Banks
Business Activity and Profitability
Total Assets Reached New High
After declining in the fourth quarter of 2002 and stagnating in the first half of 2003, Austrian banks’ aggregate total assets increased in the second half of 2003. In the first two months of 2004, this recovery strengthened, with unconsolidated total assets picking up 6.1% year on year and reaching a new high of EUR 614.12 billion at the beginning of 2004. Chart 6 shows that in February 2004, total asset growth — in particular among the ten largest banks (5.6%, excluding special purpose banks) — of all Austrian banks came close to the median change of 5.5%.

Chart 6

Total Asset Growth of Austrian Banks Turned Positive Again

<table>
<thead>
<tr>
<th>%</th>
<th>15</th>
<th>10</th>
<th>5</th>
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<th>-5</th>
<th>-10</th>
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</thead>
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<td>2001</td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
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</tr>
</tbody>
</table>

- Aggregate banking sector
- Ten largest banks
- Median

Source: OeNB

External assets and liabilities, which had grown by 12.7% and 7.8%, respectively, against the previous year, made a particularly large contribution to total asset growth in February 2004, thus driving up the share of external assets and liabilities to about 30% of total assets. Interbank business with domestic banks also picked up, by 7.6% on the assets side and by 10.6% on the liabilities side, contributing 18.5% (assets side) and 19.3% (liabilities side) of all business. Loans to domestic nonbanks expanded by 1.8% in February 2004, i.e. less rapidly year on year, accounting for 38.7% of total assets. Domestic nonbanks’ deposits grew by 4.3% and thus made up 32.9% of Austrian banks’ balance sheet total. Hence, the recent gains in market liquidity reflected in the balance sheet structure to a large extent benefited foreign markets. The higher share of external business is, on the assets side, mainly due to Austrian banks’ increasing activities in Eastern Europe, whereas on the liabilities side, it can, inter alia, be attributed to refinancing transactions for foreign currency loans.

A sectoral breakdown reveals that the savings bank sector retained its leading position (not least due to Bank Austria Creditanstalt), accounting for 35.7% of Austrian banks’ aggregate unconsolidated total assets in February.

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4 The median is the middle value in a set of data arranged in order of decreasing or increasing magnitude, with half the scores being above, the other half below the median. Special purpose banks are not included in the calculation of the median.
2004, followed by Raiffeisen credit cooperatives (23.4%) and joint stock banks (16.5%). The other sectors’ market shares were all lower than 10%; special purpose banks accounted for 8.5%, state mortgage banks for 7.6%, Volksbank credit cooperatives for 5.3% and building and loan associations for 3.1% of total assets.

Derivatives Trading Volume Declining since Second Half of 2003

The nominal volume of derivatives trading expanded by 26.7% year on year in February 2004, coming to EUR 2,240.7 billion. The monthly changes, however, show that the volume has in fact contracted since reaching a high of EUR 2,651.4 billion in August 2003. Accordingly, in February 2004 the nominal volume of derivatives transactions was 3.6 times that of total assets, while in August 2003 the comparable figure had reached a peak of 4.4. Interest rate contracts, in particular interest rate swaps in the trading book, continued to make up the largest part (86.0%) of derivatives transactions in nominal terms, followed by foreign exchange and gold contracts (13.2%). Precious metal, stock and commodities contracts as well as other contracts accounted for only 0.7% of the nominal value of all derivatives transactions in February 2004.

Austrian Banks Posted Higher Profit Thanks to Diminishing Costs in 2003

2003 saw a recovery in Austrian banks’ profitability. The unconsolidated operating profit of the entire Austrian banking sector went up by 4.5% from EUR 4.2 billion in 2002 to EUR 4.4 billion in 2003. These data suggest that after the slump recorded in 2002, banks have been faring better more recently, even if they have not yet reached the EUR 4.6 billion posted in 2001.

Unconsolidated operating income inched up by 1.1% to EUR 13.9 billion in 2003. This slight increase did not suffice to offset the decline recorded in 2002.

Fee income, climbing by EUR 175 million or 5.8% year on year, was key to the improvement in operating profit, with net fee income on securities portfolios, which thanks to the stock market recovery came to somewhat more than EUR 1.0 billion in 2003 (exceeding the 2002 figure by EUR 68 million), contributing the largest part. Net fee income on lending operations and payment services also played a significant role, augmenting by EUR 50 million and EUR 62 million, respectively.

Net income on financial transactions increased by EUR 48 million or 8.4% year on year. As stock markets rebounded, net income on securities transactions surged by 80.8% from EUR 167 million in 2002 to EUR 302 million in 2003. At the same time, however, net income on other financial transactions diminished from EUR 174 million in 2002 to EUR 82 million in 2003.

At EUR 7.1 billion, net interest income remained almost unchanged against 2002 (~0.3% year on year) and accounted for slightly more than half of operating income. The interest margin for the entire interest rate

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5 As the quarterly reports contain income data of the banks operating in Austria on an unconsolidated basis, Central and Eastern European subsidiaries’ revenues and expenses etc. are not reflected in these data.

6 This margin is calculated using the ECB method, which accounts for different volumes on the assets and liabilities sides. Even with this new method the different term structures of assets and liabilities cannot be reflected, however. For details see the ECB study “EU banks’ margins and credit standards” published in December 2000.
business narrowed continuously from 1.31% in the third quarter of 2002 to 1.27% at the end of 2003, which is, however, still above the trough of 1.24% recorded in early 2001. Joint stock banks (1.21%), savings banks (1.25%) and state mortgage banks (1.12%) reported below-average interest margins, while Raiffeisen (1.45%) and Volksbank credit cooperatives (1.46%) posted above-average interest margins.

The current generally low interest rate level could put pressure on interest margins in certain areas of business. The new MFI interest rate statistics on new euro-denominated business with nonfinancial corporations, launched in 2003, show that interest margins\(^7\) declined from 1.33% in March 2003 to 0.95% in February 2004.

Income on securities and participating interests which are not included in the trading portfolio decreased by 2.9% to EUR 1.7 billion; however, they played a minor role, accounting for only 12% of total operating income.

Banks’ cost-cutting policies fed through to operating expenses, which for the first time since quarterly reporting was introduced decreased for the entire unconsolidated Austrian banking sector year on year, coming to slightly below EUR 9.5 billion at the end of 2003, 0.4% less than one year earlier.

Staff costs, representing more than half of total expenses, contracted by 0.9% to EUR 4.7 billion. Austrian banks’ total staff capacity\(^8\) shrank by 3.0% to 67,463. A sectoral breakdown shows that staff capacity declined most markedly at joint stock banks and savings banks (by 6.3% and 6.4%, respectively), and within those sectors first and foremost at the large banks. In the Raiffeisen and Volksbank sectors, staff capacity remained almost unchanged (increasing by 0.1% and decreasing by 0.2%, respectively), while state mortgage

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\(^7\) Interest differential between loans of above EUR 1 million with a maturity of up to one year and deposits with a maturity of up to one year.

\(^8\) Part-time employees are counted as fractions of full-time employees, i.e. two half-time employees are counted as one full-time employee.
banks and building and loan associations hired additional staff (+1.7% and +2.9%, respectively). Average staff costs\(^9\) per employee\(^10\) for the entire banking sector amounted to somewhat more than EUR 70,250 in 2003; this figure was higher for special purpose banks and savings banks and lower for all other sectors.

Other administrative expenses, accounting for almost 33% of operating expenses, declined by 1.0% to EUR 3.1 billion. If it were not for the rise in depreciations (2.3% year on year) and other expenses (2.5% year on year) the cost savings would have been even higher.

The pickup in operating income and the decline in operating expenses improved the cost-income ratio, which for the entire unconsolidated Austrian banking sector fell from 69.3% at the end of 2002 to 68.2% at the end of 2003. However, it remained above the record low achieved in 2000 (65.4%), which serves as a yardstick for Austrian banks’ profitability. Bucking the general trend, building and loan associations saw a deterioration of their cost-income ratio from 80.6% to 85.9% and the Raiffeisen sector a somewhat smaller rise from 64.5% to 64.6%.

The quarterly reports\(^11\) indicate that the level of provisioning declined in 2003. The balance of transfers to and recoveries from loan loss provisions fell by 19.1% from EUR 2.2 billion in 2002 to a projected EUR 1.7 billion in 2003. In addition, banks anticipated the balance of transfers to and recoveries from provisions for securities and participating interests of EUR 61 million to boost operating income at the end of 2003. Income on ordinary activities was expected to rise by approximately 31% to EUR 2.7 billion. After factoring in extraordinary income and taxes, annual profit was expected to increase by some 54% to EUR 2.1 billion. Neither income from ordinary activities nor annual profits will have reached the levels recorded in 2000 and 2001, however.

### Assessment of Profitability on a Consolidated Basis

Underpinning the results of the analysis of unconsolidated data,\(^12\) the analysis of consolidated data also revealed that Austrian banking sector profitability had improved in 2003. Net interest income, which, on a consolidated basis, includes income from securities and participating interests, as well as net fee income and trading income were on the rise. Altogether, consolidated operating income augmented by 4.8%.

Since at 3.2% administrative expenses increased less strongly than operating income and risk provisioning declined markedly in 2003 compared with 2002, the consolidated end-of-period result before tax increased by 21.3% year on year. The consolidated return on assets (ROA)\(^13\) for the consolidated Austrian banking sector rose from 0.30% in 2002 to 0.38% in 2003.

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9 Staff costs include wages and salaries as well as statutory social security charges and contributions, retirement expenditures, provisions for pension and severance payments as well as other social charges.

10 Including part-time employees.

11 Loan loss provisions, income on ordinary activities and profit/loss after taxes and extraordinary income for the year are year-end results projected by the banks.

12 The analysis of consolidated data takes into account the results of banking groups and thus also comprises the income and expenses of foreign subsidiaries.

13 Annual result after tax and minority interest in relation to total assets.
Credit Risk

Moderate Upturn in Loan Demand

While loan growth had been rather sluggish over recent quarters, it began to recover in the past few months. Against the backdrop of economic conditions improving both at the international and the national level, the annual loan growth rate of all Austrian banks came to 1.6% at the end of 2003 (see chart 8). The growth rates of 2.3% and 1.8% recorded in January and February 2004, respectively, suggest that the upward trend in lending will continue in 2004. The acceleration of loan growth in the last few months of 2003 reported by the ten largest Austrian banks in terms of total assets (see chart 8) can be traced chiefly to new loans extended by one single major bank. In early 2004, loan growth at the ten largest banks lost some momentum; at 0.3% in February 2004, it was significantly below the median value, which was 3.3% at that time.

Almost all banking sectors saw an acceleration of loan growth in 2003, with the exception of building and loan associations, which reported declining loans (February 2004: −3%). The sector’s current weakness in new lending may be attributable to the fact that it offers no foreign currency loans, which is an incentive for customers to turn to other banks for housing loans.

A breakdown by economic sectors reveals that loan growth picked up across the economy. Corporate lending, while continuing to be subdued despite favorable financing conditions, after a long-lasting decline in previous periods, posted an annual growth rate of 0.3% at the end of February 2004 (see chart 9).

Loan growth was much livelier in other economic sectors. Loans to nonbank financial intermediaries expanded by 5.1% year on year in February 2004, loans to general government (central, regional and local government) by 4.5%. Households, which unlike other sectors had continued to account for relatively stable loan growth rates also during the economic downturn over recent quarters, posted an annual growth rate of 3.5% at the end of February 2004.
Slight Increase in Loan Loss Provisions at Major Banks

The ratio of specific loan loss provisions to claims on nonbanks amounted to 3.56% in February 2004, which points to a stabilization compared with February 2003. Hence, a trend reversal might eventually take place, after loan loss provisions relative to claims on nonbanks had been rising continuously from early 2001 to the end of 2003.

Like in the past, this ratio was higher in the multi-tier sectors. In February 2004, the ratio came to 4.0% at savings banks, 5.5% at Volksbank credit cooperatives and 4.6% at Raiffeisen credit cooperatives. Joint stock banks recorded a slight increase from 2.9% to 3.0%. By contrast, at state mortgage banks, the ratio of loan loss provisions to claims on nonbanks dropped from 2.6% in February 2003 to 2.2% in February 2004. Building and loan associations posted a ratio of 0.6%, special purpose banks a ratio of 0.8%.

65 banks (or 7% of all Austrian credit institutions) reported loan loss provisions exceeding 10% of total claims on nonbanks in February 2004. One year earlier, their number had been 67. At the same time, the number of banks with loan loss provisions of more than 20% of total claims on nonbanks rose from 4 to 5.

In the past, the ten largest banks’ ratio of loan loss provisions to claims on nonbanks was always 1 to 2 percentage points below the median of all banks (chart 10). In February 2004, the mean value of the ten largest banks was 3.0%, the median 4.8%. The median thus had remained almost unchanged compared with February 2003, whereas the loan loss provisions taken by the systemically important banks in respect of claims on nonbanks had increased by 8.6%. This higher ratio at the ten largest banks may also reflect the insolvency of the Italian Parmalat group, which had chiefly affected major banks. Nevertheless, the Parmalat insolvency

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14 Loan loss provisions are amounts that banks report as risk provisions in cases where there are reasonable doubts about the solvency of the debtor. Since according to experience, loan loss provisions vis-à-vis banks are rather low, they are not taken into account in this analysis.
had no impact on the stability of the Austrian financial market. All in all, the quality of Austrian banks’ credit portfolios is satisfactory, despite the rise in loan loss provisions in the past few years, which was ascribable first and foremost to the weak economic environment. Furthermore, the data available do not point to any major increase in the strain on the financial system caused by higher bad loan charge-offs.

The Oesterreichische Nationalbank and the Austrian Financial Market Authority Jointly Prepare Guidelines on Credit Risk

The increased use of innovative financial products like securitization or credit derivatives as well as the refinement of modern risk management techniques have substantially changed the conditions under which Austrian banks operate. One of the areas most affected by these innovations is lending, where internal software systems and processes need to be adapted.

It is the common goal of the OeNB and the FMA to provide banks with the best support possible in this adjustment process. To this end, the OeNB and the FMA will jointly publish a series of guidelines on credit risk in the course of 2004. The ten volumes are to assist banks in the redesign of relevant systems and processes made necessary by the implementation of the New Basel Capital Accord (Basel II), providing advice on what solutions may be adequate depending on the complexity of individual banks’ business structures.

The ten volume series will cover the following topics:
- Volume 1: Best practice in securitization risk management
- Volume 2: Rating models and rating validation
- Volume 3: Credit assignment process and credit risk management
- Volume 4: Credit risk-mitigating techniques: Austria
- Volumes 5 to 10: Credit risk-mitigating techniques: Eastern European countries (Czech Republic, Poland, Slovakia, Hungary, Croatia, Slovenia)

The guidelines take account of international developments in banking and offer examples of best practice that banks are well-advised to implement not only against the background of Basel II.

Thus, a common understanding between supervisors and banks as regards upcoming changes in banking is to be created. The OeNB considers itself a partner of the Austrian banking industry, providing its services in a transparent way to all market participants with the aim of maintaining the stability and competitiveness of the Austrian financial market.
Sustained Trend of Household Borrowing in Swiss Francs

While in the first half of 2003 the share of foreign currency borrowing by households seemed to have stabilized at roughly 25%, February 2004 saw a rise to a new historic high of almost 27% (see chart 11). By contrast, in the same period, corporate borrowing in foreign currency leveled off at some 18%, after it had even declined somewhat in the first half of 2003. On the whole, the share of foreign currency loans in total claims on non-banks increased slightly from 18.2% in mid-2003 to 18.6% in February 2004.

The trend seen since mid-2002 towards borrowing in Swiss francs continued. At the end of February 2004, 83.0% of foreign currency loans were denominated in Swiss francs and only 10.4% in Japanese yen. When the boom in yen-denominated loans was at its height in the second quarter of 2002, the share of borrowing in yen had been as high as 42.8% and the share of Swiss franc-denominated loans 50.3%. Many borrowers who had taken out Japanese yen-denominated loans in the late 1990s apparently took advantage of the depreciating trend of the yen and converted their loans into euro- or Swiss franc-denominated loans, thereby, obviously, realizing exchange rate gains in many cases. Considering that the relative difference between the highest and the lowest exchange rate of the Japanese yen since 1999 was more than 30%, it becomes clear that these transactions involved substantial risk. From a financial stability point of view, the trend towards lending in Swiss francs is a development to be welcomed since it involves much smaller exchange rate risk than lending in Japanese yen. Still, it needs to be pointed out that Swiss franc-denominated loans also carry a non-negligible exchange rate risk. Therefore, the need for a thorough monitoring and analysis of foreign currency lending and its impact on financial stability remains.

Individual Local Governments Borrowed Increasingly in Foreign Currency

Local governments joined the example of increased foreign currency borrowing set by households and (non-financial) enterprises, as chart 11 illustrates. Foreign currency-denominated loans taken out by local governments
boomed especially from 1998 on; in the second quarter of 2003, this trend stabilized. At the end of February 2004, 8.5% of loans extended by domestic banks to local governments were not denominated in euro. In absolute terms, however, local government borrowing in foreign currency amounted to only EUR 1.1 billion at the end of February 2004, which is fairly modest compared with the volume of loans taken out by households and enterprises (totaling EUR 44.74 billion). Therefore, foreign currency borrowing by local governments does not pose a risk to financial stability.

The data available suggest, however, that there are some local governments, especially in Vorarlberg, but also in Tyrol and Burgenland, whose share of foreign currency loans in total loans is in fact considerable (in some cases more than 40%). These entities should be aware of the underlying exchange rate risk and of the exemplary effect their borrowing behavior may have on households.

**Market Risk**

**Slightly Higher Interest Rate Risk Exposure Recently**

The “Basel ratio” for interest rate risk — defined as the ratio of the hypothetical decline in a bank’s economic value in response to an interest rate change by 200 basis points to its eligible regulatory capital — of the 32 large and medium-sized banks that have reported this ratio since 2001 (which account for 73% of Austrian banks’ aggregate total assets) edged up from 7.9% to 8.4% on average in the second half of 2003 (end-2002: 8.9%). Chart 12 shows the distribution of the Basel ratio for interest rate risk of these 32 banks in mid-2003 and at the end of 2003. The slight increase of the average ratio is essentially attributable to the lower share of banks with little interest rate risk exposure (below 5%) and an increase in the number of banks with a slightly higher interest rate risk exposure (between 5% and 10%).

<table>
<thead>
<tr>
<th>Distribution of the Basel Ratios for Interest Rate Risk Reflects Slight Rise in Interest Rate Risk Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of banks</strong></td>
</tr>
<tr>
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<td>14</td>
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<td>4</td>
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<td>2</td>
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<td>0</td>
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</tbody>
</table>

**2nd quarter 2003**

**4th quarter 2003**

Source: OeNB
Within the entire Austrian banking sector, the average Basel ratio for interest rate risk inched up from 9.7% to 10.1% in the second half of 2003.

The data on the capital requirement for the position risk in interest rate instruments of the securities trading book also suggest that the Austrian banking sector’s exposure to interest rate risk has increased somewhat. Rising from EUR 420 million to EUR 470 million in the second half of 2003, up from the historic low recorded in the previous two years, this value indicates that interest rate trading has been livelier recently.

No Significant Increase in Exposure to Equity Price Risk
Within Austrian banks’ securities portfolios, the percentage of shares held neither as participating interests nor as shares in affiliated enterprises, which reflect banks’ tendency to invest in tradable equity, remained at its historic low of 2.3% in the second half of 2003. The book-to-market ratio of these shares fell — for both domestic and foreign paper — from 98% to 91% during 2003, with book values totaling EUR 1.5 billion at the end of 2003. Austrian equity accounted for 51% of total stocks. By contrast, the book values of shares which are participating interests or shares in affiliated enterprises totaled EUR 13.3 billion at the end of 2003.

The capital requirement for equity positions of the trading book, which is an indicator of banks’ exposure to equity price risk, rose from EUR 25.0 million to EUR 28.4 million in the second half of 2003. Given the usual fluctuations of this value, this represents only a small increase to a level that is still below the long-term average.

Subsidized Personal Pension Plans and Capital Guarantee Provisions
According to article 108h paragraph 1 item 3 of the Income Tax Act, providers of subsidized personal pension plans (Zukunftsvorsorge) have the statutory obligation to provide a capital guarantee. Specifically, they must guarantee that upon maturity the nominal value of the plan assets will equal at least the original amount invested plus the accumulated state subsidies. The capital guarantee is meant to cover the risk of asset price changes, which results above all from the statutory provision that at least 40% of contributions must be invested in stocks at the Wiener Börse (or at the stock exchanges of the new EU Member States). By 2012 a comparatively high amount of assets accumulated under the subsidized personal pension scheme will thus have been invested in stocks listed at the Wiener Börse (11.2% to 16.5% of the free float in relation to market capitalization as at September 30, 200316). This creates the danger that stock prices might fall should a large number of contracts mature at the same time. Consequently, the related market risk is the predominant source of uncertainty in the capital guarantee scheme.

15 In addition to equity, debt securities, other fixed-interest securities and mutual fund shares are included in the securities portfolio. The share of equity refers to book values.

16 Simulation based on two scenarios assuming a market potential of 450,000 or 600,000 contracts issued by 2007 and 2008, respectively, an annual investment of EUR 870 or EUR 1,000 (indexed for an inflation rate of 1.5%) and an average nominal yield of 5% p.a. including the state subsidy (see Financial Stability Report 6, p. 58–59). The simulation assumes that the share of assets invested in stocks listed at exchanges of the new EU Member States will continue to remain small until 2012 as the underlying risks and the corresponding capital guarantee costs will be higher than in Austria. The bandwidth reflects the different assumptions regarding market growth on which the two scenarios are based.
Most providers of Zukunftsvorsorge plans buy the required capital guarantee from banks. By assuming capital guarantees, banks also increase their exposure to market risk, which in turn has a bearing on the stability of the financial system. Judging from market prices, the cost of the capital guarantee is estimated to average 0.8% p.a. of the insured amount. Based on the simulation referred to above and on the assumption that the state subsidy averages 9.5% p.a., the capital guarantee will cost pension plan members between EUR 150 million and EUR 224 million on balance until 2012.

However, according to their prospectuses, providers may pass on even higher costs of the capital guarantee (1.5% up to 3.0% p.a. of plan assets) to pension plan members. In this respect it is not clear whether investors would be billed ex post for actual costs only, or for the potential upper limit stipulated in the contracts. Depending on the method applied, the difference may amount to as much as 2.2% p.a.

The comfort of the capital guarantee could prompt providers to go for riskier instruments (moral hazard) as they may transfer the risk to the guarantor (banks). With a view to delimiting their risks, guarantors therefore tend to impose investment constraints on providers, such as asset allocation limits and recourse clauses, or they demand regular consultations about the risk features of the investment strategy. In many cases, the owners of the guarantor banks in fact have close links with the pension scheme providers.

Technically, the capital guarantee resembles a put option. Since the price of an option rises as volatility increases, the pension plan members stand to benefit from a risky investment strategy, given that capital losses will be cushioned by the capital guarantee to some extent.

Furthermore, numerous fees that are payable on plan assets and therefore reduce the accumulated payout affect the risks and costs associated with the capital guarantee. In addition to the cost of the latter, a subsidized personal pension plan generates administrative fees (ranging between 1.5% and 2.0% p.a. of plan assets) and custody fees (approximately 0.2% for the provider and approximately 0.1% p.a. for the pension plan member); this brings the charge for members up to a range of 2.5% to 3.5% p.a. of assets. Measured as a percentage of the nominal yield of 5% p.a. assumed in the simulation, or as a percentage of the nominal yield of 6.9% that pension funds actually achieved in the period from 1990 to 2003, total costs range between 36% and 70%.

As the target group for subsidized personal pension schemes is comparatively wide, the fee structure — including the methods of calculating the cost of the capital guarantee — must be transparent for clients. This would enhance market transparency for market participants, which is one of the goals of the Austrian Code of Corporate Governance (2002).

Declining Exposure to Direct Exchange Rate Risk

Using the capital requirements for open foreign exchange positions as an indicator of the Austrian banking sector’s exposure to direct foreign exchange risk, it can be concluded that the risk exposure has declined. At the end of 2003, capital requirements in this area decreased to a historic low of EUR 55 million (mid-2003: EUR 82 million). The peaks of the open foreign exchange positions in the individual currencies during December 2003 also reflect banks’ increased efforts to keep a tighter lid on open positions and thus reduce their direct exchange rate risk. The sum of all banks’ monthly peaks of open foreign exchange positions in all reported currencies came to EUR 2.8 billion in December 2003 against EUR 3.6 billion in June 2003.

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17 The insured amount equals total contributions plus accumulated state subsidies.
18 The higher the fee is, the higher is the nominal yield required to secure the guaranteed capital stock and the higher is the probability that the risk materializes.
19 The direct exchange rate risk is the risk of a diminution in value of a bank’s on- and off-balance sheet items caused by exchange rate changes.
Risks Incurred Through Business in Central and Eastern European Countries

Business Activity and Profitability of Subsidiaries in Central and Eastern Europe

The CEE subsidiaries have continued to reinforce their role in their Austrian parent banks’ business. At the end of 2003, ten Austrian banks operated subsidiaries in 13 Central and Eastern European countries. Total asset growth recorded by these subsidiaries regained momentum recently, increasing from 4.9% in the first half of 2003 to 7.6% in the second half. In other words, the CEE subsidiaries’ total assets expanded by EUR 8.8 billion to EUR 76.6 billion during 2003; at 12.9%, the annual growth rate was only slightly below the 2002 rate (16%). The balance sheet structures reflect a decrease in claims on banks and an increase in claims on nonbanks during 2003: While the share of claims on nonbanks in total assets climbed from 47% to 51%, the share of claims on banks contracted from 19% to 14%; the share of other assets edged up by 1 percentage point to 35%.

Compared with 2002, the CEE subsidiaries’ operating profit rose by 18.1% to EUR 1.4 billion in 2003. The subsidiaries thus accounted for 18% of their ten parent banks’ total assets and 38% of their operating profit. One year earlier, the CEE subsidiaries provided 16% of total assets and 35% of operating profit of a total of six parent banks. A comparison of cost-income ratios also mirrors the subsidiaries’ higher profitability. While the subsidiaries posted a cost-income ratio of 61.8%, their parent banks recorded no less than 70.1%, not taking into account the shares of their subsidiaries.

Credit Exposure vis-à-vis Central and Eastern Europe Continued to Rise

Austrian banks’ credit exposure vis-à-vis Central and Eastern Europe has two components: first, loans extended by the subsidiaries of Austrian banks operating in the region (indirect loans) and second, loans made to borrowers in the region by banks resident in Austria (direct cross-border loans). Table 5 shows the volumes of unsecuritized direct and indirect loans to nonbanks as at December 31, 2003.

Of the total volume of direct cross-border loans shown in Table 5 (EUR 52.4 billion), 31.4% (EUR 16.5 billion) went to Central and Eastern Europe. While the volume of direct loans made to the rest of the world remained virtually unchanged in the second half of 2003, the CEECs accounted for a growth rate of 12% (or EUR 1.7 billion). The volume of direct loans to the new EU Member States in CEE expanded by 14% (EUR 1.4 billion), with Poland and Hungary posting the highest growth rates (22% or EUR 0.4 billion and 17% or EUR 0.3 billion, respectively). Cross-border loans to the...
remaining CEECs increased by 7% or EUR 0.3 billion.

Growing by 19% (or EUR 5.7 billion) to EUR 35.5 billion in the second half of 2003, indirect loans made by CEE subsidiaries expanded even more rapidly than direct cross-border loans. At 25% (or EUR 1.9 billion), the rise was more pronounced in those countries of the region that have not joined the EU than in the new EU Member States (17% or EUR 3.8 billion). As mentioned above, this vigorous growth is attributable to the general growth dynamics of the subsidiaries operating in CEE and the structural expansion of their retail business. Furthermore, in a number of cases the parent banks resident in Austria increased their equity in the subsidiaries.24

Direct and indirect loan exposures taken together made up a total foreign exposure of EUR 91.3 billion, of which Central and Eastern Europe accounted for 56.9% (EUR 51.9 billion) at the end of 2003, almost 4 percentage points more than in the first half of 2003. Within CEE, the new EU Member States accounted for as much as 72.4% of Austrian banks’ exposure to the region at the end of 2003, half a percentage point below its level in the first half of the year.

**Table 5: Credit Exposure in Central and Eastern Europe Increased Recently**

<table>
<thead>
<tr>
<th>Country rating</th>
<th>CZ</th>
<th>HU</th>
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<th>HR</th>
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<tr>
<td>% Share in total foreign exposure</td>
<td>31.4</td>
<td>22.4</td>
<td>7.1</td>
<td>4.5</td>
<td>4.6</td>
<td>2.1</td>
<td>4.1</td>
<td>9.1</td>
<td>5.2</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>EUR billion</strong></td>
<td>38.9</td>
<td>35.5</td>
<td>25.9</td>
<td>10.3</td>
<td>5.5</td>
<td>5.4</td>
<td>3.4</td>
<td>1.3</td>
<td>9.6</td>
<td>5.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Indirect loans3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Share in total foreign exposure</td>
<td>91.1</td>
<td>66.4</td>
<td>26.4</td>
<td>14.1</td>
<td>13.8</td>
<td>8.8</td>
<td>3.3</td>
<td>24.6</td>
<td>13.0</td>
<td>2.3</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>EUR billion</strong></td>
<td>91.3</td>
<td>51.9</td>
<td>37.6</td>
<td>14.0</td>
<td>7.8</td>
<td>7.8</td>
<td>4.5</td>
<td>3.4</td>
<td>14.4</td>
<td>7.8</td>
<td>1.7</td>
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<tr>
<td>Total</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Share in total foreign exposure</td>
<td>56.9</td>
<td>41.1</td>
<td>15.4</td>
<td>8.6</td>
<td>8.5</td>
<td>5.0</td>
<td>3.7</td>
<td>15.7</td>
<td>8.6</td>
<td>1.9</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: OeNB, Moody’s Investors Service.

1 Moody’s rating of long-term government bonds denominated in foreign currency.
2 Unsecuritized loans made by Austrian banks to foreign nonbanks.
3 Unsecuritized loans made by subsidiaries of Austrian banks to nonbanks.

**Risk-Bearing Capacity**

**Capital Ratio Improved Significantly**

An analysis of capital adequacy – a key indicator of banks’ risk-bearing capacity – shows that Austrian banks’ capital ratios improved notably over recent months. Even though in the past Austrian banks’ unconsolidated

24 As was the procedure applied in Financial Stability Report 6, the volumes of indirect loans are weighted according to the equity held by the parent bank.
capital ratio\textsuperscript{25} had already been higher than the minimum capital requirement of 8%, it increased further, to 14.9\%,\textsuperscript{26} in February 2004 (against 13.3\% in February 2003). In the period under review, capital adequacy thus reached a peak in February 2004 (see chart 13). The capital ratio on a consolidated basis also improved, rising to 12.0\% at the end of 2003 (2002: 11.3\%).

Higher capital ratios were recorded at the ten largest banks in terms of total assets, at the median as well as across all banking sectors. In February 2004, the mean capital ratio of Austria’s ten largest banks came to 13.8\%, after 13.5\% in the same month one year earlier. At 12.9\%, the median bank’s capital ratio may have been lower than that of the major banks, but compared with previous periods, it had increased, too.

A more detailed analysis reveals that on the one hand, the increase in capital at one major bank was a key factor in the overall increase in capital ratios and on the other hand, the share of risk-weighted assets in total assets edged down from 45.3\% in February 2003 to 44.2\% in February 2004. These two developments led to the change in capital ratios mentioned above.

The capital ratio of the 5\% quantile, representing those banks with comparatively poor capital adequacy, was 9\% in February 2004, and thus in the range of the long-term average. Put differently, at the beginning of 2004, 95\% of Austrian banks reported unconsolidated capital ratios of more than 9\%.

\textsuperscript{25} In this context, the capital ratio refers to the capital eligible as credit risk cover under the Austrian Banking Act (tier 1 capital plus tier 2 capital minus deductible items) as a percentage of the assessment base (according to Article 22 paragraph 2 Austrian Banking Act). The result of this calculation may differ from the capital ratios quoted in other OeNB publications, which usually also include tier 3 capital and are therefore obviously higher. However, as tier 3 capital is subordinated capital that may only be used as capital charge for market risk, it was not included below for the purpose of assessing capital adequacy in relation to credit risk.

\textsuperscript{26} This capital ratio does not include distributed profits for 2003.
Next to the capital adequacy ratio, the tier 1 capital ratio\(^\text{27}\) also improved over recent months. For the first time since July 2002, the unconsolidated tier 1 capital ratio of all Austrian banks taken together surpassed the 10% level in February 2004, coming to 10.2%.

All in all, Austrian banks’ risk-bearing capacity in terms of capital adequacy, which had already been satisfactory, improved further over recent months.

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\(^{27}\) The tier 1 capital ratio puts tier 1 capital in relation to the assessment base, thus providing additional information on Austrian banks’ capital adequacy.
Stress Test Results Supported Positive Assessment of Banks’ Risk-Bearing Capacity

The OeNB’s Financial Stability Reports have repeatedly featured contributions – either in the special topics or in the reports sections – in which stress tests were used for quantitative assessments of the Austrian banking sector’s risk-bearing capacity by risk category. Based on these initial analyses, a range of stress tests were devised in the course of the FSAP exercise which capture the Austrian banking system’s risk sensitivity towards different risk categories in a consistent manner, thus ensuring comparability of results. It is envisaged that starting with the current Financial Stability Report issue, these stress tests will be conducted regularly in a slightly modified form to facilitate a continuous quantitative assessment of the Austrian banking sector’s risk-bearing capacity. To supplement the first comprehensive presentation of stress test results in the Financial Stability Report, the following box provides an outline of the underlying methodology.

### Stress Tests for the Quantitative Assessment of the Banking System’s Risk-Bearing Capacity

A stress test measures the impact of an exceptional, though plausible change of one or several risk factors (e.g. a crash of the Austrian stock market with the ATX tumbling by 30%, an appreciation of the Swiss franc by 10%). Applied to banks’ risk-sensitive exposures (e.g. domestic equity exposure, open foreign exchange positions in Swiss francs), this crisis scenario triggers a loss (or profit) which, in turn, reduces (or raises) banks’ capital ratios. For each of the stress tests described below, we calculated the (unconsolidated) capital ratios of the Austrian banking sector resulting from the respective crisis scenarios and compared them with the capital ratios reported at the end of 2003.

Our stress tests for credit risk covered the three main components of credit risk: Austrian banks are exposed to: credit risk of claims on domestic nonbanks, credit risk of claims on CEE nonbanks and indirect credit risk of foreign currency loans to domestic nonbanks.

The scenario underlying the stress tests for domestic credit risk conducted in the framework of the FSAP assumes a prolonged recession in 2000. In a first step, we simulated the impact of this crisis scenario on the Austrian economy in 2003 using the OeNB’s macroeconomic model. The result was an annual GDP growth rate some 1 percentage point below actual GDP growth. On the basis of a regression model which explains the change of loan loss provisions as a ratio of loans outstanding that is induced by the change in GDP growth, we arrive at a crisis scenario with a rise in the loan loss provision ratio by 30% as displayed in table 6. As regards Austrian banks’ credit exposure in Central and Eastern Europe, we assume a 40% increase in the loan loss provision ratio, which roughly corresponds to the maximum rise seen in the respective countries over the past five years. This scenario covers both the loans made by Austrian banks to customers in these countries and the (indirect) loans made by their subsidiaries.

The stress test for indirect credit risk of claims denominated in Swiss francs and Japanese yen is based on the assumption that the rise in the volume of loans outstanding in euro following an appreciation of the currency the loans are denominated in is equivalent to an income loss in the same amount. Under this assumption, we can use the regression model which explains the change of the loan loss provision ratio induced by the change in GDP growth – which we take as an approximation for the change in annual income – to calculate the impact of an exchange rate shock on loan loss provisions and thus on the capital ratio. On the basis of historically observed maximum exchange rate fluctuations within one month we assumed an appreciation of the Swiss franc by 10% and of the Japanese yen by 20%.

In a worst-case analysis, we also assess the accumulated impact of all three components of credit risk on the Austrian banking sector’s capital ratio. For this purpose, we included Swiss franc- and Japanese-yen denominated loans only in the stress test for foreign currency loans to avoid double counting.
The stress tests for market risk covered interest rate risk, equity price risk and exchange rate risk. All scenarios shown in table 6 were calculated on the basis of the historically observed maximum changes in the relevant risk factors within one month. As to interest rate risk, we examined various movements of the yield curve for the euro, the U.S. dollar, the Swiss franc and the Japanese yen; the loss in this scenario results from the decline in the economic value due to a revaluation of the net positions of all interest rate-sensitive on- and off-balance sheet positions in the maturity bands used in the interest rate risk statistics. We took into account both parallel shifts and tilting yield curves. Due to lack of space, however, table 6 shows only the results with the largest negative effects on the capital ratio. The stress test for equity price risk comprises all positions in quoted equity (due to the nature of reporting, on-balance sheet positions, i.e. long positions, only). The stress test for exchange rate risk is based on the reported open foreign exchange positions. It includes both on- and off-balance sheet positions in the twelve most important international currencies (no Central and Eastern European currencies are included for reporting reasons). Table 6 shows the result of a stress test for a given worst-case estimation. In this estimation, the absolute values of all Austrian banks’ open foreign exchange positions in all currencies were cut by 10% each and the banks’ capital was reduced accordingly. Thus, the underlying scenario may involve an appreciation as well as a depreciation of one and the same foreign currency, depending on the bank. The crisis scenario underlying this stress test is therefore not realistic; rather, it is a worst-case estimation in relation to arbitrary fluctuations of all foreign currencies by up to 10%.

Table 6 summarizes the results of the stress tests for the aggregate Austrian banking sector. One of the key findings was that thanks to its high capitalization, the Austrian banking system is comparatively resilient to external shocks. The aggregate Austrian banking sector’s capital ratio was 14.45% at the end of December 2003.

The stress test results indicated that in the scenarios analyzed adverse macroeconomic and market conditions would not jeopardize the stability of the system. As expected, the largest impact on the capital ratio was observed in the stress tests for credit risk. The worst-case scenario, in which the accumulated impact of all three components of credit risk were assessed, saw the capital ratio drop by 1.38 percentage points to 13.06%; this was the largest impact on the aggregate capital ratio observed in the entire test series. Within this accumulated analysis, the stress test for domestic credit risk led to the sharpest reduction in the capital ratio. By comparison, the impact observed in the stress tests for credit risk exposure to CEE was significantly smaller, and even the indirect credit risk of foreign currency loans changed the capital ratio only to a small extent in the aggregate. It should also be noted, however, that the stress tests for foreign currency loans at the level of individual banks showed a decline of the capital ratio to below 8% for a few very small banks (CHF: 7, JPY: 1); this result can be considered to be systemically irrelevant, though, since the banks concerned together account for no more than 0.3% of the Austrian banking sector’s aggregate total assets.

In the stress tests for market risk, only a parallel upward shift of the euro yield curve by 130 basis points led to a significant decline of the capital ratio (by 0.61 percentage point to 13.84% in the aggregate). The interest rate risk scenarios in all other currencies reduced the aggregate capital ratio by less than 10 basis points. Even a 30% decline in stock prices would diminish the capital ratio by no more than 16 basis points (domestic equity exposure) and 22 basis points (foreign...
equity exposure). Finally, the stress tests for exchange rate risk confirmed that except for the euro interest rate risk, market risk had minor effects on capital ratios. In the worst-case estimation concerning an appreciation or a depreciation of the euro the aggregate capital ratio dropped by only 10 basis points. Hence, in stress tests for individual currencies, which were not included in table 6 due to lack of space, the impact on the capital ratio was even smaller.

To sum up, the results of the stress tests suggest that Austrian banks’ risk-bearing capacity can be considered satisfactory, which is most likely attributable mainly to the high capitalization of the Austrian banking system.

The findings apply to the Austrian banking system as a whole and do not provide an indication of the situation of individual banks. While the analyses presented here can also be conducted for individual institutions, for data protection reasons it is not possible to publish such results. What can be pointed out, however, is that there are in fact banks which, due to their risk exposure, in certain stress tests posted substantially worse results than the aggregate sector.

### Other Financial Intermediaries

#### Insurance Companies

The overall performance of the insurance industry was satisfactory in 2003, which was essentially attributable both to the absence of large claims payments and to positive financial market sentiment. Across Europe, shares issued by insurance companies took a particularly positive course, especially...
during the second half of 2003, thus continuing the uptrend which began in the first half of 2003 and which is also reflected in the Dow Jones EURO STOXX Insurance Index. Putting an end to the prolonged downtrend during which the index plunged to a level of around 30% of its 2000 peak value, the 2003 trend reversal took place in a market environment conducive to the entire sector of financial intermediation. Since January 2003, price developments in the prime segment of insurers listed on the Vienna stock market have reflected this upswing.

Austrian Insurance Companies Also Experienced Uptrend in 2003

In line with the international trend, Austrian insurance companies performed well in 2003. The provisional annual results of the major Austrian insurance companies show that gross premiums went up — in some cases significantly — for life, property/casualty and health insurances; the growth rates recorded in the life insurance business in spite of the continual marked decline in one-off payments are traceable, above all, to Austrians’ still increasing awareness of the necessity of making private provisions. The growth in gross premiums had a positive effect on profits, a development which was supported by the continued strong presence of Austrian insurance companies in Central and Eastern European markets and a positive financial market situation. However, if insurers wish to sustainably strengthen their profitability, they will have to improve their underwriting result both in Austria and abroad to fend off potential price risks in stock and bond markets. Moreover, accounting for the change in capital market conditions, financial regulators reduced the guaranteed interest rate in life insurance schemes from 3.25% to 2.75% as of January 1, 2004.

Year on year, the aggregated assets (excluding reinsurance transactions) of the altogether 62 Austrian contractual insurance companies augmented by EUR 2.7 billion to EUR 61 billion. As previously, aggregated assets went up mainly because external assets and equity securities as well as other domestic securities (including participating interests) augmented while...
lending subsided. This development confirms a steady trend observed since 1995 (see chart 14). While in the second half of the 1990s, loans and domestic securities had been the most important types of investment, external assets and equity securities as well as other domestic securities have now taken the lead. The strong year-on-year decline in credit to the government (—7.7% for domestic government debt securities and —12.1% for loans to the government) on the assets side of the balance sheet also deserves particular attention.

No Risks of Contagion for Domestic Banking Sector
With regard to the contagion risk for the domestic banking sector, it can be noted that insurance companies have stepped up their investment with domestic banks compared with the previous year. The slight rise in domestic debt securities vis-à-vis 2002, for example, is mainly attributable to the 24% growth of debt securities issued by credit institutions. Investments made in the form of deposits with banks (+30%) and loans to banks (+87.1%) were also dynamic, with total investment with banks coming to around EUR 8.8 billion (14.1% of assets); this corresponded to an increase by 2.4 percentage points against end-2002 and a marked slowdown, in the second half of 2003, of a trend that had been clearly stronger in the first six months of the year. The year-on-year increase is put into perspective, however, when relating these EUR 8.8 billion worth of investments by insurance companies to the total assets of the Austrian banking sector (EUR 605 billion). Moreover, as the credit risk transferred from the banking sector to the insurance sector via financial instruments (e.g. credit default swaps) is rather low in Austria, no contagion risk is to be expected from this direction, either.

On the liabilities side of the balance sheet, insurance technical reserves play a major role (as expected), accounting for a share of around 88% and thus remaining almost unchanged against the first half of 2003. Property/casualty insurances and health insurances accounted for relatively low shares in insurance technical reserves (17.6% and 5% respectively) compared with life insurances.

Mutual Funds
The amendment to the Mutual Funds Act that entered into force on February 13, 2004, transposes the relevant EU directives into Austrian law and provides a new legal framework for the operation of management companies in Austria. The new “European passport” enables every management company registered in an EU Member State to operate mutual funds in Austria. Moreover, the amendment lays down a number of new rules to improve consumer protection and introduces the concept of a simplified prospectus, which will strengthen investor protection by providing for more accessible and comprehensive information.

Mutual Funds Continue to Expand
In 2003, the volume of funds managed by Austrian investment companies augmented by EUR 8.3 billion to EUR 111 billion. This rise can be explained both by significant capital gains to the tune of EUR 5.89 billion and positive net inflows of funds, even if these were lower than in the previ-

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ous year. Mutual funds performed well throughout 2003; the capital-weighted average total performance of all Austrian mutual funds (retail funds and institutional funds) posted a 5.5% rise – not least due to the positive capital market sentiment. As to the investment structure of funds, the share of foreign securities has gone up significantly (from 67.8% to 71.8%), while general stock price developments have also boosted the importance of equity securities (shares and mutual fund shares).

In this respect, Austria is in line with the international trend, even if the volume of mutual fund assets has grown at a slightly weaker rate in relative terms. In the U.S.A. in particular, at USD 7,400 billion, the volume invested in mutual funds came close to a historical high in December 2003 despite the turbulences caused by government investigations in the mutual fund industry in that year. What is striking from an international perspective is that equity funds are gaining importance while money market funds are becoming less significant. Clearly, the search for yield has intensified also in the mutual funds segment. Quite in contrast to the international trend, the volumes invested in Austrian money market funds went up in 2003; however, this rise is mainly attributable to the activities of institutional investors.