which was deep in positive territory in 2004 (1.8 percentage points), will fall to +0.3 percentage point in 2005 and is expected to come to 0.2 and 0.1 percentage point in 2006 and 2007, respectively.

Table 3

<b>Growth and Price Developments, Austrian External Trade</b>				
	2004	2005	2006	2007
<i>Annual change in %</i>				
<b>Exports</b>				
Competitors' prices in Austria's export markets	-0.5	+1.5	+2.0	+1.5
Export deflator	-0.1	+0.7	+1.6	+1.5
Changes in price competitiveness	-0.4	+0.7	+0.4	+0.0
Import demand in Austria's export markets (real)	+7.7	+5.7	+6.9	+6.8
Austrian exports of goods and services (real)	+9.0	+4.9	+7.0	+6.7
Market share	+1.2	-0.8	+0.1	-0.1
<b>Imports</b>				
International competitors' prices in the Austrian market	+0.6	+1.9	+1.8	+1.5
Import deflator	+0.2	+1.2	+1.7	+1.6
Austrian imports of goods and services (real)	+5.7	+4.6	+7.3	+7.1
<b>Terms of Trade</b>	-0.3	-0.4	-0.1	+0.0
<i>Percentage points</i>				
<b>Contribution of net exports to GDP growth</b>	+1.8	+0.3	+0.2	+0.1

Source: 2004: Eurostat; 2005 to 2007: OeNB June 2005 outlook, Eurosystem.

The merchandise trade balance is expected to continue posting a surplus over the forecast horizon, thus sustaining its visible improvement that began already in 1998. The services surplus has remained relatively stable in recent years, and this trend is basically expected to continue over the forecast horizon. Owing to the positive trends in the tourism sector, the services surplus will be even somewhat higher in 2005. The pattern of the trade balance's regional breakdown (i.e. a negative balance with euro area countries and a large surplus with non-euro area countries) is expected to remain unchanged until the end of the forecast horizon. However, exports to euro area coun-

tries are likely to be somewhat stronger in 2006, as economic growth in non-euro area countries will have passed its peak by then.

In 2004, the income subaccount posted a decrease equivalent to 0.8% of nominal GDP. This balance is expected to remain unchanged in 2005 and to improve to a stable -0.7% of nominal GDP in the subsequent forecast years. At -0.9% of GDP, the current transfers balance – which is mainly influenced by EU transactions – will remain constant over the forecast horizon, whereas the overall current account balance will be positive, reaching 1.0% of nominal GDP in 2007.

Table 4

<b>Austria's Current Account</b>				
	2004	2005	2006	2007
<i>% of nominal GDP</i>				
<b>Balance of trade</b>	2.1	2.4	2.5	2.7
Goods	1.4	1.8	2.2	2.3
Services	0.6	0.7	0.4	0.4
Euro area	-4.8	-4.7	-4.6	-4.8
Non-euro area countries	6.9	7.1	7.1	7.5
<b>Balance on income</b>	-0.8	-0.8	-0.7	-0.7
<b>Balance on current transfers</b>	-0.9	-0.9	-0.9	-0.9
<b>Current account</b>	0.3	0.7	0.9	1.0

Source: 2004: OeNB; 2005 to 2007: OeNB June 2005 outlook.

## 5 Oil Price Rise Fuels Fresh Inflation

Following a marked acceleration of HICP inflation in 2004, the OeNB expects price growth to reach 2.3% in 2005, only to slip back to 1.7% in 2006 and 1.6% in 2007.

The projected inflation trend is strongly influenced by the energy and services subcomponents, even though the euro appreciation will somewhat dampen the rise in oil prices. According to futures prices, on which the forecast is based, the oil price will peak at USD 51.7 per barrel (Brent) in the second quarter of 2005 and decline gradually to USD 48.3 per barrel (Brent) in the fourth quarter of 2007. The risk of significant second-round effects induced by the oil price rise is still considered to be low. The contribution of the services subcomponent to inflation is mainly due to an increase in housing costs.

The rise in prescription fees and the tobacco tax hike are also likely to have short-term effects on the inflation trend: In 2005, the higher prescription fee is estimated to contribute to in-

creasing the inflation rate by 0.15 percentage point on average, whereas the effect of the tobacco tax hike is estimated to be 0.2 percentage point.

Although current wage settlements suggest slightly higher wage growth than in 2004, wage inflation is not forecast to accelerate noticeably. Following a stagnation of real wages in 2005, somewhat higher – but still modest – wage settlements are expected for 2006 and 2007, as the unemployment rate will decline only insignificantly over the entire forecast horizon. Thus, wages are not expected to exert inflationary pressures in 2006 and 2007. Neither will prices be subject to notable demand pressures. The output gap is likely to remain negative over the entire forecast horizon. HICP core inflation (excluding energy) will accelerate by 0.2 percentage point to 1.8% in 2005, thus remaining below the HICP inflation rate.

In 2005, the oil price hikes will result in deteriorated terms of trade that are expected to remain unchanged in 2006 and 2007. Productivity growth (real GDP per employee) will continue

Table 5

### Price and Cost Indicators for Austria

	2004	2005	2006	2007
<i>Annual change in %</i>				
HICP	+2.0	+2.3	+1.7	+1.6
HICP energy	+6.9	+7.9	+2.6	+0.0
HICP excl. energy	+1.6	+1.8	+1.6	+1.7
Private consumption expenditure (PCE) deflator	+1.8	+2.4	+1.8	+1.7
Investment deflator	+1.4	+1.4	+1.5	+1.7
Import deflator	+0.2	+1.2	+1.7	+1.6
Export deflator	-0.1	+0.7	+1.6	+1.5
Terms of Trade	-0.3	-0.4	-0.1	+0.0
GDP deflator	+1.9	+2.0	+1.8	+1.7
Unit labor costs	+1.0	+1.2	+1.3	+1.3
Compensation per employee	+2.3	+2.4	+2.6	+2.6
Labor productivity	+1.2	+1.2	+1.2	+1.2
Collectively agreed wage settlements	+2.1	+2.3	+2.5	+2.4
Profit margins <sup>1)</sup>	+0.9	+0.8	+0.4	+0.4

Source: 2004: Eurostat, Statistics Austria; 2005 to 2007: OeNB June 2005 outlook.

<sup>1)</sup> GDP deflator divided by unit labor costs.

at a constant rate of 1.2% over the entire forecast horizon. Wage settlements, which saw an increase of 2.1% in 2004, are again likely to remain modest in 2005 (+2.3%), even though they may be slightly higher than assumed in the previous forecast. The continued economic recovery will lead to somewhat higher wage settlements in 2006. Owing to real wage stagnation, corporate profit margins will rebound in 2005, whereas more moderate growth is expected for 2006 and 2007.

## 6 Domestic Demand to Recover in 2005

### 6.1 Growth Stimulus from Second Stage of Tax Reform Dampened by Oil Price Surge and Low Consumer Confidence

Weak real wage growth, increased unemployment and low consumer confidence substantially dampened household expenditure in 2004. At 1.5%, real consumption growth was noticeably below its long-term average and did not pick up in the course of 2005. Two factors will impact strongly on growth in consumer spending over the forecast horizon: the second stage

of the tax reform and future inflation trends.

In the light of the rise in oil prices and housing costs, the current inflation rate is outpacing wage growth, thus forcing employees to suffer wage losses in real terms. Only when the oil price effects begin to fade can wages be expected to increase in real terms. Following growth of 0.4% in 2004, real wages will stagnate in 2005 (+0.0%) and are expected to climb, on average, by 0.7% in 2006 and by 0.8% in 2007.

In 2005, the dampening effects of accelerated inflation on private consumption will be more than offset by the second stage of the tax reform and continued employment growth. The second stage of the tax reform will generate a net tax relief for households worth EUR 1 billion, or 0.65% of disposable household income. These figures already consider the costs of hospital financing measures under the fiscal sharing agreement. The OeNB would normally expect approximately half of this net relief to generate a higher saving rate in the first year of tax reform. However, trends in real retail sales and new car registrations show that consumer spending was still

Table 6

### Determinants of Nominal Household Income in Austria

	2004	2005	2006	2007
<i>Annual change in %</i>				
Compensation of employees	+3.1	+3.4	+3.7	+3.7
Employees	+0.8	+1.0	+1.1	+1.1
Wages per employee	+2.3	+2.4	+2.6	+2.6
Mixed income (net) of the self-employed and property income	+5.3	+4.6	+4.9	+4.8
Net transfers minus direct taxes <sup>1)</sup>	-4.3	+1.7	-5.6	-7.8
<i>Contribution to disposable household income in percentage points</i>				
Compensation of employees	+2.5	+2.8	+3.1	+3.0
Mixed income (net) of the self-employed and property income	+1.6	+1.4	+1.5	+1.5
Net transfers minus direct taxes <sup>1)</sup>	-0.5	+0.2	-0.7	-1.0
Disposable household income (nominal)	+3.6	+4.4	+3.9	+3.6

Source: 2004: Eurostat and OeNB estimate; 2005 to 2007: OeNB June 2005 outlook.

<sup>1)</sup> Negative values indicate an increase in (negative) net transfers minus direct taxes, positive values indicate a decrease.

Table 7

**Private Consumption in Austria**

	2004	2005	2006	2007
<i>Annual change in %</i>				
Disposable household income (nominal)	+3.6	+4.4	+3.9	+3.6
Private consumption deflator	+1.8	+2.4	+1.8	+1.7
Disposable household income (real)	+1.7	+2.0	+2.0	+1.8
Private consumption (real)	+1.5	+1.7	+2.3	+2.2
<i>% of nominal disposable household income</i>				
Saving ratio	9.3	9.7	9.6	9.4

Source: 2004: Eurostat and OeNB estimate; 2005 to 2007: OeNB June 2005 outlook.

subdued in the first half of 2005. While still mostly below average at the beginning of 2005, both consumer confidence and retail confidence have continuously improved over the past few months. In April 2005, both indicators were above the 2004 levels and also just above the long-term average. The simultaneous improvement of these indicators is a clear signal of the imminent recovery of consumer demand. In view of the leading indicators available, the OeNB therefore expects the expansionary effects of the tax reform on private consumer demand to be somewhat delayed and become fully effective in the second half of 2005. The projected rise in the saving rate by 0.4 percentage point in 2005 corresponds to slightly more than half of the net relief of the tax reform. At +2.0%, real disposable household income will grow on the whole only moderately faster in 2005 than in 2004 (+1.7%), whereas household expenditure will accelerate slightly to +1.7% in 2005 (2004: +1.5%). Owing to the anticipated strengthening of consumer confidence, stronger real wage growth, continued employment growth and the delayed effects of the tax reform, household expenditure is expected to increase by 2.3% and 2.2% in 2006 and 2007, respectively.

### **6.2 Investment Passed its Peak in 2004 – Phasing Out of Special Investment Subsidy Causes Investment Momentum to Slow Temporarily**

Owing to changes in the system of national accounts, GDP demand components had to be revised in part substantially since the December 2004 outlook. Investment was affected most by this development: investment growth had to be revised upward by 3 percentage points solely as a result of the revision of historical data. According to recent national accounts data, investment activity was unexpectedly vigorous both in 2003 and 2004, growing 4.4% (in real terms, seasonally and working-day adjusted) and 4.8%, respectively. This comes as a surprise both in view of quite subdued economic growth and, in particular, also compared with Austria's major trading partners. While almost stagnating in the entire euro area (+1.1%) and even shrinking by 3.5% in Germany, investment rose by approximately 9.5% in Austria in 2003 and 2004. The view that companies' propensity to invest is currently low – as put forward in economic policy debates in many countries – does therefore not hold true for Austria, at least not in the most recent past.

The investment boom of 2003 and 2004 can be explained in part by the high demand for replacement investment after two years of shrinking investment (2001 and 2002). The special investment subsidy (granted for investment that exceeds the average investment level of the previous three years) created an additional incentive to implement investment projects in 2003 and 2004. Soaring import growth in machines and vehicles in 2004 (+13%), and especially the remarkable rise in the vehicles import subcategory (+27%), indicates that the subsidy was used by a large number of companies. Hence, the estimated costs of the subsidy had to be significantly revised upward by the Austrian Federal Ministry of Finance. Contrary to the trend in the euro area, vigorous investment activity led to a distinctive increase in the investment share of GDP, which reached the highest level since 1994 in the fourth quarter of 2004 (22.9%). The investment cycle is therefore likely to have hit its peak in 2004.

The OeNB expects investment momentum to cool notably in the first half of 2005. Owing to the phasing out of the investment subsidy by end-2004, numerous investment projects seem to have been frontloaded, thus leading to a drop in investment in 2005. Weak import growth in machines and vehicles in the first two months of 2005 (+1.6% and -8.1% in the vehicles subcategory) corroborate this assessment. In addition, companies' capacity utilization is estimated to have declined in the first half of 2005 and is now again just below the long-term average. In the investment test performed by the Austrian Institute of Economic Research (WIFO), companies also stated to have cut back on their investment plans for 2005. Real gross fixed capital formation is therefore pro-

jected to grow only by 1.8% in 2005. The dampening effects of the phasing out of the investment subsidy, however, will fade slowly in the course of 2005, and a new investment cycle is expected to begin in 2006. Investment growth will accelerate to 2.5% in 2006 and 2.9% in 2007 driven by favorable financing conditions, the rebound in corporate profits and continued dynamic export growth. Even though investment momentum will be below the levels of 2003 and 2004, the projected investment trends indicate an investment rate of just above 22.9% by the end of the forecast horizon.

Investment in plant and equipment, which will be affected most by the phasing out of the investment subsidy, is forecast to shrink in the first half of 2005. However, as it is also the investment component influenced most by the economic cycle, it will again generate the highest growth rates in 2006 and 2007. Residential construction investment edged up for the first time in 2004 (by 0.4% in real terms) after seven years of declining continuously from 30% to approximately 20% of total investment. This positive trend is expected to continue over the entire forecast horizon, leading to a stable share of residential construction investment in total investment demand.

### **6.3 Despite Rising Employment, Unemployment Rate Stagnates Due to Vigorous Labor Supply Growth**

Employment responded unexpectedly swiftly and vigorously to the economic recovery in 2004. According to national accounts data, payroll employment went up by 0.8% (seasonally and working-day adjusted) in 2004. Owing to the temporary slowdown at the turn of the year, employment growth is not expected to accelerate markedly in

2005. However, the number of reported vacancies – a good leading indicator for the labor market – is still growing, thus signaling a stable development of payroll employment (+1.0%). Employment growth is concentrated in the service sector. The manufacturing industry, by contrast, continues to shed jobs, while an end to layoffs is expected in the construction industry. In the wake of further economic recovery, the rise in payroll employment will be just above 1% both in 2006 and 2007. Public sector employment will decrease further over the next few years, whereas the number of self-employed persons will remain largely unchanged.

Given the current economic environment, labor supply growth is above average; hence, unemployment will decline only insignificantly despite the creation of new jobs. Several factors are responsible for this projected development: first, cyclically induced employment growth will remain below average due to the continued high unemployment rate, even though

the employment rate is expected to rise given the pro-cyclical development of the labor supply curve. Second, while demographic effects will be insignificant in 2005 and 2006, they are expected to provide for an additional increase in the labor pool in 2007. Third, the migration of foreign labor to Austria is expected to remain high over the entire forecast horizon. Finally, labor force participation of mature workers is anticipated to increase further as a result of the pension reforms in 2000 and 2003. All these factors are expected to contribute to a generally higher unemployment rate in the future. An initial sign of this structural break is the outward shift of the Beveridge curve<sup>1</sup> observed in Austria since 2004. This shift reflects the fact that unemployment has not declined in the most recent past despite the rising number of reported vacancies. In 2005, the unemployment rate (Eurostat definition) will remain at the 2004 level (4.5%), only to decline slightly by 0.1 percentage point each in 2006 and 2007.

Table 8

### Labor Market Developments in Austria

	2004	2005	2006	2007
	Annual change in %			
<b>Total employment</b>	+0.8	+0.8	+0.9	+1.0
<i>thereof:</i>				
Payroll employment	+0.8	+1.0	+1.1	+1.1
Self-employed	+0.9	-0.1	+0.1	+0.2
Public sector employment	-0.4	-0.3	-0.5	-0.3
Registered unemployment	-3.0	-1.6	-2.0	-0.8
Labor supply	+0.6	+0.7	+0.8	+0.9
<b>Unemployment rate (Eurostat definition)</b>	%			
	4.5	4.5	4.4	4.3

Source: 2004: Eurostat, 2005 to 2007: OeNB June 2005 outlook.

<sup>1</sup> The Beveridge curve (which was derived by the British economist William Beveridge in 1944) represents the relationship between the unemployment rate and the number of reported job vacancies.

## 7 Risks to Economic Growth Above Average

In its baseline scenario, the OeNB expects sluggish growth in the fourth quarter of 2004 to have been only temporary and economic activity to pick up notably already in mid-2005 given stable global demand and the first signs of strengthening consumer confidence

at the beginning of the second quarter of 2005. Typical of cyclical turning points, there is still major uncertainty about when and to what extent domestic demand will recover. Moreover, the economy is highly susceptible to external shocks in such phases of the business cycle.

Table 9

### Alternative Scenario: Oil Price Rise by USD 10/barrel

	2005	2006	2007
<i>Deviation of growth rates from basic scenario in percentage points</i>			
GDP	-0.12	-0.33	-0.21
HICP	+0.17	+0.37	+0.18

Source: OeNB June 2005 outlook.

An external shock that occurred frequently in the past is e.g. a higher oil price over a protracted period of time. The OeNB's macroeconomic model was applied in order to quantify the effects of an oil price increase by USD 10 per barrel in the third quarter of 2005. This calculation included demand effects, supply-side cost effects and substitution effects as well as external trade spillovers of an oil price hike. The effects of the higher oil price would be greatest in 2006, with growth down by 0.33 percentage point and inflation up by 0.37 percentage point (see table 9). Other downside risks are a further appreciation of the euro or an increase in long-term interest rates. Thus, the risks of this forecast point mainly downward. Still, two factors may pose an upside risk to GDP growth: first, a faster recovery of investment activity than expected owing to the reduction of corporate taxes and the introduction of group taxation, and second, a stronger decline in oil prices than currently anticipated by the markets.

## 8 Short-Term Growth Prospects Dampened Against December 2004 Outlook

Compared with the December 2004 outlook, this forecast assumes higher oil prices over a protracted period of time and a temporary slowdown in growth on Austria's export markets (see table 10). For 2005 and 2006, the technical oil price assumptions are USD 6 and USD 10 per barrel (Brent) higher than in the December 2004 outlook. Amid the temporary economic slowdown in the euro area, Austria's export markets will grow by just under 2% in 2005. By contrast, the external trade environment for economic growth outside the euro area and the exchange rates have remained largely unchanged. Financing conditions (i.e. long-term interest rates) have dropped by more than half a percentage point since the December 2004 outlook. Against this background, the projected growth rate for Austria in 2005 has been revised downward by 0.3 percentage point compared with the December 2004 outlook.

Table 10

**Change in the Underlying Global Environment Since December 2004 Outlook**

	June 2005			December 2004		Difference	
	2005	2006	2007	2005	2006	2005	2006
	<i>Annual change in %</i>						
Growth of Austria's export markets	+5.7	+6.9	+6.8	+7.5	+7.2	-1.8	-0.3
Competitor prices in Austria's export markets	+1.5	+2.0	+1.5	+0.4	+1.6	+1.1	+0.4
Competitor prices in Austria's import markets	+1.9	+1.8	+1.5	+0.7	+1.5	+1.2	+0.3
	<i>USD</i>						
Oil price per barrel (Brent)	50.6	50.7	49.0	44.4	40.8	+6.2	+9.9
	<i>Annual change in %</i>						
Nominal effective exchange rate (exports)	-0.5	+0.2	+0.0	-0.8	+0.0	+0.3	+0.2
Nominal effective exchange rate (imports)	-0.3	+0.1	+0.0	-0.3	+0.0	+0.0	+0.1
	<i>%</i>						
Three-month interest rate	2.1	2.1	2.1	2.2	2.2	-0.0	-0.0
Long-term interest rate	3.6	3.8	4.1	4.1	4.5	-0.6	-0.7
	<i>Annual change in %</i>						
Real GDP, U.S.A.	+3.4	+3.2	+3.1	+3.4	+2.9	+0.0	+0.2
	<i>USD/EUR</i>						
USD/EUR exchange rate	1.29	1.29	1.29	1.29	1.29	+0.01	-0.00

Source: ESCB.

Table 11 details the reasons for the forecast revisions, which are explained by the impact of new data, the effects of changed external assumptions and other effects. The impact of new data includes the influence of historical data revisions and the projection error, i.e. differences between released quarterly figures and the figures projected in

the previous forecast. The effects of changed external assumptions were simulated using the OeNB's macroeconomic model. The item "Other" comprises new expert assessments regarding the development of domestic variables (such as government consumption or wage settlements).

Table 11

**Breakdown of Forecast Revisions**

	GDP			HICP		
	2004	2005	2006	2004	2005	2006
	<i>Annual change in %</i>					
<b>June 2005 outlook</b>	+2.0	+2.0	+2.2	+2.0	+2.3	+1.7
<b>December 2004 outlook</b>	+1.8	+2.3	+2.1	+1.9	+2.0	+1.7
<b>Difference</b>	+0.3	-0.3	+0.1	+0.0	+0.3	-0.0
<b>Due to:</b>						
New data <sup>1)</sup>	+0.3	-0.1	-0.0	+0.0	+0.1	+0.0
Revision of historical data	+0.3	-0.0	-0.0	+0.0	-0.0	-0.0
Projection error	+0.0	-0.1	+0.0	+0.0	+0.1	+0.0
External assumptions	+0.0	-0.3	-0.0	+0.0	+0.2	+0.1
Other <sup>2)</sup>	+0.0	+0.1	+0.1	+0.0	-0.0	-0.1

Source: OeNB December 2004 and June 2005 outlooks.

<sup>1)</sup> Effect of revised historical data and new data (projection error).<sup>2)</sup> Different assumptions about trends in domestic variables such as wages, government consumption, effects of measures designed to support the economy, other rating changes and model changes.

The revision of Austria's GDP growth for 2005 (−0.3 percentage point) can be basically put down to changed external assumptions. For 2006, GDP growth has been revised upward by 0.1 percentage point. In 2005 and 2006, employment is assumed to grow somewhat more dynamically than projected in the December 2004 outlook, and the composition of employment growth has also changed. Compared with the December 2004 outlook, investment growth is now expected to be lower in both 2005 and 2006, owing to historical data revisions and the increased use of the investment subsidy. Expectations for exports have been revised slightly downward due to the external trade environment. However, the contribution of net exports to growth will climb nonetheless, as imports have been revised downward more strongly mainly because of a slowdown in investment momentum. Given the rise in energy prices, the inflation outlook for 2005 has been revised upward by 0.3 percentage point.

### 8.1 Comparison with Other Forecasts

Despite the great uncertainty about future economic developments, the available forecasts for economic growth in Austria stay within a narrow band.

Compared with other forecasts, the OeNB forecast for 2005 appears to be cautious, with projected GDP growth of 2% at cutoff date (May 12, 2005), but this is probably due to the newer historical data used, as most of the other forecasts were published already some time ago. The OECD forecast of May 2005 suggests that the projections published by the Austrian economic research institutes at the beginning of July 2005 might also be revised slightly downward.

The OeNB's optimistic current account estimate can be explained by the later cutoff date and, thus, more up-to-date information. The inflation outlook is the same in all available forecasts. The price pressure triggered by the oil price surge is expected to subside slowly so that the inflation rate is generally forecast to fall below 2% in 2006.

Table 12

### Comparison of Current Economic Forecasts for Austria

Indicator	OeNB			WIFO		IHS		OECD		IMF		European Commission	
	June 2005			April 2005		April 2005		May 2005		April 2005		April 2005	
	2005	2006	2007	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
<b>Key results</b>	<i>Annual change in %</i>												
GDP (real)	+2.0	+2.2	+2.2	+2.2	+2.3	+2.1	+2.5	+1.9	+2.3	+2.1	+2.3	+2.1	+2.1
Private consumption (real)	+1.7	+2.3	+2.2	+2.0	+2.2	+2.1	+1.9	+1.8	+2.2	x	x	+1.7	+2.0
Government consumption (real)	+0.5	+0.7	+1.0	+0.5	+0.8	+0.2	+0.2	+0.7	+1.1	x	x	+0.3	+0.2
Gross fixed capital formation (real) <sup>1)</sup>	+1.8	+2.5	+2.9	+1.8	+2.7	+2.3	+3.1	+2.6	+3.1	x	x	+2.4	+2.7
Exports (real)	+4.9	+7.0	+6.7	+5.4	+6.1	+6.3	+6.2	+5.1	+8.0	x	x	+6.1	+6.4
Imports (real)	+4.6	+7.3	+7.1	+5.6	+6.4	+5.9	+5.4	+5.7	+8.5	x	x	+5.7	+6.6
GDP per employee	+1.2	+1.2	+1.2	+1.4	+1.4	+1.4	+1.7	x	x	x	x	+1.8	+1.4
GDP deflator	+2.0	+1.8	+1.7	+2.2	+1.6	+1.9	+1.6	+2.2	+1.7	+1.8	+1.8	+1.6	+1.5
CPI	x	x	x	+2.5	+1.8	+2.2	+1.7	x	x	+2.0	+1.8	x	x
HICP	+2.3	+1.7	+1.6	+2.4	+1.7	x	x	+2.4	+1.7	x	x	+2.3	+1.7
Unit labor costs	+1.2	+1.3	+1.3	+0.9	+1.1	x	x	x	x	x	x	+0.6	+1.2
Payroll employment	+0.8	+0.9	+1.0	+0.8	+0.9	+0.7	+0.8	x	x	x	x	+0.2	+0.7
	<i>%</i>												
Unemployment rate <sup>2)</sup>	4.5	4.4	4.3	4.5	4.5	4.5	4.4	5.6	5.5	4.5	4.2	4.1	3.9
	<i>% of nominal GDP</i>												
Current account	0.7	0.9	1.0	-0.6	-0.4	-0.0	0.4	0.2	0.3	-1.0	-1.1	x	x
Government surplus/deficit	-1.8	-1.7	-1.3	-2.0	-1.8	-1.9	-1.7	-2.0	-1.9	-2.0	-1.8	-2.0	-1.7
<b>External assumptions</b>													
Oil price in USD/barrel (Brent)	50.6	50.7	49.0	44.0	39.0	47.0	47.0	51.0	48.0	46.5	43.8	50.9	48.0
Short-term interest rate in %	2.1	2.1	2.1	2.2	2.2	2.2	2.4	1.8	1.9	2.7	3.2	x	x
USD/EUR	1.29	1.29	1.29	1.34	1.28	1.34	1.34	1.28	1.28	1.31	1.31	1.31	1.32
	<i>Annual change in %</i>												
Euro area GDP (real)	1.1– 1.7	1.5– 2.5	x	+1.7	+2.2	+1.8	+2.3	+1.2	+2.0	+1.6	+2.3	+1.6	+2.1
U.S. GDP (real)	+3.4	+3.2	+3.1	+3.8	+3.1	+3.3	+3.3	+3.6	+3.3	+3.6	+3.6	+3.6	+3.0
World GDP (real)	+4.3	+4.2	+4.1	x	x	x	x	x	x	+4.3	+4.4	+4.2	+4.1
World trade	+7.3	+6.7	+6.6	+7.2	+7.1	+12.0	+8.0	+7.4	+9.4	+7.4	+7.6	+8.2	+7.4

Source: OeNB, WIFO, IHS, OECD, IMF, European Commission.

<sup>1)</sup> For IHS: Gross investment.

<sup>2)</sup> Eurostat definition; for OECD: OECD definition.

## Annex Detailed Result Tables

Table 13

### Demand Components (Real Prices)

	2004	2005	2006	2007	2004	2005	2006	2007
	<i>EUR million</i>				<i>Annual change in %</i>			
Private consumption	123,086	125,223	128,049	130,838	+1.5	+1.7	+2.3	+2.2
Government consumption	39,165	39,357	39,628	40,017	+1.1	+0.5	+0.7	+1.0
Gross fixed capital formation	49,965	50,878	52,147	53,676	+4.8	+1.8	+2.5	+2.9
<i>thereof: Investment in plant and equipment</i>	20,183	20,563	21,126	21,912	+6.9	+1.9	+2.7	+3.7
<i>Residential construction investment</i>	9,579	9,779	9,990	10,203	+0.4	+2.1	+2.2	+2.1
<i>Investment in other construction and other investment</i>	20,136	20,469	20,964	21,496	+4.1	+1.7	+2.4	+2.5
Changes in inventories (incl. statistical discrepancy)	-2,077	-1,748	-1,629	-1,612	x	x	x	x
Domestic demand	210,139	213,710	218,194	222,919	+0.3	+1.7	+2.1	+2.2
Exports of goods and services	117,409	123,110	131,668	140,550	+9.0	+4.9	+7.0	+6.7
Imports of goods and services	107,050	111,985	120,105	128,646	+5.7	+4.6	+7.3	+7.1
Net exports	10,359	11,126	11,563	11,904	x	x	x	x
<b>Gross domestic product</b>	220,498	224,836	229,757	234,822	+2.0	+2.0	+2.2	+2.2

Source: 2004: Eurostat; 2005 to 2007: OeNB June 2005 outlook.

Table 14

### Demand Components (Current Prices)

	2004	2005	2006	2007	2004	2005	2006	2007
	<i>EUR million</i>				<i>Annual change in %</i>			
Private consumption	131,070	136,537	142,154	147,769	+3.3	+4.2	+4.1	+4.0
Government consumption	41,867	42,872	43,968	45,228	+3.0	+2.4	+2.6	+2.9
Gross fixed capital formation	51,362	53,054	55,188	57,784	+6.3	+3.3	+4.0	+4.7
Changes in inventories (incl. statistical discrepancy)	-1,648	-982	-686	-711	x	x	x	x
Domestic demand	222,650	231,481	240,623	250,070	+2.4	+4.0	+3.9	+3.9
Exports of goods and services	118,824	125,525	136,410	147,856	+8.8	+5.6	+8.7	+8.4
Imports of goods and services	106,502	112,712	122,995	133,798	+5.9	+5.8	+9.1	+8.8
Net exports	12,322	12,814	13,414	14,058	x	x	x	x
<b>Gross domestic product</b>	234,972	244,295	254,038	264,128	+4.0	+4.0	+4.0	+4.0

Source: 2004: Eurostat; 2005 to 2007: OeNB June 2005 outlook.

Table 15

### Deflators of Demand Components

	2004	2005	2006	2007	2004	2005	2006	2007
	<i>2000 = 100</i>				<i>Annual change in %</i>			
Private consumption	106.5	109.0	111.0	112.9	+1.8	+2.4	+1.8	+1.7
Government consumption	106.9	108.9	111.0	113.0	+1.8	+1.9	+1.9	+1.9
Gross fixed capital formation	102.8	104.3	105.8	107.7	+1.4	+1.4	+1.5	+1.7
Domestic demand (excl. changes in inventories)	105.7	107.9	109.8	111.7	+1.7	+2.1	+1.7	+1.7
Exports of goods and services	101.2	102.0	103.6	105.2	-0.1	+0.7	+1.6	+1.5
Imports of goods and services	99.5	100.6	102.4	104.0	+0.2	+1.2	+1.7	+1.6
Terms of trade	101.7	101.3	101.2	101.1	-0.3	-0.4	-0.1	-0.0
<b>Gross domestic product</b>	106.6	108.7	110.6	112.5	+1.9	+2.0	+1.8	+1.7

Source: 2004: Eurostat; 2005 to 2007: OeNB June 2005 outlook.

Table 16

**Labor Market**

	2004	2005	2006	2007	2004	2005	2006	2007
	1,000				Annual change in %			
Total employment	4,182.3	4,216.0	4,256.0	4,296.8	+0.8	+0.8	+0.9	+1.0
<i>thereof: Private sector employment</i>	3,706.9	3,742.2	3,784.8	3,827.1	+1.0	+1.0	+1.1	+1.1
Payroll employment (national accounts definition)	3,394.0	3,428.4	3,467.5	3,506.8	+0.8	+1.0	+1.1	+1.1
	%							
Unemployment rate (Eurostat definition)	4.5	4.5	4.4	4.3	×	×	×	×
	% of real GDP							
Unit labor costs (whole economy) <sup>1</sup>	65.5	66.3	67.2	68.1	+1.0	+1.2	+1.3	+1.3
	EUR 1,000							
Labor productivity (whole economy)	52.7	53.3	54.0	54.6	+1.2	+1.2	+1.2	+1.2
Real compensation per employee <sup>2</sup>	32.4	32.4	32.7	32.9	+0.4	+0.0	+0.7	+0.8
	At current prices, EUR 1,000							
Gross compensation per employee	34.6	35.4	36.3	37.2	+2.3	+2.4	+2.6	+2.6
	At current prices, EUR million							
Total gross compensation of employees	117,272	121,272	125,818	130,500	+3.1	+3.4	+3.7	+3.7

Source: 2004: Eurostat; 2005 to 2007: OeNB June 2005 outlook.

<sup>1</sup>Gross wages as a ratio of real GDP.<sup>2</sup>Gross wages per employee divided by the private consumption deflator.

Table 17

**Current Account**

	2004	2005	2006	2007	2004	2005	2006	2007
	EUR million				% of nominal GDP			
<b>Balance of trade</b>	4,836.4	5,960.9	6,427.2	7,005.2	2.1	2.4	2.5	2.7
Goods	3,405.7	4,338.6	5,499.8	6,005.5	1.4	1.8	2.2	2.3
Services	1,430.7	1,622.3	927.4	999.7	0.6	0.7	0.4	0.4
Euro area	-11,380.3	-11,373.8	-11,645.6	-12,748.9	-4.8	-4.7	-4.6	-4.8
Non-euro area countries	16,216.7	17,334.7	18,072.8	19,754.1	6.9	7.1	7.1	7.5
<b>Balance on income</b>	-1,877.6	-1,877.6	-1,877.6	-1,877.6	-0.8	-0.8	-0.7	-0.7
<b>Balance on transfers</b>	-2,209.0	-2,260.0	-2,367.8	-2,447.4	-0.9	-0.9	-0.9	-0.9
<b>Current account</b>	749.8	1,823.3	2,181.7	2,680.1	0.3	0.7	0.9	1.0

Source: 2004: OeNB; 2005 to 2007: OeNB June 2005 outlook.

## Quarterly Forecast Results

	2005	2006	2007	2005				2006				2007			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Prices, wages and costs</b>															
<i>Annual change in %</i>															
HICP	+2.3	+1.7	+1.6	+2.4	+2.3	+2.4	+2.0	+2.0	+1.8	+1.5	+1.4	+1.5	+1.6	+1.6	+1.6
HICP (excl. energy)	+1.8	+1.6	+1.7	+1.9	+1.7	+1.9	+1.7	+1.6	+1.8	+1.6	+1.5	+1.6	+1.7	+1.8	+1.8
Private consumption expenditure (PCE) deflator	+2.4	+1.8	+1.7	+2.7	+2.6	+2.2	+2.1	+1.9	+1.8	+1.8	+1.8	+1.7	+1.7	+1.7	+1.8
Gross fixed capital formation deflator	+1.4	+1.5	+1.7	+1.9	+1.5	+1.2	+1.2	+1.3	+1.4	+1.6	+1.6	+1.7	+1.7	+1.7	+1.7
GDP deflator	+2.0	+1.8	+1.7	+2.1	+2.1	+1.9	+1.7	+1.7	+1.7	+1.8	+1.9	+1.9	+1.8	+1.7	+1.6
Unit labor costs	+1.2	+1.3	+1.3	+0.9	+1.2	+1.5	+1.3	+1.2	+1.3	+1.4	+1.5	+1.5	+1.4	+1.3	+1.1
Nominal wages per employee	+2.4	+2.6	+2.6	+2.3	+2.4	+2.4	+2.4	+2.5	+2.5	+2.6	+2.7	+2.7	+2.6	+2.5	+2.4
Productivity	+1.2	+1.2	+1.2	+1.4	+1.1	+0.9	+1.2	+1.2	+1.3	+1.2	+1.2	+1.2	+1.2	+1.2	+1.3
Real wages per employee	+0.0	+0.7	+0.8	-0.4	-0.2	+0.2	+0.4	+0.5	+0.7	+0.8	+0.9	+0.9	+0.9	+0.8	+0.7
Import deflator	+1.2	+1.7	+1.6	+0.6	+0.8	+1.4	+1.9	+1.6	+1.8	+1.8	+1.8	+1.7	+1.6	+1.5	+1.4
Export deflator	+0.7	+1.6	+1.5	+0.0	+0.7	+1.5	+0.8	+1.5	+1.7	+1.7	+1.6	+1.6	+1.6	+1.5	+1.5
Terms of trade	-0.4	-0.1	+0.0	-0.5	-0.2	+0.1	-1.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	+0.0	+0.1
<b>Economic activity</b>															
<i>Annual and/or quarterly changes in %, in real terms</i>															
GDP	+2.0	+2.2	+2.2	+0.4	+0.5	+0.6	+0.6	+0.6	+0.5	+0.5	+0.5	+0.5	+0.6	+0.6	+0.6
Private consumption	+1.7	+2.3	+2.2	+0.5	+0.5	+0.6	+0.6	+0.6	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5
Government consumption	+0.5	+0.7	+1.0	+0.0	+0.0	+0.1	+0.1	+0.1	+0.2	+0.2	+0.3	+0.2	+0.2	+0.2	+0.2
Gross fixed capital formation	+1.8	+2.5	+2.9	-0.7	+0.3	+0.4	+0.6	+0.8	+0.6	+0.7	+0.8	+0.7	+0.7	+0.7	+0.8
thereof: Investment in plant and equipment	+1.9	+2.7	+3.7	-0.8	-0.1	+0.3	+0.6	+1.0	+0.7	+0.8	+0.9	+1.0	+0.9	+1.0	+1.0
Residential construction investment <sup>1)</sup>	+2.1	+2.2	+2.1	+2.5	+0.6	+0.4	+0.5	+0.6	+0.5	+0.6	+0.6	+0.5	+0.5	+0.5	+0.5
Exports	+4.9	+7.0	+6.7	+1.0	+1.6	+1.7	+1.7	+1.7	+1.7	+1.7	+1.6	+1.7	+1.6	+1.6	+1.6
Imports	+4.6	+7.3	+7.1	+0.4	+1.5	+1.5	+1.7	+1.9	+1.8	+1.8	+1.8	+1.7	+1.7	+1.7	+1.6
<i>Contribution to real GDP growth in percentage points</i>															
Domestic demand	+1.5	+1.9	+2.0	+0.1	+0.4	+0.4	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5
Net exports	+0.3	+0.2	+0.1	+0.3	+0.1	+0.1	+0.1	+0.0	+0.0	+0.0	+0.0	+0.0	+0.1	+0.1	+0.1
Changes in inventories	+0.1	+0.1	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0
<b>Labor market</b>															
<i>%</i>															
Unemployment rate (Eurostat definition)	4.5	4.4	4.3	4.6	4.6	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3
<i>Annual and/or quarterly changes in %</i>															
Total employment	+0.8	+0.9	+1.0	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2
thereof: Private sector employment	+1.0	+1.1	+1.1	+0.2	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Payroll employment	+1.0	+1.1	+1.1	+0.2	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
<b>Additional variables</b>															
<i>Annual and/or quarterly changes in %, in real terms</i>															
Disposable household income	+2.0	+2.0	+1.8	+0.6	+0.5	+0.5	+0.4	+0.6	+0.5	+0.5	+0.5	+0.3	+0.5	+0.5	+0.5
<i>% of nominal disposable household income (saving ratio) and % of real GDP (output gap)</i>															
Household saving ratio	9.7	9.6	9.4	9.7	9.7	9.7	9.6	9.6	9.6	9.6	9.6	9.4	9.4	9.4	9.5
Output gap	-0.8	-0.5	-0.2	-0.9	-0.9	-0.8	-0.7	-0.6	-0.5	-0.5	-0.4	-0.3	-0.2	-0.2	-0.1

Source: OeNB June 2005 outlook. Quarterly data are seasonally adjusted.

<sup>1)</sup> Excluding other investment in construction and other investment.

ANALYSES

10 YEARS OF AUSTRIAN  
EU MEMBERSHIP

# 10 Years of Austrian EU Membership: Elements of an Overall Economic Assessment

Peter Mooslechner

“Die Dichte der Ereignisse . . . ließ den Eindruck entstehen,  
dass sich das Rad der Zeit beschleunigt hat.”

Liebscher (1996; p. 2)<sup>1</sup>

Austria has been a member of the EU for ten years now. Although accession to the EU would have been economically feasible much sooner, for political reasons, in particular, it had to wait until the end of the Soviet era. On balance, this has been quite a positive decade, though so many relevant changes took place simultaneously – worldwide liberalization trends, the opening up of Central and Eastern Europe, and the establishment of monetary union, to name a few – that it is hardly possible to identify which effects stem solely from EU accession. It is equally inadvisable to see the process of European integration, in its all-inclusiveness, purely under economic aspects. Accession to the EU has fundamentally changed the institutional landscape, which today is dominated by Europe. It has also left its imprint on financial markets and foreign trade as well as the labor market and the regulatory framework. Many of those changes would have been unavoidable even without EU accession. However, in many cases accession was the catalyst for a renewal; in its absence, many structural adjustments would have probably occurred either later or not at all.

After a long – and quite eventful<sup>2</sup> – “campaign,” on June 12, 1994, over 66% of the turnout of eligible Austrians voted yes to Austria’s accession to the EU. This was a surprisingly clear (yes) vote in favor of this fundamental step toward integration, not least when compared with the two Nordic countries that joined at the same time, Finland (57%) and Sweden (52%). On June 24, 1994, the Accession Treaties were signed at the Corfu European Council, and Austria officially joined the EU on January 1, 1995.

Starting with this majority “yes” vote by the Austrian population in the EU referendum, this ten-year period seems like a good time to take stock of the economic developments that have taken place in our country since then. According to current survey

results, nearly three-quarters of Austrians are in favor of remaining in the EU.<sup>3</sup> The figures for those under 50 years of age are higher than the average for the entire population, peaking at 83% for those aged 25 and younger. As many as 67% of Austrians rate their country’s ten years in the EU as anywhere from “very good” to “satisfactory.”<sup>4</sup>

These positive assessments, however, must not divert our attention from some of the criticisms voiced by Austrians regarding EU membership. Only 55% of those surveyed now believe that joining the EU was the right decision, with approval ratings again higher among the younger age groups (up to 25 years of age: 71%, 26 to 35 years of age: 59%). Assessments have worsened since 1994 with regard to particularly sensitive issues

<sup>1</sup> Events occurred in such rapid succession . . . that it seemed the wheel of time had begun to spin faster and faster.

<sup>2</sup> For more on the topic, see some reviews published recently in the media, such as “Aufbegehren gegen die Gurke” (Uprising Against the Cucumber) from the January 17, 2005, edition of the *Kurier*, or “Schokoladetafeln aus Rinderblut oder Schildläuse im Joghurt, das sind Themen, die vielen aus der Beitrittsdiskussion Anfang der Neunziger Jahre noch in Erinnerung sind” (“Chocolate Bars from Cattle Blood or Scale Insects in Yoghurt, Some of the Topics from the Debate on Accession in the Early 1990s That Are Still in Memory”), *Ö1 Mittagjournal* (a radio news program), January 12, 2005.

<sup>3</sup> Österreichische Gesellschaft für Europapolitik (Austrian Society of European Politics): “Mini-Referendum” über die EU-Verfassung – EU-Mitgliedschaft und die Folgen (“Mini-Referendum on the EU Constitution – EU Membership and the Consequences”). Vienna. April 2005.

<sup>4</sup> Österreichische Gesellschaft für Europapolitik (Austrian Society of European Politics): *Die Einstellung der Österreicher zu EU-Mitgliedschaft und EU-Verfassung (Austrians’ Attitudes Toward EU Membership and the EU Constitution)*. Vienna. February 2005.

(transit traffic, nuclear reactors, etc.). Attitudes toward the EU's future Constitutional Treaty are positive (46%), but not overwhelmingly so. Economically speaking, Austrians feel that their expectations of EU accession have only partly been met,<sup>5</sup> and Austria's 62% opposition to further enlargement is highest among the EU-25 (Eurobarometer, December 2004).

Against this background, the present special issue of *Monetary Policy & the Economy* marking the tenth anniversary of Austrian EU membership reviews the institutional, economic and policy developments that may be regarded as important by a central bank that actively participates in the European integration process. This report is not intended to present an exhaustive account, nor is it possible to reach a conclusive assessment. In particular, it is inadvisable to look at the process of European integration purely in economic terms (Liebscher, 1996, p. 3).

This introductory study attempts to group the issues covered in further detail in this issue into an overarching context and, against the background of the relevant literature, to merge the assessments deriving from these analyses.

## 1 Austria's Long and Unique Path to the EU

The story of Austria's first ten years in the EU would be incomplete without taking a look at the long and unique process it took to get there. Several mostly non-economic factors played a key role in this journey. The long pre-EU membership stage also

“explains” the “special” economic policy and institutional avenues Austria pursued – and quite successfully – during the postwar era. In macroeconomic and economic policy terms, the move to join the EU – followed by accession to Economic and Monetary Union (EMU) – was the logical continuation of a path upon which Austria had already embarked.

Austria's path to the EU, which may be described as having been rather complex, was, above all, marked by two particular factors: Austria's history-laden location at the crossroads between western and eastern Europe<sup>6</sup> and tense relations with Italy on account of the South Tyrol issue. In a macroeconomic and economic policy sense, it would have been “logical” for Austria to accede to the EU much earlier, even if not by any means as a founding member when the Treaty of Rome was signed in March 1957. At that time, there were justifiable economic and political reasons alike for having fundamental doubts about the credentials of Austria, a small country with an economy that was not exactly firmly in the saddle, for joining the European Economic Community (EEC) (Seidel, 2005). Certainly by the late 1960s, it was definitely European political sensibilities which held Austria back from European economic integration.

Initial ideas about linking Austria to the European Coal and Steel Community (ECSC) and the EEC date back to 1956-57 (Sandgruber, 1995, p. 481). The ban on political union with Germany contained in the State Treaty and neutrality made such attempts

<sup>5</sup> In extreme cases, some studies even assert that the vast majority of Austrians – 73% to 82% – associate the ten years of EU membership with a change for the worse (APA: *Österreicher sehr unzufrieden mit zehn Jahren EU-Mitgliedschaft – Austrians Very Dissatisfied with Ten Years of EU Membership*), Vienna, December 3, 2004).

<sup>6</sup> In this sense, the historical reference is perfectly “accurate” in its being reflected in the concurrent celebration, in 2005, of ten years of EU membership and the 50-year anniversary of the State Treaty.

appear unrealistic; consequently, in 1960, Austria became a founding member of the European Free Trade Association (EFTA). One of the objectives of the EFTA, however, was to build a bridge to the EEC, as was expressed by the United Kingdom's application for membership in 1961 and the formal applications for association status submitted by Austria, Sweden and Switzerland. However, France's veto in January 1963 of the U.K. application to join the EU made a rapid merger of the EEC and the EFTA no longer seem like a realistic possibility. The decisive barriers to Austria's efforts were not only Soviet resistance but also the tense rela-

tions with EEC member Italy on account of South Tyrol. In the light of the problems with the South Tyrol "package of laws" adopted in 1964, from 1967 on Italy vigorously blocked any Austrian moves toward closer ties with Europe. It was ultimately not until 1992 that the implementation of the "calendar of operations" for the "South Tyrol Package" was completed and a formal agreement settling the conflict was signed. Meanwhile, starting in 1989, other events came to shape the European integration process: the opening up of the East, the end of the Soviet Union and German reunification.

#### **A Brief History of Austria's Long Road to the EU**

- 1952 ECSC – Treaty of Paris of April 1951 enters into force
- 1958 EEC – Treaty of Rome of March 1957 enters into force
- 1960 EFTA is established, with Austria as a founding member
- 1961 Austria, Sweden and Switzerland apply for association status, United Kingdom applies for full membership
- 1963 Enlargement delayed by French veto of U.K. bid to join the EEC
- 1967 Merger of the ECSC, EEC and the European Atomic Energy Community (EURATOM) to form the European Community (EC)
- 1968 Customs union completed
- 1973 United Kingdom, Ireland and Denmark join the EC; free-trade agreements between EFTA countries and the EC enter into force
- 1979 European Monetary System (EMS)
- 1981 Greece joins the EC
- 1986 Portugal and Spain join the EC
- 1987 Single European Act
- 1989 Austria bids to join the EC
- 1989 Madrid European Council adopts the Delors Plan for an economic and monetary union
- 1993 Maastricht Treaty of February 1992 enters into force
- 1993 European Single Market
- 1993 Official accession negotiations with Austria, Finland, Norway, and Sweden launched
- 1994 Austria joins the EEA
- 1994 Conclusion of accession negotiations and EU referendum (June 12)
- 1995 Austria, Finland, and Sweden join the EU
- 1999 Monetary union commences with 11 countries and ERM II (only Denmark)
- 1999 Treaty of Amsterdam of October 1997 enters into force
- 2001 Greece joins the euro area
- 2001 Treaty of Nice signed
- 2002 Euro cash is issued
- 2004 EU enlarged to include eight Central and Eastern European countries, Malta and Cyprus

From 1969, France opened its integration policy, paving the way for the United Kingdom, Ireland and Denmark to join the EC in 1973. At the same time, numerous free trade agreements were signed between the EC and the EFTA, culminating in a free trade zone by 1977 – with the exception of agriculture. Starting in 1985, the Single European Act, the Internal Market, the Delors Plan and finally the Maastricht Treaty caused the dynamics of integration to soar to new heights (Brunn, 2002). Seizing the new opportunities brought about by the dissolution of the Soviet Union, Austria applied to join the EC in 1989, followed in 1991 by Malta, Cyprus, Sweden, Finland, Norway, and Switzerland. In May 1992, the EC and the EFTA signed an agreement on the creation of the EEA, which came into force in 1994. At almost the same time, accession negotiations with Austria, Finland and Sweden were completed, resulting in the entry of these countries into the EU on January 1, 1995.<sup>7</sup>

## 2 Brief Macroeconomic Assessment

As unsatisfactory as it may sound, it is not justifiably possible to reach a clear assessment of the macroeconomic effects of accession to the EU. Three major aspects stand in the way: (1) One can always only speculate how the Austrian economy would have developed in the past ten years without EU accession. (2) Economic develop-

ments during this period were exposed to numerous shocks – ranging from exchange-rate and stock-market crises to the September 11 terrorist attacks – which had a marked impact on world economic developments. (3) Finally, there has been a confluence of several different European integration processes, which are difficult to isolate. They include worldwide liberalization processes (e.g. through the WTO), integration processes in the EU itself (e.g. the Single Market) and economic integration between the EU and other countries (e.g. the EEA), along with fundamental developments such as EU enlargement and EMU.

Therefore, particularly in the case of a small and internationally highly integrated country, it is virtually impossible to isolate the impacts of individual effects of integration with sufficient precision.

Breuss (1992; 1996; 1999) presented, for economic union and monetary union separately, the soundest model estimations for calculating the effects of accession. If his results are interpreted cautiously, as is recommended, it may be assumed that Austria's participation in European real economic integration over a ten-year period has led to a positive growth stimulus of around 0.5 percentage point per year (table 1). The narrow range of the estimates confirms the relatively high reliability of the results, whereas the effects of monetary union prove to be positive but distinctly less certain because of the large ranges.

<sup>7</sup> Switzerland's bid for accession was derailed by a negative referendum vote as early as 1992; in Norway, 52% of the public rejected a fully negotiated EU accession agreement in a 1994 referendum. The applications for accession submitted by Malta and Cyprus led to these two countries being allowed to join the EU in the latest round of enlargement in 2004, which added a total of ten new members to the EU.

Table 1

<b>Overall Effects of EMU</b>				
<i>cumulative GDP effects in percentage points</i>				
	EU		Austria	
	range	mean	range	mean
<b>Economic union</b>				
Static effects:	2.5–6.5	4.5	3.5	3.5
increase in efficiency				
Dynamic effects:	0.5–9.0	4.8	1.0–4.0	2.5
economies of scale, stimulation of investment				
<b>Total</b>	<b>3.0–15.5</b>	<b>9.3</b>	<b>4.5–7.5</b>	<b>6.0</b>
<b>Monetary union</b>				
Static effects:	0.3–1.0	0.50	0.5	0.5
savings in transaction costs through elimination of currency exchange				
Dynamic effects:	0.0–28.8	14.5	0.0–28.8	14.5
economies of scale	0.0–0.8	0.5	0.0–0.8	0.5
capital accumulation through elimination of risk premium	0.0–28.0	14.0	0.0–28.0	14.0
<b>Total</b>	<b>0.3–29.8</b>	<b>15.0</b>	<b>0.5–29.3</b>	<b>15.0</b>
<b>EMU total</b>	<b>3.3–45.3</b>	<b>24.3</b>	<b>5.0–36.8</b>	<b>21.0</b>

*Source: Breuss (1992, p. 546).*  
*Economic union: Single Market starting on January 1, 1993, and economic coordination.*  
*Monetary union: Common currency and single monetary policy from 1999.*  
*Dynamic effects: Half of which effective within ten years, half over a longer-term period (unreliable estimates).*

On the whole, post-accession macroeconomic developments have been largely favorable.<sup>8</sup> To be sure, economic growth cannot by any means be regarded as satisfactory; however, this phenomenon is largely the result of weak economic growth of important export markets for Austria – e.g. Germany, Italy and Switzerland. Austrian inflation not only remained at its traditionally low level but, despite the favorable starting position, fell even further, in line with international developments and as a result of integration-related competitive effects.<sup>9</sup> The unemployment rate tended to rise slightly, but was less than half the EU-15 average for the ten-year period

of Austrian EU membership. Fiscal affairs and the current account have also shown clear signs of improvement following EU accession. The overall state of the Austrian economy, which may be regarded as having been quite favorable over the past decade – apart from the basically unsatisfactory growth in Europe – is something to which the new markets in Eastern Europe have made a major contribution. At the same time, deeper westward integration is also likely to have positive effects on the Austrian economy.

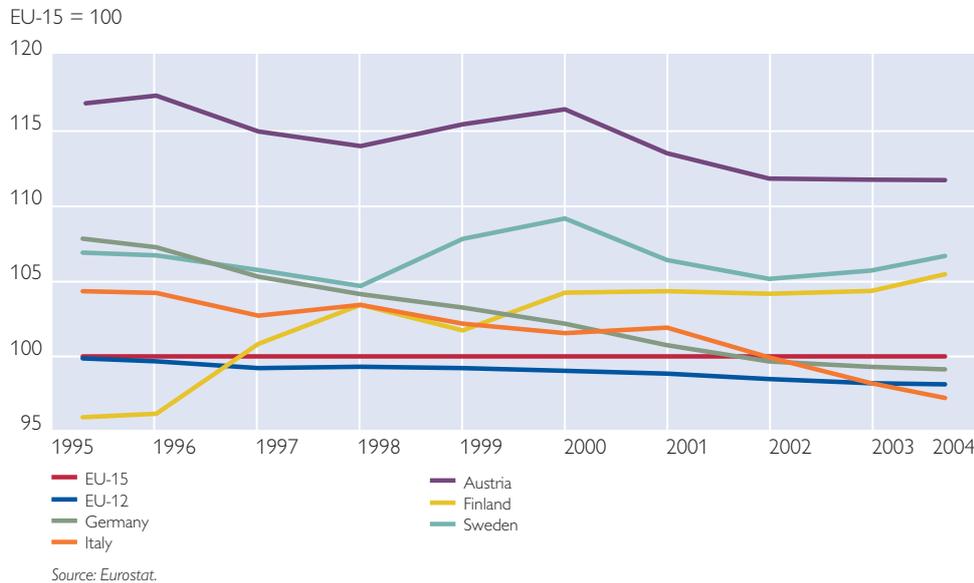
The growth of per capita GDP at purchasing power standards (PPS) can be used to comprehensively measure the state of Austria's economy. Austria

<sup>8</sup> For analyses on this topic, see, for instance, Breuss (2005), Raiffeisen Research (2004) or the focus issue of *Wirtschaftspolitische Blätter* No. 2 (2004).

<sup>9</sup> In this issue, Fluch and Rumler take a comprehensive inventory of inflation developments and the key factors behind them.

Chart 1

**Per Capita GDP in PPS for Selected EU Member States Since 1995**



was, in fact, able to hold its position among the EU-15 front-runners in per capita GDP at PPS since accession.<sup>10</sup> Although the index value relative to the EU-15 fell from 116.6 to 111.6 between 1995 and 2004, the losses sustained by Germany (107.9 to 98.7) or Italy (104.2 to 96.5), however, were much more severe. During this period, Austria was overtaken by Denmark and Ireland; Denmark only sustained a slight decline in per capita GDP, whereas Ireland saw the largest GDP growth of all EU countries. Today, Austria's per capita GDP is practically level with Denmark in third place in the EU, ahead of the large EU countries (with the lead even growing) but also ahead of Belgium and the Netherlands. Finland, despite having made significant gains in catching up since 1995, is still significantly behind Austria in this respect.

A comparison between Finland, Sweden and Austria (Pointner, in this

issue), all of which joined the EU together in 1995, provides an interesting perspective. Breuss (2005, p. 8) shows that only Finland was able to substantially improve its per capita GDP in PPS since accession, from somewhat below the EU-15 average in 1995 to somewhat over the EU-15 average in 2004. Nearly all of this improvement took place from 1996 to 1998, when Finland finally managed to overcome its severe economic crisis following the collapse of the Soviet Union. Since then, Finnish per capita GDP at PPS has remained constant. For Sweden, on an average over the entire period, only slight fluctuations have been measured; Austria has seen a trend decline relative to the EU-15 average, interrupted by an upward movement from 1998 to 2000.

These differences are probably attributable less to EU accession and more to the pronounced currency and banking crises in Finland and Swe-

<sup>10</sup> Data according to Eurostat press release of December 3, 2004; data for 2004 estimated according to the available forecasts or according to Eurostat press release of June 3, 2005.

den in the early 1990s and the stronger external links those countries have with the strong-growing economic areas of the United States and the United Kingdom. By contrast, Austria was hit hard by the sub-par growth of Germany, Italy and Switzerland, its main export markets, which was only partially compensated for by the growing importance of Eastern European export markets.

### **3 Institutional Framework and Macro Policy Dimensions of EU Integration**

One aspect that is often given short shrift compared with macroeconomic performance is the institutional dimension of EU accession (Neisser and Puntischer-Riekmann, 2002). A country's economic framework is often heavily influenced by the sweeping changes associated with integration into the EU's institutional landscape. Although there is a multiplicity of different material transitional provisions for acceding countries, the institutional structure of the EU is ultimately binding on all Member States without restrictions.<sup>11</sup> By signing the Accession Treaty, new EU Member States accept the EU's institutional framework. The significance of this factor varies mainly depending on the progress a country has made in converging to the EU at the time of accession.

The adaptation of a country's institutional framework to the EU's *acquis communautaire* covers a wide range of fields, from the legal system to many institutions that are directly relevant to economic and policy issues, such as competition policy. In this respect, the Austrian case was different from most others because Austria's specific

historical development prior to EU accession had already led to virtual convergence in many areas, including the institutional context. In the monetary policy arena, in particular, Austria's long tradition of a hard currency policy, and, even more, the associated need for real adjustment, had effected significant convergence, such that the transition to the EU, the EMS, the ERM, and finally, to EMU, only seemed like relatively small steps at most (Backé and Mooslechner, 2004).

Despite the high degree of historical convergence to the EU, Dvorsky and Lindner (in this issue) impressively outline the substantial change the OeNB, as an economic policy institution, has had to undergo. Naturally, the major break in monetary policy did not take place until the beginning of monetary union. The phase of EU membership, however, already called for a fundamental reorientation that was characterized by participation in EU committees and intensive preparations for monetary union. By contrast, accession to ERM, important for formal reasons, did not represent a significant change in the framework in the light of Austria's long-standing hard currency policy (Gnan et al., in this issue).

Besides monetary policy, the EU's strongest macro influence was probably in the area of fiscal policy. Katterl and Köhler-Töglhofer (in this issue) explain how the stance of Austrian fiscal policy was subjected to several key changes prior to EU accession, from the predominance of an anticyclical stance in the 1970s to multiple consolidation phases in the 1980s and 1990s. With accession to the EU and the objective of monetary union, how-

<sup>11</sup> Breuss (2002) presents an up-to-date synopsis of the key economic policy framework conditions.

ever, EU-related objectives also came to dominate Austrian fiscal policy (Mooslechner, 2001). Since that time, the convergence criteria for participation in monetary union, and later the Stability and Growth Pact and, on the whole, the EU's economic policy coordination mechanisms, all came to define the parameters within which economic policymakers could act.<sup>12</sup> Today, the justification and shaping of national budget policy is mainly undertaken at the European level and according to European rules.

#### **4 Financial Market Integration, the Labor Market and the Trend in Regulatory Structures as Examples**

This special issue is primarily dedicated to analyzing some of the key macroeconomic and economic policy developments associated with Austria's EU membership. In addition, some selected structural areas of major importance are covered. From a monetary policy perspective, this includes, in particular, financial market topics that are important both for the implementation of the Single Market and for the efficiency of monetary policy in monetary union. Also in the spotlight are foreign trade, the labor market and the regulatory system, i.e. further special topics that are important elements of the framework for monetary policy.

In their studies in this issue, Fuchs and Waschiczek find out that the Austrian financial markets, by preparing for accession and upon EU accession itself, at the same time experienced a massive surge in internationalization. Partly for this reason, but partly also

to strengthen its domestic position, the financial sector used the scope created by market deregulation for M&A activity, capacity reduction and market enlargement strategies. The most prominent of these strategies was the resolute move toward Eastern and Southeastern Europe, which decisively strengthened the position and the profitability of Austrian banks. In this case, too, however, EU enlargement and EU accession are so closely intertwined that it is virtually impossible to isolate their effects. At the same time, the competitiveness of the Austrian banking industry grew stronger, which meant that direct competitive pressure from the EU on the Austrian market has remained relatively slight thus far.

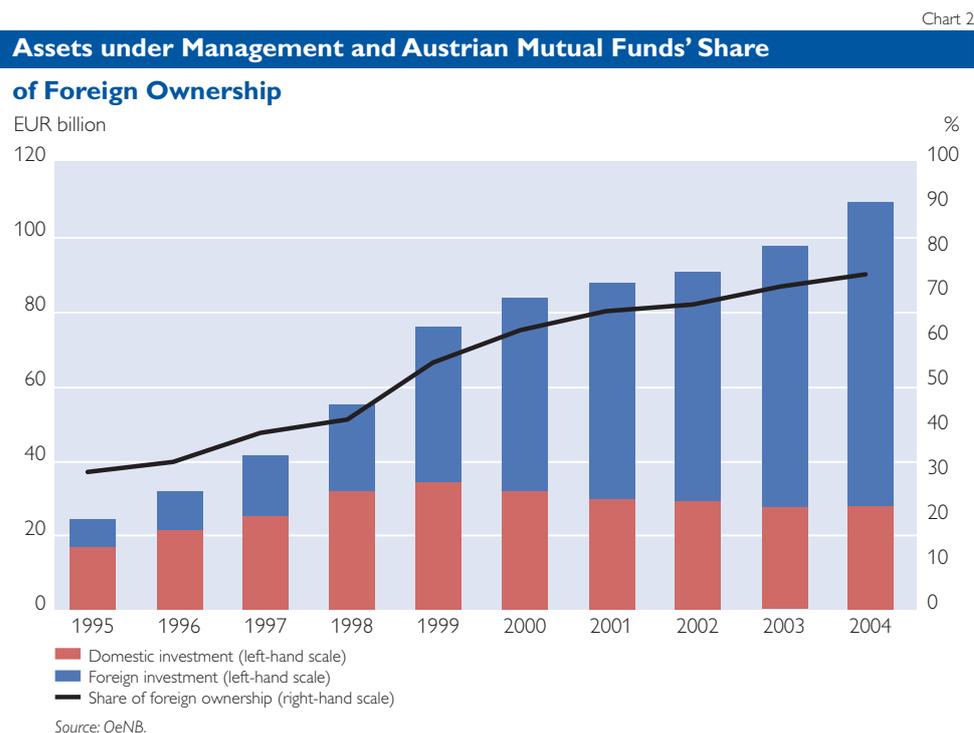
For the corporate sector, the internationalization process has significantly widened the scope for obtaining finance. This appears to have made it much easier for Austrian companies, coming from a tradition of having their personal "house banks," to make the switch to market-based forms of obtaining finance, which has led to a structural increase in capital market-based relative to intermediary banking services. By contrast, the (direct) effects on households' investment activity have remained relatively slight. Indirectly, the internationalization of households' portfolios and investment in stocks – for instance, through the sharp rise in the volume of mutual fund investment – has risen substantially.

Finally, it must be emphasized that the internationalization of Austrian financial markets has mainly been about Europeanization. At the same time, external positions have been moving toward the level of comparable countries. Against that background,

<sup>12</sup> For a comprehensive explanation, see Hughes-Hallett et al. (2001).

Pauer's study in this issue concludes that, despite pronounced internationalization, financial stability tends to have been strengthened through the incorporation of Austria's financial institutions into the European regula-

tory and supervisory environment. Braumann (2002) points out, correctly, that the gradual process of liberalization which Austrian financial markets underwent bears important responsibility for this positive overall picture.



For the real economic side of the internationalization associated with EU accession, Fidrmuc shows in this issue that, despite all the moves toward liberalization and integration, at best, Austrian foreign trade with the EU was stagnant prior to 1995. Entry into the EU provided a positive stimulus that is likely to have been amplified by EMU membership. Both in foreign trade and, more strongly, in direct investment, the effects vis-à-vis Eastern Europe were initially surely the dominant factor.

Finally, the two studies by Stigl-bauer and Janger in this issue address two specific aspects that are of essential importance to a small open economy in European integration and for eco-

nomics policy making in monetary union: the labor market and the change in the competitive situation, with sectoral regulations as a case in point.

Contrary to the conventional wisdom which is spread by the media and pervades the general public, high flexibility and mobility have traditionally been characteristics of the Austrian labor market. For that reason, among others, it is not easy to answer the question of how accession to the EU and EMU has impacted on the Austrian labor market. Although the key problems were already sufficiently known prior to EU accession, deregulation was continued more or less independently of that. It appears that the question of the extent to which the (slight)

differences with regard to employment and unemployment in the decade before and after EU accession can be associated with the EU will ultimately have to remain unresolved given the existence of numerous other factors. In any case, what the data do confirm is that the international competitiveness of the Austrian economy, including that within the EU, has been substantially amplified thanks to the tradition of wage moderation. At the same time, what also emerges is that, in many cases, demands voiced long before EU accession – such as for an increase in employment – remain highly relevant even after ten years of EU membership.

With the exception of the labor market, prior to EU accession it was probably correct to state that some parts of the Austrian economy were particularly highly regulated, and that, in the light of the original intent of the regulations, they were justified only part of the time. In addition, an explicit competitive policy meeting international standards was virtually nonexistent. Using the regulatory situation of network industries as a case in point, Janger argues that international commitments would have caused an opening of the markets sooner or later even absent accession to the EU. Because of its export orientation, the manufacturing industry was already pretty much wide open to international competition long before EU accession. In this environment, EU accession, however, has clearly acted as a catalyst for reforms in the regulatory structure, especially by making the EU competitive framework an explicit guidepost for a renewal of the Austrian regulatory system.

## 5 The Challenge of European Economic Policy

It is precisely because the ten years following Austria's accession to the EU may appear to be a long time that, in view of the vast number of important influences that have affected the Austrian economy over that period, it may seem difficult to come to a definite conclusion. The effects of the opening-up of Central and Eastern European markets or of the launch of monetary union were too great to be precisely isolated from the impact of EU accession. At the same time, the Austrian economy, long before EU membership, was already so closely intertwined with the EU countries' markets that the formal move to join the EU in 1995 was merely the completion of a development that had already occurred on the markets.

If the areas examined in this special issue that are of particular relevance to a central bank – without any claim to completeness being made – are used as a guideline, the bottom line is that ten years of Austrian EU membership have been positive. Apart from less-than-satisfactory growth, which, however, is an overarching European problem, Austria's overall economic development in the EU, depending on how the indicators are weighted, has been anywhere between largely unchanged and even slightly improved. In particular, Austria, despite the challenges posed by integration, has managed to stay near the top of the EU in terms of per capita GDP at PPS. Austria still ranks ahead of precisely the major EU Member States but also ahead of the success story of Finland.

It is undoubtedly true that EU accession has caused a change in the institutional framework of the Austrian

economy that, in some cases, has been fundamental. European institutions are playing a dominant role in macro policy, from the changed role of the OeNB to EMU. In a parallel development, the institutional framework for financial markets or for the regulatory system/competitive policy has also changed profoundly, even if only partly as a direct result of EU integration. In some areas, such as the labor market, one could even conclude that the problems of today are largely identical to those prior to EU accession.

It is for sure that Austria's integration into the EU represents an important turning point politically and economically, one that major swaths of the general public have certainly been justified in perceiving, and will continue to perceive, as a sharp increase in the pace of change. Since then, large areas of economic policy have begun to be defined by European regulations, reducing the scope for independent national policymaking. Conversely, a

small, open economy, in a world of liberalized international markets, benefits from the fact that, nowadays, in many cases, European or global solutions seem to be the right choice for economic policy issues, rather than purely national solutions.

Along these lines, a small country's active involvement in European integration represents a double challenge: given the dimensions of many economic policy requirements, such involvement is nearly unavoidable, yet it also requires adaptation of national circumstances in an environment that is dominated by competition. The key to success is the ability to solve problems at the European level, with the political involvement of all Member States.<sup>13</sup> At the core, it is about a single European policy that can sustainably and successfully shape the European model in a manner consistent with its underlying goals of growth and stability (Blanchard, 2004; Rifkin, 2004).

<sup>13</sup> *The rejection of the EU Constitutional Treaty by referendum in France on May 29 and in the Netherlands on June 1 represents, in this context, a challenge whose implications cannot at present be precisely gauged.*

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# 10 Years of EU Membership: The OeNB in a Changing Environment

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Isabella Lindner<sup>1</sup>

*This study discusses the integration developments which have had an institutional, legal and functional effect on the Oesterreichische Nationalbank (OeNB) since Austria joined the European Union. The first stage of Austria's EU membership (1995 to 1998) brought about three major challenges for the OeNB: integration into European bodies and forums, achievement of economic and legal convergence and preparation for monetary union. Once Stage Three of Economic and Monetary Union (EMU) began on January 1, 1999, the OeNB became a member of the European System of Central Banks (ESCB) and the Eurosystem, which went hand in hand with fundamental changes in the structure of the OeNB's tasks in almost all business areas. The introduction of euro banknotes and coins on January 1, 2002, an undertaking requiring an effective communication policy coupled with sophisticated cash logistics, posed a formidable challenge. The OeNB has succeeded in maintaining its role as a think tank and decision-making body for economic policy in Austria, and in making a contribution to stability and peace in the enlarged EU within the framework of European institutions and the Eurosystem.*

## 1 Introduction

When Austria acceded to the EU on January 1, 1995, Stage Two of Economic and Monetary Union (EMU) had already been in progress for one year. Once Stage Three of EMU was launched on January 1, 1999, Austria was among the founding 11 Member States of the euro area that from then on determined the single monetary policy. This step implied sweeping changes for the OeNB, which became an integral part of the European System of Central Banks (ESCB).<sup>2</sup>

This study discusses the integration developments which have had an institutional, legal and functional effect on the OeNB since Austria joined the EU, and describes the OeNB's response to the challenges associated with these rapidly changing framework conditions.

## 2 First Stage of EU Membership: 1995 to 1998

When Austria joined the EU and thus participated in the European Monetary System (EMS) and its Exchange Rate Mechanism (ERM), the OeNB also embarked on preparations for Stage Three of EMU. As the OeNB had

already successfully pursued stability-oriented goals since the 1970s, participating in EMU was the logical next step in the continued development of this stability policy. Therefore, from the outset the OeNB was clearly committed to ensuring that Austria would take part in the monetary union as early as possible.

The seamless transition to the single monetary policy brought about three major challenges for the OeNB, specifically its integration into European bodies and forums, the achievement of economic and legal convergence and preparation for monetary union, in particular the irrevocable fixing of exchange rates.

### 2.1 The OeNB Participates Actively in European Bodies and Forums

Austria's accession to the EU afforded the OeNB equal rights to participate<sup>3</sup> in the EU's bodies and forums and in the European Monetary Institute (EMI) founded in 1994. This meant that the OeNB participated actively in the preparations for monetary union from the very beginning. The most important objectives pursued by the OeNB were continuing a stability-ori-

<sup>1</sup> The authors would like to thank Gerhard Hohäuser and Wolfgang Ippisch for their valuable suggestions.

<sup>2</sup> See section 3 for a definition of the term "ESCB."

<sup>3</sup> After the signing of the Accession Treaty in March 1994, the OeNB had been granted observer status in European bodies and forums.

ented monetary policy, strengthening the Austrian financial market and implementing the principle of subsidiarity in the ESCB.

In order to prepare early for effective and competent participation in EU institutions, the OeNB had already set up a representative office in Brussels in 1988. This office greatly facilitated and accelerated the exchange of information between the OeNB and the EU. Since 1995, the governor of the OeNB has attended the semiannual informal Ecofin Council meetings, which deal with strategically significant fiscal and economic policy issues in the EU. In addition, OeNB representatives became members of the EU's Monetary Committee<sup>4</sup>, the Economic Policy Committee and the Banking Advisory Committee (now the European Banking Committee), which are responsible for preparing the Ecofin ministers' meetings in their respective areas of expertise.

Since the signing of the Maastricht Treaty, the OeNB had already made intensive preparations for its potential role in the ESCB and maintained close relations with the other central banks in the EU. As a result, the OeNB was accepted as a full member of the EMI without difficulties from the very beginning. Owing to the high credibility of Austria's economic and monetary policies, the OeNB quickly managed to make itself heard within the EMI in the process of designing the single monetary policy. The EMI undertook preparatory work for implementing Stage Three of EMU, which included the introduction of a common European

currency, and geared up for the establishment and development of the European Central Bank (ECB) and the ESCB. In cooperation with the (then) 14 other EU central banks, the OeNB prepared for a common set of monetary and foreign exchange policy instruments, a single currency, an EU-wide payment system, a harmonized statistical data basis, a comprehensive information system and banking supervision (OeNB, 1995, p. 52). In order to tackle the abundance of different tasks and to coordinate the activities of the national central banks (NCBs), a committee structure was devised for the work of the EMI. The OeNB was represented at all hierarchical levels of this structure. The body with the highest decision-making power was the EMI Council, which consisted of the EMI's president as well as the 15 NCB governors, including the governor of the OeNB.<sup>5</sup> The work of the EMI Council was supported by the Committee of Alternates, which consisted of senior representatives of the EU central banks and contributed to preparing the meetings of the EMI Council. In addition, a Financial Committee was in charge of the EMI's annual budget and annual accounts, as well as three subcommittees and six working groups.<sup>6</sup> The active participation of OeNB representatives within the committee structure of the EMI posed new challenges in terms of organization and human resources. For example, as early as in 1996 more than 70 experts from the OeNB prepared a total of 385 meetings in Frankfurt and represented the OeNB's inter-

<sup>4</sup> Known as Economic and Financial Committee (EFC) from January 1, 1999, onward.

<sup>5</sup> The EMI Council convened ten times per year. The current chair of the EU Council and one member of the European Commission also had the right to participate in EMI Council meetings, but without voting rights (EMI, 1997, pp. 32–36).

<sup>6</sup> For a detailed description of the EMI's committee structure as well as the focuses of the subcommittees and working groups, see OeNB, 1996, pp. 39–41, OeNB, 1997, pp. 42–45 and OeNB, 1998a, pp. 22–26.

ests in various committees, subcommittees and working groups (OeNB, 1997, p. 42).

As an institution which had primarily dealt with national duties in the past, the OeNB was faced with the task of adapting its everyday operations to the EU environment. Constant benchmarking against other NCBs generated clearly increasing pressure to invest in human capital with a view to optimizing the output. Overall, the OeNB's regular participation in the internationally attended meetings of these committees and subgroups brought about a large number of new tasks in the field of intercultural management, for example in the formation of political and tactical coalitions when negotiating in the EU context. The intense decision making at the European level basically sparked a race for brilliant arguments. This development gave rise to one very positive insight at the OeNB: Even representatives of a relatively small country can have a considerable impact on EU decision making (Tumpel-Gugerell, 2002, p. 12).

## 2.2 The OeNB Supports Austria's Path to Economic and Legal Convergence

Since the early 1970s, Austria's monetary policy had already enjoyed success in its orientation toward stability goals and macroeconomic fundamentals, which largely concurred with the convergence criteria set forth in the Maastricht Treaty. For this reason, participation in EMU did not constitute a fundamental paradigm shift for Austria, but was merely the logical next step in the continued development of Austria's stability-oriented policy. From the

OeNB's perspective, it was crucial to fulfill the convergence criteria sustainably and in compliance with the Treaty.<sup>7</sup> The OeNB therefore supported the Austrian government's efforts to ensure conditions which were conducive to stability. On January 9, 1995, just a few days after its entry into the EU, Austria joined the ERM within the EMS, thus taking an important step toward meeting the economic convergence criteria.<sup>8</sup>

As one of Austria's main economic policymakers and a declared proponent of monetary integration in Europe, the OeNB, with its experts, made a substantial contribution to the process of economic convergence. For example, OeNB representatives were actively involved in the committee work on drawing up the EMI's decisive 1998 Convergence Report, which required extensive preparatory work and expertise in the fields of statistics, economics and law on the OeNB's part in order to represent Austria's interests in the relevant committees. At the request of the Austrian Federal Ministry of Finance, the OeNB also carried out a separate assessment of convergence in the EU and presented its own convergence report in 1998 (see OeNB, 1998a, pp. 20–24 for a detailed description of these economic convergence assessments).

In November 1996, the EMI had already published its first convergence report, which, in addition to providing an initial assessment of economic convergence, identified necessary adaptations in the statutes of the individual NCBs. A number of adaptations to the relevant Austrian legislation<sup>9</sup> were also suggested (EMI, 1996, p. 134). In

<sup>7</sup> *Treaty on European Union, February 7, 1992.*

<sup>8</sup> *The effects which Austria's ERM participation had on the OeNB are discussed in OeNB, 1996, pp. 28–29.*

<sup>9</sup> *Federal Act on the Oesterreichische Nationalbank (Nationalbankgesetz – NBG) 1984, BGBl. (Federal Law Gazette) No. 50/1984, as amended by BGBl. No. 532/1993.*

order to fulfill the requirements of the Treaty and the Statute of the ESCB<sup>10</sup> regarding the independence of central banks and the integration of the OeNB into the ESCB, an amendment introducing substantial changes to the Federal Act on the Oesterreichische Nationalbank was put into effect in 1998.<sup>11</sup> In this context, the OeNB's monetary policy objectives<sup>12</sup> were reformulated, and its monetary policy instruments were completely adapted to comply with the requirements of the Statute of the ESCB. This was done in order to equip the OeNB with all of the powers necessary to carry out monetary policy operations once monetary union began (OeNB, 1998a, p. 57). Moreover, the amendment to the Federal Act on the Oesterreichische Nationalbank reinforced the independence of the OeNB, set a five-year term of office for all members of the Governing Board and defined possible grounds for dismissal in line with the Statute of the ESCB. Instead of the provisions previously in force, the provisions prohibiting the monetary financing of public deficits pursuant to Article 101 of the Treaty were adopted. In order to implement the transfer of monetary policy powers to the Governing Council of the ECB, it was also necessary to amend the mandate of OeNB bodies, which subsequently led to fundamental organizational changes in the OeNB as an enterprise: In particular, the OeNB's General Council, following the monetary policy transfer, was

invested with functions similar to those of a publicly held company's supervisory board. Moreover, the number of members in the Governing Board was reduced from the previous maximum of six to four, including the governor, vice governor and two other members. Along with the changes in general conditions due to the start of monetary union, this reduction called for far-reaching restructuring measures within the OeNB, which were implemented step by step between 1997 and 1999. A comparison of the OeNB's organizational charts reveals that the six previously existing units were merged into four departments: Central Bank Policy; Economics and Financial Markets; Money, Payment Systems and Information Technology; as well as Investment Policy and Internal Services (OeNB, 1997, pp. 12–13 and OeNB, 1999, pp. 12–13).

On March 25, 1998, the EMI as well as the European Commission published their convergence reports, in which Austria was given a favorable assessment by both institutions (EMI, 1998, pp. 199–203 and p. 303; European Commission, 1998, p. 41 and pp. 55–56). On May 3, 1998, the European Council, meeting in the composition of the Heads of State or Government, finally decided that Austria and ten other EU Member States had fulfilled all of the requirements for the introduction of a single currency. As of June 1, 1998, the President, Vice President and four other members

<sup>10</sup> Protocol (No. 18) on the Statute of the European System of Central Banks and of the European Central Bank, 1992, referred to as the "Statute of the ESCB" in this study.

<sup>11</sup> With regard to the time at which this amendment went into effect, it is necessary to note that the amendment contains various effective dates due to different requirements under EU law and Austrian law: The regulations ensuring the independence of the OeNB took effect on May 3, 1998, when the resolution on the participation of Austria in the monetary union was taken. Those provisions which secure the full administration of ESCB duties and powers by the OeNB went into effect on January 1, 1999 (start of Austria's participation in Stage Three of EMU). For more information, see also OeNB, 1998a, p. 57.

<sup>12</sup> The monetary policy objectives were adapted to Article 105 paragraphs 1 and 2 of the Treaty.

of the ECB's Executive Board were appointed, thus the ECB was formally established.<sup>13</sup>

### 2.3 The OeNB Prepares for the Start of Monetary Union

In December 1995, the European Council in Madrid had approved a scenario for the transition to the euro as the European common currency. The transition was divided into stages in order to create reliable guidelines for the private sector with regard to which measures would be taken by the authorities at what time (European Commission, 2005, p. 42). On the basis of this overall transition plan, the EMI's master plan was revised and also used as a model for the OeNB's introduction of the euro. At the same time, the OeNB was also heavily involved in the general preparations for the start of monetary union in Austria.

For example, together with the Austrian Federal Ministry of Finance, the OeNB held the chair of the EMU task force established in June 1996 for the purpose of coordinating measures in the transition to the euro within Austria. A steering committee coordinated the activities of five working groups, which covered the areas of public information, banks and financial markets, legal affairs, administration and economic policy. In addition to Austrian federal ministries and the OeNB, the financial sector, social partners, economic research institutions as well as Austrian provinces and municipalities were also represented in the working groups. Their main tasks were to coordinate domestic preparatory measures for Austria's accession to the monetary union and to provide

decision support to the government in the fields of general policy, economic policy and law.

In order to ensure the actual participation of Austria in the monetary union, the OeNB also had to meet the organizational, technical and operational prerequisites for ESCB membership by the end of 1998: For example, the monetary policy instruments used in Austria were rapidly harmonized with those of the future Eurosystem. Likewise, the OeNB's statistical framework was adapted, and a number of operational and technical adaptations were required, for instance in the areas of payment and IT systems. Moreover, it was necessary to prepare for the production and issue of euro banknotes. At the same time, organizational processes were streamlined and modernized, and business processes were networked within the Eurosystem (OeNB, 2000b, pp. 7–18). These varied measures (developed within the EMI's committee structure and coordinated internationally) affected all of the OeNB's business areas. As mentioned above, in order to ensure that all activities would be coordinated appropriately, the OeNB developed a master plan describing the process of introducing the euro in great detail. In the course of this large-scale project, nearly 70 subprojects were coordinated and human resources totaling some 350 personnel years were deployed (OeNB, 1998b, p. 2).

In order to meet the increased qualitative demands on its staff, the OeNB quickly launched a training program on EU topics and took these changing demands into consideration in its recruitment policies. The Economic

<sup>13</sup> This meant that the EMI had completed its tasks and was thus dissolved as of June 1, 1998.

Studies Division was established within the OeNB's Economic Analysis and Research Section, and the number of economists and statisticians grew in line with new qualitative demands in the fields of research, forecasting and statistical reporting. The structure of the OeNB as a group of companies also saw fundamental changes in anticipation of Austria's participation in the monetary union, mainly in the form of further horizontal diversification in money production due to the OeNB's acquisition of AUSTRIA CARD-Plastikkarten und Ausweissysteme Gesellschaft m.b.H. The OeNB also reinforced its position in the payments sector by taking a stake in Austrian Payment Systems Services GmbH (APSS). Furthermore, the OeNB's securities printing office was spun off as a new subsidiary called OeBS (Oesterreichische Banknoten- und Sicherheitsdruck GmbH; OeNB, 2000b, pp. 17–18).

### 3 Second Stage of EU Membership: 1999 to 2005

The irrevocable fixing of exchange rates as of January 1, 1999, brought about a fundamental transformation of overall monetary and economic policy conditions for the OeNB. By transferring formal sovereignty over monetary policy to the ECB, the Member States which adopted the euro saw a new distribution of roles between the ECB and the individual central banks in the EU. The OeNB's institutional and functional areas of activity thus

changed substantially.<sup>14</sup> However, the de iure transfer of monetary sovereignty de facto increased the OeNB's influence on decision processes related to European monetary and central bank policies than before (Hochreiter, 2000, p. 308).

#### 3.1 The OeNB Joins the ESCB and the Eurosystem

With the start of Stage Three of EMU, the OeNB became an integral part of the ESCB, which comprises the ECB and the NCBs of all EU Member States, and of the Eurosystem, which consists of the ECB and the NCBs of the Member States which have adopted the euro.<sup>15</sup>

The governor of the OeNB is a voting member of the ECB's Governing Council, the body which is responsible for monetary policy decisions and consists of the six members of the ECB's Executive Board and the (currently 12) NCB governors in the Eurosystem (ECB, 1999, pp. 55–56). Participating in the Eurosystem has increased the OeNB's influence in that the governor of a relatively small central bank can now participate actively in decisions on the single monetary policy on the basis of the "one member, one vote" principle.<sup>16</sup> In this context, however, it is necessary to emphasize the fact that in monetary policy decisions and in the fulfillment of the ESCB's other duties, the governor of the OeNB – like all other members of the ECB's Governing Council – acts completely

<sup>14</sup> For more information on the monetary policy implications of Austria's accession to the EU, see Gnan et al. in this issue of *Monetary Policy & the Economy*.

<sup>15</sup> To enhance transparency and enable the public to grasp more easily the complex structure of the ESCB more transparent and comprehensible, the ECB's Governing Council decided to adopt the term "Eurosystem" for that part of the ESCB which includes the ECB and the NCBs of the 12 Member States currently participating in Stage Three of EMU (OeNB 2000a, p. 16). Since May 1, 2004, the ESCB has consisted of 25 NCBs and the ECB.

<sup>16</sup> In the light of the expected enlargement of the euro area and the resulting increase in the number of members in the ECB Governing Council, voting modalities were amended in March 2003 to provide for a rotation scheme based on three groups of countries. In this context, the principle of "one member, one vote" was generally upheld (for details see Dvorsky and Lindner, 2003).

independently and in the interest of the euro area as a whole, as he was appointed for this office in a personal capacity. The governor of the OeNB is also a member of the General Council, which includes the President and Vice-President of the ECB as well as the NCB governors of all 25 EU Member States.<sup>17</sup>

The Governing Council of the ECB generally meets at 14-day intervals. In addition to monetary policy, the topics discussed include the entire spectrum of issues related to central banking. Therefore, the relevant decisions of the ECB Governing Council require well-founded expert analyses from the ECB as well as the NCBs. This is an essential prerequisite for efficient decision making. The EMI's committee structure was retained and adapted in order to ensure the regular exchange of views among experts at the ECB and the NCBs and to prepare the meetings of the ECB's Governing Council and General Council. In practice, the work of the committees is highly important because many topics cannot be discussed in sufficient detail in the Governing Council and General Council due to their complexity and scope (Bartik et al., 2004, pp. 31–34). Since the start of Stage Three of EMU, the number of committees and subordinate groups has continued to rise, so that the committee structure currently consists of 14 committees and 111 subordinate groups in total (subcommittees, working groups and task forces; Bartik et al., 2004, p. 66). Par-

ticipating in the committees and subordinate groups has brought about fundamental changes in the organizational and professional demands placed on OeNB experts: The topics discussed in the various committees and subordinate groups concern nearly all core business areas and hierarchical levels at the OeNB, and the working language is invariably English. On average, each committee convenes ten times per year for one to two days, and the meetings are nearly always held in Frankfurt. The OeNB sends a total of 26 representatives to the 14 committees and 109 representatives to the respective subordinate groups<sup>18</sup> (Bartik et al., 2004, p. 69).

### 3.2 The OeNB Assumes New Tasks as a National Central Bank in the Eurosystem

The ESCB/Eurosystem is basically structured as a federal system in accordance with the principle of subsidiarity laid down in the Treaty. One essential issue which already arose during the preparations for monetary union was the question of how powerful the central components of the system should be. While fundamental decisions on monetary policy are made centrally, the corresponding measures are implemented at the national level wherever possible. In this context, it was necessary to strike a balance between the centralization of those activities for which it seemed appropriate in terms of efficiency and a decentralized orientation in order to opti-

<sup>17</sup> The General Council can be regarded as a transitional decision-making body. It performs those duties which were originally assigned to the EMI and which the ECB must carry on due to the fact that not all Member States have adopted the euro. The General Council meets four times per year. For more information, see Scheller, 2004, pp. 61–62.

<sup>18</sup> This divergence in numbers arises from the fact that the OeNB does not participate in several subordinate groups due to the topics covered, while in some cases two representatives are nominated for certain committees and subordinate groups.

mize the use of resources and experience available in the NCBs (Bartik et al., 2004, p. 3).

Accordingly, the OeNB now performs its main tasks in the following specific areas within the ESCB/Eurosystem: Preparation of monetary policy information for the governor, implementation of monetary policy decisions, management of reserve assets, public relations, cooperation in the supervision of domestic credit institutions as well as payment systems oversight in order to ensure the stability of the financial markets, provision of analyses and statistics, domestic cash supply and payment processing.

Participating in the monetary union also required the OeNB to intensify its economic analysis activities, which serve as the basis for the positions taken by the OeNB governor in the Governing Council and General Council of the ECB. In the implementation of monetary policy, a number of changes were made in the policy instruments deployed as well as the responsibilities of the OeNB in this area. In the Eurosystem's open market operations, the OeNB's main duties are to collect tender offers and forward them to the ECB, to inform credit institutions of the allotment results and to settle the transactions. The OeNB also acts as the credit institutions' counterparty for the standing facilities (OeNB, 1999, pp. 42–43). As regards the management of reserve assets, the bulk of Austria's reserves has remained in the hands of the OeNB but is managed according to rules defined by the ECB's Governing Council. In order to ensure a comparable information basis within the Eurosystem, statistical requirements also increased with regard to accuracy, level of detail and timeliness. In addition, efforts to harmonize statistical data at the international level were

also enhanced. Supplying banknotes and coins has remained one of the OeNB's main duties. As of January 1, 1999, the Austrian RTGS payment system ARTIS was integrated into the TARGET network interlinking national payment systems (OeNB, 1999, p. 43). In its public relations work for the Eurosystem, the OeNB plays a special role as an "ambassador" for European monetary policy in Austria and thus makes a valuable contribution to the Eurosystem's communication policy (Hochreiter, 2000, p. 307).

The precise distribution of tasks in the Eurosystem is subject to ongoing adaptation and discussion. While the debate about the centralized or decentralized orientation of the system has not subsided since its inception, the Eurosystem is still clearly decentralized with regard to the execution of tasks. Activities have only been centralized in the area of payment systems among several NCBs and in representation by the ECB in several EU bodies. For example, since Austria's EU accession the OeNB has been represented in the EFC, but the OeNB's – and other NCBs' – level of participation was reduced in the course of EU enlargement. However, the OeNB is still represented in the EU bodies responsible in the fields of banking supervision, international cooperation (IMF) and technical preparation for the euro introduction in additional Member States.

Furthermore, decisions of the ECB Governing Council and the resulting legal acts sometimes allow – but do not require – all national central banks to take part in a given task and its implementation. For this reason, it appeared especially sensible for the OeNB (as a relatively small NCB) to establish itself as a universal central bank with selected areas of specializa-

tion within the Eurosystem. For example, the focus of economic research and analysis at the OeNB<sup>19</sup> has shifted due to monetary policy integration, and the following three specialist areas have emerged: 1) economic analysis of the euro area as a whole, 2) analysis of the Austrian economy and 3) specialization in the analysis of Central and Eastern European countries as well as the economic analysis of the transition process. Through a number of targeted measures which were already initiated in the early 1990s, the OeNB succeeded in developing its focus on Central and Eastern Europe into a special area of economic analysis and research within the Eurosystem and in building up an outstanding network of working contacts.<sup>20</sup> In response to the enlargement of the EU in 2004, the OeNB has redefined its research priorities over the last year and will sharpen its focus on the countries of Southeastern Europe, which constitute the future generation of EU candidate and accession countries. Consequently, the OeNB has also started to intensify its bilateral contact with the central banks in these countries.

### **3.3 The Euro Cash Changeover Poses a Challenge to Communication Policy and Logistics**

In parallel to the activities mentioned above, the OeNB also had to deal with very important agendas on the domestic front, especially preparing and implementing the changeover to euro banknotes and coins as of January 1, 2002. In terms of logistics and external communication, this transition was one of the greatest challenges the OeNB has ever faced. Given the scale

of the project, planning began at a very early stage. The new currency was given the name “euro“ in 1995, and the decision to use the banknote designs submitted by the OeNB (Robert Kalina) was taken in 1996. One significant activity in the run-up to the euro cash changeover was the production of the banknotes and coins themselves. Another important measure was the establishment of GELD-SERVICE AUSTRIA Logistik für Wertgestionierung und Transportkoordination G.m.b.H. (GSA), which was put in charge of developing efficient cash logistics in Austria (see OeNB, 2002, pp. 17–20 for a detailed description of all measures taken in this context). It can be regarded as a particular success on the OeNB’s part that the euro banknotes and coins enjoyed swift acceptance among the vast majority of Austrians from the very beginning. Just two weeks after the introduction of the new currency, some 90% of all cash transactions were settled in euro. Taking the Austrian schilling out of circulation imposed very different logistical demands, especially because the decision as to when, how much and which denominations of the old currency to turn in was left to the discretion of the people. For this reason, numerous activities were carried out in order to remove the schilling from circulation (OeNB, 2002, pp. 21–23). In early 2001, the OeNB launched a campaign which aimed to create a positive attitude toward the euro among the population and preceded the main campaign “Mit der Nationalbank zum Euro” (The OeNB – Making the Euro Yours) in the fall of 2001 (OeNB, 2002, pp. 23–26). However, even after

<sup>19</sup> In addition, the OeNB has been supporting Austrian research with considerable funds for almost 40 years now.

<sup>20</sup> For an overview of the OeNB’s concrete activities in connection with its focus on Central and Eastern Europe, see OeNB, 2003, pp. 55–57.

the smooth transition to euro banknotes and coins, the OeNB made (and is still making) efforts to continue this communications drive and to carry out trust-building measures on an ongoing basis. Such measures have included assisting the population in getting a feel for the value of the new currency and combating the problem of (subjectively) “perceived inflation” in the Austrian population (OeNB, 2003, pp. 19–20).

#### **4 Concluding Remarks**

In conclusion, we can state that as an institution the OeNB was (and is) heavily influenced by Austria’s accession to the EU. This can mainly be attributed to the fact that the intensity of European integration has increased markedly in the last ten years, especially in the area of monetary policy.

From the very outset, the OeNB clearly demonstrated its commitment to the objective of ensuring that Austria would take part in the monetary

union as early as possible. The transition to a single European currency in early 1999 as well as the euro cash changeover in 2002 were among the greatest challenges the OeNB has had to face in its entire 190-year history.

The integration of the OeNB into European decision-making bodies and forums has changed the bank’s working methods at all hierarchical levels and in all fields. In particular, the OeNB’s cooperation with the ECB and other NCBs in the ESCB/Eurosystem has also brought about significant pressure in terms of quality and competition as a result of ongoing changes and adaptation requirements.

However, the OeNB has succeeded in maintaining its role as a think tank and decision-making body for economic policy in Austria, and in making a contribution to stability and peace in the enlarged EU within the framework of European institutions and the Eurosystem.

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# EU and EMU Entry: A Monetary Policy Regime Change for Austria?

Economic and Monetary Union (EMU) has changed the monetary policy regime applicable in Austria in many respects, but the stability orientation of Austria's monetary policy has been maintained. EMU's institutional framework and the actual monetary policymaking of the Eurosystem have secured Austria's legacy of monetary stability at the European level. Decision making at the Oesterreichische Nationalbank (OeNB), which had been shaped by the system of social partnership, is now characterized by a greater degree of formal central bank independence. The assignment of various economic policy goals to specific policymakers or institutions, an approach Austria had already followed under the hard currency regime, was maintained under EMU. Like the hard currency policy, the Eurosystem's monetary policy has a medium- to long-term orientation. EMU stabilized Austria's nominal effective exchange rate even more than the hard currency policy could. Therefore, low domestic inflation and wage moderation play an even more important role in maintaining price competitiveness than in the past. The stable real effective exchange rate bears witness to the success in achieving this up to now. Monetary Conditions Indices and Taylor rules suggest that the monetary policy framework has eased for Austria under EMU. EU and EMU entry may have changed various channels of the monetary policy transmission mechanism.

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## 1 Introduction

This study examines the impact of ten years of EU membership from 1995 and six years of EMU membership from 1999 on Austria's monetary policy regime, specifically its main strategic features and the interaction with other policy areas, and on monetary policy implementation and its transmission to the economy. Is EMU membership indeed – as is frequently asserted – simply a continuation of the schilling hard currency policy that was pursued during the two preceding decades, or did the introduction of the euro following EU entry and membership in the European Monetary System (EMS) mark a monetary regime change for Austria? This question is important because the stability and credibility of the Austrian schilling represented a valuable asset for Austria's economy, an asset which was “sunk” into the euro (Theurl, 1998).

## 2 Starting Point: The Late Stage of the Hard Currency Policy in the 1990s

By the beginning of the 1990s, two elements of what was defined as *Austro-*

*Keynesianism* (Seidl, 1982), which was pursued in the 1960s and 1970s, had remained in place: the schilling hard currency policy and a wage policy negotiated consensually by both sides of industry (the social partners).<sup>2</sup> The rationale for the hard currency policy of the 1990s was frequently substantiated by arguments based on the formation of expectations, game theory and structural policy. In this context, the reduction of exchange rate uncertainty (and the diminished hedging costs in its wake) was often cited, as was the stabilization of price expectations for business through relatively stable export and import prices and wage moderation, and for employees as well as consumers, given productivity-oriented wage increases and moderate rates of inflation. During this late stage of hard currency policymaking, the *stabilization of expectations* was targeted at stabilizing monetary framework conditions, not at stabilizing the business cycle or cyclical expectations, as it had been in the 1970s.

The hard currency policy did not take the structural adjustment features

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<sup>1</sup> The authors thank Manfred Fluch, Eduard Hochreiter, Wolfgang Ippisch, Werner Metz, Helmut Pech and Thomas Wagner for suggestions on the manuscript.

<sup>2</sup> Klausinger (1998) defines 1982 as the year in which *Austro-Keynesianism* ended and “true” hard currency policy began.

of the Austrian economy as givens, but rather aimed at providing a “*structural stimulus*” – achieving greater real wage flexibility, reforming goods markets and eliciting fiscal policy *discipline* to obtain sustainability. In this respect, the hard currency policy was above all “*tying one’s hands*” and was meant to *signal the credibility of the stability-oriented policy* (Hochreiter et al. 1994, 1995). Because this policy emphasized the stabilization of expectations and because of its rule-based nature, it was sometimes referred to as *Austro-Monetarism* (Handler, 2003; Haberler, 1982; Socher, 1982).

Once *capital movements* had been *fully liberalized* in 1991, the stabilization of expectations in international foreign exchange and capital markets also gained importance. The money supply and money market interest rates merely reflected the imperatives of the exchange rate peg – monetary policy was no longer available as an independent tool of demand management.<sup>3</sup> If the market had perceived inconsistencies between the hard currency policy and the economic fundamentals, it could have reacted with sanctions, such as a boost in interest risk premia or, at worst, even a speculative attack on the schilling.

Austria’s entry into the *exchange rate mechanism (ERM) of the EMS* on January 9, 1995, did not entail any change in the hard currency policy (Schubert et al., 2002). Moreover, the entry conditions were carefully chosen to prevent any impression that the ERM entry signaled a regime

change that could have cast doubt on the credibility established through the hard currency policy (Hochreiter et al., 2004). The central parity of the schilling of ATS 13.7167 to the ECU was determined on the basis of the market rate of ATS 703.55 to the Deutsche mark on January 5, 1995, the bilaterally fixed rate that had applied for years. As Austria intended to unilaterally observe the informal Deutsche mark peg, respecting the broad multilateral fluctuation range of the EMS of  $\pm 15\%$  did not represent an additional restriction for Austria. The OeNB was careful not to seek a narrow fluctuation band with the Deutsche Bundesbank like the one De Nederlandsche Bank had introduced, as this might possibly have been interpreted as a relaxation of the hard currency policy.

However, ERM entry did place the formerly unilateral and voluntary self-commitment within a formal, multilateral and institutional framework with explicit rights and duties (credit facilities, foreign exchange interventions and economic policy consistency). ERM entry also changed the status of the schilling from that of a small, “*insignificant currency*” (Tichy, 1985) to that of a part of the “*EMS cluster*” (Liebscher, 2002), putting it more into the limelight in international foreign exchange markets.<sup>4</sup> This exacerbated the pressure on Austria to orient other economic policy instruments on exchange rate policy requirements. From the second half of the 1990s the need to monitor compli-

<sup>3</sup> The hope of obtaining even a small degree of autonomy to reduce interest rates had been given up long before – in 1979, the OeNB had attempted to escape the international interest rate increase after the second oil price shock by not hiking interest rates: this experiment had led to massive capital outflows (see Handler, 1989, p. 43 ff.).

<sup>4</sup> The OeNB had already felt some pressure to give its currency a more prominent role when the schilling suffered a speculative attack in August 1993 (see e.g. Hochreiter et al., 2004). Moreover, after the government coalition collapsed in October 1995 because it could not agree on further budget consolidation measures, temporary capital outflows resulted (see Handler et al., 1996).

ance with the Maastricht convergence criteria, whose fulfillment was the prerequisite for the introduction of the euro, also formally changed the fiscal policy leeway (Katterl and Köhler-Töglhofer, in this issue).

Hence, adjustments to exogenous shocks had to be made even more strongly through *wage policy* than in the 1980s. Austria managed to achieve necessary real exchange rate adjustments by adapting real wages in negotiations between the two sides of industry. Thus, it was able to retain its Deutsche mark peg without high costs in the form of high unemployment. This concept of monetary policy implied a clear division of responsibilities, with the state in charge of stability policy (securing monetary stability) and the social partners of wage policy (securing high employment) (Klausinger, 1998).<sup>5</sup>

### 3 EMU Changes the Monetary Policy Regime in Austria

Table 1 summarizes the criteria with which to judge the differences or similarities between the hard currency policy regime and EMU from the Austrian perspective. Some of these criteria are described in more detail below.

For Austria, EMU entry represented a quantum leap in terms of the *size of the monetary area* (population: 1:38; GDP: 1:32). Belonging to this larger monetary area should entail positive network effects for the functions of money compared with the schilling regime (Stenkula, 2003). The euro, the world's second-largest currency (after the U.S. dollar), plays a key role in international financial market and

goods transactions, which reduces exchange rate risk and hedging costs for euro area economic agents.

Even before EMU entry, the OeNB pursued the goal of price stability. However, in EMU *price stability as the primary objective* ahead of other objectives is more clearly established in the Statute of the ESCB and the ECB. This was additionally emphasized by the announcement of a quantitative definition of price stability by the Governing Council of the ECB.

Under the hard currency policy regime, the composition of the formerly highest decision-making body of the OeNB, the General Council (Generalrat), exemplified the principle of consensual policymaking with all social partners being represented. Explicit formal independence was not necessary under this “corporatist” system with its far-reaching consensus about economic policy priorities (Pech, 2002).<sup>6</sup> By contrast, in the multinational EMU environment, formal rules of *central bank independence* became more important to clearly spell out the objectives and responsibilities of institutions, some of which had been newly established. The “fundamental institution” of common values and a high level of trust in the system were substituted by the “secondary institution” of the Statute of the ESCB and ECB (Theurl, 1998).

As a counterpart to the higher degree of central bank independence in EMU, the informal *ex ante accountability* given by the participation of all social partners in the OeNB's General Council was replaced by a more explicitly defined and legally mandated ex

<sup>5</sup> Tumpel-Gugerell et al. (2002) describe a “separation model” under which individual economic policy goals are associated with specific policymakers or institutions.

<sup>6</sup> However, studies on central bank independence concluded that by international standards Austria had enjoyed a high degree of central bank independence also in the past (see e.g. Cukierman et al., 1992).

### Monetary Policy Regime before and under EMU

Regime features	Schilling hard currency policy of the 1990s <sup>1</sup>	EMU from January 1, 1999
Size of the monetary area	Small currency, informal monetary union with the Deutsche mark hard currency bloc	Very large euro monetary area, additionally large group of currencies more or less tightly pegged to the euro
Capital movements	From November 4, 1991: completely liberalized capital movements	Completely liberalized capital movements
Exchange rate regime	Could be changed under Article 2 paragraph 3 as well as Article 4 Nationalbank Act and Article 2 Foreign Exchange Act  Since the 1980s unilateral, voluntary Deutsche mark peg; since January 9, 1995, ERM participation	May be changed under Article 111 of the Treaty, so far free float
Central bank objective	Maintenance of the value of the Austrian currency both with regard to its domestic purchasing power and to its relationship with stable foreign currencies (Article 2 paragraph 3 Nationalbank Act); due regard for the economic policy of the federal government (Article 4 Nationalbank Act)	Primary objective: Price stability; without prejudice to the objective of price stability: support of the general economic policies in the Community (Article 105 Treaty)
Independence of the monetary policy decision-making body	General Council (Generalrat) is the highest decision-making body; its members represent both sides of industry, the financial sector; business; the State Commissioner has the right to veto (temporarily suspend) illegal decisions of the General Council	Detailed provisions prohibiting Governing Council members from seeking or taking instructions; full-time Governing Council members have minimum terms of office of eight years (ECB Executive Board) or five years (NCB governors); protection against dismissal prior to fulfillment of terms
Monetary financing of governments	Prohibition of lending to the federal government (Article 41 paragraph 1 and Article 42 paragraph 1 Nationalbank Act) including the prohibition of circumventing this provision by open market operations (Article 54 paragraph 3 Nationalbank Act)	Prohibition of credit facilities for the public sector and prohibition of the direct purchase of debt instruments from the public sector (Article 101 Treaty)
Accountability	Supervision by State Commissioner (with a period for objection)	OeNB: Ex post to the Nationalrat ECB: Ex post to European Parliament; European Commission President and President of the Council have observer status in the Governing Council of the ECB
Transparency	High degree of transparency by public announcement of the monetary rule	High degree of transparency (among other things through the announcement of the price stability definition, monetary policy strategy, detailed information about Governing Council meetings, publication of projections)
Responsibility for exchange rate policy	OeNB (Article 2 paragraph 3 Nationalbank Act), coordinated with the federal government's economic policy (Article 4 Nationalbank Act) <sup>2</sup>	International: Ecofin/Eurosystem depending on the exchange rate regime (Article 111 Treaty)  ERM II: Euro area finance ministers and ECB as well as pre-in finance ministers and NCBs
Interaction with other economic policy areas	Part of a consensual policy package. Individual objectives are assigned to specific policymaking areas. Primacy of exchange rate strategy monetary policy serves as a „nominal anchor;“ „structural reform impulse;“ „disciplining mechanism“	Individual objectives are assigned to specific policymaking areas. Independent monetary policy is complemented by fiscal policy rules, (in some countries) national wage policies and structural reforms
Monetary policy strategy	Exchange rate target. Strict rule  Long-term orientation toward stabilization of price expectations	Two-pillar strategy; adapted in spring 2003. Discretionary monetary policy  Medium-term orientation toward meeting the announced price stability target
Intermediate monetary policy target	Fixed bilateral nominal exchange rate peg to the Deutsche mark	No intermediate target (M3 growth is a prominent indicator; economic projections and numerous other indicators to forecast inflation)
Monetary policy instruments	Up to 1996: above all standing facilities; 1996 to 1998: Focus shifts increasingly to tender operations, unremunerated minimum reserve holdings	Focus on tender operations, supplemented by standing facilities; no daily money market interventions; remunerated minimum reserve holdings with averaging

Source: OeNB.

<sup>1</sup> The legal material is cited from the Nationalbank Act (NBG) in effect until May 2, 1998. The 1998 amendment of the Nationalbank Act introduced adjustments to Treaty provisions in two stages, first from May 3, 1998, and second from January 1, 1999.

<sup>2</sup> See also Raschauer (1976).

post accountability. A high degree of *transparency* enables governments and the general public to understand the motivations for the monetary policy decisions made by the independent Eurosystem.

EMU changed the *interaction* of *monetary policy* and other areas of *economic policy*. The hard currency policy was part of a national policy package. Long before EMU, this consensual model had already been subject to major change (Clement, 2001; Lauber, 1997; Klausinger, 1998), as the role of the social partners had been diminishing since the 1980s (Kramer, 2004; Guger, 1998). Nevertheless, the core concept of the hard currency policy remained basically unchallenged even in the late 1980s, and the social partners considered themselves parties to the decision to maintain the policy, not least because they were represented in the OeNB's General Council.

In EMU, monetary policy decisions are taken by the Governing Council of the European Central Bank. The decision-making bodies of the OeNB were adapted to meet the legal convergence requirements of the Treaty establishing the European Community, and the 1984 Nationalbank Act was amended to this effect in 1998, among other things to secure the independence of the Governor of the OeNB in the Governing Council of the ECB (Dvorsky and Lindner, in this issue). Monetary policy is no longer part of a *national* consensus package.

Nonetheless, the practical division of responsibilities between monetary policymaking and the other – national – economic policymaking areas (fiscal policy, structural policy, wage policy) is similar to that under the hard currency regime: Monetary policy is considered a given; the other economic policy areas absorb e.g. asymmetric

shocks wherever possible and sensible. As under the hard currency regime, monetary policy continues to act as an anchor for stability policy in general and is rounded off and secured by a complementary set of rules for other policy areas (e.g. fiscal discipline rules, the Lisbon agenda), partly at the European and partly at the national level.

The two-pillar monetary policy strategy of the Eurosystem is discretionary – there is no intermediate target – whereas the hard currency policy represented a strict monetary policy rule. The hard currency policy and the Eurosystem's strategy concur in that monetary policy should have a medium- to long-term orientation.

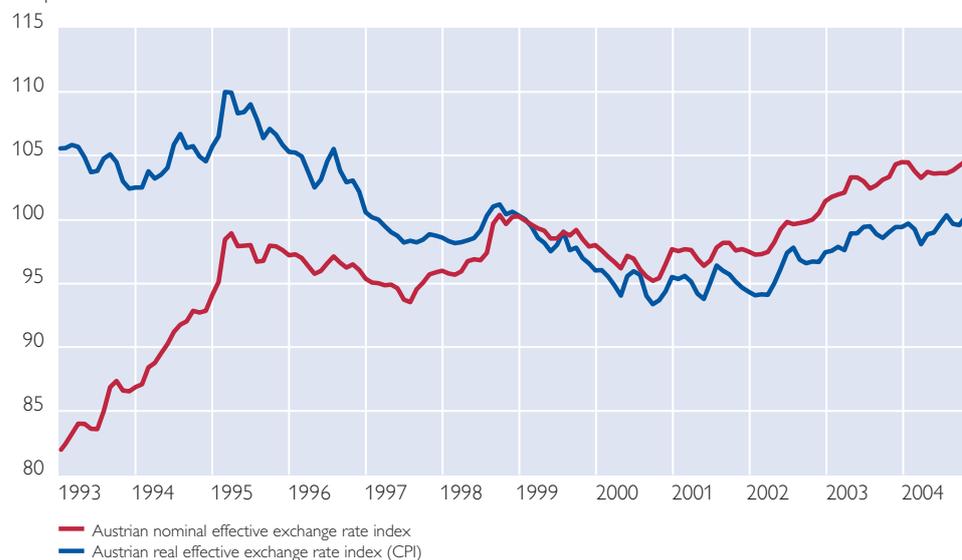
#### 4 EMU Stabilizes Austrian Effective Exchange Rate

It was often argued that Austria's participation in EMU would permanently expand its "zone of monetary stability" and that under EMU, countries could no longer resort to "competitive" devaluations, which used to place Austria at a competitive disadvantage. Chart 1 shows that the nominal effective and the real effective exchange rate have in fact stabilized since EMU entry. From the start of Stage Three of EMU in January 1999 until December 2004, Austria's *nominal effective exchange rate* appreciated by nearly 5%, mirroring international developments, but the *real effective exchange rate* as based on the consumer price index (CPI) remained virtually unchanged, given the lower rates of inflation in Austria than in its trade partner countries. The changes in the course of the observation period were relatively small – even the strong fluctuations of the U.S. dollar's exchange rate and of other key currencies against the euro had very little effect on Aus-

Chart 1

### Austrian Effective Exchange Rates

1<sup>st</sup> quarter of 1999 = 100



Source: WIFO.

trian effective exchange rates, as intra-euro area trade predominates Austrian trade.

Table 2 shows that both the long-term and the short-term *variability* of the effective *exchange rates* in Austria has decreased substantially since EMU entry. Thus, EMU contributed more to a noticeable stabilization of external

price relations in Austria than the hard currency policy with its narrower reference zone had been capable of.

This development also clearly shows that low domestic inflation plays an even greater role as a shock absorption mechanism and as a means to maintain price competitiveness than under the hard currency regime.

Table 1

### Austrian Exchange Rate Variability before and under EMU

	Austrian nominal effective exchange rate index	Austrian real effective exchange rate index (CPI)
Long-term variability		
1993 to 1998	4.80	3.18
1999 to 2004	2.75	1.99
Short-term volatility		
1993 to 1998	0.82	0.97
1999 to 2004	0.59	0.74

Source: WIFO, basis 1<sup>st</sup> quarter 1999 = 100.

Variability measures: Long-term standard deviation; short-term standard deviation of the deviation from the moving 12-period average for each of the two subperiods.

### The Hard Currency Policy, EMU and the Optimal Currency Area

In assessing a monetary regime, it is quite important to determine whether the currency area is sufficiently homogeneous to conduct a monetary policy suitable for all parts (countries) of the currency area. Drawing on the Optimal Currency Area (OCA) theory (Mundell, 1961), the table below analyzes whether Austria has come closer to fulfilling the OCA criteria after switching from its Deutsche mark peg to participation in the euro area.<sup>7</sup>

The development of Austrian inflation is more highly correlated with that of the euro area than with that of Germany. This applies both to the entire period from 1995 to 2004 and to the two subperiods from 1995 to 1998 and from 1999 to 2004. Hence, a monetary policy geared primarily to price stability for the euro area should fit in well with Austria's needs. It is also interesting to note that in the second subperiod (the last six years) the correlation coefficients rose both against the euro area and against Germany compared with the first subperiod.

The correlation of growth rates is lower than that of inflation rates. Moreover, during the period from 1995 to 1998, Austria's business cycle was more strongly correlated with that of the euro area as a whole than with that of Germany, whereas during the period from 1999 to 2004 the correlation of GDP growth was stronger between Austria and Germany than between Austria and the euro area. Overall, however, both comparisons signal a strengthening of correlations as time progressed. As business cycle divergence between individual countries cannot be taken into account in euro area monetary policymaking, the real adjustment mechanisms to asymmetric shocks by way of wages and prices still play an important role, as they did during the hard currency regime.

#### Correlation of Inflation (HICP) and GDP Growth<sup>1)</sup>

	Inflation		Real GDP growth	
	Austria/Germany	Austria/euro area	Austria/Germany	Austria/euro area
1995 to 2004	0.777	0.830	0.608	0.473
1995 to 1998	0.561	0.798	0.169	0.357
1999 to 2004	0.832	0.875	0.756	0.525

Source: Eurostat, OeNB.

<sup>1)</sup> Correlation coefficients of the monthly inflation rates and of the annual real GDP growth rates, respectively.

## 5 The Hard Currency Policy, EMU and Monetary Conditions in Austria

The Eurosystem necessarily targets its monetary policy at the euro area *as a whole*, not at the economic development in individual EMU member countries. Nevertheless, the question may be posed – for analytical purposes – how EMU has influenced the mone-

tary policy framework in individual member countries, in the event, in Austria. The level of *long-term interest rates* has declined in Austria since it joined the EU in 1995. Between 1995 and 1998, the nominal interest rate of the ten-year benchmark bond ran to roughly 6%, whereas it came to 4.75% between 1999 and 2004. The level of real interest rates<sup>8</sup> dropped even more sharply, falling from 4.8%

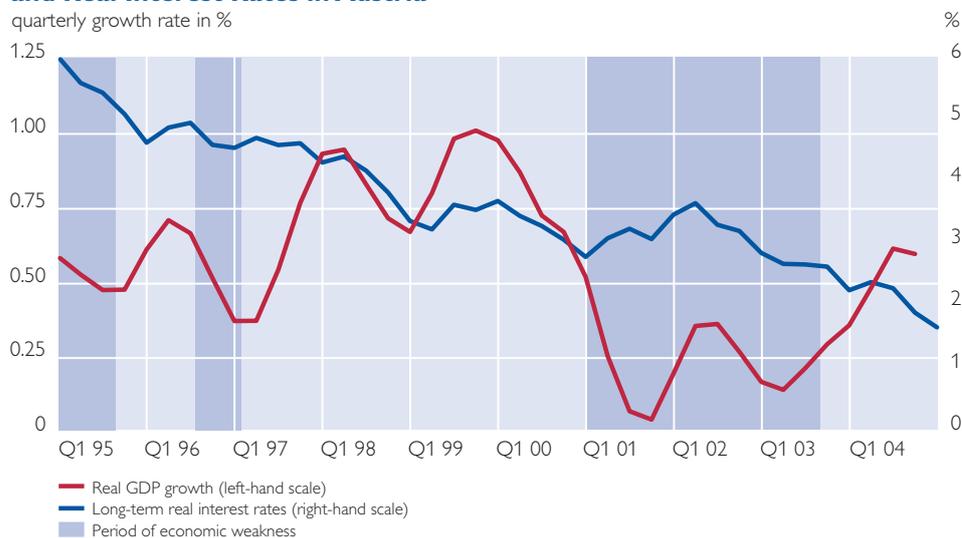
<sup>7</sup> Owing to space constraints, only the synchronization of inflation rates and real GDP are analyzed here. See Stigl-bauer (in this issue) for a discussion of labor mobility and wage flexibility, which play an important role in OCA theory. Janger and Wagner (2004) show that sectoral specialization patterns in Austria and in the EU-15 have been changing only slowly and more or less homogeneously over the past 20 years, which reduces the risk of asymmetric shocks.

<sup>8</sup> The *ex ante* real interest rate – i.e. the interest rate adjusted for inflation expectations – was used to calculate the real interest rate level, with inflation expectations at time *t* corresponding to the average monthly inflation rates from *t+1* to *t+12*.

Chart 2

### The Development of GDP (Moving Four-Quarter Average)

#### and Real Interest Rates in Austria



Source: Statistics Austria, Thomson Financial, OeKB, OeNB.

to some 3%. This is not a purely Austrian phenomenon, but was observable throughout the euro area and in many OECD member countries.

In order to gain a more complete picture abstracting from cyclical differences in interest rate levels, we also compare *real interest rate levels during periods of economic weakness*.<sup>9</sup> According to the definition used here, there were three periods of economic weakness during the reference period (from the first quarter of 1995 to the third quarter of 1995; from the third quarter of 1996 to the first quarter of 1997; from the first quarter of 2001 to the fourth quarter of 2003). The long-term interest rates during the weak phases of 1995 and 1996–97 came to around 5.7% and 4.7%, respectively; during the phase from 2001 to 2003, they stood at about 3%. At the end of the first cyclical trough, the output

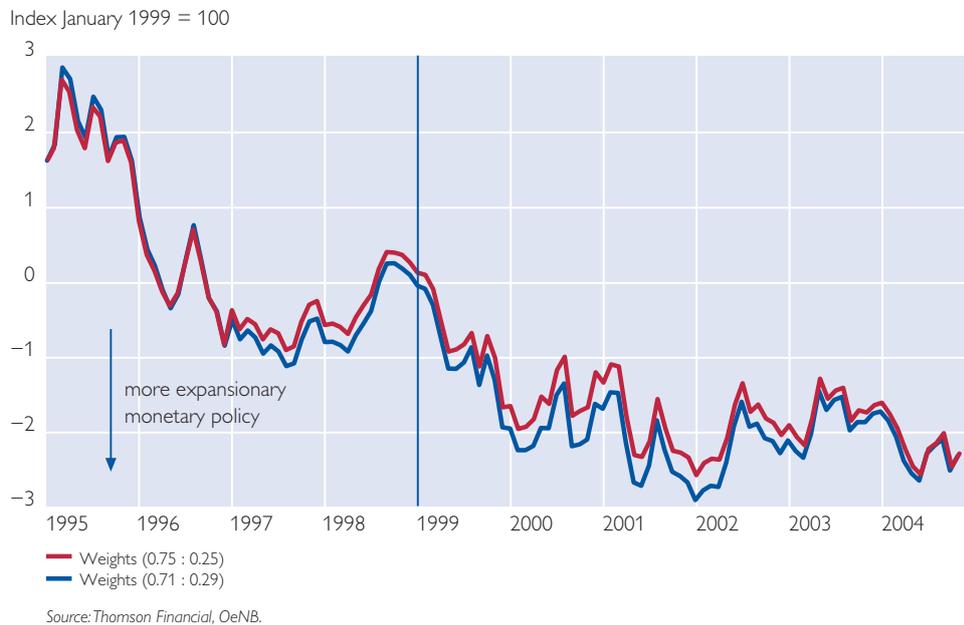
gap was  $-0.8\%$ ; it came to  $-2.6\%$  at the end of the second period, and the third phase of economic weakness closed with an output gap of  $-0.9\%$ . This means that although the weakening in the 1995 and 2001–03 periods was comparable and the second phase of weakness in 1996–97 was much more pronounced, the real interest rate was far higher in the mid-1990s than at the beginning of the 21<sup>st</sup> century. This frame of reference also spotlights the general decline in the level of real interest rates.

*Monetary Conditions Indices (MCIs)*, which summarize the development of the short-term real interest rate and the real effective exchange rate of the schilling (and later the euro), also signal that the monetary policy framework became more expansionary from 1995. The short-term real interest rate and the real effective exchange rate are

<sup>9</sup> For the purpose of this study, a period of economic weakness is defined as a period in which real GDP growth (seasonally adjusted) comes to 0.5% or less in more than two consecutive quarters. A period of economic weakness ends when the growth rate is above 0.5% in two consecutive quarters.

Chart 3

### Monetary Conditions in Austria



accorded different weights in the calculation of MCIs, depending on the strength of their impact on aggregate demand and consequently on inflation.<sup>10</sup> The decreasing values of both MCIs point to more expansionary monetary policy conditions. Until the beginning of 2001, this expansionary effect was principally a result of the depreciation of the real effective exchange rate; from the beginning of 2001, the slide in interest rates was the predominant influence.

An additional indicator used to describe monetary policy is interest rates set according to *Taylor rules*. Taylor (1993) suggests describing the course of nominal interest rates set by monetary policymakers in terms of the deviation of inflation rates from

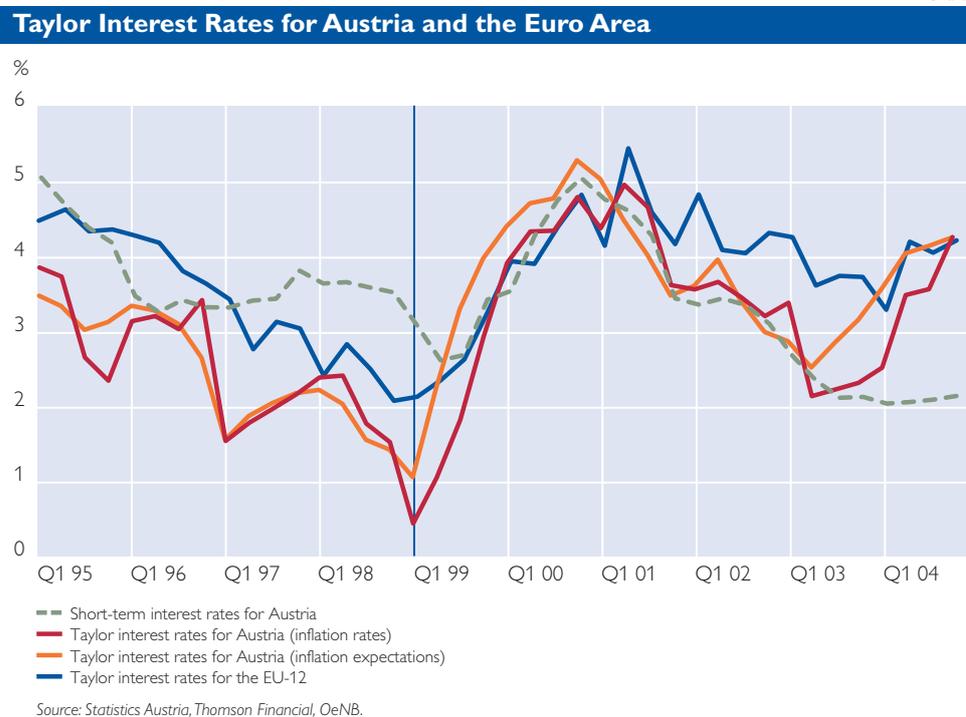
the inflation target (inflation gap) and of real output from trend output (output gap). Along these lines, we use Taylor's original rule (with a weight of 1.5 for the inflation gap and a weight of 0.5 for the output gap) as a simple comparison, identifying any changes in the monetary policy reaction function from the perspective of the development of Austrian inflation and economic activity between the pre-EMU period and during EMU in terms of deviations from the Taylor rule.

Chart 4 shows interest rates according to three different Taylor rules, with one curve representing euro area Taylor interest rates (dark blue line) and two curves representing Taylor interest rates for Austria.<sup>11</sup> Chart 4 also shows the short-term

<sup>10</sup> The MCIs shown in chart 3 differ in terms of the weights chosen; this reflects the uncertainty involved in the construction of MCIs. The red line is based on the assumption that the impact of short-term interest rates on demand is three times as strong as that of the effective exchange rate (ratio of weights: 0.75:0.25). This corresponds to the weighting ratio used by the Bank of Canada, the Deutsche Bundesbank and Sveriges Riksbank to calculate the respective national MCIs. Gartner (1998) computed weights of 0.71:0.29 (blue line).

<sup>11</sup> Different variables may be used to calculate Taylor interest rates. The inflation gap, e.g., may be based on current or expected inflation rates. Therefore chart 4 shows two different Taylor interest rates for Austria.

Chart 4



money market rate for Austria.<sup>12</sup> A comparison of Taylor interest rates for Austria and the short-term interest rates prevailing between 1995 and 1998 indicates that the actual interest rates prior to EMU membership were higher than the Taylor interest rates, i.e. had a more restrictive impact. At the start of Stage Three of EMU, from 1999 to 2003, the Taylor interest rates were broadly identical with actual interest rates; since the beginning of 2004, actual interest rates have been below those calculated using the Taylor rule. The rise in inflation on account of higher oil prices is the reason Taylor interest rates rose in Austria (and the euro area) at the beginning of 2004. To sum it up, the actual interest rate tended to be higher than Taylor interest rates before the start of EMU;

thereafter, it tended to be at the same level as or below Taylor interest rates. According to this measure, monetary policy had a more expansionary impact on Austria from the beginning of EMU than the hard currency policy did in the years before.

Chart 4 also indicates that Austrian Taylor interest rates have moved closer in line with those of the euro area since the start of EMU. While the average difference amounted to about 1 percentage point between 1995 and 1998, the gap contracted to approximately 0.7 percentage point between 1999 and 2004.<sup>13</sup> This is consistent with the above-mentioned increased correlation of inflation and GDP developments between Austria and the euro area during EMU as against before EMU.

<sup>12</sup> This time series used the three-month money market rate for Austria as given by the Oesterreichische Kontrollbank (OeKB) for the period from 1995 to 1998 and the three-month EURIBOR rate from January 1999.

<sup>13</sup> For this comparison, the Taylor rule based on actual inflation rates was used for the euro area and for Austria.

## 6 EU Membership, the Euro and the Monetary Policy Transmission Mechanism in Austria

The impact of membership in the EU's Single Market and Austria's subsequent EMU membership on the different monetary policy transmission channels cannot be precisely quantified. After all, Austria's economic performance and inflation in the last decade were determined not just by monetary policy, but also by numerous other factors. Additionally, many of the changes brought about by EU and EMU membership are part of a process that already started before 1995. In particular, the process of deregulation and innovation in the financial sector – which may well have been speeded up by EU entry (Waschiczek, in this issue) left its mark on the structure of the financial market and hence on the transmission mechanism. Subject to these caveats, we attempt to assess just how EU membership may have influenced the various monetary policy transmission channels.

The study by van Els et al. (2001), which compares the results of simulations of transmission channels for seven euro area countries including

Austria, represents a good starting point for an analysis of potential changes in the *interest rate channel*. The analysis is based on macroeconomic models which were constructed for the period before 1994 and after 1999. As is customary for large macroeconomic models, the interest rate channel is split into a direct substitution channel (deferment of consumer spending as a result of higher interest rates) and a capital cost channel (dampened investment in consumer goods and dampened consumer spending as a result of the higher cost of capital in the wake of a rise in interest rates).

According to the simulation results, the *direct substitution channel*, which directly influences consumer spending, now contributes substantially more to the reduction of real GDP in Austria than prior to 1994 (table 2). This result may be explained by the stronger reaction of households to interest rate changes as shown in the more recent model; this reaction is consistent with the heightened interest rate sensitivity Austrians have developed over the past decade. The outcome is hardly surprising, given the financial market liberalization meas-

Table 2

### The Impact of an Interest Rate Increase by 100 Basis Points on Real GDP

#### in Austria

percentage points

	Reaction after the				
	first year	second year	third year	fourth year	fifth year
<b>Direct substitution channel</b>					
BIS (1995)	-0.03	-0.02	0.03	0.00	0.00
WGEM (2001)	-0.03	-0.12	-0.19	-0.19	-0.17
<b>Cost-of-capital channel</b>					
BIS (1995)	0.00	-0.08	-0.04	0.03	0.00
WGEM (2001)	-0.02	-0.02	-0.01	-0.01	-0.01
<b>Wealth channel</b>					
BIS (1995)	0.00	0.02	-0.01	-0.03	-0.01
WGEM (2001)	-0.03	-0.10	-0.11	-0.09	-0.08

Source: van Els et al. (2001).

ures taken in Austria in the past ten years and the rise in lending to households (chart 5).

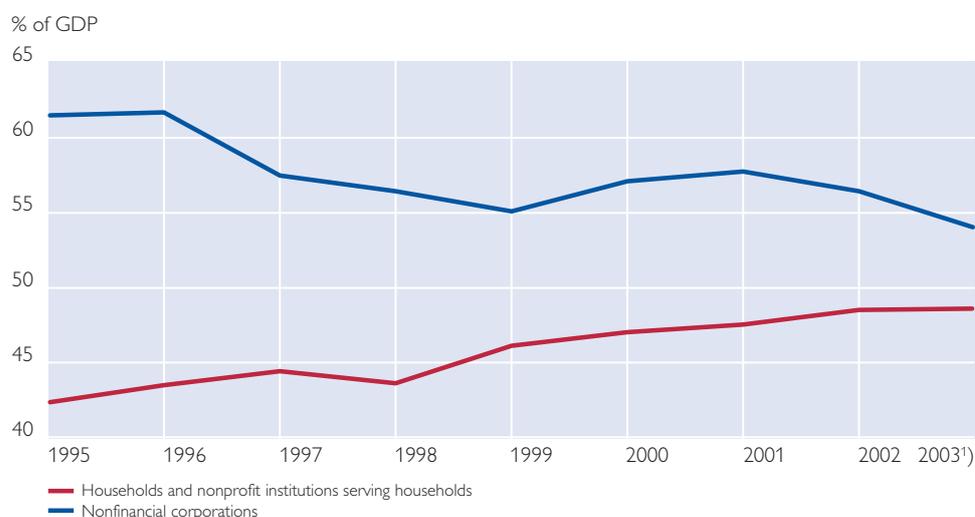
Conversely, the effect of the *cost of capital* on investment is much smaller in the new model than in the old model. This may be due to the lower pass-through effect to long-term interest rates. The speed and strength of the interest rate pass-through depend on many factors related to the structure of financial markets and intensity of competition in the financial system as well as on whether banks consider the current monetary policy stance to be permanent or not. There are indications that the transmission of interest rate developments to banks' retail interest rates has changed. De Bondt (2002) finds that before EU membership, a 100 basis point change in money market rates translated into a change by 68 basis points in banks' retail rates after three months. In 2000, however, a 100 basis point hike in the policy rate produced a rise in banks' retail interest rates of only 18 basis points after three months. Since EU entry, the consolida-

tion of the Austrian banking sector has speeded up, but financial market integration has also intensified competition in this sector.

Empirical research points out the significance of the *credit channel* for the monetary policy transmission process in Austria. Bank lending is the single most important source of external financing for Austrian companies. No data that would allow a direct comparison of the transmission mechanism before and after EU entry are available for the credit channel. Two studies by Valderrama (2001a and 2001b) provide a basis for comparisons. Valderrama (2001a) estimates an investment demand equation with financial factors for the period from 1979 to 1999, whereas Valderrama (2001b) analyzes the period from 1994 to 1999. Although the predictive power of such a comparison is limited because the estimated models differ somewhat, it may be established that the sensitivity of investment to financial factors came to 0.200 for the longer period and to 0.285 for the

Chart 5

### Households' and Nonfinancial Corporations' Financial Liabilities



Source: OeNB.  
1) Preliminary data.

shorter period. It follows that the importance of the credit channel will tend to have increased on account of EU membership.

Valderrama (2003) shows that in Austria, investment demand of companies that are dependent on bank lending but do not have a well-established relationship with a house bank is more strongly influenced by financial factors (financial accelerator effect). However, the higher sensitivity observed by Valderrama (2001b) cannot be explained by the higher dependence on bank loans, as their share in total financing of nonfinancial corporations has declined overall since 1995 (chart 5). A weakening of the house bank principle could possibly have caused the credit channel to strengthen. Despite the relatively great importance of bank lending as a source of external financing, the tradition of relationship banking in countries like Austria and Germany weakened the credit channel in these countries. The effects of EU membership on relationship banking are ambiguous, though. On the one hand, heightened competition could prevent banks from incurring the expense of collecting information about borrowers, who could easily switch to another bank. On the other hand, banks would have an advantage retaining smaller businesses, as large companies have easier access to other sources of finance.

Due to the traditionally very low stock market capitalization in Austria, the *wealth channel* has not been considered important.<sup>14</sup> While stock market capitalization expanded substantially in Austria in the second half of the 1980s

and again at the beginning of the new millennium, it is still very low by international standards. However, domestic market capitalization is not a suitable indicator of investment in equities. By eliminating exchange rate risk, EMU entry facilitated diversification into the equities of euro area countries. Although no data for comparison are available for the period prior to 1995, the composition of households' and nonfinancial corporations' financial assets has clearly changed. Above all, companies invested more heavily in foreign equities. The importance of the wealth channel is thus likely to be on the rise in Austria. Consumption and investment decisions in Austria may also be influenced by the reaction of foreign stock markets to interest rate developments. Van Els et al. (2001) also observe a growing importance of the wealth channel in Austria (table 2).<sup>15</sup>

## 7 Summary

Whereas the hard currency policy was part of a national consensual policy package, EMU transferred monetary policymaking to the European level. Decision making at the Oesterreichische Nationalbank, which had been shaped by the system of social partnership, is now characterized by a greater degree of formal central bank independence. At the same time, the system of informal ex ante accountability practiced in Austria prior to EMU membership was replaced by greater transparency about the principles and motives governing monetary policy decisions. The assignment of various economic policy goals to specific poli-

<sup>14</sup> Rajan and Zingales (2003).

<sup>15</sup> Note, however, that the simulation models are based on different definitions of "wealth." The model used for the period before 1994 defines wealth exclusively as money holdings, whereas the model for the more recent period also covers bonds and equities.

cymakers or institutions, an approach already followed under the hard currency regime, was maintained under EMU. Like the hard currency policy, the Eurosystem's monetary policy has a medium- to long-term orientation. The establishment of (internal) price stability as the primary objective of monetary policy was confirmed by the Maastricht Treaty and the announcement of a quantitative definition of price stability. Wage policy continues to play a central role as a shock absorption mechanism.

EMU stabilized Austria's effective exchange rates and hence the external environment for prices even more than the hard currency policy could. The more stable effective exchange rate in EMU underlines the important role low domestic inflation plays in maintaining price competitiveness. In this respect, the fact that inflation was lower in Austria than in its trade partner countries kept the Austrian real effective exchange rate at the end of 2004 unchanged from that at the start of Stage Three of EMU despite the depreciation of the U.S. dollar.

Both Monetary Condition Indices as well as Taylor rules suggest that the monetary conditions for Austria have turned more expansionary under EMU than in the four years preceding

the start of EMU. Inflation and real GDP growth in Austria and in the euro area have become more closely synchronized. Hence, along the lines of the OCA theory, the single monetary policy of the Eurosystem is also able to fulfill Austria's specific needs.

The interest elasticity of private consumption may have risen, reflecting a generally heightened awareness of interest rate developments. By contrast, the transmission of key interest rate changes to long-term interest rates appears to have weakened against the background of intensified competition in the financial sector. The credit channel, which is empirically relevant for Austria, may have strengthened, perhaps partly because of the shift away from the tradition of relationship banking. Higher investment in domestic and foreign equities suggests that the asset price channel should be gaining significance.

EMU has changed the monetary policy regime in Austria in many respects, but the basic stability orientation of monetary policymaking has remained in place. EMU's institutional framework and the actual monetary policymaking of the Eurosystem have secured Austria's legacy of monetary stability at the European level.

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# Price Developments in Austria after EU Accession and in Monetary Union

Austrians widely expected prices to fall on account of EU accession, participation in the Single Market and the resulting stepped-up competition. In hindsight, this assessment was partly correct. In the course of the decade from 1995 to 2004, the inflation rate dropped by half to 1.5% per annum from 2.7% (1987–1994). Initial price declines, e.g. in the food sector and later also in some service industries (such as the insurance industry), however, turned out to be mostly short-lived. By contrast, a number of technical industrial goods, such as computer equipment, saw sustained and in part huge price reductions. Liberalization entailed price effects in network industries, with prices in the telecommunications sector a case in point: they decreased over extended periods. Conversely, prices in many service industries have been continually uptrending. Overall inflation hardly changed following the street debut of euro banknotes and coins at the beginning of 2002; yet, prices of some items bought on a day-to-day basis have increased sharply since then. An analysis of the prices of individual items points to frequent price adjustments that coincided with the euro cash changeover in January 2002. Since upward and downward price adjustments roughly balanced each other out, no marked effect on the aggregate inflation rate was observed. To date, European integration has steadily caused price levels to converge, albeit at an altogether modest pace.

Manfred Fluch,  
Fabio Rumler<sup>1</sup>

## 1 Expected Implications of Joining the Single Market: Reduced Headline Inflation, Price Cuts in Some Sectors

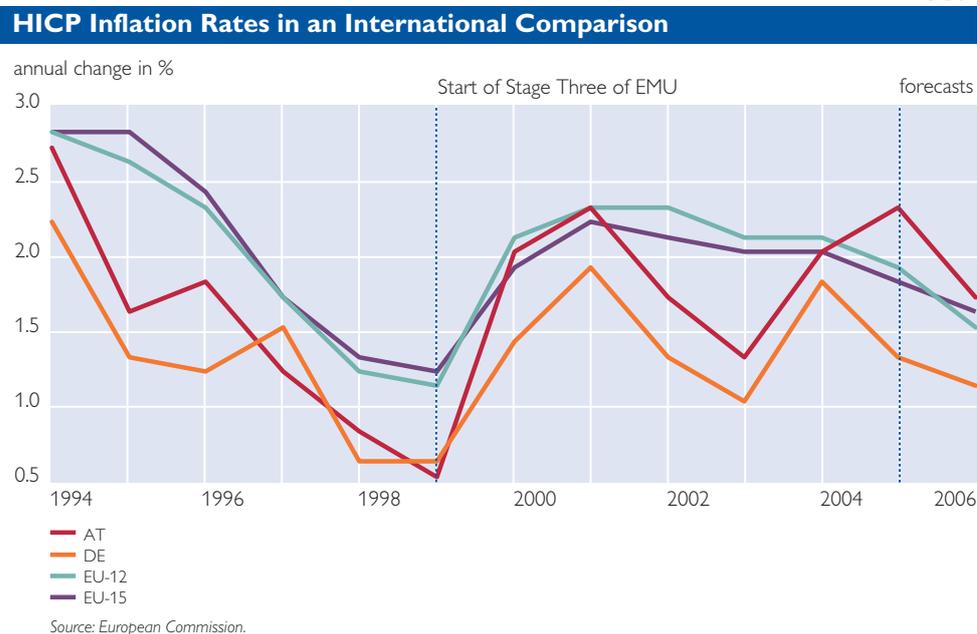
Since Austria's participation in the European Economic Area (EEA) as from 1994 had already resulted in first price effects on the back of stepped-up competition, the public expected EU accession and Single Market membership combined with the implementation of the four freedoms to dampen headline inflation. In individual sectors prices were anticipated to decline once markets had been opened up, albeit with different time lags (Breuss, 1995). Integration into the EU, in particular into the common agricultural policy (CAP) and the common trade policy, was seen as likely to impact on prices over the short term. The benefits from the four freedoms and the ensuing advantages for Austria as a business location as well as from intensifying competition were expected to be reaped over the medium and long term. Estimates released at the time (Breuss, 1995) projected the cumulated increase of consumer prices to come down (in comparison with a

baseline scenario without EU accession) almost 2% during the first two years of EU membership and more than 3% over a five-year horizon. In sectors which were already fully exposed to international competition via external trade (most industrial sectors), price developments would basically remain the same, but hitherto protected areas (agricultural and food sectors, service industries, such as banking and insurance) would have to brace themselves for significant change. Specific empirical estimates of the implications for price developments of the upcoming second integration milestone, namely Stage Three of Economic and Monetary Union (EMU), were far and few between. Baumgartner et al. (1997) arrived at the conclusion that the *threat to inflation following the start of Stage Three of EMU would be very limited: The independent European Central Bank (ECB) was to guard price stability*. Yet, monetary union was expected to exert substantially greater influence on (micro-economic) price structures: The common currency would shorten the distance between national markets, increase price transparency, spur com-

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Chart 1



petition, and pricing would have to be overhauled – certainly upon the introduction of euro banknotes and coins. At the European level, both the Single Market and monetary union would accelerate price convergence.

The objective of this study is to examine for the decade spanning 1995 to 2004 to what extent the regime shift associated with EU accession influenced both overall and sectoral price developments.

## 2 Austria's Inflation Rate Fluctuates within a Narrow Band

### 2.1 Prices Increase an Average 1.5% from 1995 to 2004

In the decade since Austria's EU accession, average annual inflation<sup>2</sup> in Austria came to 1.5%, whereas it had amounted to 2.7% per annum between 1987 when the HICP first

became available and 1994. During the 120 observation months (from January 1995 to December 2004) the inflation rate moved within a band from slightly above 0% to close to 3%. It was lowest in April 1999 (+0.1%) and highest in May 2001 (+2.9%), which translates into a range of 2.8 percentage points.

In an international comparison, price stability in Austria was high over the entire observation period, with Austria taking third place within the EU-15 (table 1). Once we break the decade down into a phase ranging from 1995 to 1998 (EU accession and the first effects of integration) and a phase spanning 1999 to 2004 (participation in monetary union), the picture is somewhat different: Following EU accession, prices in Finland came under high pressure and remained moderate from 1995 to 1998, which is why Austria falls

<sup>2</sup> The Harmonised Index of Consumer Prices (HICP), the central inflation gauge for the monetary policy of the Eurosystem, served as the benchmark for all inflation data. The HICP was first published in 1997, but backdata for Austria are available as far back as 1987. The use of other inflation measures (such as the national CPI) is specifically stated.

Table 1

### Average HICP Inflation Rate in the EU-15

Countries are sorted from left to right by the average inflation rate from 1995 to 2004  
% per annum

	DE	FI	AT	UK	SE	FR	BE	DK	LU	NL	IT	PT	ES	IE	GR	EU-15	EU-12
1995 to 2004	1.27	1.44	1.51	1.59	1.62	1.64	1.66	1.97	2.06	2.34	2.74	2.98	3.00	3.10	4.56	1.94	1.93
1995 to 1998	1.15	1.01	1.35	2.15	1.58	1.45	1.37	1.84	1.17	1.61	3.30	2.75	2.94	2.09	6.67	2.04	1.82
1999 to 2004	1.35	1.72	1.62	1.22	1.64	1.77	1.86	2.06	2.50	2.82	2.38	3.13	3.05	3.78	3.18	1.88	2.00

Source: Eurostat, ECB.

back to rank 4.<sup>3</sup> Among the euro area countries, Austria is second after Germany, but within the EU-15, the United Kingdom was the top performer in terms of price stability.<sup>4</sup>

Credit for Austria's overall favorable price performance is due to the continuation of its stability-oriented monetary policy and moderate wage policy.<sup>5</sup> Labor costs increased at a modest pace. In light of the Single Market,

companies developed greater cost awareness and undertook investments aimed at rationalization. Unit labor costs decreased in the industrial sector and stagnated in the economy as a whole from 1995 to 2004. Thanks to considerable productivity gains, the manufacturing sector managed to substantially improve its price competitiveness vis-à-vis Austria's trading partners, including Germany (table 2).

Table 2

### Indicators of Austria's Competitiveness

change in % per annum

Indicator	1995 to 1998	1999 to 2004	1995 to 2004
Productivity – whole economy	2.5	2.3	2.4
Gross earnings per employee	1.5	1.9	1.7
Negotiated standard wage rate index	2.5	2.3	2.4
Unit labor costs – whole economy	-0.4	0.8	0.3
Unit labor costs – manufacturing sector	-1.5	-2.1	-1.9
Price competitiveness <sup>1</sup>	-1.2	0.0	-0.5
Unit labor costs (manufacturing) relative to trading partners	-0.7	-2.1	-1.5
Germany	1.0	-1.3	-0.4

Source: WIFO.

<sup>1</sup> Up to end-1998 real effective exchange rate of the Austrian schilling, then of the euro based on Austria's foreign trade.

<sup>3</sup> For country-specific details on price developments, see Pointner (in this issue) and Égert et al. (2004).

<sup>4</sup> However, the comparison with the U.K. is not fully appropriate because the U.K.'s HICP assigns – owing to the lesser importance of rents and the stripped-out higher expenses for owner-occupied housing – much less weight to housing (2005: 10.3%) than e.g. Austria (14.5%) and Germany (21.8%).

<sup>5</sup> For further details on the changes and effects of monetary and wage policy, see Gnan et al. and Stiglbauer in this issue.

### Integration into the EU Dampens Inflation

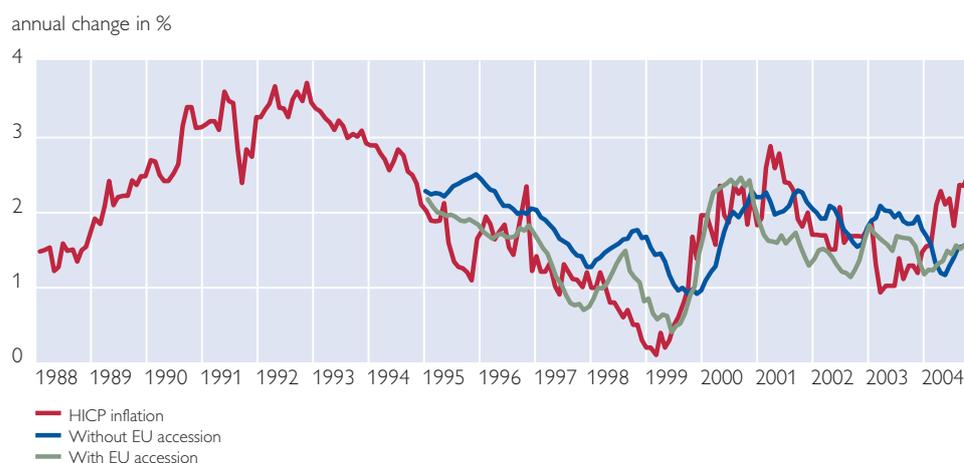
This box takes a closer look at the effects on consumer prices associated with Austria's integration into the EU. As from 1995, Austria's economic policymakers implemented a number of deregulation and liberalization measures induced more or less directly by the country's accession to the EU. As a consequence, especially the network industries and several service segments, such as the insurance industry, recorded lower price increases, at least temporarily. In addition, with a view to participation in Stage Three of EMU, monetary policy and subsequently the stability-oriented monetary policy of the Eurosystem contributed to the observed disinflation trend. On the other hand, fiscal policy measures geared toward compliance with the convergence criteria entailed repeated government tax and fee hikes, which partly offset the inflationary downtrend. Analyzing all these factors at greater length and quantifying their effects on consumer prices to calculate a net effect of EU integration on consumer prices is beyond the scope of this study.

Instead, we will use a simulation exercise of HICP forecasting models to present a simple calculation of the effect of EU integration on consumer prices. Specifically, we base our calculation on a vector autoregressive model (VAR) with a specification similar to that of the OeNB's inflation forecast.<sup>6</sup> We first estimated the model in two different specifications and then calculated recursive 12-month forecasts for the period 1995 to 2004. In other words, in each step, we advanced the estimation period by one month and subsequently performed a simulation for the next 12 months until the last 12-month forecasting value reached the end of the sample. The two specifications of the model are intended to mirror the scenarios for inflationary developments with and without EU accession. Here, the model capturing the scenario without EU accession is optimized in its lag specification only until end-1994, while the other model is optimized for the entire period under investigation (1988–2004) and includes a dummy variable for EU accession as from 1995. For the former specification we thus try to simulate inflation as from 1995 based on the pre-EU path of inflation. In the other case, we simulate inflation for the past ten years, also taking account of the post-accession structure of the inflation process and explicitly modeling in addition a (linear) EU integration trend.

Chart 2 shows the time series of the stacked 12-month forecasting values for both scenarios as well as actual inflation developments from 1988 to 2004. It is evident that the EU accession-based model (green line) traced the actual inflation development of the past ten years rather well, while the model assuming

Chart 2

### Inflation Rate and Forecast Simulations with and without EU Accession



Source: OeNB, Statistics Austria.

<sup>6</sup> In addition to the HICP index, the VAR comprises the following endogenous variables: the short-term interest rate, credit developments, the monetary aggregate M3 and the average inflation rate for the EU-15 to control for the effects of the international disinflation trend of the 1990s.

no EU accession (blue line) clearly exceeded actual inflation at least during the first half of the past decade.<sup>7</sup> Against the simple modeling background chosen here, we interpret the difference between the two scenarios as the effect of EU integration on HICP inflation. The bottom line is therefore that Austria's EU accession reduced the inflation rate by some 0.2 percentage point a year on average over the past ten years. Or put differently, at the end of 2004, the price level in Austria would have been 2.3% higher had Austria not joined the EU. The downward effect on inflation traceable to EU integration is thus somewhat lower than indicated in the above-mentioned forecasts by Breuss (1995), but it is nevertheless of a comparable magnitude overall.

## 2.2 Austrian Inflation Rate Hits

### All-Time Low in 1999

With the inflation rate having mounted ½ percentage point in 1992 following hikes in the mineral oil and beverage taxes, it continually edged down until 1995. Participation in the EEA and anticipation effects of the upcoming EU accession promoted this development. Another increase in the mineral oil tax in 1995, however, prevented a better inflation performance. Given an upturn in oil prices and further fiscal measures (introduction of the energy tax and various tariff increases), the disinflation trend came to a halt in 1996, but resumed from 1997 to 1999 owing to Austria's huge efforts to meet the convergence criteria and to become eligible for participation in Stage Three of EMU. At 0.5%, the inflation rate posted in 1999 was the lowest since 1945. This record low was ascribable to stiffer competition (trade, insurance industry), subdued prices of industrial goods, first liberalization effects (telecommunications sector) and the absence of fiscal impulses.

The Europe-wide low level of inflation at the end of the 1990s triggered

concern over an impending spell of deflation (e.g. Chaloupek et al., 1999). As inflation in Austria again mounted to reach almost 3% by the beginning of 2001, such fears were quickly dispelled, though. In light of a string of temporary effects (including positive and negative crude oil price shocks<sup>8</sup> and shocks related to food prices) as well as tax-induced changes, inflation proved rather volatile – albeit at a continued low level – during the first years of the new millennium and after the launch of euro banknotes and coins. In monetary union, average inflation in Austria came to 1.6% (euro area: 2.0%) from 1999 to 2004, thus clearly in line with price stability as defined by the Eurosystem. During the changeover to euro banknotes and coins (2002 and 2003), inflation receded in Austria, observably falling out of step with the EU-12 trend (chart 1). However, with oil prices taking off in 2004, energy prices augmented again in Austria, which coincided with mounting prices in the service sector (especially in housing); as a result, the inflation rate rose again to 2.0%. At the beginning of 2005, inflation remained relatively high, among other

<sup>7</sup> The average absolute forecast error of the model with EU integration amounts to 0.36 percentage point, which contrasts with 0.53 percentage point for the model without EU integration.

<sup>8</sup> The effects of oil price changes are not subject of this study. Such effects are in part caused by exogenous factors and are thus not related to the integration process. Furthermore, studies in recent issues of *Monetary Policy & the Economy* focused on the interrelationship between oil and inflation (see Schneider, 2004, or Égert et al., 2004). Also, the analyses on the economic outlook for Austria released in issues Q2 and Q4 of *Monetary Policy & the Economy* every year tend to touch on this topic. For a description of the long-term influence of oil on inflation in the euro area, see e.g. the ECB's Annual Report 2004.

things owing to the measures agreed upon during the 2005–2008 fiscal sharing negotiations, e.g. an increase in the tobacco tax and reduced reimbursement of dental services by health insurance funds. According to OeNB projections (see Fenz et al. in this issue), inflation will, however, subside in 2006 and 2007, continuing the long-term trend of price stability.

### 3 Tradable Goods See Moderate Inflation, Service Prices Increase More Sharply

#### 3.1 EU Accession Dampens Food Prices, Yet Pronounced Uptrend as from 2002

With the adoption of the CAP, market regulation was transferred to the EU, and the system of price support was reorganized. Austrian farmers had to adjust their prices and incomes to the

lower EU level. As a consequence, agricultural prices at the producer level fell by almost 25% (Breuss, 1999), but the bulk of price reductions did not pass through to consumers so that prices decreased significantly less at the consumer level (1995: a mere –3%). However, price pressures in the food sector remained subdued in the years up to 2000, which resulted in a downward impact on inflation. This changed in 2000 and 2001, when Europe was hit by severe supply shocks. Weather-related crop failures in southern Europe pushed up fruit prices considerably (see the rise of unprocessed food in chart 3.1). Given the small weight of this item, this induced only a relatively limited inflation impulse, but in 2001, the breakout among cattle of the disease BSE and of the foot-and-mouth epidemic across large parts of Europe let the prices of

Chart 3.1

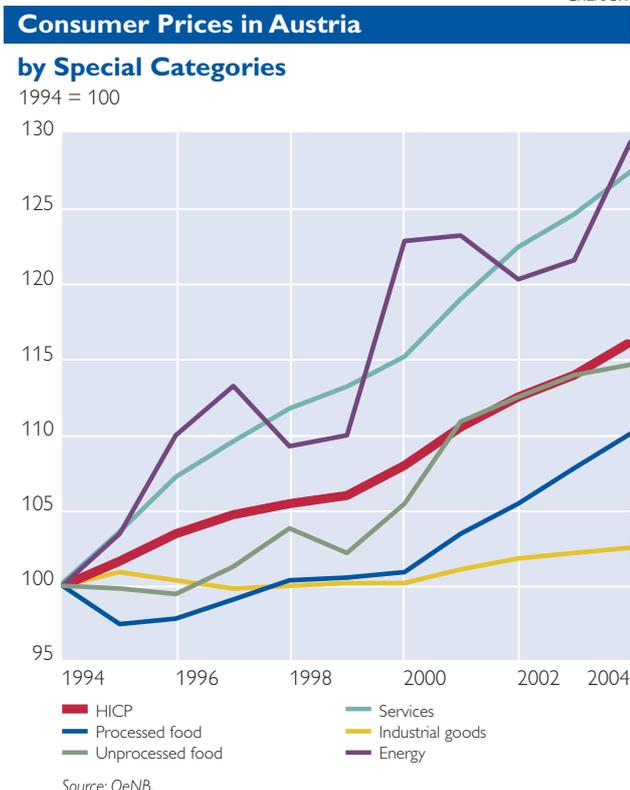


Chart 3.2



meat products and other animal products skyrocket. In the euro area as a whole, food prices jumped by almost 5%, thus rising three times as much year on year as in 2000. In Austria, with only isolated cases of these diseases and with domestic production accounting for a large share of consumption, the inflationary effect of around 0.2 percentage point in the year 2001 was

comparably modest. Since then the price level has, however, been clearly uptrending: From 2002 to 2004, food prices increased by the same amount (+5%) as in the period from 1995 to 2002 (chart 3.1). In the decade since EU accession, the increase in food prices (+10%) trailed overall price growth (+15%), though.<sup>9</sup>

### Sector-Specific Prices in Austria and Germany Continue to Move More or Less in Sync after EU Accession

The close trade relationship between Austria and Germany has for decades been clearly reflected by the synchronized inflation developments in these two countries. This remained unchanged even once Austria had joined the EU (chart 1 and table 3). Moreover, in terms of price stability, both countries rank among the top performers in the EU and in the euro area. A comparison with Germany (as a benchmark representative of an existing EU Member State) helps to infer further integration effects that may have impacted on consumer prices immediately after EU accession.

Table 3

### Price Developments in Austria and Germany from 1995 to 2004

change in % per annum

Subgroup	Austria		Germany	
	1995 to 2004	1999 to 2004	1995 to 2004	1999 to 2004
<b>Selected goods, services</b>				
<b>Processed food</b>	<b>1.0</b>	<b>1.5</b>	<b>1.4</b>	<b>1.6</b>
Food	1.3	1.4	0.7	0.5
Alcoholic beverages and tobacco	2.0	2.5	2.8	3.4
Beer	0.8	0.6	0.9	1.1
Tobacco products	3.2	3.6	4.5	5.6
Coffee, tea, cocoa	-2.2	-4.1	-1.6	-3.3
<b>Unprocessed food</b>	<b>1.4</b>	<b>1.7</b>	<b>0.8</b>	<b>0.5</b>
<b>Nonenergy industrial goods</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.2</b>
Clothing and footwear	-0.4	-0.1	0.2	0.1
<b>Energy</b>	<b>2.7</b>	<b>2.9</b>	<b>3.1</b>	<b>5.3</b>
Electricity	0.9	0.1	1.3	2.7
Gas	3.4	3.5	3.9	5.5
<b>Services</b>	<b>2.5</b>	<b>2.2</b>	<b>1.7</b>	<b>1.4</b>
Housing rents	3.3	2.7	1.5	1.1
Communication services	-1.1	-1.9	-3.1	-4.2
Insurance services	1.4	2.4	1.2	3.1
Financial services	2.5	2.3	2.8	4.3
<b>HICP, total</b>	<b>1.5</b>	<b>1.6</b>	<b>1.3</b>	<b>1.4</b>

Source: Eurostat, ECB.

It becomes evident that food prices in Austria advanced at a faster pace than in Germany in the past decade, the opening up of the agricultural market, structural change and dynamic competition in the food and beverage sector notwithstanding (Böheim, 2002). With the exception of coffee, tea and cocoa, whose prices declined perceptibly in both countries (albeit more sharply in Austria), this applies also to all essential

<sup>9</sup> The data in chart 3.1 are based on 1994 = 100 to already capture the pronounced price movements of the first year of EU membership.

small-ticket goods purchased almost on a daily basis (table 3). By contrast, prices of alcoholic beverages and tobacco went up less in Austria than in Germany; yet with respect to tobacco, the effect of various tax hikes plays a role.

The price increases of products under a large seasonal influence, such as fruit and vegetables (unprocessed food), were higher in Austria than in Germany. The generally rather stable prices of tradable non-energy industrial goods largely moved in sync in both countries. Here, the decline in prices for clothing and footwear in Austria is, however, conspicuous, as it was not mirrored in Germany. In the energy sector, where prices generally accelerated strongly, Austrian consumers were faced with considerably lower price hikes. Having mounted by more than 6% per annum since 1999, Germany's fuel prices increased at almost double the Austrian rate.

The liberalization of important network industries tells divergent tales: Compared with Germany, electricity prices developed at a more modest pace in Austria from 1999 to 2004, the period during which the electricity markets were being opened up. Gas prices, which rose sharply in both countries, likewise mounted more strongly in Germany than in Austria. Conversely, the price reductions in the telecommunications sector were pronounced in both countries, with Germany posting the stronger decline.

Inflation in the service sector was perceptibly higher in Austria, which was largely due to the sharper rise in rents. In the insurance and the financial service sector, by contrast, Germany saw greater price increases, especially as from the introduction of the euro. In the service sector, differing competitive conditions as well as differing degrees of public influence, different charges and different indirect taxes came to bear on price developments. At any rate, during the entire observation period, the highest inflationary pressure emanated from the service sector (excluding the volatile energy component).

In other industries price effects sparked by EU accession were not or hardly perceivable. Service prices, which were exposed to competition only to a limited extent over longer periods and in many areas, largely remained well below the HICP average

and partly produced significant outliers (table 3). Energy prices, which were driven by developments in international (crude oil) markets, showed a similar development against the backdrop of greater volatility. Nonenergy industrial goods, shaped most by com-

Table 4

### Major Price Reductions/Increases of Goods and Services from 2000 to 2004

CPI change in %

#### Goods

<i>Price reductions (&gt; 25%)</i>	
personal computer	-66.3
digital camera	-62.5
PC printer	-44.8
DVD player	-43.1
feature telephone set	-34.0
mobile phone	-31.1
<i>Price increases (&gt; 25%)</i>	
natural honey	60.5
PC/CD-ROM game	49.3
hard coke	41.1
oranges	38.2
therapeutic appliances and equipment	31.8
varnish	30.9
pencil	29.0
beef	28.1
hard coal	26.7
iodized salt	25.5

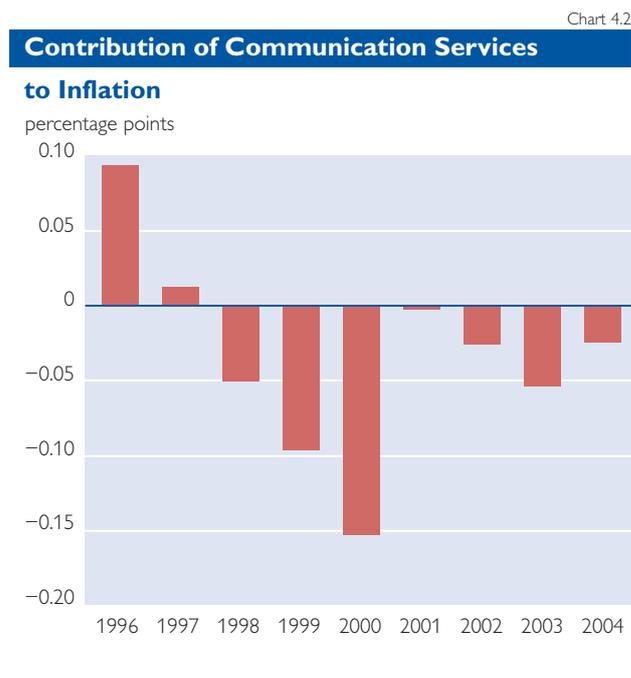
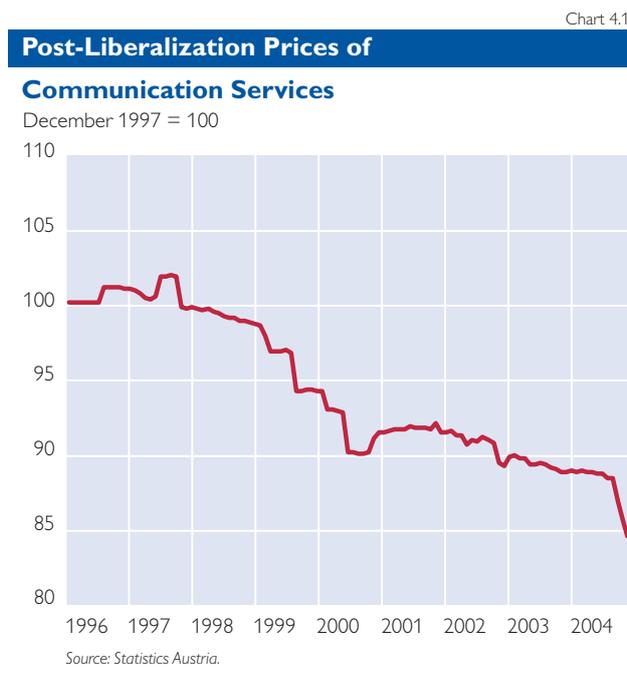
#### Services

<i>Price reductions (&gt; 10%)</i>	
fixed telephony, call charge	-12.9
<i>Price increases (&gt; 25%)</i>	
university tuition	1.577.2
gas, base service charge	124.9
electricity, base service charge	91.4
toll road fee	81.6
pay phone	37.8
exhibitions, museum admission	33.9
hospital costs	33.6
hairdressing course	31.9
homecare assistance	28.2
private physician	27.8
prescription fee	26.0
passport	25.2
refuse collection	25.0

Source: Austrian Federal Economic Chamber, Statistics Austria, OeNB.

petitive pressures, by and large posted relatively steady price developments. However, technological innovation inexorably drove down the prices of many electronic and recreational goods

as well as selected household appliances, which, however, contrasted with substantial price hikes in the very same product categories (table 4).<sup>10</sup>



### 3.2 Liberalization of Network Industries Entails Some Price Reductions

In line with the EU's regulatory reform program to complete the establishment of the Single Market, Austria fully liberalized the telecommunications market as early as 1998. Subsequently, the electricity and gas markets were gradually opened up and became completely deregulated in 2001 and 2002, respectively. Austria thus ranks among the seven EU Member States that have totally liberalized the energy markets (the EU-15 deadline is 2007) and proved a pioneer in both cases.

This change in the network industry landscape with substantial implica-

tions for competition and prices has since been analyzed in several studies (e.g. ECB, 2001; Monthly Bulletin of the ECB, December 2004; European Commission, 2003). Also, Janger provides in-depth insights into this topic (in this issue). These analyses shed light on, among other things, the scope, role, functioning and economic significance of network industries and also provide an overview of the state of play of the liberalization process (including the legal framework) at the European level. Most importantly, liberalization broke the natural monopolies of network industries and went hand in hand with reforms of the regulatory framework and privatization to allow the

<sup>10</sup> A period of four years was chosen in table 4 because the items listed here all belong to the same-generation basket of goods and services (CPI based on 2000 = 100), which ensures maximum comparability.

market mechanisms to take full effect and thus provide for new levels of consumer welfare. In Austria, the newly established regulatory authorities, e.g. the Austrian Regulatory Authority for Telecommunications and Broadcasting (RTR GmbH) and E-Control Ltd., which caters to the electricity and gas markets, keep the public informed about the effects of liberalization. The following analysis of price effects<sup>11</sup> puts the spotlight on these three markets.<sup>12</sup>

### 3.2.1 Communication services:

#### 2004 prices down by 14% on 1997

Over the past few years the telecommunications sector saw enormous innovations, which met with high demand, and stepped-up competition, which led to a better quality of service and price cuts.

Retail prices started to decline immediately following liberalization, in two waves to be precise (chart 4.1). The first wave entailed price reductions for telecommunications services of some 10% by the end of 2000. After the prices of both postal services (in January 2001) and telephone sets (improved mobile phone generation) had increased, the second wave starting from mid-2002 brought about fur-

ther price cuts of around 5% until the end of 2004. In December 2004, the price level was thus some 14% lower than in December 1997,<sup>13</sup> and this trend continued at the beginning of 2005. In December 2004, telephone sets (including mobile phones) only cost one-third of the price some eight years previously according to the (again quality-adjusted) HICP. Mobile phone prices were cut by more than 30% from 2000. At any rate, liberalization put a marked damper on inflation in this sector (chart 4.2).

### 3.2.2 Price effects on the liberalized energy markets offset by new regulations<sup>14</sup>

Following the uptick after the introduction of the energy tax in June 1996, electricity prices remained stable until the first liberalization stage in September 1999. In the ensuing period up to May 2000, electricity prices fell by almost 5%. However, the hike in the electricity tax rate of June 2000 canceled out these liberalization effects. In a second wave, electricity prices continued to decrease up until mid-2002, which dampened overall inflation. They edged up again by close to 10% until end-2004 (chart 5.1),<sup>15</sup>

<sup>11</sup> The pricing system of networking industries is, as a rule, highly complex, consisting of base service charges (e.g. for metering), unit/commodity or demand charges and the grid charges. The charges are usually tiered according to the quantity consumed, and special taxes and duties apply. As a case in point, the 2004 retail gas price comprised the components grid, energy, VAT, duty on natural gas, local tax. Only the energy price is exposed to competition, while the grid charges are set by the regulatory authorities (see the annual reports of the Austrian regulatory commissions).

<sup>12</sup> There is nothing particularly distinctive about the price developments in the likewise (partly) deregulated markets (postal services, passenger transportation by railway), which is why they are not covered here. In the liberalized air transport sector, prices have been rather volatile since 1999 given seasonal and oil price-induced determining factors.

<sup>13</sup> It is noteworthy that the innovations in the mobile phone sector were factored into the national HICP and CPI very early. The Austrian CPI and HICP were among the first in Europe to include mobile phones in the basket of goods and services, namely already in 1997. However, it remained a highly complex task to account for the heterogeneous pricing schemes of the various providers.

<sup>14</sup> This analysis focuses on retail-side developments (including all regulatory and tax changes).

<sup>15</sup> To compare: E-Control reports the following retail price developments between 2001 and 2004 in its 2004 annual report: energy +16.3%, grid charges -9.1%.

as surcharges were levied to promote small hydro power, renewable energy resources and cogeneration and as energy prices were hiked worldwide,

even though the grid charges had been cut by almost 10% (E-Control, 2004) since 2001.<sup>16</sup>

Chart 5.1

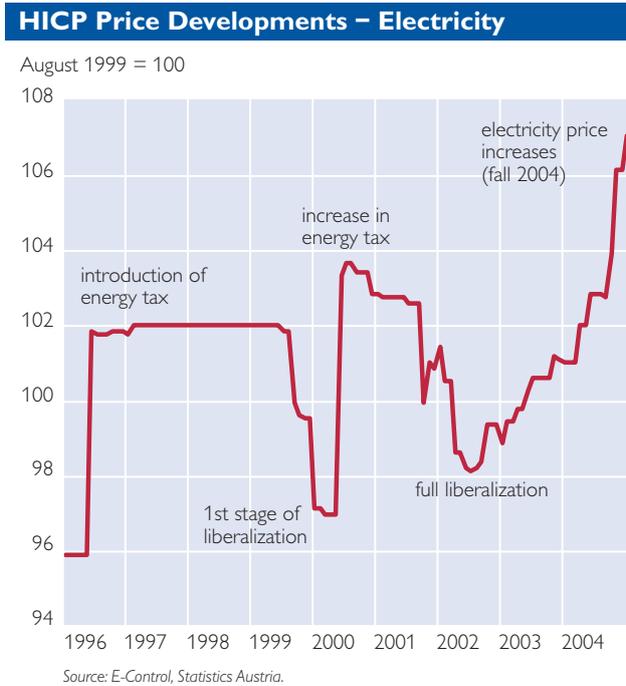


Chart 5.2

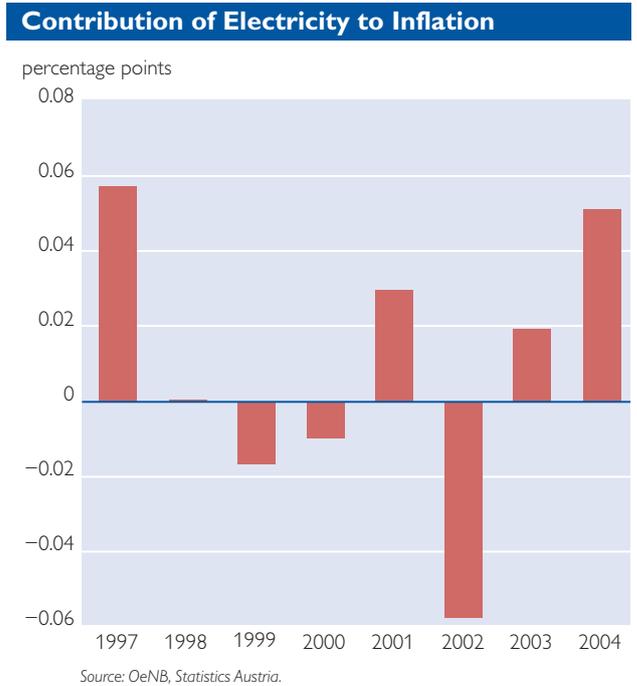


Chart 5.3

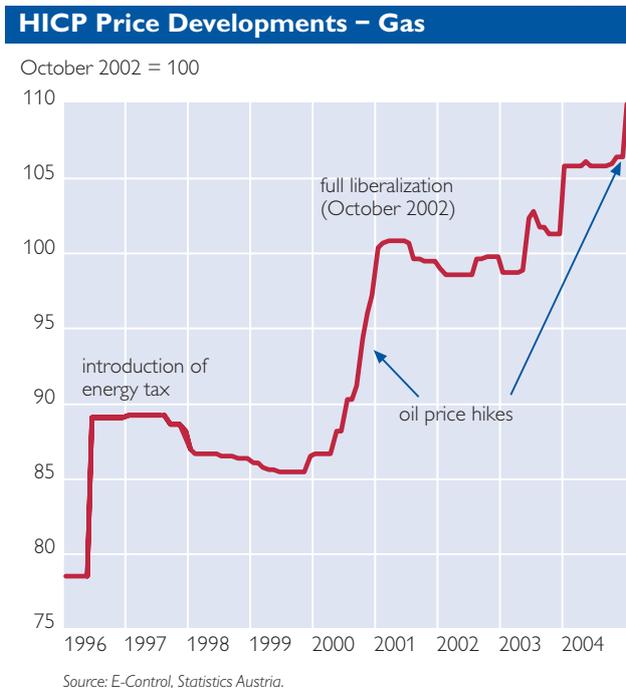
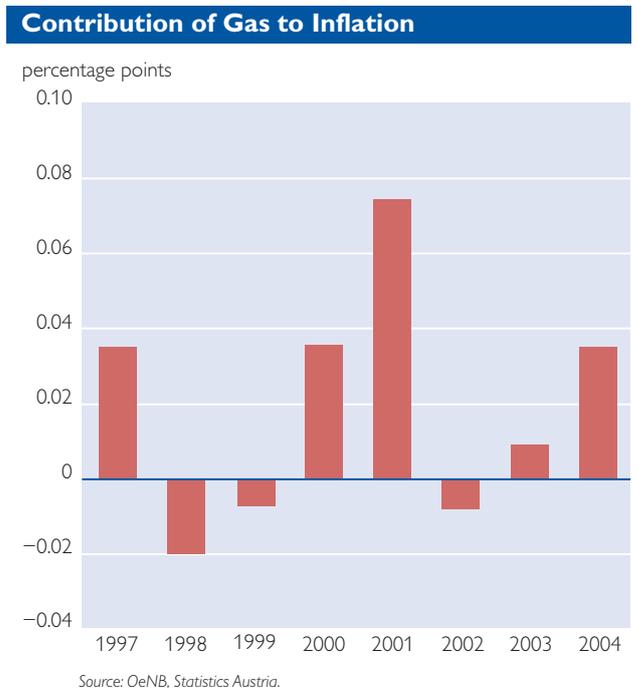


Chart 5.4



<sup>16</sup> The generally unsatisfactory post-liberalization price development on the electricity market triggered a debate in Austria about “remonopolization.”

An international comparison of retail<sup>17</sup> electricity prices (before taxes) by Eurostat puts Austria close to the EU-15 average. Germany's price level is almost 30% (2004) higher than that of Austria. Since the grid charges are relatively high in Austria by international standards and the energy providers are considered to be in good financial health, E-Control decided to cut the grid charges in regional clusters in 2005. For this reason, electricity prices are expected to stabilize in the immediate future.<sup>18</sup>

With respect to gas prices, only modest liberalization effects are observable in the short period since the full opening up of the market. In 2002, gas price reductions likewise put a brake on inflation in Austria. Gas prices, however, mirror oil price developments, which – especially in 2001 and toward the end of the observation period (2004) – entailed marked hikes (chart 5.3) and overshadowed the liberalization effects.

In a scenario comparison for Austria, Kratena (2004) identified pronounced price effects ascribable to liberalization. From 1999 to 2003, wholesale customers' electricity bills dropped by up to about 40% and gas bills by around 14%, compared with the scenario without liberalization. Retail customers benefited as well, albeit to a lesser extent, with electricity and gas prices sinking by 18% and 4%, respectively. According to these calculations, the overall price index was some 2% lower than that in the scenario without liberalization.

Hence, both markets were observably subject to downward pressures on inflation during the liberalization process (charts 5.2 and 5.4), but these effects have in the meantime been set off by regulatory changes and exogenous factors. In addition, the base service charges for both electricity and gas have seen massive hikes at the retail level in recent years, which – though assigned only a minor weight – have contributed to this countereffect (table 4). Lastly, it is difficult to exactly pinpoint the liberalization effects and to quantify their impact on the inflation rate in light of the complex tariff system for large- and small-scale customers.

### 3.3 Sustained Price Effects Following Integration of Services as yet Hardly Observable

Services account for around 46% of the Austrian basket of goods and services (as at 2004) and thus are a significant determining factor of overall price performance. Price developments, indeed, reflect the considerable restrictions still prevailing on the internal services market. Over the past decade, more than half of the inflation rate was attributable to price increases of private and public services (chart 2). Even the financial market, where integration boosted competition, has failed to produce sustained price effects for households. If at all observable, such effects are somewhat evident in the insurance sector: In the run-up to the millennium change, this market saw competition intensify, and premia

<sup>17</sup> Annual consumption per household: 3,500 kWh, of which 1,300 kWh at night (standard apartment of 90m<sup>2</sup>, before taxes).

<sup>18</sup> In February 2005, the grid charges were reduced in Salzburg, Carinthia and Burgenland, which according to E-Control should result in retail price decreases of between 9% and 20% (press release of E-Control dated January 12, 2005). All other provinces are scheduled to follow suit by end-June 2005. The HICP data for January through April 2005 show a slightly sinking trend.

declined markedly in 1998 and 1999; thereafter, prices ticked up again. By contrast, the prices of financial services (essentially service charges on bank accounts) accelerated at a disproportionate clip of almost 25% since 1998. In the same vein, the largely protected markets, such as motor vehicles services and hairdressers, continue to be characterized by continual price increases. Inflationary pressures are especially strong on markets that are immune to international competition, permanently tight and partly subject to administered prices. The most obvious example is the housing sector: Rents as well as fees for mostly public

services, such as water supply, refuse and wastewater collection, mounted twice as fast as HICP inflation from 1995. Particularly rents charged on apartments in old buildings, which since 1994 have been governed by a system under which the government prescribes a standardized rent per square meter (Richtwertsystem),<sup>19</sup> impact on the inflation rate, which, in turn, influences inflation-indexed rents and thus feeds into a “rent-inflation spiral.” Rents soared especially in 2003 and 2004, which may, among other things, be traceable to changes in the compilation method applied to rents (Haschka, 2005).

Chart 6.1

### HICP Price Developments for Selected

#### Services in Austria

1996 = 100



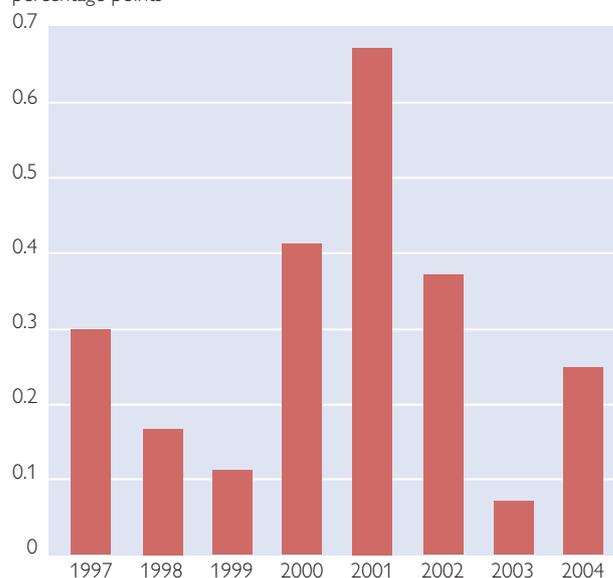
Source: OeNB, Statistics Austria.

Chart 6.2

### Contribution of Public Services, Fees and Indirect

#### Taxes to Inflation in Austria

percentage points



Source: Statistics Austria.

<sup>19</sup> These standard rates per square meter are statutory and differ across Austria's provinces; they basically correspond to basic inflation-adjusted rents. Depending on the equipment and location of the apartment, owners may either add supplementary charges or must subtract discounts. For more details, see a study published at the Vienna University of Technology (Blaas and Wieser, 2004) commissioned by the Vienna Chamber of Labor.

Price adjustments in public services and changes in indirect taxes, which for years weighed heavily on inflation (chart 6.2), have remained largely unaffected by European integration. Indirect taxes, duties and public services<sup>20</sup> contributed up to 0.6 percentage point to overall inflation from 2000 to 2002, given the exceptionally high rise in administered prices. By 2004 their contribution to inflation had halved to around 0.3 percentage point.

Efforts at the EU level (draft directive by the European Commission) to provide for a general legal framework with a view to reducing the barriers to the freedom of establishment for service providers and to unfettered intra-EU service provision should, in the long run, result in a greater opening up and should stimulate competition.<sup>21</sup> This initiative is targeted at all commercial services, but not services of general economic interest. Liberalization has diminished the role of administered prices, which, however, nevertheless continue to impact inflation. As mentioned earlier, some 75 items (around 8% of the basket of goods and services) of a total of approximately 800 items determining Austria's HICP are still subject to adminis-

tered prices. In light of the highly dynamic price developments observable for many public services, a further opening up of these sectors, including transport and health care, could lead to price reductions. Yet Égert et al. (2004) conclude that the public sector frequently reins in the free interplay of market forces for strategic and political reasons, which more or less precludes perfect competition.

#### **4 Euro Cash Changeover without Significant Repercussions for Overall Inflation**

Introducing the euro (as a noncash currency in 1999 and in cash form in 2002) represented a major challenge for all agents of the economy. On the one hand, the changeover to the euro spawned considerable costs that differed from sector to sector (Pollan, 1998; Dirschmid et al., 2001); on the other, it also reduced or eliminated costs (e.g. elimination of transaction costs for money exchange and abolition of intra euro-area currency risks). Overall, these costs (exacerbated by the year-2000 change) were, as a rule, not – as initially feared – passed through to consumer prices.

### **Key Changes Prior to and in Monetary Union to Improve**

#### **Price Analysis and Measurement**

*To provide monetary policymakers with reliable information on price developments, the quality of statistical data necessary for price analysis was continually improved already in the run-up to the third stage of EMU and, later, specifically on the initiative of the Eurosystem as well. Since the convergence criterion “inflation rate” was accorded great importance for participation in monetary union, the methods used for measuring inflation were largely harmonized as early as 1997, and a new price index (Harmonised*

<sup>20</sup> Including refuse collection, water supply, sewage collection, health care as well as training and education. The prices of 75 items (of some 800 items in the basket of goods and services) underlying charts 6.1 and 6.2 are wholly or partly of an administrative nature.

<sup>21</sup> The Presidency Conclusions of the Brussels European Council of March 22–23, 2005, clearly state that the internal market for services has to be fully operational while preserving the European social model. However, the current draft directive does not fully meet these requirements and must therefore undergo a thorough review.

*Index of Consumer Prices) was created to facilitate international comparisons. In the intervening years, the HICP has evolved into the central and broadly accepted indicator of the Eurosystem's monetary policy (e.g. Camba-Mendez et al., 2002). Credit for this pioneering work is due to the collective efforts of Eurostat, the national statistical authorities, the ECB and the national central banks (NCBs). To capture the highly dynamic market, ongoing innovations and quality improvements in the price index in a swift and adequate manner proves particularly daunting. To this effect, all EU Member States completely revise their baskets of goods and services at least at five-year intervals (some even on an annual basis) with the help of suitable consumer surveys; in the interim, they implement new products if and when the need arises. The above-mentioned stakeholders in the statistical data also succeeded in defining – in addition to the 12 consumption-relevant categories of goods and services – 5 special categories<sup>22</sup> which are of particular interest to monetary policymakers. In addition, timely availability of data was improved. A flash estimate for the euro area, i.e. a preliminary inflation rate based on the results of a few representative countries (Germany, Italy, Spain), is already available immediately after the end of the respective reporting month. Moreover, medium-term HICP projections for the euro area are compiled on a quarterly basis, which reflect the estimates made by the NCB experts (among them those of the OeNB).*

In March 2002, the 76-year-long era of the schilling came to a close, when the euro, following a two-month dual circulation period, became sole legal tender in Austria. The smooth changeover and the public's speedy acceptance of the new banknotes and coins notwithstanding, familiarization with the new euro prices took time. A broad range of supporting mechanisms and instruments was utilized to facilitate this adjustment, but after all,

the changeover had gone hand in hand with far-reaching changes in price structures (with psychological pricing a case in point). Even though there was comparatively little immediate evidence of repercussions in the official headline inflation rate (Pollan, 2002; Annual Reports of the ECB of 2001 and 2002), the observable impact was limited to a few sectors and relative prices did not change markedly either,<sup>23</sup> the general public's percep-

Table 5

### Inflation Rate in Austria before and after the Euro Cash Changeover

Main HICP categories	1999 to 2001	2002 to 2004	Difference in inflation rate
	% per annum		percentage points
Food and nonalcoholic beverages	1.30	1.50	0.19
Alcoholic beverages and tobacco products	1.98	2.93	0.94
Clothing and footwear	-0.17	-0.10	0.07
Housing, water, energy	2.56	2.09	-0.47
Furnishings, household equipment and routine household maintenance	0.89	0.93	0.04
Health	3.57	1.80	-1.77
Transport	2.86	1.76	-1.10
Communication	-2.63	-1.26	1.37
Recreation and culture	0.59	0.74	0.15
Education	5.11	8.69	3.58
Restaurants and hotels	2.01	2.68	0.67
Miscellaneous goods and services	1.46	2.54	1.09
<b>HICP, total</b>	<b>1.58</b>	<b>1.66</b>	<b>0.08</b>

Source: OeNB, Statistics Austria.

<sup>22</sup> Unprocessed food, processed food, nonenergy industrial goods, energy and services.

<sup>23</sup> Account was taken of the price movements of about 15 commonly used goods and services.

Table 6

**Headline Inflation and Price Growth of Selected Baskets of Goods and Services**

change in %	Consumer price index	Mini basket (16% of CPI) <sup>1</sup>	Micro basket (5% of CPI) <sup>2</sup>
2000 to 2004 per annum	2.1	3.0	3.4
2000 to 2004 cumulated	8.1	10.4	13.9

Source: Statistics Austria.

<sup>1</sup> Goods and services purchased on a weekly basis.

<sup>2</sup> Goods and services purchased on a daily basis.

tion of price increases diverged from the official statistics. At around the time of the euro cash changeover, this led to a gap between people's perception of inflation and actually registered price hikes, which has narrowed in the meantime, but has yet to disappear altogether. Incidentally, a similar divergence was evident when Austria joined the EU in 1995, but perceived inflation then actually trailed official figures considerably.

An analysis of the categories of goods and services, based on data compiled by Statistics Austria, reveals that inflation hardly differed at the aggregate level three years before and after the euro cash changeover. When we break down the individual categories, however, we see heterogeneous developments. The tobacco tax raises left their mark, as did the price increases of several services discussed above. In the field of education, the introduction of university tuition fees in October 2001 did not go unnoticed; in the healthcare sector, the abolition of copayments for outpatient hospital visits was palpable from 2002 to 2004. The huge price reductions in the telecommunications sector evident at the turn of the millennium eased off somewhat after the introduction of euro

banknotes and coins. The growth of prices for restaurant and café services, by contrast, heated up after the cash changeover. Prices mounted evenly, though, and not abruptly during the first two months of 2002, as was clearly registered by the Federal Statistical Office in the case of Germany.

Yet the prices of convenience goods deviated substantially from the overall trend. The prices of the goods and services covered by the so-called mini and micro baskets<sup>24</sup> advanced at a much faster clip, which is also more in line with the higher publicly perceived inflation (people apparently focus on the price increases of goods they consume on a daily basis).

**5 Price Changes During Euro Cash Changeover More Frequent, but No Evidence of Predominantly Upward Adjustments**

How did individual prices develop in Austria over the past eight years, and did the euro cash changeover entail changes in consumer price adjustments? Here, we draw on the results of a study conducted at the OeNB,<sup>25</sup> which analyzed price rigidities in Austria by means of different measures,

<sup>24</sup> These baskets cover goods and services that tend to be purchased on a weekly (mini basket) and daily basis (micro basket). For a detailed composition of these two baskets, see Haschka (2004).

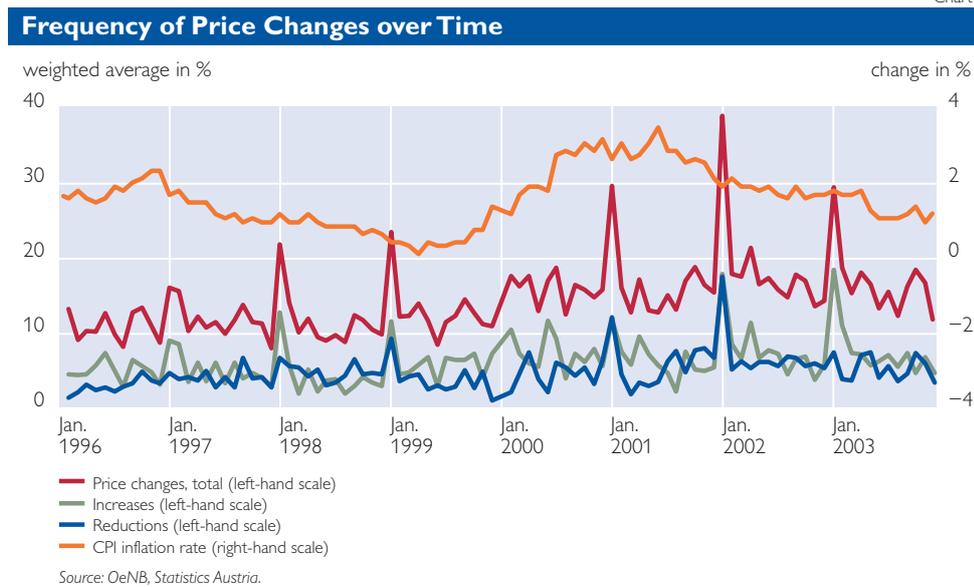
<sup>25</sup> Baumgartner et al. (2005).

such as the average frequency of price changes,<sup>26</sup> in the period from 1996 to 2003. The study centers on the analysis of a data set which comprises a total of around 3.6 million monthly price observations of all items covered by the basket of goods and services underlying the Austrian CPI.

Chart 7 shows the frequency of price changes, which may also be calculated for each month, from the beginning of 1996 to end-2003. A distinct seasonal pattern is observable with peaks in January, which reflects the common business practice of adjusting prices around the turn of the year.

Moreover, chart 7 illustrates that price changes became more frequent in 2000 and thereafter and that this trend – at least graphically – coincided with the rise in the aggregate inflation rate in 2000. This points to a positive relationship between the frequency of price changes and the aggregate inflation rate, as suggested in other studies on this topic. In addition, the two lower lines in chart 7 attest to the absence of distinctive differing seasonal patterns and of various trend developments between the frequency of price increases and price reductions.

Chart 7



Based on chart 7, we can also investigate whether the euro cash change-over of January 2002 entailed more frequent price adjustments and thus influenced inflation. As to the frequency, January 2002 saw a jump to close to 40%, which was more pronounced than during the first months of any of the other years. The evidence thus bears testimony to the fact that the

introduction of euro cash resulted in more frequent price adjustments than in the previous years. 40% of the prices in our data set were changed during the euro cash changeover, which, however, also implies that some 60% of the prices remained unchanged, having been converted to euro exactly at the prescribed rate. When we look at the price increases and reductions sepa-

<sup>26</sup> This measure is calculated on the basis of micro price observations, i.e. all observed price changes of a given product are divided by all valid price observations of this product.

rately, we find that each category accounted for almost exactly half of the price changes from December 2001 to January 2002; in other words, the impact of price increases and decreases on the inflation rate balanced each other out. The chart therefore provides no evidence of an effect of the euro cash changeover on inflation – at least in January 2002; at that time, more prices were adjusted than usual, but as many upward as downward. However, it is not possible to infer from chart 7 whether the upward price adjustments were more pronounced in magnitude than the price cuts in January 2004 compared with other months and whether this might have produced an inflationary effect.

## 6 European Prices Slowly Converge

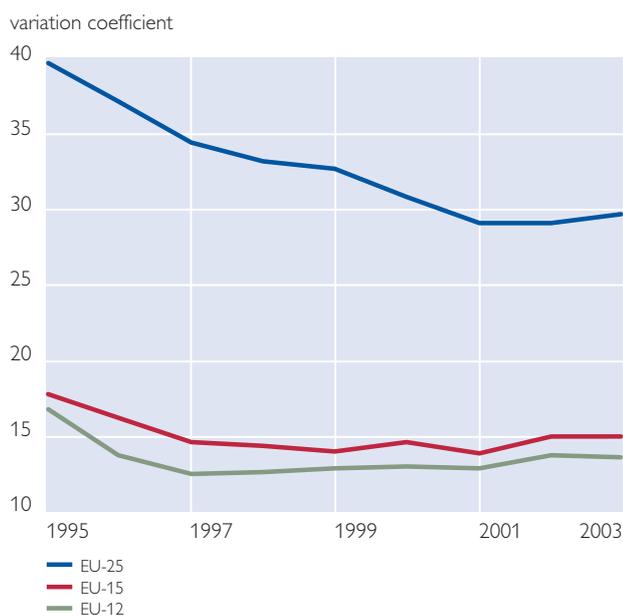
The Single Market with perfect competition supports the convergence of price levels and is set to reduce any such differences across countries to a

minimum. The introduction of the euro was meant to foster this development and to improve the framework conditions. However, as confirmed by a study (ECB, 2002), obstacles to trade and competition as well as considerable differences in the price level are still in place. The reasons for this are manifold: differing national income levels, diverging macro policies and business cycles, different tax rates, heterogeneous markets and market conditions (from, say, information costs to diverse pricing policies) and fluctuating nominal exchange rates.

Nevertheless, a recent analysis (Eisenrauch and Sergeev, 2004) of GDP-based comparative price level indices points to very slow, but steady convergence. In 2003, the variation coefficient (commonly used measure for dispersion and price convergence) came to 15 for the EU-15 and 14 for the euro area, which compares with 18 and 17, respectively, in 1995. The EU-25 aggregate records the most sig-

Chart 8.1

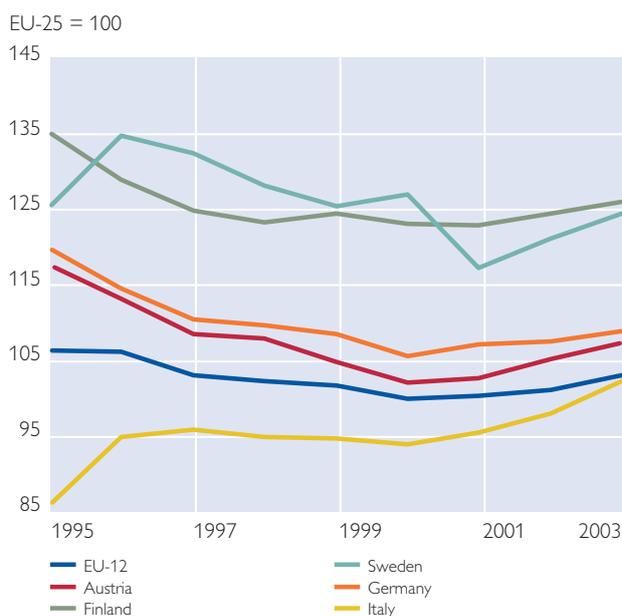
### Price Convergence of the EU Member States



Source: Eurostat.

Chart 8.2

### Price Levels of Selected Countries



Source: Eurostat.

nificant progress in price level convergence since 1995, driven especially by the converging price levels of the EU-15 and the catching-up process of the new members. Interestingly, the trend toward price convergence that had begun in 1995 came to a halt in 2001 and inverted to a slight divergence. However, the most recent data are largely preliminary.

The price levels of the individual countries signal another trend (chart 8.2). Economies with a high price level have seen it decline perceptibly since 1995 vis-à-vis the EU average, and countries with an initially low level experienced an uptrend. Much as in Germany, Austria's overall price level went down relative to the EU average. The same was true of Finland and Sweden, two countries known for their high prices. By contrast, Italy's prices advanced steadily and, in 2003, already topped the average EU level. Over the past few years this has partially changed again, with price levels deviating marginally from the EU average. Evidence on the euro area continues to paint a mixed picture, with Portugal (78% of the EU average) and Luxembourg (116%) representing the two extremes in 2003. Yet, the gap between these two countries has been narrowing since the start of monetary union, contracting from 42 percentage points in 1998 to 38 percentage points in 2003. All in all, this confirms an admittedly slow price level convergence in Europe.

## 7 Summary and Conclusions

In short, Austria's accession to the EU impacted price developments as follows:

- Austria's inflation rate moved within a rather narrow corridor from slightly over 0% to almost 3% over the past ten years. Headline inflation decreased nearly by half on average to 1.5% per annum between 1995 and 2004 (1987 to 1994: 2.7% per annum). Austria thus ranked among the top performers in the EU and, as from 1999, in the euro area in terms of price stability.
- This favorable price performance benefited from a stability-oriented monetary policy (up to 1998 not least owing to the peg to the Deutsche mark), a moderate wage policy, the efforts to qualify for participation in Stage Three of EMU, cost efficiency, rationalization investments, remarkable price competitiveness and the opening up of several markets.
- Especially the deregulation of the network industries partially resulted in significant price effects, even though most of them were only temporary – except in the telecommunications sector – and were superseded either by new regulatory measures or by special effects in the case of market prices.
- The actual results mostly fell short of the expectation that the Single Market would bring about sustained sectoral price reductions. The food sector, granted, saw marked price cuts, but they were either merely of a temporary nature or superseded by supply shocks with in part considerable price increases. By contrast, in the tradable goods segment, which is exposed to keen competition, price growth remained subdued over the entire decade following EU accession.
- In the face of persisting obstacles and restrictions, the service sector did not profit from price effects. In fact, prices of private and public

- services continued to rise at a disproportionately fast clip. The EU's efforts to eliminate the obstacles in cross-border service provision over the medium term are expected to result in greater competition and thus to trigger price effects.
- A model simulation, which is based on an inflation forecasting model that simulates inflation developments of the past decade for two scenarios (Austria did or did not join the EU), reveals a dampening effect on inflation of EU integration, which seems to be largely traceable to the first five years following accession. According to the outcome of these simulations, Austrian consumers benefited from, on average, 0.2 percentage point lower inflation per annum than in the no-entry scenario.
  - The introduction of the euro at the beginning of Stage Three of EMU did not result in a pass-through of costs to consumer prices. Moreover, measured headline inflation remained virtually unchanged even after the euro cash changeover. Yet, disproportionate price increases of goods consumed on a daily basis explain why inflation was perceived by the public to be higher than was actually the case. At any rate, around the time of the euro cash changeover, prices were increased and reduced in equal measure, which is why no effect on aggregate inflation was observable.
  - EU integration and the greater price transparency brought about by EMU have spurred a slow convergence of prices all across the EU. In Austria, the comparatively higher price level has little by little come closer to the EU average over the past few years.

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# In & Out – A Country Comparison Reflecting on the Enlargement Round of 1995

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*This paper provides an overview of the economic effects EU membership has had on the countries Austria, Finland and Sweden since their accession in 1995, primarily focusing on implications for price stability and GDP growth. EU accession has led to an intensification of competition or opened up industries to competition in the first place. This, in turn, has dampened prices, in particular in previously sheltered sectors like the agricultural sector. Economic integration has also had a positive effect on GDP growth, increasing annual growth by approximately 0.5 percentage point. As a non-EU member, Switzerland did not experience these benefits.*

## 1 Introduction

In the late 1980s, European states like Austria, Finland, Sweden and Switzerland were confronted with the introduction of the Single Market, which was to intensify economic integration among participating states. Between 1989 and 1992 these four states, all of them EFTA members at the time, applied for EU membership, not least because of the prospective disadvantages outsiders would be facing in the course of growing integration.

The European Economic Area (EEA) had already made limited participation in the Single Market possible without full EU membership. Nevertheless, the Swiss population voted against EEA participation in December 1992,<sup>2</sup> while Austria, Finland and Sweden signed the EEA Agreement, which entered into force in 1994. The EEA is based on the four freedoms (free movement of goods, persons, services and capital) and on large parts of the body of EU law. It aims at closer cooperation in the fields of research and development, environmental protection, education and social policy. As far as agriculture and fishing products are concerned, the movement of goods is still

restricted, however. EEA and EU membership are also very different when it comes to political decision-making. EEA members' right to be heard is limited, and they are also excluded from further integration steps such as Economic and Monetary Union (EMU).

Already in the run-up to EU accession, economic analysts in Austria, Finland and Sweden had tried to quantify the consequences of EU membership for their countries; in all three countries, the overall assessment had been positive.<sup>3</sup> In the following, this paper will investigate the accuracy of these assessments and, in particular, the effects of integration on price stability and GDP growth, as well as the institutional changes brought about by EU membership. The findings for Austria, Finland and Sweden will be contrasted with developments which occurred in Switzerland during the same period (i.e. after 1995). It goes without saying that the different dynamics in the three Member States and in Switzerland cannot be attributed to EU (non-)membership alone. Thus, differences which arise from a lower level of integration are explicitly pointed out.

<sup>1</sup> The author would like to thank Gabriel Moser, Jarko Fidrmuc, Doris Ritzberger-Grünwald and Klaus Zinöcker for their valuable comments and Andreas Nader for his statistical support.

<sup>2</sup> In a referendum on the opening of accession negotiations with the EU held in March 2001 the majority of the Swiss population also voted against.

<sup>3</sup> In this context see Felderer et al. (1994) and WIFO (1994) for Austrian analyses.

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## 2 Open Markets Lead to Lower Inflation<sup>4</sup>

From the point of view of a central bank whose primary aim is price stability the effects EU accession has had on inflation are of particular interest. Expectations regarding the potential impact of EU membership on prices were primarily based on the following rationale: If remaining trade barriers like e.g. border crossing formalities were to be eliminated, the prices for imported goods should fall; this intensification of competition and the opening-up of previously sheltered sectors should, in turn, prevent businesses from setting prices in a monopolistic or oligopolistic manner and force them to develop more efficient and thus cheaper production methods.

In the case of Austria, Finland and Sweden, customs tariffs did not change much upon EU accession, as trade in industrial goods between EFTA and EU members had already been exempt from customs duties. Imports from nonmember countries became subject to EU tariffs, which meant that these tariffs had to be reduced by 5% in Austria, while those in Sweden had to be raised by approximately 1%. The Finnish tariffs already corresponded to EU norms. Border controls and other formalities tied up with bilateral trade were eliminated, which led to cost savings in the amount of 2.5% to 5% of trade volume according to an estimate by Breuss (2003). A long-term comparison of import prices before and after 1995 shows the following: In Austria, the average annual growth rate of import prices came to 0.7% between 1985 and 1994 as well as between 1995 and 2004. In Finland and Sweden,

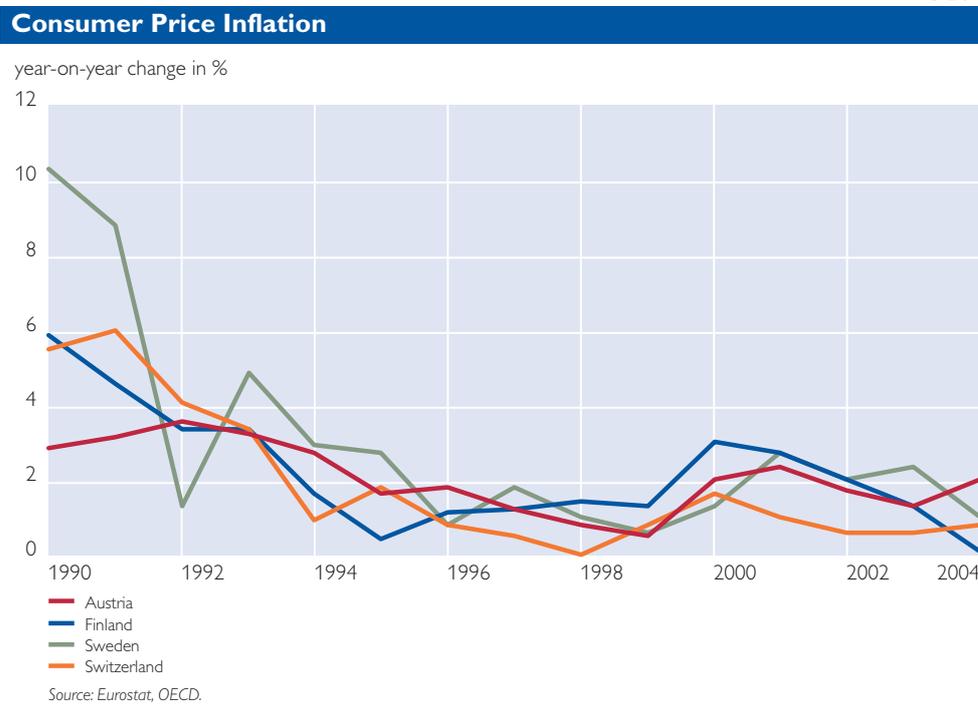
import prices grew much more slowly in the ten years following EU accession than in the ten years before. It has to be mentioned, however, that Finland and Sweden experienced severe depreciation in the early 1990s, which considerably drove up import prices.<sup>5</sup>

EU accession was also expected to have a significant impact on food prices, as the agricultural sector, which had been particularly sheltered from competition in the past, would henceforth be subject to the common agricultural policy. Indeed, food prices in Austria fell by 1.7% in the year of its accession; in Finland price reductions even amounted to 4.6% owing to numerous government monopolies (e.g. sugar). Finland had been granted an exception for alcoholic beverages, which remained upright until 2004 and which reduced the HICP (Harmonised Index of Consumer Prices) inflation rate by a further 0.8 percentage point when it expired. Switzerland did not experience these effects; at 0.6%, food price growth in 1995 corresponded to the average level of the 1990s. In Sweden, EU accession did not have the same dampening effect on food prices as in Austria and Finland. According to Dahl (1999), this was mainly attributable to the high degree of concentration and the related lack of competition in the Swedish retail trade sector and to Swedish consumers' strong preference for domestic food products. Moreover, the liberalization of Sweden's agricultural sector was already more advanced prior to EU accession than in Austria and Finland. In 1995, when the three countries joined the EU, food imports from the EU rose by 67% in Austria, by 44% in Finland and by 34% in Sweden;

<sup>4</sup> See also Fluch et al. on inflation in Austria since EU accession in this issue of *Monetary Policy & the Economy*.

<sup>5</sup> The Finnish markka depreciated by around 14% in 1992 and 1993, and the Swedish krona by 17% in 1993. Import prices in Sweden increased by 14% in 1993.

Chart 1



in Switzerland they increased by a mere 7%.

EU accession also caused downward price effects in other areas, especially in the industrial goods sector, in which producers are exposed to more international competition than in the services sector. Breuss (2003) cites the example of the energy market, on which consumer prices and production costs were positively influenced by the complete liberalization of the electricity and gas markets (with effects being stronger for businesses than for households). Annual price growth in the nonenergy industrial goods sector has also slowed down since 1995: From 1990 to 1994 it had averaged 2.5% in Austria, 4.2% in Finland and 3.4% in Sweden; in the period from 1995 to 2004 average annual price growth amounted to 0.3% (Austria), 0.5% (Fin-

land) and 0.2% (Sweden), respectively. The reduction in inflation rates seems to be mainly attributable to an increase in production efficiency and the related cost savings. Neither Sauner-Leroy (2003) nor Badinger (2004) find corporate profit margins to have dropped significantly after EU accession.

All in all, consumer prices in all three Member States did not rise as strongly after 1995 as in the years prior to EU accession, the average increase in the HICP coming to around 1.5% in Austria and Finland, and to approximately 1.6% in Sweden. Austria and Finland<sup>6</sup>, which participate in Stage Three of EMU, have contributed to meeting the euro area's monetary policy objective of keeping inflation rates below but close to 2% over the medium term. The inflation differentials between Austria, Finland and Swe-

<sup>6</sup> In Finland, prices were already very stable at the time of its EU accession owing to the fact that the country had introduced an explicit inflation target in 1993 (price stability being defined as an increase in core inflation, i.e. consumer price inflation without rises in indirect taxes and housing costs of 2%, (OECD, 1995).

den have narrowed since they joined the EU.

Switzerland also experienced a marked slowdown in consumer price inflation after 1995. This, however, was not so much related to increased competition but to a widening of the output gap caused by the rather weak economic growth in the years following 1995.<sup>7</sup> Weak GDP growth was also reflected by unit labor cost developments: Although, since 1995, Switzerland has recorded the lowest wage growth of all four countries under review, its unit labor costs have risen more strongly than those in Austria, as annual productivity growth in Switzerland only averaged 0.7% after 1995. In Austria (as in Finland and Sweden) yearly productivity growth after 1995 amounted to around 2%, which resulted in average annual unit labor cost growth of 0.7% given the moderate rises in actual wages in Austria.

The low competitive pressure in Switzerland has been criticized by the OECD (2002), as it leads to relatively high prices. While the scope of Swiss competition law was expanded in the 1990s, the competent authorities do not have sufficient powers to sanction noncompliance. In 2001, for instance, the European Commission imposed the then highest fine ever on a Swiss cartel in the pharmaceutical sector. Under Swiss law the involved businesses had only been issued a warning, as the national competition authorities can only punish breach of competition law upon evidence of repeated offense. The OECD also blames the lack of competition in Switzerland for the relatively high public procurement prices.

### 3 Growth Effects of Integration

Economic integration opens up new possibilities for the international division of labor, and via specialization it leads to more trade and higher growth. This, in short, was how traditional economic theory assessed the prospective impacts of European integration on trade and GDP growth. While traditional economic theory explains the positive effects of closer international cooperation primarily through comparative advantages, newer theories emphasize other aspects, e.g. market size and the associated potential benefits arising from economies of scale, technology and human capital spillovers resulting from trade and foreign direct investment, and the proximity of production sites to customers.<sup>8</sup> A model-based analysis of trade effects caused by EU accession is provided by Fidrmuc in this issue of Monetary Policy & the Economy.

Manufacturing enterprises were in a position to expect an acceleration of growth from participation in the Single Market, as, in general, they produce tradeable goods. And indeed, in all three Member States under review the manufacturing sector has recorded higher growth rates since 1995 – the highest of all economic sectors in fact –, while industrial growth in Switzerland has remained constantly below the levels achieved in Austria, Finland and Sweden.

Growing specialization entails structural change in the industrial production sector. Finland and Sweden's economic sectors have undergone particularly strong structural shifts since

<sup>7</sup> See OECD (1999).

<sup>8</sup> For an overview of the theoretical literature on economic integration see Wolfmayr-Schnitzer (1999).

1995. In both countries the paper industry had made the most significant contribution to value added in the manufacturing sector in 1994. Since then, the significance of this industry has diminished. The electronics industry, by contrast, has strongly gained in importance, in particular the production of telecommunications goods. Since 1995, the entire electronics industry has grown by 400% in Finland and by even 500% in Sweden, while it has expanded by 20% in Austria.

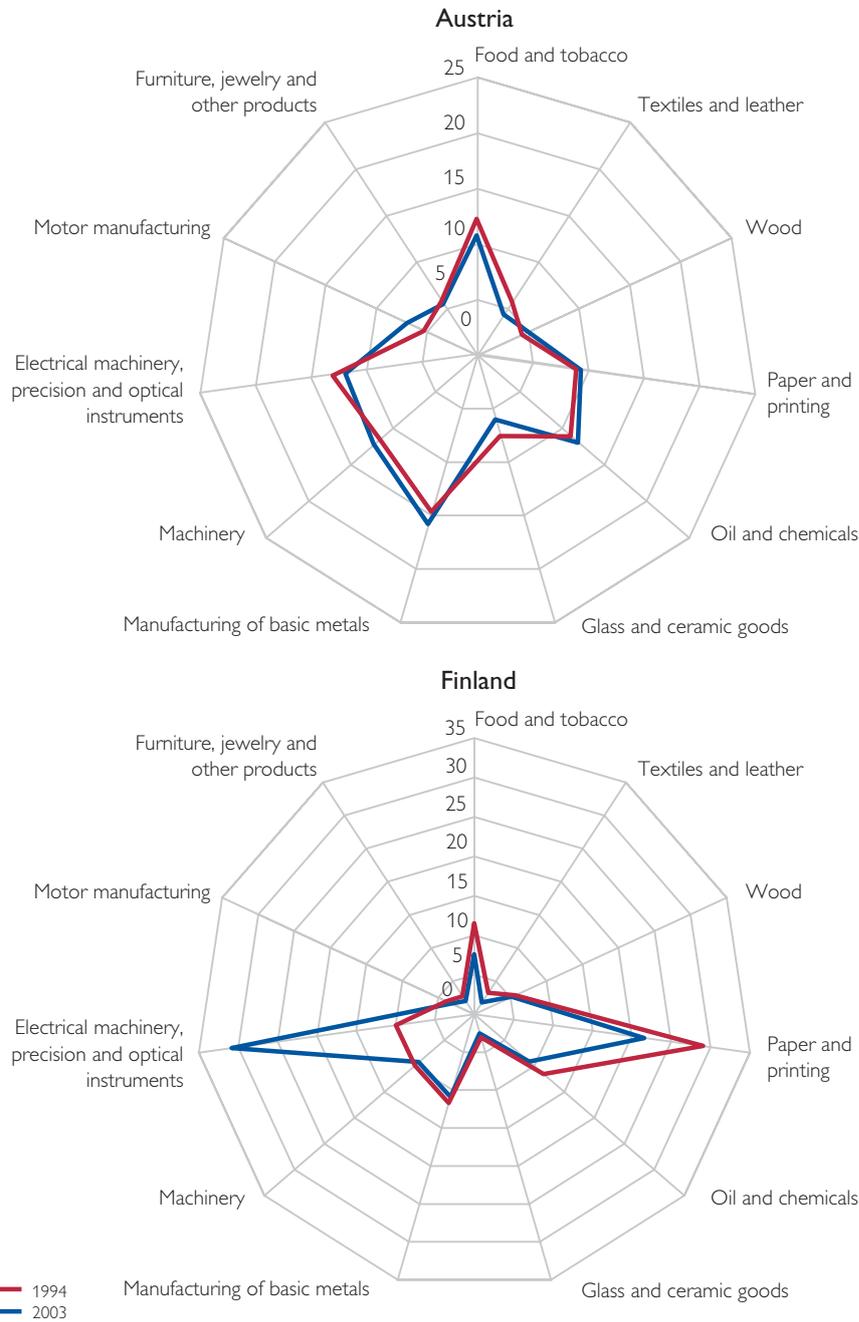
In general, changes in Austria have not been as drastic. Traditionally important sectors like metal manufacturing have further increased their share in the overall manufacturing sector. The most significant gains have been recorded by the motor industry, with an average annual growth rate of

7% since 1995 (total manufacturing sector: 3%). As the largest industrial sector in Austria, metal manufacturing accounted for just under 16% of total manufacturing in 2003; the share of the electronics industry in both Finland and Sweden exceeded 30%. Such a high degree of specialization is, however, accompanied by certain risks. Growth potential in both Finland and Sweden is highly dependent on demand for a narrowly defined group of goods. When enterprises in a small open economy take advantage of increasing economies of scale, risky national specialization patterns are likely to emerge quickly. As in Austria, industrial structures in Switzerland remained relatively constant in comparison with the two Scandinavian states.

Chart 2a

**Structural Change since EU-Accession<sup>1)</sup>**

Sectoral shares in total industry in %

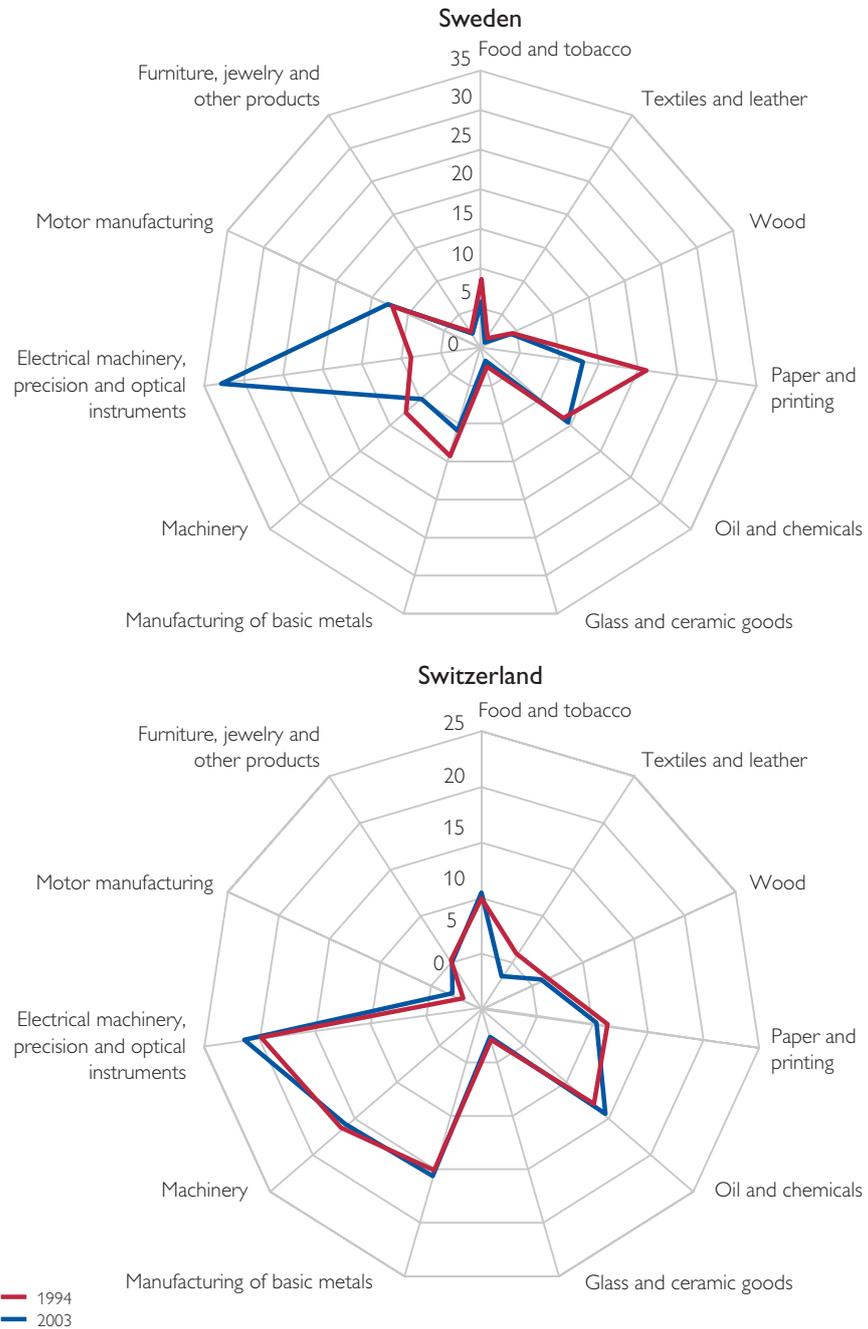


Source: Eurostat, Swiss Federal Statistical Office.

<sup>1)</sup> These charts show the contributions of individual industries in Austria, Finland, Sweden and Switzerland to the total value added in the manufacturing sector before EU accession and compare them with recent data. In the case of Switzerland, the percentages refer to employment figures.

**Structural Change since EU-Accession<sup>1)</sup>**

Sectoral shares in total industry in %



Source: Eurostat, Swiss Federal Statistical Office.

<sup>1)</sup> These charts show the contributions of individual industries in Austria, Finland, Sweden and Switzerland to the total value added in the manufacturing sector before EU accession and compare them with recent data. In the case of Switzerland, the percentages refer to employment figures.

The cumulated growth effects of EU accession are investigated by Crespo-Cuaresma et al. (2003). In a panel estimation, they regress GDP growth on a number of variables, inter alia the length of EU membership. The latter turns out to be significantly positive. As the intensity of trade is also included as an explanatory variable, the effects of EU membership are explained through the improved diffusion of technological knowledge in line with endogenous growth theory. Breuss (2005) also provides an econometric estimate of the effects EU membership has had in the three Member States under review. According to his estimate, EU accession triggered the strongest growth impulses in Finland. The integration effects caused by the creation of the Single Market and by EEA membership have brought Finland additional annual growth of 0.7 percentage point, primarily owing to the massive FDI inflows and the marked increase in Finnish research activities. At 0.4 and 0.3 percentage point per year, respectively, growth effects in Austria and Sweden were somewhat less pronounced. These growth effects have to be viewed as temporary results of integration which subside after five to six years, upon which growth rates return to their previous levels. As Switzerland is geographically located at the very center of the EU, which naturally favors close trade relations, it is safe to assume that, in the case of Switzerland's accession, growth effects would have surpassed those experienced by Sweden.

Austria and Finland already participate in State Three of EMU, i.e. have introduced the euro. The ensuing deepening of financial and product market integration suggests further growth impulses in the future according to findings produced by Rose (2000) and Persson (2001). Some of these impulses can be attributed to a reduction in exchange rate volatility, which has fallen significantly in Finland and Sweden since their accession. In Austria and Switzerland, it remained more or less the same after 1995 as in the ten years before. It should be mentioned, however, that exchange rate volatility has traditionally been very low in Austria owing to its successful hard currency policy.<sup>9</sup>

#### **4 Changes in the Legal and Institutional Framework and in Relations to the EU**

Participation in the Single Market made it necessary to adapt legal framework conditions in Austria, Finland and Sweden. This first of all meant translating directives adopted at the European level into national law, as, in many areas, uniform legal standards are an essential prerequisite for the smooth functioning of the Single Market. The European Commission monitors the implementation of EU directives in the individual Member States and publishes progress reports on its Internal Market Scoreboard. Austria, for instance, had only implemented 90% of the regulatory framework of the Single Market by 1997, Finland

<sup>9</sup> Gnan et al. show that Austria's effective exchange rates have clearly stabilized since Austria joined EMU (see this issue of *Monetary Policy & the Economy*).

96% and Sweden 94%. By 2004, however, the three countries had already implemented around 98%.<sup>10</sup>

EU Member States are obliged to contribute to the EU budget. These contributions minus EU funds invested in the individual Member States yield their respective budgetary balances, which are published in the European Commission's annual report on the allocation of EU operating expenditure. Austria and Sweden are among the net contributors within the EU; Sweden's contribution remained relatively constant between 1995 and 2003 at around 0.4% of its GDP, while Austria's net contribution gradually decreased from 0.5% of GDP in 1995 to 0.15% in 2003. Finland's contributions to and receipts from the EU budget remained roughly balanced in most years.<sup>11</sup> In Austria, 72% of the receipts from the EU budget flow into agriculture in the form of direct aid, export refunds or support for rural development. In Finland and Sweden, 66% and 60%, respectively, are allocated to agriculture. These two countries receive a higher share from the structural funds than Austria.

To be able to participate in European integration despite the negative outcome of the referendum, Switzerland concluded a number of bilateral agreements with the EU, which entered into force in June 2002. These complemented the free trade agreement of 1972 in the following areas: free movement of persons, technical barriers to trade, public procurement, air and land transport, as well as agriculture and research. The objective

of these agreements was to ensure that Swiss citizens and businesses were put on a broadly similar legal footing as EU members in the areas listed above. For example, Swiss citizens were granted full access to the EU labor market, agricultural tariffs were reduced and new regulations for alpine transit were introduced. When these agreements came into force, Switzerland entered a new negotiation round with the EU ("Bilateral Negotiations II"), which focused on issues like taxation of savings income, anti-fraud activities, security and asylum policies and statistics. As these negotiations were concluded in 2004, the resulting new agreements can be expected to be ratified in the course of 2005. Hauser and Roitinger (2001), however, point out that these bilateral agreements do not accommodate continuous developments, which means that changes in the legal framework of the participating states cannot be reacted to adequately. Whether the bilateral agreements can be adapted to such changes will always depend on the EU's willingness to renegotiate.

## 5 Conclusions

The effects the three Member States under review expected from joining the EU have largely materialized in the areas analyzed in this paper. Inflation in these three countries has fallen since their accession, owing, on the one hand, to the opening-up of previously sheltered sectors (e.g. agriculture) and, on the other hand, to the intensification of competition. Austria did not experience a reduction of

<sup>10</sup> Only Hungary, Lithuania, the Netherlands and Spain have already translated more of the regulatory framework of the Single Market into national law than the countries under review. For information on implementation progress in all EU Member States see European Commission (2005).

<sup>11</sup> In half of the years since its EU accession, Finland's net balance of contributions to and receipts from the EU budget was less than 0.1%. Moreover, Finland was net recipient for as many years as it was net contributor.

import prices; in Finland and Sweden, import prices did decrease, but most likely as a result of exchange rate fluctuations in the early 1990s. Although productivity growth has been more or less the same in all three countries, unit labor costs in Austria rose much less than in the other two countries, which can be attributed to lower increases in actual wages.

There is also empirical evidence which substantiates that EU accession has had positive effects on GDP

growth. Finland and Sweden have more readily embraced the opportunities for sectoral specialization arising from economic integration than Austria has. Because of its nonmembership Switzerland has clearly missed out on all these positive effects. The existing bilateral agreements and the general rapprochement observed in recent years may have triggered integration effects in Switzerland, but these cannot compare to EEA or EU membership.

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# The Impact of EU Accession on Austria's Budget Policy

*This paper analyzes Austria's budget policy prior to accession to the European Union (EU) and budgetary action taken to support the opening up of the domestic economy and its integration into the EU. Moreover, it assesses the impact that joining the European monetary union has had on Austria's fiscal strategy. The analysis reveals several regime changes over the past few decades: While the fiscal policy goal of the 1960s was, in essence, that of achieving a balanced budget, the government's commitment in the 1970s to developing the welfare state and to pursuing a stabilizing role in addition to its allocation function fundamentally changed the fiscal framework. The rapid rise in the debt ratio that ensued in the second half of the 1970s triggered a debate on the necessity of enforcing upper limits for budget deficits (as a percentage of GDP). This debate led to the proposition of the so-called Seidel formula, with which the federal government's budget deficit regained significance as a fiscal policy target. The government indeed responded to the rising interest payments on the spiraling debt with – heavily debated – consolidation measures. While EU accession as such in 1995 was not deemed to create substantial need for fiscal action, a general government deficit ratio in excess of 5% of GDP called for significant consolidation measures in its own right in 1996 and 1997 in order to ensure that Austria would be among the founding members of the euro area. The new coalition government coming into office in 2000 staged a fiscal policy turnaround in so far as it propagated the goal of a balanced general government budget, which was indeed reached in 2001. Yet given the ongoing weakness of the economy, the goal of achieving strictly balanced budgets has since been redefined into balancing the general government budget over the business cycle. With its decision to design another tax reform, not fully financed right away, Austria recently changed its fiscal policy strategy yet again, incurring a “temporary deviation” from the medium-term target under the Stability and Growth Pact.*

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## 1 Austria's Budget Policy before EU Accession (1960 to 1995)

In the 1960s, Austria's budget policy was aimed at maintaining a balanced budget. The primary role assigned to government at the time was that of allocating resources to secure the provision of services of general economic interest and make sure that the essential needs of society would be met. While the public sector ran budget deficits in some years, it managed to keep the debt ratio stable at an exceptionally low level of just over 10% of GDP throughout the decade thanks to a negative interest rate-growth differential.

The 1970s were marked by “innovative” budget policies designed to finance the development of a welfare state along the lines of the Scandinavian model. These measures resulted in permanent budget deficits, which in turn caused the debt ratio to jump from

10% of GDP in 1974 to just below 50% of GDP in 1985.

Following the period of stagflation triggered by the first oil price shock, the government assumed a stabilization function on top of its allocation function; in other words, the state's economic role principally turned into that of a macropolitical agent (Mooslechner, 2001). The level of output and employment, previously considered largely exogenous to fiscal policy, now shifted to the center of macro politics, and the national budget took on a new and much larger strategic role in the framework of macroeconomic policy at large. While the expansionary course of fiscal policy and subsidies to state industries (which served as a policy instrument by providing employment) contributed to keeping the negative macroeconomic impact of the oil price shocks and of structural changes in Austria comparatively low,

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they also led to deficits, thus fueling the debt spiral.

The budget policy in combination with an exchange rate pegged to the Deutsche mark and an incomes policy geared to containing costs through trade union wage restraint as well as the use of supply-side elements of tax policy (broad-based tax investment incentives) were aimed at maintaining full employment, the key policy objective at the time. This Austrian brand of Keynesianism was in fact a success as it managed to contain unemployment. At the same time, it created major structural problems, for instance through the subsidization of the state industries. The appearance of early retirement packages at the beginning of the 1980s also dampened unemployment, yet at the cost of higher transfer payments from the social security budgets. In essence, Austria's budget policy in this period primarily aimed at preventing unemployment from rising rather than at ensuring long-term sustainability.

The cumulative deficits and off-budget measures caused the debt ratio to soar in the second half of the 1970s. Unlike in the 1960s, when a negative interest rate-growth differential had helped stabilize the debt ratio, the interest rate-growth differential turned positive in the 1970s. In other words, Austria would have had to achieve primary surpluses to be able to keep the debt ratio stable.

The soaring debt ratio triggered a debate about the necessity of enforcing upper limits for the budget deficits (as a percentage of GDP). Hans Seidel, then director of the Austrian Institute of Economic Research (WIFO) developed the so-called Seidel formula based on the theoretical model of Domar. According to this formula, Austria would have had to target a fed-

eral government deficit of 2½% of GDP on average in order to stabilize the debt ratio at a level of one-third of the output volume, given annual nominal growth rates of 7%.

Thus, the federal government's budget deficit regained significance as a fiscal policy target. The implementation of the Seidel formula had a number of practical consequences. First, whenever the budget deficit exceeded the Seidel threshold by a certain margin, consolidation packages were adopted with a view to reducing the deficit in the following years. To keep the political costs of such measures as low as possible, more and more public sector tasks were taken off the administrative budget, or new tools (such as state guarantees) were created that were not recorded in the budget accounts. Furthermore, public expenditure was deferred to postpone the build-up of budget deficits (outlays for state pensions and public sector employees, whose pay schedule is based on the seniority principle, being cases in point). Yet primary surpluses remained out of reach even despite these measures.

The consolidation measures undertaken in response to the higher interest payable on the spiraling debt became the subject of a fierce policy debate because "in the wake of the fiscal mentality change" (Bartel, 1993) in the 1970s policymakers in Austria, too, had embraced the idea that high and rising budget deficits were in fact politically feasible and economically viable. Jettisoning these beliefs, the coalition government of Social Democrats and Conservatives coming into office in 1987 agreed on tackling the consolidation of the federal budget as a key objective of economic policy, given the path on which the federal budget was developing and the impact it was

having on other policy areas (growth, employment, distribution, exchange rate) (Arbeitsübereinkommen, 1987). This re-orientation of budget policy implied the de facto departure from the Austro-Keynesian course and a partial move to supply-side economics (Bartel, 1995).

The shift to broadly supply-side fiscal and economic policies led to the launch of two comprehensive tax reforms in 1989 and 1994. These reforms reflected concerns about the negative effects high tax burdens were having on investment and long-term growth as well as the recognition that the conditions for taxation had changed through the progressive opening up of borders and the liberalization of capital movements. By discarding the system of comprehensive income taxation, these tax reforms also reflected the departure from strictly distributional objectives based on the ability-to-pay principle of taxation.

Among other things, the government reduced the marginal income tax rate from 62% to 50%. This step, which above all dampened tax progressivity for middle- and higher-income brackets, was meant to create stronger incentives to work. The reform of capital taxation in a broader sense (Austria introduced a comparatively low proportional tax rate for corporations while expanding the tax base as well as a proportional tax on residential taxpayers' capital income that is withheld at source and treated as a final tax) was aimed at better positioning Austria in the competition for portfolio and real investment as well as at improving its

attractiveness as a business location. The tax reforms of this period were thus a response to the opening up of the economy and the free movement of capital and labor as well as to the growing location competition, as a result of which policymakers had considerably less leeway for taxing capital than for taxing labor.

## 2 EU Accession

Austria applied for EU accession in July 1989. Initial negotiations were carried out at the level of the European Free Trade Association (EFTA) and the European Economic Community (EEC), as a result of which the European Economic Area (EEA) was established on January 1, 1993.

EU accession as such created comparatively little need for fiscal action.<sup>2</sup> The immediate impact on tax legislation in Austria was found to be rather low. Much rather, needs to adjust the tax regime and restrictions of the room for maneuver tended to result from the opening up of borders and from the liberalization of capital, labor, goods and services markets as well as from the increasing tax base mobility. In anticipation of a possible later EU membership, value-added taxation (VAT) had been introduced in Austria already in 1973 and had since turned into the biggest source of tax revenues.<sup>3</sup> Moreover, the higher VAT rate for luxury goods, introduced in 1977 with a view to containing a twin deficit, had been abolished in 1992 when EU accession was coming within closer reach (except for purchases of motor vehicles, for which it was retained as an environmental tax).

<sup>2</sup> See Nitsche et al. (1988).

<sup>3</sup> The EU's Internal Market program was aimed directly at harmonizing VAT rates and specific excise duties. Agreement on a broadly uniform basis of assessment for this tax category was achieved already with the Sixth VAT Directive of 1977. After all, Community expenses are financed among other things through a share of the national VAT revenues of the Member States equivalent to 1.4% of the agreed basis of VAT assessment.

The need for adjustment arose in the following areas: loan taxation had to be adjusted, taxes similar to VAT had to be abolished and specific services, such as medical services, had to be made exempt from VAT. In the field of excise duties, petroleum taxes had to be raised under the regulation implementing the VAT Directive. Moreover, the road transport duty had to be cut substantially. At the same time, it was clear that Austria was going to be a net contributor to the EU budget. This implied that EU accession would create a net burden for Austria's budget equivalent to 0.9% of GDP in the medium term and to 1½% of GDP in the first year according to initial WIFO<sup>4</sup> calculations. Yet none of the numerous studies on Austria's EU accession discussed the issue that the requirement to meet the Maastricht criteria might cause budget problems. After all, Austria had successfully complied with a Maastricht deficit ratio of 3% of GDP on average in the 1980s. The debt ratio, too, was close to the Maastricht reference value of 60% of GDP; besides, this criterion appeared to be of secondary importance because it was seen as broadly driven by deficit developments.<sup>5</sup>

Apart from a large part of agricultural policies, the provisions of the EU's Internal Market program had already been implemented upon Austria's accession to the EEA. Thus, domestic markets for goods and serv-

ices were no longer protected from external competitors, and EU competition rules had already become binding. In certain areas EEA membership had required the disclosure of previously hidden subsidies and the disclosure of the financing burden in the government accounts.<sup>6</sup> Upon EU accession on January 1, 1995, agricultural subsidies had to be largely disclosed as well. Subsidies had, incidentally, been raised considerably in the run-up to EU accession with a view to enabling the sectors concerned to better cope with the looming pressures of competition.

In the light of the public referendum on EU entry, the federal government tried to compensate the potential losers of EU accession with budgetary funds. As a result, the budget deficit jumped to a record high of 5.7% of GDP in 1995, well above the Maastricht reference value of 3% of GDP.

### **3 Preparations for Monetary Union Membership: Budget Policy in 1996 and 1997**

At the European Council summit in Maastricht on December 10, 1991, the heads of state or government of the 12 EEC countries reached an agreement on the draft Treaty on European Union.<sup>7</sup> The Treaty stipulated that the second stage of Economic and Monetary Union (EMU) was to start on January 1, 1994, after all restrictions

<sup>4</sup> See Bayer et al. (1994).

<sup>5</sup> "In terms of budget ratios, price stability and interest rate levels, Austria is among the core countries of a future economic and monetary union" (quote from the finance minister's budget speech 1994).

<sup>6</sup> Austria had seen a number of interventions recorded on off-the-books accounts that basically aimed at protecting the Austrian market from imports and regulated domestic prices. The cost of administered prices had to be borne by consumers in the form of a loss of the consumer's surplus, while the burden of the required compensatory subsidies and adjustment assistance had to be borne by the tax community.

<sup>7</sup> The Treaty on European Union was signed in Maastricht on February 7, 1992, and entered into force on November 1, 1993.

on the movement of capital between EU Member States had been abolished and the Internal Market had been implemented in the first stage (starting on July 1, 1990).

In the second stage of EMU, Member States stepped up their efforts to achieve nominal convergence by complying with the criteria for joining the monetary union, i.e. the Maastricht criteria.<sup>8</sup> Under the Maastricht Treaty, compliance with budgetary discipline is to be examined on the basis of two reference values that both reflect policy choices: the general government deficit ratio of a Member State shall, as a rule, be below 3% of GDP, and the general government debt ratio shall be below 60% of GDP (or have declined substantially and continuously and reached a level that comes close to the reference value). Moreover, the treaty enshrined the prohibition of monetary financing of government debt and a “no bailout” clause in order to prevent moral hazard behavior. The European Council agreed that only those countries would be able to move to the third stage of EMU that actually met the Maastricht criteria.

Under the Maastricht Treaty, the third stage of EMU was to begin in 1997 at the earliest provided the majority of the Member States fulfilled the necessary conditions for the adoption of a single currency by then. However, this was not the case. The Madrid European Council eventually confirmed in December 1995 that January 1, 1999, would be the starting date for the third stage of EMU. Those EU Member States that met the convergence criteria in 1997 would be able to participate.

For Austria's government it was of paramount political importance to be among the initial members of the euro area. Against this backdrop, the finance minister first of all decided to change budget accounting from the “administrative budget” framework prescribed by the Federal Budget Act to the framework of the European System of National Accounts (ESA) used for the Maastricht criteria. Before, ESA measures had been used primarily for national accounts calculations of GDP and for reports to international institutions, such as the OECD and the IMF. The key difference between the administrative budget deficit or surplus and the corresponding ESA-based figures arises from the accrual method of accounting used to record income and expenditures under ESA. Under the administrative method, it had been possible, among other things, to smooth out cyclical fluctuations by transferring funds from or to reserves. With the ESA framework, this was no longer an option.<sup>9</sup>

The political will to be among the first group of monetary union participants implied the need to meet the Maastricht criteria. In January 1996, it became evident that the deficit ratio had jumped to more than 5% of GDP in 1995 from 1.9% of GDP in 1992. The cyclically adjusted deficit ratio for 1995 lay even ½ percentage point above this ratio. At the same time, the debt ratio had risen from 58.3% (1992) to 69.4% (1995) of GDP. Without any countermeasures the deficit would have increased further to some 7% of GDP, and the debt ratio would have soared, too. The budget dynamics

<sup>8</sup> These criteria were and are: deficit ratio of below 3% of GDP, debt ratio of below 60% of GDP (if the debt ratio is above 60%, it must have declined substantially and continuously and reached a level close to 60%), low inflation, low interest rates, two-year membership in the exchange rate mechanism (ERM).

<sup>9</sup> In fact, deviations from the accrual principle used in ESA are possible in certain cases for reasons of practicality, for instance when accounting for direct taxes. See Fleischmann (2002) for an overview of the conceptual differences.

in Austria from 1993 to 1995 were alarming, compared with developments in previous years and in other EU countries (Van der Bellen, 1997).

As a result, the Austrian government put together the biggest consolidation package in the post-War period. With a consolidation volume of about 4% of GDP to be achieved within a period of less than two years, this package was also the comparatively biggest consolidation drive in the EU.<sup>10</sup> Given the record expenditure ratio Austria had reached, spending cuts were designed to account for two-thirds of the consolidation success and revenue increases for one-third. These consolidation measures reduced the disposable income of households by close to 10% on average, but the reform had been designed to take more money out of the wallets of higher earners. Other key measures included the reduction of staff numbers in the public sector, the reclassification of government enterprises to the private sector and a pension reform package to be launched in 1997. Furthermore, the government expanded the definition of taxable income significantly, but left nominal tax rates unchanged and also refrained from increasing nonwage labor costs. In 1996, the federal government negotiated a precursor of today's Austrian Stability Pact with the provinces and municipalities. Laws enforcing this Pact and implementing a consultation mechanism were adopted in 1999. This framework was meant to prevent the individual layers of govern-

ment from shifting the budget burden to one of the other layers. Thus, the provinces and municipalities had to produce a so-called stability contribution from 1996 onward.

Economists were skeptical about the feasibility and economic sense of this consolidation drive. After all, given expectations of real GDP growth of approximately 2% in 1996 and 1997, there was little leeway for budget consolidation if a recession was to be avoided. Macro model simulations were indicating significant growth setbacks.<sup>11</sup> How big the growth effect of consolidation was in the end, and how big an effect can be attributed to the speed with which it was implemented is difficult to estimate. Austria recorded a real (cumulative) growth of 4.5% in 1996 and 1997, compared with 2.2% for Germany and 4.2% for the EU-15 average. This implies that "non-Keynesian" effects of budget consolidation may have been at work, whose existence is, however, a matter of controversy among economists (Prammer, 2004).

In 1996, for the very first time, the government also formulated an explicit strategy for lowering the debt-to-GDP ratio since forecasts indicated that this ratio would keep rising in the medium term despite budget consolidation measures.<sup>12</sup> Specifically, the government envisaged trimming the debt ratio by reclassifying government enterprises to the private sector, selling loan receivables of the Umwelt- und Wasserwirtschaftsfonds (environ-

<sup>10</sup> With regard to EU comparisons, note that countries with bigger consolidation successes broadly benefited from the convergence of interest rates, which translated into savings of up to 5% of GDP. Moreover, the allocations made in current time series, based on Maastricht definitions, do not match the allocations made according to earlier provisions.

<sup>11</sup> According to Breuss et al. (1997) the demand-side consolidation measures permanently reduced the level of GDP by 1.2% in 1996. While consolidation would have had to be undertaken even without participation in the monetary union, a longer consolidation period would have had lower negative effects.

<sup>12</sup> See Austrian Convergence Programme of May 1996.

ment and water management fund), undertaking portfolio shifts and restructuring fee-based municipal services to turn them into market producers. To this effect, the government also sold its stakes in the large banks Creditanstalt-Bankverein and Bank Austria AG, and slated the Austrian Postal Savings Bank P.S.K., the tobacco manufacturer Austria-Tabak-Werke AG and the salt producer Österreichische Salinen AG for privatization.

Apart from privatizing state holdings, the government also sold financial assets, for instance assets of the Umwelt- und Wasserwirtschaftsfonds, and made plans to sell unused property. Other measures were aimed at the Austrian highway authority ASFINAG and the Straßenbausondergesellschaften (high-speed road construction companies), whose debt totaled approximately EUR 5.7 billion at the end of 1996. In order to reach a refinancing level of 50% through user fees, the precondition for reclassification to the private sector,<sup>13</sup> the tasks of ASFINAG (which had initially been established as a financing agency) were expanded to include road construction and maintenance; the companies responsible for the high-speed road network were reorganized. Moreover, an electronic road pricing system, with charges based on kilometers traveled, was to be introduced throughout Austria by 2001.<sup>14</sup> In addition, the municipalities committed themselves to restructuring their market services and fee-based utilities (water and wastewater utilities, refuse collection, residential and commercial development) in such a way

that their debt shares would no longer count toward the public debt ratio in line with ESA 95 provisions.

#### **4 Heavily Criticized “Consolidation Pause” (1998 to 2000)**

The reduction of the Austrian general government budget deficit below the Maastricht reference value and compliance with the other Maastricht criteria in 1997 paved the way for monetary union membership. Yet the strong consolidation efforts after 1995 were followed by a “consolidation pause” from 1998 onward. The Stability Programme of 1998 targeted a deficit ratio of 1.5% of GDP by 2002, which only roughly provided for the cyclical safety margin Austria was supposed to maintain with a view to avoiding an excessive deficit. Since the necessary reform measures were left largely untackled, the medium-term target of a balanced budget required under the Stability and Growth Pact was not achieved. The government failed to use the favorable economic climate in the period from 1998 to 2000 to step up consolidation efforts. In fact, the deficit ratio even resurged significantly in 1998.<sup>15</sup> Yet in view of the parliamentary elections forthcoming in 1999, the government designed another – procyclical – tax reform, due to take effect in 2000, resulting in a net revenue shortfall of approximately 0.9% of GDP that was not going to be financed by spending cuts. Furthermore, the reform of family benefits, triggered by a Constitutional Court ruling, put an additional burden of 0.25% each on the budgets

<sup>13</sup> As a result, the ASFINAG debt no longer counted toward public sector debt.

<sup>14</sup> In fact, such a system was not implemented until 2004.

<sup>15</sup> The consolidations of the previous years were also partly based on one-off measures and temporary measures, expiring in 1998, such as the temporary abolition of loss carryovers. This caused the budget situation to deteriorate automatically in 1998. The deterioration of the general government deficit also reflects higher investment outlays by the municipalities following years of spending restraint.

of 1999 and 2000. As a result, Austria dropped to the bottom of the deficit ratio ranking of the EU Member States.

Despite all the consolidation measures, Austria's expenditure ratio remained comparatively high, with outlays for personnel, pensions and health care continuing to increase in particular. To some extent the high and rising expenditure ratio is attributable to the fact that sweeping reforms, which would have slowed down the trend growth of these large and dynamic expenditure aggregates, had again and again been postponed, and that those economic reforms that were launched were not embraced wholeheartedly. Hardly surprising, international institutions (IMF, European Commission, Ecofin Council) called upon Austria to reconsider the size of the public sector, to reinforce privatization (Austria Tabak GmbH & CoKG, P.S.K., Post- und Telekom Austria AG) and deregulation (electricity and gas supply) and to implement sustained cost saving measures in particular in the public sector as well as sustained pension and healthcare reforms.

The debt ratio actually followed a downward path in 1996 and 1997 because primary surpluses were achieved, the interest rate growth differential improved as interest rates dropped and privatization proceeds could be used to pay down debt.<sup>16</sup> Yet in 1998 the debt path reversed as well.

## **5 New Coalition Government Committed to Balancing the Budget, Downsizing the Public Sector and Improving Austria's Attractiveness as a Business Location (2000 to 2005)**

The tax reform entering into force in January 2000 was already "inspired" by the EU's Broad Economic Guidelines (apart from the fact that it was not financed with spending cuts).<sup>17</sup>

The new coalition government coming into office in February 2000 redefined Austria's fiscal strategy substantially. In March 2000, the government submitted an update of the Stability Programme to the European Commission that listed new measures adding up to a medium-term consolidation effect of 1.2% of GDP. Cuts in discretionary expenditure, further cuts in public sector employment as well as reductions in pension and transfer payments (other than child benefits, which were in fact increased) motivated by a "reprioritization to reach those most in need" on the expenditure side, as well as the proceeds from UMTS license auctions and a first revenue-based consolidation package<sup>18</sup> contributed to further paring the deficit and keeping the cyclically adjusted deficit in 2000 at the level of 1999 after all. The lowering of the deficit ratio to 1.3% of GDP by 2003 and to 1% by 2005 announced in the

<sup>16</sup> The proceeds from the sale of three mobile phone licenses in 1996 and 1997 corresponded to some 0.3% and 0.4% of GDP, respectively. Finally, the transfer of the P.S.K. pension reserves in 1997 in turn for which the state assumed the liability for future pension payments from the budget improved the budget balance by another 0.15% of GDP.

<sup>17</sup> The reform provided for higher tax credits for expenditure on research and development, apprenticeships and corporate training and development; tax concessions for start-ups; the possibility of deducting the notional return on capital from taxable income; inheritance and gift tax concessions for corporate successors; as well as exemptions from petroleum tax in turn for the use of ecologically sound fuels based on rape methyl ether. All in all, the income tax relief was estimated to total EUR 2.36 billion.

<sup>18</sup> In particular, the government raised the tobacco tax, the electricity surcharge, the motor vehicle insurance tax and individual fees (e.g. for passports and other official documents); these measures had a combined consolidation effect of approximately EUR 0.5 billion in 2000 and EUR 0.8 billion in 2001.

March 2000 update of the Stability Programme was, however, heavily criticized by the Ecofin Council, as the Member States had agreed in the Broad Economic Guidelines to achieve the medium-term target of a balanced budget already by 2002.

In response to this criticism, the finance minister reprioritized Austria's budget policies in 2000, committing himself to reaching a balanced budget. This happened at a time when the room for maneuver had just been narrowed yet again, namely by the need to abolish the tax on beverages, found unconstitutional by the European Court of Justice, which corresponded to a revenue loss of 0.1% of GDP.<sup>19</sup>

In the December 2000 update of the Stability Programme, the government announced its intention to balance the general government budget by 2002 and in the years ahead, and to rapidly reduce the debt ratio to below 60% of GDP. To this effect the government adopted a second package, still in 2000, with a consolidation volume of 1% of GDP in the short run and 1.9% after three years (including the first package). The short-term measures included above all measures to increase tax revenues, while the medium-term measures largely relied on expenditure restraint. A sweeping pension reform (the biggest in the EU in terms of volume), even more staff cuts (also

through early retirement schemes), moderate wage settlements, savings in overtime expenditures, an administrative reform and stronger efforts of the provinces and municipalities to generate cost savings were meant to help reach a balanced budget in 2002. These measures included, to some extent, further reclassifications of services provided by the provinces and municipalities and changes in the provincial subsidy and lending regimes. To make sure that the goal of a balanced budget would indeed be reached, a new domestic Stability Pact was signed, which committed the provinces and municipalities to making an active contribution; subject to the penalty of sanctions the provinces have since been required to produce surpluses, and the municipalities to record balanced budgets.

Above all a bigger than expected success of the revenue-increasing measures,<sup>20</sup> in particular the introduction of interest charges on outstanding tax liabilities, helped reach a slight surplus ahead of schedule in 2001. With the help of the two consolidation packages Austria had indeed managed to balance its budget – for the first time in 30 years.

The announcement to target a balanced budget from 2002 was welcomed above all by international institutions, such as the IMF and the Ecofin Council.<sup>21</sup> According to international

<sup>19</sup> Moreover, the tax on stock transactions was abolished in the fall of 2000, and the annual tax credit for staff shares in capital was increased from EUR 727 to EUR 1,453; increases in the price of stock options were exempt from taxes up to an amount of EUR 36,336 and, to smooth out one-off losses, the limit for tax credits for the sale of shares was reduced from 10% to 1% of the company capital. Finally, the advertising tax rate was cut from 10% to 5%.

<sup>20</sup> Broadening of the income tax base, (one-off) increase of income tax prepayments, introduction of tuition fees for university students, abolition of premium-free coverage by the national health plan for childless nonworking spouses, rise of health insurance taxes for civil servants.

<sup>21</sup> At the same time, the high fiscal burden, the continued generous family benefit systems and the announcement to cut nonwage-related costs from 2003 met with criticism. The international institutions recommended to lower the fiscal burden, family transfers as well as housing and agricultural subsidies. Moreover, suggestions for a reform of the fiscal sharing plan have been put forth repeatedly, without ever being taken up.

assessments, Austria's performance was perfect proof that the Stability and Growth Pact did work.

The other side of the medal was that Austria now recorded the highest fiscal burden in the post-War period. In 2002, the budget balance reversed into a moderate deficit, reflecting the significant slowdown in international economic activity in the second half of 2000 and the burden on public finances resulting from the aftereffects of exceptionally severe flood damages. These developments put a damper on budget revenues and prompted the government to implement two growth packages and one so-called growth and location package aimed at supporting growth in the short and in the medium run. These packages<sup>22</sup> were geared to the EU's Lisbon strategy and the measures recommended under this strategy for promoting growth.<sup>23</sup> In 2003, the general government deficit deteriorated to 1.1% of GDP, given the continued economic slowdown, the costs of the introduction of the new child-care benefits, the further increase of family allowance rates as well as the funding of the growth packages and of the growth and location package. The goal of achieving balanced budgets has since been replaced by the goal of balancing the budget over the business cycle. However, the pension reform of 2003 pro-

vided for another significant expenditure cut made with a view to improving the medium- to long-term sustainability of the pension system.

Securing long-term fiscal sustainability is a key policymaking goal within the EU in the face of the anticipated aging of Europe's citizens. To this effect, high debt ratios need to be rapidly cut back to a level of markedly below 60% of GDP and/or adequate pension reforms need to be implemented. This objective was first defined by the Economic Policy Committee of the EU in 1997. With regard to Austria, other international organizations had in fact called for such action even earlier, as had the members of the various pension reform committees (if in vain since the latest major pension reform implemented in 1983). Initial reform measures, though motivated by short-term budget consolidation endeavors, were set in 1997. The second stage of the reform, implemented in 2000, was also largely dominated by short-term considerations. Measures actually meant to ease the medium- to long-term burden on the pay-as-you-go state pension system were not introduced until the pension reform of 2003 and the harmonization of the prevailing pension systems from 2005 onward. In the field of health care, sweeping reform measures that

<sup>22</sup> These measures included higher tax credits for research and development as well as training and education, more funds for public infrastructure projects (partly financed off-budget) as well as – under the second growth package – the introduction of a temporary 10% subsidy on investment in machinery, plant and equipment that exceeded the investment level of the past three years (originally designed to expire at the end of 2003; expanded until the end of 2004 under the growth and location package) and the increase of a number of tax credits introduced by the first growth package.

<sup>23</sup> The Lisbon strategy of the EU and its goal to make the EU the world's most dynamic and competitive economy by 2010 created new qualitative challenges for Austria's fiscal policy from 2000 to 2002. The challenges with the biggest quantitative impact are the requirement to, first, raise Austria's R&D ratio to 3% of GDP; second, to provide sufficient public child-care facilities; and third, to raise the development aid ratio. Other measures with an impact on the budget include the promotion of lifelong learning, the expansion of active labor market policies with a view to shortening placement periods and raising placement ratios, statutory obligations under the universal service regulations and the Kyoto protocol as well as payments to the EU budget.

would guarantee the sustainability of the systems in the medium to long term have yet to be undertaken.

As mentioned above, the revenue-raising measures aimed at quick fiscal consolidation in 2001 drove up the fiscal burden to a level unprecedented in the post-War period. Hence the government coming into office in March 2003 agreed in its government program to reduce the fiscal burden to 40% by 2010 and announced a two-stage tax reform to this effect.

The first stage of this tax reform, implemented in 2004, changed the tax regime without actually lowering the fiscal burden, as it was accompanied by measures financing the reform. While raising excise duties was partly motivated by EU legislation, most of the measures were taken with national considerations in mind. The deficit remained broadly unchanged at 1.2% of GDP.

Measures to implement the second stage of the tax reform, designed to take effect in 2005, partly started ahead of schedule in 2004. Among other things, the corporate income tax rate was cut from 34% to 25% and group taxation was introduced. Both measures, which were noted internationally, may be seen as a reflex response to the fiercer competition for investors following EU enlargement. The second-stage measures were actually not fully financed and thus caused the budget deficit to newly deteriorate to some 2% of GDP. The ensuing – at least temporary – deviation from a balanced budget over the business cycle met with criticism from the Ecofin Council, which recalled the

provisions of the prevailing Stability and Growth Pact. In addition, the government adopted measures aimed at broadly harmonizing the pension systems, with a view to improving their long-term fiscal sustainability. The goal to reach a balanced budget by 2008 was enshrined in the internal Stability Pact.

Austria's budget policy benefited from the low interest rate level in recent years, which made it possible to considerably reduce the average interest burden for the outstanding government debt over the years. Thus the debt ratio could be kept on a declining path, even if the annual average reductions of the debt ratio were rather minor. Following a Eurostat decision (beginning of 2003) the debt level jumped, as the federal government had to assume liability for any debt incurred under its intermediary funding program for public sector enterprises ("Rechtsträgerfinanzierung").<sup>24</sup>

To sum it up, Austria's budget policy has been broadly in line with the requirements of the European fiscal framework since 2001. While the government committed itself in March 2000 to pursuing a strict balanced budget goal that even went beyond the requirements of the Stability and Growth Pact, in response to international criticism, it replaced this target in 2002 with the goal of balancing the budget over the business cycle. The other key pillar of the course toward securing sound public finances as a condition for sustained development is the commitment to lower the fiscal burden to 40% of GDP by 2010. Finally, with a view to implementing the Lisbon strat-

<sup>24</sup> *The federal government provided lower-cost financing to finance state-owned enterprises by issuing bonds and relending the funds to those enterprises. The debt service costs had to be borne by the latter. In the case of the Austrian Railways, the federal government eventually also assumed the liability to service the debt.*

egy, the government has also strengthened the growth orientation of the budget and started to slash administration costs.

## 6 Summary

The budget policy pursued by Austria over the recent decades was marked by several regime changes. In the 1960s, Austria's budget policy was basically aimed at maintaining a balanced budget. The primary role assigned to government was that of allocating resources to secure the provision of services of general economic interest and to make sure that the essential needs of society would be met. The ensuing reinforced development of the welfare state along the lines of the Scandinavian model was accompanied by years of "innovative" budget policies. Yet the development of the welfare state and the stabilization function that fiscal policy assumed on top of its allocation function went hand in hand with permanent budget deficits, hovering mostly around the later 3% of GDP Maastricht threshold, and also led to a noticeable rise of the debt ratio.

Austria's accession to the EU at the beginning of 1995 as such was not seen as creating a need for fundamental fiscal policy action. However, the budgetary cost of EU accession in 1994/95 had been underestimated. Given a general government deficit ratio in excess of 5% of GDP, budget policymakers had to "pull the emergency break" in 1996/97 in order to ensure that Austria would be among the founding members of the euro area. Following this decision, the Maastricht criteria first became the official objectives of Austrian budget policy, superseding the federal government's "administrative" budget deficit as a target measure. Within the framework of the successive fiscal sharing negotiations (1997,

2001), a domestic Stability Pact was agreed. For the very first time, too, Austria undertook measures to consolidate the budget through spending cuts.

The adoption of the Stability and Growth Pact in 1997, finally, changed the fiscal policy course yet again, as this pact established a balanced general government budget as the new medium-term target of fiscal policy. In the light of a "consolidation pause" following the efforts of 1996/97, Austria failed to benefit from the favorable economic conditions from 1998 to 2000 to approach this target. Much rather, the government designed a credit-financed tax reform for 2000, which would invariably have caused Austria to exceed the Maastricht reference value of 3% of GDP at the very latest by 2001, given the economic slowdown.

The coalition government of Social Democrats and Conservatives was replaced by a coalition of the Conservative Party with the Freedom Party in 2000. The new government immediately implemented a fiscal "crash program" and a budget policy turnaround in so far as it propagated a balanced budget, which it in fact achieved in 2001, one year ahead of plan. In 2002, Austria was able to maintain its consolidation success, reaching a budget "close to balance." In the light of the ongoing economic setbacks, the goal of strict compliance with a balanced budget was, however, replaced by the goal of balancing the budget over the business cycle. With its decision to design another tax reform, not fully financed immediately, Austria moreover changed its fiscal policy strategy again, incurring a "temporary deviation" from the medium-term target under the Stability and Growth Pact.

The fiscal vision of the EU – and thus of the incumbent Austrian fiscal

policymakers – is basically the vision of achieving a lean and efficient state, with as little red tape as possible, built on moderate tax rates and a broad tax base. This should contribute to increasing the long-term growth potential of the Austrian economy, and of the other economies within the EU.

Austria's budget policy has changed considerably in the past decade. The political reorientation can be traced to EU membership, but not to the EU alone. It also came as a reaction to the further opening up of economies and the trend toward globalization. At

the same time, it also reflects a change in preferences of Austrian voters and a change in the assessment of the role of the public sector and its functions.

Attributing the consolidation efforts made from the second half of the 1990s to accession to the EU and the euro area alone would not be justified, given the alarming budgetary developments seen from 1993 to 1995 (Van der Bellen, 1997). In view of these developments, Austria had no alternative to a consolidation strategy, as its fiscal policy was no longer going to be sustainable in the long term.

## Annex

## Development of General Government Fiscal Indicators

% of GDP

	Public expenditure (ESA 95)	Public revenues (ESA 95)	Public debt <sup>1) 2)</sup>	General government fiscal balance (ESA 95)	General government fiscal balance (Maastricht)	Interest payments (ESA 95)
1960	x	x	13.7	-0.5	-0.5	x
1961	x	x	12.4	1.7	1.7	x
1962	x	x	12.0	1.2	1.2	x
1963	x	x	12.1	-0.5	-0.5	x
1964	x	x	12.0	0.5	0.5	x
1965	x	x	11.5	1.4	1.4	x
1966	x	x	10.9	1.8	1.8	x
1967	x	x	12.1	-0.6	-0.6	x
1968	x	x	13.0	-0.9	-0.9	x
1969	x	x	13.0	-0.1	-0.1	x
1970	x	x	12.5	1.2	1.2	x
1971	x	x	11.2	1.5	1.5	x
1972	x	x	10.4	2.0	2.0	x
1973	x	x	10.4	1.3	1.3	x
1974	x	x	9.9	1.3	1.3	x
1975	x	x	15.3	-2.5	-2.5	x
1976	49.0	45.4	17.9	-3.7	-3.7	1.7
1977	48.7	46.6	19.9	-2.2	-2.2	1.8
1978	51.9	49.2	22.8	-2.7	-2.7	2.2
1979	51.0	48.7	24.1	-2.4	-2.4	2.3
1980	51.3	49.6	36.1	-1.7	-1.7	2.4
1981	52.8	51.0	37.9	-1.8	-1.8	2.7
1982	53.4	50.0	40.3	-3.4	-3.4	3.0
1983	53.8	49.5	44.6	-4.3	-4.3	3.0
1984	53.9	51.2	47.0	-2.7	-2.7	3.3
1985	54.9	52.1	49.2	-2.8	-2.8	3.5
1986	55.8	51.9	53.9	-4.0	-4.0	3.6
1987	56.1	51.6	58.2	-4.5	-4.5	3.9
1988	53.7	50.3	57.6	-3.4	-3.4	3.8
1989	52.3	49.3	56.7	-3.0	-3.0	3.9
1990	52.0	49.6	56.1	-2.4	-2.4	4.0
1991	52.9	50.0	56.1	-2.9	-2.9	4.1
1992	53.6	51.7	55.8	-1.9	-1.9	4.2
1993	56.7	52.5	60.5	-4.2	-4.2	4.2
1994	56.2	51.3	63.4	-4.9	-4.9	4.0
1995	56.0	50.3	67.9	-5.7	-5.6	3.9
1996	55.4	51.4	67.6	-4.0	-3.9	3.9
1997	53.1	51.1	63.8	-2.0	-1.8	3.6
1998	53.4	51.0	64.3	-2.5	-2.3	3.7
1999	53.2	50.8	66.5	-2.3	-2.2	3.5
2000	51.4	49.8	65.8	-1.6	-1.5	3.7
2001	50.9	51.0	66.2	0.1	0.3	3.6
2002	50.6	50.2	65.8	-0.4	-0.2	3.4
2003	50.8	49.5	64.7	-1.3	-1.1	3.1
2004	50.7	49.4	64.2	-1.3	-1.2	3.0

Source: Statistics Austria, Austrian Federal Ministry of Finance.

As at April 2005.

<sup>1)</sup> The time series from 1960 to 1979 include only federal government debt; from 1980 the time series cover general government debt.<sup>2)</sup> Debt ratio and GDP figures from 2001 reflect the recalculation of financial intermediation services indirectly measured (FISIM).

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# The Impact of EU Accession on Austria's Financial Structure

Walter Waschiczek

*The trend toward deregulation in the Austrian financial system has gained considerable momentum owing to the country's EU accession in 1995. The relative importance of bank intermediation has declined, while the competitive pressure of euro area banks has remained fairly low to date. Austrian banks reacted to the challenges posed by EU membership by adopting, in essence, three strategies: stepping up the number of mergers and acquisitions, cutting resources and internationalizing their business activities, moving especially into the financial markets of Central and Eastern Europe (CEE). The spectrum of enterprises' financing options has increased considerably as a result of EU membership, whereas hardly any effects have been observed on households' investment decisions.*

## 1 Introduction

This paper provides an analysis of the structural changes in the Austrian financial markets over the past ten years and attempts to assess the significance of EU accession in this context. Leaving aside a detailed assessment of the individual submarkets (stock market, bond market or credit market), the paper focuses on the key players in the Austrian financial market: financial intermediaries (especially banks) on the one hand, and nonfinancial corporations and households on the other.

Two aspects have to be taken into consideration when we assess the impact of Austria's EU accession on the country's financial structure. First, the Austrian financial system and its framework conditions have been influenced by numerous factors beyond the process of European integration. Over the past decades, technological progress, a trend toward disintermediation and an increasing level of financial market deregulation (which is also reflected in the large number of financial innovations) have impacted strongly on the financial markets worldwide and thus also in Austria, albeit often to a lesser extent. It is quite impossible to isolate the effects of the individual factors, as they are closely connected and mutually reinforce each other.

And second, the legal and regulatory conditions for EU membership had to be established already prior to

accession. In many respects, the effects of EU membership thus started to affect Austria's financial system before the actual accession date – at any rate at the beginning of 1994, when Austria joined the European Economic Area (EEA) and its financial sector became an equal partner in the Single European Market. The Austrian financial market agents, too, started to adapt to the changing competitive environment at an early stage. Hence, the integration process of Austria's financial market actually began in the early 1990s.

The empirical indicators used in this paper had to be chosen selectively for reasons of space. To make this choice as coherent as possible, we used only quantitative indicators while excluding cost and income measures (which are indispensable for comprehensive representation). In general, we chose those indicators that received broad attention in the economic policy debate of the past decade. While invariably limiting the scope of analysis, this approach allows us to concentrate on the structural effects of EU membership.

## 2 EU Contributes to the Deregulation of Financial Systems

Austria's financial market has been subject to a significantly more competitive environment since the country's accession to the EU. The removal of remaining capital controls as per November 4, 1991, marked the beginning of the Aus-

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Stefan Schmitz.

trian financial system's integration into the European financial markets.<sup>1</sup> Since then, the legal framework of the Austrian financial sector has been harmonized step by step with European standards, thus introducing the principles of the European economic constitution – the four freedoms of the Single Market – in Austria as well.

The Finanzmarktanpassungsgesetz of 1993 paved the way for the legal adaptation of the Austrian financial sector. The act took effect when Austria joined the EEA at the beginning of 1994, transposing the relevant European directives and recommendations into national law. Actually it was an act consisting of 17 individual acts, including the Austrian Banking Act, the Mutual Funds Act, the Act on Building and Loan Associations as well as amendments to numerous laws addressing credit and financial institutions (Lucius, 1993).

Access to the market was considerably simplified by the liberalization of capital movements as well as the freedom of establishment and the freedom of cross-border service provided by the new Banking Act. The framework conditions for price-setting were changed, as well: Up to 1994, the level of deposit rates was determined collectively by the credit institutions associations by fixing a central interest rate for savings deposits subject to statutory notice periods. Since then, it has been determined by a price formation proc-

ess in the market.<sup>2</sup> At the same time, the Austrian capital adequacy provisions were harmonized with the EC capital adequacy and solvency directives (Stanzel, 1993).<sup>3</sup>

Austria's capital market legislation – notably the Austrian Capital Market Act and the Austrian Stock Exchange Act – was also adapted to European standards prior to the country's EU accession. Reform measures included e.g. abolishing issuance restrictions and, more specifically, repealing the authorization procedure with the Austrian Federal Ministry of Finance. Furthermore, the scope of investor protection was expanded by introducing a comprehensive prospectus requirement for securities and making insider trading a criminal offense. The legal form of the Vienna stock exchange "Wiener Börsekammer" was changed into that of a stock corporation ("Wiener Börse AG") in 1997.<sup>4</sup>

As a result of EEA and EU accession, legislative developments at EU level became the driving force behind the changes in Austria's financial legislation. One important issue in this context was the abolition of anonymous securities and savings accounts: From 1996 onward, customers were required to provide identification when opening a securities account; anonymous savings deposits were abolished in 2000, after the European Commission referred the case against Austria to the Court of Justice to enforce the implementa-

<sup>1</sup> For further information on financial liberalization in Austria, see Braumann (2002).

<sup>2</sup> The binding force of this agreement is illustrated by the fact that deviating rates were labeled "graue Zinsen" ("gray interest rates," which emphasized their informal nature) in economic policy discussions until the early 1990s.

<sup>3</sup> These directives obliged credit institutions to hold capital equivalent to a minimum of 8% of the assessment basis (risk-weighted assets and off-balance sheet transactions).

<sup>4</sup> The majority of the regulatory tasks of the Börsenkammer were taken over by the Austrian Securities Authority (and later by the Financial Market Authority-FMA).

tion of the Money Laundering Directive in Austria.<sup>5</sup>

The introduction of the euro at the beginning of 1999 was the next step in the integration process. It removed one of the last obstacles to cross-border banking in Europe by rendering obsolete all provisions tied to national currencies (Waschiczek, 1999).

All in all, the framework of the Austrian financial markets changed substantially as a result of EU integration. It has been massively deregulated, and EU corporate governance standards have generally become binding in the Austrian financial sector (Randa, 2002). The process of harmonizing the Austrian legal framework with EU standards has not been completed yet, as harmonization at the EU level is an ongoing process.

### 3 Role of Bank Intermediation Diminishing

Although banks still play a dominant role in the Austrian financial market, the macroeconomic importance of bank loans has declined significantly as a result of a disintermediation trend from the early 1990s onward. Between 1990 and 2003, banks' share in financial market assets (in terms of all intermediaries' total assets) diminished from 90% to 77%. Mutual funds posted the highest increases in this period (from 3% to 14%), followed by insurance companies and pension funds (which had not been active in the Austrian market before 1991).

Most recently, banks' share in financial market assets in Austria was still

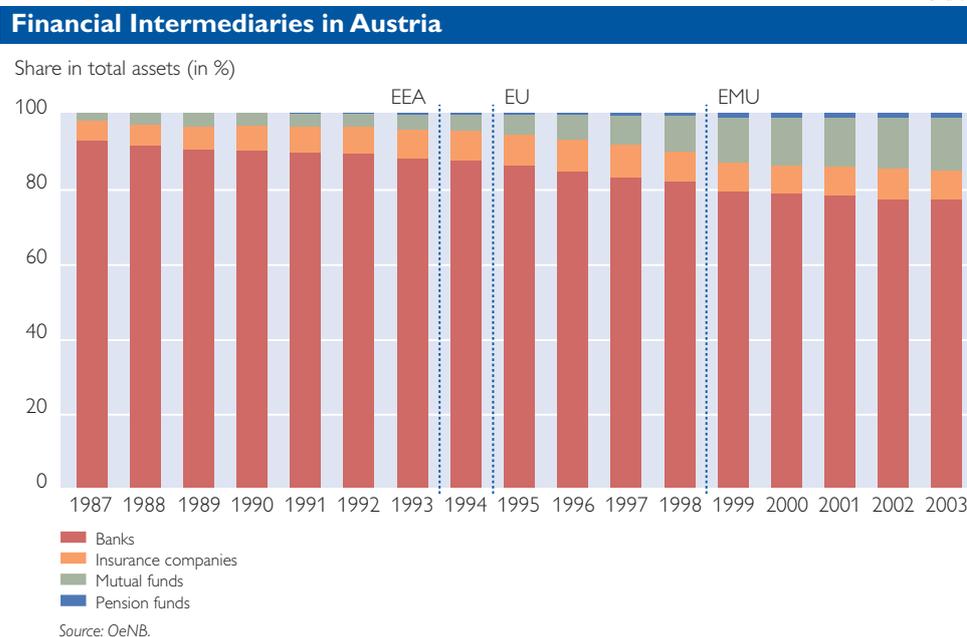
well above the euro area average. The latter stood at 67% in 1999 (the last year for which comparative data were available for all countries). In contrast, the significance of institutional investors in Austria was on average lower than in the euro area. The structure of pension systems certainly plays a role in this context. In countries using funded systems, the volume of funds seeking investment on capital markets is naturally much higher than in countries with pay-as-you-go pension systems. However, the investment volume of Austrian institutional investors was still low even compared with countries in which pay-as-you-go systems prevail (Waschiczek, 1999; ECB, 2002).

Whereas Austria's EU accession was a decisive factor in the deregulation of the Austrian financial markets, its influence on the disintermediation trend is much harder to pinpoint: No major structural breaks seem to have occurred in the field of banking intermediation as a result of EU accession. The annual growth rate of banks' total assets came to 5.8% between 1987 and 1994 and stood at 5.6% between 1994 and 2003. The growth rates of mutual funds' assets also remained broadly constant (20.7% and 22.0%), whereas the growth rates of insurance companies' assets before and after EU accession changed much more significantly, diminishing from 12.4% to 6.9%.

The overwhelming majority of nonbank financial intermediaries, such as mutual funds and (multi-employer) pension funds, are owned by banks and form an integral part of their financial services groups. Thus the funda-

<sup>5</sup> At the beginning of 2000, the OECD working group FATF (Financial Action Task Force on Money Laundering) also called on Austria to abolish anonymous passbooks accounts, threatening to suspend Austria's FATF membership. The abolition of anonymous passbooks neither interfered with banking secrecy, nor did it impact on savings accounts growth – on the contrary: for the first time in several years, savings accounts increased again in 2001.

Chart 1



mental strategic decisions in the Austrian financial markets are typically taken by banks. The ties between banks and insurance companies have also been intensified: today, almost all large Austrian banks have a strategic partner in the insurance industry.

#### 4 Has Competition from Europe Increased?

The competitive pressure on Austria's banks from EU-based banks was expected to increase when Austria joined the EEA and the EU, and especially also when the single currency was introduced. As a matter of fact, the number of EU-based credit institutions in Austria started to rise steadily

Table 1

**Market Position of EU-based Banks in Austria**

	1990	1997	2000	2001	2002	2003	2004
<b>Number of EU-based banks</b>							
100% foreign-owned	5	9	9	10	11	12	10
Majority foreign-owned	4	8	7	4	5	3	3
Branch offices	1	6	15	17	17	21	21
<b>EU-based banks' share in total assets (in %)</b>							
Branch offices	x	0.7	0.7	0.8	0.6	0.6	..
Subsidiaries	x	1.5	0.9	17.9	20.2	18.4	..
Loans to domestic non-MFIs: Loans granted by EU-based banks as a percentage of loans granted by Austrian banks	x	1.8	2.4	3.0	3.4	3.3	3.7

Source: OeNB, ECB.

even before Austria joined the EU (table 1). Owing to the freedom of establishment, the number of branch offices grew especially dynamically after EU accession,<sup>6</sup> and EU-based credit institutions also increased their holdings in Austrian credit institutions (section 5.1). The subsidiaries of EU-based banks hold 18% of total bank assets in Austria, which is the fourth-largest share in the EU-15 (after Luxembourg, Ireland and Portugal). This high share essentially results from the takeover of Bank Austria AG by Bayerische Hypo- und Vereinsbank AG.

One of the effects of opening up the market was the potential increase in competition from foreign credit institutions. To a certain extent, this competition was felt even without the actual physical presence of EU-based banks in Austria: Since mid-1997, loans by euro area banks to Austrian nonbanks have almost tripled, which means that they increased five times faster than loans by Austrian credit institutions; recently the ratio of loans granted by euro area banks to those granted by Austrian banks rose from 1.8% to 3.7%.<sup>7</sup> The share of loans granted by German credit institutions was by far the largest. However, competitive pressure was still relatively low in absolute terms.

In comparison with this, the Austrian capital market sector was subjected to significantly stronger competition from EU (and international) competitors. In 2004, merely 6 of the 25 participants in the tender procedure for government bonds were Austrian banks (OeKB, 2004). Especially in the

subscription and issuance of Austrian corporate bonds international investment banks have increased their activities since the completion of Stage Three of Economic and Monetary Union (EMU). Foreign investors hold a large proportion of Austrian corporate bonds (OeNB, 2001). These data are also consistent with ECB findings (Baele et al., 2004): In the euro area, the integration of financial markets is more advanced in the capital market than in the loan market. All in all, a relatively large number of foreign (mostly European) banks have diverse operations across the Austrian market.

## 5 Banks' Strategic Response to European Integration

Since the early 1990s, the Austrian financial market agents have had to cope with the challenge of adapting their strategies to changing framework conditions that resulted from Austria's participation in the integrated financial market but also from the ensuing (anticipated) increased competitive pressure. In essence, they adopted three strategic approaches: stepping up the number of mergers and acquisitions (M&A), cutting resources and internationalizing their business activities, especially by tapping the financial markets of Central and Eastern Europe.<sup>8</sup>

### 5.1 Mergers and Acquisitions

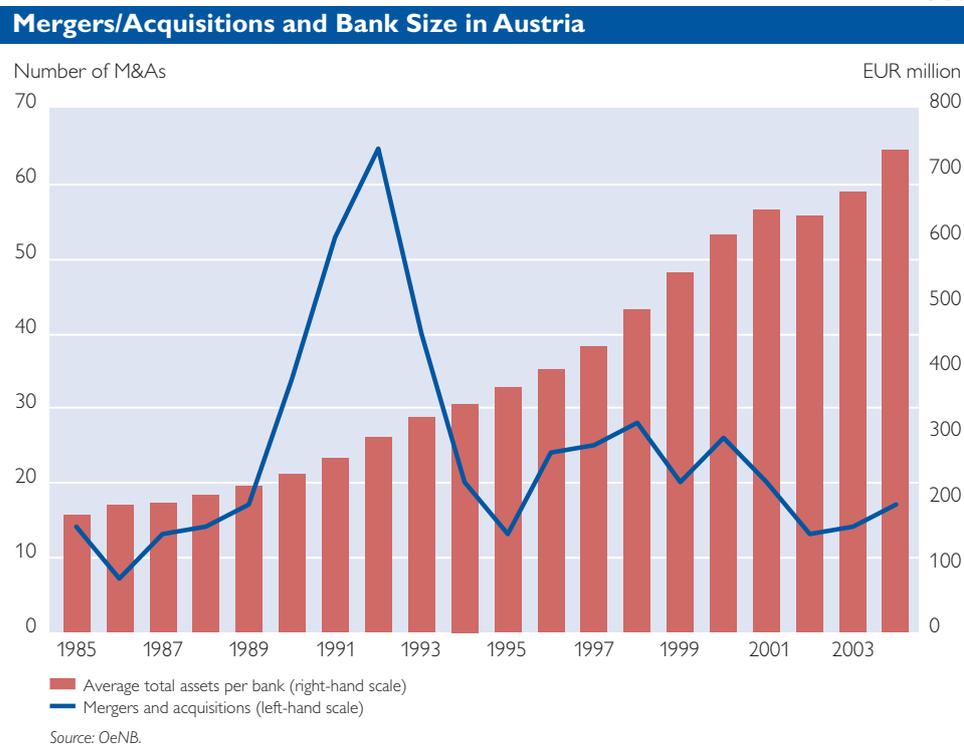
The years 1990 to 1993, i.e. the period prior to the Austrian banking market's integration into the EU, were characterized by a significantly higher in-

<sup>6</sup> *Foreign-owned credit institutions are legally independent enterprises entitled to conduct a banking business pursuant to the Austrian Banking Act. Branch offices are part of a credit institution (i.e. they are not legally independent entities) which conduct all business activities (or part thereof) connected to the business activities of the respective credit institution.*

<sup>7</sup> *Data are available as of June 1997. Allocating the figures to individual sectors is not possible for data reasons.*

<sup>8</sup> *For further information on these strategic approaches, see also Glauningner et al. (2001).*

Chart 2



crease in the number of mergers and acquisitions than the preceding and the following years (chart 4). The ownership structure of Austrian banks changed considerably as a result, and the majority of large Austrian credit institutions was affected by this development. The scope of these changes becomes evident when we consider that the three largest Austrian banks in 1990 (CA-BV, Girozentrale and Länderbank) do not exist any more as independent banks.

One key factor in the development of the ownership structure was that the public sector started to retreat from the banking sector by selling its equity stakes in banks, reducing the relatively high public share in credit institutions

(that had been characteristic of the Austrian banking system until the early 1990s) almost to zero. Today, AWS Austria Wirtschaftsservice Gesellschaft mbH (formerly FG and BÜRGE) is the only credit institution owned by the central government. Additionally, a number of state mortgage banks were (in part) privatized,<sup>9</sup> and the legal form of savings institutions was changed; since the late 1980s they can be transformed into joint-stock companies, and since 1999 into foundations. The system of state guarantees for municipal savings banks is being phased out at the request of the European Commission since 2003.<sup>10</sup>

The other key factor in the development of Austrian banks' ownership

<sup>9</sup> By end-2004, only one state mortgage bank (Hypo Tirol Bank) was fully state-owned. The public share in Bank Burgenland amounted to almost 100%, whereas the public share of the respective Austrian province in the state mortgage banks of Lower Austria, Upper Austria, Carinthia and Vorarlberg came to more than 50%.

<sup>10</sup> By end-2004, 38 municipal savings banks (of 63 savings banks including Erste Bank) still had a public guarantor. 28 of them opted to change their legal form to a stock savings bank, with the respective local authorities being the major or sole stockholder.

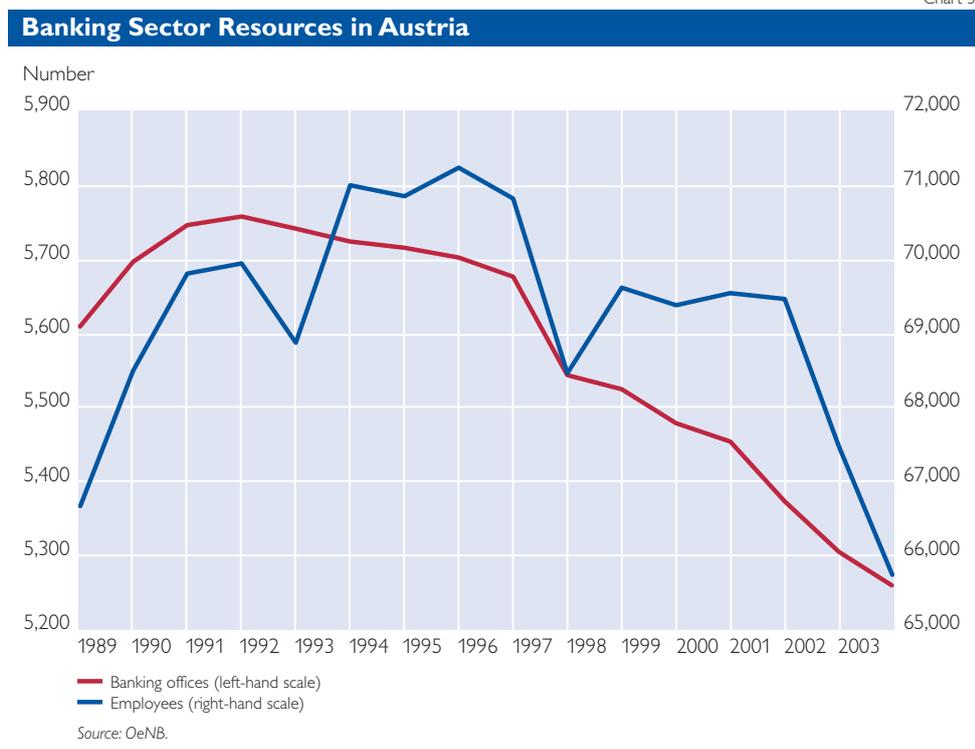
structure is the rising share of foreign ownership. In the 1990s, the share of foreign capital in the Austrian banking system hovered around 10%. It increased considerably when an EU-based bank acquired a large Austrian credit institution and amounted to 22% at end-2003 (Mooslechner, 2005). The scope of these developments is again best illustrated with an example: Three of the four largest credit institutions in the 1980s (CABV, Länderbank, and Zentralsparkasse) – or their legal successors – are foreign-owned today, and several other large Austrian credit institutions have substantial foreign ownership.

Establishing larger institutions was an expressed goal of the M&A activities in the early 1990s, with a view to creating a critical mass that would be able to cope with the challenges posed by European integration. In fact, Austrian banks became notably larger as a result

of this consolidation process: At end-2004, the average total assets of Austrian banks were three times as high as in 1990. Austrian banks were, however, still quite small compared with European standards, where the total assets of a bank were on average five times higher than in Austria (ECB, 2004).

The strategic approach of M&A activities also aimed at reducing the competitive pressure on credit institutions by decreasing the number of market participants. Between 1990 and 2004, the number of independent credit institutions in Austria shrank by 27% to 882. Even though this increased the degree of concentration in the Austrian banking sector (the five largest banks' share in total assets rose from 35% to 44% between 1990 and 2004), the concentration ratio was still lower than in other comparable countries (ECB, 2004).

Chart 3



The degree of concentration may have increased since the early 1990s, but competition seems to be fairly strong; moreover, the country's integration into the EU enhanced the Austrian market's level of openness.

### 5.2 Cutting Resources

Austrian banks also aimed at cutting resources, especially after the number of independent market participants had been reduced. The following two indicators illustrate this development: First, the number of branch offices was reduced in the course of the integration process. After peaking at end-1992, their number decreased by 9% over the ensuing 12 years and stood at 532 in 2004. Even though banking density (which has traditionally been very high in Austria) has dropped constantly since 1992, it is still well above the European average. And second, staff numbers also went back (with fluctuations) by almost 6,000 or 8% until end-2004 after peaking in 1996.

### 5.3 Massive Internationalization

Probably the most striking strategic reorientation was the massive internationalization drive from the early 1990s onward,<sup>11</sup> with banks opening up new markets above all in Central and Eastern European countries (the majority of which became EU members as per May 2004) rather than in other EU countries. Austrian banks were among the first to enter the CEE markets in the 1980s. They managed to obtain a favorable market position in all significant markets by establishing branch offices or subsidiaries soon after the borders were opened, so that they have come to regard the region as an "enlarged home market." After a period of flat growth in the first

half of the 1990s, Austrian banks' external business in terms of banks' total assets increased from around 20% of total assets at the end of 1994 and to 30% by end-2004. However, these figures fail to depict the dynamic development of Austrian banks' external business, as they do not adequately reflect the internationalization boost to the domestic banking sector resulting from the opening up of Eastern Europe. This is due to the fact that all large Austrian commercial banks have also built up extensive subsidiary networks in the CEE region, the business volume of which is not included in the Austrian banking sector's total assets. In mid-2004, 11 Austrian credit institutions had branch offices and subsidiaries in 14 CEECs (OeNB, 2004).

Despite growing at a modest pace by comparison, Austrian banks' business activities in EU-15 countries have gained in importance. Of the 40 foreign branch offices of Austrian banks at end-2004 (compared with 9 in 1990), 25 were in EU-15 countries. Regional credit institutions are especially active in cross-border business with neighboring regions (Northern Italy, Southern Germany). Austrian banks' loans to EU-based non-MFIs doubled between 1997 and 2004; most recently, they reached a lending volume equal to more than 6% of loans to domestic MFIs. More than half of these loans were granted to German borrowers, followed by Italian borrowers.

## 6 Structural Changes in Corporate Financing

The financing structure of the corporate sector has changed significantly over the past ten years (e.g. Mooslechner, 1999). On the one hand, the financing options of Austrian enter-

<sup>11</sup> For a detailed review of Austrian banks' internationalization strategy since the 1980s, see Randa (2002).

prises were expanded substantially through EU membership and, above all, the introduction of the euro, while on the other hand, the real economy's integration into the European economic area and the increasing business activities of Austrian enterprises in the CEE region changed corporate finance needs.

The financial accounts provide insights into the financing structure of the individual economic sectors (including the corporate sector), but these data refer to the post-1995 period only. They make it possible to trace the development after Austria's accession to the EU, but there is no comparative data material for the time prior to EEA participation, EU membership or the pre-accession period.

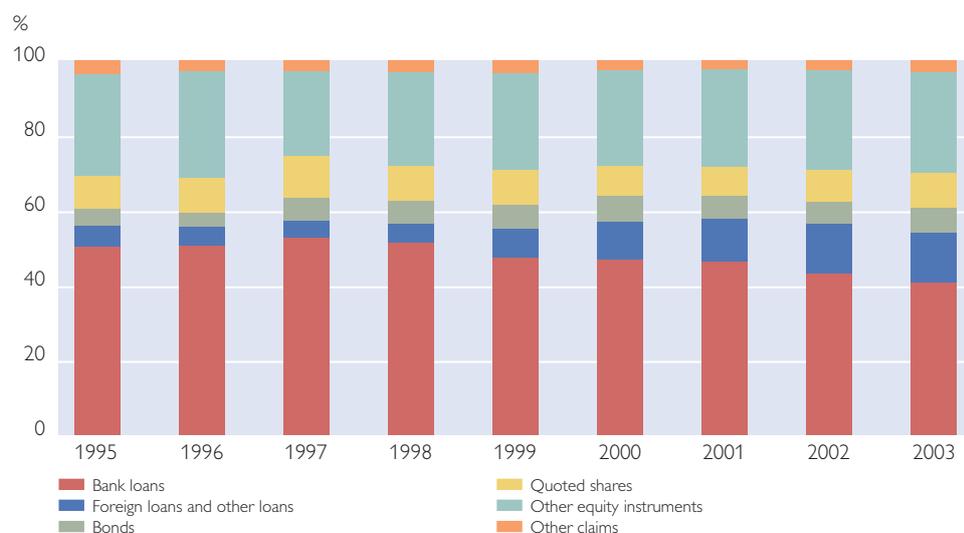
The most striking aspect was the marked decline in the relative importance of bank loans compared to other forms of (external) financing. Between 1995 and 2003, the share of bank loans in total external corporate funds de-

creased from 55% to 41%. While continuing to be the most important source of financing in terms of outstanding volumes (especially for small and medium-sized enterprises), bank loans accounted for less than one-quarter of the changes in loan volumes in this period.<sup>12</sup>

This development may, in theory, have been driven by two factors: different lending policies of banks or different financing strategies of the corporate sector. In practice, there is no evidence that banks adopted a more restrictive approach to corporate sector lending. Traditionally close, long-term relationships between enterprises and their banks still ensure that the former receive funds even when economic conditions are less favorable – the *Hausbank* principle seems to be still intact (Valderrama, 2001). As the degree of competition in the Austrian banking sector continues to be relatively high by international standards, it seems unlikely that enterprises could

Chart 4

### Corporate Financing Structure



Source: OeNB.

<sup>12</sup> The financial accounts provide data on changes in outstanding amounts and, as of 1999, also on financial transactions.

not obtain access to loans. Hence, new corporate financing strategies seem to be responsible for this decline in the demand for loans.

This trend was certainly supported by the development of financing alternatives for the Austrian corporate sector. Especially the introduction of the common currency has boosted the issuance of corporate bonds in Austria in recent years. The conditions for bond issuance improved significantly when 11 (by now 12) relatively small and partially underdeveloped markets were integrated to form a broad, deep and liquid bond market. While issuance activity used to be dominated by energy utilities and other quasi-public corporations, in recent years companies from other industries and, increasingly, smaller firms have also been issuing bonds (Waschiczek, 2004). Between 1995 and 2003, bonds accounted for just under 9% of changes in outstanding amounts.

Between 1995 and 2004, the outstanding amounts of quoted shares of nonfinancial corporations increased by EUR 12 billion to EUR 28 billion; a substantial share of this increase was caused by the sharp rise in stock prices on the Vienna stock exchange in 2003. Between 1995 and 2003, stocks accounted for just under 9% of total external corporate funds. The bulk of these were listings on the Vienna stock exchange.<sup>13</sup> In the late 1990s, several enterprises placed issues on foreign stock markets, especially on specialized stock markets for high-growth companies (e.g. Neuer Markt in Frankfurt or EASDAQ in Brussels).

Roughly at the same time as Austria joined the EU, several measures were taken to establish a venture capital market in Austria, e.g. the introduction of a no-loss guarantee by what is now the state-owned bank AWS (Waschiczek and Mauerhofer, 2000). Nonetheless, the Austrian venture capital market has remained relatively small by international standards. Between 1995 (when the market was almost nonexistent) and 2003, venture capital investments in Austria totaled approximately EUR 0.7 billion.

Adding the contribution of bonds and quoted shares to corporate financing between 1995 and 2003, borrowing on the capital market accounted for almost three-quarters of the total additional volume of bank lending in this period. Between 2000 and 2003, capital market financing clearly surpassed bank lending in terms of new funds.

A large proportion of funds raised on the capital markets is provided by foreign investors.<sup>14</sup> Even though no concrete data are available, we may safely assume that EU investors provided a considerable share of the funds raised by Austrian enterprises in that way. In addition, the introduction of the common currency has made Austrian equity much more attractive for international investors. Hence, the integration of the Austrian financial market into the European market has expanded not only the range of financing instruments available to the Austrian corporate sector, but also its funding sources.

<sup>13</sup> At the Vienna stock exchange, 40 new issues and 93 capital increases in return for cash contributions (including issues by financial institutions) have raised a total of EUR 19 billion over the past ten years.

<sup>14</sup> Inward direct investment also plays an increasingly important role for Austrian enterprises (nonresident investors' trade investments in Austrian enterprises).

## 7 Households' Investment Behavior Largely Unaffected

Owing to rising income levels and the increasing role of investment income, Austrian households' financial wealth has risen markedly over the past decades (OeNB, 2001). Households' financial assets grew at an average annual rate of 4.6% between 1995 and 2003, reaching a volume of EUR 309 billion in 2003.

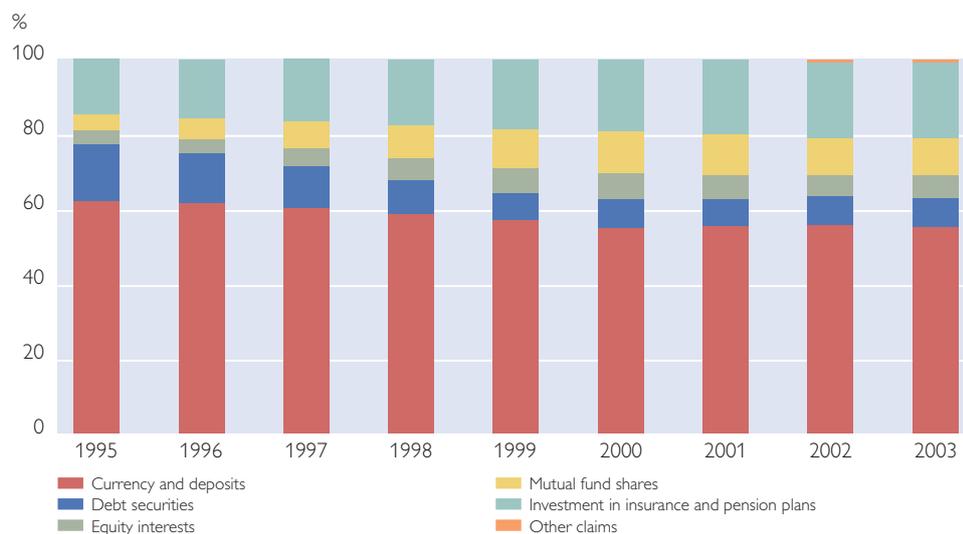
Over the past ten years, households' saving and investment motives have been changing rapidly; however, Austria's EU accession seems to have had no particular effect in this context. In fact, investment decisions were mainly influenced by the growing importance of fully funded, private pension plans and by the fact that households had more assets to invest:

On the one hand, the Austrian legislator created tax incentives for personal pension plans offered by institutional investors.<sup>15</sup> On the other hand, households' bigger financial wealth allowed them to diversify their funds more strongly, thus expanding their investment options. In recent years, Austrian households have increasingly invested in mutual fund shares and stocks as well as in life insurance and pension funds.

By comparison, households' investment decisions were largely unaffected by the changes in the framework conditions of capital investment resulting from EU membership, such as the abolition of the central interest rate or of anonymous securities and savings accounts. To date, mutual funds, pension funds and insurance companies from abroad (including the EU) have not gained significant market shares

Chart 5

### Structural Changes in Households' Financial Wealth



Source: OeNB.

<sup>15</sup> In 1991, a new pension fund system was introduced in Austria. The revised system of severance pay (established in 2002) allows severance claims to be transferred to dedicated severance funds. The Austrian Tax Reform Act of 2002 created a subsidized private retirement provision product ("Prämienbegünstigte Zukunftsvorsorge"). Under this scheme, 40% of assets under management must be invested in shares of EEA countries whose stock market capitalization is below 30% of GDP. See also OeNB, 2003.

in Austria. All in all, Austria's accession to the EU seems to have had hardly any effects on households' investment decisions.

## 8 Conclusions

Austria's integration into the EU led to an intensive internationalization of the domestic financial system, and at the same time subjected it to a significantly more competitive environment. The disintermediation trend in the Austrian financial sector accelerated owing to companies' new financing conditions and households' changed investment behavior. Over the past ten years, corporate financing has increasingly relied on funds raised in the capital market (albeit to a markedly lower extent than in most other European countries); the significance of bank lending has decreased. The range of financing options available to companies has broadened, whereas the role of banks

in households' financial investments is diminishing.

However, banks continue to perform a vital function in the overall economic financing process in Austria, even though bank lending and bank deposits are on the decline. The Austrian banking sector already showed remarkable dynamics in the run-up to the country's EEA and EU accession and continued to do so after the integration was completed. Austrian banks have grown in size and are especially well-positioned in the CEECs (the majority of which have become EU members as per May 2004).

On the whole, the Austrian financial system has coped well with the challenges posed by EU membership. This view is also substantiated by the IMF's extensive evaluation of the Austrian financial system in its Financial Sector Assessment Program-FSAP (IMF, 2004).

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# The Internationalization of Austria's Financial Sector since Accession to the European Union

Matthias Fuchs

*Since the mid-1990s, Austria and many other industrialized countries have experienced massive growth in their external asset and liability positions. However, Austria's high degree of real economic integration due to its position as a small, open economy only partly explains this development. Autonomous financial transactions, effected independently of external trade financing from a profit motive, are increasingly determining cross-border movements of capital. Legal measures adopted in the run-up to Austria's accession to the EU (e.g. the full liberalization of the Austrian financial sector) favored this development, as did the country's participation in Economic and Monetary Union (EMU). In terms of the rate of internationalization, Austria has as high a degree of financial integration as Finland and Sweden. However, it lags well behind Switzerland or the Netherlands in this respect. In terms of GDP, foreign equity holdings are on a far smaller scale in Austria than in these countries. Austrian securities investors prefer foreign debt investments. The euro area is Austria's most important investment and financing region – especially for securities. In the 10-year observation period, Austria's net income from foreign investments is in line with the European average.*

## 1 Reasons for Austria's Financial Integration

As a small open economy, generating a sizeable portion of added value from exports and largely dependent on imports as well, Austria has traditionally been closely associated with other economic areas. In parallel, substantial cross-border financial transactions are processed to finance those exports and imports. However, Austria's growing real economic integration into the European economic union only partly explains the massive growth in Austria's cross-border asset and liability positions observed in the last ten years. The disproportionately strong surge in cross-border Austrian financial flows compared with transactions in goods and services reflects a growing dichotomy of cross-border financial transactions and current account transactions. The reasons for this can be found in the massive increase in autonomous movements of capital, i.e. financial transactions that are effected independently of transactions in goods and services. This development, also visible in most other industrialized countries, is well reflected in global foreign exchange trade, which is currently equivalent to several times the total turnover of trading transactions. According to the latest calculations by the BIS (2005), daily foreign exchange turnover in 2004 amounted to some USD 1,900

billion. This means foreign exchange markets move as much capital in about four days as world trade as a whole does in a single year (approximately USD 8,000 billion, WTO, 2004). According to Oberndorfer (2003), capital movements have increasingly outgrown their role of accompanying trade. Furthermore, Lane et al. (2003) substantiate the disproportionately strong rise in international financial flows compared with the degree of real integration. The main reasons for this development are outlined below.

### 1.1 Liberalization, EMU and Technical Progress – Driving Forces for the Internationalization of Austria's Financial Sector

The liberalization of the financial sector in Austria and other industrialized countries led to a dramatic dismantling of cross-border barriers to investment, thus favoring outward financial investment. According to the allocation efficiency theory, the weighting of a country in the portfolio of investors in a global financial market (less all transaction and information costs) is, as a rule, roughly equivalent to the country's relative importance in the world economy (Utzig, 2003). As a result, a small economy like Austria will play a small role in the investment decisions of both domestic and foreign investors. In the real world, however, regulatory barriers

Refereed by  
Benedikt Braumann, IMF.

ers and information costs provide obstacles to cross-border financial flows, as a result of which investors tend to prefer domestic investment alternatives. Disproportionately high equity investment at home (equity home bias) has in fact been empirically proven for a number of countries (Lewis, 1999). The deregulation of the Austrian financial sector initiated at the end of the 1970s led to a convergence to this ideal situation, triggering portfolio shifts in favor of foreign investment alternatives. To pave the way for Austria's forthcoming accession to the EU, the liberalization of capital movements was concluded in as early as 1991. Austria's imminent adoption of the EU's *acquis communautaire* made it necessary to adjust Austrian financial law, enabling, for instance, foreign banks to enter the Austrian market from 1994. EU accession therefore achieved two things: it opened up the Austrian market to foreign banks and fueled domestic banks' cross-border business, rapidly accelerating the internationalization of Austria's financial sector. At the same time, mergers within the country's banking sector resulting from the privatization of most Austrian nationalized banks triggered considerably fiercer competition (Braumann, 2002). From the financial sector's perspective, therefore, Austria's accession to the EU created, above all, the legal framework necessary for internationalization.

One of the most important reasons for the surge in cross-border financial flows in the past decade was the introduction of the euro in 1999. For investors in the euro area, this meant the end of exchange rate risks and hedging costs – until then, one of the biggest

barriers to financial transactions between the countries participating in monetary union. In addition, investors whom legal restrictions had prevented from making foreign currency investments now enjoyed a far wider range of diversification options. Furthermore, an extremely high degree of transparency was created for international investors, as financial products were now denominated in a single currency and were thus comparable across countries. At the same time, the constant innovation of structured financial products broadened the spectrum of investment opportunities for international investors both in Austria and abroad.

Finally, the growing mobility of cross-border capital was also driven by technical progress in the area of international payments. One of the catalysts of this development was the TARGET<sup>1</sup> platform linking up the EU countries' national large-value payment systems, created in order to remove technical obstacles between these systems, to cut European payment costs and to speed up payment processing. However, national payment systems in Europe are still extremely fragmented (Association of German Banks, 2003). Moreover, the improvement of securities settlement systems, which dramatically fueled cross-border securities business, is also worth highlighting. Straight-through processing in trading platforms such as Xetra guarantees the fastest possible execution and cuts transaction costs thanks to the discontinuation of brokerage fees and to the generation of economies of scale resulting from these systems' growing widespread acceptance (Deutsche Börse, 2000).

<sup>1</sup> *Trans-European Automated Real-time Gross settlement Express Transfer.*

### 1.2 International Financial Flows – Consequence or Cause of External Trade?

The aforementioned correlation between external trade transactions and financial flows is also important for assessing cross-border financial assets when this correlation is reversed. Accordingly, one might argue that external trade does not generate commensurate capital flows for its own financing. Instead, it is itself the *result* of cross-border financial flows. In particular, cross-border trade investments can be conceived as a *cause* of real transactions in the form of trade with affiliated enterprises resulting from an existing direct investment relationship. This prompts the question (still to be definitively clarified in economic literature) as to whether a complementary or substitutive relationship exists between external trade flows and direct investment (Bellak, 1993). On the one hand, additional exports (e.g. in form of intermediate goods) to the direct investment's target region would suggest a positive correlation between foreign direct investment (FDI) and external trade. Accordingly, outward FDI increases total exports and creates additional employment in the domestic export sector. On the other hand, the converse case of outward FDI crowding out exports is also conceivable. In this instance, external markets are no longer serviced by the export of goods and services, but by the outsourced production of the direct investment's target company at local level. For the domestic export sector, this development would be associated with negative employment effects. At a pinch, even a reduction in total net exports due to reimports may be conceivable (Henneberger et al., 2001). Pfaffermayr (1995) carried

out an empirical analysis of this correlation for Austria.

## 2 Measurement of Financial Integration

Indicators for measuring financial integration can be basically classified into two groups (Lemmen, 1998).

*Quantity-based measures* (quantity approach) are based on cross-border transactions or asset positions that are standardized by a common reference measure (e.g. GDP). Increases in cross-border stocks or flows can be used as an indicator for deepening financial integration over time. In addition, the Feldstein-Horioka approach, which examines the correlation between cross-border investment and saving, can also be included in this group of indicators in principle (Obstfeld et al., 2004). This study will analyze the quantity approach in detail.

*Price-based measures* focus on discrepancies in prices or returns on assets caused by the geographic origin of the assets. The law of one price states that comparable assets must be identically priced if financial integration is fully complete. Accordingly, any discrepancies in prices or returns within this group of assets indicate nonintegrated markets. A detailed analysis of this approach with regard to the integration of both European money and capital markets can be found in Baele et al. (2004). In addition, it is worth highlighting the work carried out by Adam et al. (2002), who analyze European financial integration using the following categories: "credit and debt markets," "equity markets," "behavior of households and enterprises" and "institutional differences."

This study will measure financial integration based on the concept of the rate of internationalization. This

will entail relating the sum of external asset and liability positions of a specific reporting date to GDP, thereby facilitating both longitudinal and cross-section analyses. Whereas flows often trend erratically and are thus suited to the analysis of longer periods only to a limited extent, stocks offer the advantage of a more even development over time compared with flow measures drawn from balance of payments statistics. Stocks also take account of transaction-related changes and both price and exchange rate effects, not to mention other changes in stocks, such as depreciation.

The rate of internationalization ( $INT$ ) at time  $t$  is derived from

$$INT_t = \frac{A_t + L_t}{BIP_t}$$

$$A_t = DI_t^A + PI_t^A + SI_t^A + FD_t^A + FR_t^A$$

$$L_t = DI_t^P + PI_t^P + SI_t^P + FD_t^P$$

According to IMF convention, the following aggregates are used on both the assets ( $A$ ) and liabilities ( $L$ ) sides of the balance sheet (see IMF, 1993):

$DI$  = direct investment (equity and credit transactions between investors),  $PI$  = portfolio investment (money and capital market instruments as well as equity securities),  $SI$  = other investment (in particular, loans and deposits),  $FD$  = financial derivatives,  $FR$  = foreign reserve assets (only assets).

A slight weakness in this measurement concept is that the addition of assets and liabilities in individual cases means the same transaction is included twice in the rate of internationalization – contrary to its economic relevance. For instance, the issuance of an Austrian bond abroad increases both liabilities and assets (if the settlement account used to process the issue is also held abroad). However, inexactitude of

this kind in measuring the degree of internationalization is caused only by transactions that fall close to the reporting date and are thus limited to individual cases. As a result, the analysis of longer periods is not adversely affected.

### 3 Internationalization of the Financial Sector Over Time

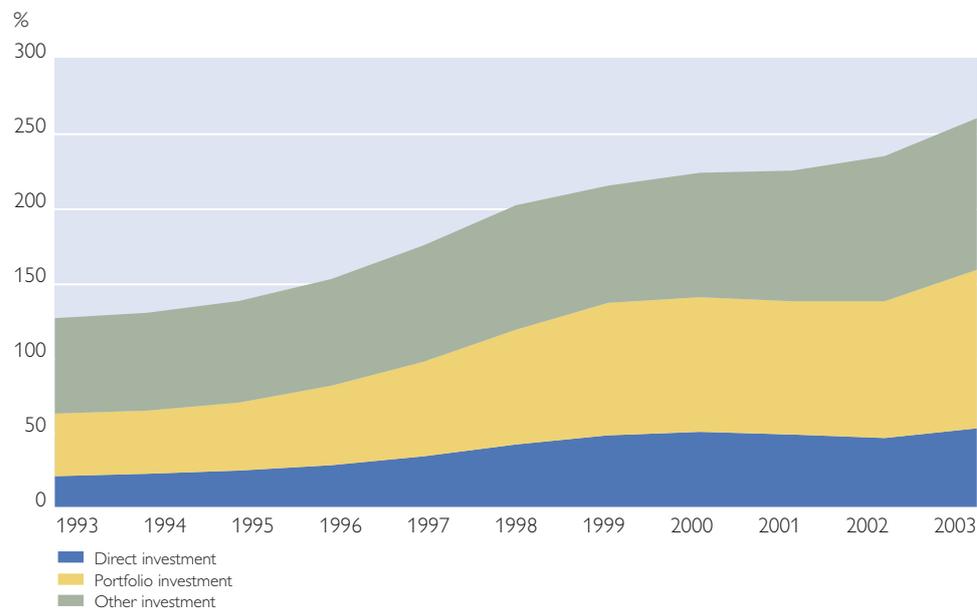
In terms of GDP, cross-border financial assets and liabilities of the industrialized world doubled from 1993 to 2003. In 2003, the internationalization rate of the industrialized countries shown in chart 1 totaled almost 260% of GDP in 2003. Since 1993, financial integration has grown steadily, peaking at an average growth rate of 20 percentage points in both 1998 and 1999. This development reflects two factors: first, transaction-related growth in cross-border assets in the run-up to the creation of the euro area and, second, valuation effects arising from the world stock market boom. Only the price setback in international financial markets, commencing in 2000, markedly dampened this trend. Since 1993, international securities investment has posted the strongest growth relative to GDP (+64 percentage points), followed by other investment comprising, primarily, cross-border loans and deposits (+37 percentage points) and by direct investment (+32 percentage points).

In addition, data for Austria suggest an equivalent trend (chart 2). Since 1995 (146%), the rate of internationalization has risen by slightly less than two and half times to 362% (2003). After cross-border asset positions had almost stagnated between 1993 and 1996, a marked growth phase commenced in the years thereafter, peaking finally at 59 percentage points in 2000.

Chart 1

**Global Trends in Cross-Border Financial Assets**

**Total assets and liabilities of selected industrialized countries<sup>1)</sup> in terms of cumulated GDP**



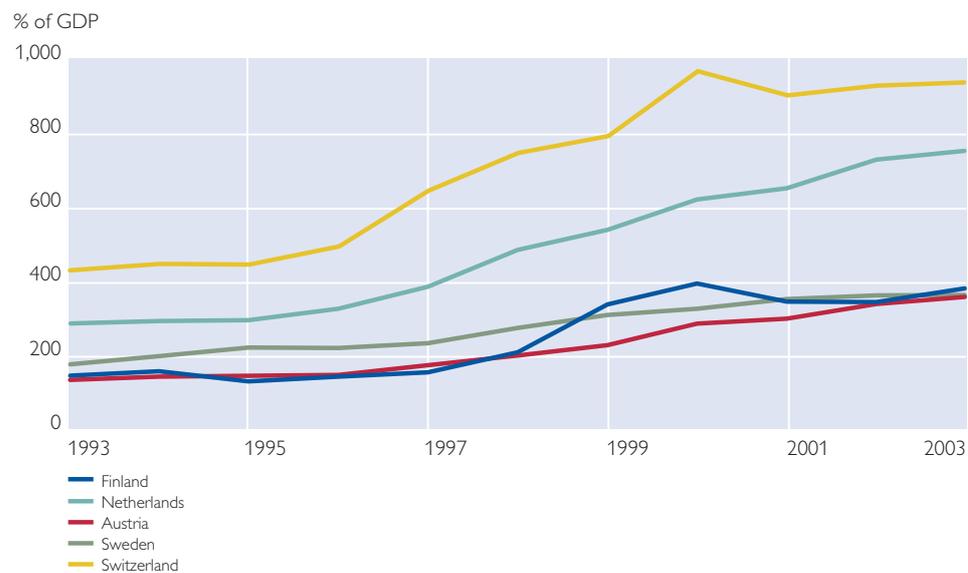
Source: IMF (International Financial Statistics).  
<sup>1)</sup> Belgium, Germany, France, Finland, Italy, Japan, Netherlands, Austria, Switzerland, Spain, Sweden, United Kingdom and U.S.A.

This study will also compare Austria's financial integration with that of Finland, Sweden, the Netherlands and Switzerland. Finland and Sweden are of particular interest, as both these countries joined the EU at the same time as Austria. Finland, moreover, also joined the euro area at the same

Chart 2

**Trend in the Rate of Internationalization**

**Assets and liabilities**



Source: IMF (International Financial Statistics).

time as Austria while Sweden's participation in the Exchange Rate Mechanism II ensured that its currency was closely pegged to the euro. As a small export-oriented EU economy and member of the euro area, the Netherlands are also suitable for comparison with Austria. Finally, Switzerland as a non-EU Member State is also included in this analysis, although the Swiss financial sector's peculiarity – think only of its special role in connection with holding companies – limits comparability. Despite Switzerland's formal status as a non-EU Member State, however, both its real economy and financial sector are closely integrated into the EU's internal market by numerous association treaties.

The performance of Austria's external assets and liabilities is comparable with both Sweden's and Finland's in terms of level and fluctuation.

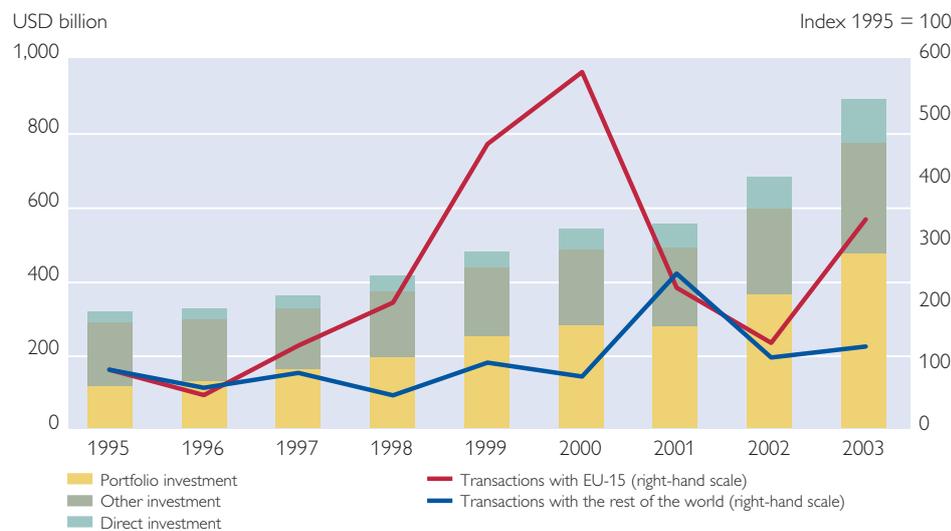
Until 1997, all three countries recorded merely modest increases in the rate of internationalization. In 1998 the rate started to accelerate sharply, particularly in Finland. By

2002, however, Finland's rate of internationalization had converged to that of Austria and Sweden. Switzerland and the Netherlands both had far higher rates. Starting from 434% in 1993, the Swiss rate of internationalization temporarily rose to almost ten times GDP in 2000. At 760% of GDP, the Dutch financial sector in 2003 was also far more closely integrated internationally than its Austrian counterpart.

The importance of EU membership for the degree of the Austrian financial sector's internationalization is evident from the regional breakdown of financial flows (chart 3) that, unlike stocks, are adjusted for valuation effects. Between 1997 and 2000, the transactions with the EU-15 (index values based on 1995) show a dramatic surge in cross-border capital transactions. By contrast, only weak growth was posted with the rest of the world. Given Austria's bleak real economic and financial environment, the temporary slump of the index in 2001 can be basically understood. Furthermore, the diametrically opposed trend in

Chart 3

**Structure of Austria's External Assets and Liabilities**



Source: IMF (International Financial Statistics); OeNB calculations.

transactions with the rest of the world in 2001 (the causes of which would be better determined in a separate study) appears to be of interest.

A breakdown of cross-border assets by both investment and financial instruments shows securities to be a key growth factor for Austria. Whereas external asset and liability positions almost tripled to a total of about USD 900 billion in the period from 1995 to 2003, portfolio investment grew by more than fourfold over the same period.

### 3.1 Conservative Investment Tempers Stock Market Turmoil

The global boom in equities at the end of the 1990s seems to have left Austria largely untouched. Whereas, for instance, Finland's cross-border positions in foreign equity securities (equities and mutual fund shares) at end-1999 were 15 times the levels of 1995

on both sides of the balance sheet, they increased by only a slight margin in Austria (chart 4). In addition, the Netherlands and Switzerland posted dynamic growth similar to Finland's, which was also at a far higher level. Contrary to the international trend, Austrian securities investors preferred debt securities to equity securities in the entire observation period from 1993 to 2003 and thus participated in the equities boom at the end of the 1990s to a relatively small extent. The average share of Austrian equities and mutual fund shares as a percentage of total external securities-based assets was only 14%. In the same period, the equivalent in Sweden, the Netherlands and Finland was 60%, 56% and 44%, respectively. As for Switzerland, investment in equity securities accounted for 61% of external assets.

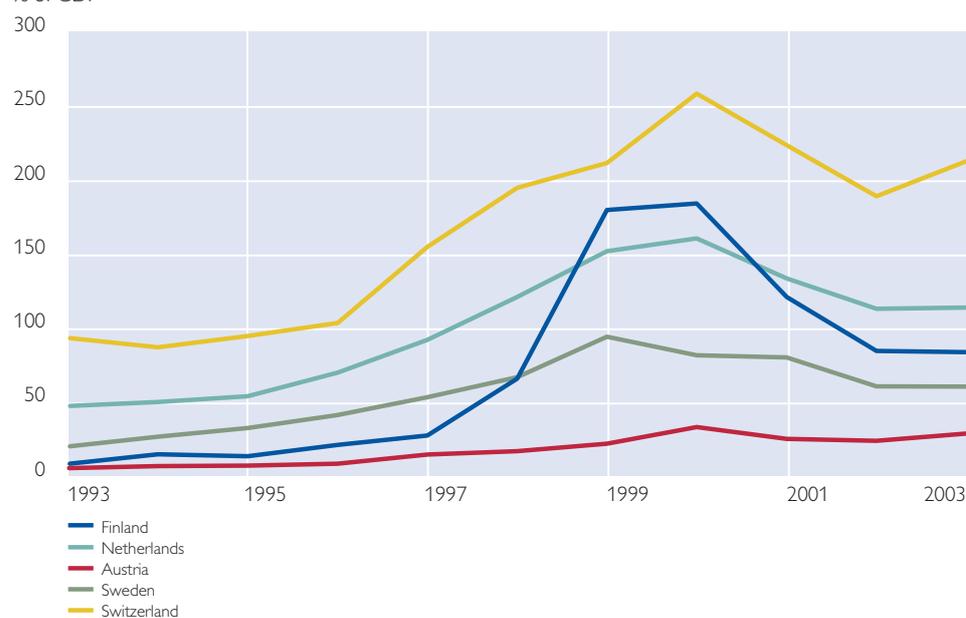
The marked lag in Austrian cross-border equities business seems to be

Chart 4

#### Internationalization in Equities and Mutual Fund Shares

##### Total assets and liabilities

% of GDP



Source: IMF (International Financial Statistics).

the logical consequence of the country's generally low-key equities culture, affecting both domestic and international capital markets in equal measure. This situation may be due to the Vienna exchange's low market capitalization by international standards, largely preventing international investors from investing across a broad front in Austria. The structure of Austria's economy, which is marked by small and medium-sized enterprises (SMEs), seriously restricts the number of enterprises that can be considered for public bond issues.<sup>2</sup> Furthermore, the importance of equities as an investment instrument is determined essentially by the structure of the pension insurance system. Pay-as-you-go systems (such as Austria's) provide far less liquidity to invest in securities than funded pension systems (Waschiczek et al., 2000). Although the unequal tax treatment of equity and debt (since, unlike the return on equity, the return on debt can be claimed as expenses) makes the basic preference for debt financing appear plausible, it is not peculiar to Austria and so does not explain the country's below-average proportion of stocks.

Austrian investors' conservative investment strategy had a beneficial impact during the stock market slump in the period from 2000 to 2002, which eroded Austrian external assets to a far lesser extent (largely for valuation reasons) than those of peer group countries. For instance, whereas Finnish asset and liabilities positions in cross-border equity securities were halved, Austria suffered only slightly less than a 25% decline over the same period.

### 3.2 Growing Influence of Bonds on Austrian Banks' Cross-Border Financial Operations

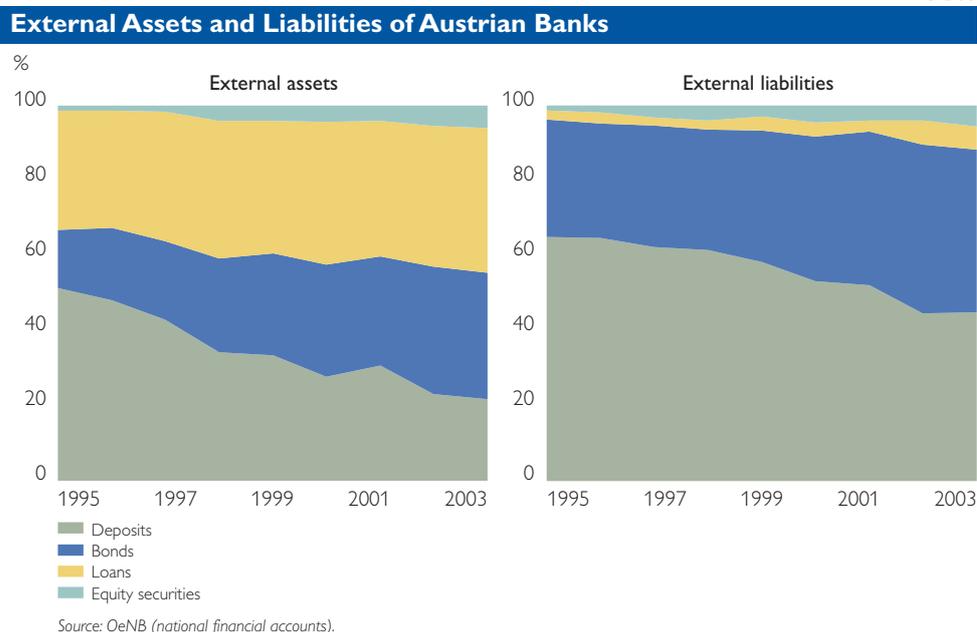
As expected, a sectoral analysis of Austrian external assets and liabilities shows financial corporations (particularly, banks but also insurance companies and pension funds) to be the leading actors in cross-border transactions. In the period of 1995 to 2003, this sector's share accounted for around 80% of total external assets and almost 60% of total external liabilities. It is plain to see from the portfolio structure of banks that although deposit banking remains vitally important on both sides of the balance sheet, in the past few years debt securities have quickly gained ground to the detriment of deposit banking on both sides as well (chart 5). Since 1995, the share of bonds has doubled to 20% of total assets, with financing from this instrument climbing from 24% to almost 30%.

This substitution effect in the structure of bank balance sheets highlights the growing transformation of banks from purely financial intermediaries, focusing on deposit banking and lending business, to actors in capital markets who are active for both own account and account of a third party and are thus increasingly assuming a sales role. The convergence of European bond markets, fueled particularly by the introduction of the euro (indeed, as early as in the run-up thereof), considerably enhanced the importance of these financing and investment instruments. For nonfinancial corporations, corporate bonds in the past few years have increasingly acted as an alternative to borrowing<sup>3</sup>.

<sup>2</sup> The legal structure of stock corporations is associated with stringent structural requirements, which are binding on this type of corporation. Stock market flotations also incur high fixed costs.

<sup>3</sup> However, bond and loan financing are significantly different in terms of costs and rating requirements and can therefore be substituted only to a limited extent (Deutsche Bundesbank, 2004).

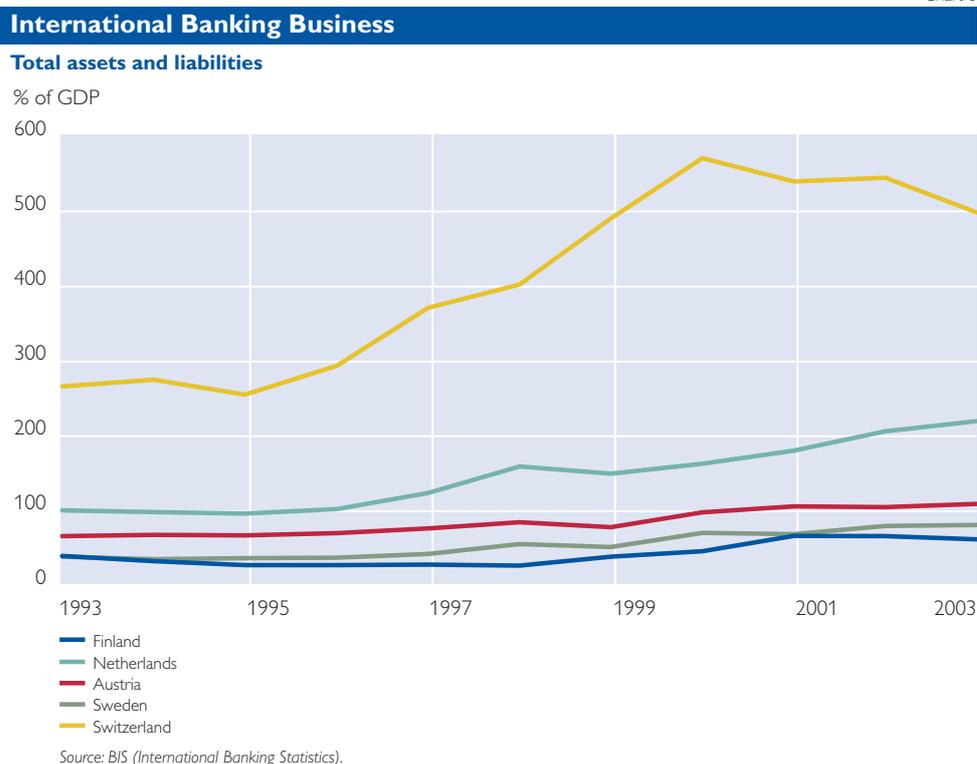
Chart 5



In addition, the transparency of the European bond market has dramatically improved thanks to the growing involvement of rating agencies in Europe in the last few years.

Chart 6 shows Austrian banks' international business to be trending in the middle range, compared with Finland, Sweden and the Netherlands. In terms of GDP, the share of banks'

Chart 6



cross-border financial assets and liabilities increased by only a tiny margin in Austria and Scandinavia in the period from 1993 to 2003. As for Switzerland, the predominant position enjoyed by its banks, which are far more closely integrated with international markets, is especially plain to see. Since 1995, in particular, Swiss banks' external asset and liability positions have firmed significantly, peaking at around 570% of GDP in 2000. Despite the fact that Switzerland is not an EU member, the financial integration of Swiss banks has been successful not least for this reason, as the country had already attained a preeminent position in competing for international funds long before 1995.

Apart from banks, other sectors play a relatively minor role in Austrian cross-border financial operations. On average, corporate assets and liabilities accounted for 17% and 13% of total stocks, respectively. Equity securities (some 60%) were on average the leading type of cross-border investment and financing for this sector over the observation period. By contrast, bonds were important only on the financing front (21%). In addition, securities (in particular, equities) mostly accounted for households' external financial assets. All in all, however, total cross-border investment by households was too low to appreciably influence the share of equities as a percentage of total Austrian assets.

### 3.3 Euro Area – By Far the Most Important Investment and Financing Region for Austrian Investors

In the past few years, Austrian financial investors have been increasingly

switching their focus of investment to the euro area. Whereas today's euro area countries held only a third of all Austrian external assets in 1997, in 1999 this share amounted to 40% and almost 50% at the end of 2003 (chart 7). At the same time, the euro area has become steadily (albeit only slightly) less important for Austrian external trade. In 1995, this region accounted for 61% of Austrian external trade based on total imports and exports. In 2003, by contrast, the euro area accounted for only 57%. As for the EU-15, its share declined by as much as 6% from 76% to 70%. The dichotomy between financial markets and real transactions (see above) can therefore also be substantiated at a regional level.

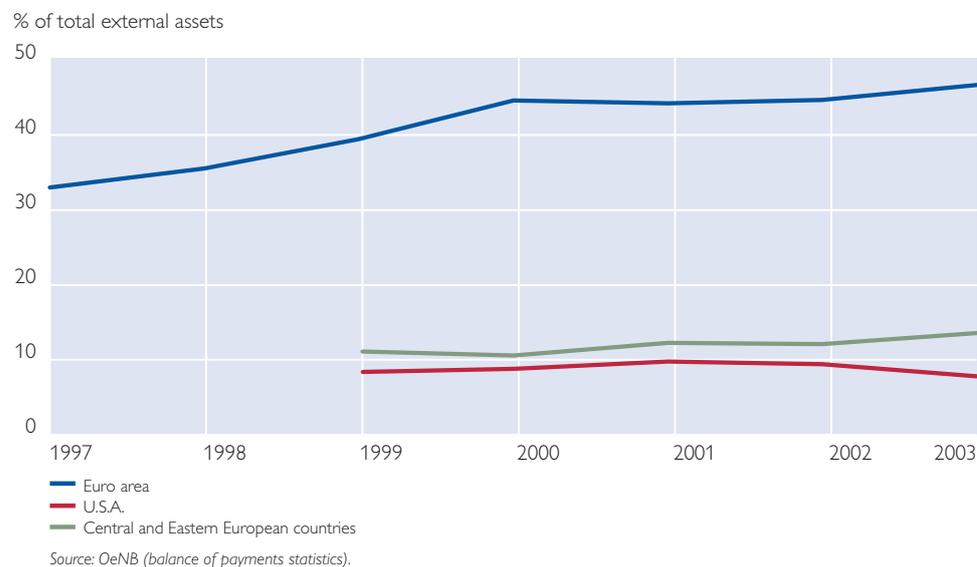
Over the same period, however, the importance of the U.S.A. as an investment region stagnated at the levels of 1999 (8%). Investment growth was also registered in Central and Eastern European countries,<sup>4</sup> whose share rose from 11% to 14%. This region was especially in demand by Austrian direct investors, in particular. In 2003, it accounted for 17% of all Austrian trade investment asset positions, i.e. more than three times U.S. volumes (5%).

At the end of 2003, the euro area was heavily weighted in the portfolio of Austrian securities investors, in particular. Accounting for two-thirds of total portfolio investment assets, the euro area as an investment region was considerably more important than the U.S.A. (only 10%; see chart 8). Whereas euro area countries accounted for 55% of all equity securities and two-thirds of all debt securities at the end of 2003, U.S. instruments corresponded to just 19% and 7%, respec-

<sup>4</sup> Albania, Bosnia & Herzegovina, Bulgaria, Estonia, Croatia, Latvia, Lithuania, Moldavia, Poland, Romania, Serbia & Montenegro, Slovak Republic, Slovenia, Czech Republic, Hungary.

Chart 7

### Trends in Austrian Financial Assets in Core Regions



tively. The equity exposure of domestic investors in relation to their holdings of debt securities thus tended to be higher in the case of U.S. equities and mutual fund shares than in the case of euro area equities and mutual fund shares. As a target region of financial investment, Germany led by a wide margin within the euro area. From an

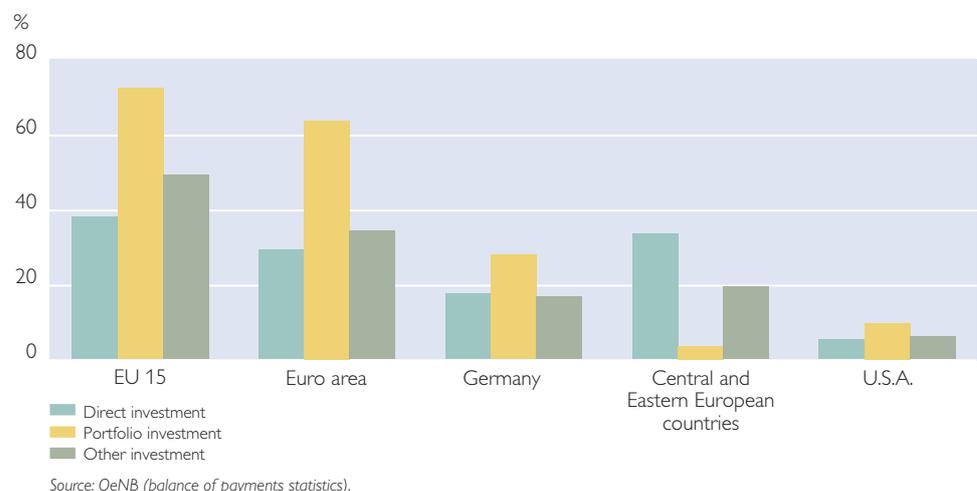
Austrian perspective, the euro area occupies a leading position as a financing region as well. At the end of 2003, it accounted for two-thirds of all inward FDI and 42% of all loans and deposits by nonresidents.

Although a national survey method cannot be used to completely break down foreign investors' total invest-

Chart 8

### Austria's External Assets by Region

#### Regional Share of Relevant Financing Instrument's Global Volume



ments in Austria by region, a regional breakdown can be more or less inferred from an international exchange of data as exemplified by the CPIS<sup>5</sup> (IMF, 2005). According to this survey, at the end of 2002 the euro area accounted for some two-thirds of total investments held in Austria, with Ger-

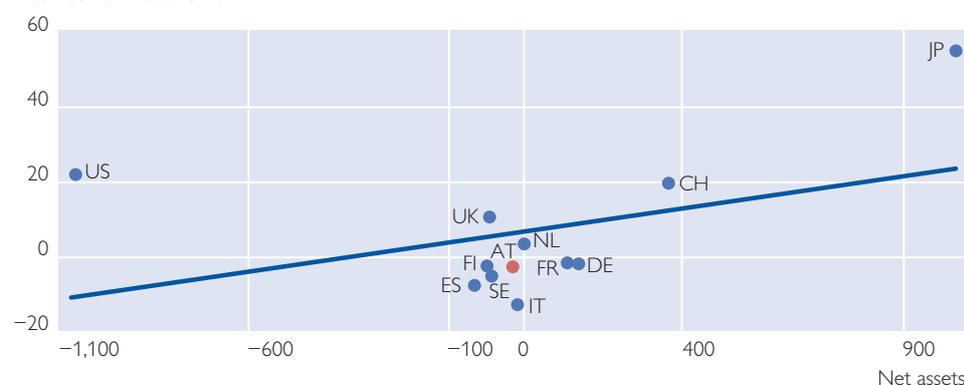
many accounting for 27% alone. As for non-euro area countries, Switzerland (14%), Japan (7%) and the U.S.A (3%) held the biggest asset positions. The OeNB conducts detailed annual analyses of external asset positions based on regional and sectoral data (OeNB, 2003).

Chart 9

### Efficiency of Foreign Portfolio in the International Context

Average 1993 to 2002

Net income in USD billion



Source: IMF (International Financial Statistics).

### 3.4 Austria's Net Income from Foreign Investment – in Line with International Average

Chart 9 shows a comparison of net assets and net income, suggesting a positive correlation for most industrialized countries. As expected, average cross-border net income grew in tandem with net assets over a 10-year observation period. For instance, owing to high net asset levels, Japan shows a correspondingly high level of return on these assets. Any divergences from this correlation can be explained primarily by the different portfolio structures of the countries concerned. Risk-averse foreign portfolios with a high share of debt securities (such as

Austria's – see above) have with the same net assets higher returns than progressively structured portfolios, the returns on which are largely generated by equity price gains (that are not included in net income).

Below-average net income does not therefore necessarily indicate that a given foreign portfolio lacks investment efficiency. Between 1993 and 2002, Austria, whose position in chart 9 does not suggest a significant difference from that of other European countries, was an average net debtor to the order of EUR 33 billion, which led to a deficit in net income of around EUR 2 billion. Countries that are in the second quadrant of chart 9 and thus

<sup>5</sup> Coordinated Portfolio Investment Survey conducted by the IMF: Austria's external securities liabilities can be determined by the Austrian assets of the countries participating in this survey. Currently, 68 countries, including all major industrialized countries, are taking part in the survey.

breach the assumed correlation in favor of disproportionately high net income merit especial attention. In particular, the U.S.A., which generated a positive return on external assets with a massive net debt between 1993 and 2002, is in an outstanding position. A possible explanation for this phenomenon can be found in the unusual structure of U.S. portfolios, the key investment instrument of which is direct investment. At the end of 2003, 35% of U.S. external assets (USD 2,730 billion) was held as direct investments, which were relatively very profitable due to their high average maturity. Securities accounted for only USD 2,470 billion, although the high share of equities and mutual fund shares (80%) is also likely to have positively influenced the result. In addition, one-third of U.S. external financing is accounted for by bonds, which generated lower returns than, say, the euro area average in the period of observation.

### 3.5 Conclusions

From the perspective of Austrian financial markets, internationalization means, above all, Europeanization. The Austrian financial sector's strong focus on Europe has dramatically increased in the wake of Austria's acces-

sion to the EU and, in particular, due to the country's participation in European monetary union. Austria's participation in the Internal Market established, above all, the legal and institutional foundations necessary for the rapidly accelerating internationalization of its financial markets observed in this past decade. Germany is not only Austria's major trading partner but also, increasingly, its most important regional partner from a financial perspective. In the past ten years, securities have been the driving force for international financial relations in both Austria and other industrialized countries, with the euro area dominating both investment and financing transactions. Austria's domestic banking sector, which processes by far the largest volume of foreign transactions, continues to be guided by risk aversion in the international arena. This is reflected in the country's particularly low position in foreign equity securities. In view of this (not least, culturally induced) fact, it can be deduced that Austria's external financial assets will in future be affected by international stock market crises (as has recently been visible since 2000) to a far lesser degree than those of many other industrialized countries, whose external positions indicate a riskier profile.

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Franz Pauer

*The present study deals with the consequences of Austria's integration into the Common Market and into Economic and Monetary Union for its financial stability. It shows that financial stability has been increased by a more efficient allocation of capital (as a result of intense competition), a higher degree of risk diversification, a reduced probability of asymmetric shocks and enhanced influence on the establishment of a harmonized framework. These positive effects have to some extent been weakened only by the increased risk of cross-border spillover effects and the growing importance of systemically relevant institutions. Set-backs in the earnings of financial institutions brought about by the integration process seem to have been offset at least in part by measures leading to higher cost efficiency. The cooperation of European countries in the regulation and supervision of financial institutions has promoted the positive integration effects of financial stability while weakening those reducing financial stability.*

## 1 Introduction

Austria's accession to the EU ten years ago and its related participation in Economic and Monetary Union (EMU) from 1999 onward have more closely integrated the Austrian financial market into the European one. Indeed, a large part of integration effects stemmed from the earlier period of Austrian participation in the European Economic Area (EEA), which had become effective in January 1994. In section 2, objectives and the state of play of the integration of European financial markets are presented. Chapter 3 is dedicated to the (potential) advantages and disadvantages of integration to financial stability and reviews the contribution of the supervisory cooperation of European countries to ensuring financial stability.

## 2 Integration of European Financial Markets

### 2.1 What is Meant by Financial Market Integration?

Markets are considered fully integrated when the law of one price applies, i.e. the prices for a given good are the same in two different national markets and/or supply and demand are directly affected by any difference in price. In the financial sector, two markets are considered fully integrated when the prices for financial instruments of similar risk, liquidity and

duration are the same or differ only in the short run.<sup>1</sup>

By adopting the financial *acquis*, Austria paved the way for participating in the as yet not fully integrated common market for financial services. Since then, Austria has been part of the ever-closer integration of this European financial market.

### 2.2 Objectives of Financial Market Integration

The integration of national financial markets, which were formerly subject to entry barriers as well as different regulations, practices and currencies, aims at making competition more intense, reducing transaction costs and creating markets which are deeper, more liquid and more efficient. The geographical dimension involved in integration requires the removal of entry barriers, the harmonization of legal, supervisory and fiscal conditions underlying financial markets, the harmonization of financial standards and the creation of common payment, clearing and settlement systems. It is supported by progress in the field of communications technology and the efforts of advanced national economies to provide a broader regional basis for the risk diversification of their pension systems, which are increasingly based on funded schemes. Finally, the geographical dimension of financial mar-

Refereed by  
Phillip Hartmann, ECB.

<sup>1</sup> Cabral et al. (2002).

ket integration is also implemented via the integration of financial institutions. This partly comprises the cross-border consolidation and expansion of financial institutions, the main purposes of which are to make use of economies of scale and scope, and to improve risk diversification. By merging, financial intermediaries of a similar type hope to reduce fixed costs. Modern financial innovations usually require considerable development efforts and large initial investment costs; they will pay off only if a critical mass is reached, i.e. if the high level of fixed costs can be matched by a large business volume. The merger of different financial intermediaries, e.g. of a bank with an insurance company into a bankassurance, is generally justified by the expected synergy effects and a higher degree of risk diversification.

### 2.3 Integration of European Financial Markets: State of Play

Since Austria's accession to the EU, European financial markets have been characterized by an ever-closer integration. This has been due in particular to the Financial Services Action Plan (FSAP) which was adopted by the European Council in spring 1999 and which took significant initiatives to develop a common legal framework for financial markets. These initiatives were to be implemented by 2005.<sup>2</sup>

The Financial Integration Monitor 2004<sup>3</sup> published by the European Commission in June 2004 showed that the integration of European financial markets had deepened considerably since the beginning of 1994. Yet, both this report and other studies<sup>4</sup> point out that the degree of integration dif-

fers widely among markets and market segments. The implementation of EMU has entailed the full integration of the unsecured euro money market, which has been reflected in the disappearance of differences in interest rates and in the growing percentage of cross-border transactions (now accounting for about 30% of the total volume of transactions). The secured money markets have not yet been fully integrated due to national differences in securities and fragmented securities settlement systems. A high degree of integration has been achieved in euro-denominated government bond markets as well. For ten-year government bonds, the maximum yield spread between euro area countries (except for Greece) has decreased from more than 250 basis points (1995) to between 20 and 30 basis points (1999 to 2005). As to these instruments, the remaining differences in interest rates within the euro area can be mainly attributed to varying levels of market liquidity apart from the varying financial standing of the respective issuers. In most other kinds of capital markets, in particular the corporate bond market, integration has accelerated as well, which has been reflected in reduced differences in interest rates within Europe and in the growing percentage of foreign market participants. As in the case of the secured money market, national legal provisions and fragmented securities settlement systems prevent the integration process in the stock and bond markets from deepening more fully. In the remaining financial market segments, cross-border transactions usually involve large volumes;

<sup>2</sup> *European Commission (1999).*

<sup>3</sup> *European Commission (2004a, b, c).*

<sup>4</sup> *See Hartmann et al. (2003) and Koskenkylä (2004).*

investment banking, syndicated lending and reinsurance are examples of this category.

In contrast to standardized money and securities markets and wholesale banking, market segments focusing on final consumers and retail banking differ considerably from country to country. The degree of integration is still low in deposit markets, insurance markets, mortgage loan markets, consumer loan markets and those in loans for small and medium-sized enterprises. The main reasons for this are the local marketing and distribution channels used in retail banking, customer relations that are still excellent in these markets and the better reputation of long-established institutions.

### 3 Effects of Financial Market Integration on Financial Stability

#### 3.1 What is Meant by Financial Stability?

Financial stability is a condition where the financial system, i.e. financial institutions, financial markets and financial infrastructures, is capable of directing capital to its most profitable (risk-adjusted) use without major disturbances.<sup>5</sup> This definition implies that the following three main requirements have to be met: First, the financial system has to fulfill its functions in a satisfactory manner, even in the case of adverse disturbances. In other words, it has to be capable of absorbing shocks without leading to a collapse of financial institutions, financial markets, payment and securities settlement systems and the related detrimental impact on the economy as a whole. Second, it

aims at allocating capital in the most efficient way; thus, financial systems which are stable but not efficient do not meet this stability definition. Financial systems characterized by a degree of regulation so high that they cannot take slight risks will hardly be able to allocate capital in an efficient manner.<sup>6</sup> Finally, the definition given above underlines the necessity of accurately assessing and pricing risks in order to prevent future financial crises.

#### 3.2 Effects of European Integration Promoting Financial Stability

##### 3.2.1 A More Efficient Financial System

According to the definition presented above, the stability of a liberalized financial system is part and parcel of its efficiency, i.e. the capability of allocating capital in the most efficient manner. Thus, increased efficiency brought about by the integration process will produce a higher degree of stability in the long run. The integration of the Austrian financial market into the European one and the ongoing deepening of the European market raised efficiency in several ways.

The complete elimination of entry barriers and the harmonization of regulations with those of the EU have intensified competition at least in parts of the Austrian financial market. Greater competitive pressure compelled financial intermediaries to offer price concessions to their customers, which reduced transaction costs and consequently facilitated a more efficient allocation of financial resources. The substantial narrowing of Austrian banks' interest margin is a case in point (chart 1). The introduction of

<sup>5</sup> This definition largely reflects that used in the ECB's *Financial Stability Review* (December 2004).

<sup>6</sup> If the definition of financial stability did not contain any reference to the criterion of efficiency, financial stability and financial market inefficiencies could be considered perfectly compatible. Consequently, the former centrally planned economies might have had the highest degree of financial stability.

Chart 1

**Austrian Banks' Interest Margin**



Source: OeNB.

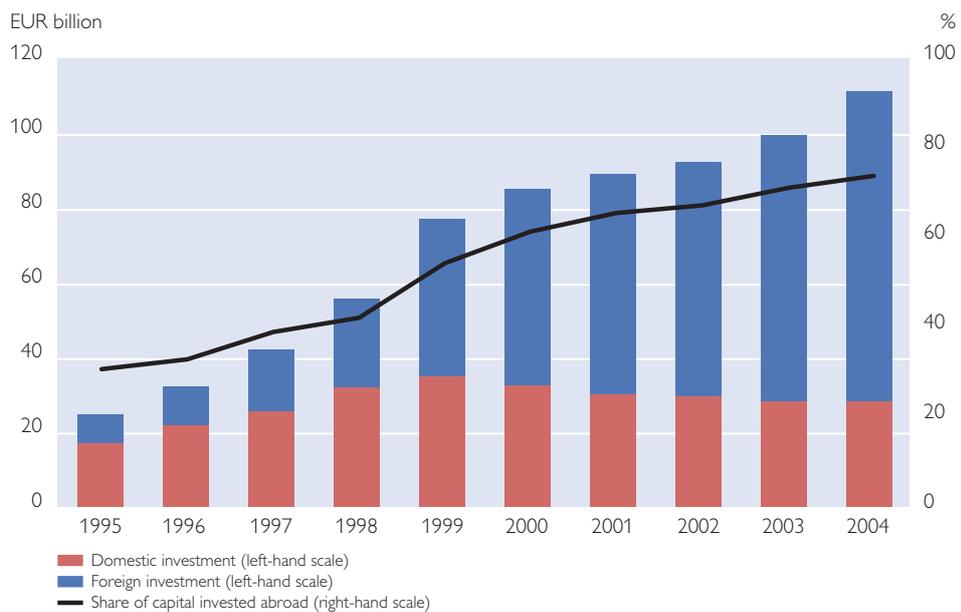
the euro also made capital allocation more efficient, since it eliminated the costs for foreign exchange transaction and hedging and made prices easier to compare. Thus, capital could be directed to higher risk-adjusted yields unhampered.

**3.2.2 A Broader Regional Basis for Risk Diversification**

Free access to the financial markets of the EU, roughly equal competitive conditions and the introduction of the euro enabled Austrian financial institutions and investors to diversify regional

Chart 2

**Austrian Mutual Funds: Investment Volume and Capital Invested Abroad**



Source: OeNB.

risk more broadly.<sup>7</sup> Thus, Austrian mutual funds saw the percentage of their capital invested abroad increase from about 30% in 1995 to almost 75% in 2004 (chart 2). The broader regional basis for financial investment made Austria's financial stability less vulnerable to asymmetric (country-specific) shocks than it would have been if financial investment had been concentrated regionally.

### 3.2.3 Rarer Occurrence of Asymmetric Shocks

Not only did the participation in EMU offer domestic financial intermediaries more possibilities of protecting themselves against country-specific shocks, but it also reduced the probability of large shocks which could endanger financial stability. The degree of asymmetry of country-specific shocks, for instance, has decreased simply due to the ever-closer economic relations between EU Member States. Economic disturbances brought about by exchange rate shocks, such as those that had affected Austria before EMU came into force when the Italian lira had heavily depreciated against the Deutsche mark and consequently against the Austrian schilling, are no longer possible in the euro area. The same holds true for interest rate fluctuations caused by speculative attacks against single national currencies, such as those that occurred frequently within the exchange rate mechanism of the European Monetary System (EMS).

### 3.2.4 Establishment of an International Framework: Taking Fuller Account of the Specific Characteristics of the Austrian Financial System

Equal conditions of competition for the market participants in all integrated countries represent one important prerequisite for the most efficient allocation of financial resources in integrated markets. Yet, in order to establish a truly fair and efficient framework for allocation, the different structures of financial systems in different countries have to be taken into consideration appropriately. For example, the establishment of the new capital adequacy framework (Basel II) has shown that the different financing structures of financial systems (bank-based versus capital market-based) and the differences in the size of businesses (mainly large companies versus small and medium-sized enterprises) will have to be considered, if the framework is meant to avoid putting some actors at a competitive disadvantage and to produce efficient allocation. As a member of the relevant EU bodies, Austria has been able to exert influence on the development of a new regulatory framework and to make sure that Austria's specific characteristics will not be greatly to the disadvantage of its financial system and financial stability.

## 3.3 Effects of European Integration that Affect Financial Stability

### 3.3.1 Setbacks in Earnings Caused by Integration

Apart from the positive effects of more intense competition on allocation mentioned above, competition has also had

<sup>7</sup> These advantages can, however, be offset quickly by "appropriate" legal measures, as the case of the Austrian "Zukunftsvorsorge", a subsidized personal pension scheme, has demonstrated.

negative effects on the earnings of financial institutions. Financial intermediaries that could not offset setbacks in earnings by cutting costs saw profits decrease and hence their risk-bearing capacity decline. When the institutions affected, however, responded to the setbacks in earnings by increasing their cost efficiency, financial stability was not compromised. A strategy of cutting costs which was frequently used in connection with the EU membership consisted in taking advantage of economies of scale and scope produced by vertical and horizontal integration of financial institutions.

Setbacks in certain types of earnings caused by the entry into force of EMU have been detrimental to financial stability as well. The areas of business which have been most strongly affected included international payments, money exchange, traveler's checks, eurocheques, interest arbitrage and hedging against exchange rate risks. But setbacks in earnings of suppliers offering these financial services have been accompanied by an improved allocation of capital, which again has promoted financial stability.

### 3.3.2 Increasing Influence of Systemically Relevant Institutions

Merging two or more financial institutions into one with a single management structure is an obvious strategy for companies which want to gain influence in the single financial market beyond their home region and to reduce costs. Mergers and acquisitions in the financial sector – regardless of their geographic dimension, i.e.

national or cross-border<sup>8</sup> – result both in increasing market power and the emergence of large, systemically relevant institutions; the influence of these institutions may be so great that the whole financial system of certain countries is at their mercy. In the EU-15, the market share held by the five largest institutions (both in the banking and insurance sectors) amounts to an average of 60%. Aside from the problematic concentration of stability risks, in large financial institutions there is also a greater danger that their management is tempted to succumb to moral hazard by assuming (with some justification) that their businesses were too big to fail. On the other hand, large financial institutions usually have a more advanced risk management system, which promotes financial stability. When consolidating financial institutions of different sectors into financial conglomerates – in the EU-15, their market share in savings deposits and the volume of premiums has already reached about 30% and 20%, respectively – additional stability risks arise (risks of regulatory arbitrage, complexity and contagion).

### 3.3.3 Increased Risk of Crossborder Contagion in Case of Financial Crises

An increased risk of contagion exists not only for cross-sectoral integration, but also for cross-border integration. This is mainly the result of the expansion of financial institutions into other EU Member States. As a case in point, the share of the banking sector of the EU-15 belonging to foreign investors is about 30% of the total assets and capital of national banking systems.<sup>9</sup> Other

<sup>8</sup> *The number of national mergers and acquisitions is still higher than that of cross-border ones. According to the Financial Integration Monitor 2004, less than a quarter of the mergers and acquisitions which involved financial institutions of EU Member States were cross-border activities (European Commission 2004a, chart 2).*

<sup>9</sup> *European Commission (2004b).*

factors promoting cross-border integration of financial institutions are the common money market, common payment systems and the increasing importance of interbank business. From the perspective of financial stability, the increased risk of a spillover of foreign financial crises into the domestic market in the wake of integration mirrors the decreased susceptibility to asymmetric financial crises at home.

### 3.4 European Cooperation for the Purpose of Ensuring Financial Stability<sup>10</sup>

To intensify the effects of integration promoting financial stability and to weaken those reducing it, EU Member States have to cooperate closely in financial market regulation, financial market integration and crisis management. Only this can ensure that financial institutions, the organization and activities of which are more and more of a cross-border type, can be regulated and supervised in an appropriate manner and that regulatory and supervisory arbitrage can be prevented. The EU's approach in this context consists in bilateral and multilateral cooperation between national regulators and supervisors, which has been reinforced by the Lamfalussy process.

In the banking system, which the following description deals with, the supervisory regime within the EU is based on three pillars. The *first pillar* can be described as harmonization of minimum supervisory requirements and mutual recognition. It does not intend to comprehensively harmonize banking supervision legislation, but makes the licensing and operation of banks subject to minimum supervisory

requirements. Aside from harmonized areas of legislation, national laws remain valid, which takes into account the specific characteristics of national banking systems which have developed over time. Licenses issued by national authorities and national supervision systems are recognized by the Member States as being equal.

The *second pillar* is based on the principle of national responsibility for the (operational) supervision of the financial institutions in question. This principle ensures that supervisors know the institutions to be supervised very well, which is necessary for supervision to be efficient.

The *third pillar* focuses on the cooperation between national regulators and supervisors. Within the ESCB, central banks and banking supervisors work together in the Banking Supervision Committee, which addresses mainly macroprudential issues. At the EU level, cooperation has been launched in the European Banking Committee and in the Committee of European Banking Supervisors, which primarily uses a microprudential approach.

Cooperation in risk management, i.e. efforts to minimize negative effects of inevitable financial crises, can surely be intensified. The second Brouwer report<sup>11</sup>, which had been commissioned by the Council of Economics and Finance Ministers, confirmed that as well and stated that, above all, further improvements in information sharing were necessary. This proposal was taken up, for instance, in a multilateral Memorandum of Understanding between EU central banks and supervisors.

<sup>10</sup> Gulde et al. (2005) and Hrdlicka (2005).

<sup>11</sup> Economic and Financial Committee (2001).

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# Has Accession to the EU and Monetary Union Changed Austria's Labor Market?

## State of Play and Need for Action

Alfred Stiglbauer<sup>1</sup>

*Amid increasing internationalization, the domestic labor market had undergone fundamental changes even before Austria joined the EU. In the ten years since, total employment has virtually risen as fast as in the decade before accession, while the increase in dependent employment has been more moderate. Total, long-term and youth unemployment has continued to be low by international standards. Modest growth of wages and unit labor costs has promoted price stability and reinforced Austria's competitiveness. Growth of real wages, however, has slowed down. Many structural problems on the domestic labor market were already in sight at the time of accession. Austria may yet better utilize its unused potential in the employment of women and, in particular, of older people.*

### 1 Introduction

Since early 1995, the following three factors have influenced developments on the Austrian labor market: Austria's accession to the EU, its membership in monetary union (which had already been in sight at the time of EU accession and became effective in 1999) and the ensuing requirement of meeting the Maastricht convergence criteria. The entry into the EU in itself does not seem to have triggered a sudden change in the Austrian economy and its labor market, since as early as 1973, a Free Trade Agreement between the European Community and Austria had started a long process which saw the EU's Single Market and the European Economic Area (EEA) be created well before Austria joined the EU.

Then, the labor market, boasting highly positive data by international standards, already saw some problems emerge: At the beginning of the 1980s, unemployment (and its duration) shot up and was remarkably persistent since then (Pichelmann and Hofer, 1999), which pointed to structural problems in the Austrian labor market. The publication in 1994 of the OECD Jobs Strategy more or less coincided with Austria's accession to the EU. The OECD found and still finds that problems in European labor markets have structural causes, with inflexible regulatory frameworks and

institutions (and the educational system) rendering an adaptation to structural change in the economy impossible; in times of increasing internationalization, this is a hindrance to further progress (Biffl, 1994).

In section 2, the development of employment and unemployment in the decade up to 1995 is compared with that in the decade after EU accession. Next comes an outline of how unemployment has developed in Austria, followed by a comparison with the EU average. Then, the section discusses how the employment rate, working time and labor volume have developed. Section 3 shows the development of real wages, nominal wages and unit labor costs. Section 4 deals with labor market flexibility in response to macroeconomic shocks. Finally, section 5 is dedicated to a more detailed discussion of labor market policy, structural problems of the labor market and labor market reform.

### 2 Employment and Unemployment

Assessing labor market developments will always involve a close look into the development of employment and unemployment. The following analysis draws on frequent comparisons of the decade before EU accession (the "reference decade," ranging from 1985 to 1994) and the decade after accession (the "EU decade," spanning the period

Refereed by  
Helmut Hofer, IHS.

<sup>1</sup> The author would like to thank the referee and Ernest Gnan for their suggestions and comments.

from 1995 to 2004). Naturally, comparisons of this type are always disputable: It is a deliberate decision to take ten years as a period, but in view of the ten-year anniversary this basically suggests itself. The reference decade was characterized mainly by the long phase of growth, which was carried by the expansion following the recession at the beginning of the 1980s and was disrupted by a short period of recession only (1992/93). The EU decade has seen both a short recession (1995/96) and a sustained period of slow economic growth from 2001 to 2003.

### 2.1 Subdued Growth of Dependent Employment, but No Reduction of Total Employment Growth

Based on different indicators, chart 1 shows the development of employment growth since 1985. Table 1 com-

pares the reference decade with the EU decade. It is evident from the first time series, which represents employment growth according to the Main Association of Austrian Social Security Institutions, that the average growth rate was higher in the reference decade: Employment growth in the EU decade equaled 0.4%, which is considerably lower than in the reference decade (1.1%). Measured against another indicator, which combines the number of jobs with that of self-employed persons (computed by the Austrian Institute of Economic Research, WIFO), the difference between the two decades is somewhat smaller (0.8% versus 0.4%). This is due to the number of self-employed persons which declined until the mid-1990s and has since then uptrended again. The greater weight of self-employment is reflected in the increasing importance of business

Chart 1

#### Employment Growth in Austria

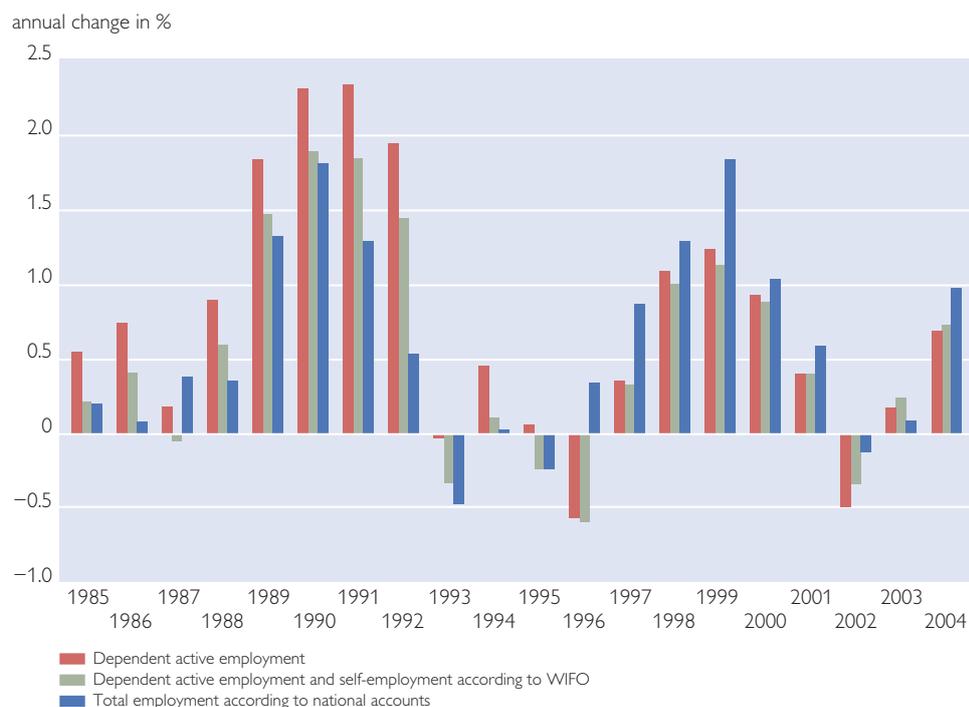


Table 1

Average Annual Employment Growth as Shown by Different Indicators		
%	1985–1994	1995–2004
Dependent active employment (regular dependent employment not including parental leave and military service)	1.1	0.4
Dependent active employment and self-employment according to WIFO	0.8	0.4
Total employment according to national accounts	0.6	0.7
Total employment according to European Union Labour Force Survey <sup>1)</sup>	x	0.4

Source: WIFO, European Commission (2004a).  
<sup>1)</sup> 1995–2003.

start-ups as well: Between 1995 and 2004, their number more than doubled, rising from approximately 14,200 to 29,700.<sup>2</sup> Table 1 shows that, based on household surveys,<sup>3</sup> employment growth between 1995 and 2003 came to 0.4%.

Finally, growth of total employment according to national accounts, which amounted to an average value of 0.7%, has even been slightly faster than the increase during the reference decade (0.6%). Employment according to national accounts is probably the most comprehensive indicator of labor input. On the one hand, the difference

between this row and dependent employment is due to the turnaround in the number of self-employed persons. On the other, this measure contains also nonstandard employment relationships, such as those of part-time workers below a certain earnings level, which is another factor producing different growth rates.<sup>4</sup> It should be emphasized that all these measures have not been adjusted for working time, which is a particular problem with employment according to national accounts, since for instance regular and nonstandard employment are weighted equally here.

<sup>2</sup> Austrian Economic Chambers (2004), *Wirtschaftsblatt*, March 30, 2005.

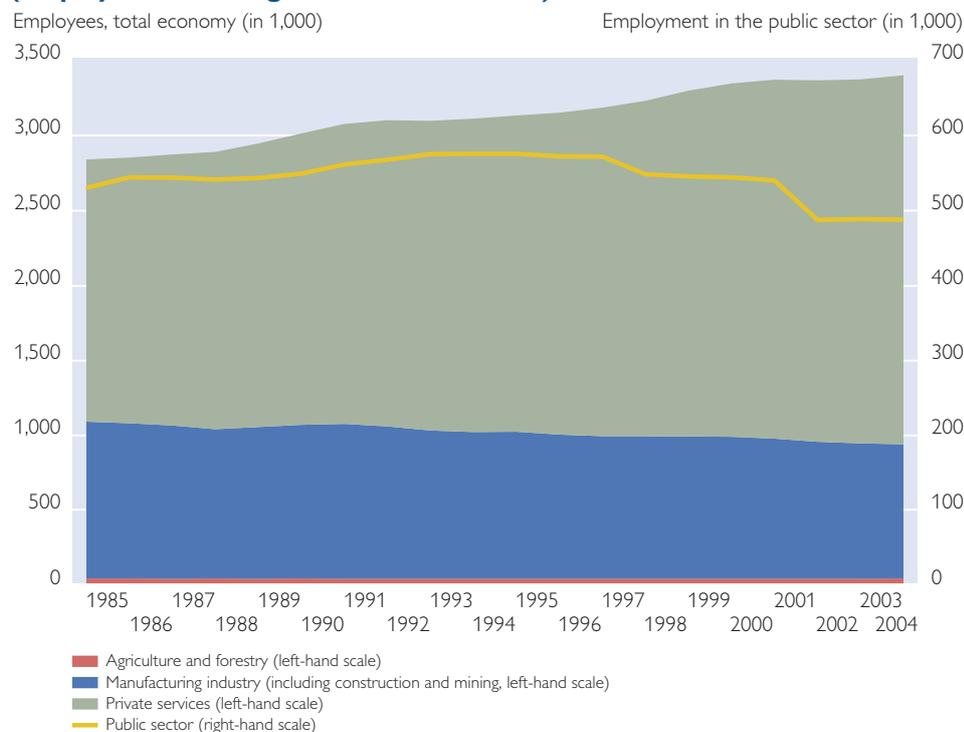
<sup>3</sup> Hawlik (2005) gives an overview of the definition and statistical sources of different employment aggregates.

<sup>4</sup> See Walterskirchen (2004).

Chart 2

### Employment by Sectors and Public Sector Employment

(employees according to national accounts)



Source: AMECO database, Statistics Austria.

### 2.2 Growth of Employment in Private Services, Decline in Public Sector Employment

An analysis of the individual sectors (chart 2) reveals that growth in the tertiary industry continued into the EU decade, while the manufacturing industry saw a sustained decrease in employment in absolute terms. Over the past ten years, public sector employment, a driving force behind aggregate employment growth between the early 1970s and the middle of the 1990s, declined as well (OECD Economic Survey of Austria, 1997).

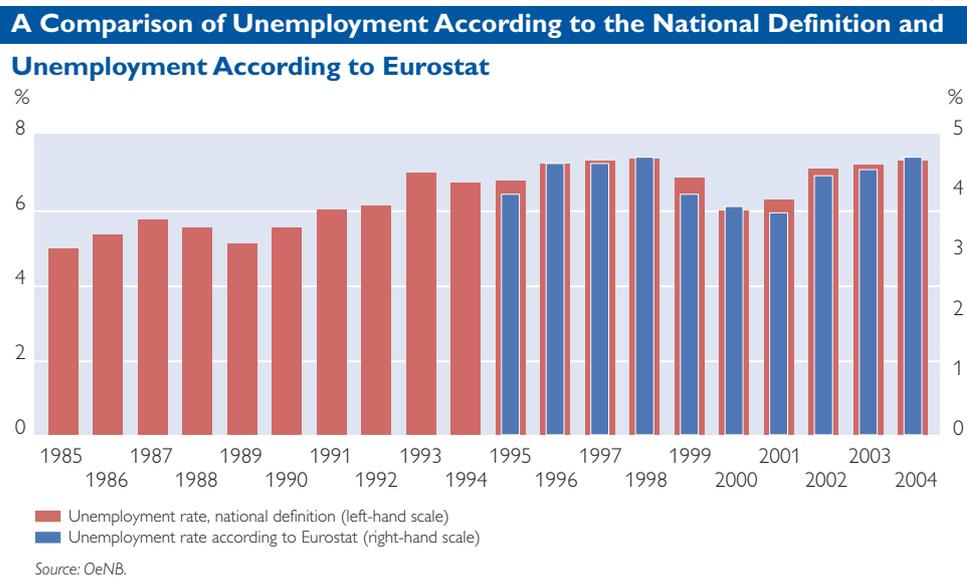
### 2.3 Unemployment

In absolute terms, the number of unemployed was higher in the EU decade than in the decade before EU accession: Between 1985 and 1994, the average number of unemployed persons

equaled 174,000, which contrasts with 225,000 since EU accession. The relatively slower growth of dependent employment caused the unemployment rate (national definition) to climb significantly: In the reference decade, the latter stood at 5.6%, mounting to about 6.7% in the EU decade.

Chart 3 captures both the development of the annual unemployment rate (national definition) since 1985 and that of the unemployment rate according to Eurostat since 1995. The latter has risen from 3.8% to 4.5% today. Both unemployment measures decreased considerably between 1999 and 2001 before increasing significantly in 2002; since then, they have been climbing at a modest pace. Judging from the right half of the chart, structural unemployment seems to have edged up not at all or only slightly during the EU decade, which

Chart 3



means that fluctuations were mainly ascribable to cyclical factors.

#### 2.4 Total, Long-term and Youth Unemployment below the EU Average

Before its accession to the EU, Austria had a relatively low unemployment rate by international standards, which is still the case today: In the year of accession, average EU-15 unemployment ran to 10.5%. Although it has fallen significantly until 2004, at 8.0%, the EU-15 rate continues to be considerably higher than that of Austria. The increase in unemployment started at a much lower level in Austria compared with the majority of European countries. Owing to the permanently low rate, the share of long-term unemployed persons has invariably remained small; accordingly, it was lower in 2003<sup>5</sup> than in the year of accession. Long-term unemployment

comes to only half the amount of the EU average; the situation is similar in youth unemployment. Aside from cyclical fluctuations, the latter has remained largely unchanged and is still considerably lower than the EU average (chart 4).

#### 2.5 Employment: European Employment Strategy and Lisbon Targets

The European Employment Strategy (EES) was adopted at the Luxembourg Jobs Summit in November 1997; it was meant to better coordinate national employment policies with a view to achieving full employment and a high quality of jobs by means of Employment Guidelines and National Action Plans.<sup>6</sup> The EES soon evolved into a broader economic policy program called Lisbon Strategy. In 2000, the EU set itself the goal of better utilizing the potential labor resources available. Therefore, it defined an overall

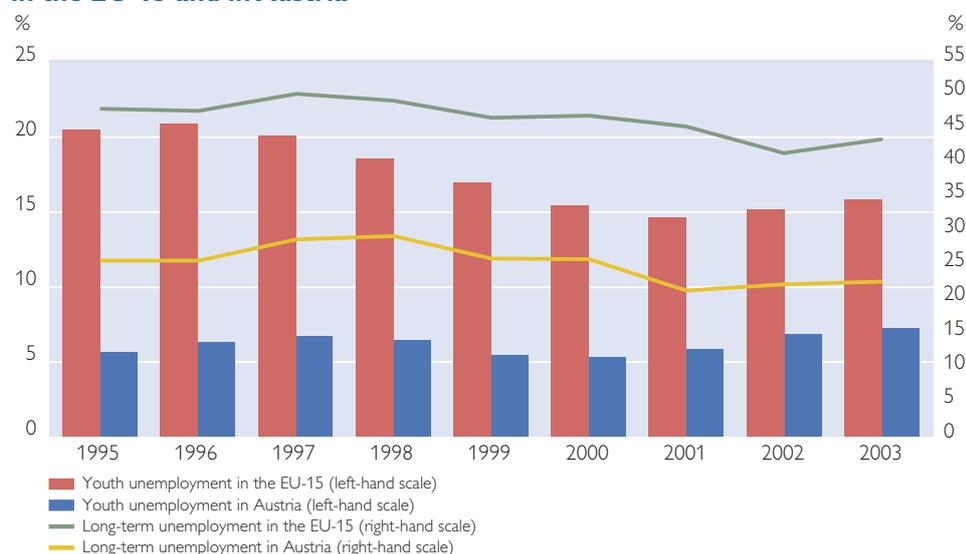
<sup>5</sup> According to figures published by the Austrian Public Employment Service (AMS), long-term unemployment rose slightly in 2004. Relevant figures for the EU-15 are not yet available.

<sup>6</sup> For details on the EES and Austria's contributions in this respect, see Federal Ministry of Economics and Labour (2004). For a critical analysis, see Schweighofer (2003).

Chart 4

**Long-term Unemployment<sup>1)</sup> and Youth Unemployment<sup>2)</sup>**

**in the EU-15 and in Austria**



Source: OECD, European Commission (2004a).

<sup>1)</sup> Share of long-term unemployment persons as a percentage of total unemployment.

<sup>2)</sup> Rate of unemployment among persons aged between 15 and 24.

employment target (70% by 2010), which was later complemented by targets for the employment of women and older people.<sup>7</sup> Table 2 provides an overview of the current situation and progress toward these objectives since 1995 and 1999, respectively. Austria has almost achieved the overall employment target of 70%;<sup>8</sup> employment has, however, risen only slightly since the accession to the EU. Furthermore, Biffel (2002) points out that Austria's remarkable total employment rate is, inter alia, attributable to the high rate of young people (aged between 15 and 24) in employment. This, in turn, is a result of the important role apprenticeship training plays.

In terms of female employment, Austria's rate lies above the target of 60%. Here, Austria has seen significant

growth of more than 3 percentage points since both 1995 and 1999. In this respect, the situation in Austria is similar to that in the entire euro area, where an uptrend in the employment of women is observable (Genre and Gómez-Salvador, 2002). Austria's total and women's employment rates are each above the EU average, whereas the participation of older people in the labor market falls well short of the employment targets and stands substantially below the EU average. The discrepancy between target and actual rates amounts to almost 20 percentage points, more than double the amount of the EU average. Austria's low rate of employment of older people is probably traceable to the trend toward early retirement.

<sup>7</sup> At the European Council of March 2005, the Lisbon Strategy was relaunched to refocus on growth and employment in Europe.

<sup>8</sup> Yet, the results of the Austrian microcensus and the labor force survey 2004 already available indicate that, due to improvements in the survey method used, the employment rate will be revised downward by 1 or 2 percentage points.

Table 2

Employment Rates in Austria in 2003 vis-à-vis the Lisbon Targets					
Employment rate	EU-15	Austria	Discrepancy between target (2010) and actual rates	Overall change 1995 to 2003	Overall change 1999 to 2003
	%		Percentage points		
Total	64.3	69.2	0.8 (70%)	0.4	0.6
Women	56.0	62.8	> (60%)	3.9	3.2
Older workers (between the ages of 55 and 64)	41.7		19.6 (50%)	0.7	0.7

Source: European Commission (2004a).

## 2.6 Working Time and Volume of Work

Increased employment rates do not automatically go hand in hand with higher labor input, since the underlying labor force surveys only refer to the number of people in the labor market regardless of their working hours. Between 1990 and 2002, the actual working time per employed person decreased slightly on the back of growing part-time work. Hours per full-timer, by contrast, even rose (OECD,

2004). Between 1995 and 2003, the percentage of part-time employment advanced from 12.5% to more than 20.2%. The European Commission also publishes for each country a total employment rate in full-time equivalents. According to these figures for Austria, this measure has hardly changed since EU accession, which since 1996 has steadily amounted to between 63% and 64% (63.1% in 2003). Most part-timers are women (OECD, 2004).

Table 3

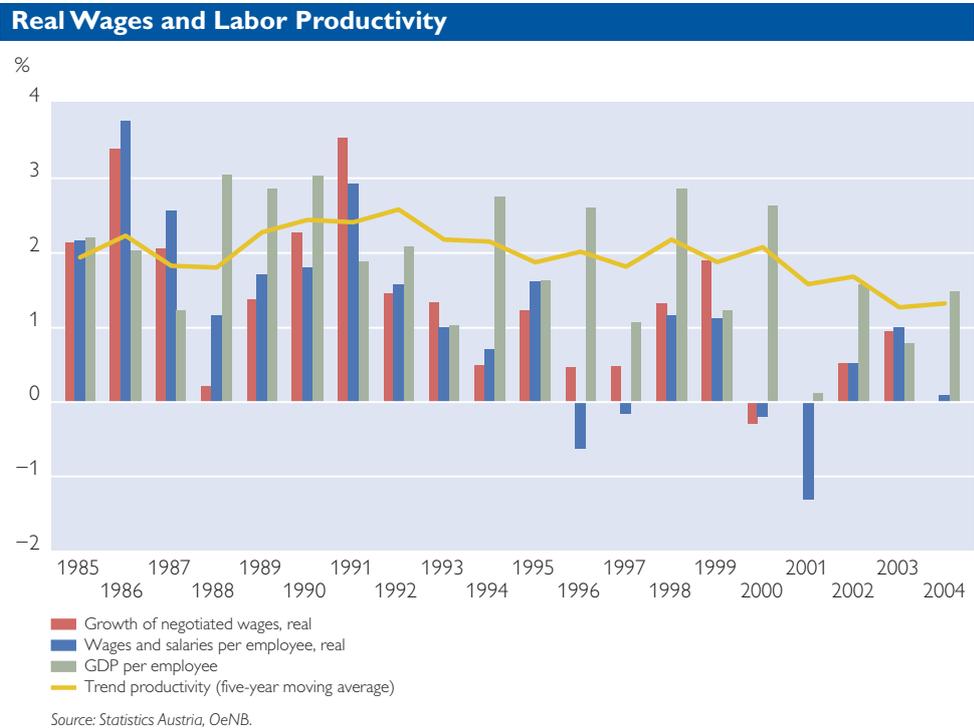
Indicators for Wages, Salaries and Income				
average annual change	1985 to 1994	1995 to 2004	Difference in percentage points	
	%			
Negotiated wages, nominal	4.6	2.4		-2.3
Negotiated wages, real <sup>1)</sup>	1.8	0.7		-1.2
Wages and salaries per employee, nominal	4.8	2.0		-2.7
Wages and salaries per employee, real <sup>2)</sup>	2.0	0.3		-1.6
Labor productivity (GDP per employee)	2.2	1.6		-0.6
Unit labor costs, nominal <sup>2)</sup>	2.5	0.4		-2.1

Source: OeNB.

<sup>1)</sup> Deflated by the growth of the consumer price index (CPI).

<sup>2)</sup> Growth of wages and salaries per employee (nominal) minus growth of labor productivity.

Chart 5



### 3 Development of Wages and Salaries

#### 3.1 Slower Growth of Real Wages

In terms of negotiated wages, real wages increased by about 1.8% per year in the reference decade and by 0.7% since EU accession. The average annual growth of wages and salaries per employee (according to national accounts) was 2.0% between 1985 and 1994 and 0.3% since EU accession (chart 5 and table 3). In chart 5, annual growth rates of labor productivity (GDP per employee) and trend productivity (five-year moving average) are shown as additional time series. Growth of labor productivity has slowed down to some extent, but at the same time real wage gains have clearly fallen behind the development of labor productivity since 1995.

#### 3.2 Monetary Union-Induced Wage Moderation and Enhanced Unit Labor Cost Position in Relative Terms

Aside from growth of nominal wages, table 3 also shows the rate of growth of unit labor costs. In comparison with the reference decade, the latter contracted considerably from 2.5% to 0.4%. The lower rate of unit labor cost growth has made an important contribution to price stability and is sometimes interpreted as “wage moderation” exercised by those involved collective bargaining in the run-up to Stage Three of Economic and Monetary Union (EMU). Hofer and Pichelmann (2002) show that wage pressures in the euro area (measured by means of a refined real wage gap indicator<sup>9</sup> decreased markedly from

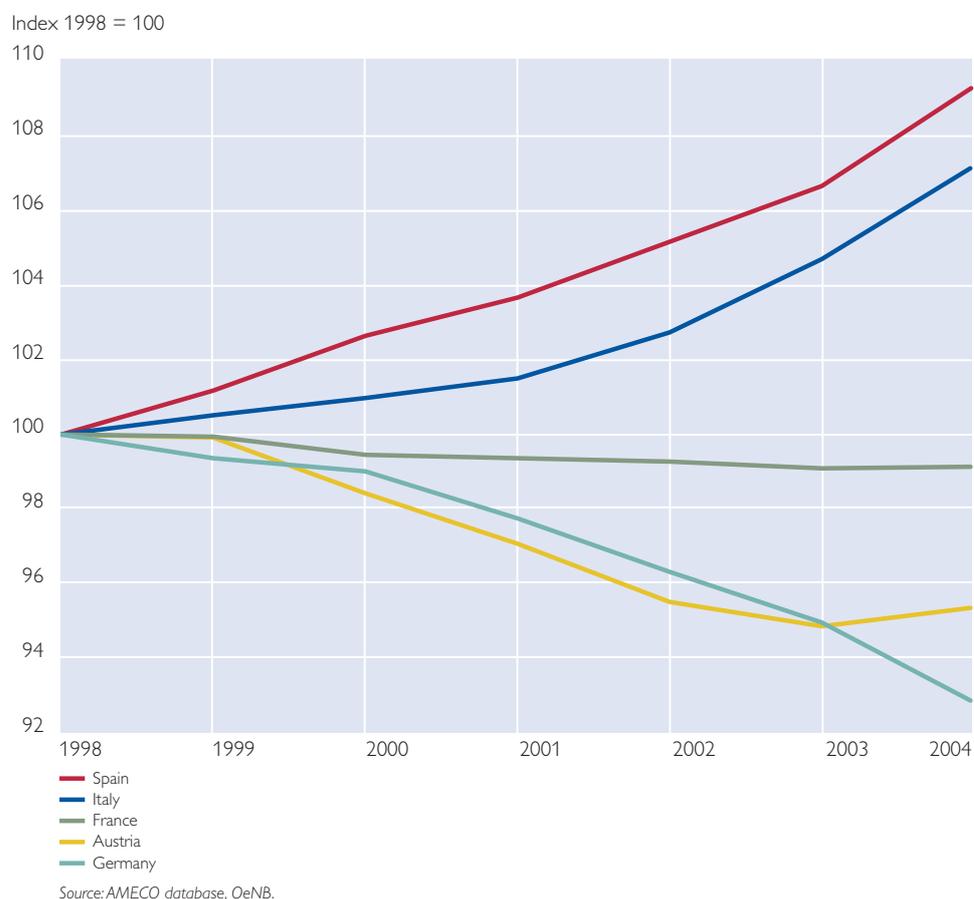
<sup>9</sup> The real wage gap denotes the difference between the development of real wages and productivity growth.

the mid-1990s to 2001. The latest figures on wage developments indicate that the above-mentioned wage moderation has continued (except for the period between 2001 and 2003 when cyclical factors triggered an increase in unit labor costs). Over the decade since accession, Austria's unit labor cost position in relative terms

improved considerably (Pollan, 2004; European Commission, 2004b). Taking unit labor costs as a measure of price competitiveness, we find that Austria's real effective exchange rate – like Germany's – improved in comparison with most EU Member States since the start of monetary union in 1999 (chart 6).

Chart 6

### Relative Unit Labor Costs in Selected Euro Area Countries



#### 4 Macroeconomic Labor Market Flexibility

Since the potential of exchange rate adjustments disappeared when Austria entered into monetary union, the flex-

ibility of labor markets has played an essential role. Labor market flexibility in this context encompasses several aspects, such as flexibility of labor demand and of labor costs as well as

supply-side mobility of workers, e. g. the willingness of employees to change their residence or accept jobs that are outside their home region.

#### 4.1 Macroeconomic Real Wage

##### Flexibility and Output Sensitivity of the Austrian Economy Still High

A high degree of wage flexibility may prevent adverse shocks from causing significant fluctuations in employment and thus driving up unemployment. According to older studies, the Austrian economy has a high degree of short- and long-term real wage flexibility, which is only of minor consequence for employment (Hofer et al., 2001). This high sensitivity of overall wage fluctuations is thought to be attributable to the Austrian social partnership-based system of wage negotiations (Pichelmann and Hofer, 1999), which is regarded as quite centralized and coordinated (OECD, 2004). More recent simulations by the European Commission (2003b) confirm that wages in Austria have been highly sensitive to macroeconomic shocks in the more recent past as well, while the output of the Austrian economy has hardly responded to them.

#### 4.2 Growing Micro Dynamics

Aside from the aggregate level, the response of employment has also been examined at the level of individual businesses since the early 1990s. The figures for Austria presented by Stiglbauer et al. (2003) point to a continuous increase in annual job reallocation (the sum of jobs created and jobs destroyed) between 1985 and 1998. Yet, in a comparison drawing on standardized data, Gómez-Salvador et al. (2004) state that in Austria the micro dynamics measured in this way is low relative to the other countries studied (after controlling for firm characteris-

tics, etc.). This is true in particular for job creation. The outcome of another study indicates that the stability of jobs declined slightly between 1993 and 2002 (Huber et al., 2004).

#### 4.3 Regional Mobility of Employees

##### Has Risen Slightly, Employment of Foreign Labor on the Increase

By international standards, interregional mobility of European labor is low. During the 1980s and 1990s, less than 1% of the European population decided to have a change of residence to another region (gross mobility). Regional mobility in Austria seems to be average. According to Eurostat figures on regional migration, which were analyzed by Huber (2004), gross mobility increased somewhat between 1995 and 1999 from 0.89% to 0.93%; in other words, it was higher than in Southern Europe and, at the same time, lower than in countries with a particularly high degree of mobility (for instance, Scandinavian countries, the Netherlands and the United Kingdom).

Austria has been attracting more and more foreigners. The largest growth of foreign employment took place in the decade before EU accession: In 1984, almost 139,000 foreigners were employed in Austria, whereas ten years later this number had more than doubled. In the decade after EU accession, employment of foreigners continued to grow, albeit at a slower pace. According to the Main Association of Austrian Social Security Institutions, in 2004, close to 362,000 foreigners held jobs in Austria, which corresponds to an increase in foreign labor by approximately 24% over the past decade. Moreover, demographic data show that net migration to Austria has risen during this period of time (Eurostat, 2004).

When the EU was enlarged in May 2004, most of the EU-15 Member States (including Austria) did not want to open up their labor markets for workers from the acceding countries. Thus, transitional periods were agreed upon that may be extended to up to seven years. In the light of the rather low income levels in Central and Eastern European countries, employees' representatives feared that the influx of labor from these countries could both reduce wages and push up the rate of unemployment. Labor with a low level of qualification might be hit hardest. On the other hand, it is doubtful whether even more foreign labor will try to enter the Austrian labor market, for the degree of regional mobility of employees from the new Member States is relatively low (Huber, 2005).

## **5 Economic Policy: Challenges and Need for Action**

Against the background of the permanently high rate of unemployment in Europe, the issue of structural labor market reform has become more and more the center of attention (Biffel, 1994; ECB, 2000). Kubin and Rosner (2001) underline that measures aiming at the regulation of the labor supply had prevented unemployment from increasing faster until the middle of the 1990s, but are no longer acceptable in today's environment. The OECD Jobs Strategy of 1994 provided a substantial impetus for the implementation of structural reform. The 1997 OECD Economic Survey contains a couple of specific recommendations;<sup>10</sup> the Economic

Surveys published since then have produced an overview of progress made toward these recommendations from an OECD perspective. The EU, too, has more and more often called on the Member States to launch structural reform. The report published by the Employment Taskforce (2003) states that in Austria there is a need for action in the following fields: Promoting the mobility of employees and more flexible employment relationships, reforming the tax and social benefit systems for low earners as regards incentives to work, reducing early retirement and creating incentives for businesses to employ older people, increasing the rate of employment of women and creating incentives for lifelong learning. The EU's 2000 Broad Economic Policy Guidelines identified a need for reform in particular regarding the low effective retirement age and the effects of incentives within the tax and social benefit systems (European Commission, 2004c). The following subsections deal with issues that have recurred in the discussion on reform over the past ten years and outline economic policymakers' reaction to them.

### **5.1 Structural Wage Rigidities by Sectors and Age Groups**

Although the above-mentioned high degree of aggregate wage flexibility is generally acknowledged, many experts point to existing wage rigidities capable of hampering adjustments in the labor market. This applies to sectoral, job-specific and regional wage differentiation as well as age-specific differences in wage levels.

<sup>10</sup> The following proposed measures of reform, which have an indirect influence on the labor market, are not dealt with here: reform of the educational system, development and dissemination of technological know-how, subsidies for business start-ups as well as competition policy in product markets.

Since the data available on job-specific differentiation are insufficient, the discussion concentrates on sectoral differences in wage levels. As regards the 1980s and early 1990s, Hofer et al. (2001) state that the sectoral wage structure in relative terms (measured against industry-specific bonuses) hardly changed. Sectoral wage differentiation (measured against the variation coefficient) has hardly changed since the early 1990s either (Guger and Marterbauer, 2004). Likewise, the degree of regional wage differentiation in Austria seems to be low (European Commission, 2003a).

The OECD criticizes uniform wage changes, which it says are caused by Austria's quite centralized system of wage negotiations, and calls for opening clauses which enable businesses to deviate from pay rises laid down in collective agreements. Given the large number of collective agreements, which are in part broken down by sectors, occupational groups and regions, Austria seems to have some potential for a high degree of wage differentiation. Distribution options designed to facilitate this were introduced in some collective agreements in the late 1990s, but they have rarely been used.

Furthermore, the Austrian wage structure – in particular among salaried employees and civil servants – is characterized by a steep age income profile (Bauer and Lamei, 2003), which is brought about by automatic increments laid down in many collective agreements. This is probably one

of the reasons why older people face considerable difficulties in getting or keeping a job in the Austrian labor market (Hofer et al., 2001).

## 5.2 Making Better Use of the Potential Labor Supply

As early as 1995, the OECD Economic Survey pointed to the relatively low rate of employment of women and the extremely low rate of employment of older people. These two issues have remained key challenges for Austria's economic policymakers.

### 5.2.1 Raising the Rate of Employment of Older People

Since the late 1970s, more and more measures have been taken to facilitate people's access to retirement (early retirement pensions, which are mainly invalidity pensions and retirement due to long insurance).<sup>11</sup> In view of demographic factors and Austria's public finances, this is not sustainable. Stricter rules for gaining access to early retirement were already established in the middle of the 1990s. By adopting the pension reforms of 2000 and 2003, policymakers decided to gradually adapt the early retirement age to the statutory retirement age; this is meant to limit the number of early retirement pensions and thus to bring the effective retirement age in line with the statutory one. At the same time, it should be ensured that people do not increasingly resort to substitutes for early retirement (such as old-age part-time employment schemes or invalidity

<sup>11</sup> Between 1972 and 1987, men's average retirement age decreased from more than 62 years to less than 58. In 2003, it corresponded to about 59 years (Main Association of Austrian Social Security Institutions, 2005). According to Kubin and Rosner (2001), earlier generations of employees were not in a position to make frequent use of early retirement provisions due to long insurance because of war and captivity. Later generations of employees were more likely to benefit from these types of pensions, which has added to the reduction of the effective retirement age. Lutz and Walterskirchen (2004) note that until recently the trend toward early retirement continued both in the public and private sectors.

pensions), which would counteract the effects produced by the reform measures.

### **5.2.2 Promoting the Employment of Women**

Another approach is to increase the rate of employment of women, i.e. to better integrate them into the labor market. Although its female employment is higher than the EU average, Austria could still learn from the Scandinavian countries or the United Kingdom, because these countries boast women's employment rates of 70% or higher. One reason for the lower rate of employment of women in Austria is their lower statutory retirement age (60 versus 65), the increase of which was agreed upon in 1992 in order to bring it gradually closer to that of men between 2024 and 2033 (Guger and Mayrhuber, 2004). Another reason is the interruption of women's professional careers for child rearing. Support for families in Austria, which is quite generous by international standards, may worsen women's job prospects. The introduction of the "Kindergeld" childcare benefit in 2002 and the related extension both of the range of beneficiaries and the benefit period are likely to cause more women to withdraw from the labor market temporarily, thereby reducing their chances of re-entering the labor market (Lutz, 2003; OECD Economic Survey, 2003.) On the other hand, the amount of earnings allowed without loss of benefits was raised as well, which may in turn have positive effects on employment. Actually, the number of women on parental leave has risen by about 50,000 between the beginning of 2002 and 2005, while the number of women employed has increased by 30,000. The provision of

childcare facilities and the elimination of differences in wage levels between men and women are crucial to driving up the rate of employment of women (Kubin and Rosner, 2001; Employment Taskforce, 2003).

### **5.3 Liberalizing Employment and Working Time**

If employment can adapt to temporary and permanent changes in aggregate demand more easily, the flexibility of the labor market will, by extension, increase and new jobs and innovative ideas will be more likely to emerge. Issues of employment protection fall into this category. Nonstandard employment relationships are closely related to this, since they provide a greater degree of flexibility than regular employment contracts.

#### **5.3.1 Reforming Employment Protection**

Employment protection comprises several aspects under labor law, such as periods of notice, appeals against dismissal before a labor court and possibilities of establishing fixed-term employment relationships. Applied economic research tries to translate these aspects into Employment Protection Indices. The 1997 OECD Economic Survey shows that Austria ranks among those European countries which have the highest degree of employment protection. According to more recent rankings (OECD, 2004), Austria's position is somewhat different, which reflects both measures for greater flexibility and the methodological difficulties of aggregate indices of this type. Anyway, when striving for more flexibility, social security has to be maintained (Employment Taskforce, 2003; OECD, 2004). An essential contribution to this effect is the new severance pay scheme

of 2002; it separates the amount to which the employee is entitled from job tenure.

### 5.3.2 “More Flexible” Types of Employment Gain Importance

Apart from regular employment, non-standard employment relationships have gained importance. So-called marginal employment,<sup>12</sup> which refers to employment that is subject to a limited degree of compulsory social insurance, is a case in point; it is applicable only if the monthly earnings do not exceed a certain limit (currently about EUR 323). The legal basis for such employment relationships has been in existence since 1955; reliable official data on employment became, however, available only in 1995. At that time, the number of marginal jobs stood at some 136,000 and has since risen to approximately 223,000. The increase after EU accession has therefore probably not been higher than in the decade before (Fink et al., 2001). Marginal employment is particularly common in some services sectors (trade, tourism, business support services).

Part of the higher degree of flexibility is also traceable to the greater number of fixed-term employment relationships. These encompass “ordinary” fixed-term employment, temping and seasonal work. According to the OECD (2002), employment relationships of this type increased in Austria between 1995 and 2000, while the number of open-ended contracts declined. In 2003, 7.4% of Austrian labor had fixed-term employment relationships. This figure is below the aver-

age in the EU-15 of 12.8% (European Commission, 2004a). In line with figures published by the Federal Ministry of Economics and Labour (BMWA), the number of temps has significantly grown, mounting from almost 18,000 in 1997 to 44,000 in 2004.

### 5.3.3 Are More Flexible Working Time Arrangements Necessary?

The 1997 OECD Economic Survey recommended providing for more flexible working time arrangements. Since then, working time legislation has been liberalized, which is the basis for collective bargaining agreements. Moreover, employers' representatives have recently pushed for higher working time flexibility (extending daily working time, increasing periods of averaging working time for the purpose of preventing overtime). Employees' representatives counter that the existing regulations provide for enough flexibility.<sup>13</sup> Only a short time ago,<sup>14</sup> the stakeholders agreed not to discuss this issue at the statutory level, but – in a decentralized format – at the level of collective agreements.

## 5.4 Reform of the Unemployment Insurance System

As in many other OECD countries, the question of how to organize the provision of unemployment benefits and job placement services is being discussed as one issue of reform. Reform measures in the tax and social benefit systems for the purpose of creating better incentives to work are closely related to this.

<sup>12</sup> Other types of nonstandard employment comprise contract self-employment, contract work and a group of self-employed called “new self-employed” (see Fink et al., 2001 or Schönbauer and Laburda, 2003, in particular for problems arising in this context).

<sup>13</sup> For a summary of the discussion on working time in Austria, see Stiglbauer (2004).

<sup>14</sup> At the end of February 2005, the social partners participated in a “working time summit” which was held at the invitation of the Federal Minister of Economics and Labour.

#### 5.4.1 Unemployment Benefits and

##### Creation of Incentives to Work

The level of unemployment benefits and the benefit period may be determining factors of how long a person remains jobless. At the beginning of 2001, a reform of the unemployment benefit system established a uniform net replacement rate of 55% (for sole earners; an average rate by international standards). Furthermore, policymakers lengthened the qualifying period of employment which is necessary for being entitled to unemployment benefits again. For low earners and long-term unemployed persons incentives to work are unattractive because the level of marginal effective tax rates is sometimes high (OECD Economic Survey, 2003).<sup>15</sup>

#### 5.4.2 Reform of the Job Placement

##### Service

The former employment service has undergone a step-by-step reform process. In 1994, it was taken out of the federal system (and the Austrian Public Employment Service, AMS, was created). Seven years later, further reform measures were adopted for the financing of the AMS and a better coordination of passive and active support for job seekers (2001 OECD Economic Survey). At the end of 2003, the Austrian social partners submitted a proposal for reforming the rules regarding the acceptability of job offers, which provided for the weakening of the right to be employed in the occupation for which one has trained ("Berufsschutz") and the right to be employed in one's home region ("Regionalschutz"); it entered into force in early 2005.

## 6 Summary

It is not easy to find an answer to the question asked in the title – whether the domestic labor market has changed in the wake of Austria's accession to the EU and monetary union. It is, however, clear that it has been subject to further change and has followed trends which had been in sight even before EU accession. After all, they had been brought about by the increasing internationalization of the Austrian economy.

Depending on the indicator in question, employment growth over the past ten years has been lower than in the decade before or remained virtually unchanged. The unemployment rate, though higher than in the decade before, has hardly changed since EU accession. The rates of total, long-term and youth unemployment are still low in an international comparison. The employment rate relevant to the Lisbon Strategy has risen only slightly during the EU decade. In the run-up to monetary union, wages and salaries were characterized by wage moderation, which resulted in a modest increase in unit labor costs and consequently lowered inflation as targeted; yet, it also held real income growth in check. The Austrian economy still seems to benefit from a high degree of aggregate real wage flexibility, which is one of the reasons why macroeconomic shocks entail only slight fluctuations in output and employment. Signs pointing to higher flexibility are increasing micro dynamics, a higher mobility of employees and the attraction of foreign labor, which is still growing.

International organizations, such as the EU and the OECD, suggest that

<sup>15</sup> For further details, see for instance the article on long-term unemployment in Aiginger and Kramer (2003).

Austria should undertake structural labor market reform. Many of these suggestions were already presented when Austria joined the EU. Making better use of the potential labor supply (by increasing the rates of employment of women and older people), eliminat-

ing wage rigidities, liberalizing employment and working time as well as improving job placement and incentives to work remain to be the key challenges. Although there has been some progress in these areas, further reform measures seem to be necessary.

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*This contribution discusses the development of Austria's trade with the European Union. First, a descriptive analysis shows that Austrian exports to the European Union were adversely affected by trade barriers during the 1980s and in the first half of the 1990s. As a result, Austria's market shares in the European Union declined steadily until 1995. Second, a gravity model for a panel of OECD countries confirms positive trade liberalization effects after the country's accession to the EU. More recently, the introduction of the euro in 1999 seems to have given a new impetus to trade flows between Austria and the countries of the euro area.*

## 1 Introduction

Since the beginning of the European integration process, Austria has had a strong interest in participating in the mainstream of the integration leading to the creation of the European Union (EU).<sup>2</sup> Austria maintained the most intensive trade relations with the Member States of the EU (especially with Germany and Italy) of all EFTA countries. Correspondingly, Austria initiated bilateral trade liberalization steps (free trade agreement with the EU in 1972 and accession to the European Economic Area in 1994) already before its accession to the EU. Thus, Austria's accession to the EU was a well-prepared step that followed the gradual liberalization between the participating countries over several decades (Felderer et al., 1994; Fidrmuc and Pichelmann, 1999).

This contribution is organized as follows. The next section describes the trade liberalization steps between the EU and Austria. The third section uses results from a gravity model to document the impact of trade liberalization (especially the full accession to the EU) on Austrian trade with the EU. Finally, the last section draws conclusions.

## 2 Austria's Stepwise Trade Liberalization with the EU

Two general concepts of economic integration emerged in Europe: First, the supporters of deeper integration (Belgium, France, Germany, Italy, Luxembourg and the Netherlands) signed the Treaty of Rome that created the European Economic Community in 1957. Second, Austria together with other six European nations (Denmark, Norway, Portugal, Sweden, Switzerland and the U.K.) formed the European Free Trade Area (EFTA)<sup>3</sup> in 1960, which reflected also the neutrality statute of Austria (Felderer et al., 1994).

Unlike the first group of countries, which gradually implemented integration measures, the EFTA countries did not coordinate their internal regulations and tariffs toward third countries and restricted agricultural trade. Furthermore, the common market of the EFTA countries was smaller than that created by the EU, with the GDP of the EU nations being more than twice the size of the GDP of EFTA nations in 1970 (Baldwin, 1994). As a result, the lower degree of integration and the smaller size of the participating EFTA countries translated into smaller integration gains. From the beginning, the asymmetry between the two pro-

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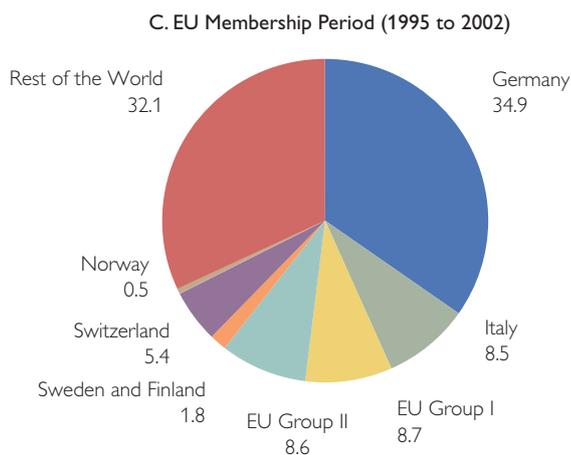
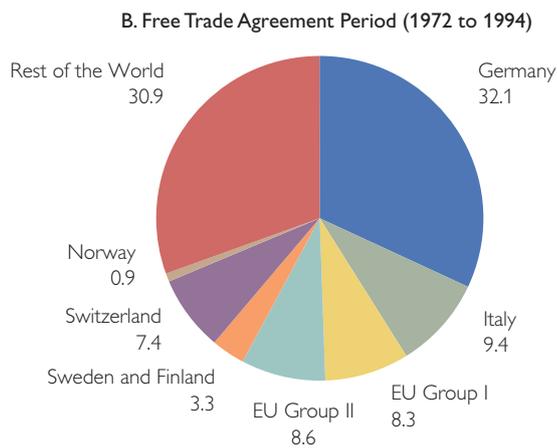
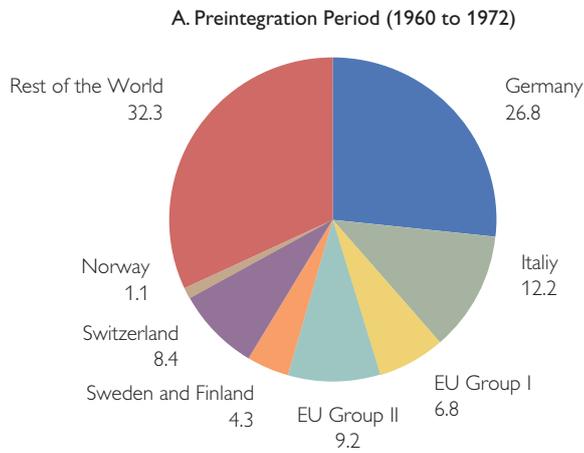
<sup>2</sup> For simplicity, European Union (EU) also applies to the former European Community (EC) throughout the text.

<sup>3</sup> Finland and Iceland joined EFTA in the subsequent years.

Chart 1

### Geographical Structure of Austrian Exports

%



Source: OECD, OeNB.

EU Group I – Belgium, Luxembourg, France and the Netherlands; EU Group II – Denmark, Greece, Ireland, Portugal, Spain and the U.K.

cesses created an incentive for EFTA members and the remaining European countries to join the EU. In 1973, the

U.K. and Denmark (as well as Ireland) joined the EU, which was reinforced by the adherence of Greece in 1981

and Portugal along with Spain in 1986. These earlier enlargements increased the importance of the EU, making it more difficult for Austria and other European nations to stay outside.

As a small open economy, Austria is strongly dependent on access to export markets to be economically successful. As a result of its geographical location, other industrialized European countries have traditionally been Austria's main trading partners (Breuss, 1989). The share of these countries has been quite stable at about 70% (chart 1) since 1960. Therefore, Austria's non-participation in the EU integration process, in which its main trading partners (Germany and Italy) were involved, had important consequences on the structure of Austrian foreign trade. First, Austrian exports to the EU faced significant discrimination in comparison with EU countries. Second, tariff reductions within EFTA promoted trade with other EFTA countries. Both effects introduced a distortion toward trade with other EFTA countries. Between 1960 and 1972, the share of EFTA members increased from 9% in 1960 to 18% of Austrian exports in 1972. Conversely, the share of EC-12 countries declined from 58% to 52% of Austrian exports between 1960 and 1972.

The changes of Austria's trade structure resulted mainly in a shift from the initial trading partners in neighboring countries (with the exception of Switzerland) toward the more distant EFTA members. In sum, the trade diversion effect seemed to have exceeded the trade creation effect during the first stage of integration in the

1960s and early 1970s (Breuss, 1992). This situation changed with the signing of a free trade agreement between Austria and the EU in July 1972.<sup>4</sup> Austrian trade of major nonagricultural products with the EU was liberalized already in 1977, although some sensitive products were still subject to trade restrictions until 1984. As a result, the distortions of the regional structure of Austrian exports and imports were largely reduced in this period. The share of the six founding Member States of the EU (chart 1) reached nearly 50% of Austrian exports on average between 1972 and 1994. The initial EFTA members lost market share in Austria, which declined from 18% in 1972 to 12% of Austrian exports in 1994.

Finally, Austria applied for membership in the EU in July 1989. Other EFTA countries followed, although Norway and Switzerland decided not to join the EU. On January 1, 1995, Austria joined the EU together with Finland and Sweden. The first important step toward full participation in the Single Market had already been taken, however, with the creation of the European Economic Area (EEA) in January 1994. Through the EEA, Austria introduced the free movement of labor, capital and industrial goods with the EU and EFTA (with the exception of Switzerland). However, the EEA did not allow Austria to participate in EU decision-making (Baldwin and Flam, 1994).

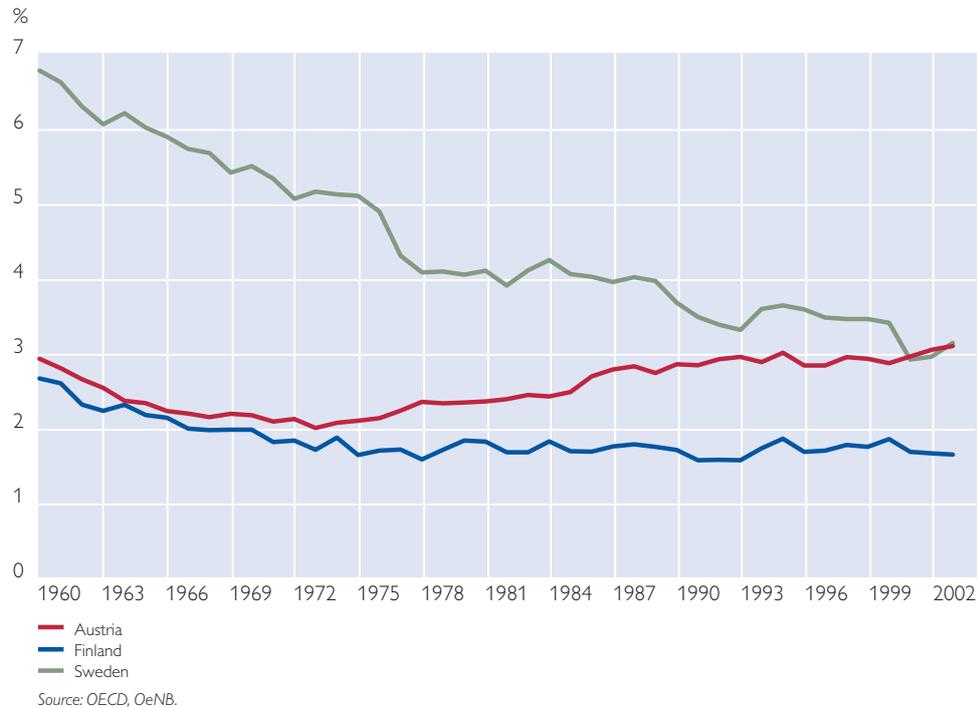
All these trade liberalization steps<sup>5</sup> affected the development of Austrian trade with the EU. Chart 2 shows the evolution of the market shares of the

<sup>4</sup> At the same time, Denmark, Ireland and the U.K. joined the EU and the remaining EFTA countries signed free trade agreements with the EU as well.

<sup>5</sup> Keuschnigg and Kohler (1996) argue that Austria's accession to the EU caused a reduction of trade costs by 2.5%.

Chart 2

### Market Shares of the Former EFTA Countries in Intra-EU-15 Trade



three EFTA countries that joined the EU in 1995 in intra-EU-15 trade. Austria's market share reached its minimum of less than 2% in 1973. Free trade agreements in the subsequent years allowed for a continuous rise in market share until the end of the 1980s, when Austria's market share approached 2.8% of intra-EU-15 trade. The full integration into the EU gave another impetus to Austria's trade development, which may have been further strengthened by the introduction of the common currency in 1999. As a result, Austrian market share in intra-EU trade has approached 3% since the introduction of the euro.<sup>6</sup>

The shares of Finland and Sweden faced a different development.<sup>7</sup> Although the Finnish market share declined until the mid-1970s, much like that of Austria, the revival of trade after the free trade agreement and EU accession was less pronounced. Furthermore, Sweden's position in intra-EU trade has more or less continuously weakened over the entire period. These differences may be partly due to the different geographic locations, where Finland and Sweden as peripheral countries are more likely to trade with non-European countries.

<sup>6</sup> In addition to integration effects, market shares are determined mainly by competitiveness. In the 1990s, especially Spain, Ireland and the Netherlands gained market share, while Italy, Germany and France lost market share in intra-EU trade. According to Wolfmayr (2004), Austria's competitiveness improved by specialization gains in trade with Central and Eastern European countries, which may have strengthened the integration gains after Austria's accession to the EU.

<sup>7</sup> The developments in former EFTA countries are analyzed by Pointner in a contribution in this issue of *Monetary Policy & the Economy*.

### Gravity Models

Standard gravity models relate bilateral trade flows to aggregate supply and demand (proxied by GDP) and to transport costs (proxied by the distance between the countries). Furthermore, free trade areas (including the EU) are accounted for by dummy variables. Although gravity models can be estimated by pooled OLS (ordinary least squares), recent research (see Mátyás, 1997, 1998; Egger and Pfaffermayr, 2003; Cheng and Wall, 2005) demonstrates that this approach ignores unobservable heterogeneity between the countries, which translates into biased estimates of the model parameters. Against this background, the following analysis is based on panel data estimation methods, which take country-specific effects into account (all variables are defined in logarithms):

$$T_{ijt} = \alpha_{ij} + \theta_t - \beta_1 y_{jt} + \beta_2 y_{it} + \beta_3 d_{ij} + \beta_4 B_{ij} + \beta_5 L_{ij} + \sum_{k=1}^K \gamma_k FTA_{ijkt} + \varepsilon_{ijt}$$

where  $T_{ijt}$  corresponds to the size of bilateral trade (exports and imports) between country  $i$  and country  $j$  at time  $t$  (average of exports and imports) in real terms,  $y_{it}$  and  $y_{jt}$  stand for the (real) GDP in the country  $i$  and  $j$ , respectively, at time  $t$ ,  $d_{ij}$  is the great circle distance between the capitals of country  $i$  and country  $j$ , and  $\varepsilon_{ijt}$  is the error term. Consistently with the arguments made before, the income elasticities of trade ( $\beta_1$  and  $\beta_2$ ) are expected to be positive, while the transport elasticity ( $\beta_3$ ) should be negative. Furthermore, positive trade effects between countries sharing a common border or a language are controlled by additional dummy variables denoted by  $B$  and  $L$ , respectively.  $FTA_k$  stands for dummy variables for free trade areas (EU and NAFTA), which are equal to 1 if both countries are members of an FTA, and 0 otherwise. Finally, the country-pair individual effects,  $\alpha_{ij}$ , cover all unobservable factors related to countries' openness (including tariff and nontariff trade barriers, geographical location). Anderson and van Wincoop (2003) relate fixed effects to the so-called multilateral trade resistance of countries (average overall trade barriers). Similarly,  $\theta_t$  denotes time-specific effects, which control for common shocks in the world economy. The dataset covers a balanced panel of 23 OECD countries between 1980 and 2002, which is described in more detail in Bussière et al. (2005). This includes more than 7,000 observations and almost 300 bilateral trade relationships. Trade data are mostly compiled from the International Monetary Fund Direction of Trade Statistics; they are expressed in U.S. dollars and are deflated by U.S. industrial producer prices. GDP data come from the IMF International Financial Statistics and are deflated by the U.S. CPI.

Table 1

### Estimation of Gravity Models, 1980 to 2002

	OLS	Fixed effects
GDP of country $i$	0.781*	0.582*
GDP of country $j$	0.769*	0.651*
EU membership	0.377*	0.207*
NAFTA membership	0.164	0.237*
Distance	-0.641*	
Common border	0.534*	
Common language	0.510*	
Number of observations	7,061	7,061
R <sup>2</sup>	0.912	0.674

Source: OeNB.

\* denotes significance at the 1% level.

### 3 Gravity Models and Austria's EU Accession

The changes of the geographical structure of Austria's trade flows can be assessed by gravity models, which have become a working horse of applied

trade analysis (see box "Gravity Models"). Egger (2004), for example, uses gravity models to estimate the trade effects of regional trading blocs. Fidrmuc and Fidrmuc (2003) review the application of gravity models to esti-

mate integration (and disintegration) effects and home bias in selected CEECs as well as to German reunification. Rose (2000) started an intensive discussion of the trade effects of currency unions.

Table 1 compares the pooled OLS with the fixed effects specification, a procedure generally recommended in the recent literature. All variables included in the fixed effect specification have the expected signs and are also statistically significant. Furthermore, both the EU and NAFTA are positively signed and of a similar magnitude according to the fixed effect specification. The results imply in general that EU membership increases trade by nearly one quarter (that is,  $\exp(0.207) = 1.230$ ) in the long run.

However, this aggregate result of EU integration effects may be driven by the Southern enlargement (i.e. Greece, Portugal, and Spain) in the 1980s. Country-specific adjustment

effects after EU accession or similar policy measures can be easily included in gravity models. As far as trade liberalization represents a source of (positive) shocks to the participating countries, time effects can be decomposed into effects related to a particular economic policy decision. That means that the gravity model is extended by time effects for trade flows between the EU-15 and the former EFTA countries, while the overall time effects control for common shocks in the world trade as before. Given the possible differences between the countries, which are deeply analyzed by Pointner in this issue of Monetary Policy & the Economy, the EU enlargement effects are analyzed separately for Austria, Sweden and Finland. The other parameters of the model remain virtually unchanged.

For Austria, the time dummies for trade with the EU-15 confirm the stylized facts presented in section 2. Aus-

Chart 3

### Cumulated Effects of the Free Trade Agreement with the EU and of EU Accession



tria's trade with the EU increased at the beginning of the 1980s as a result of the free trade agreement with the EU. However, the scope of this liberalization was rather limited, and trade flows between Austria and the other EU-15 states stagnated again in the second half of the 1980s and even declined slightly in the first half of the 1990s. It can also be seen that the accession to the EU dramatically increased the intensity of trade with the EU. Actually, the time effects estimated for Austria, which are translated to the perceptual effects in chart 3, confirm that trade with the EU increased by about 25 percentage points between 1995 and 2002, which corresponds to average annual growth rates of about 2.6%. If trade liberalization due to the free trade agreement is taken into account, integration effects increase to more than one-third. It is important to keep in mind that these trade increases reflect output growth (Breuss, 2003, 2004) and also the general trend toward globalization (reflected by global time effects as above). Furthermore, chart 3 suggests that trade effects gained dynamics in 1999, which is possibly due to the introduction of the euro (Faruqee, 2004).

Although trade developments in Austria, Finland and Sweden during the 1990s show similarities (with trade intensity being at a comparably lower level in the Nordic countries than in Austria), these trends did not go beyond 2000. Thus, the parallel behavior of integration effects in Sweden and Finland (chart 3) indicates that there were region-specific shocks possibly

related to the recent developments in the telecommunication industry, which is particularly strong in the Nordic countries.

#### 4 Conclusions

This contribution analyzes the development of trade between Austria and the EU. These trade flows were partly liberalized by a free trade agreement in the 1970s. However, this contribution shows that the agreement did not provide Austrian exporters full access to the EU market. As a result, the intensity of Austria's trade with the EU stagnated or even declined until the full accession of the country to the EU in 1995. Presented gravity models confirm significant effects of EU entry on Austrian activities in the Single Market, as reflected by Austria's steadily increasing shares of intra-EU trade. The long-run estimate of trade effects of the accession to the EU is about 25%. This is largely comparable to the long-run results of EU membership found for Austria. Nevertheless, Austrian trade integration effects are possibly higher than those of the other EFTA countries. This can be related to Austria's geographic location, but also to its industrial structure.

Finally, the results imply that the introduction of the euro might have positively influenced Austrian trade with the euro area countries. However, such an analysis goes far beyond the scope of this contribution. It nevertheless indicates some avenues for further research.

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# Sectoral Regulation in Austria before and after EU Accession – The Network Industries as a Case in Point

Jürgen Janger

*The network industries, which had been organized in a monopolistic fashion up to Austria's EU accession, were opened to competition following a number of EU Directives and are now mostly regulated by sector-specific authorities. This fundamental change to the regulatory system has so far developed quite positively, both in economic terms and from a regulatory perspective regarding the transparency of these authorities' decision-making processes. Accession to the EU served as an essential catalyst for reforming the relevant regulations, which had come to meet their original purpose of correcting market failures only in part. Thus, Austria's EU entry extended the principle of competition from the already exposed manufacturing sector to other sectors of the Austrian economy. However, chances are that the network industries would have been opened to competition even without Austria joining the EU, e.g. on account of its WTO membership or the discrimination against other sectors which would eventually have demanded such reforms.*

## 1 Introduction

This study uses the term *regulation* in its economic sense as the sum of all regulations which the state employs to interfere in the decision-making autonomy of economic agents. On the one hand, this basically encompasses the creation of prerequisites for efficiently functioning markets, which can yield positive results (correction of market failure in the form of falling average cost, of externalities or information asymmetries, etc.) as well as negative effects (regulatory failure). A complete lack of regulations impedes markets, translating into legal uncertainty for transactions and thus high transaction costs, just as much as ineffective regulations that may, for example, isolate markets and thus provide an unfair advantage for the regulated industries. Regulations may be adequate when they are introduced, but can lose their function over time. Given the ever changing environment for functioning markets (e.g. technologies, advances in regulatory practice), the regulatory debate will continue to evolve. On the other hand, regulation may be used to consciously restrain market forces with a view to enforcing societal or governmental objectives.

Regulation is closely related to *deregulation*, *privatization*, and *liberalization*. The term *deregulation* is to be understood economically as a qualitative reduction of market barriers to introduce or reinforce competition; however, it may go hand in hand with a purely quantitative increase of the body of regulations (“re-regulation” of the sectors opened to competition)<sup>1</sup> (Mantl, 1995a).

The issue of regulation is currently the subject of heated debates as a supposed phenomenon accompanying globalization, cropping up, for instance, in the discussion of the liberalization of public services. However, the issue has been a factor in economic policy since the 19<sup>th</sup> century, when rail tariffs were regulated in the U.S.A.; fundamental contributions in the field of economic theory were published between 1960 and 1980. Air traffic was the first U.S. sector to be opened to competition under President Carter (1978 Airline Deregulation Act). In Austria, too, discussions of the topic can be traced back a while (see, for example, Kaufer and Smekal, 1983), e.g. with regard to the industrial production plant law, the Industrial Code (*Gewerbeordnung*) and the regulation of free-lance professionals.

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<sup>1</sup> From a legal perspective, *deregulation* denotes the actual quantitative reduction of government regulation (e.g. when laws are revised for obsolete stipulations).

This study offers only an excerpt from the regulation discussion in looking more closely at the development of regulations concerning market entry and market behavior in the network sectors in Austria before and after EU accession (section 2), its economic effects (section 3), as well as the agents of change (section 4). Network industries are especially interesting as they underwent the most sweeping changes. Section 5 draws conclusions and offers an outlook on future developments.

## 2 Sectoral Regulation in Austria before and after EU Accession

### 2.1 Shift to External Regulation and Opening of Markets

Based on the assumption of a natural monopoly, grid-based services have traditionally been provided by private-sector companies in the U.S.A., regulated by sector-specific authorities. Like anywhere else in Europe (Majone, 1996), Austria originally pursued an approach of state-owned enterprises directly accountable to ministers and government, i.e. classic command-and-control regulation. In simple terms, the systemic contrast was described as internal versus external regulation (Nowotny, 1999). Teufelsbauer (1983) summarizes the pillars of internal regulation in Austria based on the example of energy supply.

The companies, which were public-sector enterprises but organized as limited liability companies under private law, were obliged to act in the economic interest of the public. The regulatory authority was spread in a decentralized manner across various government departments and several regional

authorities (central government and provinces). Political participation was effected in part via the supervisory boards, to which representatives of the social partners, the public administration, banks, and other bodies were delegated. Ministries and governments had direct access to the management of the companies. Both market entry and market behavior were regulated: The public-sector enterprises usually enjoyed a monopoly position; either there was only one company to begin with (post and telecommunications), or their business activities were separated geographically (energy providers). Their market behavior was confined within the prescribed parameters of their regulated quantity, price, and investment policies (Aiginger and Peneder 1998). Austrian regulation was considered to be strict. According to an assessment by Puwein (1994a), among OECD countries, only Iceland and Turkey regulated the telecommunications sector in the network area as rigorously as Austria.<sup>2</sup>

Before and after 1995, there was a fundamental systemic change toward market opening and external regulation. In many sectors, services were no longer provided by public-sector enterprises but by a market, similar to the U.S. system (Burger and Handler, 2001). The accounting groups of production and grid operations, the only natural monopoly, were separated (unbundled) in the public-sector enterprises, while production and distribution were gradually opened to competition. To ensure access to services that were of general interest, a number of universal services were defined that the former monopolists would con-

<sup>2</sup> In terms of competition and removing regulatory authorities from ministries, most progress had been made by Sweden, Japan, the U.S.A., and the U.K.

tinue to provide. Newly established sectoral regulatory authorities aimed at encouraging market entry, removing market entry barriers, and shaping market conditions. Table 1 presents an overview of the degree of liberalization and legal foundations in the network sectors. In view of the large number of new laws and authorities, it is inappropriate to talk of deregulation in a *legal* sense. The term liberalization

in the sense of opening markets to competition accompanied by concurrent re-regulation or regulatory reform (Knoll, 1999) – i.e. deregulation in an economic sense – appears to be far more appropriate.<sup>3</sup> The legal foundations generally followed EU directives and regulations, but sometimes went far beyond Community requirements, as for example in the 1999 Rail Traffic Market Regulation Act (Segalla, 2004).

Table 1

Regulation and Degree of Liberalization of Network Industries				
Sector	Austrian Legal Basis	EU Legal Basis	Regulator	Degree of Liberalization
Telecommunications	Telecommunications Act 1997 and 2003	Green Book 1987, Directive 1990, package of Directives 2002	RTR	Complete (1998)
Electricity supply	ELWOG 1998 Energy Liberalization Act (ELG) 2000; ELWOG 2004 Amendment Act	Directive 1996, Directive 2003	Energie-Control	Complete (2001)
Gas supply	Gas Act (GWG) and ELG 2000; GWG 2002 Amendment Act	Directive 1998, Directive 2003	Energie-Control	Complete (2002)
Air traffic	Numerous amendments to the Aviation Act (1992 to 1999)	Regulations 1987, 1990, 1992; Directives 1995 and 1996	Austro Control	Complete (1997), with Single European Sky being planned
Rail traffic	Rail Law Adaptation Act ( <i>Eisenbahnrechtsanpassungsgesetz</i> ) 1997, Rail Traffic Market Regulation Act ( <i>Schieneverkehrs-markt-Regulierungsgesetz</i> ) 1999, Rail Act Amendment 2004	Directive 1991, 1995 Rail Packages I (2001) and II (2004)	Schienen-Control	Incomplete (plan: freight traffic by 2006, passenger traffic by 2008)
Postal services	Post Act 1997, three amendments by 2003	Green Book 1992; Directive 1997; Directive 2002	BMVIT	Incomplete; step-by-step liberalization of the mail market planned by 2006, to be followed by an evaluation
Public local and regional passenger transport	ÖPN Regional Traffic Act 1999	Draft Regulation 2002	BMVIT	Not liberalized (tendering obligations)
Water supply	Water Act Amendment 2003	Water Framework Directive 2000; Green Book 2003	BMLFUW	Not planned, but Single Market must not be affected

Source: OeNB.

Only the most important regulations are listed, there are many other amendments.

RTR = Rundfunk und Telekom Regulierungs-GmbH (Austrian Regulatory Authority for Telecommunications and Broadcasting).

BMVIT = Bundesministerium für Verkehr, Innovation und Technologie (Federal Ministry of Transport, Innovation and Technology).

BMLFUW = Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft („Lebensministerium“), (Federal Ministry for Agriculture and Forestry, the Environment and Water Management, „Ministry of Life“).

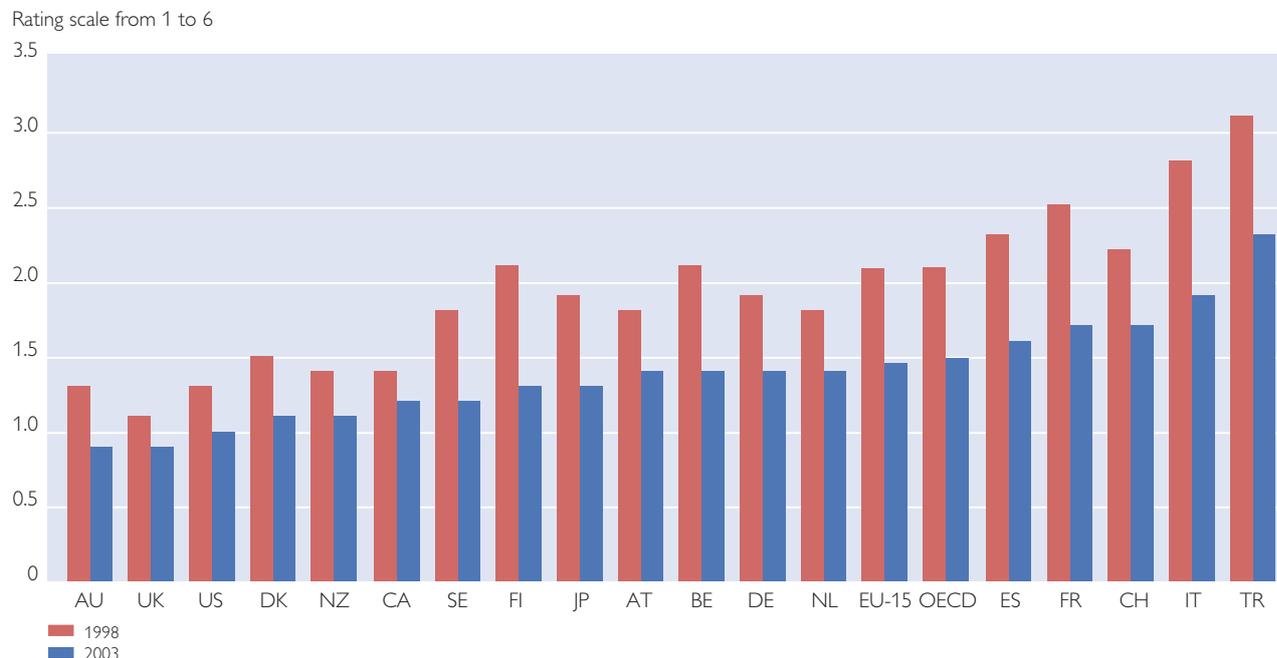
This market opening, together with other reforms such as amendments to the Industrial Code, is reflected in general indicators of product market regulation.

According to chart 1, Austria is slightly less strictly regulated compared with the EU-15 and the OECD countries, while other countries, e.g. Finland and Sweden, have liberalized even more.

<sup>3</sup> See Wimmer and Mederer (1993, p. 42): *Creating an open and functioning market [requires] a dual strategy of deregulation and regulation. Regulatory interventions to safeguard competition are the stabilizing agents of a working market which often has just been opened by deregulatory measures. In other words: Shared responsibility of the state, not relieving it from its obligations, guarantees an open market.*

Chart 1

**Product Market Regulation in 1998 and 2003<sup>1)</sup>**



Source: Conway et al. (2005).

<sup>1)</sup> Strictness of regulation declines with lower values.

**2.2 Comparison of Regulatory Systems: More Transparency in External Regulation?**

An assessment of the effectiveness and transparency of internal versus external regulation – without regard to economic effects – would require sector-specific investigations. In the following, we will only briefly touch upon the aspects of technical know-how and means of control as well as the legitimacy of independent sectoral regulatory bodies.<sup>4</sup>

Teufelsbauer (1983 and 1986) criticizes internal regulation. From his point of view, consumers and the academic community were widely excluded from the process, and the supervisory powers were ineffective

in the light of cross-participation in company management and regulatory authorities. Members of supervisory boards in public-sector enterprises were often not familiar with the given industry, and the staff of regulatory bodies lacked expertise. Knoll (2001, p. 2) is also of the opinion that building up expertise in the regulatory authorities appears to be superior to the individual ministerial authorities which tend to focus only on administrative law. Teufelsbauer (1983) reports further that criticism from the Austrian Court of Audit was often refuted by dubious counter-opinions.

Majone (1996) offers a similar assessment of the situation in Europe. In the U.S.A., thanks to sector-spe-

<sup>4</sup> Time plays an important role in such a comparison. After World War II, the network industries were used to pursue many general goals, which would not have been possible under strict procedural external regulation.

cific authorities, consumers were thus supposedly better protected against private monopolies than in Europe, where ministries directly regulated public-sector enterprises. Accountability was nonexistent in the nationalized industries (“...detailed ministerial interventions in the decisions of public managers usually exercised through informal and even secret processes, reduced accountability to vanishing point. [sic]”; p. 300) He also opposes the view that independent sectoral regulatory authorities would not be subject to democratic control. First, he argues, proportional election systems are characterized by not placing powers solely in the hands of the government, but – quite to the contrary – spreading them as widely as possible to safeguard minority rights. Second, regulatory authorities may have procedural and factual legitimacy. Procedural legitimacy rests on the mandatory legal basis for the respective authority, which should be adaptable and should, among other things, hold the authority accountable for its decisions. This facilitates transparency and supervision by courts and allows the public to take a critical stand. Factual legitimacy exists when the regulatory authority decides only on issues of efficiency, but not of redistribution.

In order to make it possible to reconcile independence and public accountability of regulatory authorities, Majone (1996) therefore suggests a combination of several control mechanisms rather than centralized control. These mechanisms consist in legally mandated objectives, the obligation to justify decisions, clear process rules

for settling disputes between the regulated companies, and technical know-how to fend off external intervention and to reduce the risk of arbitrary abuse of the authority’s discretion in its decisions. Were this system of multiple checks in place, nobody would regulate the authority, but the authority would be “under control.”

In consideration of the above arguments, the system of external regulation can effectively be preferable to internal regulation or the internal regulation as exercised in Austria in terms of transparency and ease of monitoring. Moreover, sector-specific regulatory authorities are tailored to the increasingly complex technological and economic environment, which requires functional specialization and thus the building up of technical expertise.

### **3 Economic Implications of the New Regulatory System**

#### **3.1 Positive Effects at the International Level**

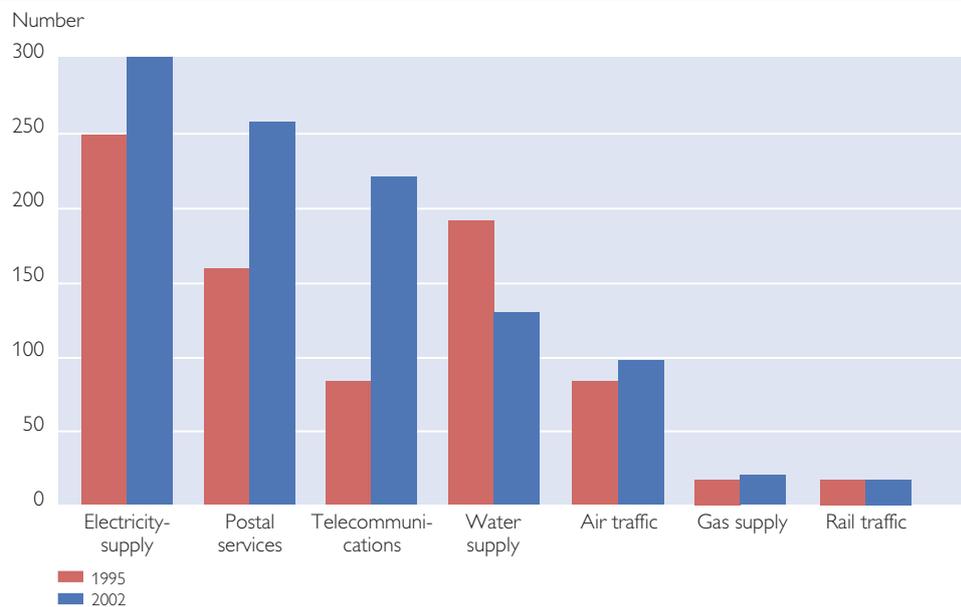
In general, theoretical and empirical economic research shows that competition yields positive economic effects, by increasing both static and dynamic efficiency, and thus finds its reflection in economic and productivity growth (for a recent overview, see Böheim, 2004).<sup>5</sup> A number of empirical studies have clearly substantiated the correlation between product market regulation and productivity developments. Nicoletti and Scarpetta (2003) simulate the effects of product market regulation<sup>6</sup> in the euro area converging to the level of those three euro area countries with the lowest degree of regulation and derive significant potential

<sup>5</sup> *With the exception of the natural monopoly, that is.*

<sup>6</sup> *For the three areas of privatization, entry barriers, and sector-specific regulation.*

Chart 2

**Number of Companies in the Network Industries**



Source: Statistics Austria.

productivity growth rates.<sup>7</sup> Alesina et al. (2003) prove that high market entry barriers in the network industries in particular have negative effects on investment activity.<sup>8</sup>

In an EU-wide study, the European Commission arrives at a generally positive conclusion on market opening in the network sectors (European Commission, 2004a). According to the study, not only prices and productivity, but also quality of services and stability of supply have improved. Concerns in view of the Californian energy crisis and the delicate safety situation of British rail traffic have proven unfounded so far. However, only air traffic and telecommunications saw significant price reductions, while

especially gas prices even rose as a result of the increase in oil prices. In general, there are huge differences between countries and sectors. Mandatory market opening, as it is shown for Austria in table 1, does not automatically translate into effective competition or effective market opening.

**3.2 Positive Results for Austria with Sectoral Differences**

The situation described above is largely true for Austria as well. In 2002, the network sectors generated a share in the value added by the manufacturing sector and by market services (excluding public services) of almost 10%, 0.5 percentage point less than in 1995. In all liberalized sectors, the number

<sup>7</sup> Aiginger et al. (2004) assume that also in Austria economic growth would benefit from opening the markets of network industries. In general terms, however, Aiginger and Peneder (1997) believe that, while Austria had more state regulation than other countries, the stability of the economic framework compensated for the cost of regulation.

<sup>8</sup> Overinvestment may occur in case of state-owned monopolies to serve interest groups outside of Parliament and thus avoid harmful transparency. This phenomenon is called “golden plating” and is also reflected in the findings of Alesina et al. (2003).

Table 2

**Productivity Developments in Selected Network Industries**

Growth rate in %

	Sweden		EU-15		Austria	
	1979 to 2002	1998 to 2002	1979 to 2002	1998 to 2002	1979 to 2002	1998 to 2002
Total value added	1.7	1.7	2.1	1.7	2.9	1.7
Electricity, gas and water supply	2.4	4.2	4.1	6.8	3.8	5.4
Road and rail traffic	2.3	0.5	2.3	1.2	5.3	6.3
Air traffic	1.9	- 5.9	3.9	- 0.1	6.4	- 7.5
Telecommunications	6.3	10.0	6.6	9.5	6.3	8.3

Source: Groningen Growth and Development Centre, 60-industry database, February 2005, <http://www.ggdc.net>  
Labor productivity per hour worked at chained 1995 prices.

of companies (chart 2) rose sometimes sharply, with the exception of the stagnant rail traffic and gas supply sectors. The water supply sector, which was not liberalized, saw the number of companies drop. The number of (independent) competitors is an indicator of effective competition (Böheim, 2004). Thus, the number of companies confirms the findings of still weak competition in gas supply and rail traffic.

Sectoral productivity performance in an international comparison (see table 2) is captured only as an aggregate based on data of the Groningen Growth and Development Centre. Given its advanced stage of market liberalization, Sweden was chosen as a benchmark in addition to the EU-15. Contrary to the general trend toward a marked slowdown in productivity growth from 1998 to 2002, growth in the opened sectors of electricity, gas, and water supply as well as telecommunications (post and telecommunications) accelerated. As for rail and road traffic combined, Austria was the only country which managed to increase productivity. Sweden, the EU-15 and Austria suffered a decline in air traffic, which can probably be put down to one-off effects.

Price developments are discussed in more detail by Fluch and Rumler as well as by Pointer in this issue.<sup>9</sup> Puwein (1994a) refers to an OECD comparison according to which Austria's phone charges for companies and private households exceeded the OECD average by 30% in 1993, leaving Austria in 20<sup>th</sup> position among 23 OECD countries. At 28%, the profit margin of what was then the Post- und Telegraphenverwaltung (PTV) was high by international comparison. In terms of service quality, it was possible to reduce the average waiting period to get a primary line from 13 months in 1980 to 3 months in 1990, but even at that time, most OECD countries did not have any waiting periods anymore. In 1997, Austria lay in part considerably above the price level of the EU-15 in the sectors of electricity, gas, local and long-distance calls (with the exception of electricity for private consumers) according to the data of the Eurostat structural indicators. By 2003, the price level for long-distance calls and electricity for industrial consumers stood below the EU-15 average. In the other sectors (gas and local calls), Austrian rates are moving toward the EU-15 average.

<sup>9</sup> The price-reducing effect of market opening can only be established by comparing net prices, e.g. in Kratena (2004) and Haslauer and Gassler (2005), or by the Eurostat structural indicators.

In a partial analytical study of the energy market, Kratena (2004) comes to the conclusion that, compared with the baseline scenario without liberalization, the price reduction of electricity for industrial and private consumers amounted to 40% and 20%, respectively, and the price reduction of gas equaled 15% and 4%, respectively. The price advantages from the liberalization of the energy market were partly offset by other factors such as high grid charges and increased taxes.<sup>10</sup> In addition, the increasing market concentration further restrains competition as a result of the horizontal integration of energy providers. The distribution of electricity and gas within the same companies produces a lack of important substitution options that would be important for competition (Böheim, 2004). The European Commission (2004a) cites the fact that consumers in the gas sector traditionally do not tend to switch to alternative suppliers (“user switching”) as an additional reason for ineffective competition.

According to Böheim (2004), the mark-ups in some network industries are below average compared with the OECD countries. This may, on the one hand, reflect the successful liberalization process, which has driven the Austrian price level from being one of the highest in Europe down to an average level. On the other hand, low mark-ups can also mean less profit and rationalization pressure on the owners. Overall, it would be fair to consider competition relatively effective in telecommunications, in the area of postal services already liberalized,

and in air traffic (low-cost carriers). Rail traffic has not been fully opened by law yet,<sup>11</sup> and the energy markets – despite full statutory opening – do not (yet) show effective competition, or price reductions were offset by increases in taxes. Economic effects also depend on an effective general competition policy.

Like in other countries, some concerns with regard to negative effects of the regulatory change in Austria did not materialize either. As a case in point, the high licensing fees in telecommunications did not lead to a high price level (Knoll, 1999), and in spite of a lack of cross-subsidizing, local calls did not become more expensive. Likewise, lower energy prices did not result in increased pollution (Burger and Handler, 2001). What would have to be examined more closely, however, is whether the closing of post offices is compatible with the commitment to provide universal services throughout the country. In any case, alternative forms of service provision merit discussion (e.g. all-in-one grocery stores).

Winston (1998) uses the example of the U.S.A. to point out that companies need time to adapt to new regulatory conditions. Therefore, the effects of regulatory changes should be examined over an extended period of time. In his opinion, however, the empirical evidence appears to support the positive impact of market opening and competition.

#### **4 Reasons for Change**

How can regulatory reforms and the switch from internal to external regu-

<sup>10</sup> This is confirmed by Haslauer and Gassler (2005), who identify as the main beneficiaries of the liberalization of the electricity sector large customers as well as the state by way of increased taxes.

<sup>11</sup> According to IBM and Kirchner (2004), however, Austria ranks among those countries which show a delayed opening of the rail market.

lation as well as the liberalization of the network industries in Austria be explained? Section 4 describes the role of EU accession based on theoretical explanatory approaches and Austrian regulatory analyses and concludes by discussing alternative reasons for change.

#### **4.1 Regulation as the Result of Competition between Interest Groups**

In accordance with Viscusi et al. (2001, p. 313ff.), the theory of public interest explains regulation exclusively as a reaction to market failure, while the theory of regulatory capture postulates the other extreme, i.e. regulation as a result of lobbying and interest groups. Neither theory can sufficiently explain empirical observations such as a lack of correlation between market failure and regulation on the one hand, and regulation at the expense of companies on the other.

The economic theory of regulation regards regulation as the result of interest groups competing for political influence. In line with Olson's findings (1965), small groups with high per-capita profits from regulatory measures are at an advantage compared with large groups with low per-capita profits: Small groups (such as trade associations) can be more easily organized (than consumers), and favorable profit prospects encourage such behavior. Regulation and deregulation can thus be explained as relative changes in the influence of interest groups. Likewise, regulation in reaction to market

failure can be explained by the resulting large benefit for some interest groups (Viscusi et al., 2001).

According to the historical approach of Victor (1994), regulation patterns follow the success brought about by the various strategies of economic policy. Thus, after the Great Depression of the 1930s, unfettered market coordination was abandoned, and the state became considerably more important as a problem solver. The economic policy failures during the economic crisis of the 1970s resulted in a contrary development.<sup>12</sup>

#### **4.2 Regulation in Austria prior to Accession to the EU: Signs of Inefficiency and Impact of Special Interests**

After World War II, the regulatory system of the network industries in Austria was in line with the way in which Europe was dealing with its specific characteristics and the prevailing view of general market failure in these sectors. Regulatory and economic discussions in Austria, however, showed that as early as the 1980s, regulation was no longer purely a reaction to market failure and on top of that proved to be economically inefficient.<sup>13</sup>

##### **4.2.1 Regulatory Discussion: Signs of Interest Groups Exerting Influence**

Following Teufelsbauer (1996), one might argue that the economic theory of regulation is more applicable to the political-economic system of the U.S.A., while Austria and Central

<sup>12</sup> Regulation results from dissatisfaction with the outcome of market processes, while deregulation follows from dissatisfaction with regulation (Supper, 1986, p. 768).

<sup>13</sup> Especially in the post-war period, regulation in the network industries was designed in a way as to not only correct market failure, but also more or less explicitly to pursue general economic and social goals, e.g. electrification of households, cheap electricity for industry, building of new networks, regional policy, a neutral state striving for autarky, promotion of the domestic capital goods industry, as well as business cycle policy.

Europe are characterized rather by a tradition of public administration and politics serving the common good. However, there are signs of the influence of interest groups or the general possibility of exerting influence on the regulatory process: Teufelsbauer (1986, p. 715) considered regulation in Austria the outcome of an opaque bargaining process in a club situation, the result of mutual interdependences of political bodies, large regulated economic entities, and nontransparent and closed circles of experts and civil servants. Müller (1983) mentions a draft regulation which was intended to define polite behavior for taxi and bus drivers. In response to his question why there was a need for legal regulation, he was informed that this was exactly the kind of thing demanded by business representatives. Korinek (1991) writes about the demands of trade associations and the public, the desire to get noticed, and other political factors that would lead to a regulation of economic behavior.

According to Szopo (1986), Keynesianism brought about the view that the state was the guardian of macroeconomic interests. As a rule, political processes in western democracies probably work exactly the other way round: A large number of diverse groups try to use the very tool of government interventions and sanctions to enforce their own interests at the expense of other groups; they make use of both parliamentary channels and – more commonly and more importantly – direct interventions with the administrative authorities (Szopo, 1986, p. 47). Mantl (1995b) points out that the economic analysis of law and the new political economy have found their way into the Austrian discussion, which refers to a more dif-

ferentiated view of the state which included the possibility not only of market failure but also of regulatory failure.

Thus, some regulation or missing regulatory reform has probably resulted not only from market failure but also because of certain activities by interest groups as well as generally applied economic policy approaches.

#### **4.2.2 Economic Discussion: Findings of Cost and Price Disadvantages and a General “Dislike of Competition”**

Also in Austria, the purely economic discussion on regulation started long before it joined the EU. Economic analyses suggested that regulation in some network industries was not effected with the common good in mind.

A location survey of the Austrian Institute of Economic Research (WIFO) (Aiginger and Peneder, 1997) showed that Austrian companies felt particularly affected by the lack of efficiency of government regulation as reflected by high energy and telecommunications costs. According to Kramer (2002), the hard currency policy was not able to prevent an increasingly uneven burden on the liberalized sector in favor of the protected one. He argues that the social partnership had a positive impact on the former sector, while the latter managed to effect a redistribution of resources in its favor. In the longer run, this would have endangered the competitive chances of the national economy: Austrian companies not only had to bear higher initial costs for input purchased from the protected sector, but the quality of the services provided was far from first-rate, to boot. Indicators were overcapacities in personnel and labor costs which, due to internal company

rules often were the source of envy when compared with the costs prevalent in the exposed sector (Kramer, 2002, p. 216). Szopo (1986) supports this analysis of the growing gap between exposed and protected sectors, which was also becoming apparent in income distribution. The location study of the Beirat für Wirtschafts- und Sozialfragen (advisory board for economic and social issues; 1994) also dealt with the issue of regulation.<sup>14</sup>

As for competition policy, it was stated that the demand for selective reduction of certain regulations in Austria was to be regarded mainly in connection with hostility toward competition widespread in large parts of the Austrian economy. The negative consequences of economic competition were thus exaggerated while the positive impact was overlooked. In Austria, legislation on safeguarding competition is generally of less significance than that on offering protection from competition (Kaufer and Smekal, 1983, p. 98, quoted in Szopo, 1986, p. 50).

All that shows quite clearly that there was an awareness of the need for regulatory reform even on a *national* basis well in advance of EU accession. How then was it possible to implement these findings in the face of opposing special interests?<sup>15</sup>

### 4.3 EU Accession Paves the Way for New Regulation

Reforms in network industries are faced with the classic Olson problem. Big advantages for small and well-organized groups that result from maintaining the status quo even after the original reason for regulation (market failure) is no longer relevant contrast with unclear and minor benefits for the large and unorganized majority derived from change.<sup>16</sup> In this situation, accession to the EU caused a significant shift in the power of interest groups, as the four fundamental freedoms of the Single Market had to be implemented. EU accession can thus be seen as a classic political economic reform strategy. With external forces requiring a comprehensive package and the necessary approval of the very package that comes both with advantages (market access) and with disadvantages (need for regulatory reform in certain sectors), special interests are pushed to the back.

Wimmer and Mederer (1993, pp. 11 and 14) describe EU accession as a “Copernican change” and the “nucleus of a gigantic deregulation program.”<sup>17</sup> The basic concept of the single European market consists of the four fundamental freedoms in integrated markets, i.e. markets which are open

<sup>14</sup> The Austrian regulatory debate began long before EU accession also from a legal point of view, even though the focus was not on network industries, but on production plant law, the Industrial Code, and free-lance professions (see e.g. Winner, 1996). Szopo (1986) describes the modern roots of the legal and institutional environments. Important parts of economic legislation dated back to the previous century or the interwar period.

<sup>15</sup> See Gutknecht (1993, p. 89): Nobody really denies nowadays that deregulation is necessary, but it remains unclear where the impetus for that is supposed to come from...

<sup>16</sup> Fernandez and Rodrik (1991) call this the “status quo bias” based on the certainty of disadvantages and uncertainty concerning benefits. This concept differs from that of Olson.

<sup>17</sup> However, this also refers to the effect of regulatory change resulting from possible discrimination against residents discussed at the time; this effect means that companies or employers are able to offer their services in accordance with their national regulations in other EU Member States, which might result in discrimination against residents of those countries bound by stricter national regulations. This country of origin principle (as opposed to the country of destination principle) has become an issue again in the current debate about services.

to other EU Member States. Since EU Competition Law and Single Market Law take precedence over national law, these fundamental freedoms can generally be enforced. Given Austrians' traditional fear of competition (Kaufer and Smekal, 1983, p. 97), the external impulse on the part of the EU appears to have been of particular importance for opening the goods and services markets. Aiginger and Peneder (1998, p. 32) argue that EU accession had a material impact on Austria's regulatory system. As a result of the entry into the EU, the Austrian system has become more adjusted to the European mainstream on several counts. Kramer (1994a, p. 7) adds that Community policy lends also strong support to national governments to overcome internal resistance.

However, this market liberalization was not forced upon Austria unilaterally, but was probably used as a deliberate opening strategy by politics and interest groups. EU accession was also expected to result in a harmonization of competitive conditions in the exposed and protected sectors. While it was not directly on the agenda of the accession, it was nevertheless anticipated that competition regulations would also be expanded to sectors which had thus far enjoyed quasi-monopolistic positions in most European countries, particularly in the field of infrastructure utilities. These observations were definitely not the major motivation but did play a certain role in the economic policymakers' efforts to become fully integrated into the single European market (Kramer, 2002, pp. 216 to 217).<sup>18</sup>

#### 4.4 Potential Market Opening absent EU Accession

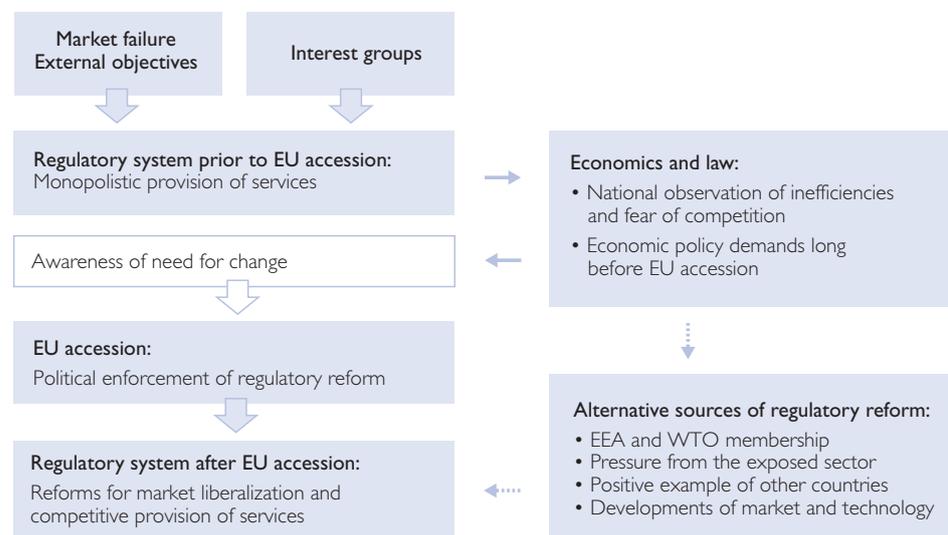
Many instances of liberalization in Austria appear to have been triggered by the EU. The European Commission with its initiatives, however, profited from the examples set by other countries. In the U.S.A., many markets were opened as early as the 1970s. Subsequently, the United Kingdom even "overtook" the U.S.A. in the 1980s and 1990s, but also Finland and Sweden proved pioneers of telecommunications and rail traffic liberalization at that time. Sweden opened its rail network in 1996, after partial liberalization had already been effected in 1992 (Mayer, 1998). Thus, Community Law was only the trigger of the liberalization of rail traffic; there are still major differences between the EU member countries, as some had already gone further than the European Commission (Segalla, 2004).

Furthermore, the initiatives of the European Commission reflected technological progress and market developments. Strong shifts in demand changed the relation between critical production mass to market volume (Peneder, 1996). From a technological point of view, it was not only the possibility of separating power generation from operating the grid which led to a restriction of the reach of natural monopolies. The natural monopoly in the generation of electricity was ended by the introduction of gas turbines. This technological development, together with the political intention of the European Commission to maintain a competitive European economy, was a primary driving force behind

<sup>18</sup> This strategy of using the EU as a scapegoat can be quite dangerous if it simply serves to shift the blame for partly unpopular measures from a national level to the EU, while in turn strictly positive developments are touted as the sole result of national policies. This can only lead to an increase in EU skepticism in large parts of the population.

Chart 3

**Regulatory Reform Shown as a Result of EU Accession**



Source: OeNB.

the drafting of the Electricity Directive (Wohlgemuth and Bodenhöfer, 1998, p. 374).<sup>19</sup>

The liberalization of many other markets had already been necessitated by Austria's accession to the European Economic Area (EEA) in 1994, such as air traffic or telecommunications (Puwein, 1994b). In addition to the EEA, Austria's membership in the WTO would have had similar consequences in terms of opening markets. Several GATT agreements aim at a similar development of international liberalization and fairness in competition as EU regulations. These adjustments would have been farther-reaching and more immediate based on EU accession, and less binding and immediate due to GATT obligations (Kramer, 1994b, p. 267).

Even without any international influence, however, Austria would very

likely have opened its network sectors eventually. The well-organized representatives of the exposed sector would have demanded changes in their capacity as "consumers" in an ever more insistent manner until they would have clearly prevailed in the struggle between interest groups.

To summarize (chart 3), accession to the EU and the EEA can thus be regarded as a significant catalyst for the shift from internal to external regulation and for opening the markets in the network industries. These changes would very likely have occurred even without entry into the EU, but presumably later and not to the same extent.

## 5 Conclusions and Outlook

Austria's accession to the EU brought about major changes for the network industries. The inappropriate dichotomy of regulation versus deregulation

<sup>19</sup> In general, the driving forces of regulatory change differ strongly between sectors. Breuss (1994) presents a table showing the sector-specific impacts of technological change and Single Market regulations.

clouds the view of what is essential, i.e. the change from monopolistic to competitive production, from protected to open markets in the process of switching from internal to external regulation.

### **5.1 Characteristics and Effects of New Regulation: Favorable, but Beware of Uncritical Examination**

As a rule, changes in regulations result in appropriate adjustments on the part of companies only in the medium term and require an effective competition policy for the positive repercussions of competition to take full effect. Still, even in the short time since the first network-based markets were liberalized, several positive economic effects have been observed in Austria. Conversely, possible setbacks should not be generally condemned as a weakness of the new system, but should lead to a continuous improvement of the regulatory framework with regard to the risks inherent in all change processes. Nonetheless, an economic policy paradigm must not be applied without a critical perspective and regular empirical review.

The decisive factor will be the performance of the new sectoral regulatory authorities in connection with general economic policy. Basically, a loss of transparency and democratic control as compared with internal regulation cannot be expected. By contrast, the obligation to justify decisions, transparency, and expertise may improve the system prior to market liberalization.

### **5.2 Future Regulatory Reform: Further Liberalization and European Regulatory Authorities?**

As shown in table 1, further (statutory) liberalization will take place in rail traffic and postal services. The liberaliza-

tion of water supply is not planned, and public local and regional transport will see a “competition for subsidies by efficient awarding procedures” (Knieps, 2000) (i.e. still monopolistic provision of services, but contracts are awarded to the best bidder in terms of price and quality). From a legal point of view, Austria’s discretion in this sector will be defined by the transposition of EU Directives into national law. If the general objective of the Directive is achieved, this discretion is relatively substantial.

More far-reaching regulatory changes might result from sectoral regulatory authorities operating on a Europe-wide basis. This development might occur as a result of the heterogeneity of the regulations of services among the Member States, which Kox et al. (2004) consider to be a major obstacle to the realization of the single European market.

The free-lance professions are not part of the network industries, but changes (triggered by the EU) along the lines of the network industries can be expected. For 20 years, it has been pointed out that the regulation of these professions does not meet its intended purpose of correcting market failure (e.g. Szopo, 1986). A study of the Federal Ministry of Finance (1988, quoted by the OECD, 1989) describes the existing regulatory system as inefficient in reaching goals such as consumer protection, ensuring the quality of professional services, and the prevention of unfair competition. On the contrary, the system results in higher prices, a deceleration of structural adaptation, and a weakening of competitive strength. The European Commission (2004b) confirms this assessment. Adjustments are provided for in the Austrian reform agenda (see Cardiff Report (Federal Chancellery,

2004)). However, the long period between stating the need for change and actually effecting change again suggests the advantages of small, well-organized groups with high per-capita profits.<sup>20</sup> Therefore, external pressure seems necessary to bring about reform.

### 5.3 Role of the EU in Austria's Structural and Competition Policy: Competition as a Defining Principle

In the light of the fundamental changes in the market regulation of network industries, EU accession may well be credited with the definition and reinforcement of new focal points in Austria's structural and competition policy. Via the four fundamental freedoms of the Single Market in general and the relevant Directives of the European Commission in particular, the defining principle of competition increasingly found its way into Austria with its "historical dislike of competition." These changes are still going on, with the competition authority, for example, expanding gradually (the European Commission (2005) criticizes that the competition authority is still poorly equipped with resources).

Joining the EU may thus be viewed as the "antidote" to Olson's (1982) analysis of the economic decline in societies which had been stable for a long time. According to Olson, economic regulations would become obsolete as a result of economic, technological,

and other developments, but would not be removed owing to special interests which prevent changes in regulation at the expense of the general public. At the time, the Austrian and European systems of internal regulation of network industries were a quite common reaction to the capabilities of market and technology and a means of implementing general supply objectives in the post-war period. Over time, however, the systems were hardly adapted to economic, technological and legal developments and innovations.

As for the impending major challenges of economic policy, achieving the Lisbon goals by 2010, it would be unwise to rely on help from the outside. The EU's legislative authority is limited in some Lisbon fields (education, research), which means that national politics need to assume more responsibility. In the medium term, incessantly overtaxing the EU as an agent of change would lead to a wear-out in terms of increasing EU skepticism and an unwillingness to support further integration among large parts of the population anyway. However, as was the case when joining the EU, the principle of the "comprehensive package" might again help to initiate changes. National and proactive economic policy concepts<sup>21</sup> can be drawn up before economic crises lead to high welfare losses and the pressure to take measures at short notice.

<sup>20</sup> The statement of the Austrian Bar Association concerning the draft directive on services in the Single Market (Benn-Ibler, 2004) may serve as an example of the defensive stand and arguments based on consumer protection.

<sup>21</sup> Kok (2004) calls this Lisbon action plans, while Gnan et al. (2004) and Aiginger (2004) describe it as a national growth strategy.

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# NOTES

# Abbreviations

ACH	automated clearing house	GNP	gross national product
APSS	Austrian Payment System Services GmbH	GSA	GELDSERVICE AUSTRIA Logistik für Wertgestionierung und Transportkoordination GmbH (Austrian cash services company)
ARTIS	Austrian Real Time Interbank Settlement (the Austrian RTGS system)		
A-SIT	Secure Information Technology Center – Austria	HICP	Harmonized Index of Consumer Prices
ASVG	Allgemeines Sozialversicherungsgesetz – General Social Security Act	IBAN	International Bank Account Number
A-Trust	A-Trust Gesellschaft für Sicherheitssysteme im elektronischen Datenverkehr GmbH	IBRD	International Bank for Reconstruction and Development
ATM	automated teller machine	IDB	Inter-American Development Bank
ATX	Austrian Traded Index	IFES	Institut für empirische Sozialforschung GesmbH (Institute for Empirical Social Research, Vienna)
BCBS	Basel Committee on Banking Supervision (BIS)	ifo	ifo Institute for Economic Research, Munich
BIC	Bank Identifier Code	IGC	Intergovernmental Conference (EU)
BIS	Bank for International Settlements	IHS	Institut für Höhere Studien und Wissenschaftliche Forschung – Institute for Advanced Studies, Vienna
BOP	balance of payments	IIF	Institute of International Finance
BSC	Banking Supervision Committee (ESCB)	IIP	international investment position
CACs	collective action clauses	IMF	International Monetary Fund
CEBS	Committee of European Banking Supervisors (EU)	IRB	internal ratings-based
CEE	Central and Eastern Europe	ISO	International Organization for Standardization
CEECs	Central and Eastern European countries	IWI	Industriewissenschaftliches Institut – Austrian Institute for Industrial Research
CESR	Committee of European Securities Regulators	IT	information technology
CIS	Commonwealth of Independent States	JVI	Joint Vienna Institute
CPI	consumer price index	LIBOR	London Interbank Offered Rate
EBA	Euro Banking Association	M3	broad monetary aggregate M3
EBRD	European Bank for Reconstruction and Development	MFI	monetary financial institution
EC	European Community	MRO	main refinancing operation
ECB	European Central Bank	MÖAG	Münze Österreich AG – Austrian Mint
Ecofin	Council of Economics and Finance Ministers (EU)	MoU	memorandum of understanding
EEA	European Economic Area	NCB	national central bank
EFC	Economic and Financial Committee (EU)	ÖBB	Österreichische Bundesbahnen – Austrian Federal Railways
EIB	European Investment Bank	OeBS	Oesterreichische Banknoten- und Sicherheitsdruck GmbH – Austrian Banknote and Security Printing Works
EMS	European Monetary System	OECD	Organisation for Economic Co-operation and Development
EMU	Economic and Monetary Union	OeKB	Oesterreichische Kontrollbank (Austria's main financial and information service provider for the export industry and the capital market)
EONIA	Euro OverNight Index Average	OeNB	Oesterreichische Nationalbank (Austria's central bank)
ERM II	Exchange Rate Mechanism II (EU)	OPEC	Organization of the Petroleum Exporting Countries
ERP	European Recovery Program	ORF	Österreichischer Rundfunk – Austrian Broadcasting Corporation
ESA	European System of Accounts	ÖBFA	Austrian Federal Financing Agency
ESAF	Enhanced Structural Adjustment Facility (IMF)	ÖNACE	Austrian Statistical Classification of Economic Activities
ESCB	European System of Central Banks	PE-ACH	pan-European automated clearing house
ESRI	Economic and Social Research Institute	PISA	Programme for International Student Assessment (OECD)
EU	European Union	POS	point of sale
EURIBOR	Euro Interbank Offered Rate	PRGF	Poverty Reduction and Growth Facility (IMF)
Eurostat	Statistical Office of the European Communities	RTGS	Real-Time Gross Settlement
FATF	Financial Action Task Force on Money Laundering	SDR	Special Drawing Right (IMF)
Fed	Federal Reserve System	SDRM	Sovereign Debt Restructuring Mechanism (IMF)
FFF	Forschungsförderungsfonds für die Gewerbliche Wirtschaft – Austrian Industrial Research Promotion Fund	SEPA	Single Euro Payments Area
FMA	Financial Market Authority (for Austria)		
FOMC	Federal Open Market Committee (U.S.A.)		
FSAP	Financial Sector Assessment Program (IMF)		
FWF	Fonds zur Förderung der wirtschaftlichen Forschung – Austrian Science Fund		
GAB	General Arrangements to Borrow		
GATS	General Agreement on Trade in Services		
GDP	gross domestic product		

SPF	Survey of Professional Forecasters	UNO	United Nations Organization
STEP2	Straight-Through Euro Processing system offered by the Euro Banking Association	VaR	Value at Risk
STP	straight-through processing	WBI	Wiener Börse Index
STUZZA	Studiengesellschaft für Zusammenarbeit im Zahlungsverkehr G.m.b.H. – Austrian Research Association for Payment Cooperation	WEF	World Economic Forum
S.W.I.F.T.	Society for Worldwide Interbank Financial Telecommunication	WIFO	Österreichisches Institut für Wirtschaftsforschung – Austrian Institute of Economic Research
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer	WIIW	Wiener Institut für internationale Wirtschaftsvergleiche – The Vienna Institute for International Economic Studies
Treaty	refers to the Treaty establishing the European Community	WKO	Wirtschaftskammer Österreich – Austrian Federal Economic Chamber
UNCTAD	United Nations Conference on Trade and Development	WTO	World Trade Organization

## Legend

- × = No data can be indicated for technical reasons
- .. = Data not available at the reporting date
- 0 = The numerical value is zero or smaller than half of the unit indicated

Discrepancies may arise from rounding.

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**annual**

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**recurrent**

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