



OESTERREICHISCHE NATIONALBANK

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While stocks have gained in importance for the Austrian economy as a financing instrument over the past few years, the significance of Austrian stocks as an investment vehicle – in particular for institutional investors – has not risen analogously. This explains in part the low valuation of the Austrian stock market and the thin volume of the stocks listed on the Vienna exchange. With stocks still playing a rather minor role in Austria, domestic enterprises have fewer options for external equity financing. On the other hand, Monetary Union has facilitated the use of cross-border financial flows. Foreign stock markets for growth companies, which have been launched in recent years, present Austrian enterprises with new equity financing options. As a consequence, the Vienna stock exchange is faced with stiffening competition, what with the ongoing integration of capital markets boosting liquidity and driving down prices. It remains to be seen whether it is advantageous for euro area trading to continue to be spread across several regional stock exchanges. The disadvantages of market fragmentation contrast with potential advantages arising from competition among various marketplaces.

The opinions expressed in the section “Studies” are those of the individual authors and may differ from the views of the Oesterreichische Nationalbank.

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R E P O R T S

Banking Holidays in Austria in the Year 2001

Only January 1, April 16, May 1, December 25 and December 26 are full banking holidays in all EU countries in 2001 (shutdown of the TARGET system). On all other holidays, specific areas (payment systems, foreign exchange trading, etc.) will continue to be in operation. The TARGET system will, in addition, be closed on April 13 and December 31, 2001.

January 1	New Year's Day
April 16	Easter Monday
May 1	Labor Day
May 24	Ascension Day
June 4	Whitmonday
June 14	Corpus Christi Day
August 15	Assumption Day
October 26	National Holiday
November 1	All Saints' Day
December 24	Christmas Eve
December 25	Christmas Day
December 26	St. Stephen's Day

Banks in Vienna and other cities are also closed on Saturdays. Please note that the above list does not include holidays falling on Saturdays and Sundays. On April 13 and December 31, 2001, no cross-border payment transactions will be carried out in Austria, and internal transactions only to a certain extent. In addition, the Oesterreichische Nationalbank's St. Pölten branch office is closed on November 15, the holiday of the Land of Lower Austria.

Calendar of Monetary and Economic Highlights

European Union

November 2000

- 3/6 The ECB and a *number of national central banks* in the euro area again intervene in favor of the euro. According to the ECB, concerns about possible negative impacts on price stability in the euro area are the reason for the interventions.
- 6 The *euro group* welcomes the ECB's interventions to strengthen the exchange rate of the euro. In their debate on the impact of aging populations on budget policies, participants agree that public pension systems are in need of reform since full employment and immigration alone will not suffice to guarantee sustainable financing. The euro group commits itself to review the experience of individual member states annually from now on. Moreover, the ministers discuss the economic indicators for the euro area presented by the Commission as well as a scoreboard indicating the progress of individual member states towards the introduction of euro banknotes and coins.
- 6/7 The topic of this year's *East-West Conference* organized by the OeNB and the Joint Vienna Institute (JVI) is "Completing Transition – the Main Challenges." Conference speakers point out that while the transition economies have made significant economic progress, marked differences remain in the individual countries' level of economic development. The quality of the financial sector, and of banking in particular, will be an essential factor for the future economic development in these countries.
- 7 Preparations for the European Council in Nice dominate the meeting of the *ECOFIN Council*: The ministers agree on a report to the European Council on the exchange rate-related aspects of enlargement, adopting conclusions to this effect. Regarding the complex issue of "corporate finance," the Commission's progress report on the implementation of the *Risk Capital Action Plan* is presented to and welcomed by the Council. In addition, the ministers discuss the report on structural indicators and the progress report on the quality and sustainability of public finances.
- 9 The ECB and a *number of national central banks* in the euro area, i.a. the Deutsche Bundesbank and the Banque de France, again intervene in favor of the euro.
- 14 The *Bank of Greece* decides to cut the interest rate on the main refinancing facility, the lombard rate and the interest rate on overnight deposits by 50 basis points each, to 7, 7.75 and 6%, respectively.
- 15 Experts in fiscal, monetary and wage policy meet for a *3rd Macroeconomic Dialog*.
- 16 The *Governing Council of the ECB* decides that in the future the ECB will publish projections made by Eurosystem experts on inflation and economic development in the euro area. These forecasts will be published for the first time in December 2000 in the Monthly Bulletin of the ECB.

- 22 The *European Commission* presents its Autumn 2000-2002 Forecast. Average GDP growth in the EU is estimated at 3.4% in 2000 (3.5% in the euro area), the best result in 10 years. Growth rates of 3.1% (3.2% in the euro area) and 3.0%, respectively, are projected for 2001 and 2002. GDP growth estimates for Austria are 3.5% in 2000, 2.9% in 2001 and 2.8% in 2002. Economic growth in the EU is likely to have reached its peak in the second quarter of 2000. The slowdown in growth is primarily due to surging oil prices, which are responsible for an average rate of inflation in the euro area of more than 2% this year and likely to keep inflation at this level also in 2001. Core inflation, by contrast, remains low. For Austria, the Commission expects rates of inflation of 1.9% in 2000, 1.8% in 2001 and 1.6% in 2002.
- 26 Referring to the Commission's Autumn Forecast presented on November 22, the *euro group* expresses a very positive view of the economic situation in the euro area. Member states are advised to make use of the favorable economic conditions to improve their fiscal positions. The ministers consider the refocusing of the euro group's work under the French presidency to have been a success. The group will continue to strive to improve transparency and coordination. In the future, euro member states are to seek ex ante coordination within the euro group before taking major economic policy decisions at a national level.
- 27 The *ECOFIN Council* reaches an agreement on the tax package, providing for a general exchange of information regarding non-euro-area residents' interest income in all EU member states at the end of a several-year transition period (as of 2010). Regarding "financial services," the Council welcomes the initial report of the Lamfalussy Group on the Regulation of European Securities Markets, in particular with regard to the required acceleration of procedures and a better integration of market participants. The *ECOFIN Council* accepts the updated stability programs of Germany, Finland and the Netherlands for 2000 to 2004. Moreover, the ECOFIN Council adopts a declaration on macro-economic and financial stability in the accession countries. Nominal convergence is to be achieved via reaching real convergence.
- 28 The *Bank of Greece* decides to cut the interest rate on its main refinancing facility, the lombard rate and the interest rate on overnight deposits by 50 basis points (half a percentage point) each, to 6.5, 7.25 and 5.5%, respectively.

December 2000

- 7 *Sveriges Riksbank*, the central bank of Sweden, decides to raise its repo rate by 25 basis points to 4%. Furthermore, the bank announces that in future its deposit and lending rates, which form the interest rate corridor that bounds the repo rate, will not serve as an instrument for signaling the direction of Sweden's monetary

- policy. Until further notice, the Riksbank's lending rate will be set 75 basis points above the repo rate, and its deposit rate 75 basis points below the repo rate.
- 7 to 11 Under the French presidency of the *European Council*, the Intergovernmental Conference opened in February 2000 is concluded at the *Council summit in Nice*. The purpose of the Intergovernmental Conference was to work out an institutional reform plan in preparation for the expansion of the EU. Other issues on the agenda of the European Council of Nice are economic and social policy issues, structural indicators, financial markets regulation, tax reform, the euro, progress made on the road to preparing the introduction of euro cash, and money laundering issues.
- 12 The *Bank of Greece* decides to cut the interest rate on its main refinancing facility, the lombard rate and the interest rate on overnight deposits by 75 basis points each, to 5.75, 6.5 and 4.75%, respectively.
- 14 At its meeting on December 14, 2000, the *Governing Council of the ECB* adopts an ECB decision (ECB/2000/17, to be published in the Official Journal of the European Communities) on the volume of coin issuance in 2001. Furthermore, the Governing Council decides that, from 2002 until further notice, the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system will be closed, in addition to Saturdays and Sundays, on the following days: New Year's Day, Good Friday, Easter Monday, May 1 (Labor Day), Christmas Day, December 26 and December 31.
- 14 to 15 The "*Vienna Seminar on the EU Accession Process*" jointly organized by the ECB and the OeNB brings together representatives of the Eurosystem (the ECB and the national central banks of the 12 euro area countries) and the governors of the 12 EU accession countries. The purpose of the seminar is to deepen the discussion of important monetary policy issues to ensure a smooth future integration of accession countries into the ESCB and eventually into the Eurosystem. Discussions center, above all, around the relation between real and nominal convergence and the significance of the independence of the accession countries' central banks.
- 20 In its Monthly Bulletin of December 2000, the *ECB* publishes, for the first time, staff economic projections for economic and price developments in the euro area. Consumer prices are projected to increase to a range of 1.8 to 2.8% in the euro area in the year 2001.
- 27 The *Bank of Greece* decides to cut the interest rate on its main refinancing facility and the interest rate on overnight deposits by 100 basis points each, to 4.75 and 3,75%, respectively. At the same time, the lombard rate is cut by 75 basis points to 5.75%.

Economic Outlook for Austria from 2000 to 2002 (Fall 2000)

Firm output growth thanks to a vigorous rise in exports – budget consolidation measures and oil price developments dampen domestic demand

The Austrian economy was thriving in the year 2000. The momentum of real output growth achieved in the first three months of the year (+3.9%) was broadly kept up in the second quarter (+3.8%). Growth was fueled by both the boom in the export industry and strong domestic demand. Real export growth, if less firm than in the first quarter (+10.6%), reached 8.5% in the second quarter, while the expansion of real imports receded to 4.3% from 6.7% in the first quarter. Real gross fixed capital formation grew at above-average rates (+4.6% in the first quarter, +4.4% in the second quarter) thanks to robust external demand and high capacity utilization. Private consumption, too, continued to be a mainstay of economic growth, registering a growth rate of 3.3% in the second quarter (following +3.7% in the first quarter).

The positive development of external economic conditions, notably the cyclical upturn in the euro area, will cause export demand to beat the OeNB's spring forecast. This prompted the Bank to revise upward its forecast of real economic growth for the year 2000 by $\frac{1}{10}$ percentage point to 3.6%. In line with the spring forecast, the OeNB assumes that economic growth will have peaked in the course of the year 2000 and that it will

Table 1

Key Economic Indicators for Austria

(1995 prices)

	1999	2000	2001	2002
<i>Annual change in %</i>				
Gross domestic product (GDP)	+2.1	+3.6	+2.8	+2.7
Imports	+1.9	+7.2	+5.7	+4.2
Exports	+3.5	+9.0	+7.2	+5.8
Private consumption	+2.7	+2.9	+1.7	+1.8
Public consumption	+1.0	+0.1	+0.2	+0.2
Gross fixed capital formation	+2.9	+4.3	+3.2	+3.0
<i>Contribution to GDP growth, percentage points</i>				
Domestic demand (excl. changes in inventory)	2.3	2.7	1.8	1.8
Net exports	0.6	1.0	0.8	0.9
Changes in inventory	-0.8	-0.1	0.2	0.1
<i>Annual change in %</i>				
Private consumption expenditure (PCE) deflator	+0.7	+2.4	+2.2	+1.7
Unit labor costs	+1.5	-0.8	+0.8	+0.7
Wage bill (in current prices)	+2.1	+2.0	+2.8	+2.6
Productivity	+0.7	+2.8	+2.0	+1.9
Wage bill (in 1995 prices)	+1.5	-0.3	+0.9	+1.1
Import prices	+1.4	+7.0	+4.0	+1.6
Export prices	+0.3	+5.3	+3.9	+1.3
Terms of trade	-1.1	-1.6	+0.0	-0.2
%				
Unemployment rate (Eurostat definition)	3.8	3.5	3.4	3.4
<i>Annual change in %</i>				
Employment	+1.4	+0.8	+0.9	+0.8
<i>% of nominal GDP</i>				
Current account deficit	-2.8	-2.9	-2.4	-2.0

Source: OeNB fall 2000 forecast.

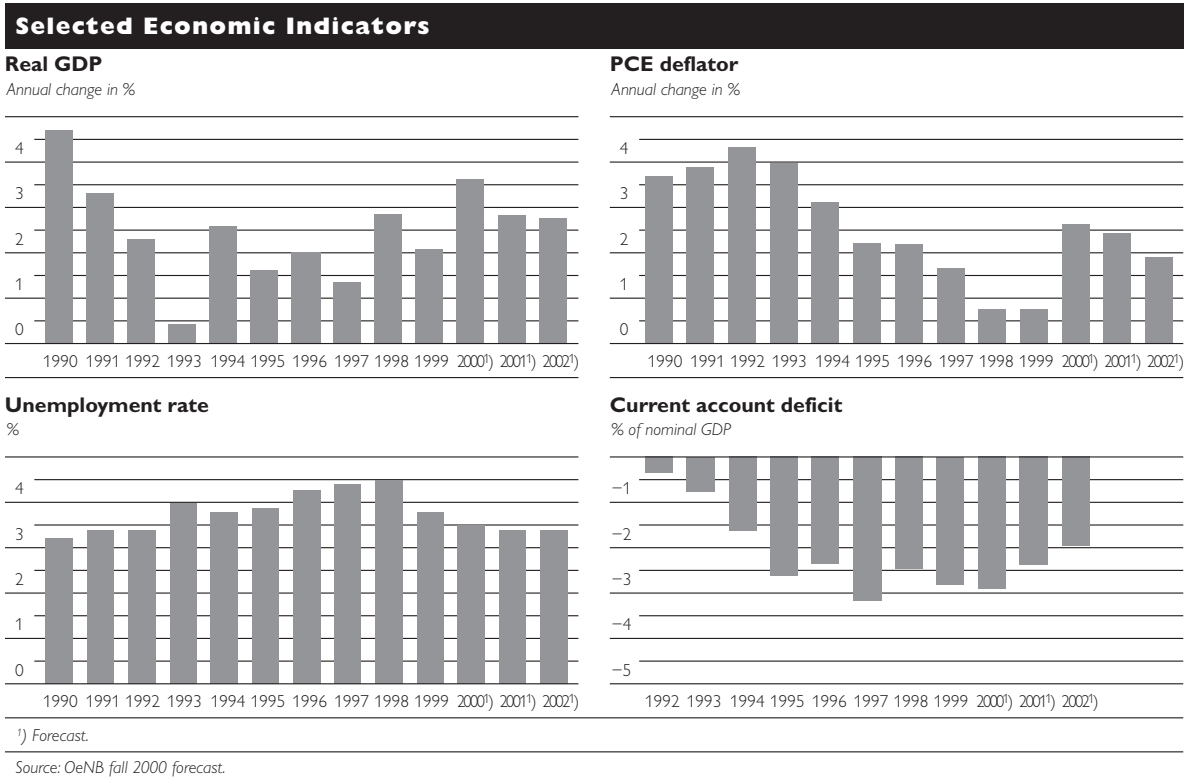
weaken thereafter in 2001 and 2002 – in other words, growth path forecasts have been left unchanged. The real GDP growth forecasts for 2001 (+2.8%) and for 2002 (+2.7%) reflect a marginal revision. However, the composition of growth is considered to have shifted, since oil prices and particularly stepped-up budget consolidation efforts will dampen domestic demand in 2001 and 2002. Continued strong exports will prevent a more pronounced slowdown, though.

Higher oil prices and the lower euro exchange rate prompted an upward revision of the price outlook. The OeNB now projects the private consumption expenditure (PCE) deflator to have risen to 2.4% in the year 2000, compared with 1.8% assumed in the spring forecast. Import price changes and second-round effects of the oil price increase will continue to have a significant impact on price developments in 2001 and 2002. Nominal wage increases should accelerate just somewhat faster than in recent years and thus remain moderate even as the labor supply tightens increasingly in specific parts of the Austrian economy, such as the IT sector. This means that wages will exert hardly any inflationary pressures over the forecast horizon.

Domestic Demand Declines, Contribution to Growth of Net Exports Remains Broadly Stable

The contribution to growth of domestic demand is estimated to have reached 2.7 percentage points in the year 2000. This means that roughly three quarters of aggregate output growth were driven by consumption and investment demand. Private consumption expenditure was supported by a growth in household disposable income, which was boosted by the income tax and family benefit reforms. To a certain extent, this positive effect on private consumption was, however, subsequently offset by the first austerity package that became effective in June 2000. Another factor that comes into play is the abolition of an investment allowance for fixed capital expenditure, as envisaged by the second austerity budget adopted to accelerate the process of budget consolidation (i.e. to reduce the general government budget deficit to zero already by the year 2002 instead of 2005). To a certain extent, the abolition of this tax incentive may have precipitated investment originally planned for 2001, which would imply that capital expenditures will grow at a somewhat more moderate pace in the year 2001. Thus, the investment cycle is likely to have peaked in 2000. In 2001 and 2002, economic activity will probably be dampened somewhat by the measures of the second austerity budget. Notably the payroll tax rise implied by the reduction of personal allowances and the cuts in social benefits as well as the increase of advance tax payments imposed on persons liable to income tax will crimp disposable incomes – and thus private consumption – significantly. As a result, the contribution to growth of domestic demand is expected to drop markedly to 1.8 percentage points in the two years ahead. By contrast, net exports are projected to account for a relatively stable contribution of 0.9 percentage point to real GDP growth over the entire forecast horizon.

Chart 1



Pronounced Export Growth Due to High Price Competitiveness and Strong External Trade Growth

Thanks to the benign global economic conditions, notably the favorable economic developments in the euro area, Austria's external trade performance was particularly impressive in the first eight months of the year 2000. According to the foreign trade statistics, the value of exports jumped by 17.6% from January to August 2000 compared with the corresponding period of 1999, while the value of imports rose at a markedly weaker rate of 13.4%, despite sharply increasing nominal imports of raw material and fuel. Consequently, the merchandise trade deficit declined by 28% in this period. In August alone the gap narrowed conspicuously as import growth receded to 9.5% while export growth was unflagging at 17.1%.

While merchandise trade with the EU Member States was comparatively slack in the first eight months of 2000, trade was strong with non-EU countries. Nominal exports to non-EU countries, as recorded in the foreign trade statistics, grew at an above-average rate of 23.9%, which dwarfed the 13.9% expansion achieved with intra-EU exports. Likewise, the increase in the value of intra-EU imports was moderate at 9.7% and significantly trailed the 21.8% nominal increase registered in imports from non-EU countries. It must be noted, though, that this outcome has been influenced by the surge in crude oil prices and by the development of the euro exchange rate.

While the expansion of real exports of goods and services (based on the financial accounts) is estimated to decelerate from 9% in the year 2000 to

7.2% in 2001 and further to 5.8% in 2002, external demand growth will be impressive over the entire forecast horizon in comparison with long-term developments. Real imports, too, have gathered marked momentum given the favorable economic climate, but import growth rates are being dampened by weakening domestic demand.

Over the forecast horizon, Austrian exports stand to benefit twofold – from healthy global economic growth and the development of price competitiveness, which has been strengthened by continued moderate wage increases as well as the low euro exchange rate relative to non-euro area trading partners. Unit labor costs in the Austrian economy are expected to have shrunk by 0.8% on average in the year 2000. The two subsequent years are likely to see slight increases. The development of unit labor costs helps gain market shares vis-à-vis European trading partners. This competitive cost advantage will diminish slightly in 2001 and 2002 given the outlook for higher wage settlements. Likewise, Austria's unit labor cost position relative to Germany will deteriorate somewhat owing to Germany's low two-year settlements agreed in 1999 – and the ensuing relatively small increase in German unit labor costs in 2001. Overall, however, Austrian exporters stand to gain export market shares over the entire forecast horizon. Against the background of demand growth in Europe, the market for Austrian products is expected to have grown at a rate of more than 9% in 2000 and likely to decelerate just slightly to growth rates of 8% in 2001 and 7.5% in 2002.

While the growth rates for goods exports reflect both gains in market share and competitiveness, the outlook for services exports is comparatively bleak. With growth rates of approximately 3%, the performance of the Austrian tourist industry is weaker than the performance of goods exports. The decline in the exports of other services is likely to result from both national structural weaknesses in the field of tradable business support services (such as knowledge-intensive information technologies) and the skill crunch.

At +5.3%, export prices will have risen considerably faster in 2000 than in the previous years. However, those price increases are to be seen against the backdrop of Europe-wide developments rather than as a harbinger of an imminent weakening of Austria's competitiveness. In particular, export prices have been impacted by the developments in crude oil prices, which have increased production costs worldwide. For 2001 and 2002, the OeNB expects export prices to slacken again, however.

Investment Cycle Peaked in 2000

Strong external demand, increasing capital utilization and shrinking unit labor costs have enhanced the self-financing capacity of companies substantially and have fueled demand for capital goods. As a result, investment activities were exceptionally buoyant in the first two quarters of 2000, with growth rates being particularly high in the manufacturing goods industry. As the year 2000 progressed, rising costs will have squeezed profit margins, so that the levels of investment are likely to have declined over the year. Another factor coming into play in the second half of 2000 and in early

2001 is the abolition of the investment allowance. The elimination of this indirect investment incentive will have encouraged businesses to go ahead with a number of investments planned for 2001 already in the year 2000. Thus, the peak of the investment cycle will have been reached before the end of 2000. Nevertheless, even in 2001, investment demand is expected to remain rather lively, given the strength of external demand alone. Overall, investment demand growth is expected to slow from 4.3% in 2000 to 3.2% in 2001, and to 3.0% in 2002.

Over the entire forecast horizon, investment in plant and equipment is leading the way, while construction spending is stagnating. Apart from the higher interest rate level, the public sector's lower demand contributes to slackening growth in this area.

Conditioning Assumptions

The OeNB economic outlook is conditioned on an optimistic view of world economic developments in 2001 and 2002. Against this background, assumptions have been made concerning the development of prices and demand in Austrian export markets. Fiscal policy assumptions are based on the government's budget targets.

Stable short-term interest rates and exchange rates

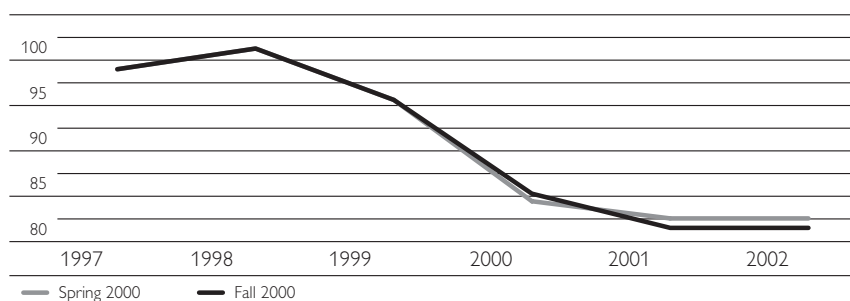
A technical assumption is made that three-month interest rates and exchange rates will remain constant over the entire forecast horizon. The forecast is based on the short-term interest rates prevailing at the start of the forecast period. In the case of the OeNB's fall 2000 forecast, the three-month interest rates in the euro area (three-month EURIBOR) are assumed to remain at 5.01%. In line with market expectations from October 2000, Austrian ten-year government bonds are assumed to yield between 5.6 and 5.7%.

The exchange rate of the euro against major currencies is likewise assumed to remain constant over the projection period. The assumption adopted for the external value of the euro in the fall 2000 forecast is slightly lower than in the spring forecast.

Chart 2

Nominal Effective Exchange Rate of the Euro

January 4, 1999 = 100



Source: OeNB fall 2000 forecast.

Slight uptick in prices in the years 2001 and 2002

Judging from price movements on futures markets between October 10 and 20, 2000, it has been assumed that crude oil prices will ease back from an average of USD 29

per barrel in 2000 to an average of USD 24.7 per barrel in 2002. The trend in the development of crude oil prices is expected to reverse in the first quarter of 2001.

The prices of Austria's competitors on export markets are assumed to have gone up 10.8% in the year 2000 given the oil price upsurge and the exchange rate development of the euro. In 2001 this measurement of inflation is expected to decelerate to 5.8%, and in 2002 the price climate should get even calmer. On domestic markets, the prices of foreign competitors are likely to have risen by the comparatively lower rate of 8.1% in 2000. In the years 2001 and 2002, inflation is projected to be comparatively subdued (2001: +4.8%, 2002: +1.7%).

Global economic developments

The world economic outlook remains favorable. The expansion of the world economy – which is crucial for import demand on Austria's export markets – is expected to have come to 4.7% in 2000. Looking ahead, world economic prospects remain bright, a temporary dip to 4.0% in 2001 notwithstanding. Compared with the spring 2000 forecast, the assumptions concerning world economic growth were thus revised upward by three quarters of a percentage point for the year 2000 and by a quarter point each for both 2001 and 2002. Demand for imports from abroad on Austria's export markets is expected to have risen from 4.9% in 1999 to 9.6% in 2000 and should remain at this level in the two following years.

The U.S. economy is assumed to head for a soft landing, with real GDP growth of 3.5% in both 2001 and 2002. This assumption is compatible with a growth rate of 2.4% achieved in the third quarter of 2000. The slowdown is being led by a contraction in household spending on consumption and residential construction. Driving factors include monetary tightening, negative wealth effects from the stock market downturn, and the impact of rising energy prices on real income. As profit growth eases and borrowing rates remain high, business investment is also likely to slow. Notwithstanding the expected economic slowdown by $1\frac{3}{4}$ percentage points from 5.25% in 2000 to 3.5% in 2001 and to 3.25% in 2002, the expansion of the U.S. economy continues to be robust.

The Japanese economy had rebounded more strongly than expected half way through 2000 (+0.8% year on year), mainly because business investment picked up and, to a lesser extent, because private consumption recovered modestly. Exports, while highly volatile at present, are likely to strengthen as well. As businesses invest more and, consequently, create more jobs, households will become more inclined to buy; and as private consumption strengthens, the economic recovery should become increasingly broad-based. Therefore, the Japanese economy is assumed to have grown by $1\frac{1}{2}$ % in 2000, and to accelerate slightly to 1.9% in 2001. In the year 2002 real output growth should comfortably exceed the 2% mark.

Turning to the two-year outlook for the transformation and EU accession countries in Central and Eastern Europe, they are also expected to register rising output growth and – mostly – single-digit inflation rates. A big impetus comes from the strong economic performance of the EU. In the case of Russia and the other CIS economies, the oil price upsurge and the high U.S. dollar exchange rate also contribute to brightening the income perspectives. The comparatively high and partly rising current account deficits with which the majority of those countries are burdened and high capital inflows imply sharp increases in the real exchange rate and, thus, the danger of increasing price competitiveness problems.

The economic outlook for the EU accession countries (including Cyprus and Malta) is very positive: real GDP growth is assumed to come to 4.2% in 2001 and to 4.0% in 2002, with Hungary, Poland and Slovenia topping the list with a projected expansion of about 5% each. The Czech Republic will newly post real GDP growth rates.

Asia is firmly in recovery mode from the financial crisis of 1997/98; international forecasts project the growth outturn to have reached roughly 7% in 2000. Asia's rebound, too, is broad-based. Among other things, the strong output expansion has been supported by accommodating monetary and fiscal policies and by strengthening external demand. Higher prices of electronic goods – of which Asia is the biggest producer world-wide – have helped improve the trade balance further. In those countries that are more advanced in the economic cycle, domestic demand, coupled with solid investment, is increasingly becoming the mainstay of growth. The continued economic buoyancy of the two most highly populated countries in the area, China and India, further shore up economic growth.

The euro area also stands to benefit from the healthy international trading conditions and will see a robust output expansion in the years ahead. In Germany, activity accelerated in the first half of 2000, underpinned by a more rapid expansion of private consumption and buoyant investment in machinery and equipment. The climate will remain favorable for growth in the years ahead: The tax reform effective from 2001 and moderate wage settlements binding for a two-year period make for good framework conditions. Not until the year 2002 should unit labor costs start to rise somewhat more strongly. From a regional perspective, Germany and Italy continue to lag behind the other euro area countries in the growth cycle. Over the forecast horizon, they will, however, catch up somewhat with France and the high-growth countries (Finland, Ireland, the Netherlands, Portugal and Spain).

Table 2

Conditioning Assumptions

	1998	1999	2000	2001	2002
	%				
Real GDP Growth					
World	x	+ 3.4	+ 4.7	+ 4.0	+ 4.1
U.S.A.	x	+ 4.2	+ 5.1	+ 3.5	+ 3.6
Japan	x	+ 0.3	+ 1.7	+ 1.9	+ 2.3
United Kingdom	x	+ 2.1	+ 2.8	+ 2.5	+ 2.7
Transformation countries ¹⁾	x	+ 2.4	+ 4.6	+ 3.8	+ 3.7
EU accession countries ²⁾	x	+ 2.2	+ 3.8	+ 4.2	+ 4.0
Asia excluding Japan	x	+ 5.9	+ 7.0	+ 6.4	+ 6.4
Imports of goods and services					
World	x	+ 6.4	+10.5	+ 8.1	+ 7.4
Non-euro area countries	x	+ 6.6	+10.6	+ 8.3	+ 7.6
Real growth of import demand on Austria's export markets	+ 7.1	+ 4.9	+ 9.6	+ 8.1	+ 7.5
Rise in competitors' prices on Austria's export markets	- 2.2	+ 1.9	+10.8	+ 5.7	+ 1.6
Rise in international competitor's prices on the domestic market	- 1.5	+ 0.3	+ 8.1	+ 4.8	+ 1.7
Oil price (in U.S. dollar)	12.7	17.8	29.0	29.1	24.7
Three-month interest rate	3.58	2.97	4.39	5.01	5.01
Long-term interest rate	4.71	4.68	5.60	5.59	5.67
EUR/USD exchange rate	1.12	1.07	0.92	0.86	0.86

Source: OeNB fall 2000 forecast.

¹⁾ Bulgaria, CIS, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia.

²⁾ Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Malta, Poland, Romania, Slovakia, Slovenia.

Budget Consolidation Measures Diminish Household Income and Consumer Demand

Data about the development of disposable household income in Austria are currently not available due to the changeover to the new system of national accounts.

While the income tax and family benefit reforms that had entered into force on January 1, 2000, boosted economic activity, even though fees and charges were raised later in the year, stepped-up budget consolidation efforts are projected to slow down expansion in 2001 and 2002.

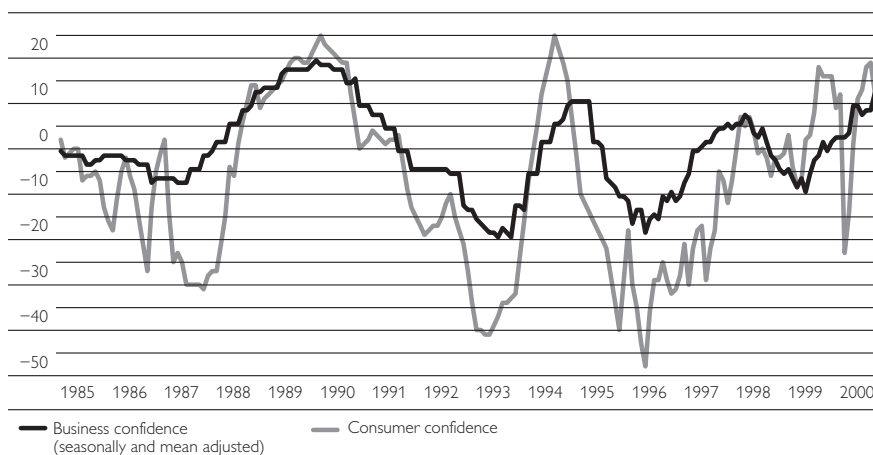
Though real wage growth per employee is expected to have been negative in 2000, the favorable development on the labor market and fiscal measures stimulating growth augmented disposable household income and thus sustained private consumer demand. The increase in consumer demand, however, may also have been fostered by a declining saving rate, which is expected to sink further, as the government is planning to introduce new revenue-enhancing measures.

Higher nominal wage settlements for 2001 and 2002 owing to catching-up effects (higher productivity growth than anticipated, solid economic growth and rising corporate profits) will somewhat increase real income, while inflation will be trending downward slightly in 2001; however, the federal government's austerity program will considerably diminish disposable income, thus dampening consumer demand significantly. The spring forecast already predicted that consumption growth would decelerate in the years to come, because the positive effects of the income tax reform would be fading away; six months on, the government's enhanced consolidation efforts are likely to slow down consumption growth even further.

Chart 3

Confidence in the Austrian Economy

Balance of optimistic and pessimistic responses



Source: OeNB, Fessel+GfK.

Consumer demand may still be stable at present, but as to the development of household income over the next twelve months, consumers are already becoming increasingly downbeat. Moreover, the high oil prices also weigh on consumers' purchasing power. Growth is predicted to

decelerate by 0.4 percentage point in 2001 and by 0.3 percentage point in 2002.

Development of Unit Labor Costs Fosters Competitiveness

The development of real wages in 2000 was marked by higher than anticipated inflation. While a 2.1% nominal wage increase in 1999 meant that real wages mounted by 1.5%, the imputed nominal wage increase of 2.0% in 2000 is expected to have reduced real wages by 0.3%. The wage round for 2001 will be determined by catching-up effects, which, however, in light of the projected development of productivity and prices, can be considered to be fairly moderate. The tightening of the labor market will have a substantial impact on wage developments in 2002; in particular, a shortage of qualified workers in manufacturing may put moderate upward pressures on wages.

After a modest 0.7% increase in 1999, labor productivity is estimated to have risen by 2.8% in 2000, which is traceable chiefly to buoyant economic activity in the first half of the year and to special effects on the labor market in the second half. Productivity growth will reach no more than 2.0 and 1.9% in 2001 and 2002, respectively, as economic growth will be subdued and employment growth will remain more or less unchanged. Wage developments roughly follow this trend (with year-on-year growth rates of 2.0, 2.8 and 2.6% from 2000 to 2002). In turn, price competitiveness rose in 2000; in 2001 and 2002, unit labor costs are projected to increase slightly.

Labor Market Marked by Special Effects

The announced budgetary reform has an impact also on labor supply. The early retirement age is being gradually raised by 1.5 years over a period of 18 months (starting from October 2000). The option of early retirement due to ill health was abolished. These measures will trigger a decline in labor supply, as many employees were expected to take the chance of early retirement in the second half of 2000. However, given that the premium-free coverage by the national health plan for nonworking childless spouses and living companions has been abolished and that tuition fees at universities will be introduced in late 2001, the pool of available workers is projected to become larger; the decline in household income resulting from these measures will be an incentive to take up employment. It is expected that Austria's working age population will augment by a moderate 0.3% each year over the whole forecast horizon. The share of foreign workers will not rise significantly either, as rigid legislation limits their access to the labor market. Considering the demographic development and the special effects of the austerity program, it can be assumed that the labor supply will have increased by 0.2% in 2000 and will expand by 0.7 and 0.8% in 2001 and 2002, respectively.

The favorable economic development in 2000 once again boosted labor demand. However, employment growth is projected to have lost momentum in the second half of 2000, not least because of – as mentioned

before – the reform of the pension system. It must be assumed that older employees having taken or taking early retirement will not all be replaced by new employees as many enterprises – and also the public sector – continue to downsize. Unlike in 1999, employment growth was not fostered by active labor market measures in 2000 and is unlikely to be buoyed by such measures in the next few years. Consequently, employment is projected to have grown by only 0.8% in 2000 and will grow by 0.9% in 2001.

The unemployment rate (Eurostat definition) will have come to an average 3.5% in 2000 and will dip to 3.4% in 2001 and 2002. The decline in joblessness is partly attributable to the fact that employers increasingly tend to tap the pool of unemployed people in times of scarce labor supply.

Main Determinants of Current Price Developments

External impact: oil price and exchange rate developments

The past oil price hikes had an impact on HICP inflation in both the euro area and in Austria, not least because oil contracts are denominated in U.S. dollars.

In Austria, the prices of liquid fuels were 54.1% higher in October 2000 than in the same period of the previous year, driving up HICP inflation by 0.4 percentage point. The prices of fuels and lubricants for personal transport equipment climbed by 17 and 13.9% in September and October 2000, respectively; owing to their higher weighting, they contributed 0.56 and 0.46 percentage point to HICP inflation. All in all, these two price groups accounted for 0.96 and 0.81 percentage point in HICP inflation in September and October, respectively.

By contrast, core inflation (HICP excluding energy and unprocessed food, whose prices tend to fluctuate widely) continued to run low at slightly more than 1% in October 2000.

Goods and labor markets, output and demand

Output and capacity utilization

Fueled by solid foreign demand, buoyant investment activity and high household consumer demand, output augmented considerably in Austria and in the euro area in the course of the year. Still, there have been no signs that production capacities have reached their limits or that this would have stirred inflation. Apart from that, the current upswing in Austria was less labor-demanding compared to previous upturns and to the developments in the entire euro area.

Pay hikes

Moderate pay hikes helped contain inflationary pressures from oil price and exchange rate developments in 2000. This also implies that despite considerable employment growth, unit labor costs will have declined by 0.8% in 2000. Regardless of price increases that took effect already in mid-2000, contracting labor supply and low unemployment, nominal wage increases are projected to have been relatively moderate.

Deregulation and competition

Both businesses and households benefit from the liberalization of the telecommunications and electricity markets. The effects on end user prices, however, are still difficult to gauge. The HICP helps assess these effects for households (but the results are somewhat distorted).

The liberalization of the telecommunications and electricity markets considerably contributed to keeping inflation subdued in Austria. Telecommunications (3.21%), electricity (2.06%) and gas (0.66%) make up a weighting of 5.9% in the HICP. In 1998, the downward impact on the index of these components was still low; but after Telekom Austria had launched its new fee schedule and the electricity market had started to gradually open up, the above-mentioned components contributed -0.3 percentage point to inflation in the first quarter of 2000, reaching its highest value so far. But since the government then raised the electricity levy and gas prices went up because of the rising oil prices, its impact subsided somewhat afterwards. The telecommunications sector had the strongest downward impact on inflation. Since July 2000, when Telekom Austria again slashed its rates for domestic calls, this trend has gathered momentum. The lower electricity prices for the first time visibly dampened inflation in September 1999.

Assuming that the full liberalization of all three markets (telecommunications, electricity and gas) could drive down prices by 15 to 20% (in the telecommunications sector, consumers are already free to select their providers), the inflation-dampening effect of the liberalization process could amount to between 0.8 and 1.2 percentage points.

Increases in indirect taxes and charges

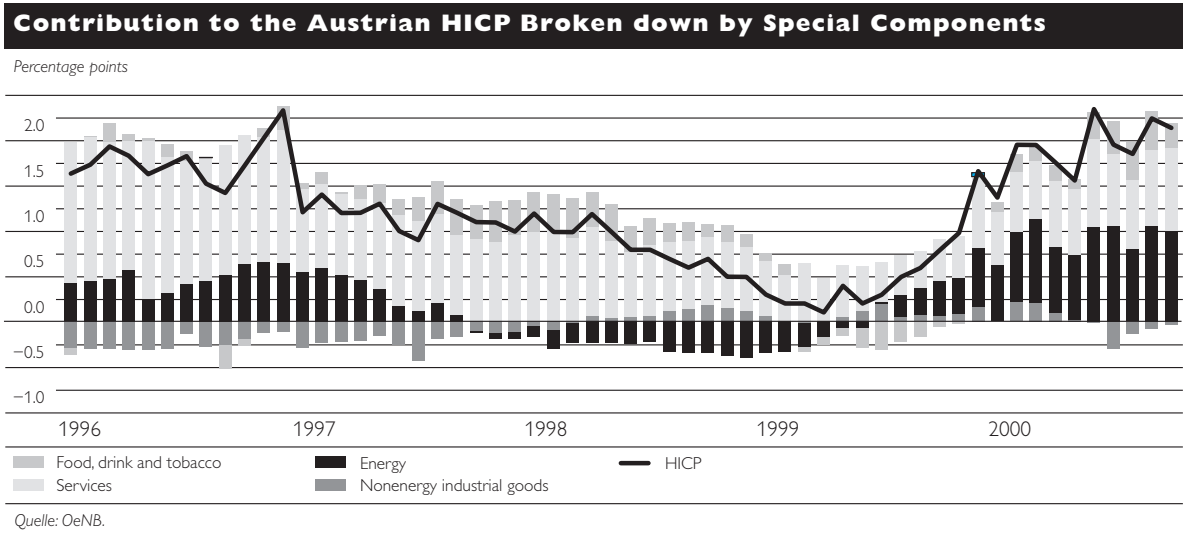
Since June 2000, increases in various taxes and charges have been feeding through to the CPI and the HICP and will continue to do so until spring 2001 (since inflation is measured as changes in the price indices year-on-year). These measures will account for a total of 0.5 percentage point in inflation in the above-mentioned period. Their contribution to the HICP will be only 0.2 percentage point, because the motor vehicle tax, whose increase feeds through to the CPI with 0.3 percentage point, is not included in the HICP.

Inflation Pressures Subside over Forecast Horizon

The HICP dropped from 2% in July 2000 to 1.9% in August, just to climb to 2.3% in September and to dip to 2.1% in October. The recorded price growth is chiefly attributable to the higher prices of liquid fuels. The CPI (as a national measure of inflation) mirrors this development even more clearly. After reaching the highest value year on year in September (3%), the CPI declined to 2.8% in October.

Since import prices rose more sharply than anticipated, the OeNB revised upward its spring forecast of changes in the consumption deflator by 0.6 percentage point to 2.4% for 2000. Inflationary pressures generated by import prices are projected to ease in the next few years. Given that wage settlements are in line with productivity growth, wages will not put pressure on inflation over the forecast horizon. However, possible second-

Chart 4



round effects of the oil price increases could generate moderate price pressures. Therefore, the private consumption expenditure (PCE) deflator is expected to mount by no more than 2.2 and 1.7% in 2001 and 2002, respectively.

Table 3

Comparison of Selected Deflators

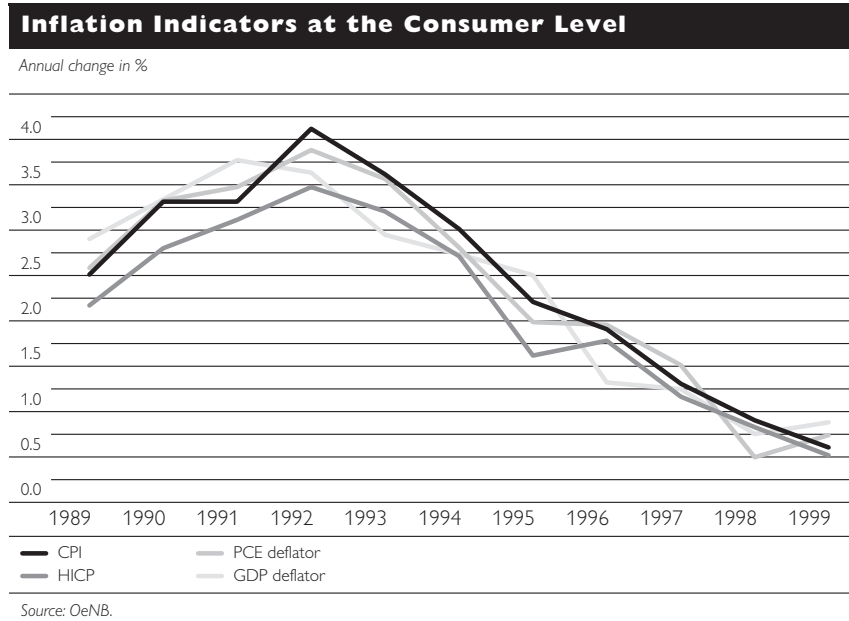
	PCE Deflator	GDP Deflator	Import Deflator
	Annual Change in %		
1999	+0.7	+0.9	+1.4
2000	+2.4	+1.0	+7.0
2001	+2.2	+1.4	+4.0
2002	+1.7	+1.4	+1.6

Source: OeNB fall 2000 forecast.

**Conceptual Differences of Inflation Indicators
at the Consumer Level**

The instruments available in Austria to analyze prices are the CPI (the national consumer price index) and the HICP (the Harmonized Index of Consumer Prices). The latter also serves as the key price indicator in the Eurosystem and differs from the (Austrian) CPI in two regards: the definition of the basket of goods (the HICP still excludes a few services that are particularly difficult to harmonize at the European level) and methodology. The HICP is computed as an annual chain index allowing for relevant weights and the base year to be updated regularly, whereas the CPI is a fixed-weight index.

Chart 5



For forecast purposes, the OeNB uses the private consumption expenditure (PCE) deflator and the GDP deflator as macroeconomic price indicators. These two indicators are derived from the system of national accounts (SNA), while the CPI and the HICP originate from price statistics. Since the sources differ, there are also conceptual differences, for instance as to type of index and calculation method. The SNA-derived inflation indicators are based on a Paasche formula (comparison of prices in the reporting period and in the base period by using current weights). The inflation parameters originating from price statistics are based on a Laspeyres formula (comparison of prices in the reporting period and in the base period by using weights of the base period). The classification of baskets also differs, since, for instance, the SNA and price statistics treat household consumption differently, depending on whether goods and services are to be considered consumption or investment. Apart from that, methodological questions (such as the choice of base year and how often it is adjusted) also play a fairly important part. Moreover, SNA price indicators are implicit price indices (obtained as the quotient resulting from nominal and real SNA calculation), whereas the price indices of the CPI and the HICP are based on market price information, which is why the indices obtained, in turn, can be used as deflators in the SNA (for the real calculation at sublevel). Those differences notwithstanding, a long-term comparison shows (see chart 5) that PCE deflator, CPI and HICP yield similar developments. Owing to the changeover to the ESA 95 and the inclusion of new base years in the price statistics, the developments, however, have appeared less consistent for the past few years.

Current Account Improved Slightly

Oil price and euro exchange rate developments had a strong impact on the current account of 2000. Compared to 1998, the current account deficit widened by EUR 1.1 billion to 2.8% of GDP in 1999, chiefly because of the rising deficit on the income account. However, the balance on the income

account is not expected to have deteriorated further in 2000. This subaccount will benefit from portfolio reallocations towards more profitable forms of investment in the coming few years. With import prices still running high despite favorable export conditions, the deficits on the goods and services accounts are expected to have widened in 2000; a reversal of this trend is forecast for 2001 and 2002. As a result, the current account deficit will shrink from 2.9% of GDP in 2000 to 2.0% of GDP in 2002. Price developments and, in particular, declining domestic demand in 2001 and 2002 will foster this trend.

Risks to the Forecast

The deterioration of the saving ratio triggered by the austerity program has been extensively considered in the forecast, but the actual behavior of the saving ratio is difficult to predict. There is some risk that the saving rate does not drop as sharply as the forecast imputes, which would drive down private consumption more markedly.

Contrary to the decline in domestic demand, external demand is expected to strongly underpin economic growth in 2001 and 2002. Any slump in external demand, caused, for instance, by a “hard landing“ of the U.S. economy or a substantial deterioration of Austria’s competitiveness, would, however, noticeably reinforce the effects of the austerity program.

The growth rates in labor supply have been fairly low over the past few years and it can be assumed that this trend will continue in the near future. In conjunction with a low unemployment rate and a stable demand for industrial goods, this could severely tighten the labor market and generate wage pressures in wage bargaining rounds. Possible calls for compensating the losses in purchasing power that resulted from the oil price hikes and the budget consolidation measures in future wage bargaining rounds might create a competitive chasm and thus have a negative impact on export development and eventually depress economic growth in 2002.

Alternative Scenarios

The authors of this forecast calculated two variants of an alternative scenario, both assuming higher oil prices than imputed in the present forecast. These calculations were carried out in collaboration with the research division of the ECB in order to be able to consider spillover effects from other countries of the euro area.

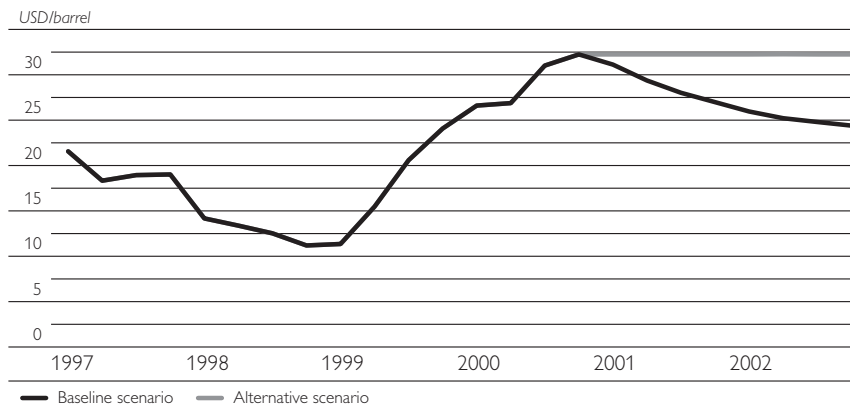
Higher oil prices with and without an increase of import demand in OPEC countries

The oil prices were assumed to stay at the levels of the fourth quarter of 2000 over the whole forecast horizon, i.e. 11.8 or 28.7% above the baseline assumptions of this forecast. This approach focused mainly on a scenario based on endogenously determined import demand in the OPEC countries. The scenario based on unchanged import demand in the OPEC countries anticipates that the OPEC countries agree to use their additional revenues to eliminate internal and external imbalances. Simulations using the global model of the National Institute of Economic and Social Research (NIESR) suggest that higher oil prices imply temporarily weaker trading activities on a

global scale and, not unexpectedly, additional price pressures from imports. However, the deterioration in the terms of trade for the benefit of the OPEC countries only has a limited impact on output in the industrialized nations. But if the OPEC countries did not use their higher revenues for additional spending, the impact on world trade and the internal price situation would be more pronounced.

Chart 6

Oil Prices in the Baseline Scenario and in the Alternative Scenario



Source: OeNB fall 2000 forecast.

These results can also be applied qualitatively to the Austrian market. Comparatively higher oil prices would primarily mean higher import prices and thus higher price pressures in the Austrian economy. In 2002, inflation, in terms of the consumption deflator, would be 0.4 percentage point higher than in the baseline scenario. In addition, the change in relative prices would prompt a decline in real external trade, with imports falling more markedly than exports owing to the change in

Table 4

Oil Price Scenario (on a Cumulative Basis)

Deviations from the Baseline Scenario

	2000	2001	2002
	%		
Higher oil prices and increased import demand from the OPEC countries			
Gross domestic product	0.0	-0.1	-0.2
Imports	0.0	-0.2	-1.2
Exports	0.0	-0.1	-0.8
PCE deflator	0.0	+0.2	+0.6
Import prices	0.0	+1.1	+3.3
Export prices	0.0	+0.3	+1.6
Wages per employee	0.0	+0.0	+0.4
Higher oil prices without increased import demand from the OPEC countries			
Gross domestic product	0.0	-0.1	-0.3
Imports	0.0	-0.2	-1.2
Exports	0.0	-0.2	-1.0
PCE deflator	0.0	+0.2	+0.6
Import prices	0.0	+1.1	+3.3
Export prices	0.0	+0.3	+1.6
Wages per employee	0.0	+0.0	+0.4

Quelle: OeNB fall 2000 forecast.

the terms of trade. If import demand from the OPEC countries is higher, the decline in exports will be less pronounced. All in all, real GDP growth would be 0.1 percentage point lower in the first variant scenario (increased import demand from the OPEC countries) and 0.1 and 0.2 percentage point lower in the second variant scenario (constant import demand from the OPEC countries) in 2001 and 2002, respectively, than in the baseline scenario. As a result, the GDP will be 0.2 and 0.3% lower on a cumulative basis in 2002.

Effects of the Latest Data Revision

The present forecast is based on data of the national accounts which had been published before the latest revision by Statistics Austria. The revision entailed some substantial changes to the previously released data on recent economic developments in Austria. Table 5 shows that the revision of overall growth in 1999 is traceable to changes in all demand aggregates. Private consumption, gross fixed capital formation, and errors and omissions were revised upwards, whereas foreign trade's contribution to growth shrank to 0.2 percentage point as imports had augmented more vigorously than anticipated.

The impact of the revision on the present forecast is largely limited to base effects. Since overall growth had been faster already in 1999 and the sectoral contribution to GDP growth had been changed, it can be assumed that the curve of the business cycle was flatter in 2000 than expected.

Table 5

Revision of SNA Data								
	Unrevised Data				Revised Data			
	1996	1997	1998	1999	1996	1997	1998	1999
	Annual change in %							
Real growth rates								
GDP	+2.0	+ 1.2	+2.9	+2.1	+2.0	+1.3	+3.3	+2.8
Private consumption	+3.2	+ 0.1	+1.5	+2.7	+3.2	+1.4	+2.9	+2.3
Gross fixed capital formation	+2.2	+ 0.8	+6.8	+2.9	+2.2	+1.0	+2.7	+3.2
Exports of goods and services	+6.2	+10.1	+8.7	+3.5	+6.2	+9.9	+5.5	+7.6
Imports of goods and services	+5.8	+ 9.4	+6.9	+1.9	+5.8	+9.7	+3.7	+7.1
Real sectoral contribution to GDP growth								
Private consumption	+2.0	+ 0.0	+1.3	+1.7	+2.0	+0.5	+2.2	+1.9
Gross fixed capital formation	-0.1	+ 0.5	+1.4	+0.0	-0.1	+0.6	+0.6	+0.5
Net exports	+0.0	+ 0.2	+0.7	+0.7	+0.1	+0.0	+0.8	+0.2
Errors and omissions	+0.0	+ 0.5	-0.5	-0.3	+0.0	+0.2	-0.3	+0.2

Source: OeNB, Statistics Austria.

Comparison with Other Forecasts

Other economic research institutes also assume that growth picked up significantly in 2000 and is slowing down somewhat in 2001. The national institutes (OeNB, WIFO, IHS) expect expansion to decelerate more markedly than predicted in international forecasts (OECD, IMF, European Commission). The growth rates vary between 3.4% (IHS) and 3.6% (OeNB and OECD) for 2000, and between 2.8% (OeNB, WIFO, IHS) and 2.9% (OECD, IMF, European Commission) for 2001. The institutes assume that

inflation will have run higher in 2000, owing to the rising oil prices and the fiscal measures, but it will taper off in 2001. While the OeNB and the European Commission predict an inflation rate as measured by the PCE deflator of 2.4%, the other institutes expect inflation to remain below that level. The differences in the inflation forecasts stem from diverging assumptions on exchange rate developments and, consequently, on the share of imported inflation in total inflation as well as on interest rate developments.

Annex

Table 6

Forecast of Key Economic Indicators for Austria

	OeNB Fall 2000			WIFO October 2000		IHS October 2000		OECD November 2000			IMF September 2000		European Commission November 2000		
	2000	2001	2002	2000	2001	2000	2001	2000	2001	2002	2000	2001	2000	2001	2002
<i>Annual change in %</i>															
Real GDP	+3.6	+2.8	+2.7	+3.5	+2.8	+3.4	+2.8	+3.6	+2.9	+2.6	+3.5	+2.9	+3.5	+2.9	+2.8
Real private consumption	+2.9	+1.7	+1.8	+2.8	+2.0	+3.0	+2.3	+3.0	+2.3	+2.3	x	x	+3.1	+2.2	+2.4
Real gross fixed capital formation	+4.3	+3.2	+3.0	+4.4	+3.5	+3.5 ¹⁾	+3.3 ¹⁾	+3.6	+3.5	+3.4	x	x	+5.2	+4.0	+4.2
Real exports of goods and services	+9.0	+7.2	+5.8	+8.1	+5.3	+9.3	+6.7	+8.8	+8.4	+7.3	x	x	+9.6	+8.6	+8.2
Real imports of goods and services	+7.2	+5.7	+4.2	+7.3	+4.2	+7.7	+5.1	+6.5	+7.2	+6.6	x	x	+8.8	+7.1	+7.5
GDP deflator	+1.0	+1.4	+1.4	+1.2	+1.3	+0.4	+1.5	+0.5	+1.5	+1.8	+1.5	+1.7	+0.8	+1.2	+1.1
PCE deflator	+2.4	+2.2	+1.7	+2.3	+1.5	+2.2	+1.8	+2.1	+1.9	+1.8	x	x	+2.4	+2.0	+1.8
Consumer price index	x	x	x	+2.3	+1.5	+2.2	+1.9	x	x	x	+1.9	+2.1	+1.9 ²⁾	+1.8 ²⁾	+1.6 ²⁾
Unit labor costs	-0.8	+0.8	+0.7	-0.5	+0.6	x	x	x	x	x	x	x	-0.5	+0.5	-0.2
<i>%</i>															
Unemployment rate ³⁾	3.5	3.4	3.4	3.5	3.4	3.3	3.2	4.6	4.2	4.0	3.5	3.5	3.3	3.0	2.7
Long-term interest rate ⁵⁾	5.6 ⁴⁾	5.6 ⁴⁾	5.7 ⁴⁾	5.6	5.6	5.4	5.4	x	x	x	x	x	x	x	x
<i>% of GDP</i>															
Current account deficit	-2.9	-2.4	-2.0	-3.0	-2.4	-3.3	-2.8	-3.0	-2.5	-2.0	-2.0	-1.8	-3.4	-3.1	-2.9
General government deficit	-1.7	-0.6	+0.0	-1.6	-0.8	-1.6	-0.8	-1.6	-0.7	+0.0	-1.7	-1.5	-1.3	-0.8	-0.5
<i>USD/barrel</i>															
Crude oil prices	29.0 ⁴⁾	29.1 ⁴⁾	24.7 ⁴⁾	29.0	27.0	28.0	27.0	28.3	29.5	27.5	26.5	23.0	x	x	x

Source: OeNB fall 2000 forecast, WIFO, IHS, European Commission, IMF, OECD.

¹⁾ Gross capital formation.

²⁾ Harmonized Index of Consumer Prices.

³⁾ EU definition; OECD definition.

⁴⁾ ECB data.

⁵⁾ WIFO: benchmark, IHS: secondary market yield, total.

Table 7

Demand Components (Real Prices)								
1995 prices								
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>EUR million</i>				<i>Annual change in %</i>			
Private consumption	104,320	107,332	109,157	111,125	+2.7	+2.9	+1.7	+1.8
Government consumption	36,543	36,563	36,639	36,723	+1.0	+0.1	+0.2	+0.2
Gross fixed capital formation	45,305	47,250	48,769	50,232	+2.9	+4.3	+3.2	+3.0
Domestic demand (excl. changes in inventories)	186,168	191,144	194,565	198,080	+2.4	+2.7	+1.8	+1.8
Exports, total	86,172	93,891	100,656	106,516	+3.5	+9.0	+7.2	+5.8
Imports, total	84,602	90,682	95,815	99,835	+1.9	+7.2	+5.7	+4.2
Net exports	1,570	3,209	4,841	6,681	x	x	x	x
Real gross domestic product	187,047	193,801	199,303	204,780	+2.1	+3.6	+2.8	+2.7

Source: OeNB fall 2000 forecast.

Table 8

Demand Components (Current Prices)								
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>EUR million</i>				<i>Annual change in %</i>			
Private consumption	109,835	115,893	120,066	124,153	+3.1	+ 5.5	+ 3.6	+3.4
Government consumption	38,422	39,272	39,936	40,578	+2.4	+ 2.2	+ 1.7	+1.6
Gross fixed capital formation	47,455	50,314	52,699	55,000	+3.6	+ 6.0	+ 4.7	+4.4
Domestic demand (excl. changes in inventories)	196,148	205,478	212,701	219,731	+3.3	+ 4.8	+ 3.5	+3.3
Exports, total	89,760	101,724	113,264	121,467	+5.2	+13.3	+11.3	+7.2
Imports, total	89,645	102,456	112,522	119,113	+3.8	+14.3	+ 9.8	+5.9
Net exports	114	- 732	742	2,353	x	x	x	x
Gross domestic product	195,409	204,404	213,198	222,116	+3.0	+ 4.6	+ 4.3	+4.2

Source: OeNB fall 2000 forecast.

Table 9

Demand Components (Deflators)								
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>1995 = 100</i>				<i>Annual change in %</i>			
Private consumption	105.5	108.0	110.4	112.2	+0.7	+2.4	+2.2	+1.7
Government consumption	105.5	107.4	109.0	110.5	+1.7	+1.8	+1.5	+1.4
Gross fixed capital formation	104.9	106.5	108.1	109.5	+0.8	+1.5	+1.5	+1.3
Domestic demand (excl. changes in inventories)	105.4	107.5	109.3	110.9	+0.9	+2.0	+1.7	+1.5
Exports, total	102.8	108.3	112.5	114.0	+0.3	+5.3	+3.9	+1.3
Imports, total	105.5	112.9	117.4	119.3	+1.4	+7.0	+4.0	+1.6
Terms of trade	97.4	95.8	95.8	95.6	-1.1	-1.6	-0.0	-0.2
Gross domestic product	104.5	105.5	107.0	108.5	+0.9	+1.0	+1.4	+1.4

Source: OeNB fall 2000 forecast.

Table 10

Labor Market								
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>Number of employees</i>				<i>Annual change in %</i>			
Total employment	4,018,159	4,049,039	4,083,645	4,116,915	+1.4	+0.8	+0.9	+0.8
Private sector employment	3,253,181	3,283,478	3,318,898	3,352,465	+1.8	+0.9	+1.1	+1.0
Paid employment according to the national accounts	3,247,262	3,277,859	3,314,855	3,350,585	+1.8	+0.9	+1.1	+1.1
	<i>%</i>				<i>Annual change in %</i>			
Unemployment rate according to Eurostat	3.8	3.5	3.4	3.4	x	x	x	x
	<i>1995 = 100</i>				<i>Annual change in %</i>			
Unit labor costs, whole economy ¹⁾	100.9	100.1	100.9	101.6	+1.5	-0.8	+0.8	+0.7
	<i>1995 prices in EUR 1,000</i>				<i>Annual change in %</i>			
Total labor productivity	46.6	47.9	48.8	49.7	+0.7	+2.8	+2.0	+1.9
Real wages per employee ²⁾	30.1	30.0	30.3	30.6	+1.5	-0.3	+0.9	+1.1
	<i>Current prices in EUR 1,000</i>				<i>Annual change in %</i>			
Gross wages per employee	31.8	32.4	33.3	34.2	+2.1	+2.0	+2.8	+2.6
	<i>Current prices in EUR million</i>				<i>Annual change in %</i>			
Gross wages, total	103,176	106,210	110,444	114,577	+4.0	+2.9	+4.0	+3.7

Source: OeNB fall 2000 forecast.
¹⁾ Gross wages as a ratio of GDP.
²⁾ Gross wages divided by the GDP deflator.

Table 11

Current Account								
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>EUR million</i>				<i>% of GDP</i>			
Current account deficit	-5,461	-5,919	-5,087	-4,355	-2.8	-2.9	-2.4	-2.0

Source: OeNB fall 2000 forecast.

Money and Credit in the First Three Quarters of 2000

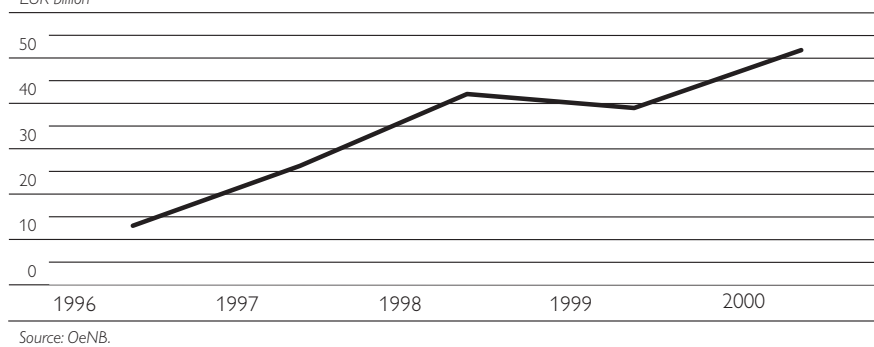
Highest Asset Growth since the Early 1980s

In the first three quarters of 2000, Austrian banks' total assets expanded by EUR 51.76 billion or 9.9%, marking the highest increase since the beginning of the 1980s both in absolute and percentage terms. This development reflects the dynamic pace at which the banking industry has been growing lately. Asset growth mainly resulted from an extraordinary rise in credit operations as well as from an increase in external assets, while for extra funding, banks mainly relied on increasing liabilities to nonresidents and on selling own issues to nonbanks.

Asset Growth of Domestic Banks

Changes in the First Three Quarters 2000

EUR billion



The assets of Austrian banks' foreign branches (whose numbers remained unchanged) expanded almost twice as much (in percent) as those of all banks operating in Austria. By comparison, credit institutions majority-owned by nonresidents¹⁾ recorded a relatively modest 1.8% growth.

By sectoral groupings, Raiffeisen credit cooperatives posted above-average growth, followed by special purpose banks and savings banks. In spite of a recovering demand for loans, the growth rate of building and loan associations remained below average, at 2.6%.

Following the current trend towards concentration in the banking sector, the market share of the ten largest individual credit institutions, as measured by total assets, climbed to 59.0% in September 2000 from 57.6% in December 1999. The market share of the three largest banks (Bank Austria, Erste Bank, Creditanstalt) rose by 0.6 percentage point to 35.6%.

The number of banks operating in Austria continued to go down in the course of the year, with the number of head offices dropping by 18, that of branch offices and bureaux de change by 7 since December 1999.

1 Including all banks operating in Austria (except Bank Austria).

Number of Banking Offices in Austria

Head Offices and Branch Offices

	Joint-stock banks and bankers	Savings banks	State mortgage banks	Raiffeisen credit coope- ratives	Volksbank credit coope- ratives	Building and loan associations	Special purpose banks	Total
	Annual change							
1997	+50	-20	0	-12	-18	0	-27	- 27
1998	-47	-38	-1	-26	- 4	+1	-24	-139
1999	+14	- 8	0	-22	- 3	0	- 1	- 20
2000	+ 6	-17	-1	- 9	- 2	-3	+ 1	- 25

Source: OeNB.

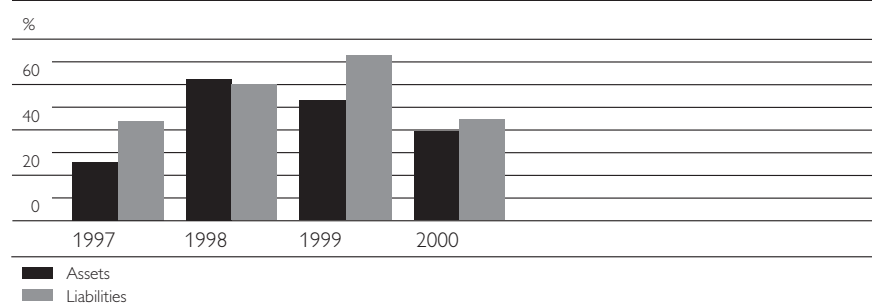
Apparently, the peak in bank closures was reached already in 1998; it must be taken into consideration, however, that final data for the year 2000 are not yet available.

Interbank Business Continues to Drive Asset Growth

Compared to the third quarter of 1999, the focus of interbank operations shifted back towards the domestic market in the year under review: While domestic interbank claims went up from 6.1% in the previous year to 7.5% in 2000, claims against foreign banks fell from 24.1 to 18.3%. Thus, the share of interbank transactions in total asset growth fell to approximately 40%, from around 55% in the corresponding period of the previous year. While transactions with other credit institutions had been the main source of total asset growth in 1998 and 1999, business with nonbanks experienced an impressive comeback in 2000.

On the liabilities side, too, growth in total foreign interbank liabilities decelerated slightly, reaching only EUR 15.02 billion (+19.8%) compared with EUR 19.25 billion (+29.6%) in the analogous period of the previous year.

Share of Interbank Business in Asset Growth

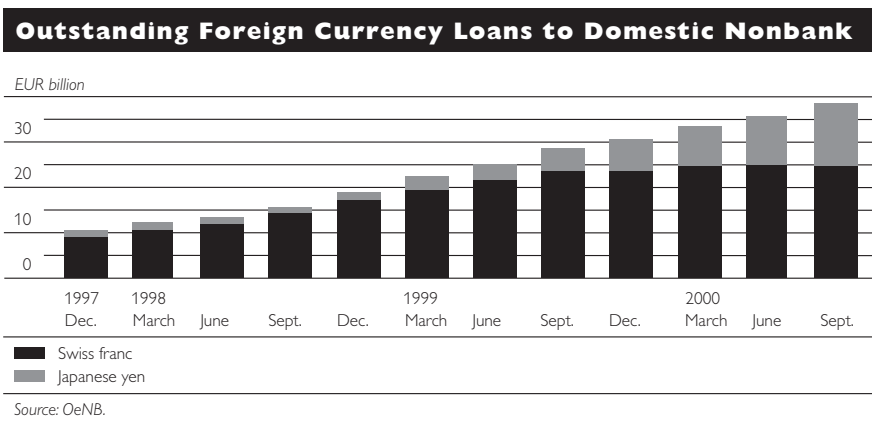


Source: OeNB.

Livelier Demand for Loans

During the first nine months of 2000, demand for loans picked up strongly, advancing by EUR 13.57 billion or 6.4% and thus posting the biggest growth – both in volume and percentage terms – since 1981, with the third quarter alone accounting for two thirds of this increment. Despite this expansion, the level of interest payable per quarter remained constant at

EUR 1.59 billion since June, which is certainly attributable to the sharp rise in lower-interest foreign currency loans. These went up by 25.7% during the first three quarters of 2000, thus accounting for nearly two thirds of total loan expansion. Unlike in the first three quarters of 1999, when the growth of the loan portfolio was almost exclusively based on foreign currency loans, the year 2000 saw a pronounced expansion of euro-denominated loans. Nevertheless, the share of foreign currency loans in all outstanding loans climbed to 18.5% in September, up from 17.9% in June and 17.3% in March 2000.



The continuously low level of interest rates on yen-denominated lending is likely to have made this segment of the foreign currency loan business particularly appealing, causing it to climb from EUR 7.0 billion at the beginning of 2000 to almost twice the amount (EUR 13.7 billion). Since the exchange rate of the Japanese yen only rose by 8% against the euro over the same period, a large part of this increment is attributable to actual credit growth.

The Swiss franc, by contrast, became less attractive for borrowers in 2000: lending in this currency only climbed by 5.5% to EUR 24.9 billion. With the exchange rate of the Swiss franc rising by around 5% during this period, the volume of actual new loans was in fact very small.

Even though the volume of U.S. dollar loans climbed by EUR 0.7 billion to a level of EUR 2.0 billion since the beginning of the year, U.S. dollar loans played a rather subordinate role in foreign currency lending.

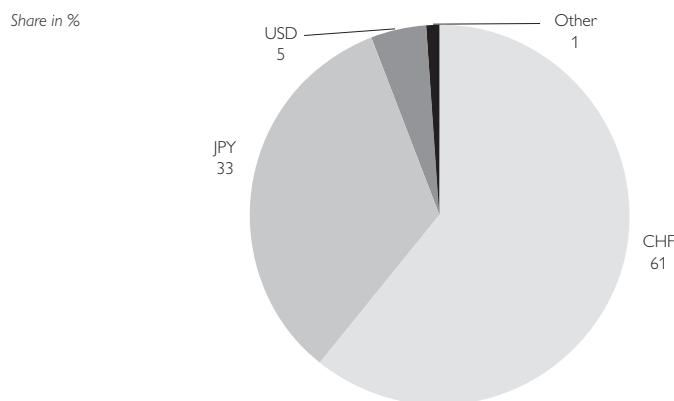
The share of liabilities denominated in Swiss franc came to around 61% by the end of September, while the Japanese yen stood at 33% and the U.S. dollar accounted for approximately 5%.

Already in 1999, the average size of foreign currency loans had passed the ATS 1 million line. For euro-denominated loans, however, the picture is quite the reverse: The majority of credits remained below ATS 1 million, suggesting that borrowers are increasingly inclined to take on large exposures in foreign currencies.

The regional allocation of foreign currency loans is of particular interest. In the Eastern parts of Austria, such as Lower Austria and the Burgenland, foreign currency loans accounted for a share of 14 and 20%,

Foreign Currency Loans to Domestic Nonbanks

as at September 30, 2000



Source: OeNB.

respectively, in total credit volume, compared to 38 and 43%, respectively, in Tyrol and Vorarlberg in the West. From an international perspective, Austria clearly contributed more than one quarter to the total of foreign currency loans in the euro area as far as Swiss franc and Japanese yen loans are concerned.

Nonrevolving loans accounted for around 70% of credit growth and moreover recorded the highest percentage increase (+10.2%) apart from other types of lending. Current account credits, which had not advanced at all in the previous year, stepped up 4.0% during the first nine months of 2000. Long-term loans picked up 2.1%, after having contracted by 2.6% in 1999. Discount credits continued to lose momentum, amounting to a volume of merely EUR 0.95 billion in September.

A sectoral breakdown clearly shows that special purpose banks and building and loan associations reached the highest percentage growth in lending. While, owing to their nature, building and loan associations only granted euro-denominated loans, particularly Raiffeisen credit cooperatives, savings banks, joint-stock banks and bankers continued to raise their foreign currency loans significantly in the year 2000.

Large-Scale Expansion of Credit Liabilities in all Economic Sectors

The *government* expanded its exposure to banks operating in Austria by 6.1% in the period under review, compared to a 0.8% growth in the analogous period of 1999. Following a trend already observed in the previous year, government authorities increasingly shifted their credit activities towards the short-end sector. While the central government reduced its liabilities by 5.4% this year and the regional authorities raised their comparably low credit level only moderately, in particular social security funds and municipal authorities markedly stepped up their exposure. This behavior is attributable to the fact that, for the first time since 1997, municipal and

local authorities' demand for funding is likely to increase this year, i.a. because of changes in their revenue structure.

Credits were predominantly euro-denominated, although average interest rates for local authority loans stepped up markedly, by 1 percentage point, to 5.3% since the beginning of the year.

Enterprises' demand for loans clearly gained momentum in the first nine months of 2000, paralleling the current cyclical upswing and augmenting three times as fast as in the corresponding period of 1999. Approximately 80% of these credits were long-term contracts. Since the average interest rate on euro-denominated commercial loans went up by 1 percentage point (to 6.77%), 72% of all new credits were taken on in foreign currencies. In the face of a series of new fiscal measures (i.a. the abolition of investment allowance) to be introduced in 2001, many enterprises obviously brought forward longer-term investment projects to 2000.

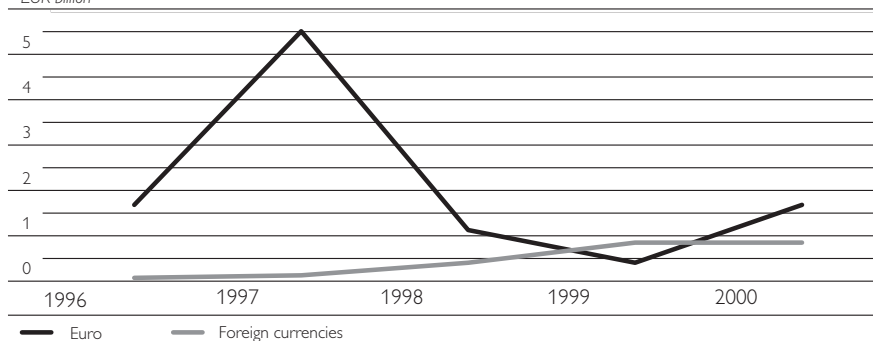
Compared with the entire public sector and enterprises, *credits extended to households* posted the highest percentage growth. Among other factors, the current above-average growth in consumer spending drove up credits by 8.7% (6.4% in the comparable period of 1999). More than 95% of these liabilities were long-term. In the first three quarters of 2000, almost two thirds of all credits to households were foreign currency loans, but in a reversal of last year's trend, when foreign currency loans had augmented while euro-denominated loans had slowed down, the pendulum started to swing back towards euro-denominated loans. While interest rates in foreign currencies have remained low, exchange rate developments suggest that borrowers may be on the safer side with euro-denominated loans. Average interest rates for personal loans stood at 7.72% as of September 2000, gaining 0.97 percentage point compared to December 1999.

Interest on *home and home improvement loans* went up 0.95 percentage point to 6.32%. Since the beginning of the year, these claims progressed by EUR 2.55 billion (+6.7%), with foreign currency loans being on the rise in this area as well (+35.8%). At 8.1%, however, the share of foreign currency loans in home loans in general is still relatively low.

Home and Home Improvement Loans

Changes in the First Three Quarters

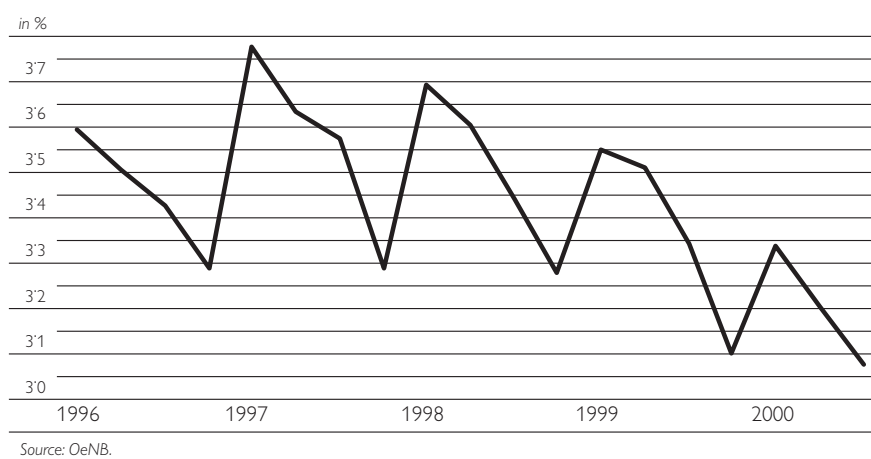
EUR billion



Source: OeNB.

At 3.08%, Austrian banks' need to make loan loss provisions for claims on nonbanks reached a new 4-year low in September, down from 3.34% in March 2000. This low figure went hand in hand with a decrease of around 12% in the enterprise insolvency rate.

Loan Loss Provisions as a Percentage of Claims on Nonbanks



Rather Moderate Growth of Securitized Lending

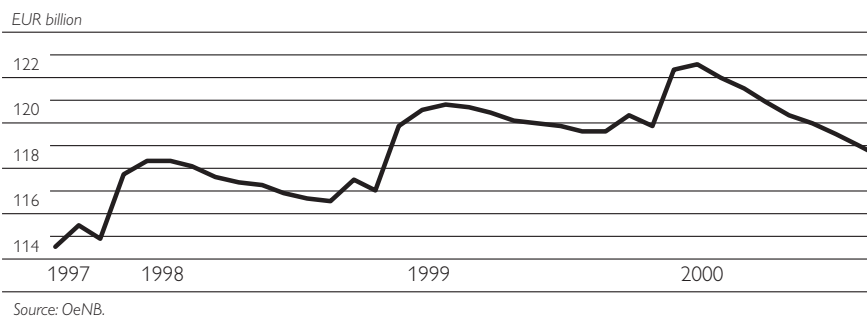
Although purchases of debt securities, i.e. securitized lending, grew at a far slower pace than loans, their EUR 0.24 billion increase (+1.0%) is worth mentioning, since they had still posted a decrease of EUR 1.37 billion (-5%) in the same period of the previous year. While foreign currency transactions accounted for two thirds of this increment, their total share in securitized lending still remained almost negligible. Federal Treasury bill holdings soared by 35.6%, and the volume of tradable securities went up by 26.8%, quite in contrast to the previous year, when these positions had contracted by 15.2 and 4.4%, respectively. All other public sector debt instruments, on the other hand, receded by 6.2%, causing a slightly stronger decline than in the first three quarters of 1999.

Modest Growth of Deposits

In the first nine months of 2000, deposits grew at a slightly quicker pace than in the analogous period of 1999, gaining EUR 2.22 billion (+1.3%). In September, deposits accounted for a share of 2.0% in all deposits held in foreign currencies. Time deposits posted the highest growth rate in percent (+15.9%), while sight deposits reached a remarkable 10.1% increase. In the analogous period of the previous year, banks had still registered losses of 0.3% from time deposits, while the growth of sight deposits already matched the positive results recorded in 2000. The situation of savings deposits was quite different. Following a 0.3% slowdown in the first three quarters of the previous year, banks had to face a 3.1% decline in savings deposits in 2000.

While all other sectors increased their deposit intake, building and loan associations registered an 0.4% loss. To offset this loss and to fund their

Savings Deposits of Domestic Nonbanks



expanding credit business, however, they mainly borrowed from other banks.

Raising their credit balances by 18.7%, households played a key role in the growth of euro-denominated sight deposits. In September, households held almost half of all sight deposits, most of which in the form of giro accounts and seniors accounts. Apparently, many investors prefer liquid funds to longer-term investment. Enterprises raised their sight deposits by only EUR 0.60 billion this year, causing a slightly weaker progress than in the previous year. Sight deposits in foreign currencies only played a minor role.

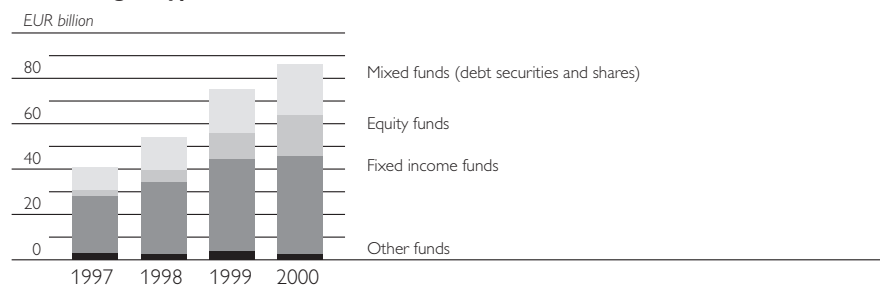
Enterprises accounted for more than half of the growth in euro-denominated time deposits by clearly expanding their short-end holdings in particular (+17.0%). Also the government mainly concentrated on stepping up its short-term deposits.

Although average interests on savings deposits had been raised to 2.95% for short-term investments (+0.73 percentage point) and to 3.27% for long-term investments (+0.71 percentage point) since the beginning of the year, households' euro-denominated savings deposits were clearly receding (by EUR 3.76 billion or 3.1%). In the first nine months of the year 1999, banks had recorded a decline of only EUR 0.25 billion (-0.2%).

Private investors, however, increasingly chose to invest their funds in mutual fund shares. Thus the volume of Austrian mutual funds expanded by 15.2% since the beginning of 2000. Fixed-income funds, while falling short

Total Volume of Mutual Funds in Austria

According to Types of Funds



Source: Vereinigung Österreichischer Investmentgesellschaften (VÖIG).

of 1999 growth rates, continued to account for approximately half of all mutual funds holdings. The share of equity funds is catching up rapidly, however.

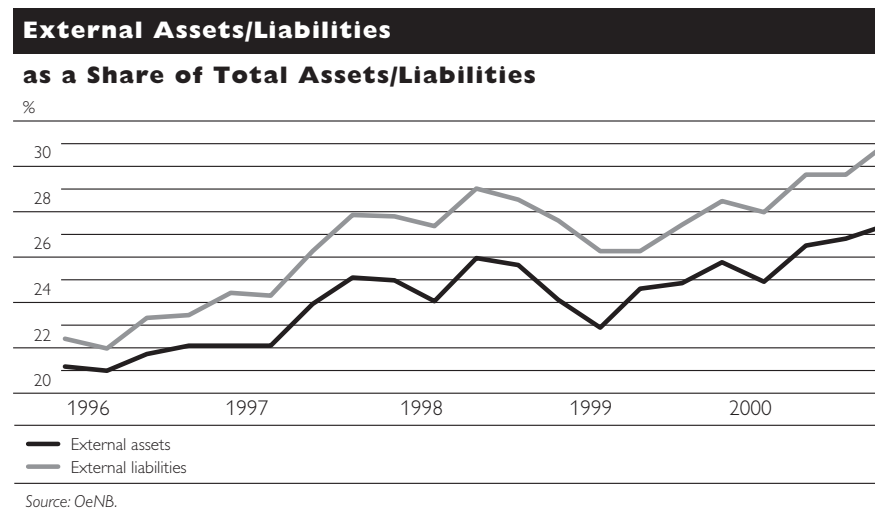
Like in the previous year, banks operating in Austria increasingly relied on issuing direct papers for refinancing purposes. Thus the volume of domestic issues climbed by EUR 5.03 billion (+10.7%), clearly surpassing the rise in deposits. While in the analogous period of 1999, foreign currency issues had still accounted for more than two thirds of growth, the first nine months of 2000 showed a trend reversal. The growth of banks' own foreign currency issuances in Austria only contributed around 30% to total growth, while euro-denominated domestic issues – bonds, in particular – accounted for the rest.

External Business Continues to Drive Asset Growth

In the first three quarters of 2000, banks continued to firmly expand their external business. Thus, external assets augmented by EUR 27.47 billion (+20.9%), reaching a share of 27.6% in total assets. While the 18.3% rise in external interbank claims failed to match the comparable figure of 1999, there was a remarkable rise of 38.6% and 17.6%, respectively, in foreign bonds and other foreign fixed income securities as well as in claims against nonresident customers. Growing by EUR 32.17 billion (+21.8%), external liabilities, too, continued their strong upward trend, eventually accounting for a 31.1% share in total liabilities in September 2000. External operations were particularly dominant in the business of savings banks and special purpose banks (including OeKB), as they accounted for 36.0 and 24.1%, respectively, of assets and 47.5 and 61.1%, respectively, of liabilities.

Also on the liabilities side, the importance of external transactions with foreign banks slightly decreased in favor of own issuances abroad, which went up by 30.1%, and in favor of liabilities incurred against nonresident customers (+14.9%).

Foreign branches of Austrian banks contributed around 16% to overall asset growth in the period under review, with domestic and external

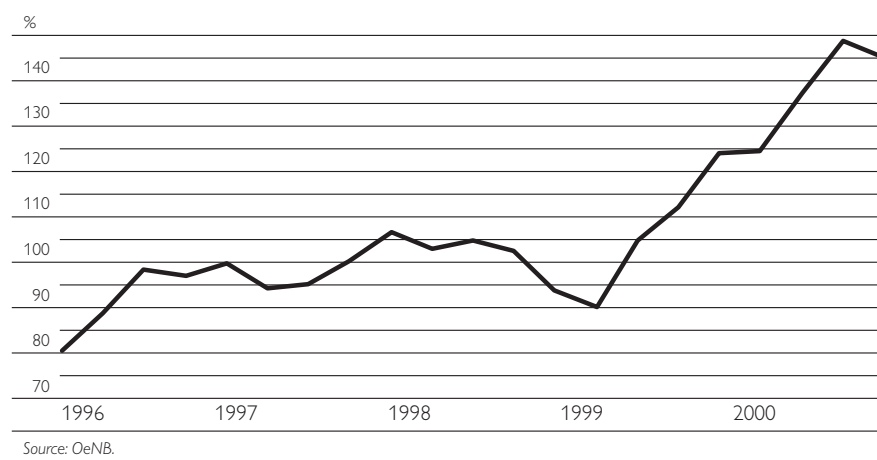


interbank business each accounting for 30% of this increment. The second largest increase in terms of volume resulted from foreign-owned bonds and other fixed-income securities, which advanced by EUR 1.83 billion (+38.2%). Lending to nonresident customers stepped up by 5.9%, remaining slightly below the corresponding figure for domestic lending. Banks funded themselves mainly through domestic and external interbank transactions. Credits from foreign customers recorded a EUR 1.53 billion rise as well (+26.8%).

Continuous Healthy Growth of Derivatives Transactions

Banks expanded the volume of their derivatives transactions by EUR 183.28 billion (27.9%) over the period under review, compared to an increase of EUR 213.20 billion (+49.11%) in the analogous period of 1999. In September 2000, the ratio of specific off-balance-sheet financial operations to total assets came to 145.7%. For external branches, it even jumped to 435.2%. As in previous years, interest rate contracts accounted for more than three quarters of the entire volume of derivatives transactions.

Derivatives Transactions as a Percentage of Total Assets



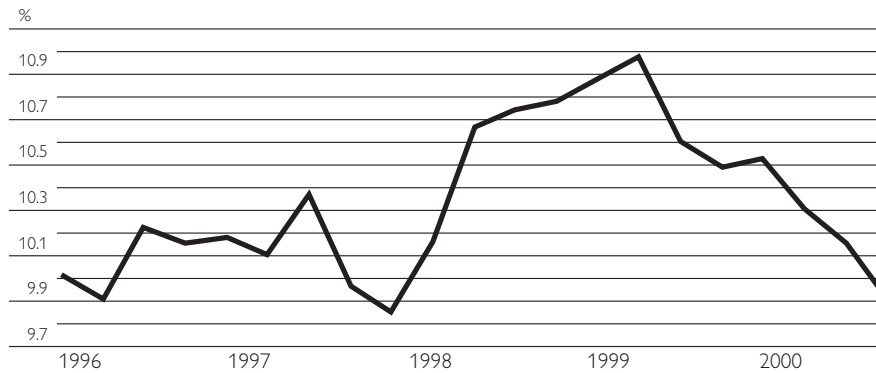
Capital Ratio Pointing Slightly Downward

At the end of the period under review, banks' capital stood at EUR 37.63 billion, up 7.0% since the beginning of the year. The (unconsolidated) capital ratio in percent, however, went down from 13.8% in June to 13.3% in September owing to a rise in the assessment base.

Around 66% of posted capital consisted of core capital (tier I capital). Eligible capital, comprising core capital and supplementary capital minus deductible items, stood at EUR 35.12 billion. The remaining EUR 2.51 billion represent tier III capital and are used to cover the market risk.

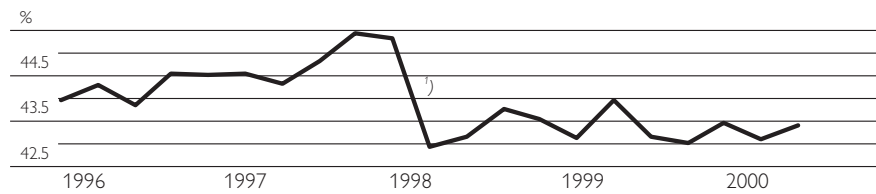
Banks' risk-weighted assets¹⁾ climbed by EUR 24.47 billion or 10.8% since January, thus rising by a slightly higher percentage than total assets. This, in turn, caused a slight increase of 0.4 percentage point in the share of risk-weighted assets in total assets, which now stands at 43.4%.

Austrian Bank's Core Capital Ratio



Source: OeNB.

Risk-Weighted Assets as a Percentage of Total Assets



Source: OeNB.

¹⁾ Austrian Banking Act amended.

1) Comprising those assets, reduced by loss provisions, which must be weighted according to risk categories in line with § 22 (3) Austrian Banking Act.

Balance of Payments in the First Half of 2000¹⁾

The Austrian economy was thriving in the review period, posting real growth rates of 3.9% in the first and 3.8% in the second quarter of 2000. Next to private consumption and investment, exports were an essential pillar of economic activity. The sustained robust growth of exports was mainly due to a reduction in the euro's real effective exchange rate, the favorable economic situation abroad and the moderate development of wage costs in Austria. While the weakening of the euro vis-à-vis the U.S. dollar improved the euro area's – and thus Austria's – competitive position, it also drove up the cost of imports. The clear increase in nominal imports from non-euro area countries was, moreover, also triggered by the development of crude oil prices.

I Current Account

In the first half of 2000, the current account on a transaction basis posted a deficit of EUR 2,920 million (see table 1 in the annex), up by EUR 1,040 million compared to the first half of 1999. The expanding deficit basically resulted from the fact that the balances of the goods and services subaccounts turned from a EUR 460 million surplus to a EUR 670 million deficit. Both the income and current transfers subaccounts showed only minor changes, recording slightly more favorable results than in the first half of 1999. In structural terms, though, the negative contribution of the income and current transfers subaccounts to the overall current account deficit continued to be higher than that of the goods and services subaccounts.

In the period under review, *imports of goods and services* grew by EUR 6,130 million, thus surpassing goods and services exports which also climbed at an extraordinary pace, augmenting by EUR 5,000 million. In general, this development is attributable to a significant cyclical recovery of both Austria and its main trading partners. In addition, the rising exchange rate of the U.S. dollar and higher crude oil prices teamed up to boost import prices.

At the EMU level, goods and services data for the first half of 2000 published by the ECB for the euro area as a whole show that imports were clearly growing faster than exports, thus reducing the surplus of this subaccount by EUR 17.4 billion to EUR 17.3 billion year on year.

The following analysis provides a closer look at the individual subaccounts of the Austrian current account in the first half of 2000.

1.1 Goods

The expansion of merchandise exports and imports, which had been observed since the second half of 1999, continued throughout the first half of 2000. The EUR 1,030 million reduction in the goods deficit over the

¹ Based on transactions. Editorial deadline: November 7, 2000. As of 1999, the Austrian balance of payments figures published by the OeNB in "Focus on Austria" are presented in euro (irrevocable euro conversion rate EUR 1 = ATS 13.7603). For the Austrian balance of payments statistics given in both euro and schillings, refer to the OeNB web site at <http://www.oenb.at>; Focus on Statistics, chapter 7.

period under review resulted from a rise of approximately 17% in merchandise exports as opposed to a 13% increase in merchandise imports.

The following analysis of the geographic distribution of Austria's *external merchandise trade* (see table 2) is exclusively based on the foreign trade data provided by Statistics Austria: In the first half of 2000, Austria's trade with the *euro area* was not quite as lively as trade with third countries. Exports and imports picked up 12 and 8%, respectively. In absolute figures, merchandise shipments to the euro area amounted to EUR 18,450 million, while Austrian goods imports from euro area countries came to EUR 21,710 million, reducing the foreign trade deficit by EUR 430 million to EUR 3,260 million. Across countries, trade developments were mixed. While, in many cases, Austria either raised its trade surplus (e.g. vis-à-vis Italy and the United Kingdom) or at least cut back its trade deficit (such as vis-à-vis France, the Benelux countries and Spain), Austria further expanded its deficit against Germany, which is still Austria's most important trading partner.

Merchandise trade with *third countries* was extremely dynamic in the six months under review. Compared to 1999, merchandise exports climbed by 23%, while imports augmented by 21%. Austria's exports to third countries came to EUR 15,100 million, while imports from third countries reached EUR 13,630 million. Having contracted by 2% over the corresponding period in 1999, exports to Eastern European countries picked up by 22% or almost EUR 1,000 million over the reporting period. In addition, shipments to Switzerland, the U.S.A. and Japan posted high growth rates as well.

Merchandise imports from Eastern European countries were clearly on the rise (+31%), with imports from the CIS countries augmenting in particular on the back of rising energy prices. Higher energy prices likewise resulted in an increase, in terms of value, of imports from the OPEC countries. Imports from the U.S.A. and Japan also went up remarkably.

In the first six months of 2000, according to the Statistical Office of the European Communities (*Eurostat*), the year-on-year growth rate of merchandise exports to third countries (+23%) remained clearly below that of merchandise imports from these countries (+31%).

Broken down by *major groups of commodities* (see table 3), capital goods and consumer goods – which accounted for the largest share of the merchandise balance – posted growth rates of 15%, each, in exports and of 16 and 6%, respectively, in imports. The 73% increase in energy imports (+EUR 840 million) is entirely attributable to rising energy prices. Unlike in the late 1970s and early 1980s, the recent surge in crude oil prices only had a minor effect on Austria's total imports. While from 1974 to 1985, energy imports had accounted for a share of clearly over 10% in total goods imports, peaking at 19% in 1981, they only came to 6% in the first half of 2000.

Crude oil prices started to surge in the second half of 1999. While import prices for crude oil had been extremely low in the first months of 1999 (January 1999: EUR 75 per ton), they peaked in December at EUR 188 per ton. This explains the 117% year-on-year surge in import prices

for crude oil in the first half of 2000 (from EUR 108 per ton to EUR 236 per ton); for the second half of 2000, the growth rate is likely to have remained rather low since crude oil prices had already been relatively high in the comparable period of 1999. Although import volumes of petroleum oils and oils obtained from bituminous minerals, crude (SITC: 333) declined by 2%, Austria's expenses for crude oil imports doubled in the first half of 2000 compared to the analogous period of 1999, reaching EUR 751 million. The import price for natural gas soared by 77% year on year, amounting to EUR 2,829 per terajoule or EUR 113 per 1,000m³. In the first half of 2000, Austria's imports of natural gas, whether or not liquefied (SITC: 343) rocketed by 72% to EUR 342 million in terms of value, while declining by 3% in terms of volume.

Goods Shipments and Merchandise Payments

According to the conceptual framework of the Austrian balance of payments, the goods item of the current account is derived from the foreign trade statistics of Statistics Austria. This approach precludes a direct comparison with the merchandise payment figures compiled in the OeNB's monthly cash balance. The rationale behind the monthly cash balance is to enable general tendencies in Austria's external economic development to be identified at an early stage.

As the experience of the last few years has shown, these two sets of statistics clearly differ more in terms of intra-year figures than in terms of all-year figures. Improvements in the quality of these statistics – such as making adjustments for late data on an accrual basis – explain why the two data sources are becoming more and more aligned. In line with the balance of payments methodology, such differences are booked under unclassified transactions, thus impacting the result of the services balance, but not the current account balance.

In the period under review, the differential amount (i.e. the difference between trade figures and payments for goods) for imports still stood at a very high level, namely at EUR 4,280 million, while amounting to EUR 1,670 million for exports; this explains the negative balance of EUR 2,610 million recorded in the services account under unclassified transactions.

For the first half of 2000, Statistics Austria published the following external trade growth rates: merchandise exports +17%, merchandise imports +13%. The revised merchandise payment data collected by the OeNB for the same period, by contrast, show growth rates of 14% for export revenues and of 17% for import payments.

1.2 Services

In the first half of 2000, the total services surplus went down by EUR 2,160 million to EUR 140 million.

1.2.1 Travel

In contrast to a relatively favorable first quarter, incoming tourism markedly weakened in the second quarter of 2000. The number of foreign tourist bednights sold went down by more than 3% to 13.3 million. Lower figures have only been recorded twice since 1980, namely in 1986 and 1997. Nevertheless, the number of bednights increased slightly in the first quarter (+2%, see table 5). Tourists from the Netherlands accounted for almost half of the additional 900,000 overnight stays registered from January to June. Statistics Austria recorded a plus of more than 100,000 bednights sold both to tourists from the U.S.A. and the United Kingdom. Only the number of bednights sold to German and French tourists was declining markedly.

Travel receipts, by comparison, posted a 4.4% surplus in the second quarter of 2000 (following 7.1% in the first quarter). In the first six months of 2000, travel receipts came to EUR 5,670 million, EUR 320 million more than in the comparable period of the previous year (see table 4). Receipts from international passenger transport, which are now no longer included in the travel account, augmented by 16.3% to EUR 760 million.

According to preliminary results, Austrians' *travel expenditure* clearly exceeded the national travel receipts. Following a slowdown in 1998 and 1999, a pronounced upswing began in the fourth quarter of 1999 and continued through the first six months of 2000. Expenses progressed by 14.8% to approximately EUR 4,230 million. Expenses for passenger transport went up, too (by 23% to EUR 420 million).

Owing to the rapid increase in travel expenditure, the surplus in the travel account fell by EUR 195 million to EUR 1,780 million in the first half of 2000.

1.2.2 Other Services

In the first half of 2000, the balance on other services turned from a EUR 640 million surplus to a EUR 1,300 million deficit, mainly owing to unclassified transactions (see box "Goods Shipments and Merchandise Payments").

Balances improved, however, for a number of items, such as transportation and royalties and license fees (by EUR 100 million, each).

1.3 Income

In the first six months of 2000, the deficit on the income subaccount at EUR 1,310 million roughly equaled that of the first half of 1999. While income received from the *compensation of employees* was positive both in the first six months of 1999 and 2000, *investment income* was negative: At EUR 1,580 million, the income deficit was, however, slightly lower in the first half of 2000 than in the corresponding period of 1999, when it had stood at EUR 1,610 million (see table 6).

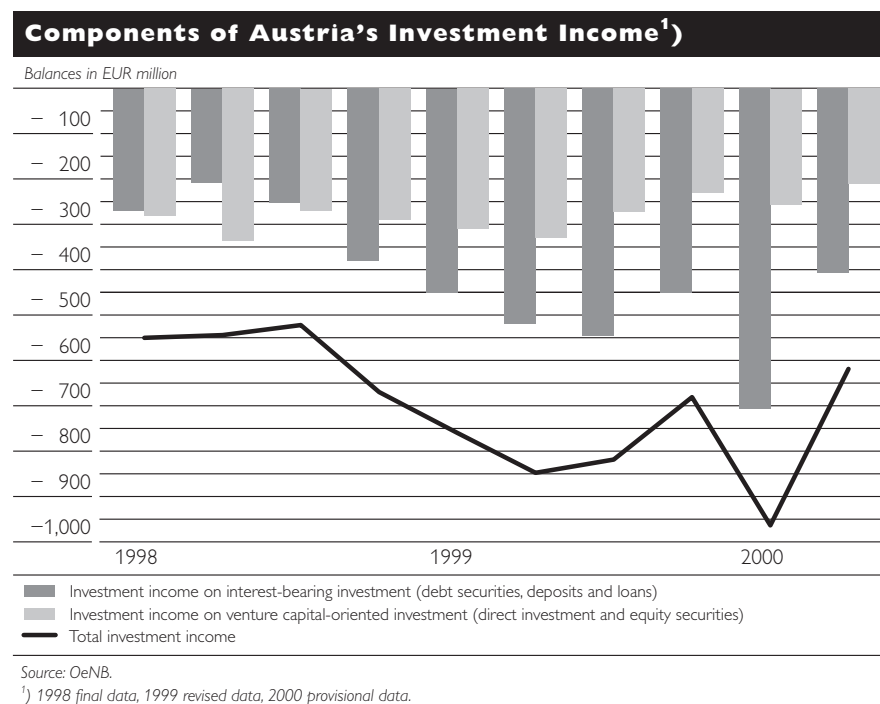
Broken down by major subaggregates, income on direct investment and income on portfolio investment both recorded net deficits (of EUR 540 million and EUR 1,280 million, respectively), while income on other investment posted a surplus of just under EUR 230 million.

Since the stock of foreign direct investment in Austria exceeds Austrian direct investment stocks abroad and since, in addition, inward investment has been more profitable (not least because those investments tend to be more mature), the balance on direct investment income typically posts a deficit. At EUR 590 million, Austrian investors' profits in the period under review only came to roughly half the level of outflows, which amounted to EUR 1,130 million.

The EUR 1,280 million net deficit on portfolio investment income was mainly traceable to the high deficit on income on bonds and notes. In the first half of 2000, Austria recorded an interest income of EUR 1,880 million, while Austrian borrowers faced interest payments of EUR 3,160 million. Domestic investors' income on foreign equity securities amounted

to EUR 250 million, while foreign investors' income on domestic equity securities came to EUR 160 million. Income on money market instruments closed the first half of 2000 with a net deficit of slightly more than EUR 80 million.

When investment income is split into the two investment categories of income on venture capital-oriented investment¹⁾ and income on interest-bearing investment, the first category posted a net deficit of EUR 470 million in the first half of 2000, while the latter recorded a net deficit of EUR 1,120 million.



1.4 Current Transfers

At EUR 940 million, the current transfers deficit in the first half of 2000 was EUR 50 million below the comparable figure of 1999.

Transactions with the EU dominated current transfers of EUR 800 million in the public sector. Austria's contributions to the EU amounted to EUR 1,370 million during the reporting period, while its receipts (excluding EU contributions to infrastructure projects) came to EUR 540 million, resulting in a net payment of EUR 830 million compared to EUR 930 million in the first half of 1999.

The deficit on private transfers stood at EUR 140 million vis-à-vis EUR 220 million year on year.

1) Comprising all income on investment made in the form of equity capital and equity securities.

2 Capital Transfers

Capital transfers closed the period under review with a negative balance of EUR 190 million, thus surpassing the deficit recorded in the first half of 1999 by EUR 70 million.

General government capital transfers in kind comprise, above all, receipts from the EU that are earmarked for infrastructural measures and are thus not part of current transfers. In the first half of 2000, these transfers amounted to approximately EUR 100 million compared to EUR 90 million in the analogous period of 1999.

The *private sector's* capital transfers in kind recorded a deficit of EUR 270 million, up from EUR 190 million; this is largely due to higher remissions of debts in the first half of 2000.

In terms of volume, capital transfers in cash play a minor role in Austria's balance of payments statistics.

3 Financial Account

In the first half of 2000, Austria recorded cross-border *capital outflows* of EUR 22,610 million from additional financial investments abroad and *capital inflows* of EUR 26,480 million from foreign investment in Austria (see table 7), which gives proof of the *high degree of internationalization* of the Austrian economy. Cross-border activities by Austrian investors and issuers even surpassed those recorded in the first half of 1999, when the introduction of the euro had been of major influence; in both years net new investment slowed down in the second quarter compared to the first.

In the first half of 2000, Austrian investors (mainly from the financial sector) expanded their financial assets by markedly stepping up their *net new investment in the euro area*, which they have increasingly come to regard as their "home market." The overall volume of transactions totaled EUR 18,650 million (see table 8).

Both the banking system and the central government attracted a massive inflow of external capital (approximately 50% from the euro area).¹⁾

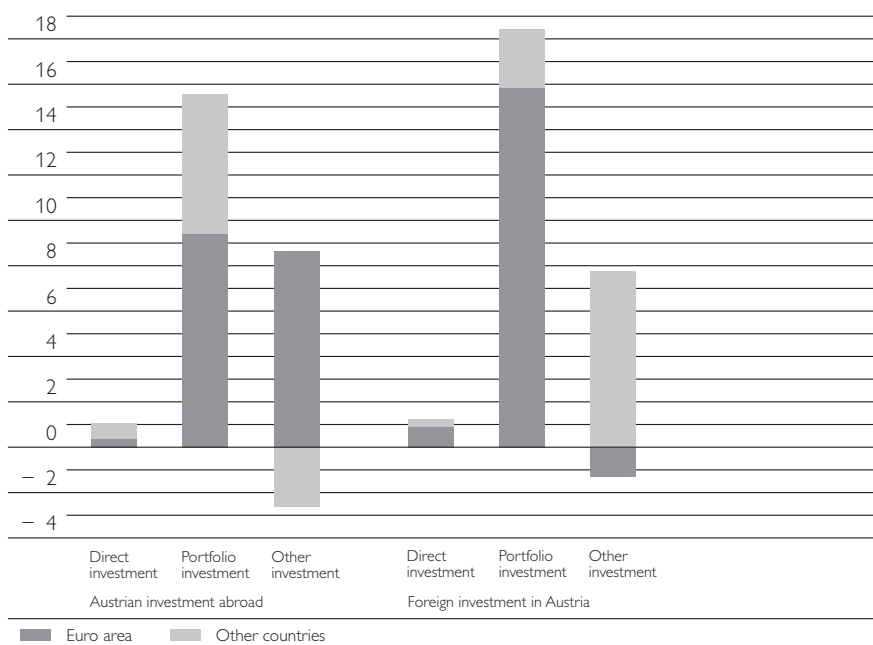
In the first half of 2000, Austria posted net outflows to the amount of EUR 140 million against Greece, the *twelfth member state of the European Monetary Union* as of January 2001, mainly from the acquisition of Greek government bonds.

When financial flows are split up in the categories of investment in interest-bearing financial assets and in venture capital (direct investment and shares), it becomes evident that, within their portfolios, domestic investors tended to spread their external exposure (both regarding equity and debt securities) to a much larger extent than foreign investors did in Austria. In

¹⁾ While for foreign direct investment in Austria and other inward investment it is possible to establish the identity of the foreign investors, in the case of portfolio investment one can only determine the country via which the transaction has been effected. This means that it is not possible to provide a current and/or completely reliable classification of creditors. Ongoing studies, however, show that the largest volume of Austrian securities sold to the euro area are government bonds sold to foreign banks in the course of tender or syndication offers. Since, in this case, the secondary market generated only a relatively small volume of cross-border transactions, the regional structure of the basic data derived from the reporting system on foreign exchange statistics can be regarded as sufficiently conclusive.

Austria's Financial Account in the First Half of 2000
(Selected Net Subaccounts)

EUR billion



Source: OeNB.

the first half of 2000, venture capital-oriented investment reached a share of 32% in Austria's total net new investment abroad. Foreign investors, on the other hand, made 93% of their investments in interest-bearing financial assets.

In the first half of 2000, capital transactions altogether resulted in an overall *net inflow* of EUR 3,870 million. By subtotals, investments in venture capital-oriented financial assets posted a net outflow, thus lifting claims against Austria by EUR 5,440 million on balance, whereas activities involving interest-bearing financial assets led to net capital imports of EUR 9,310 million, 60% of which were raised on the money market. Errors and omissions, finally, came to -EUR 750 million in the period under review, which correspond to capital outflows on this order. In combination with higher refinancing costs, the EUR 3,110 million rise in the financial deficit tends to put a strain on Austria's current account.

Splitting the *financial account balances into transactions by banks and nonbanks* reveals that, on balance, banks are net capital importers and nonbanks are net capital exporters. These net outflows can be traced partly to Austria's net borrower status¹), which is largely the result of nonbanks' transactions, and partly to nonbanks' cross-border financial investments, with net borrowing accounting for 60% of nonbanks' net outflows both in the first half of 2000 and in the analogous period of 1999. Broken down by quarters, net outflows were higher in the second quarter than in the first in both years. A look at the composition of banks' net inflows reveals that the

1 Negative current account and capital account balances.

banking system primarily raised its external liabilities from deposits and loans to generate the necessary capital inflows. The development recorded in the second quarter of 2000 did not, however, follow this pattern, as banks funded themselves to an unusually high degree via net sales of their own securities.

3.1 Direct Investment

Austrian enterprises' *outward* direct investment amounted to EUR 1.1 billion in the first six months of 2000, resulting in an 8% decrease year on year. This sum consists of equity capital to the amount of EUR 650 million and reinvested earnings to the tune of EUR 290 million, with loans to affiliated enterprises contributing an additional amount of EUR 160 million. Equity capital contained gross new investments of around EUR 1,260 million (EUR 120 million of which for the acquisition of property) and disinvestments to the amount of EUR 610 million. Almost half of the invested capital went to Eastern Europe, above all to Hungary (12%), the Czech Republic (10%) and Poland (9%). The most important target country was Germany (28%), followed by the U.S.A. (13%). Direct investment in Switzerland and Liechtenstein, by contrast, went down by EUR 180 million. Broken down by sectors, investments were again well diversified, comprising e.g. banks and commerce, mechanical engineering, building materials as well as the paper and food industries.

At EUR 1,260 million, foreign *inward* direct investment in Austria more or less equaled Austrian outward direct investment. Compared to the two previous years, however, this constitutes a marked slowdown. The major reason for this development is that profit distributions to foreign investors were unusually high in the second quarter, even resulting in negative reinvested earnings. Thus, gross new investment in equity capital climbed by a remarkable amount of EUR 1,340 million and disinvestment went up to EUR 400 million, while reinvested earnings contracted to a minimum of EUR 240 million (owing to the high profit distributions mentioned above). At EUR 80 million, lending played a minor role in inward direct investment. Almost 80% of the investment capital (EUR 990 million) came from Germany. In this context, it must be mentioned that the planned merger of Bank Austria and Germany's HypoVereinsbank is not likely to impact the financial account before 2001. Accounting for shares of 10 and 6%, respectively, the only other foreign investors apart from Germany were Switzerland and the U.S.A. Investors' formerly strong interest in the telecommunications sector dwindled as they redirected large-scale investments (often via holdings) to commerce, enterprise-specific services, electronics and the chemical, paper and wood-processing industries.

3.2 Portfolio Investment

The *acquisition of foreign securities* led to net acquisitions of EUR 15,650 million in the first half of 2000, thus falling slightly short of the corresponding 1999 figure. With a share of approximately 70% in total net new investment in the financial account, portfolio investment abroad was the most important investment category in the period under review. Euro

area securities accounted for around 60% of capital outflow from portfolio investment.

At the same time, *domestic issuers* sold EUR 18,500 million worth of securities abroad. On balance, this resulted in a net inflow of EUR 2,850 million, i.e. just under 75% of Austria's total investment inflow in the period under review.

Cross-border transactions, which continued at an extremely high level, took place in a very volatile *international environment* dominated by rising interest rates.

In the first half of 2000, the yield curve in the euro area flattened considerably, while in the U.S.A. money market rates had even surpassed the rate of return on 10-year government securities since April 2000, owing mainly to the strong rise in money market rates both in the euro area and in the U.S.A. The development of stock exchange indices mirrors the high volatility of stock markets. The EURO STOXX index recorded the highest 6-month growth since December 1999, while the Dow Jones and Japan's Nikkei were losing ground. Compared to the first half of 1999, the net sale of international debt instruments – an indicator for capital market developments – slumped both for euro-denominated and U.S. dollar-denominated fixed-interest debt securities. The slowdown in issuing activities on the German mortgage bond market and current advance redemptions of government bonds, in particular in the U.S.A., are likely to have been the main underlying reasons. These two market segments are major investment areas for domestic investors. Corporate bonds in the telecommunications sector, by contrast, posted a relatively strong growth.

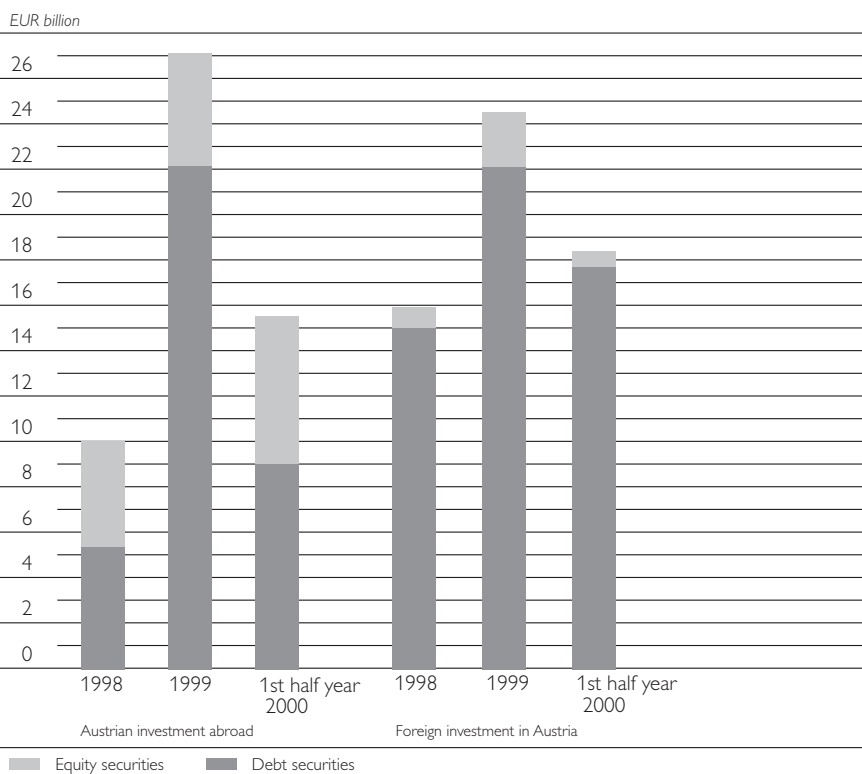
3.2.1 Portfolio Investment in Foreign Securities

The relatively high transaction level reflects the continued appeal of foreign securities for domestic investors, with *banks, investment and insurance companies* constituting the *major groups of investors*. A breakdown by type of securities clearly indicates that domestic investors have been shifting their portfolios towards foreign shares: While in 1999, foreign shares and mutual funds shares accounted for around 18% of transactions, this segment doubled in the first quarter of 2000 and increased further to around 42% in the first half of 2000, posting a transaction value of EUR 6,520 million.

In the first half of 2000, Austrian investors, in particular other financial institutions (OFIs)¹, bought foreign equity securities worth EUR 6,520 million – 2.5 times the amount recorded in the first half of 1999 and 130% of the 1999 annual value. A look at the two subcategories of *foreign shares* and foreign mutual funds shares in the period under review reveals that Austrian residents purchased foreign shares worth EUR 3,220 million; the majority of these acquisitions took place in the second quarter of 2000. Austrian investors went mainly for quoted shares from the financial, industrial and technology sectors. Geographically speaking, shares in euro area enterprises attracted EUR 920 million (with German enterprises

¹ This economic sector comprises investment companies, insurance companies and pension funds.

**Cross-Border Security Transactions -
Net Investment by Financial Instruments¹⁾**



Source: OeNB.
¹⁾ 1998 final data, 1999 revised data, 2000 provisional data.

accounting for the lion's share), while shares in Swiss enterprises were in highest demand in the non-euro area segment.

Investment in *foreign mutual funds shares* amounted to EUR 3,290 million in the first six months of 2000. Domestic mutual funds mainly invested in foreign mixed funds and stock funds, which they included in their fund-of-funds.

While securities transactions involving foreign equity securities recorded a sharp rise year on year, *foreign debt securities* were comparatively less in demand, notwithstanding a transaction volume of EUR 9,130 million in the first half of 2000.

Domestic investors spent EUR 5,280 million on debt securities issued by other euro area countries, with French, Italian and Dutch issues – government bonds in particular – accounting for the bulk of investments. Outside the euro area, domestic investors mainly concentrated on the United Kingdom, Greece and Austria's neighboring countries in Eastern Europe. Euro-denominated securities accounted for 83% of net new investment, while U.S. dollar debt securities contributed an additional 10%.

Domestic banks and other domestic financial institutions (mutual funds and insurance companies) accounted for 48 and 42%, respectively, of

investments in foreign securities. In addition, the central government, for the first time, also was a major buyer of foreign money market instruments.

3.2.2 Portfolio Investment in Domestic Securities

The net inflow from the sale of Austrian securities abroad can be traced to the government's and banks' own issues.

Securities issued by the Republic of Austria proved to be the most attractive segment of the Austrian capital market; the buyers came mostly from the euro area. Banks sold most of their issues abroad in foreign currencies. Demand for shares of Austrian mutual funds was fairly moderate, and in the case of Austrian shares, foreign investors even unloaded more shares than they bought.

In the first half of 2000, foreign investors bought *domestic equity securities* worth approximately EUR 700 million. This equals merely 50% of the result recorded in the analogous period of the previous year or 25% of the annual outturn of 1999.

Unlike in the first half of 1999, when foreign investors were net buyers of Austrian shares, in the first half of 2000 they were net sellers to the tune of around EUR 90 million.

In addition, foreign investors spent EUR 780 million on domestic mutual funds shares, mainly from stock funds and mixed funds. This means that foreign investors' interest in this type of domestic securities remained more or less the same as in the first six months of 1999.

Contrary to the international trend, domestic issuers mainly placed *bonds and notes*, with the banking sector accounting for net inflows of EUR 7,760 million and the government sector accounting for EUR 7,740 billion. As in 1999, euro-denominated federal government bonds accounted for the largest share in portfolio investment in Austria.

Government Bond Syndication and Tender Offers in the First Half of 2000¹⁾

	ISIN	External transactions EUR million
5.5% Federal government bond 1999–2010/4	AT0000384938	1,963
5.5% Federal government bond 2000–2007/144A	AT0000384953	3,579
3.4% Federal government bond 1999–2004/3	AT0000384862	151
5.875% Federal government bond 1996–2006/7	AT0000383518	2,465
6.25% Federal government bond 1997–2027/6	AT0000383864	253
Total		8,983

Source: OeNB.

¹⁾ Transaction values: + = sale abroad.

As residents increased their foreign currency borrowing, banks expanded their refinancing in Swiss franc and Japanese yen. The general government, by contrast, reduced its external long-term foreign currency liabilities.

The central government, however, stepped up sales of own securities abroad by issuing *money market instruments* – mainly in U.S. dollar –, thus generating a capital inflow of EUR 2,790 million in the first half of 2000.

Cross-border holdings of domestic corporate bonds went down by EUR 510 million on a transaction basis, both owing to external net redemptions and net sell-offs.

3.3 Other Investment

In the first half of 2000, the volume of cross-border transactions in deposits and loans – both of the banking system and of nonbanks – exceeded the comparable 1999 figure on the assets side, while additional liabilities more or less matched the value recorded in the first six months of the previous year. On balance, this resulted in a net *inflow* of EUR 410 million in the first half of 2000, compared to EUR 2,140 million in the analogous period of the previous year.

As already mentioned in the financial account section, on balance, the banking system's net capital imports served to fund net outflows resulting from nonbanks' financial investments and to offset net borrowing, with deposits and loans representing an important source of funding in this respect.

An analysis of the *banking system* as the driving force behind the expansion of cross-border deposits and loans reveals the following pattern for both the first half of 1999 and 2000: Banks and the OeNB (mainly by handling TARGET payments) recorded capital imports from short-term deposits and loans from countries outside the euro area, producing a transaction volume of EUR 8,860 million in the first half of 2000, while capital outflows to euro area countries amounted to EUR 7,050 million. In addition, banks channeled EUR 480 million to euro area countries and EUR 1,450 million to nonresidents in the form of long-term loans. The most important target countries for these loans were the Central and Eastern European countries, which generated a transaction volume of EUR 880 million (of which EUR 310 million to Russia), as well as Switzerland and the U.S.A.

Similar to the banking system, *nonbanks* – enterprises in particular – also registered capital inflows from non-euro area countries (mainly from Switzerland, the United Kingdom and the U.S.A.) and capital outflows to euro-area members (mainly Belgium and the Netherlands as the centers of intra-group cash pooling). On balance, nonbanks recorded a net outflow of EUR 1,400 million in the first half of 2000.

3.4 Financial Derivatives

The financial derivatives position basically includes options, futures contracts and swaps, which are either based on capital products (e.g. foreign exchange assets, securities) or on interest rate products. On the one hand, transaction values refer to the buying and selling of securities-based financial derivatives and, on the other, to transactions resulting from option payments (including premiums) in the course of OTC deals and/or from variation margin payments for futures contracts and swap payments.

Interest-based and capital-based financial derivatives closed the period under review with *capital imports* to the tune of EUR 180 million. The interest rate derivatives contained therein resulted in a capital import of

EUR 280 million. Like in the past, transactions under this item were largely determined by financial derivatives not based on securities, with swap operations of banks and the central government dominating this development.

3.5 Reserve Assets

Reserve assets in the first half of 2000 declined by EUR 270 million through transactions. On the one hand, there was a partial shift away from deposits at non-euro area banks and towards securities of non-euro area issuers, while on the other, an additional capital import of EUR 180 million resulted from the change in the reserve position in the Fund.

The reduction in reserve assets only accounted for 7% in the transaction-induced overall change in the OeNB's external assets.

Annex

Table 1

Balance of Payments Summary			
	1st half 1999 ¹⁾	1st half 2000 ²⁾	Annual change
	<i>EUR million</i>		
Current Account	-1,878	-2,919	-1,041
Goods, services and income	- 891	-1,978	-1,086
Goods and services	+ 458	- 668	-1,126
Goods	-1,837	- 807	+1,030
Services	+2,295	+ 139	-2,156
Travel	+1,659	+1,437	- 222
Other services items	+ 636	-1,298	-1,935
Transportation	+ 588	+ 694	+ 106
<i>thereof international passenger transport</i>	+ 313	+ 340	+ 27
Construction services	+ 147	+ 113	- 34
Financial services	+ 45	+ 36	- 8
Royalties and license fees	- 268	- 162	+ 105
Other business services	+ 574	+ 535	- 39
<i>thereof merchanting</i>	+ 529	+ 547	+ 18
Other services	+ 110	+ 94	- 16
Unclassified transactions	- 560	-2,608	-2,048
Income	-1,350	-1,309	+ 40
Compensation of employees	+ 259	+ 274	+ 16
Investment income	-1,608	-1,584	+ 24
Current transfers	- 987	- 942	+ 45
General government	- 765	- 801	- 37
Private sector	- 222	- 141	+ 82
Capital and financial account	+1,553	+3,678	+2,125
Capital account	- 120	- 190	- 70
General government	+ 43	+ 97	+ 54
Private sector	- 192	- 268	- 76
Acquisition/disposal of nonproduced, nonfinancial assets	+ 30	- 19	- 49
Financial account	+1,672	+3,868	+2,195
Direct investment	+ 617	+ 160	- 457
Portfolio investment	-3,155	+2,852	+6,007
Other investment	+2,140	+ 406	-1,734
Financial derivatives	+ 135	+ 180	+ 45
Reserve assets ³⁾	+1,936	+ 270	-1,666
Errors and omissions	+ 326	- 756	-1,082

Source: OeNB.

¹⁾ Revised data.

²⁾ Provisional data.

³⁾ OeNB: Gold and foreign exchange, reserve position in the Fund, SDRs, etc.; increase: - / decrease: +.

Table 2

**Merchandise Exports and Imports
as Recorded in the Foreign Trade Statistics**

Goods by geographic area¹⁾

	1st half 2000						
	Exports			Imports		Balance	
	Annual change	Share of total exports	Annual change	Share of total imports	Annual change		
%				EUR million			
EU	+13.1	61.8	+ 8.3	66.9	-2,896	+591	
Euro area	+12.1	55.0	+ 7.8	61.4	-3,261	+426	
thereof:							
Germany	+ 9.2	33.4	+ 9.1	40.4	-3,075	-247	
Italy	+22.1	9.0	+ 8.4	7.7	+ 290	+332	
France	+11.9	4.4	- 1.0	4.6	- 155	+171	
Non-euro area countries	+22.9	45.0	+21.3	38.6	+1,473	+416	
thereof:							
Switzerland							
and Liechtenstein	+46.5	7.4	+ 5.2	3.2	+1,353	+732	
CEECs ²⁾	+22.2	16.3	+30.8	13.0	+ 889	- 85	
U.S.A.	+20.8	4.8	+18.9	5.5	- 332	- 32	
Japan	+22.7	1.2	+24.0	2.8	- 600	-120	
Total	+16.7	100.0	+12.6	100.0	-1,788	+842	

Source: Statistics Austria.

¹⁾ Geographic areas as defined by WIFO.

²⁾ Central and Eastern European countries: Albania, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovenia, Ukraine, Yugoslavia.

Table 3

**Merchandise Exports and Imports
as Recorded in the Foreign Trade Statistics**

Goods by commodity category

	Exports			Imports			Balance	
	1st half 2000	Annual change		1st half 2000	Annual change		1st half 2000	Annual change
	EUR million	%		EUR million	%		EUR million	
Foodstuffs	1,531	+ 221	+16.9	1,690	- 39	- 2.2	- 160	+ 260
Raw materials	1,577	+ 308	+24.2	3,417	+1,045	+44.1	-1,840	- 738
thereof: energy (SITC 3)	418	+ 169	+67.4	1,990	+ 840	+73.1	-1,571	- 671
Semimanufactured goods	4,978	+ 862	+20.9	4,534	+ 689	+17.9	+ 443	+ 173
Manufactured goods	25,428	+3,375	+15.3	25,623	+2,194	+ 9.4	- 195	+1,181
Capital goods	8,807	+1,110	+14.4	9,089	+1,236	+15.7	- 282	- 126
Consumer goods	16,621	+2,265	+15.8	16,534	+ 958	+ 6.1	+ 87	+1,307
Miscellaneous manufactured articles	42	x	x	78	x	x	- 36	x
Total	33,555	+4,801	+16.7	35,342	+3,959	+12.6	-1,788	+ 842

Source: Statistics Austria.

Table 4

Travel and International Passenger Transport				
	1st half 1999 ¹⁾	1st half 2000 ²⁾	Annual change	
	EUR million		%	
Travel				
Receipts	5,343	5,666	+323	+ 6.0
Expenses	3,684	4,228	+545	+14.8
Balance	1,659	1,437	-222	-13.4
International passenger transport				
Receipts	656	762	+107	+16.2
Expenses	343	422	+ 79	+23.2
Balance	313	340	+ 27	+ 8.7
	1,000		%	
Foreign tourist bednights	41,549	42,452	+904	+ 2.2

Source: Statistics Austria, OeNB.
¹⁾ Revised data.
²⁾ Provisional data.

Table 5

Foreign Tourist Bednights by Country of Origin				
	1st half 2000			
	Overnight stays	Annual change	Share	
	1,000		%	
Germany	26,803	- 85	- 0.3	63.1
Netherlands	4,465	+457	+11.4	10.5
United Kingdom	1,654	+155	+10.3	3.9
Belgium, Luxembourg	1,128	+ 35	+ 3.2	2.7
Switzerland, Liechtenstein	1,351	+ 66	+ 5.2	3.2
Denmark	568	+ 31	+ 5.8	1.3
Italy	841	+ 4	+ 0.5	2.0
France	657	- 56	- 7.8	1.5
Sweden	430	+ 44	+11.3	1.0
Spain	136	- 5	- 3.3	0.3
Poland	552	- 10	- 1.8	1.3
Hungary	449	+ 36	+ 8.7	1.1
Czech Republic	437	+ 14	+ 3.2	1.0
Croatia	183	+ 11	+ 6.4	0.4
Commonwealth of Independent States	202	+ 22	+12.0	0.5
Slovenia	144	+ 1	+ 0.8	0.3
Slovakia	89	+ 6	+ 7.6	0.2
U.S.A.	800	+104	+14.9	1.9
Japan	228	- 9	- 3.9	0.5
Other Countries	1,335	+ 83	+ 6.6	3.1
Total	42,452	+904	+ 2.2	100.0
Memorandum item: Austrian tourists	14,984	+751	+ 5.3	x

Source: Statistics Austria.

Table 6

Investment Income			
	1st half 1999 ¹⁾	1st half 2000 ²⁾	Annual change
	EUR million		
Net investment income ³⁾	-1,608	-1,584	+ 24
Investment income receipt	4,150	5,404	+1,254
Investment income payments	5,758	6,988	+1,229
Net direct investment income ³⁾	- 571	- 538	+ 32
Income on direct investment abroad	400	591	+ 191
Income on direct investment in Austria	971	1,129	+ 158
Net portfolio investment income ³⁾	-1,349	-1,279	+ 70
Income on foreign equity securities	118	245	+ 127
Income on domestic equity securities	173	160	- 13
Income on foreign bonds and notes	1,327	1,876	+ 549
Income on domestic bonds and notes	2,589	3,157	+ 568
Income on foreign money market instruments	49	28	- 21
Income on domestic money market instruments	81	111	+ 30
Net other investment income ³⁾	+ 311	+ 234	- 78
Income on other investment, assets ⁴⁾	2,256	2,664	+ 408
Income on other investment, liabilities	1,945	2,430	+ 486
Investment income on foreign interest-bearing investment ⁵⁾	3,648	4,585	+ 937
Investment income on domestic interest-bearing investment ⁶⁾	4,616	5,700	+1,084
Investment income on foreign venture capital-oriented investment ⁷⁾	502	819	+ 317
Investment income on domestic venture capital-oriented investment ⁷⁾	1,142	1,287	+ 145
Memorandum item:			
Financial derivatives based on interest rate contracts, net ⁸⁾	98	278	+ 180

Source: OeNB,

¹⁾ Revised data.

²⁾ Provisional data.

³⁾ Income on outward foreign investment less income on inward foreign investment.

⁴⁾ Income on deposits, credits and reserve assets.

⁵⁾ Income on debt securities, deposits, loans and reserve assets.

⁶⁾ Income on debt securities, deposits and loans.

⁷⁾ Income on direct investment and equity securities.

⁸⁾ Included in the financial account, financial derivatives.

Table 7

Financial Account	1998 ¹⁾	1999 ²⁾	1st half 1999 ²⁾	1st half 2000 ³⁾
	<i>EUR million, net</i>			
Financial account	+ 5,531	+ 4,938	+ 1,672	+ 3,868
Assets	-16,049	-34,623	-20,098	-22,610
Liabilities	+21,580	+39,561	+21,770	+26,477
Direct investment	+ 1,609	+ 14	+ 617	+ 160
Direct investment abroad	- 2,469	- 2,622	- 1,199	- 1,105
Equity capital	- 2,098	- 2,410	- 1,149	- 647
Reinvested earnings	- 347	- 368	- 217	- 294
Other capital	- 24	+ 156	+ 166	- 164
Direct investment in Austria	+ 4,078	+ 2,637	+ 1,816	+ 1,265
Equity capital	+ 3,191	+ 1,192	+ 935	+ 941
Reinvested earnings	+ 879	+ 1,377	+ 864	+ 241
Other capital	+ 7	+ 68	+ 18	+ 84
Portfolio investment	+ 5,902	- 2,603	- 3,155	+ 2,852
Portfolio investment in foreign securities	-10,116	-27,246	-16,246	-15,653
Equity securities	- 4,672	- 4,957	- 2,679	- 6,522
Bonds and notes	- 5,775	-22,131	-13,167	- 8,057
Money market instruments	+ 331	- 158	- 400	- 1,074
Portfolio investment in domestic securities	+16,018	+24,643	+13,090	+18,505
Equity securities	+ 908	+ 2,409	+ 1,286	+ 695
Bonds and notes	+14,806	+18,699	+11,441	+15,094
Money market instruments	+ 304	+ 3,535	+ 364	+ 2,715
Other investment	+ 742	+ 5,643	+ 2,140	+ 406
Assets	- 825	- 6,545	- 4,596	- 6,121
Trade credits	+ 641	- 263	- 258	- 343
Loans	- 3,836	-11,668	- 4,817	- 6,297
Currency and deposits	+ 2,401	+ 5,453	+ 433	+ 315
Other assets	- 30	- 67	+ 46	+ 205
Liabilities	+ 1,566	+12,189	+ 6,736	+ 6,527
Trade credits	- 266	+ 97	- 4	- 51
Loans	+ 59	+ 1,776	+ 496	- 65
Currency and deposits	+ 1,465	+ 9,809	+ 6,329	+ 6,813
Other liabilities	+ 308	+ 507	- 84	- 171
Financial derivatives	+ 193	- 80	+ 135	+ 180
Reserve assets⁴⁾	- 2,914	+ 1,963	+ 1,936	+ 270
<i>Memorandum item:</i>				
<i>Interest-bearing investment</i>	+ 8,022	+ 7,332	+ 2,385	+ 9,312
Assets	- 8,579	-27,254	-16,301	-15,288
Liabilities	+16,601	+34,586	+18,686	+24,600
Breakdown by sectors				
OeNB and banks	- 1,371	+ 7,268	+ 2,849	+ 5,881
Assets	- 6,485	-12,010	- 7,443	- 8,723
Liabilities	+ 5,113	+19,278	+10,292	+14,604
General government	+10,986	+14,908	+ 8,438	+ 8,415
Assets	- 397	+ 284	- 459	- 1,962
Liabilities	+11,384	+14,624	+ 8,897	+10,377
Other sectors	- 4,084	-17,239	- 9,614	-10,428
Assets	- 9,167	-22,899	-12,196	-11,925
Liabilities	+ 5,083	+ 5,660	+ 2,582	+ 1,497

Source: OeNB.

¹⁾ Final data.

²⁾ Revised data.

³⁾ Provisional data.

⁴⁾ OeNB: Gold and foreign exchange, reserve position in the Fund, SDRs, etc.; increase: - / decrease: +.

Table 8

	Investment in/ from the euro area			Investment in/ from non-euro area countries		
	1999 ²⁾	1st half 1999 ²⁾	1st half 2000 ³⁾	1999 ²⁾	1st half 1999 ²⁾	1st half 2000 ³⁾
	EUR million, net					
Financial account	- 198	- 8,339	- 2,886	+ 5,136	+10,012	+ 6,754
Assets	-19,852	-18,258	-18,649	-14,772	- 1,840	- 3,961
Liabilities	+19,654	+ 9,918	+15,763	+19,907	+11,852	+10,714
Direct investment	+ 1,319	+ 1,136	+ 522	- 1,305	- 519	- 362
Direct investment abroad	- 413	- 44	- 412	- 2,209	- 1,155	- 692
Direct investment in Austria	+ 1,732	+ 1,180	+ 934	+ 904	+ 637	+ 330
Portfolio investment	- 5,066	- 4,993	+ 6,464	+ 2,463	+ 1,837	- 3,612
Portfolio investment in foreign						
Securities	-20,458	-11,643	- 9,468	- 6,789	- 4,603	- 6,185
Portfolio investment in domestic securities	+15,392	+ 6,651	+15,932	+ 9,252	+ 6,440	+ 2,573
Other investment	+ 3,237	- 5,066	- 9,980	+ 2,406	+ 7,206	+10,386
Assets	+ 598	- 6,781	- 8,697	- 7,143	+ 2,184	+ 2,576
Liabilities	+ 2,639	+ 1,715	- 1,282	+ 9,550	+ 5,021	+ 7,809
Financial derivatives	+ 157	+ 428	+ 108	- 237	- 293	+ 72
Reserve assets⁴⁾	x	x	x	+ 1,963	+ 1,936	+ 270

Source: OeNB.

¹⁾ While for foreign direct investment in Austria and other inward investment it is possible to establish the identity of the foreign investors, in the case of portfolio investment one can only determine the country via which the transaction has been effected. This means that it is not possible to provide a current and/or completely reliable classification of creditors. Ongoing studies, however, show that the largest volume of Austrian securities sold to the euro area are government bonds sold to foreign banks in the course of tender or syndication offers. Since, in this case, the secondary market generated only a relatively small volume of cross-border transactions, the regional structure of the basic data derived from the reporting system on foreign exchange statistics can be regarded as sufficiently conclusive.

²⁾ Revised data.

³⁾ Provisional data.

⁴⁾ OeNB: Gold and foreign exchange, reserve position in the Fund, SDRs, etc.; increase: - / decrease: +.

Austrian Outward and Inward Direct Investment Results of the 1998 Survey and Development of Selected Indicators

This report provides a brief overview of the main results of the survey of the stock of direct investment at the turn of 1998/99 and an update of some of the indicators first presented in Reports and Summaries 4/1995. For detailed results structured by regions and sectors, see the supplement to the Focus on Austria 2/2000 (available in hard copy only).

Review of 1998 Results and Outlook for 1999

The OeNB's most recent direct investment survey shows that the total stock of Austrian direct investment abroad (outward FDI) came to ATS 197.2 billion (EUR 14.3 billion) and the total stock of foreign direct investment in Austria (inward FDI) ran to ATS 250.4 billion (EUR 18.2 billion) at the end of 1998. In line with the trend prevailing throughout most of the last decade, total stocks of outward FDI augmented faster (about 17%) than inward FDI stocks (13%).

Hence the pace of Austrian outward investment growth remained animated. The rise by more than ATS 29 billion over the year to the end of 1998 marked the second highest result on record following the year-earlier high of ATS 31 billion. Stocks of inward investment widened by ATS 29 billion, too, which was also the second highest outcome ever. The balance of payments figures on a transactions basis (flow statistics) would have suggested an even more powerful expansion of FDI. The discrepancy between effective payments and the book values on which the direct investment statistics are based essentially accounts for the deviation of stock from flow statistics. Overall, the gap between inward and outward FDI stocks narrowed further in 1998. Whereas the value of Austrian outward FDI stocks corresponded to only 20% of inward FDI holdings just a decade ago (end-1988 figures), outward FDI stocks had expanded to nearly 80% of direct investment stocks in Austria at the end of 1998.

International statistics also confirm that Austrian outward investment has been catching up: According to UNCTAD's World Investment Report 2000 (WIR2000), worldwide direct investment stocks more than doubled from 1990 to 1998.¹⁾ The 2.4-fold surge in stocks of FDI in Austria (stated in U.S. dollars) in this period largely corresponds to the worldwide average; the fourfold expansion of Austria's outward FDI clearly exceeds the average. Nevertheless, Austria still has a considerable need to catch up, above all in terms of outward FDI: In this vein, Austria only accounts for 5 of international inward direct investment and for only 4 of international outward FDI. These values do not reflect Austria's world trade position, as Austria's share of world trade is roughly 1%.²⁾ The ratio of direct investment to GDP also signals that Austria's degree of integration with the

1 While inward FDI climbed from USD 1.761,198 million to USD 4.015,258 million, outward FDI enlarged from USD 1.716,964 million to USD 4.065,798 million. The divergence between outward and inward direct investment, which in theory are supposed to be identical, raises doubts about the purported precision of the data presented (claimed to be exact to the nearest USD 1 million). However, an inconsistency of only 1 to 2% is very small for international data sets (UNCTAD: World Investment Report 2000 (WIR2000) – Cross-border Mergers and Acquisitions and Development; New York, Geneva, p. 294 and p. 300).

2 Statistics Austria: Statistisches Jahrbuch für die Republik Österreich L, new issue 1999: 2000; Vienna, December, table 50.02, p. 575.

world economy is below average. Whereas world stocks of FDI corresponded to some 14% of GDP in 1998, Austrian inward FDI stocks came to 11.3% of GDP and outward FDI stocks amounted to 8.2% (WIR2000, p. 319 ff.). Austria's GDP ratio of inward FDI holdings is two thirds, that of outward direct investment stocks only one third of the EU average (17.3 and 22.9% of GDP, respectively). Within the EU, the net position is negative only in Austria, Greece, Portugal, Spain, Ireland and Belgium/Luxembourg.¹⁾

While Austria's *outward* FDI stocks rose, the number of Austrian direct investors remained unchanged at about 900, but they held stakes in a larger number of enterprises abroad (+64). Inward direct investment augmented both in terms of the number of investors (+28) and the number of affiliated enterprises (+61).

Since the adjustment of Austria's balance of payments statistics to the requirements of the 5th edition of the IMF's balance of payments manual, experts have been able to display the links between balance of payments flows and changes in stocks recorded in the direct investment survey in a logical and consistent manner (see table 1). Although a full reconciliation between stock statistics and balance of payments flows cannot be expected because of conceptual differences or discrepancies in coverage and valuation, the balance of payments data are sufficient to provide a rough picture of the causes of stock changes. Moreover, the links between the two statistics allow the level of direct investment at the end of 1999 to be estimated: With sales made by direct investment enterprises having remained robust in 1999, FDI abroad is expected to have reached roughly ATS 230 billion, and FDI in Austria is likely to have expanded to nearly ATS 285 billion.

Regional Breakdown

By regions, Austria's *outward* FDI focused on the UK, Denmark and Germany in 1998. The UK thus became the second most important target for Austrian foreign direct investment; Denmark made the list of the top 15 FDI destinations for the first time. Despite the absolute rise in Austrian FDI stocks in Germany, the share of outward investment in Germany only barely remained the largest one, as it has tended to narrow (see table 2). With the notable exception of Hungary, Austrian capital investment in Central and Eastern Europe also continued to expand. In fact, direct investment holdings in Hungary, a prime investment location of the early 1990s, decreased by ATS 1 billion. Thus at the end of 1998, EU countries held more than 45% of Austria's stocks of outward FDI; the CEECs' share amounted to just under 30%. The other major FDI target regions were the U.S.A. (8%), Switzerland (7%, includes Liechtenstein) and the Caribbean offshore financial centers (4%). The rest of the world – such as the emerging markets in Asia and Latin America – accounted for only 6% of Austria's outward FDI stocks.

¹ A negative net position means that inward FDI exceeds outward FDI.

Considering that FDI stocks in the CEECs represent a 30% share of Austria's capital held abroad, and that less than 2.5% of all international FDI is placed in this region,¹⁾ Austria is one of the leading investors in Eastern Europe. Even before the opening up of the region, Austria had economic ties to Eastern Europe; along with its geographic proximity and its cultural affinity to Eastern Europe, this made Austria one of the pioneers of direct investment there. Once the large industrial nations rushed to capitalize on direct investment opportunities in the region, Austria steadily lost market share. Nevertheless, Austria has remained among the principal investors in some of the CEEC-19, even in absolute figures. In a compilation contained in the WIR1999, Austria is the leading foreign investor in the Slovak Republic and Slovenia, the second largest investor in Croatia and Macedonia and the third largest investor in the Czech Republic.²⁾

Inward FDI reflects Austria's close trade links with the single market: EU-based investors have large and rising stakes in Austrian companies. As in 1997, companies from this region accounted for more than 70% of all direct investment in Austria (see table 2). Even though German investors disinvested on balance in 1998, Germany was still the country with the largest share of inward FDI in Austria (40%). However, Spanish and French direct investors accounted for more than half of the increment in 1998. In contrast to the classification in the direct investment survey, the Netherlands ranked ahead of all other investors in Austria by a wide margin in the 1998 regional balance of payments results. This discrepancy has its origin in the different geographical allocation in the two statistics – direct investment flows are allocated to the country of the immediate business partner in the balance of payments, direct investment stocks to the country in which the direct investor is headquartered. The main European investor outside the EU is Switzerland (12%; includes Liechtenstein), though its importance as a source of FDI is diminishing. The largest non-European investor, the U.S.A., enlarged its FDI holdings in Austria substantially in the year under review (8%). Apart from the aforementioned countries, only Japan (3%) and the Gulf states (2%) have fairly significant shares of Austria's inward investment. Overall, inward FDI exhibited a far stronger regional concentration than outward FDI. Austria's ten leading partner countries held 92% of all inward FDI compared to only 72% of all outward direct investment. The predominant position of German and EU investors is specific to Austria. The European Union Direct Investment Yearbook 1999, which is published by Eurostat, indicates that in 1997 slightly more than half of all inward direct investment in the EU was made by enterprises whose parent companies were located in the EU. EU-based investors also accounted for more than 70% of all FDI in Portugal (79%) and Finland

1 WIR2000, p. 296 f.

2 UNCTAD: *World Investment Report 1999 (WIR1999) – Foreign Direct Investment and the Challenge of Development*; New York, Geneva. "The top three source countries of inward FDI stock in Central and Eastern Europe, 1998," p. 72. The Vienna Institute for International Economic Studies found much the same results, with Austria coming in fourth among international investors in Hungary and eleventh in Poland (WIFO 2000: *WIIW-WIFO database; Foreign Direct Investment in Central and Eastern European Countries and the Former Soviet Union*; Vienna, February).

(72%); such a comparison cannot be drawn e.g. for Ireland, Denmark or Belgium, as they do not report stock figures. Within the EU, the only other country beside Austria to show an investor pattern with a *single* predominant investment source is the United Kingdom, where U.S. direct investors held 44% of inward FDI.

Sectoral Breakdown

As in 1997, foreign direct investment in Austria's manufacturing sector fell on balance in 1998. This sector's share contracted to just 26% of total FDI. With the sector mining and quarrying, and electricity, gas and water accounting for a 2% share, the remaining 72% of FDI in Austria was made in services. Although the growing popularity of holding companies overstates this figure, the shift toward services is nevertheless impressive: Within a mere four years from 1994, the share of inward investment in manufacturing contracted from 38.5 to just 26.2%. The inward FDI figures reflect the impact of the liberalization of the telecommunications sector in 1998. FDI capital inflows into this sector surged from ATS 8 billion to ATS 21 billion (book values), a rise which was surpassed only by the ATS 19.4 billion boost in inward investment in the heterogeneous sector other services (which includes holding companies). Trade and repairs (+ATS 2.1 billion), energy (+1.7 billion) and chemicals and metals products (+ATS 1.1 billion; +ATS 1.0 billion) also posted considerable gains in inward direct investment. Conversely, direct investors withdrew capital from the sectors electrical and optical equipment as well as financial intermediation.

Nearly three quarters of new outward FDI was focused on services. This result confirmed the uptrend in FDI in the service sector. The share of outward FDI in services has grown to 70%, whereas manufacturing and construction capture only 28% of Austrian investor's capital placements abroad. The residual 2% were invested in mining and quarrying and electricity, gas and water (see table 3). Outward FDI in real estate and business activities (+ATS 11.7 billion; includes holding companies) expanded most, followed by financial intermediation (+ATS 10.4 billion). The latter increase is nearly twice the size of the rise in FDI in the entire manufacturing and construction sector (+ATS 5.7 billion). Austrian direct investors cut back sharply only on stakes in hotels and restaurants abroad (-ATS 1.3 billion).

A comparison of Austrian and EU statistics¹), shows that in Austria both inward (lack of resources) and outward investment in mining are far *below average*, as is direct investment in electricity, gas and water, sectors in which public ownership predominates in Austria. On the whole, FDI in manufacturing is also *disproportionately* low in Austria. The large gap of more than 10 percentage points between inward and outward FDI is likely to stem partly from the different statistical representation of holding companies in the individual countries. (In Austria, the share of the services subsector real estate and business activities is nearly twice as large at 33% than the EU average). The subsector trade and repairs (inward, outward) is

¹ Eurostat: *European Direct Investment Yearbook 1999; vol. 2, Luxembourg, 2000.*

overrepresented in the Austrian direct investment survey, as are construction (outward) and telecommunications (inward).

Not only the sector to which direct investment companies in Austria and abroad belong, but also the sector of which Austrian direct investors are part is known.¹⁾ Four main types of investor and investment enterprise may be identified: Nearly half of all outward investment is made in a company in the same sector as the direct investor²⁾ (1,003 of 2,078 investments recorded). A second typical construction (334 or 16% of all investments) occurs when an Austrian direct investor acquires a stake in a nonresident trade company.³⁾ Such sales-oriented investors are usually manufacturing or holding companies. The third frequent type of direct investor (18% of all direct investors) is a company in the subsector real estate and business activities, generally a holding company, which invests in a nonresident undertaking in a different sector.⁴⁾ This type of construction usually involves highly staffed firms – 30% of all employees working for a direct investment enterprise abroad fall in this category. Finally, in 8% of all cases, Austrian direct investors (half from the manufacturing sector, half in services, no holding companies) founded a holding company abroad. Such structures are capital intensive – they account for 23% of the capital invested abroad – but employ only 2% of the staff of direct investment companies. These four types of direct investment links cover 90% of all outward investment structures. Roughly half of the remaining 10% consists of Austrian trade firms with a stake in a nonresident manufacturing company. 89 of a total of 361 possible combinations may be classified under one of these four main categories, and the 5% not covered by one of these structures are spread among the 272 other conceivable combinations, such as a bank owning a chemicals manufacturer or a steelmaker buying a hotel

Income and Return on Equity

The profitability of foreign affiliates of Austrian direct investors continued to improve in 1998. Although total annual profit dropped 10% in 1998, the direct investment enterprises closed with ATS 8.0 billion, the second best outcome of the past decade. The 1998 annual results of affiliates abroad were in the black in all important countries save France and Russia. While foreign affiliates traditionally carried forward losses on balance, the net loss carryover diminished from ATS 3.3 billion to ATS 1.2 billion in the review year, so that profit for the year grew from ATS 5.5 billion to ATS 6.7 billion. 1,108 direct investments made a profit in 1998, and 970 direct investment enterprises incurred a loss.

Companies in Austria partly owned by foreign direct investors scored record profits. For one thing, they boosted annual profit by ATS 1 billion to

1 However, the sector to which foreign parent companies belong is not covered.

2 This classification is based on the 19 sectors covered in this publication; the share would of course decline in a more detailed classification.

3 Austrian trade companies' direct investments are already included in the first type of construction and are not double counted here.

4 Holding companies' investments in trade companies are not counted here, as they are covered by the second construction.

a total of ATS 26.4 billion, and net profit or loss carried forward, which had been in deficit by ATS 2.0 billion, reversed to post a profit carryover of ATS 6.4 billion. As a result, profit for the year 1998 advanced by more than 40% to ATS 32.9 billion. At 57%, the share of direct investment enterprises turning a profit in Austria was larger than that of profitable direct investment undertakings abroad.

The analysis of the key ratios for individual enterprises confirms that the 1998 surge in the aggregate profit for the year was indeed a general phenomenon – most Austrian direct investment firms benefited from a pickup in the return on equity. The median return on equity, which has been improving steadily since 1993, progressed to 4.0% in 1998 (1997: 4.5%), the second best score of the decade (see table 5). A slight polarization was discernible: While the return on equity of the best 10% and the best 25% of the direct investment enterprises did not deteriorate at all or only marginally, that of the bulk of enterprises worsened slightly and that of enterprises which were weak to begin with declined further. Judging from the aggregate-level perspective (the weighted average return on equity rather than the median return on equity), Austrian enterprises still have considerable scope to improve profitability: With annual profit running to ATS 26 billion and equity to ATS 243 billion, the return on equity of inward direct investment enterprises was more than twice that of the outward direct investments, where equity stood at ATS 174 billion and annual profits amounted to just ATS 8 billion.

The age of direct investments abroad is still highly correlated with the profitability of individual enterprises: Direct investments established for over four years had a return on equity of 6.5%, significantly more than newer affiliates, which closed with an even measure of losses and gains (median = 0.0). Unless there is an investment boom, however, profitability should logically improve in startups which posted losses during the review period as they mature; then they should make a positive contribution to overall productivity. In 1998, 56% of the direct investment undertakings abroad were classified as more mature compared to less than 30% in 1994. The median equity ratio edged up to 29.6% in 1998, with more recent startups typically exhibiting a higher ratio (32.8% for startups compared to 27.0% for more mature enterprises).

Improved profitability went hand in hand with higher productivity rates.¹⁾ After median sales per employee had fallen from ATS 1.5 million to under ATS 1 million after the opening up of Eastern Europe, they began to advance steadily from 1993. Nevertheless, median productivity in manufacturing was raised by just 0.3% or ATS 1.24 million in 1998.

Moving on to the development of inward investment, the higher annual profits translated into an upturn in median return on equity from 4.7 to

1 For reasons of comparability, the analysis of productivity and the return on sales is limited to the manufacturing sector. Until 1995, this sector was defined as comprising companies belonging to the sectoral association "industry" in the Austrian Federal Economic Chamber; since 1996 calculations have been made for the ÖNACE (Austrian Statistical Classification of Economic Activities) sections C through F (mining and quarrying and electricity, gas and water, manufacturing and construction).

5.9%. As in the case of outward FDI, improved profitability resulted from higher annual profits of the successful affiliates abroad (the return on equity of companies in the upper 10% jumped from 67 to 75%). Again, the return on equity of longer-standing investments (8.2%) considerably outpaced that of more recently established investments. As in the case of outward investment, the median return on equity of newly acquired investments or newly founded direct investment enterprises in Austria came to exactly 0.0. Thus while more recent startups have the same return on equity whether they are in Austria or abroad, the median return on equity of more mature companies in Austria was 1.7 percentage points above that of comparable nonresident enterprises. The fact that inward direct investments performed better than outward investments was compounded by the relatively larger share of more mature investments in Austria (76% of inward against 56% of outward direct investments). At 23.5%, the median equity ratio of direct investment enterprises in Austria had changed only little from the 1997 result. The return on sales of manufacturing enterprises improved considerably again, and at 2.4% jumped to an all-time high compared to the previous record of 2.1% in 1994. The return on sales per employee picked up somewhat to ATS 2.3 million, a rise by more than 2% against 1997.

Employment

In 1990 Austrian direct investors employed 260,800 persons within Austria, a number that surged to nearly 350,000 in 1995 on the back of booming outward direct investment. While this expansion can be traced above all to a swelling of the ranks of investing enterprises over the five-year period, the contraction by about 60,000 employees in 1996 resulted not from a decline in the number of investors, but rather from a single transport company's decision to shed its foreign affiliates. On average in 1998, resident direct investors employed staff of 260,100, down by 9,000 persons or 3% from 1997. 162,000 of these wage and salary earners worked in manufacturing,¹⁾ 98,000 in services. Jobs in direct investment firms in Austria accounted for roughly 8.5% of total employment in Austria.

Weighted for the investor's nominal capital share, a total of 187,700 persons were employed by 2,006 Austrian direct investment enterprises abroad, which represents a 16% rise from 1997. The number of employees working in Austrian direct investors' nonresident affiliates thus more than quadrupled between 1990 and 1998. With employment in manufacturing burgeoning from 100,000 to 124,000 in this period, employment in the service sector, which had been steadily expanding, dropped back to around a third of the total. Hence for every 100 persons employed by a direct investor in Austria, another 76 were on the payroll of affiliates abroad. Services are close on the heels of manufacturing: For every 100 employees working for parent service companies in Austria, 65 people worked for

¹ The sectors are classified according to the Austrian Statistical Classification of Economic Activities (ÖNACE) and comprise the manufacturing sections C through F. At present, back calculations of data are available only until 1994.

foreign affiliates (again, weighted, i.e. multiplied by the direct investor's percentage ownership of the direct investment enterprise's nominal capital).

The employment figures of Austrian direct investment enterprises abroad are less impressive if they are viewed in terms of the overall dependent labor force in Austria rather than just of the number of persons working for the direct investor.¹⁾ For every 100 employees in Austria, there are six persons working for Austrian direct investment enterprises abroad, up from just one person up to 1990. In some sectors, however, employment in affiliates abroad reached quite substantial proportions. In the sector nonmetallic mineral products, 100 domestic employees contrast with 40 persons working for foreign affiliates, and 27 persons in the sector refined petroleum products, chemicals, rubber as well as electrical and optical equipment. With Austrian financial intermediaries intensively working the market in Central and Eastern Europe, 16 persons were posted abroad for every 100 employees of financial intermediaries in Austria.

The *regional breakdown* of employment in foreign affiliates differs considerably from the distribution of the capital invested. Most of the *increase in employment* in 1998 focused on Germany (+9,200) and the transition countries in Central and Eastern Europe, especially Romania (+3,600), the Czech Republic (+3,400), Poland (+2,900) and the Slovak Republic (+2,600). In terms of *employment figures*, Eastern Europe has long held the lead:²⁾ Two thirds of the foreign labor force of 187,700 worked in this region (52,500 in Hungary, 31,000 in the Czech Republic, 11,500 in Poland and 10,000 in the Slovak Republic). More than one fourth worked in direct investment enterprises in the EU, and distinctly less than 10% were engaged by affiliates located outside of Europe.

Turning to inward FDI, the number of domestic employees hired by nonresident investors' affiliates in Austria gained 8% (weighted for the investor's share of nominal capital) to 228,400 (Germany: +9,500, Italy: +4,500). A closer analysis shows that employment made headway exclusively in direct investment enterprises in the service sector (roughly an additional 17,000 jobs) and stayed the same in manufacturing. Unlike in the case of outward FDI, the regional distribution of employment largely mirrors the distribution of invested capital. The seven main investors (85% of the total capital invested)³⁾ are at the same time – and almost in the same order – the seven most important employers (90% of the employees).

Expressed as a percentage of the total dependent labor force in Austria, this means that 7.4% of all jobs were held by people working in nonresident investors' companies in Austria. Broken down by sectors, this applies to 12.6% of all jobs in manufacturing and 5.4% of all jobs in services. The sector influenced most heavily by inward FDI in terms of employment is electrical and optical equipment and information technology (40% of all employees), followed by chemicals (32%) and transport equipment (31%). Sectors with an exceptionally low share of employees working for foreign

1 This does not represent a "share"; the values could theoretically exceed 100%.

2 Compared to a capital share of 30%.

3 These seven countries are Germany, Switzerland, the U.S.A., Italy, the Netherlands, France and the UK.

investors are construction, mining, the power supply industry (less than 2%), wood and wood products and the heterogeneous sector manufacturing n. e. c. (approximately 5%). Among services, the share ranges from a high of 14% in trade and repairs to 11% in financial intermediation to a low of 0.1% in other services.

This calculation, however, takes into account only the first tier of direct investment enterprises; in other words, the employees of nonresident investors' indirectly owned direct investment enterprises do not figure in this total. If the (weighted) number of employees of *indirectly* owned direct investment enterprises of 70,500 is factored in, the share of foreign-controlled jobs in Austria rises to about 9.7%.

Annex

Table 1

Stocks and Flows of Austrian Inward and Outward

Direct Investment

Capital stocks and flows	Outward Direct Investment	Inward Direct Investment
	ATS billion	
Direct investment stocks at the end of 1997		
Equity capital	145.8	210.1
Other capital (intragroup lending)	22.4	11.1
	168.1	221.2
Transaction acc. to the 1998 balance of payments		
New equity capital	45.8	65.8
Disinvestment	- 17.0	- 21.8
Excluding privately owned real estate	- 1.3	- 1.4
Equity capital	27.5	42.5
Reinvested earnings	4.8	12.1
Net lending	0.3	0.1
Valuation differences and valuation changes ¹⁾	- 3.6	- 25.5
Direct investment stocks at the end of 1998		
Equity capital	174.1	243.5
Other capital (intragroup lending)	23.1	6.9
	197.2	250.4
Transactions acc. to the 1999 balance of payments		
New equity capital	46.7	29.1
Disinvestment	- 13.6	- 12.7
Excluding privately owned real estate	- 3.5	- 1.6
Equity capital	29.7	14.8
Reinvested earnings	5.1	18.9
Net lending	- 2.1	0.9
Outlook for direct investment at the end of 1999		
Equity capital	209	277
Other capital (intragroup lending)	21	8
	230	285

Source: OeNB.

¹⁾ E. g. exchange rate changes, differences between the transaction value and the book value, definitional differences.

Table 2.1

Outward Direct Investment Stocks									
	1991	1992	1993	1994	1995	1996	1997	1998	Prognosis 1999
	<i>ATS billion</i>								
Nominal capital	38.4	45.4	60.4	64.2	71.4	83.2	93.7	108.2	x
Other equity capital	12.6	17.6	17.4	19.8	23.9	29.4	52.1	66.0	x
Equity capital	51.1	63.0	77.8	84.0	95.3	112.6	145.8	174.1	209
Lending	13.4	14.9	20.6	19.0	22.8	23.8	22.4	23.1	21
Total capital	64.5	77.9	98.5	103.0	118.0	136.4	168.1	197.2	230
Number of investments	1.239	1.340	1.562	1.698	1.796	1.897	2.020	2.078	x
	<i>ATS billion</i>								<i>1998 %</i>
Total capital broken down by target regions EU-15	36.4	42.3	50.4	46.7	54.8	62.6	70.1	90.8	46.0
thereof:									
Euro area	28.2	33.9	39.6	37.3	46.8	54.4	55.7	64.5	32.7
Germany	15.6	19.5	20.9	18.1	23.1	27.3	27.0	31.6	16.0
Netherlands	4.0	6.2	7.3	6.7	9.9	10.9	9.6	8.8	4.5
Italy	2.9	2.3	2.3	2.4	2.3	3.3	4.9	5.2	2.7
France	1.2	1.5	1.7	2.0	2.7	4.0	4.6	7.7	3.9
United Kingdom	7.6	7.1	9.2	7.3	6.0	5.8	12.0	19.5	9.9
Eastern Europe	11.3	18.0	26.3	32.5	33.7	39.5	51.7	57.9	29.4
thereof:									
Hungary	8.6	12.3	16.4	17.7	16.0	17.0	18.7	17.7	9.0
Czech Republik	0.4	2.8	5.6	8.7	10.0	11.6	13.5	14.9	7.5
Slovakia	0.3	0.8	1.1	1.7	2.1	3.2	5.0	5.6	2.9
Rest of Europe	9.4	10.2	11.3	12.8	13.9	14.2	17.7	16.4	8.3
thereof:									
Switzerland and Liechtenstein	9.3	9.7	10.3	11.6	11.3	11.1	13.8	13.8	7.0
America	5.9	5.8	8.8	9.3	13.3	16.7	26.3	29.6	15.0
thereof:									
U.S.A.	3.2	3.1	4.7	5.1	6.2	6.5	15.3	15.2	7.7
Caribbean States ¹⁾	0.3	0.5	0.8	0.6	1.9	4.7	5.2	7.9	4.0
Asia, Africa, Oceania	1.5	1.6	1.7	1.7	2.4	3.4	2.4	2.6	1.3
Total	64.5	77.9	98.5	103.0	118.0	136.4	168.1	197.2	100.0
Market value	46.6	56.0	70.5	72.7	91.7	108.2	144.1	182.7	x
<i>By relation to total equity</i>	91	89	91	87	96	96	99	105	x

Source: OeNB.

¹⁾ Netherlands Antilles, Barbados, Bermuda, Jamaica, St. Kitts & Nevis, Cayman Isles, Montserrat, British Virgin Isles.

AUSTRIAN OUTWARD AND INWARD
DIRECT INVESTMENT

Table 2.2

Inward Direct Investment Stock									
	1991	1992	1993	1994	1995	1996	1997	1998	Prognosis 1999
<i>ATS billion</i>									
Nominal capital	58.3	60.9	62.5	64.5	71.5	74.5	78.7	96.7	x
Other equity capital	47.5	52.9	55.0	60.0	86.9	106.6	131.4	146.8	x
Equity capital	105.9	113.8	117.5	124.5	158.4	181.0	210.1	243.5	277
Lending	4.9	13.4	20.6	20.8	18.5	14.9	11.1	6.9	8
Total capital	110.8	127.3	138.1	145.3	176.9	195.9	221.2	250.4	285
Number of investments	3.227	3.260	3.092	3.056	3.094	3.190	3.246	3.266	x
<i>ATS billion</i>									
<i>1998 %</i>									
Total capital broken down by target regions EU-15	70.4	80.6	86.9	87.2	119.1	132.7	158.2	178.8	71.4
thereof:									
Euro area	64.3	73.2	79.7	77.7	108.5	120.6	146.3	161.8	64.6
Germany	41.7	47.4	51.1	50.6	74.4	85.2	103.8	100.7	40.2
Netherlands	12.1	14.0	13.3	10.2	16.5	16.7	20.2	19.2	7.7
Italy	4.9	5.1	5.6	5.8	5.6	5.8	8.9	19.8	7.9
France	3.5	3.9	5.4	6.0	6.7	6.8	7.4	13.9	5.6
United Kingdom	4.1	4.9	4.4	6.2	7.0	8.0	6.9	9.2	3.7
Sweden	1.8	1.9	2.3	2.4	3.0	3.1	3.3	4.9	2.0
Eastern Europe	1.3	1.7	1.9	2.8	2.8	3.5	4.5	5.0	2.0
Rest of Europa	19.0	23.7	23.9	26.5	28.0	27.2	30.5	31.0	12.4
thereof:									
Switzerland, Liechtenstein	18.5	23.2	23.3	25.9	27.2	25.7	28.7	29.0	11.6
America	12.5	15.0	16.6	15.8	12.1	15.8	16.0	21.7	8.7
thereof:									
U.S.A.	11.3	14.0	15.5	9.0	10.8	14.0	14.8	21.0	8.4
Asia	7.3	5.8	5.7	9.0	10.4	11.0	12.1	12.8	5.1
thereof:									
Japan	5.2	3.7	3.7	4.3	5.4	5.9	6.6	7.3	2.9
Gulf countries ¹⁾	2.0	2.0	1.9	4.6	4.8	4.7	4.8	4.9	2.0
African, Oceanic	0.3	0.4	3.0	3.9	4.4	5.8	- 0.1	1.1	0.4
Total	110.8	127.3	138.1	145.3	176.9	195.9	221.2	250.4	100.0
Market value	174.8	170.8	179.9	194.5	253.3	293.0	358.2	343.2	x
By relation to total equity	165	150	153	156	160	162	171	141	x

Source: OeNB.

¹⁾ Bahrain, Irak, Yemen, Qatar, Kuwait, Oman, Saudi Arabia, United Arab Emirates.

Table 3

	Outward direct investment				Inward direct investment			
	1995	1996	1997	1998	1995	1996	1997	1998
	ATS billion							
Mining and quarrying, and electricity, gas	2.6	3.0	2.9	4.1	1.8	2.2	2.1	3.8
Manufacturing and construction	38.0	40.7	48.6	54.2	65.4	68.4	66.6	65.8
Food products	3.3	3.2	3.5	4.0	6.7	5.6	3.4	4.0
Textile products, apparel and leather	1.0	0.7	1.1	1.2	2.4	2.3	2.5	2.3
Wood and wood products	1.9	0.6	1.3	1.2	0.5	0.5	0.5	0.3
Paper, publishing and printing	2.8	3.0	4.8	5.0	5.8	9.3	9.1	8.4
Refined petroleum products, chemicals, rubber and plastic products	7.5	7.8	8.0	8.3	21.3	22.3	23.7	24.8
Nonmetallic mineral products	4.9	5.3	7.4	10.6	3.7	4.7	4.4	4.8
Metal products	5.1	6.6	7.8	8.1	2.5	3.4	3.3	4.3
Mechanical products	2.9	2.8	3.2	3.4	7.3	8.3	8.3	9.2
Electrical and optical equipment	3.7	4.7	4.7	5.5	7.3	3.7	3.8	1.1
Transport equipment	0.8	0.6	0.6	0.5	4.8	4.9	4.2	4.2
Manufacturing n.e.c.	0.4	0.5	0.8	1.3	1.3	1.6	1.7	1.2
Construction	3.6	4.9	5.3	5.2	1.8	1.7	1.7	1.0
Services	77.5	92.7	116.7	138.9	109.7	125.3	152.5	180.7
Trade and repairs	15.6	17.5	26.8	27.9	38.7	41.2	48.1	50.1
Hotels and restaurants	1.9	2.1	2.5	1.2	1.7	2.4	2.4	2.5
Transport and communication	0.9	0.5	0.6	0.6	3.7	3.7	8.1	21.3
Financial intermediation	21.1	26.9	32.6	43.0	25.7	31.4	40.6	33.7
Real estate and business activities	37.0	44.5	53.2	64.9	39.6	46.3	52.9	72.3
Other services	1.0	1.1	1.0	1.3	0.2	0.5	0.5	0.8
Total	118.0	136.4	168.1	197.2	176.9	195.9	221.2	250.4

Source: OeNB.

Table 4.1

	Austrian share of											
	Profit or loss for the year				Net profit or loss carried forward				Income for the year			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
	ATS billion											
EU-15 (excl. Germany)	0.3	1.8	1.5	2.5	-1.0	-1.4	0.4	1.0	-0.7	0.4	1.9	3.5
Germany	0.1	0.6	0.9	0.5	-4.8	-4.8	-5.2	-5.2	-4.6	-4.2	-4.3	-4.8
Switzerland and Liechtenstein	0.8	1.1	0.8	0.6	2.9	3.3	3.7	3.8	3.7	4.4	4.5	4.3
Eastern Europe (excl. Hungary)	-0.4	0.6	1.8	-0.5	-1.5	-1.9	-1.9	-2.3	-1.9	-1.3	-0.2	-2.8
Hungary	0.0	1.4	2.0	2.2	-1.5	-2.5	-1.5	-0.6	-1.4	-1.1	0.5	1.6
U.S.A and Canada	-0.1	-0.1	0.7	0.9	-1.8	-2.3	-0.1	0.6	-1.9	-2.3	0.6	1.6
Other countries	0.5	1.3	1.0	1.9	0.2	0.9	1.5	1.5	0.7	2.1	2.6	3.4
Total	1.3	6.7	8.9	8.0	-7.5	-8.7	-3.3	-1.2	-6.2	-2.0	5.5	6.7

Source: OeNB.

Table 4.2

Income from Inward Direct Investment by Regions

	Foreign shares of											
	Profit or loss for the year				Net profit or loss carried forward				Income for the year			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
	ATS billion											
EU-15 (excl. Germany)	5.6	1.8	5.4	8.0	-0.2	0.5	-2.9	-0.8	5.5	2.4	2.5	7.2
Germany	9.0	10.6	9.0	13.7	2.9	2.0	2.8	3.2	11.9	12.6	11.8	16.9
Switzerland and Liechtenstein	2.4	1.7	1.9	3.0	-1.3	-0.8	-0.8	-0.8	1.1	0.9	1.0	2.2
Eastern Europe (excl. Hungary)	- 0.0	0.0	0.0	- 0.1	-0.2	-0.1	-0.1	0.0	- 0.2	- 0.1	- 0.1	- 0.1
Hungary	0.0	0.0	- 0.0	- 0.1	-0.1	-0.0	-0.1	-0.1	- 0.0	- 0.0	- 0.1	- 0.2
U.S.A and Canada	4.5	4.8	5.9	1.1	0.3	-0.2	-0.1	5.8	4.7	4.6	5.8	6.9
Other countries	0.5	0.1	3.3	0.9	-1.5	-0.8	-0.8	-0.9	- 1.0	- 0.7	2.5	- 0.0
Total	22.1	19.1	25.4	26.4	-0.1	0.6	-2.0	6.4	22.0	19.7	23.4	32.9

Source: OeNB.

Table 5.1

Performance Indicators of Outward Direct Investment

	1993	1994	1995	1996	1997	1998	1998	
							Age of the direct investment	
							< 5 years	> = 5 years
	%							
Total								
Return on equity								
Highest decile	31.9	35.7	42.9	52.5	53.1	53.1	42.0	61.3
Highest quartile	10.0	13.5	14.2	18.2	20.6	20.0	15.5	24.2
Median	0.0	0.7	1.0	3.1	4.5	4.0	0.0	6.5
Lowest quartile	- 13.0	- 10.2	- 9.2	- 5.1	- 4.6	- 6.0	-14.4	- 1.3
Lowest decile	- 55.7	- 52.2	- 52.5	- 34.6	- 36.4	- 43.8	-55.6	- 27.4
Equity ratio								
Highest decile	92.9	95.5	92.7	93.7	88.8	88.2	93.5	84.8
Highest quartile	68.1	68.4	63.2	62.4	59.5	59.8	63.6	57.4
Median	34.6	32.1	31.3	28.8	28.0	29.6	32.8	27.0
Lowest quartile	13.1	12.0	12.0	11.4	11.0	12.5	13.8	11.5
Lowest decile	3.6	2.6	2.4	1.3	2.1	2.7	4.0	1.7
Number of enterprises	1,495	1,617	1,718	1,810	1,942	2,006	870	1,136
Production sector¹⁾								
Return on sales								
Highest decile	10.8	10.9	9.5	12.0	12.7	14.7	11.1	16.1
Highest quartile	4.3	4.9	4.4	5.6	5.9	6.1	4.4	7.8
Median	0.0	0.6	0.6	1.3	1.4	1.3	0.2	2.3
Lowest quartile	- 7.2	- 4.8	- 3.7	- 1.8	- 1.8	- 2.9	- 6.8	- 0.1
Lowest decile	- 39.3	- 27.0	- 22.6	- 20.7	- 15.9	- 18.3	-25.8	- 8.7
	ATS million							
Output								
Highest decile	5.2	4.7	5.6	4.6	5.1	4.8	3.8	6.5
Highest quartile	2.5	2.4	2.5	2.5	2.6	2.6	2.1	2.9
Median	1.1	1.1	1.1	1.2	1.2	1.2	0.9	1.6
Lowest quartile	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.7
Lowest decile	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.3
Number of enterprises	526	581	621	768	826	867	391	476

Source: OeNB.

¹⁾ Classified under the sectoral association "industry" in the Austrian Federal Economic Chamber until 1995; since 1996 calculations have been made for the ÖNACE (Austrian Statistical Classification of Economic Activities) sections C through F (Mining and quarrying and electricity, gas and water, manufacturing and construction).

Table 5.2

Performance Indicators of Inward Direct Investment								
	1993	1994	1995	1996	1997	1998	1998	
							Age of the direct investment	
							< 5 years	> = 5 years
	%							
Total								
Return on equity								
Highest decile	54.8	79.4	81.5	65.8	67.3	78.1	76.4	79.0
Highest quartile	19.0	26.7	27.1	22.6	23.3	28.0	17.6	30.0
Median	3.5	5.6	5.9	4.2	4.7	5.9	0.0	8.2
Lowest quartile	- 7.2	- 4.0	- 2.8	- 5.6	- 4.2	- 3.2	-33.8	0.0
Lowest decile	- 55.6	- 49.9	- 50.0	- 50.7	- 50.0	- 50.7	-96.7	- 31.4
Equity ratio								
Highest decile	74.2	72.2	74.6	77.6	79.6	82.8	95.5	77.6
Highest quartile	45.0	44.4	45.2	47.1	46.9	48.0	56.4	47.1
Median	22.5	21.5	22.7	23.4	23.6	23.5	20.8	24.3
Lowest quartile	8.1	7.6	7.6	7.5	7.4	7.4	2.3	8.3
Lowest decile	- 5.3	- 6.3	- 6.4	- 7.5	- 9.9	- 9.1	-13.5	- 7.0
<i>Number of enterprises</i>	2,205	2,205	2,262	2,362	2,464	2,525	626	1,899
Production sector¹⁾								
Return on sales								
Highest decile	8.7	12.2	12.8	12.5	11.8	13.4	7.8	13.8
Highest quartile	4.0	6.3	6.0	5.6	6.4	6.9	3.2	7.5
Median	1.2	2.1	1.7	1.3	1.7	2.4	0.1	3.1
Lowest quartile	- 1.6	- 0.9	- 1.2	- 1.2	- 0.1	0.0	- 8.3	0.2
Lowest decile	- 9.7	- 7.3	- 8.3	- 11.3	- 8.4	- 9.4	-34.6	- 5.2
	<i>ATS million</i>							
Output								
Highest decile	4.4	4.7	4.8	5.0	5.4	5.8	6.2	5.7
Highest quartile	2.5	2.9	3.0	3.0	3.2	3.4	3.4	3.4
Median	1.7	1.8	2.0	2.0	2.2	2.3	2.3	2.3
Lowest quartile	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.5
Lowest decile	0.8	0.9	1.0	0.9	1.0	1.1	0.8	1.1
<i>Number of enterprises</i>	543	549	548	682	679	682	146	536

Source: OeNB.

¹⁾ Classified under the sectoral association "industry" in the Austrian Federal Economic Chamber until 1995; since 1996 calculations have been made for the ÖNACE (Austrian Statistical Classification of Economic Activities) sections C through F (Mining and quarrying and electricity, gas and water, manufacturing and construction).

Table 6

Direct Investment and Employment					
	1990	1995	1996	1997	1998
	<i>1,000 persons</i>				
Outward direct investment					
Employed in Austria					
by Austrian direct investors	260.8	346.6	284.0	269.1	260.1
Manufacturing	x	173.2	177.2	162.7	162.0
Services	x	173.4	106.8	106.4	98.0
	%				
Share of total employment	8.9	11.3	9.3	8.8	8.5
Manufacturing	x	18.3	19.2	17.6	17.5
Services	x	8.7	5.3	5.3	4.8
	<i>1,000 persons</i>				
Employed abroad ¹⁾ by Austrian direct investment enterprises	43.6	125.0	135.4	161.4	187.7
Manufacturing	x	83.6	88.4	100.6	124.0
Services	x	41.4	47.1	60.8	63.7
<i>Ratio of foreign to domestic employment</i>	17	36	48	60	72
<i>Manufacturing</i>	x	48	50	62	76
<i>Services</i>	x	24	44	57	65
Employment ¹⁾ by target country/region	43.6	125.0	135.4	161.4	187.7
EU-11 (excl. Germany)	6.0	11.7	12.8	12.5	12.6
Germany	16.1	21.1	23.8	23.7	32.9
Other EU countries	2.0	2.8	2.5	3.2	5.0
Switzerland and Liechtenstein	2.3	2.4	2.5	2.5	2.5
Eastern Europe (excl. Hungary)	3.3	33.9	39.4	54.5	68.6
Hungary	7.5	44.2	46.0	51.7	52.5
U.S.A. and Canada	3.9	3.2	2.8	6.3	6.6
Other countries	2.7	5.7	5.7	6.9	6.8
Inward direct investment					
Employed ¹⁾ by inward direct investment enterprises in Austria	235.8	207.7	211.7	211.5	228.4
Manufacturing	x	116.3	118.9	117.2	117.1
Services	x	91.4	92.9	94.3	111.3
	%				
Share of total employment	8.1	6.8	6.9	6.9	7.4
Manufacturing	x	12.3	12.9	12.7	12.6
Services	x	4.6	4.6	4.7	5.4

Source: OeNB, ÖSTAT.

¹⁾ Weighted by the share of the direct investment enterprise's nominal capital.

New Statistical Framework for the Portfolio Investment Position

I Introduction

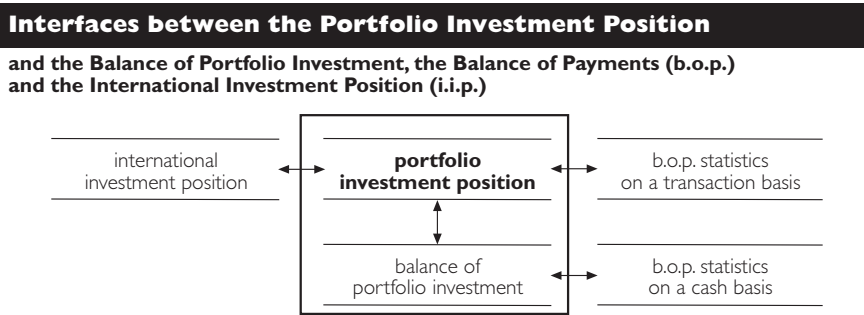
The expansion of cross-border investments in securities in recent years, further accelerated by the introduction of the euro, has prompted the OeNB to extend the coverage of its portfolio investment statistics – particularly in the equities category – and to make the statistics more detailed by adding a breakdown by currency, maturity, and country of issuer. The changeover to the euro in fact necessitated a revision of the accounting framework for cross-border portfolio investment stocks, starting with the reporting date January 1999. At the same time, the statistical framework was altered to comply with the latest ESA 95 guidelines. The most important change was the switch to accruals accounting, i. e. to recording outstanding assets inclusive of interest accrued but not yet due. As a consequence, both the transaction-based balance of payments and the thus revised portfolio investment position now apply the same set of concepts and definitions.

The switch to the new methodology becomes effective with the OeNB's February 2001 issue of its monthly statistical bulletin; table 7.1.1 of the Statistisches Monatsheft contains the adjusted portfolio investment position (please refer to the OeNB's website¹).

2 The Statistical Context of the Portfolio Investment Position

Austria's portfolio investment position is a statistical statement of residents' financial claims on, and financial liabilities to the rest of the world that arise from cross-border holdings of securities. In line with the primary balance of payments classification by functional category or type of investment, the portfolio investment position only covers investments in securities that qualify as portfolio investment. This excludes transactions in such instruments which fall into the category of either direct investment or reserve assets.

Chart 1



While the balance of portfolio investment in domestic and foreign securities adds specific information to the monthly balance of payments, principally by reflecting the value of net purchases and sales in primary and secondary markets, the portfolio investment position constitutes a tool for analyzing the composition of assets valued at market prices and for tracing

¹ http://www.oenb.at/stat-monatsheft/englisch/chapter07_p.htm.

changes in the stock of assets. Basically, the reporting format provides for a sectoral breakdown of domestic issuers and investors, a currency split into euro-denominated and foreign currency-denominated securities, and a geographical allocation of issuers to residents or nonresidents of the euro area. This breakdown was chosen to reflect the fact that the euro area has become the extended “home market” of domestic investors and issuers.

Furthermore, the portfolio investment position reflects changes in positions, indicating whether they have been caused by:

- transactions (as recorded in the balance of payments), or
- changes in securities prices and/or exchange rates, or
- other changes in assets (such as reclassifications) as a residual item.

To indicate investment priorities and maturity patterns, year-end stocks are broken down further by:

- currency,
- issuing country (in the case of foreign securities) and
- (original and residual) maturity.

Finally, the data on interest-bearing financial assets are supplemented by the corresponding investment income, to enable rate-of-return calculations.

Thus, the portfolio investment position can shed further light on the transaction-based balance of payments and the international investment position. Moreover, the portfolio investment position is intended to serve as an (analytical) interface with the financial accounts. To this end, both the sectoral and instrumental allocation are shown in more detail than in the balance of payments, wherever this provides important insights. For instance, shares and other equity are split into equity securities excluding mutual funds shares (with a memorandum item on quoted shares) and in mutual funds shares. The other sectors item is broken down into other financial intermediaries (in line with ESA 95 classifications p. 123 to p. 125), nonfinancial corporations and households. The central government figure is included as a memorandum item within the general government position.

3 Data Sources and Calculation Methods

The portfolio investment position is compiled from data which specify

- key securities data (above all information on the outstanding amounts as well as major classification criteria such as currency, issuer country, maturity, interest rates, redemption) and
- the stocks of securities that domestic investors keep in custody accounts with domestic banks that they administer themselves or that they have transferred to a foreign custodian (usually a bank).

Reports on securities which domestic custodians (usually banks resident in Austria) hold on behalf of residents are submitted by the custodians. The reporting custodian is obligated to allocate the securities to the sector to which the custody account owner belongs and to file separate reports for each sector of custody account holders, indicating for each security the par value or number of securities plus the respective identification number.

The stocks of securities not kept in custody accounts with domestic banks are reported by the domestic investors (nonbanks) themselves,

specifying for each security the par value or number of securities plus the respective identification number¹).

If the securities identification number has been supplied by an official numbering agency (in the case of Austria, the Oesterreichische Kontrollbank and Wertpapiermitteilungen – Deutschland), the reporting agent need not indicate any further classifying details; such information is inherent in the key securities data. In all other cases, the reporting bank or the domestic investor has to furnish selected key identification data.

Market price-valued assessments of the reported securities holdings reflect either the official quotes from the exchange at which the security is listed or quotes from the Vienna stock exchange (via Oesterreichische Kontrollbank) or the rates provided by Telekurs, Germany. If such quotes are not available, the prices will be provided by the reporting agents themselves.

According to guidelines established by ESA 95 and the 5th edition of the IMF Balance of Payments Manual (BPM5), interest accrued but not yet due/settled is an integral part of the market value. The portfolio investment position, therefore, records this interest component as reinvestments under the heading of the respective financing instrument.²) The OeNB calculates the interest accrued on the basis of the par value of the outstanding assets, the interest date, the coupon amount and the difference between the issuing price and the repurchase price at the time of redemption.

The presentation of foreign securities held by domestic investors is based on the reports filed by the custodians or domestic nonbanks. Nonresidents' investment in domestic securities is calculated as the difference between the outstanding amounts and the amounts held by domestic investors.

¹ The guidelines for reporting agents are contained in the OeNB's "devisenstatistische Meldebestimmungen" (volume 3), which may be accessed on the OeNB's homepage: www.oenb.at/zabil. An English description of the reporting data is available on the ECB's homepage, at www.ecb.int; Publications; Other publications; 2000; European Union balance of payments/international investment position statistical methods.

² The requirements are laid down in section 5.17 of ESA 95 and in section 121 of the BPM5.

4 The Portfolio Investment Position Reconceptualized

The table below summarizes the major adjustments:

Table 1

Concepts and Definitions in the Portfolio Investment Position		
Criteria	Old methodology	New methodology
Scope of reporting	Debt securities	Debt securities Equity securities (shares and other equity split into: equity securities excluding mutual funds shares and mutual funds shares; supplemented by data on quoted shares and further broken down by type of fund)
Allocation criteria	Schilling and foreign currency securities Short- and long-term securities Banks, nonbanks (thereof: institutional investors and retail investors) on the assets side Banks, public sector; private sector issuers on the liabilities side	Euro and foreign currency securities; further broken down by major investment currencies Short- and long-term securities broken down by original maturity, further broken down by residual maturity Financial corporations, banks and OeNB (total), other financial intermediaries, other sectors, nonfinancial corporations and households on the assets side Banks, general government (as a memorandum item: central government), and other issuers on the liabilities side
Recognition of interest accrued but not yet due in asset positions	Market value excluding interest accrued but not yet due	Market value including interest accrued but not yet due
Stocks and transactions	Stocks	Stocks and transactions (as a memorandum item also total price/exchange rate effects)

To illustrate the effects of the switch to accruals accounting in the portfolio investment position, there is a separate row showing the amount of interest accrued but not yet due in the tables on securities portfolio developments in the current reporting year. In both 1998 and 1999, interest accrued increased the value of the year-end stock figures by approximately 2%.

5 Timeliness of the Portfolio Investment Position

- The quarterly tables will become available together with the quarterly balance of payments (typically three months after the reporting date), the year-end tables together with the international investment position (typically approximately seven months after the reporting date).
- The reconceptualized portfolio investment position will be first published in the February 2001 issue of the Statistisches Monatsheft, with the data going back to and including year-end 1997 figures.

6 Scope of the Portfolio Investment Position (Annex Tables)

The following section gives an overview of the scope of the various tables and of the concepts and definitions applied:

Tables on Quarterly Stocks and Transaction-Based Changes

The tables contain year-end stocks on the basis of market prices for the three previous reporting years, plus end-of-quarter stocks for both the two previous reporting years and the current reporting year. Furthermore, the tables show the annual transactions of the past three reporting years, plus quarterly and half-year transactions for both the previous two reporting years and the current reporting year.

- Table 7.1.1.0.1 Foreign Securities Held by Domestic Investors – Break-down by Type of Instrument and Sector of Domestic Investor
- Table 7.1.1.0.2 Domestic Securities Held by Foreign Investors – Break-down by Type of Instrument and Sector of Domestic Issuer
- Table 7.1.1.0.3 Foreign Securities Held by Domestic Investors – Break-down by Type of Instrument and Residency of Issuer
- Table 7.1.1.0.4 Currency Breakdown of Cross-Border Holdings of Debt Securities

The annex shows the reporting format of the tables.

Tables on the Structural Pattern of Year-End Stocks

The first two tables on the developments of securities holdings indicate the stocks valued at market prices at the end of both the previous and the current reporting year as well as the components of change for the current reporting year. All other tables contain the stocks valued at market prices at the latest year-end date, broken down by currency, country of issuer or residual maturity.

- Table 7.1.1.1.1 Changes in the Stock of Foreign Securities Held by Domestic Investors in the Reporting Year – Breakdown by Type of Instrument and sector of Domestic Investor
- Table 7.1.1.1.2 Changes in the Stock of Domestic Securities Held By Foreign Investors in the Reporting Year – Breakdown by Type of Instrument and Sector of Domestic Issuer
- Table 7.1.1.1.3 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by Type of Instrument, Sector of Domestic Investor, and Currency
- Table 7.1.1.1.4 Domestic Securities Held by Foreign Investors at the End of the Reporting Year – Breakdown by Type of Instrument, Sector of Domestic Issuer, and Currency
- Table 7.1.1.1.5 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by Type of Instrument, Sector of Domestic Investor, and (Group of) Issuer Countries

- Table 7.1.1.1.6 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by Type of Instrument and Country of Issuer
- Table 7.1.1.1.7 Foreign Bonds and Notes Held by Domestic Investors at the End of the Reporting Year – Breakdown by Sector of Domestic Investor, (Original and Residual) Maturity, and Currency
- Table 7.1.1.1.8 Domestic Bonds and Notes Held by Foreign Investors at the End of the Reporting Year – Breakdown by Sector of Domestic Issuer, (Original and Residual) Maturity, and Currency

The annex shows the reporting format of the tables.

The concepts used in the tables are defined as follows:

Table 2

Concepts and Definitions in the Portfolio Investment Position	
Category	Concept/Definition
Debt securities	Bonds, entitlements to convertible bonds and bonds with equity warrants, commercial papers, certificates of deposit, Treasury bills and notes, registered bonds, warrants, mortgage bonds, promissory notes, bills, convertible bonds, zero bonds
Money market instruments	Debt securities with original maturities of 1 year or less than 1 year
Bonds and notes	Debt securities with original maturities of more than 1 year
Equity securities	Shares, mutual funds shares and other equity
Quoted shares	Shares with prices quoted on a recognized stock exchange or other form of secondary market
Unquoted shares and other equity	Unquoted shares, stock options, participation certificates, dividend-right certificates, real estate funds and other securities (residual item)
Mutual funds shares	Shares issued by managers of mutual funds
Fixed income funds	Funds that invest predominantly or exclusively in debt securities
Equity funds	Funds that invest predominantly or exclusively in equity securities
Balanced funds	Funds that invest in some mix of equity and debt securities, typically with the exposure to bonds or stocks limited to a given amount. This category also includes funds-of-funds.
Money market funds	Mutual funds that invest in money market instruments, bank deposits or securities with short residual maturities and/or floating interest rates. This category also extends to quasi money market funds. Euro area money market funds as defined by the ECB (MFI).
Euro area (in this presentation)	Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the ECB; as of January 1, 2001, including Greece
Non-euro area residents	All countries outside the euro area, including international organizations
Other EU countries	All non-euro area countries, excluding international EU organizations
Other (groups of) countries	Classification: Balance of Payments Vade Mecum, issued by Eurostat, as amended
Euro	All legacy currencies of the euro (also in time series about periods preceding the introduction of the euro)
Foreign currency	All currencies other than the euro or euro legacy currencies
Other EU currencies	Currencies of non-euro area EU Member States
Dollar currencies	U.S. dollar, Canadian dollar, Australian dollar and New Zealand dollar
Financial corporations	Financial sector
Banks and the OeNB	Subsector banks and the central bank (monetary authority), defined as MFIs for statistical purposes
Other financial intermediaries	Financial corporations excluding the subsector banks and OeNB (subsector other financial intermediaries except insurance corporations and pension funds, subsector financial auxiliaries, subsector insurance corporations and pension funds)
General government	Central, state and local governments, and social security funds
Central government	Federal government (including the federal financing agency)
Nonfinancial corporations	Corporations not engaged in financial intermediation
Households	Individuals or groups of individuals (including nonprofit institutions serving households) that are not allocated to any of the other sectors of the economy
Other sectors	Balance of payments definition; other sectors include other financial institutions, nonfinancial corporations and households

Annex

Tables on Quarterly Stocks and Transaction-Based Changes

Table 7.1.1.0.1 Foreign Securities Held by Domestic Investors – Breakdown by Type of Instrument and Sector of Domestic Investor

Total
Equity securities, total
broken down by selected sectors
<i>thereof: OeNB and banks</i>
<i>thereof: other sectors</i>
<i>thereof: other financial intermediaries</i>
<i>thereof: households</i>
broken down by selected instruments
<i>thereof: quoted shares</i>
<i>thereof: mutual funds shares</i>
Debt securities, total
broken down by selected sectors
<i>thereof: OeNB and banks</i>
<i>thereof: other sectors</i>
<i>thereof: other financial intermediaries</i>
<i>thereof: households</i>
broken down by instruments
bonds and notes
money market instruments

Table 7.1.1.0.2 Domestic Securities Held by Foreign Investors – Breakdown by Type of Instrument and Sector of Domestic Issuer

Total
Equity securities, total
broken down by selected sectors
<i>thereof: banks</i>
<i>thereof: other sectors</i>
<i>thereof: other financial intermediaries</i>
<i>thereof: nonfinancial corporations</i>
broken down by selected instruments
<i>thereof: quoted shares</i>
<i>thereof: mutual funds shares</i>
Debt securities, total
broken down by sectors
banks
general government
<i>thereof: central government</i>
other sectors
broken down by instruments
bonds and notes
money market instruments

**Table 7.1.1.0.3 Foreign Securities Held by Domestic Investors –
Breakdown by Type of Instrument
and Residency of Issuer**

Issued by euro area residents
Total
Equity securities, total
broken down by selected instruments
<i>thereof: quoted shares</i>
<i>thereof: mutual funds shares</i>
Debt securities, total
broken down by instruments
bonds and notes
money market instruments
Issued by non-euro area residents
Total
Equity securities, total
broken down by selected instruments
<i>thereof: quoted shares</i>
<i>thereof: mutual funds shares</i>
Debt securities, total
broken down by instruments
bonds and notes
money market instruments

**Table 7.1.1.0.4 Currency Breakdown of Cross-Border Holdings
of Debt Securities**

Issued in euro
Issued by Austrians/held by nonresidents
Debt securities, total
<i>thereof: bonds and notes</i>
Issued by residents of other Monetary Union Member States/held by Austrians
Debt securities, total
<i>thereof: bonds and notes</i>
Issued by non-euro area residents/held by Austrians
Debt securities, total
<i>thereof: bonds and notes</i>
Issued in foreign currencies
Issued by Austrians/held by nonresidents
Debt securities, total
<i>thereof: bonds and notes</i>
Issued by residents of other Monetary Union Member States/held by Austrians
Debt securities, total
<i>thereof: bonds and notes</i>
Issued by non-euro area residents/held by Austrians
Debt securities, total
<i>thereof: bonds and notes</i>

Tables on the Structural Pattern of Year-End Stocks

Table 7.1.1.1.1 Changes in the Stock of Foreign Securities Held by Domestic Investors in the Reporting Year

Column titles	<ul style="list-style-type: none"> Composition of the portfolio changes <ul style="list-style-type: none"> Market value at the end of the previous reporting year <ul style="list-style-type: none"> <i>thereof: interest accrued</i> Changes in the current reporting year <ul style="list-style-type: none"> <i>thereof: transactions</i> <i>thereof: price/exchange rate changes, total</i> Market value at the end of the current reporting year <ul style="list-style-type: none"> <i>thereof: interest accrued</i> Average market value Investment income
Row titles	<ul style="list-style-type: none"> Breakdown by type of instrument and sector of domestic investor Equity securities <ul style="list-style-type: none"> <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Debt securities Bonds and notes Money market instruments Sectoral allocation of all types of instruments <ul style="list-style-type: none"> financial corporations <ul style="list-style-type: none"> OeNB and banks other financial intermediaries general government nonfinancial corporations households <ul style="list-style-type: none"> <i>thereof: mutual funds shares</i> broken down by type of fund <ul style="list-style-type: none"> fixed income funds balanced funds equity funds money market funds

Table 7.1.1.1.2 Changes in the Stock of Domestic Securities Held by Foreign Investors in the Reporting Year

Column titles	<ul style="list-style-type: none"> Components of the portfolio changes <ul style="list-style-type: none"> Market value at the end of the previous reporting year <ul style="list-style-type: none"> <i>thereof: interest accrued</i> Changes in the current reporting year <ul style="list-style-type: none"> <i>thereof: transactions</i> <i>thereof: price/exchange rate changes, total</i> Market value at the end of the current reporting year <ul style="list-style-type: none"> <i>thereof: interest accrued</i> Average market value Investment income
Row titles	<ul style="list-style-type: none"> Breakdown by type of instrument and sector of domestic issuer Equity securities <ul style="list-style-type: none"> <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Sectoral allocation of all types of instruments <ul style="list-style-type: none"> banks other issuers Debt securities Bonds and notes Money market instruments

Sectoral allocation of all types of instruments
banks
general government
other issuers
thereof: mutual funds shares
broken down by type of fund
fixed income funds
balanced funds
equity funds
money market funds

Table 7.1.1.1.3 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by Currency

Column titles	Breakdown by currency Total Euro-denominated securities Foreign currency-denominated securities other EU currencies Swiss franc dollar currencies <i>thereof: U.S. dollar</i> Japanese yen other currencies
Row titles	Breakdown by type of instrument and sector of domestic investor Equity securities <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Debt securities Bonds and notes Money market instruments Sectoral allocation of all types of instruments financial corporations OeNB and banks other financial intermediaries general government nonfinancial corporations households

Table 7.1.1.1.4 Domestic Securities Held by Foreign Investors at the End of the Reporting Year – Breakdown by Currency

Column titles	Breakdown by currency Total Euro-denominated securities Foreign currency-denominated securities other EU currencies Swiss franc dollar currencies <i>thereof: U.S. dollar</i> Japanese yen other currencies
Row titles	Breakdown by type of instrument and sector of domestic issuer Equity securities <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Sectoral allocation of all types of instruments banks

other issuers
Debt securities
Bonds and notes
Money market instruments
Sectoral allocation of all types of instruments
banks
general government
other issuers

Table 7.1.1.1.5 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by (Group of) Issuer Countries

Column titles	Breakdown by (group of) issuer countries Total Euro area residents Non-euro area residents other EU countries Switzerland America <i>thereof: U.S.A.</i> Japan other countries memorandum item: international organizations <i>thereof: EU organizations</i> <i>OECD member states</i>
Row titles	Breakdown by type of instrument and sector of domestic investor Equity securities <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Debt securities Bonds and notes Money market instruments Sectoral allocation of all types of instruments financial corporations OeNB and banks other financial intermediaries general government nonfinancial corporations households

Table 7.1.1.1.6 Foreign Securities Held by Domestic Investors at the End of the Reporting Year – Breakdown by Type of Instrument

Column titles	Breakdown by type of instrument Equity securities <i>thereof: quoted shares</i> <i>thereof: mutual funds shares</i> Debt securities Bonds and notes Money market instruments
Row titles	Breakdown by country of issuer

Table 7.1.1.1.7 Foreign Bonds and Notes Held by Domestic Investors at the End of the Reporting Year – Breakdown by Currency and Sector of Domestic Investor

	Breakdown by currency
	Euro-denominated securities
	Foreign currency-denominated securities
Column titles	Breakdown by sector of domestic investor
	financial corporations
	OeNB and banks
	other financial intermediaries
	general government
	nonfinancial corporations
	households
Row titles	Breakdown by original and residual maturities
	Original maturity
	more than 1 year, up to 5 years
	more than 5 years, up to 10 years
	more than 10 years
	Residual maturity
	up to 1 year
	more than 1 year, up to 2 years
	more than 2 years, up to 5 years
	more than 5 years
	Breakdown by original maturity
	more than 1 year, up to 5 years
	more than 5 years, up to 10 years
	more than 10 years

Table 7.1.1.1.8 Domestic Bonds and Notes Held by Foreign Investors at the end of the Reporting Year – Breakdown by Currency and Sector of Domestic Issuer

	Breakdown by currency
	Euro-denominated securities
	Foreign currency-denominated securities
Column titles	Breakdown by sector of domestic issuer
	banks
	general government
	other issuers
Row titles	Breakdown by original and residual maturities
	Original maturity
	more than 1 year, up to 5 years
	more than 5 years, up to 10 years
	more than 10 years
	Residual maturity
	up to 1 year
	more than 1 year, up to 2 years
	more than 2 years, up to 5 years
	more than 5 years
	Breakdown by original maturity
	more than 1 year, up to 5 years
	more than 5 years, up to 10 years
	more than 10 years

S T U D I E S

Austrian Stock Market Survey and Outlook

Walter Waschiczek,
Friedrich Fritzer

I Introduction

From a macroeconomic perspective, corporate finance and investment funding have a significant role to play for economic growth and employment. In an advanced economy, equity financing increasingly complements debt financing through banks (see e. g. Demirgüç-Kunt and Levine, 1996). This stylized fact does not apply universally, though. The relation of stock market capitalization to bank loans differs substantially across EU Member States.

Stock markets are key to financing long-term and risky investment projects,¹⁾ since not all investment projects whose funding needs exceed internal cash generation and/or the owners' contribution may be financed through loans. The capital base of enterprises is essential as a carrier of risk in financing investments. Organized equity markets are a principal source of external funds, matching capital supply with capital demand.

Recent empirical evidence confirms that stock exchanges act as a catalyst for economic growth. Levine and Zervos (1996) analyzed data on 41 countries from the period 1976 to 1993 and ascertained that the developmental stage of a stock exchange (in terms of its size, liquidity and integration in the global capital market) was positively correlated with output growth, capital accumulation and productivity gains. Carlin and Mayer (1999) showed that especially riskier industries were able to raise funds on stock markets in a more efficient and less costly way. After all, stock corporations have more intangible fixed assets, such as growth perspectives, while they hold fewer tangible assets eligible as collateral.

Against this background, the paper at hand surveys developments on the Austrian stock exchange to date and provides an outlook on the future course and issues. Section 2 investigates in how far the stock market helped stimulate the shifts observed in corporate finance in Austria over the past decade. The next section sheds light on investment activity in Austrian stocks. Section 4 provides an analysis of the pros and cons of centralizing exchange trading. The subsequent section continues to examine the structural changes on European stock exchanges. Finally, conclusions are drawn with a view to producing an outlook for the Austrian stock market.

2 Significance of the Stock Market to Corporate Finance in Austria

2.1 Changes in Corporate Financing in Austria

Bank-intermediated debt continues to be the preferred instrument of corporate finance, especially when it comes to small and medium-sized enterprises.²⁾ While Austrian enterprises managed to improve their equity

¹ According to Hicks (1969), the Industrial Revolution in England was triggered less by technical innovation – that had been a factor before already – than by the existence of liquid stock markets. The latter paved the way for the financing of major investment projects whose exact payback time was difficult to pinpoint. Potential investors would have refrained from plowing money into risky, long-term companies had there not been a liquid stock market, which enabled them to sell off shares quickly in case they needed or wished to do so.

² At the end of 1998, the bank liabilities of small businesses in the manufacturing industry amounted to 34% of total assets, while the like figure for large enterprises came to almost 20%. Bank loans play a more significant role in Austria – above all for small enterprises – than in other countries.

ratios perceptibly over the past decade,¹⁾ the increase was due first and foremost to cash-flow financing or internal sources of finance, such as reserves and provisions for termination benefits and pensions. In light of the great self-financing capacity of Austrian companies, external funding was dwarfed by cash-flow financing.

Since the mid-1990s corporate financing has been shifting towards equity financing as framework conditions changed: Not only was Austria's economy integrated into the European single market and did internationalization progress – as reflected by increasing foreign direct investment – but also the emphasis of business initiatives changed, with subsidies targeting equity rather than debt financing. The ratio of nominal capital²⁾ to total assets, which had dropped by half between the early 1980s and mid-1990s, augmented again, albeit not at the same pace as net assets. The share nominal capital holds in external funds, i.e. the sum total of the par value of shares issued and bank liabilities, likewise increased after having retreated from the beginning of the 1980s to the mid-1990s. Vice versa, the ratio of bank liabilities to total assets has been on the decline since 1996.

External Financing of Nonfinancial Corporations

by Financing Instruments

	1995	1996	1997	1998	1999	Change 1995 to 1999
	%					
Shares	17.4	18.1	20.1	22.3	21.0	30.3
Interest-earning securities	5.1	4.3	6.8	6.3	7.1	12.1
Loans	73.5	74.3	70.0	68.3	68.0	54.2
Other liabilities	4.0	3.3	3.0	3.1	3.8	3.5
Total liabilities	100.0	100.0	100.0	100.0	100.0	100.0

Source: Financial accounts, OeNB.

Financial accounts data from 1995 onwards paint a similar picture. The share of equities³⁾ in total external funds raised by enterprises⁴⁾ edged up slightly in recent years, equaling 21% of the corporate sector's liabilities at the end of 1999; at some 30%, the end-1995 to end-1999 contribution to net changes was substantially higher.

1 According to the financial ratio analysis published by the OeNB, the equity-to-assets ratio of manufacturing companies rose from 24.5% in 1990 to 32.2% in 1998; the risk-weighted equity ratio, which basically denotes equity capital plus provisions, increased from 31.7 to 43.7% over the same period.

2 Nominal capital comprises only the paid-up capital or capital stock or the shareholders' capital accounts. Nominal capital does not include the premium, which is recorded under retained earnings/reserves and derives above all from capital increases. It follows that the nominal capital as such and any ratios derived thereof are not fully conclusive.

3 Austria's financial accounts statistics refer only to equities as a whole, as this item may not be broken down into shares and other equities due to the lack of source data. For details on financial accounts statistics in Austria, see OeNB (1999).

4 Nonfinancial corporations (p. 11).

2.2 Relative Significance of the Vienna Stock Exchange for Corporate Financing

Shares are a most complex equity instrument. The legal form of a stock corporation entails requirements which pose a challenge in particular to small and medium-sized enterprises. Legislation pertaining to stock corporations is tailored to large public companies, subjecting stock corporations to a host of rules and regulations compared with other legal forms (Deutsche Bundesbank, 1997). Furthermore, establishing, or converting to, a stock corporation considerably impacts corporate decision-making. In addition, especially in the case of family-owned businesses, entrepreneurs may refrain from changing their legal form as they are reluctant to grant a say to outsiders.¹⁾ After all, by becoming listed on a stock exchange, a company is bound to open up as a quid pro quo for improved access to equity capital, which, in other words, translates into more extensive information and disclosure requirements. Since getting listed comes at high fixed costs, this option may prove very costly for smaller companies.²⁾

The number of larger companies is relatively low in Austria as evidenced by the following figures. In July 1999, 986 companies employed 300 or more persons and 167 enterprises had a staff of over 1,000. The corporate landscape in Austria is characterized chiefly by sole proprietorships, partnerships and limited liability companies. In 1998, a mere 825 companies were incorporated as stock corporations, 96 or 11.6% of which were listed on the Vienna stock exchange.

In September 2000, 98 stock corporations listed on the Vienna exchange contrasted with 19 Austrian businesses traded on exchanges abroad. The number of Austrian companies listed on the Vienna exchange at the close of the 1990s thus more or less equaled the figure recorded a decade earlier since the gains posted into the mid-1990s were offset by the contraction³⁾ observed thereafter. Following takeovers, many an Austrian company retreated from the stock exchange.⁴⁾

In Austria, the number of domestic listed companies is the second lowest in Europe after Luxembourg. On the one hand, this seems to be due to the ownership structure prevalent among Austrian companies, where the proportion of foreign ownership is high by international standards. Besides, state ownership used to be relatively high as well (Gugler, 1998). On the other hand, the low number of listed companies basically reflects the bank-

1 Also, it is important to factor in the costs associated with a potential hostile takeover following a public listing of equities (Pagano, 1993).

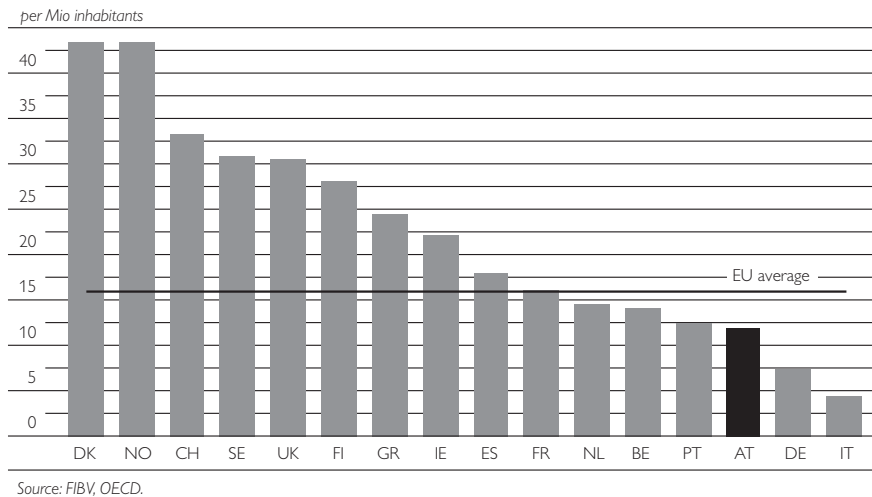
2 However, this does not apply to the issuing costs per se. At the Official Market of the Vienna stock exchange, overall IPO costs for minor issues were not higher compared with major issues from 1992 to 1999. The costs incurred for issues worth up to ATS 500 million came to 6.7% of the volume floated; issues worth more than ATS 1 billion cost 6.8%. The costs incurred for issuing volumes of between ATS 0.5 billion and ATS 1 billion were highest (7.2%) according to calculations based on data by Springer (1999, p. 253–256).

3 Some other European countries also saw the number of listed companies slide significantly in the 1990s. By contrast, only the major market places of London, Frankfurt and Paris as well as Athens and Helsinki registered marked gains.

4 From 1990 to the fall of 2000, a total of 54 Austrian companies were delisted (excluding participation certificates, dividend-right certificates, real estate funds).

oriented financial structure of the economy, just like in other countries where bank-based funding is the prominent source of corporate finance. As a matter of fact, measured by country size, the number of companies listed in Germany and Italy each is smaller than in Austria.

Companies Listed on Exchanges



Despite the overall decline in the number of listings in Vienna, the stock exchange's slice in equity finance (share capital) mounted since 1992. The net increase of the capital stock by nonfinancial corporations from 1992 to 1998 is traceable to the stock exchange; the nominal capital of stock corporations not listed on the stock exchange decreased. The equity exposure of insurance companies contracted, by contrast. The same was true for banks until 1996, whereas in 1997, a substantial issuance by one bank boosted this sector's total exposure markedly.

The listings on the Vienna stock exchange comprise predominantly Austria's major stock corporations. In 1998, the capital stock of listed corporations was on average almost four times as high as that of unquoted corporations. At about one third, the share the companies listed on the Vienna stock exchange held in the capital stock of all Austrian stock corporations was thus about three times as high as their share in the number of stock corporations.

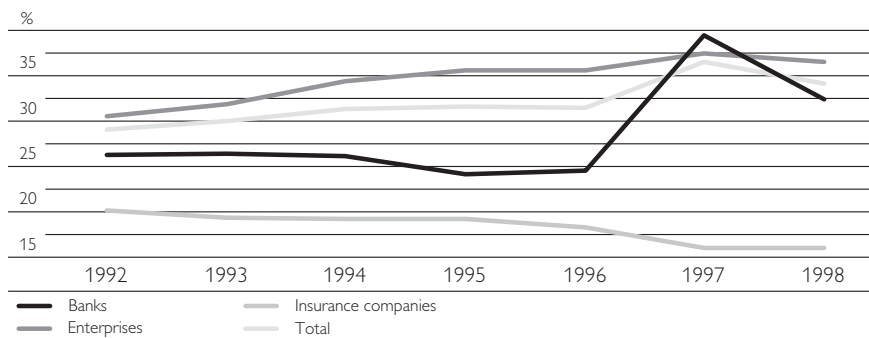
Average Nominal Capital Held by a Stock Corporation

in 1998

	Banks	Insurance companies	Enterprises	Total
	ATS million			
Listed	1,864	351	495	602
Not listed	251	138	132	153
Total	348	153	180	205

Source: Statistics Austria, Wiener Börse AG.

Share of Listed Companies in the Nominal Value of Share Capital

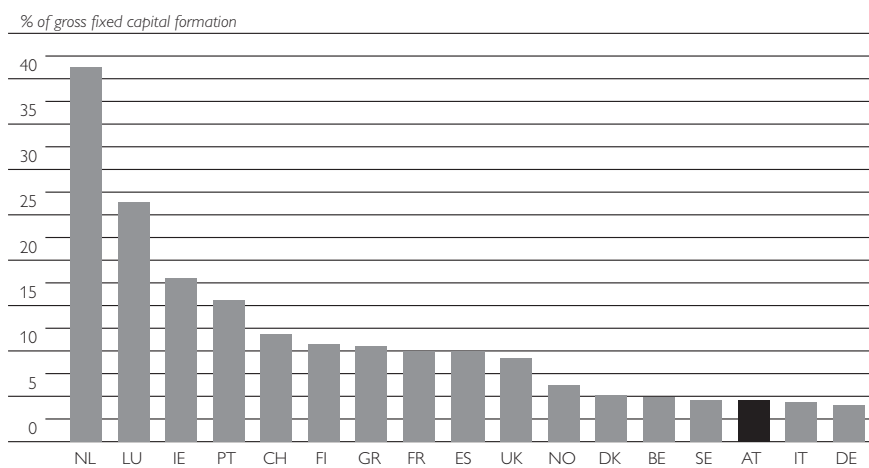


Source: Statistics Austria, Wiener Börse AG.

From 1990 to 1999 companies raised EUR 16.5 billion on the stock exchange via capital increases and initial public offerings, which corresponded to approximately 4% of gross fixed capital formation. However, this ratio fluctuated widely, i. e. in the 1–7% range, throughout the stated period. Compared to the figures recorded by other European countries from 1997 to 1998, Austria was in the neighborhood of the German and Italian ratios.

Considering that in the period from 1996 to 1999 about one third of Austrian firms' flotations which did not involve financial intermediaries (banks, insurance companies and real estate firms) took place on foreign exchanges (EASDAQ, Neuer Markt Frankfurt, Switzerland), issuing activity contributed roughly an additional ½ percentage point to gross fixed capital formation over that period.

Capital Raised on the Exchange from 1997 to 1998



Source: FIBV.

At EUR 32.1 billion, the end-1999 market value of the domestic enterprises listed on the Vienna exchange was by far the lowest in the EU, accounting for about 18% of GDP. The aggregate market value of companies listed in the euro area came to over 70%, while the Swiss figure

(225%) was more than ten times higher than the Austrian value. Austria's contribution to the market capitalization of all EU exchanges amounted to 0.4% in 1999.

The thin market capitalization in Austria is to a great extent attributable to a lower valuation of stocks. At the end of 1999, the Wiener Börse Index had dipped below the 1990 figure, a movement not seen in any other European country. By contrast, the gains posted by indexes of 15 other Western European exchanges ranged from 2.5fold (Denmark) to more than 14fold (Finland).

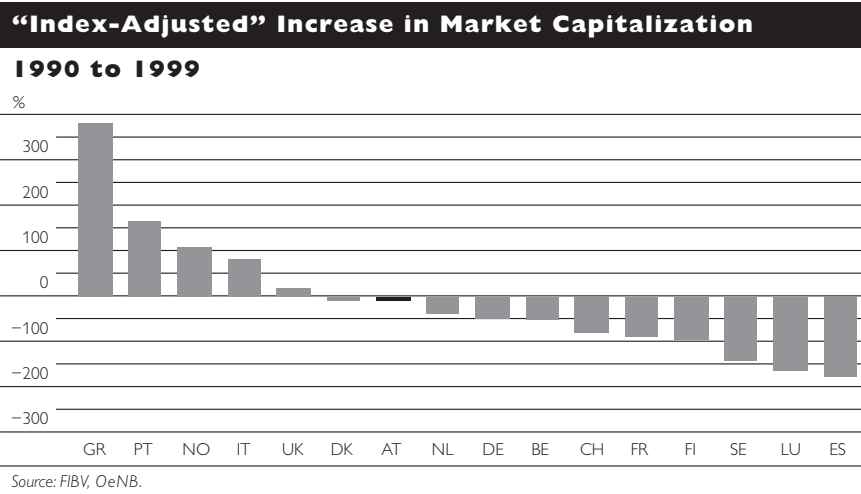
**Domestic Companies Listed
on Western European Exchanges in 1999**

	Number	Market capitalization		Average size	Turnover	
		% of GDP	USD billion		% of market capitalization	
Belgium	146	57.3	184	1.3	204	1.1
Denmark	233	55.2	105	0.5	61	0.6
Germany	617	39.2	1,432	2.3	1,376	1.0
Greece	262	27.9	197	0.8	184	0.9
Spain	718	54.7	432	0.6	737	1.7
France	968	48.5	1,503	1.6	2,814	1.9
Ireland	84	67.4	69	0.8	48	0.7
Italy	264	30.1	728	2.8	536	0.7
Luxembourg	51	229.0	36	0.7	1	0.0
Netherlands	233	130.0	695	3.0	442	0.6
Austria	97	18.1	33	0.3	13	0.4
Portugal	125	36.4	68	0.5	40	0.6
Finland	147	61.2	349	2.4	110	0.3
Sweden	277	116.2	373	1.3	240	0.6
United Kingdom	1,826	155.0	2,855	1.6	1,426	0.5
EU	6,048	68.0	9,060	1.5	8,231	0.9
Norway	195	43.4	64	0.3	54	0.8
Switzerland	239	225.6	693	2.9	533	0.8

Source: FIBV.

Weak stock market performance, however, underestimates the contribution newly listed companies make to the expansion of market capitalization. After all, even if no additional capital is raised, market capitalization increases once stock prices trend upwards. We have tried to break down the annual gain in market capitalization into equity index growth and (net) new listings, knowing full well that it is not possible to differentiate clearly between these two factors influencing market capitalization. With changes throughout the year not entering this analysis, the resulting indicator tracking index-adjusted market capitalization from 1990 to 1999 is but a crude approximation. Market capitalization contracted in real terms in eleven of the 16 countries analyzed. Only five markets registered gains once the annual index changes are deducted. Austria ranks in seventh place in such a comparison. The "bullishness" of European markets in the 1990s thus derived largely from stock price trends.

If the Vienna stock market index had moved in sync with the average of the other 15 Western European stock markets analyzed, end-1999 market capitalization would have run to some 37% of GDP or to double the figure actually registered. Such a result would have been higher than the figures



posted by Greece, Italy and Portugal and only slightly below that of the Deutsche Börse.

The comparably low market capitalization of the Vienna exchange may therefore be pinpointed not only to the limited volume of issues, but also, to a considerable extent, to poor price developments. It seems that the market capitalization to GDP ratio, which normally underlies comparisons, does not truly reflect the importance the Vienna stock exchange has for corporate finance in the Austrian economy. Once the results are controlled for the various index developments, the picture looks quite different: The importance of the stock exchange as a supplier of corporate finance in Austria is not significantly lower than in other countries with bank-based financial structures, especially Germany and Italy, if the differences in size are considered. Also, Austrian companies raised a substantial amount of equity capital by tapping into foreign exchanges.

Lower valuations in Austria, however, depressed the financing flows to the issuing firms. At the same time, the sluggishness of stock prices on the domestic exchange may have made Austrian firms somewhat reluctant to launch issues.¹⁾ If more capital had been placed on the exchange at higher prices, the valuation would have impacted the issuing volumes. The price or valuation of capital is determined by the demand for capital. Consequently, we need to take a look at the ownership structure of Austrian stock corporations and examine which investors in Austria – in contrast to other countries – invest less money in shares.

3 Role of Austrian Shares as Investment Instruments

3.1 Who Invests in Austrian Shares?

Banks not only dominate the debt financing market in Austria, but also figure prominently as shareholders of Austrian (nonfinancial) enterprises. Holding around one fourth of total shares outstanding, banks own markedly

¹ Deutsche Bundesbank (1997) comments the low number of new listings in Germany during the 1980s along these lines, but also sees a certain relationship between rising stock prices on the German exchange and an increase in flotations in the 1990s.

more shares in Austria than in other countries with predominantly universal banks, such as Germany and Japan (Deutsche Bundesbank, 1997). Over the past few years banks' shareholdings advanced even further, albeit at a somewhat slower pace than equities as a whole.

Ownership of Shares Issued in Austria as at end-1999

	Issuers			
	Enterprises	Banks	Insurance companies	Total
	%			
Investors				
Enterprises	7.9	9.8	1.9	8.3
Banks	23.3	32.0	6.8	25.9
Institutional investors	5.1	14.9	53.1	11.9
General government	5.2	17.3	0.0	9.9
Households	7.2	12.8	2.1	9.2
Domestic investors	48.8	86.9	63.9	65.2
Foreign investors	51.2	13.1	36.1	34.8
Total	100.0	100.0	100.0	100.0

Source: Financial accounts, OeNB.

Structure of Stock Portfolios by Domestic Investor Group in 1999

	Investors					Total
	Enterprises	Banks	Institutional investors	General government	Households	
	%					
Issuers						
Enterprises	16.1	40.0	9.0	25.0	27.4	23.1
Banks	15.3	41.9	20.1	63.0	37.0	31.4
Insurance companies	0.4	1.3	10.1	0.0	0.9	3.3
Domestic issuers	31.8	83.2	39.2	87.9	65.3	57.7
Foreign issuers	68.2	16.8	60.8	12.1	34.7	42.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Financial accounts, OeNB.

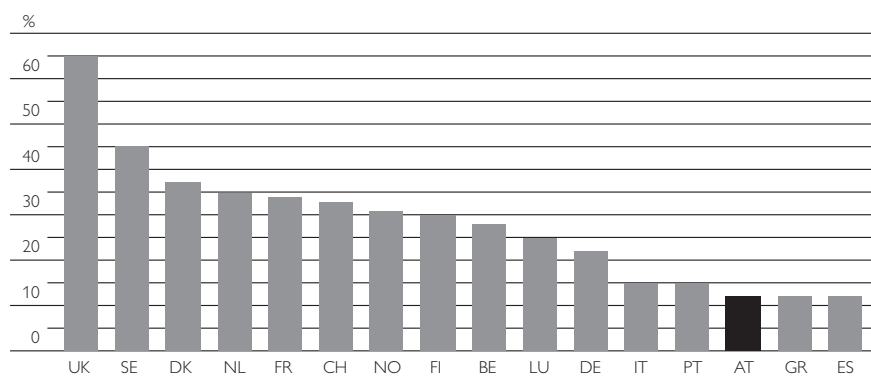
Households stepped up their investments in shares perceptibly in recent years. Accounting for a relatively modest 4.5% of households' financial assets in 1999, shares had nevertheless more than doubled since 1995. From 1995 to 1999, the stock portfolio of households grew at an average 27.4%, while bank deposits mounted by 3.0% p. a. during the like period. In absolute terms, shareholdings expanded already at almost half the rate as bank deposits from 1995 to 1999, contributing 15.7% to households' asset growth. Households' dynamic stock investments over the past few years went hand in hand with a rise in the number of private shareholders in Austria, namely from 4.6% of the total population to 6.5% from 1998 to 1999 alone. Austria thus topped the corresponding figures recorded for Belgium and the Netherlands and lagged behind Germany only slightly (OeNB, 2000). From 1998 to 1999,¹⁾ households invested an approximate EUR 4 billion in domestic equities and some EUR 2 billion in foreign equities. At end-1999, households held close to 10% of the equities issued

1 The financial accounts statistics for previous years do not allow for a breakdown of households' shareholdings by domestic and foreign stocks.

in Austria; their share had thus augmented by almost 3 percentage points since 1995. Foreign equities accounted for about a third of the shares held by households.

Unlike in other countries, institutional investors (insurance companies, pension funds and mutual funds) play a less significant role as shareholders in Austria, not least due to the nature of the Austrian pension system. After all, by far greater funds are available on capital markets in countries with funded systems than in countries with pay-as-you-go (PAYG) systems. Yet, Austrian institutional investors' investment volume (measured in terms of the country's GDP) is low even when compared to countries with predominantly PAYG systems: In 1998, their financial assets came to 57% of GDP; at 12%, the percentage of shares in their portfolios was among the lowest in all industrial nations.¹⁾ Shares floated by banks and insurance companies accounted for the bulk of institutional investors' domestic shares, while the percentage of equities launched by Austrian (nonfinancial) corporations equaled a mere 5%.

Equity Exposure of Institutional Investors in 1998



Source: OECD, "Institutional Investors", *Financial Market Trends* 76, July 2000, 131-140.

Austrian mutual funds nearly doubled their equity exposure to close to 20% since 1995, focussing on non-Austrian shares, however. A mere EUR 0.8 billion or 7.2% of their (net) new investments in shares were allocated to Austrian equities from 1995 to 1999. The percentage of foreign shares in total equities surged from 53% in 1990 to 91% in 1999.

This development affects the Austrian stock market in several ways: The investments made by Austrian institutional investors, which are smaller and less active on the stock market to begin with, bypass the domestic market to an exceptionally great extent (see the next section). Even though the values presented in financial accounts statistics are not directly comparable with the figures reported (in this case) by investment companies, the rise of domestic shares in the portfolios of mutual funds over the past two years corresponds but to a fraction of the gain posted by households' direct share purchases.

¹ This contrasts with 50% in the U.S.A. and 65% in the United Kingdom.

Given the modest investments of institutional investors in domestic shares and the rising, yet in absolute terms still rather minor equity exposure of households, a relatively high percentage of the shares traded on the Vienna exchange is in the hands of foreign investors.¹⁾ According to the balance of payments, at the end of 1999, foreign investors held Austrian shares valued at some EUR 8 billion in their portfolios (almost only ATX shares). This value equaled about one fourth of the total market capitalization of the Vienna stock exchange or one third of the market capitalization of the ATX. It seems a safe guess that the bulk of foreign investors active on the Vienna stock exchange are institutional investors. The tepid demand on the Austrian stock market may thus largely be attributed to the slow activity by domestic institutional investors.

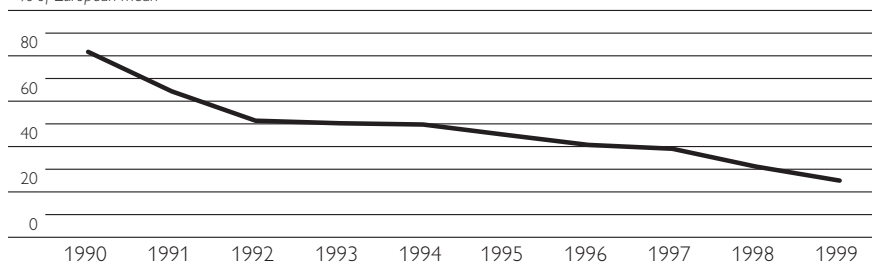
3.2 Low Volume of Offerings on the Vienna Stock Exchange

The measured poor market capitalization of the Austrian stock market by international standards as well as the low market volume of the individual companies listed on the Vienna exchange appear to be among the main reasons why institutional investors tend to opt for foreign rather than Austrian offerings. Notwithstanding the fact that the major Austrian stock corporations are listed on the Vienna stock exchange, the average market capitalization of a listed company merely corresponded to a quarter of the Western European average, which is tantamount to the lowest market capitalization in all EU Member States. By contrast, in 1990, the Austrian value had still exceeded 80% of the European mean. In November 2000, more than 50 European stocks grouped in the DJ-STOXX index each had a market capitalization larger than that of the entire Austrian stock market.

Average Market Capitalization

of a Company Listed in Vienna

% of European mean



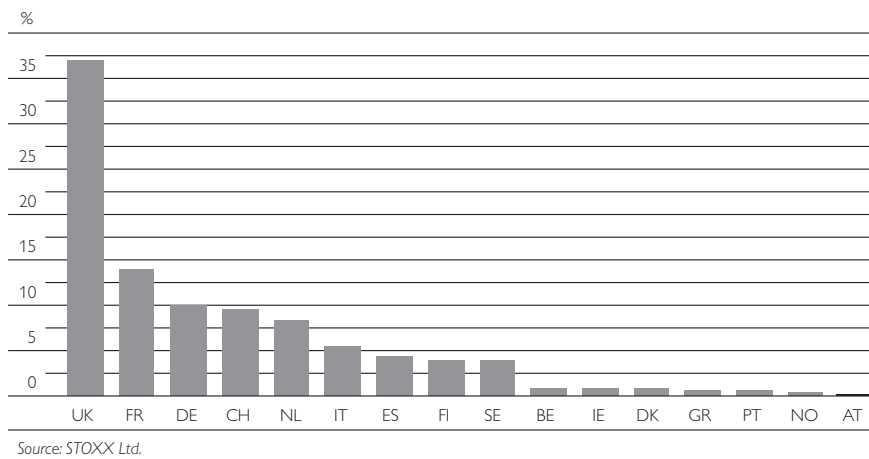
Source: FIBV, Deutsches Aktien-Institut, OeNB.

The weak price performance of the Vienna offerings likely had a significant impact on the low market capitalization of the listed companies. If the stock index had developed along the lines of the Western European

¹ All in all, more than half of all shares of Austrian corporates are foreign-owned. This figure, however, includes both investments in Austrian shares and direct investment (also in companies organized in a form other than a stock corporation) and thus only serves as a rough indicator of the significance of nonresident investors to the Austrian stock market. It seems that financial accounts statistics severely underrate the volume of unquoted shares in the portfolios of companies and households due to data collection problems.

Country Weights in the DJ-STOXX Index

in the Third Quarter of 2000



average, the market value of a company would, on balance, have been twice as high in 1999 as it was.

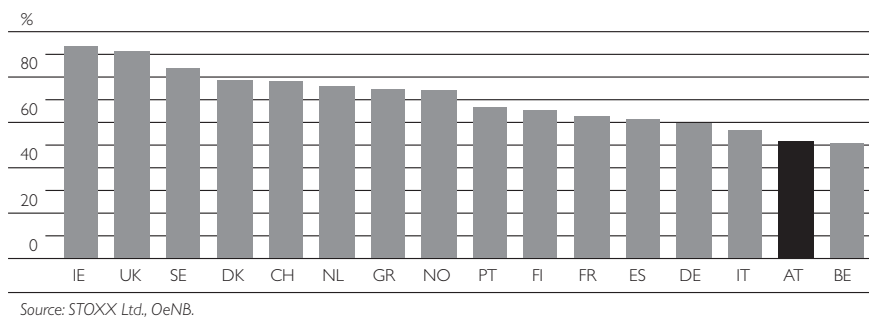
What is more, amid this low market capitalization a smaller percentage per share is actually traded on the Vienna exchange than on other European exchanges. In 1999, float ownership of ATX listings came to 45%. For the Austrian shares included in the DJ-STOXX Broad Index, float ownership was 50 compared to 70% for all companies represented in this index. This fact further lowers the liquidity of Austrian shares compared to the European average.

Given the low market value of the companies listed on the Vienna exchange, the weight accorded to Austria in major international stock indexes, which are used as benchmarks by many investors, is even by far lower than would be warranted by Austria's percentage in market capitalization. A case in point is the rather frequently used DJ-STOXX index covering all Western European markets: here, Austrian stocks hold a miniscule share of 0.1%. The intention of STOXX Ltd. to weight companies in its indexes according to free float will likely depress demand for Austrian shares represented in the DJ-STOXX index further.

Free Float of Shares Represented in the DJ-STOXX

Broad Index in the Second Quarter of 2000

Unweighted Country Average



All told, the narrowness of the Vienna stock market in the past decade appears to have dampened demand for Austrian shares, exacerbating the weak market performance. With subdued price gains again contributing to low market volumes, these two effects would reinforce each other on the Austrian stock market.

3.3 Monetary Union Ushers in Shift: from Country to Sectoral Orientation

Following the evolvement of a single capital market for the countries participating in Monetary Union, portfolio managers in the euro area started to abandon the hitherto common country orientation: today, institutional investors increasingly organize their portfolios by industrial sectors.¹⁾

At present, domestic stocks figure much more prominently in the portfolios of institutional and private investors than international stocks; in fact, the share of domestic assets is significantly greater than might be expected according to portfolio theory. In other words, investors' decisions are still influenced by a home bias despite the full liberalization of capital movements and technological change, even though the share of foreign investments has augmented markedly in recent years.²⁾

While researchers have not yet found a conclusive explanation for this home bias,³⁾ the reasons set forth in the literature suggest that the disproportionate share of domestic securities in equity portfolios should diminish further in the future, in particular within the euro area. After all, Monetary Union eliminated foreign exchange risk for investments made in the participating Member States, which had, however, been relatively small compared to the U.S. dollar or the Japanese yen.

Another reason for the home bias could be that the costs of diversification are higher than the resulting return as diverging tax rules, transaction costs, barriers to market entry etc. lessen the net return on foreign investments. Apart from technological change, which generally drives down the costs of cross-border transactions and thus facilitates the acquisition of foreign shares, especially the integration of the European capital markets – which was just one, but essential step in the launch of Monetary Union – significantly leveled the spread between equity investments on the domestic and other EU markets. Integration was accompanied by increased harmonization of the regulatory frameworks at the European level and the reduction of barriers to trading. At the same time, Monetary Union rendered all regulations tied to national currencies

1 This shift was widely commented on in the financial press in the past few years. See e.g. "The amorphous sector challenge," *Euromoney*, October 1999.

2 The share of foreign securities in total German securities holdings, for instance, mounted from 6.4% in 1991 to 20.9% in 1999. The statistics available in Austria on securities deposits do not allow for a breakdown into domestic and foreign holdings. All securities denominated in foreign currency held by domestic and foreign credit institutions and nonbanks are reported in a single item. Between 1996 and 1998 the share of foreign currency securities and foreign-held securities denominated in ATS reported for residents' securities deposits increased from 14.5 to 24.6% (figures for 1999 are not yet available).

3 Lewis (1999) provides an overview of the current discussion on this topic.

or limits applicable to foreign currency transactions in the euro area obsolete.

Another factor to consider is information and its availability. When investing in foreign shares, it is necessary to gather information about accounting and reporting standards and the legal framework of the country in question as well as the practices specific to an exchange. Collecting this information before investing in foreign securities may at times be very costly. The bulk of these costs are fixed costs, which in the case of an investment in Austrian shares, almost all of which have a low market capitalization, are allocated to a smaller volume than with investments targeting more liquid markets or larger companies.

Furthermore, considerable information asymmetries may exist as to the information available to domestic and foreign investors on the financial standing of companies and markets. Asymmetric access to information is, for instance, reflected by the fact that the price development of shares which are listed both on domestic and foreign exchanges is determined by the domestic market. Information asymmetries and different readings of the information available may be a strong incentive to choose foreign investments very carefully. To reduce asymmetries, it is necessary to make market information more transparent and give all market participants equal access to market-relevant data.

Monetary Union alleviated the problem of asymmetric information only partly. Even though the economic prospects of a company are increasingly influenced by the development of the European economy as a whole, domestic market participants are still at an advantage in gathering information on the national or regional aspects of corporate developments as well as on the market conditions of a given exchange.

In sum, the home bias is likely to decrease at least in the euro area owing to Monetary Union. As a consequence, cross-border capital flows may be expected to rise further. It remains to be seen though whether the Vienna stock exchange will benefit from this in the same way as the major euro area markets. Securities which would typically be part of an Austrian portfolio are not included in euro area-wide portfolios in the absence of sufficient liquidity. Illiquid securities are hardly ever added to renowned global indexes and are thus rarely represented in international investors' portfolios. According to the data available, foreign investors have not stepped up their portfolio investments in Austrian quoted shares perceptibly in the rather short period since the launch of Monetary Union.

4 Costs of Fragmented Markets vs. Benefits of Decentralized Information Processing

Centralizing stock exchanges boosts market liquidity as the transaction volume increases, thus allowing for more efficient pricing. For this reason, market participants, both investors and issuers, should benefit from the merging of stock exchanges. As the likelihood to find a counterparty rises on a relatively liquid market, so does the chance to strike a deal if all orders are bundled on a centralized market. In this sense, capital markets can achieve economies of scale. A consolidated or centralized market should

therefore *ceteris paribus* be more efficient than a fragmented market,¹⁾ since it covers all market transactions and offers narrower bid-ask spreads.

The total costs counterparties incur on stock exchanges do not only comprise the costs associated with a transaction (e. g. broker fees), but also the costs induced by possible price reactions, i. e. market impact. The Vienna stock exchange shows a comparatively unfavorable cost structure. For the fourth quarter of 1997, the total costs (transaction costs plus market impact) of a transaction made on the Vienna exchange were pegged at 44.9 basis points, thus exceeding the costs of Frankfurt (35.6 basis points) and Paris (30.0 basis points) by far. Even market impact is higher in Vienna than on most other European exchanges.

Costs of a Transaction in the Fourth Quarter of 1997

	Total costs	Transaction costs	Market impact
	<i>in basis points per transaction volume</i>		
Belgium	40.6	24.5	16.2
Denmark	42.4	29.3	13.1
Germany	35.6	23.6	12.0
Finland	40.6	28.3	12.3
France	30.0	23.5	6.6
Greece	69.8	55.5	14.3
Ireland	128.3	99.2	29.1
Italy	32.8	25.3	7.5
Netherlands	38.8	23.2	15.6
Norway	41.5	29.0	12.5
Austria	44.9	30.2	14.7
Portugal	66.6	42.7	23.9
Sweden	33.8	25.4	8.4
Switzerland	38.5	29.6	9.0
Spain	40.1	32.0	8.2
United Kingdom	54.8	39.8	15.0
U.S.A. (NYSE)	34.5	12.4	22.1

Source: Elkins/McSherry, Inc.

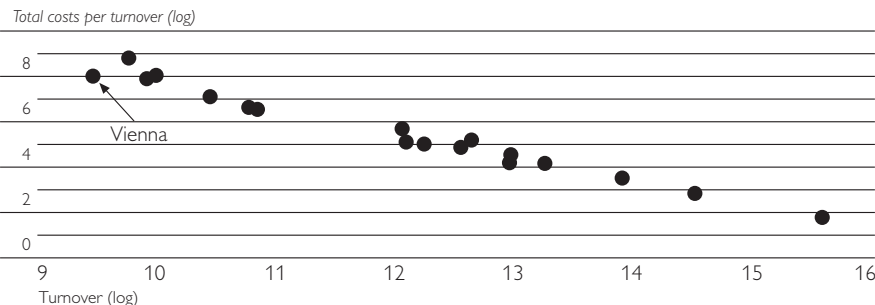
There is a clear inverse relationship between the costs (transaction costs, costs associated with market impact) and trading volume. In other words, both transaction costs and market impact costs may be reduced by increasing the volume traded.

The lack of liquidity on the Vienna stock exchange seems to contribute substantially to the unfavorable cost structure and, in addition, to deter international institutional investors from becoming more active in this marketplace.

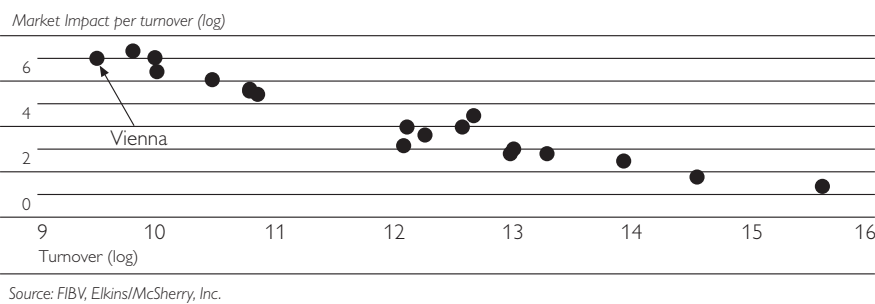
On the other hand, the fragmentation loss associated with trading on several stock exchanges contrasts with advantages arising from competition among various marketplaces. Studies examining the situation in the U.S.A. show that the bid-ask spread is smaller for companies listed on several exchanges (Branch and Freed, 1977) or traded over the counter (Hamilton, 1979). Thus, the competitive effect more than cancels out the fragmentation effect. Pagano and Röell (1991) point out this effect of competition on

¹ A market is fragmented if the orders executed correspond to a result different from that produced by a centralized auction market (Amihud and Mendelson, 1991).

Total Costs of an Exchange Transaction and Turnover



Market Impact and Turnover



trade with securities listed in both London and Paris: After close of business in Paris, bid-ask spreads would widen noticeably in London.

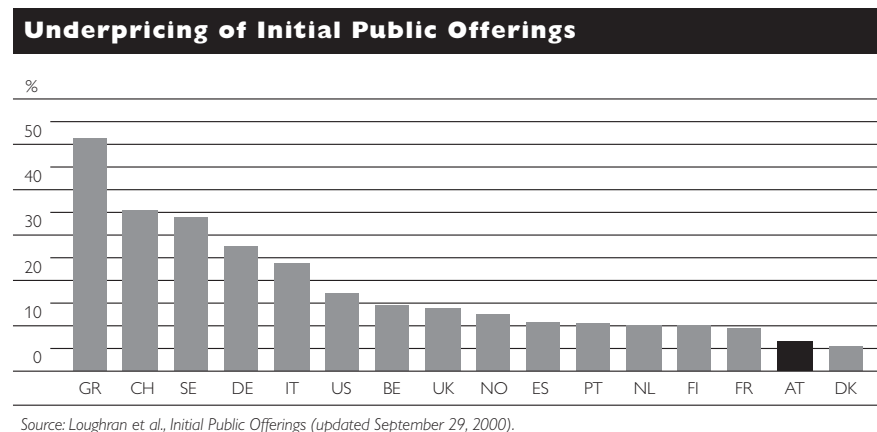
In addition to the implications for competition, asymmetric information among market participants also impedes the centralization of stock exchange activities. Analyzing the costs of services provided by 37 exchanges, Malkamäki (1999) found that scale economies in stock exchanges are an increasing function of size. It is most cost efficient for the biggest exchanges to expand further. Costs for small equity markets¹⁾ will rise by a disproportionately high 129% if the number of listed companies is doubled. Why would that be the case? As the number of listed companies increases, the need of an exchange to employ more costly human resources grows as well. Listing procedure and communication with the listed companies as well as market oversight and any other activities ensuring smooth operations of the exchange require manual work and personal contacts. The outcome of the study is that smaller stock exchanges should first of all strive to lift liquidity rather than to attract a greater number of listed companies, as it is more cost efficient for them to continue intense services for the existing clientele.

An aspect which increasingly influences stock market prices is the fact that in addition to the information available to the general public there exists private information (e. g. the know-how of regional issuers), to which

¹ Malkamäki distinguishes between small and big exchanges according to the number of listed companies. About 140 listed companies of a small exchange contrast with some 1,800 listings on big exchanges.

only a few players may be privy. Companies may subsequently be underpriced.¹⁾ This way asymmetric information could cause companies to prefer local issues to flotations on foreign exchanges. Less informed investors who are aware of this information gap will, as a rule, be more hesitant to buy regional securities or even shun them altogether.

With initial public offerings, information asymmetries among investors and issuers strongly impacts pricing. The price of many placements rises above the issuing price on the first day of trading. This global stylized fact may be pinpointed to a number of reasons, but it is at any rate also attributable to information asymmetries (Loughran, Ritter, Rydqvist, 1994). At 6.5%, underpricing is low on the Vienna stock exchange compared to international marketplaces.



Provided information asymmetries cause IPOs to be underpriced, such flaws in valuation could be redressed if companies first floated shares on a regional exchange, where the investors are better informed about the issuing firms, before launching shares abroad.

4.1 Incentives to Issue Shares on a Regional Exchange

As shown by Pagano, Röell and Zechner (1999), a company's size, product sales abroad and spending on research and development are key to whether a company opts for a second listing on a foreign exchange. Austrian enterprises appear to rate highly especially the reputation a company going public has with consumers and suppliers. In 1998, a total of 31 Austrian stock corporations were listed on foreign exchanges, 30 of which alongside their listing in Vienna.

¹ Underpricing may be ruled out only if financial markets are strong-form efficient as defined by Fama (1991), in which case also private information on price developments is considered. Over the past years numerous studies pointed out valuation anomalies, though, casting doubt on the strong-form efficiency of financial markets. However, tests on market efficiency basically test a joint and inseparable hypothesis or, to put it differently, results which suggest market inefficiency but may also be attributed to the fact that the valuation model used (e. g. the arbitrage pricing theory) does not capture the market conditions correctly.

**Turnover of Austrian Shares Listed on Foreign Exchanges
and the Vienna Exchange in 1998**

	Total turnover (transactions)	Ratio of foreign to domestic turnover %
Frankfurt	3,504,468	1.70
Berlin	743,001	0.37
Munich	2,905,430	1.43
Düsseldorf	134,921	0.07
Brussels	16,184	0.01
London (SEAQ)	125,571,007	59.73
Paris	40,777	0.02
Vienna	215,079,209	x

Source: Factbook Beteiligungskapital, September 1999.

Of these companies only about half recorded a substantial turnover abroad – mostly on the London stock exchange. The bulk of companies prefers more liquid exchanges, such as Frankfurt and London, to the German regional marketplaces (Munich, Berlin). The publicity that comes with a listing and the reputation it generates with suppliers and customers may thus largely determine a company's decision about where to list. By listing in a region where a company's product market is located, the company signals to its customers and suppliers its high product, service and management quality. Regional exchanges, which naturally are less liquid and thus cannot guarantee issuers to raise capital on the most favorable terms, nevertheless perform valuable functions, as such listings may generate a positive feedback on the company's demand from consumers and its relationships with suppliers.

From an economic point of view, it is therefore not possible to give a clear recommendation for or against the centralization of stock exchange trading. While centralization would benefit liquidity, information asymmetries among market participants (issuers and investors) would intensify, as would competitive effects. The trend should thus be towards a centralization of the trading function of exchanges instead of towards a complete amalgamation of stock exchanges. Organizing, monitoring and catering for regional issuers may in some cases be better carried out on a decentralized basis.

**5 Market Integration and Regional Exchanges:
Changes in Exchange Structures**

Originally, stock exchanges were meant to cater for the funding needs of the local economy. 19th-century U.S.A. thus had more than 100 exchanges, and as late as in the 1920s the companies with the highest turnover on U.S. exchanges would generally be headquartered in the vicinity of the respective exchange (Arnold et al., 1999). Falling communications costs and regulatory changes following the stock market crash of 1929¹⁾ diminished

¹ The disclosure and reporting requirements for regional exchanges were, for instance, raised to meet the standards of the New York stock exchange, leveling the costs of a listing on regional exchanges to those on the NYSE.

the importance of the regional marketplaces in the 1920s and 1930s, triggering mergers of U.S. exchanges¹⁾ and increasingly facilitating the raising of equity capital on the national level.

While competition unfolded among U.S. exchanges before World War II already, it is a relatively recent phenomenon in Europe. Traditionally organized as public or self-regulated institutions,²⁾ Continental European exchanges were for a long time well sheltered from international competition (Di Noia, 1999). Like in the U.S.A., change was sparked by technological and regulatory change. Above all, the liberalization accompanying the establishment of the European single market, but also deregulation in the international arena, drove down the costs of cross-border capital transactions. This, in turn, caused competition to flare up among marketplaces.

The “engine of change” (Pagano, 1997) was a series of reforms introduced by the London equity market which came to be known as “Big Bang.” With competition with the New York stock exchange stiffening, the UK stock market regulators embarked on a massive restructuring in 1986, also revamping foreign equity trading. The reforms helped the City of London gain a considerable competitive edge, diverting away an enormous fraction of trade volumes from Continental exchanges.³⁾

The danger of losing business to London pushed Continental exchanges to overhaul their trading systems, too. In most European countries, at the end of the 1980s, numerous regulatory changes designed to pave the way for implementing the “four freedoms” in the single market provided additional impetus.⁴⁾ In addition, several European exchanges were closed in past years.⁵⁾ In the same vein, the Vienna stock exchange underwent a number of structural reforms in recent years to conform to international standards.⁶⁾

In the 1990s, several European exchanges started to cooperate across borders, mostly in particular market sectors, and struck alliances, while remaining legally independent. EURONEXT, the outcome of the April 2000 merger of the Paris, Brussels and Amsterdam bourses, represents the

1 In 1929, the two exchanges in New York accounted for only 36% of total U.S. stock trade compared to 82% in 1949. In 1938, 37% of U.S. shares were listed on a regional exchange, against less than 10% in 1995 (Arnold et al., 1999). Likewise, the number of U.S. exchanges slipped to 5, down from 18 in 1940.

2 Anglo-American exchanges, by contrast, have always been private bodies, albeit subject to stringent public regulations.

3 In the early 1990s, SEAQ turnover in foreign equities at times amounted to the following fractions of the respective domestic trade: Netherlands: 63%, France: 30%, Switzerland: 35%, Italy: 27%, and Germany: 13% (Pagano and Steil, 1996).

4 For a comprehensive overview of the reforms launched by the European exchanges, see e.g. Di Noia (1999) and Pagano and Steil (1996).

5 Lausanne, St. Gallen, Neuenburg in Switzerland and Antwerp in Belgium. See Duzendorfer (1998) and Rudolph (1998).

6 Mention should be made e.g. of the merger of the cash and futures markets (formerly called ÖTOB), the linkup of the Vienna cash market to Frankfurt's Xetra electronic trading platform, the overhaul of the market segments, new settlement procedures and eased entry for new market participants. See e. g. Oesterreichische Nationalbank (2000).

first permanent cross-border alliance among exchanges.¹⁾ Joint international derivatives and special markets were more successful. Two joint exchanges, EUREX and GLOBEX, cater for futures trading, and in 1996, the European Association of Securities Dealers (EASD) launched a new market for high-growth companies called EASDAQ.²⁾

In light of the increasing integration and internationalization of capital markets, the question arises in how far a stock exchange today still serves the initial function of catering to the funding needs of industries in a given region. Put differently, what role do exchanges which cannot claim to match capital supply and demand globally or in the euro area at least have on increasingly integrated financial markets? These need not necessarily be “regional exchanges” (without attempting to provide an exact definition of this concept,³⁾ be it a stock exchange trading primarily in securities issued by companies located in its “catchment area”).

At the start of the third stage of Monetary Union, five U.S. stock exchanges contrasted with 32 exchanges (cash markets) in the eleven euro area countries (Dunzendorfer, 1998). Eight exchanges operate in Germany alone: Frankfurt, Stuttgart, Düsseldorf, Berlin, Munich, Hamburg, Hanover and Bremen. May the experience of several marketplaces within a monetary area serve as an indicator for others?

Exchange Size in Germany

	Domestic shares 1999	Turnover in the cash market in domestic shares March 1998	
	Number	EUR billion	%
Frankfurt	1,428	330.9	90.9
Stuttgart	1,160	10.5	2.9
Düsseldorf	1,196	7.6	2.1
Berlin	891	5.2	1.4
Munich	647	3.2	0.9
Hamburg	973	3.5	1.0
Bremen	366	2.8	0.8
Hanover	279	0.5	0.1
Germany ¹⁾	1,939	364.2	100.0
Compared with: Vienna	113	3.0	x

Source: Deutsche Börse, Factbook 1999; Zeitschrift für das gesamte Kreditwesen 10/1998, p. 583; Wiener Börse AG.

¹⁾ Due to dual listings the German sum total does not equal 100%.

In terms of size, most of Germany’s regional exchanges clearly outperform the Vienna market. The securities listed on each of the German exchanges outnumber the Vienna listings at least twofold. The trading

1 As early as in 1991, 17 European countries expressed interest in a joint stock market, which never took off, though. In 1998, eight European exchanges (Paris, London, Frankfurt, Amsterdam, Brussels, Madrid, Stockholm and Zurich) discussed concrete plans – again to no avail. Bilateral merger plans (between Frankfurt and Paris in 1996, Frankfurt and London in 1998 and in 2000) failed as well, Dennig (2000).

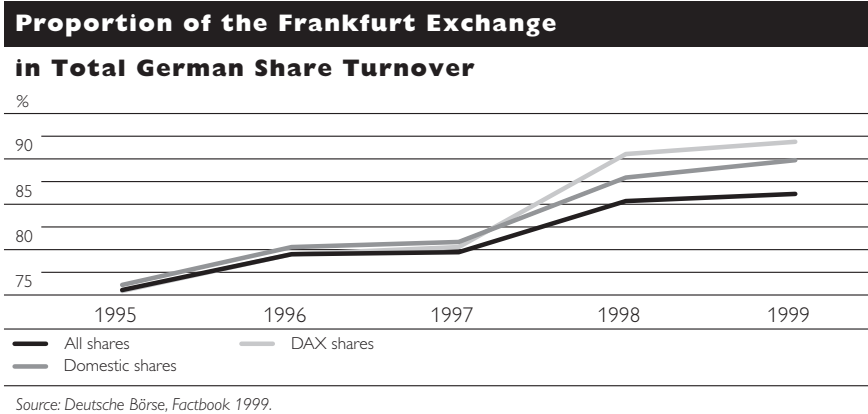
2 EASDAQ received funding from 21 European and American institutions including the Paris stock exchange and the NASDAQ. The European Commission had set the process in motion. EASDAQ, which runs on the NASDAQ trading system, is located in Belgium and thus subject to Belgian supervision. Its members do not have to be physically present in Brussels and do not need to fulfill any additional admission criteria.

3 Schmidt (1992a) provides a number of characteristics for regional exchanges.

volumes of most German regional exchanges likewise exceed the turnover posted in Vienna.

Frankfurt's lead over the regional exchanges increasingly widened in recent years. Its share in total German turnover mounted from about half in the mid-1980s (Schmidt et al., 1997) to roughly three quarters in 1995 and by another 10 percentage points to 86% by 1999. This shift was carried in particular by major, liquid shares represented in the DAX; here, the share of Frankfurt surged from 75% in 1995 to 92% in 1999.

Germany's regional exchanges responded to the loss in market share by repositioning themselves and some of them managed to expand their trading volumes again notably in recent years. Munich, for instance, succeeded in stepping up annual turnover more than 2.5 fold between 1996 and 1999.¹⁾ Nearly all German regional bourses focus their activities on small and medium-sized enterprises whose center of economic interest lies within the catchment area of the respective exchange.²⁾ Several exchanges have launched trading segments specifically emphasizing regional equities to boost liquidity.



Due to high information costs, issues of small, merely regionally known companies may often be placed on regional exchanges only, where investors are familiar with the company and its environment. The minimum requirements formulated by exchanges with such a target group may be lower than those striving to compete on a national or international scale. For offerings to be placed in a given region or in one country only, the requirement to publish reports in line with international accounting standards – which most regional exchanges in Germany do not require – is, for example, of lesser importance.

Focussing on trade in regional equities is, almost as a matter of course, linked with an orientation towards private investors. Large institutional investors replicating one of the major indexes seldom add small and medium-sized enterprises to their portfolios. The sliding shares of the regional exchanges in the DAX eventually reflect their strategic reposition-

1 1999/2000 annual report of the Bavarian stock exchange.

2 Some regional exchanges (e. g. Berlin) concentrate on foreign equity trading.

ing. However, for an exchange which functions as the national stock market of a country and which is meant to enable its listed companies to access institutional investors' funds, it cannot be the only strategic option to operate exclusively as a regional stock exchange.

Furthermore, small and medium-sized enterprises have been afforded a much greater choice of marketplaces owing to the structural change in equity trading. The parallel markets and markets for high-growth companies that have cropped up in the recent past not only offer an exit channel for venture capital-funded companies, but also cater to mid-sized companies wishing to go public. This development holds certain implications for exchanges focussing on a particular region or on medium-sized companies. While in the past an Austrian enterprise wishing to go public invariably turned to the Vienna stock exchange, today it may choose from several markets. Markets for high-growth companies, which attract listings from companies based in various European countries, usually concentrate on one or several industries. This way they are of greater interest to institutional investors, who increasingly manage industry-specific portfolios, than exchanges with a regional focus.

Once flotations shift to other marketplaces, related services might dislocate as well. Such a pattern is, for instance, discernible with the lead management function of domestic banks in issues of shares. All placements on the Vienna stock exchange, but also on EASDAQ, were lead managed by Austrian banks, whereas the share of Austrian lead-managed offerings (weighted by issuing volumes) on the Neuer Markt equaled a quarter, and the two issues launched in Switzerland were managed by Swiss banks.

6 Concluding Remarks

While the Vienna stock exchange is small in terms of size, a number of indicators suggests that its function as a financing source for Austrian companies is comparable to the role exchanges play in other countries with a predominantly bank-based system, such as Germany and Italy. Stocks gained somewhat in importance for the Austrian economy as a financing instrument over the past few years, but the significance of Austrian stocks as an investment vehicle – in particular for institutional investors – did not rise analogously. The low valuation of the Austrian stock market, which is probably in part ascribable to the lackluster interest of institutional investors, might affect the scope of external equity financing for Austrian companies adversely.

As private and occupational pension schemes are expected to spread, institutional investors stand to assume a more important role. Owing to legal changes, mutual funds and pension funds may increase their exposure to riskier instruments such as shares, whose percentages in the portfolios, however, are still well below the binding thresholds. This might also have to do with the fact that institutional investors are attaching ever greater importance to benchmarks. With capital flows increasingly concentrated on the large companies represented in indexes, it is becoming easier for these enterprises to raise additional funds on the capital market, while the opposite is true for the rest of the corporate sector.

One of the main reasons for institutional investors' modest activity on the Vienna exchange is the thin market capitalization and the ensuing low liquidity. As this leads to higher transaction costs especially for institutional investors, liquidity needs to be boosted for them to step up share purchases.

Foreign parallel markets and stock exchanges for growth companies, which have been launched in recent years, present Austrian enterprises with new equity financing options. Many enterprises have chosen to list or cross-list their shares on these markets. The possibility of raising capital on an exchange at favorable terms is thus more important to corporate finance than the physical presence of an exchange in the country where companies are based. Diversity helps make the services offered by exchanges more effective and efficient and is therefore central to the performance of a capital market. A case in point: Austrian companies have floated a substantial proportion of their shares on recently set up exchanges for younger high-growth companies. Competition is therefore a considerable factor in fully harnessing the advantages of Monetary Union.

Companies with cross-listings on several markets may benefit from competitive transaction costs, which tends to reduce the cost of capital in general. From an investor's perspective, competition among exchanges allows investors to weigh the costs and service level and choose the venue that best suits their needs.

With European stock markets integrating further, what role will the Vienna marketplace play in the future? So far, joint European projects have centered exclusively on the merging of electronic trading systems and trade with institutional investors. Besides, Germany's regional exchanges point toward a geographic concentration. However, focussing solely on regional issues will not allow companies in pursuit of capital to adequately mobilize the funds managed by insitutional investors.

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Abbreviations

AMS	Arbeitsmarktservice Österreich (Austrian Public Employment Office)	IHS	Institut für Höhere Studien (Institute for Advanced Studies)
ARTIS	Austrian Real Time Interbank Settlement	IIP	International Investment Position
BWA	Bundes-Wertpapieraufsicht (Federal Securities Supervisory Authority)	IMF	International Monetary Fund
BWG	Bankwesengesetz (amendments to the Banking Act)	IPO	Initial Public Offering
CAD	Capital Adequacy Directive	NACE	Nomenclature générale des Activités économiques dans les Communautés Européennes (Statistical Classification of Economic Activities)
CEECs	Central and Eastern European Countries	ÖCPA	Austrian Version of the Classification of Products by Activities
COICOP	Classification of Individual Consumption by Purpose	OECD	Organisation for Economic Co-operation and Development
CPI	Consumer Price Index	OeKB	Oesterreichische Kontrollbank
EC	European Community	OeNB	Oesterreichische Nationalbank
ECB	European Central Bank	ÖNACE	Austrian Version of the Statistical Classification of Economic Activities
EEA	European Economic Area	ÖSTAT	Statistik Österreich Bundesanstalt öffentlichen Rechts (Statistics Austria)
EEC	European Economic Community	RTGS	Real Time Gross Settlement System
EGVG	Einführungsgesetz der Verwaltungsverfahrensgesetze (Introductory Act to the Administrative Procedure Acts)	SDR	Special Drawing Right
EMU	Economic and Monetary Union	SNA	System of National Accounts
EQOS	Electronic Quote and Order Driven System	TARGET	Trans European Automated Real Time Gross Settlement Express Transfer System
ERM	Exchange Rate Mechanism	TEU	Treaty on European Union
ERP	European Recovery Program	WBI	Wiener Börse Index
ESCB	European System of Central Banks	WIFO	Österreichisches Institut für Wirtschaftsforschung (Austrian Institute of Economic Research)
ESNA	European System of National Accounts	WWU	Wirtschafts- und Währungsunion
EU	European Union		
Eurostat	Statistical Office of the European Communities		
GDP	Gross Domestic Product		
HICP	Harmonized Index of Consumer Prices		

Legend

- = The numerical value is zero
- .. = Data not available at the reporting date
- × = For technical reasons no data can be indicated
- 0 = A quantity which is smaller than half of the unit indicated
- Ø = Mean value
- = New series

Note: Apparent arithmetical discrepancies in the tables are due to rounding.

Official Announcements of the Oesterreichische Nationalbank

Authentic German text published in the Official Gazette (Amtsblatt zur Wiener Zeitung)	Translation published in "Reports and Summaries" and "Focus on Austria" issue no
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Official Announcements Regarding the Foreign Exchange Law

Please see the German-language publication "Berichte und Studien" for a list of all Official Announcements in German.

DL 1/91	Promulgation of the new Official Announcements regarding the Foreign Exchange Law; general provisions 1. Issuance of new Official Announcements 2. Definitions 3. Fees	Sept. 24, 1991	4/1991
DL 2/91	Granting of general licenses 1. General license 2. Waiver of obligation to declare; release 3. Nonbanks 4. Banks not engaged in foreign business 5. Foreign exchange dealers 6. Exchange bureaus 7. Special banks and financial institutions 8. Provisions applying to both banks and financial institutions	Sept. 24, 1991	4/1991
DL 3/91	Reporting requirements 1. General provisions 2. Exemptions from the reporting obligation 3. General reports 4. Reports by banks 5. Reports by nonbanks and financial institutions 6. Special reports	Sept. 24, 1991	4/1991
DL 4/91	Assets of nonresidents with residence (domicile) in Iraq	Oct. 29, 1991	4/1991
DL 2/93	Modification of the Official Announcement DL 3/91	May 5, 1993	2/1993
DL 1/95	Repeal of the Official Announcement DL 1/93; SC Resolution 1022 (1995) Concerning the suspension of the sanctions of the United Nations against the Federal Republic of Yugoslavia	Dec. 21, 1995	4/1995
DL 1/96	Modification of Official Announcement DL 3/91	Sept. 3, 1996	3/1996
DL 1/99	Modification of Official Announcements DL 2/91 and DL 3/91 to the Foreign Exchange Act	Dec. 21, 1998	4/1998
DL 2/99	Abrogation of Official Announcement DL 3/93 Sanctions of the United Nations against Libya	April 30, 1999	1/1999
DL 3/99	Modification of Official Announcement DL 3/91 with respect to the Foreign Exchange Act	Dec. 16, 1999	3/1999

Council Regulations of the European Communities

Published in the
Official Journal
of the
European
Communities

Minimum Reserve Regulations

No 2531/98	Council Regulation (EC) concerning the application of minimum reserves by the European Central Bank	Nov. 23, 1998
No 2532/98	Council Regulation (EC) concerning the powers of the European Central Bank to impose sanctions	Nov. 23, 1998
No 2818/98	Regulation (EC) of the European Central Bank on the application of minimum reserves	Dec. 1, 1998

List of Reports, Summaries, and Studies¹⁾

Published in
"Focus on Austria"

Please see the German-language publication "Berichte und Studien" for a list of all German-language reports, studies and special publications of the OeNB.

Oesterreichische Nationalbank and Selected Monetary Aggregates

Official Announcements Regarding the Foreign Exchange Law and Minimum Reserve Requirements – see preceding page	
Calendar of Monetary Highlights	1/1999
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The Possibilities and Limitations of Monetary Policy – Results of the OeNB's 27th Economics Conference	3/1999
Calendar of Monetary and Economic Highlights	4/1999
Calendar of Monetary and Economic Highlights	1/2000
Calendar of Monetary and Economic Highlights	2/2000
Calendar of Monetary and Economic Highlights	3/2000
The New Millennium – Time for a New Economic Paradigm? Results of the OeNB's 28th Economics Conference	
of the Oesterreichische Nationalbank	3/2000
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Austrian Financial Institutions

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Calculating the Thresholds for the Notification of Merger of Banks – The New Legal Situation	2/2000
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Money and Credit in the First Three Quarters of 2000	4/2000

Interest Rates

An International Comparison of Term Structures – Estimations Using the OeNB Model	1/1999
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Capital Market

Austrian Stock Market Survey and Outlook	4/2000
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Austrian Real Economy

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Financial Assets and Liabilities of Enterprises and Households in the Year 1995 to 1997	1/1999
Economic Outlook for Austria from 1999 to 2001	2/1999
Economic Background	2/1999
Economic Background	3/1999

¹ For a comprehensive list of reports, summaries and studies hitherto published please refer to issue no. 4/1999 of "Focus on Austria."

Published in
"Focus on Austria"**Austrian Real Economy (cont.)**

Financial Accounts in Accordance with ESA 95 – Financial Assets and Liabilities of the Sectors of the Austrian Economy; First Release of Data for the Years 1995 to 1997	3/1999
Economic Outlook for Austria from 1999 to 2001 Fall 1999	4/1999
Impact of the Recent Upturn in Crude Oil Prices on Inflation in Austria – A Comparison with Historic Supply Shocks Economic Background	4/1999 1/2000
Financial Accounts in Accordance with ESA 95 Financial Assets and Liabilities of the Sectors of the Austrian Economy Results for 1998	1/2000
Economic Outlook for Austria from 2000 to 2002 Spring 2000	2/2000
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Economic Outlook for Austria from 2000 to 2002 (Fall 2000)	4/2000

External Sector

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Special Survey on the Regional Allocation of Nonresident Securities Held by Residents as of December 31, 1997	1/1999
Balance of Payments for the Year 1998	2/1999
New Concept of the Austrian Balance of Portfolio Investment	2/1999
Austrian Outward and Inward Direct Investment at the End of 1997	2/1999
Balance of Payments in the First Quarter of 1999	3/1999
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Published in
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List of Studies

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The Monetary Policy of the Eurosystem

Monetary Policy and Monetary Policy Strategy in EMU:

New Framework – New Challenges

The Credibility of the Eurosystem

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Indicators for Assessing Price Changes

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On a New Capital Adequacy Framework as Proposed by Basel and Brussels

Regulatory Capital Requirements for Austrian Banks –

A Supervisory Tool Subject to Change

Supervisory Review

Credit Risk

Critical Evaluation of the Basel Committee's

and the European Commission's Proposals on the

Treatment of Other Risks in the New Capital Adequacy Framework

Interest Rate Risk in the Banking Book

Publications of the Oesterreichische Nationalbank

Periodical Publications

	Published
Statistisches Monatsheft	monthly
Focus on Statistics (English translation of "Statistisches Monatsheft")	http://www.oenb.at
Leistungsbilanz Österreichs, revidierte Jahresdaten gegliedert nach Regionen und Währungen	annually
Berichte und Studien	quarterly
Focus on Austria (selected chapters from „Berichte und Studien“)	quarterly
Focus on Transition	semiannually
Geschäftsbericht	annually
Annual Report (English translation of "Geschäftsbericht")	annually
Volkswirtschaftliche Tagung (for a list of the topics discussed at the conferences, see below)	annually
The Austrian Financial Markets – A Survey of Austria's Capital Markets – Facts and Figures	annually

Other Publications

New Developments in Banking and Finance in East and West (Kranichberg 1989)	1990
Erfahrungen Österreichs beim Übergang von administrativer Regulierung zur Marktwirtschaft (Moscow 1990)	1990
Challenges for European Bank Managers in the 1990s (Badgastein 1990)	1991
From Control to Market - Austria's Experiences in the Post-War Period (Warsaw 1990)	1991
The Economic Opening of Eastern Europe (Bergsten Conference Vienna 1991)	1991 ¹⁾
Erneuerung durch Integration – 175 Jahre Oesterreichische Nationalbank	1991
Striking a Balance – 175 Years of Austrian National Bank	1991
Transparente Dispositionen – Liberalisierter Devisenverkehr unter Beachtung internationaler Publizitätsverpflichtungen	1991
Ausgeglichene Position – Die neue Präsentation der österreichischen Zahlungsbilanz	1992
Aktive Bilanz – Ein Jahr vollständig liberalisierter Devisenverkehr in Österreich	1992
Economic Consequences of Soviet Disintegration (Bergsten Conference Vienna 1992)	1993
Neuorientierung – Internationale Vermögensposition und Außenwirtschaftliche Investitionsbilanz Österreichs	1993 ¹⁾
Bankwesengesetz 1993	1994 ¹⁾

¹ Out of print.

Other Publications (cont.)

Published

Internationale Vermögensposition 1992 – Die grenzüberschreitenden Forderungen und Verpflichtungen Österreichs	1994 ¹⁾
International Investment Position for 1992 – Austria's cross-border assets and liabilities	1994
Western Europe in Transition: The Impact of the Opening up of Eastern Europe and the former Soviet Union	1995
Die Oesterreichische Nationalbank als Unternehmen	1996
Monetary Policy in Central and Eastern Europe: Challenges of EU Integration 1996	1996 ¹⁾
Monetary Policy in Transition in East and West	1997
Die Auswirkungen des Euro auf den Finanzmarkt Österreich	1997 ¹⁾
Die Bank der Banken	1997
Die Zukunft des Geldes: Auf dem Weg zum Euro	
Grundlagen – Strukturen – Termine	1997
Geld & Währung	1997
Kompendium von Texten zur Wirtschafts- und Währungsunion	1997 ¹⁾
Nationalbankgesetz 1984 (as of January 1999)	1999
Information literature on banknote security	recurrently
Working Papers (for a list of the topics discussed in the papers, see below)	recurrently

Videos

Wie Mozart entsteht (banknote security)	1990
The Evolution of W. A. Mozart (English version of “Wie Mozart entsteht”)	1995
Bank der Banken (tasks and functions of the OeNB)	1991
The Banks' Bank (English version of “Bank der Banken”)	1991

¹ Out of print.

**List of the Topics Discussed at the Economics Conferences
(Volkswirtschaftliche Tagungen)**

- 1975 Die ökonomischen, politischen und sozialen Konsequenzen der Wachstumsverlangsamung
- 1976 Störungsanfällige Bereiche in unserem ökonomischen und sozialen System
- 1977 Fiskalismus kontra Monetarismus
- 1978 Wirtschaftsprognose und Wirtschaftspolitik
- 1979 Technik-, Wirtschaftswachstums-, Wissenschaftsverdrossenheit: Die neue Romantik – Analyse einer Zeitströmung
- 1980 Probleme der Leistungsbilanz in den achtziger Jahren
- 1981 Systemkrisen in Ost und West
- 1982 Forschung und Wirtschaftswachstum
- 1983 Ausweg aus der Krise – Wege der Wirtschaftstheorie und Wirtschaftspolitik
- 1984 Der Weg zur Welthandelsnation
- 1985 Weltanschauung und Wirtschaft
- 1986 Vollbeschäftigung, ein erreichbares Ziel?
- 1987 Vollendung des Binnenmarktes in der Europäischen Gemeinschaft – Folgen und Folgerungen für Österreich
- 1988 Sand im Getriebe – Ursachen und Auswirkungen der Wachstumsverlangsamung in Österreich
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