

# Austrian Financial Intermediaries' Business Develops Well

## **Austrian Banks See Sustained Profit Growth<sup>16</sup>**

### **Total Assets of Banks Continue to Grow Strongly**

The Austrian banking sector's total assets continued to expand notably in 2005. Posting a year-on-year increase of 11.1% – the largest rise seen since the end of 2000 – the unconsolidated total assets of Austrian credit institutions reached EUR 725 billion in December 2005. The five largest banks<sup>17</sup> recorded slightly below-average total asset growth of 10.4% at the end of 2005, accounting for 44.2% of the aggregate banking sector's total assets on an unconsolidated basis. Austrian credit institutions' consolidated total assets rose by 15.6% year on year and thus also hit a new peak of EUR 847 billion at end-2005.<sup>18</sup>

The substantial increase in unconsolidated total assets is in particular attributable to an expansion of foreign business on both the asset and the liability side (by 22.7% and 20.2%, respectively, year on year).<sup>19</sup> On the asset side, claims on foreign banks increased by 19.3%, and more recently, so did claims on foreign nonbanks (+22.8%). Loans to domestic nonbanks climbed by 4.7% in December 2005 (2004: +5.0%), with particularly foreign currency loans

continuing their strong growth. At 4.1% year on year, the increase of claims on domestic banks was considerably weaker than that of claims on foreign banks.

On the liability side, the expansion of foreign liabilities in December 2005 was carried both by liabilities to foreign banks (+27.3%) and to foreign nonbanks (+19.1%) as well as by securitized foreign debt (+14.2%). Austrian banks' domestic issues, in particular in foreign currency, also trended upward strongly in the period under review (+22.7% year on year).

By contrast, at 4.5% and 4.8%, respectively, liabilities to domestic banks and deposits of domestic nonbanks grew at a slower pace. Foreign nonbanks' deposits expanded in 2005; the reported data do not confirm, however, that this increase can be linked to a rise of German households' deposits with Austrian banks in the wake of the entry into force of the so-called tax honesty law in Germany, as repeatedly assumed by national and international media.<sup>20</sup>

The nominal value of Austrian banks' special off-balance sheet operations, which have been fluctuating strongly over time, came to EUR 1,506.1 billion in December 2005,

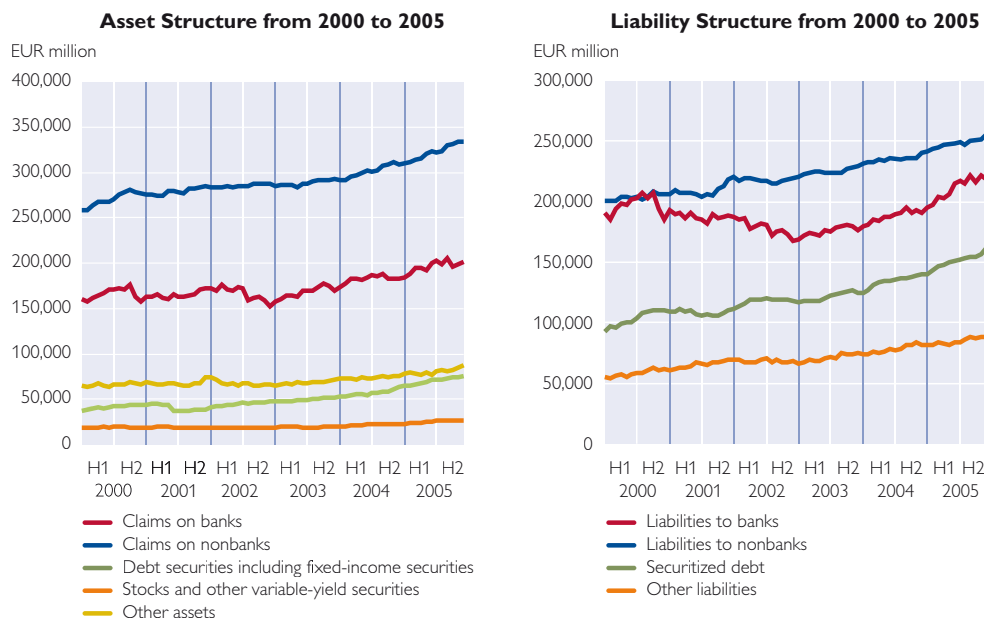
<sup>16</sup> Since the final financial statements of Bank für Arbeit und Wirtschaft und Österreichische Postsparkasse AG (BAWAG P.S.K.) and Hypo Alpe-Adria International AG were not available at the cut-off date for this report, data may be subject to revisions. However, such revisions will not affect the general assessment of the Austrian banking system.

<sup>17</sup> Bank Austria Creditanstalt AG (BA-CA), Erste Bank der oesterreichischen Sparkassen AG (Erste Bank), Raiffeisen Zentralbank Österreich AG (RZB), BAWAG P.S.K. and Österreichische Volksbanken AG (ÖVAG).

<sup>18</sup> As banks use different accounting systems, aggregated data may provide a slightly distorted picture.

<sup>19</sup> An expansion of cross-border activities recently was also reported at the international level (see BIS Quarterly Review March 2006, p. 15–30).

<sup>20</sup> On the whole, foreign nonbank deposits are considerably more volatile than domestic nonbank deposits.

**Balance Sheet Structure of the Austrian Banking Sector (on an Unconsolidated Basis)**

Source: OeNB.

double the amount of unconsolidated total assets;<sup>21</sup> factoring out the extensive operations of one major bank, this ratio stood at 1.5. All in all, compared with 2004, credit institutions' special off-balance sheet operations edged up by 2.7% in 2005.

**Austrian Banks' Profitability Rises**

Current problem cases notwithstanding, 2005 was, on the whole, another successful year for the Austrian banking system. Continuing the long-standing trend, business in Central and Eastern Europe (CEE) gained further importance (see the section entitled "Growing Exposure of Austrian Banks to Central and Eastern Europe"). At the same time, Austrian banks continued their strategy of en-

hancing the profitability of domestic operations.

The consolidated result reflects in particular Austrian credit institutions' successful business activities in Central and Eastern Europe. The operating profit of the consolidated aggregate sector<sup>22</sup> increased by 14% to EUR 7.8 billion in 2005. Since total assets also rose considerably as a result of acquisitions and dynamic business environments in the new EU Member States, the acceding and accession countries and other Eastern and Southeastern European countries, the consolidated operating profit margin<sup>23</sup> remained 0.92% in 2005, which was roughly the same level as in 2004. The consolidated cost-to-income ratio improved from

<sup>21</sup> It must be noted, though, that the nominal value does not provide a direct indication of the underlying risk of the derivatives business.

<sup>22</sup> The aggregation of data from consolidated financial statements prepared in compliance either with the Commercial Code or the International Accounting Standards may result in minor imprecision.

<sup>23</sup> Consolidated operating profit to total assets.

64.6% in 2004 to 63.3% in 2005, with income growth (9.6%) clearly exceeding the increase in expenditures (7.4%). Next to fee income, which contributed most to the rise in revenues, interest income on a consolidated basis, which includes income from participating interests and also covers the highly profitable foreign business operations, also played an important role.

### **Profits from Fees and Commissions as Well as from Participating Interests Compensate for Narrowing Interest Margin**

The analysis of unconsolidated earnings, which to a large part reflect domestic business operations, reveals that profitability has been improving notably since 2003. Above all, fee income and income from participating interests have evolved particularly well, while the contribution of unconsolidated interest income to profits has been declining for years.

In 2005 unconsolidated interest income edged down by 0.5% compared with 2004, and the interest margin in fact narrowed significantly, dropping by 0.11 percentage point from 1.21% to 1.10%. This contraction was only partly offset by the substantially faster rise in loans to nonbanks (+EUR 25.0 billion in the course of 2005), which considerably exceeded the growth of nonbanks' deposits (+EUR 15.7 billion). Interest rates on new business do not indicate a widening of the interest margin, either: Though interest rates both on deposits and most categories of loans went up slightly at the end of 2005 in response to market interest rates, interest rates on deposits went up more. Moreover, interest rates on new business in home loans with interest rates fixed for over 10 years and

loans to enterprises with interest rates fixed for over 5 years continued to edge down. This development has gone hand in hand with the flattening of the yield curve in the money and bond markets, which has further reduced the contribution of term transformation to profits. Furthermore, banks increasingly rely on capital market funding, which is more expensive than refinancing through nonbank deposits. The high share of variable-rate loans also had a negative impact on the interest margin in the past. Compared with credit institutions in other euro area countries, banks in Austria still offer favorable interest rates for their customers.

Large banks with total assets of more than EUR 2 billion are affected most by narrow interest margins; their margin came to only 0.9% in 2005; by contrast, the interest margin for medium-sized banks (with total assets of between EUR 500 million and EUR 2 billion) and small banks (with total assets of up to EUR 500 million) was 1.41% and 2.13%, respectively.

In line with the trend observed in most developed banking markets, the contribution of interest income to banks' earnings has been continuously shrinking in Austria. In 2005, interest income accounted for a mere 45% of unconsolidated operating revenues, while fee income contributed 25% and participating interests 17%. Unconsolidated fee income rose by 16.4% in 2005, most of which stemmed from fee income on securities. Earnings from securities transactions and participating interests went up by a hefty 30.1%, with profit distributions by domestic subsidiaries accounting for somewhat more than half of this increase. Trading income contributed only 4% of unconsoli-

dated operating revenues, thus remaining a subordinate source of income for Austrian banks.

The share of operating profits used for credit risk provisioning has been declining since 1998. This reduction is linked to the favorable credit cycle for banks on the one hand and to the sharp boost in operating profits since 2003 on the other hand.

The unconsolidated return on assets (ROA) continued to improve in 2005. Similar to the interest margin, the unconsolidated ROA, which mostly reflects domestic profitability, was better for medium-sized and small banks – with the latter having benefited greatly from valuation gains on participating interests – than for large banks with total assets of over EUR 2 billion.

### Continued Steady Loan Growth

For about one year, the aggregated growth of loans extended by banks operating in Austria has followed a consistent trend. At 4.7%, the annual growth rate of all Austrian banks' loans to nonbanks almost equaled the rate recorded in 2004 (5%); at year-end 2005, the total amount of loans taken out by nonbanks came to EUR 263.3 billion (see chart 17). Despite two ECB key interest rate hikes, which Austrian banks have largely followed, interest rate conditions remained favorable in the period under review; in Austria, average lending rates stayed below the euro area level.

Lending by the five largest (in terms of total assets) Austrian banks fluctuated somewhat more over the past few months than average lending

## The Cyclical Nature of Bank Revenues

*Bank revenues may be influenced by a range of different micro- and macroeconomic factors. The impact of cyclical developments on revenue growth at the aggregate level is investigated in this box. To this end, the influence of GDP growth on interest, fee and trading income as well as income from participating interests and on credit risk provisioning, operating revenues and operating profit at the level of the aggregate banking sector was estimated<sup>1</sup> (see table 5).*

*A significantly positive relationship<sup>2</sup> between the growth of all income categories and GDP growth one to four quarters previously could be established, with the exception of participating interests (not included in table 5), for which no statistically significant impact was found. The transmission of a change in GDP growth takes longest in the case of on interest income. Furthermore, banks might use credit risk provisions to smooth out income fluctuations over the business cycle (see column 2): a change in GDP growth in the previous fourth quarter has a significantly positive effect on the growth of risk provisions, which enter the profit and loss account with a negative sign. Fee and trading income respond more quickly to changes in GDP growth, with the response of trading income being most pronounced. Total revenues and operating profits also exhibit a positive, significant relationship with a change in GDP growth in the previous second and third quarters (see the last two columns).*

*Moreover, higher growth in one income category in general seems to involve a higher risk; the mean growth rate of the respective income category increases along with its standard deviation.*

<sup>1</sup> See also Stiroh, Kevin J. 2004. Diversification in Banking: Is Noninterest Income the Answer? In: *Journal of Money, Credit, and Banking* 36(5). 853–882.

<sup>2</sup> The significant coefficients are referred to by \*, \*\* and \*\*\* in table 5. \*\*\*, for instance, means that the probability of wrongly identifying a significant impact is no higher than 1%.

Table 5

**Relationship between GDP Growth and Bank Revenues**

	Dependent variable X(t)					
	Interest income	Credit risk provisions	Fee-based income	Trading income	Operating revenues	Operating profits
GDP(t)	0.301	0.070	-0.159	3.814	0.706	3.837
GDP(t-1)	-0.183	-0.997	1.115**	-13.664	-0.337	-2.492
GDP(t-2)	0.120	1.627	-0.254	19.894**	0.636	1.101
GDP(t-3)	0.191	-0.924	-0.637	13.249	1.599**	3.358*
GDP(t-4)	1.167***	3.708***		-10.261		
Constant	-0.012	-0.017	0.024*	0.028	-0.011	-0.026*
AR(1)	-0.496***	-0.122	-0.702***	-0.392*	-1.080***	-0.876***
AR(2)	-0.356**	-0.844***	-0.780***	0.204	-0.135	-0.041
MA(1)		-0.027	0.949***	-0.172	-0.021	-1.990***
MA(2)		0.576**	0.995***	-0.790***	-0.953***	0.995***
Mean value X(t)	0.002	0.018	0.025	0.145	0.017	0.027
Standard deviation X(t)	0.030	0.094	0.043	0.639	0.052	0.167
Adjusted R <sup>2</sup>	0.203	0.298	0.222	0.445	0.514	0.537
Observations	43	43	43	43	43	43

Source: OeNB.

Note: The estimate is based on the equation

$$X_t = \alpha + \sum_{i=1}^4 \beta_i BIP_{t-i} + \sum_{j=1}^4 \delta_j X_{t-j} + \varepsilon_t + \sum_{k=1}^2 \theta_k \varepsilon_{t-k}$$

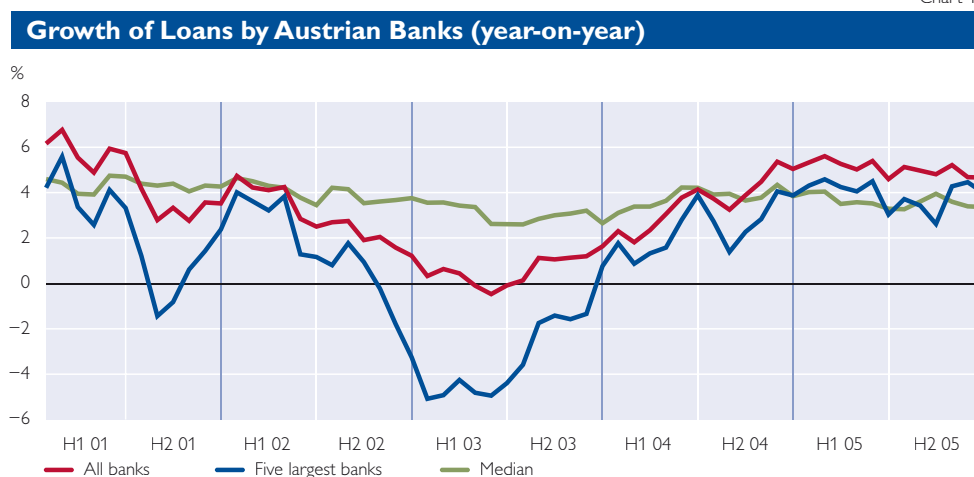
with  $X_t$  denoting the seasonally adjusted quarterly growth rates of the respective unconsolidated income categories,  $BIP_t$  the seasonally adjusted quarterly GDP growth rates and  $\varepsilon_t$  the residuals. The lengths of the GDP lags were determined by adjusted  $R^2$  and Akaike's information criterion and end after the fourth quarter at the latest.  $\beta_i$  denotes the coefficients of GDP growth,  $\delta_j$  the coefficients of the autoregressive terms (referred to as AR(.) in the table) and  $\theta_k$  the coefficients of the moving average terms (referred to as MA(.) in the table). The inclusion of the Auto-Regressive Moving-Average (ARMA) terms controls for autocorrelation in the residuals and ensures that they do not affect the estimates for the coefficients of GDP growth. All time series pass a unit root test; all ARMA processes are stationary and invertible.

The sample used ranges from 1995Q1 to 2005Q3. \*\*\*, \*\* and \* denote significance at the 1%, 5% and 10% levels, respectively. Since there are indications of a structural break after a change in the reporting scheme in 1995 for all estimates, only data after this change were used.

The results remain broadly unchanged if the data are controlled for the general interest rate level and the slope of the yield curve. The covariance with GDP growth is close to zero in both cases, which ensures that the coefficient estimates are not distorted.

by the entire sector. At the end of 2005, the annual growth of loans by the five largest Austrian banks was 4% (2004: 3.8%) and thus below the average of all domestic banks together. The bank lending survey confirmed those banks' caution in lending. At 3.4%, the median loan growth rate toward the end of 2005 was lower than the average growth rates posted by the five largest banks and by the entire banking sector, respectively (see chart 17).

A breakdown by banking sectors shows that apart from the special-purpose banks, the Raiffeisen sector posted robust 9.2% annual loan growth, which is attributable to the activities of a single bank. State mortgage banks and Volksbank credit co-operatives also recorded above-average lending growth rates in December 2005 (6.6% and 5.5%, respectively). Loans by building and loan associations, which had decreased in 2003 and 2004, expanded by 2.8% at



year-end 2005. While in the past weak lending by building and loan associations was traced e.g. to the attractiveness of foreign currency loans, which these banks are permitted by law to grant only to a limited extent, an amendment to the Building and Loan Associations Act allowing these institutions to also grant loans to meet educational or private care needs seem to have had a positive impact on lending more recently.

A breakdown by economic sector reveals that lending to households and enterprises by banks operating in Austria was stable at the end of 2005. The annual growth of loans to households came to 6.7%, thus remaining broadly at the level of recent years. Loans to enterprises picked up somewhat compared with previous years, amounting to 3.3% in December 2005.

#### **Sustained Strong Household Demand for Foreign Currency Loans**

In 2005 foreign currency loans to nonbanks continued to expand much more rapidly (+11.2%) than loans denominated in euro (+3.3%). Both in absolute and in relative terms, the

boom in foreign currency lending reached a new peak in January 2006, with the amount of loans outstanding coming to EUR 53.7 billion and foreign currency loans accounting for a share of 20.2% in the total volume of loans taken out by Austrian nonbanks. Like in previous years, this trend has been driven by household borrowing: While the share of foreign currency loans in lending to nonfinancial corporations continued to edge down in line with a trend observed for quite some time, its share in lending to households rose further – to 31.2% – from an already high level; 9 out of 10 foreign currency loans are denominated in Swiss francs.

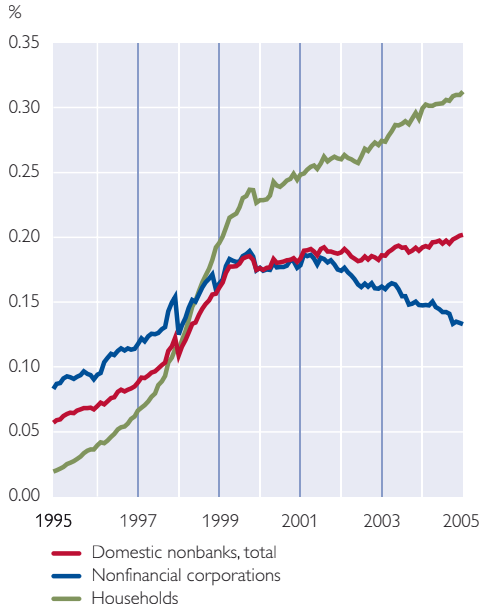
The continued growth of foreign currency lending was not evenly distributed across regions: In Austria's western provinces, Tyrol and Vorarlberg, the share of household loans denominated in foreign currency declined slightly from a high level, whereas other provinces – Vienna, Lower Austria, Burgenland, Styria and Carinthia – recorded strong increases over the past few years. In the remaining two provinces, Salzburg and Upper Austria, household borrowing in foreign



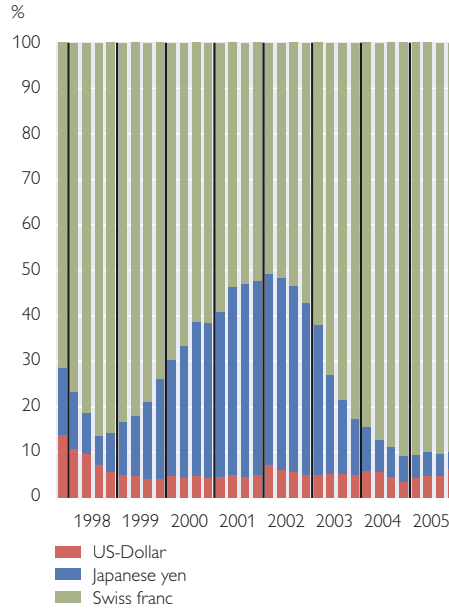
Chart 18

**Foreign Currency Loans in Austria**

**Share of Foreign Currency Loans in Total Loans**



**Foreign Currency Loans by Currency**



Source: OeNB.

currency was at a comparably low level.

The sustained boom in foreign currency lending has made it necessary to draw more attention to the risks this type of loan involves. Therefore, in cooperation with the Financial Market Authority, the OeNB created a brochure that provides a clear and concise overview of the risks of foreign currency loans; the brochure is available at bank branches throughout Austria. By providing such information, the OeNB aims at raising consumers' sensitivity to and awareness of the risks this type of borrowing entails.

**Lower Risk Provisions for Loans to Nonbanks in All Sectors**

Excluding special effects connected with the BAWAG P.S.K. troubles, the ratio of unconsolidated loan loss provisions to outstanding loans granted by Austrian credit institutions to nonbanks<sup>24</sup>, as reported to the OeNB, diminished slightly in 2005 compared with the ratio established for 2004 (3.3%). This decline mirrored developments in the euro area and the favorable lending conditions prevailing in 2005.

In greater detail, loan loss provisions exceeded 20% of the loan volume to nonbanks in the case of three

<sup>24</sup> Specific loan loss provisions for loans to nonbanks are included in banks' monthly reports; they show which risk provisions are in place for cases in which a borrower's solvency is doubtful. As specific loan loss provisions tend to be very low for interbank loans (totaling EUR 91.7 million in December 2005; -4.4% year on year) they were not included in the analysis presented here.

### Foreign Currency Loans and Repayment Vehicles

*Contrary to conventional loans denominated in euro, which are redeemed in installments, loans denominated in foreign currency are often bullet loans. During the term of the loan, the borrower makes regular contributions to a separate investment plan, e.g. a life insurance plan or a mutual fund, to build up a lump sum to repay the loan at maturity. Whether the repayment vehicle will in fact pay off the loan fully depends on the return it yields. This implies that the borrower is exposed to a double risk: on the one hand, currency fluctuations may increase the sum repayable at maturity; on the other hand, the repayment vehicle may earn a smaller return than expected.*

*The use of repayment vehicles also limits the extent to which data on foreign currency loans in Austria can be accurately interpreted. Since the bulk of euro-denominated loans are redeemed in installments, the amount of loan outstanding decreases over time; this is not the case with bullet loans denominated in foreign currency, which are therefore always recorded in their full amounts. Assuming that making contributions to a repayment vehicle represent repayment installments, the stock of foreign currency loans compared with the amount of euro-denominated loans outstanding is overestimated, since the latter is recorded on a net and the former on a gross basis. The OeNB investigated the impact of this discrepancy by conducting a survey among selected banks and running a simulation based on these data. The results showed that after netting off the amounts of foreign currency loans outstanding against the amounts paid to repayment vehicles, the share of foreign currency lending in total lending decreased only slightly, with the decrease ranging from 0.9 to 2.5 percentage points. This applies less to loans to nonfinancial corporations than to loans to households, since a higher share of the latter relies on repayment vehicles. Still, the fundamental risk of foreign currency loans remains: Since the loans and repayment vehicles are not denominated in the same currency – and the data compiled suggest that this is almost always the case – borrowers are exposed to the full foreign exchange risk.*

banks, while 48 banks reported a ratio of between 10% and 20%. However, as most of those incidents concerned smaller banks belonging to one of the sectoral groupings, the underlying risks may be considered as low for the stability of the Austrian financial market. At Austria's five major banks, the ratio of loan loss provisions to claims on nonbanks again lay below the banking sector average.

Specific loan loss provisions for loans to nonbanks totaled EUR 10.6 billion in December 2005. Claims on domestic nonbanks denominated in euro accounted for the lion's share of this amount (84.5%), followed by euro claims on foreign nonbanks (7.6%), foreign currency claims on foreign customers (4.1%) and foreign

currency claims on domestic nonbanks (3.8%).

On balance, the aggregated loan portfolio of Austrian banks can be considered to be satisfactory.

### Market Risk Broadly Rising in 2005

Interest rate risk in the banking books of Austrian credit institutions increased slightly in the second half of 2005 against the backdrop of volatile and generally declining interest rate trading. By contrast, stock trading activity continued to pick up in this period. During the year 2005 as a whole, market risk indicators were found to have risen in all business areas, but overall the increase in risk can be assessed as moderate.



**BAWAG P.S.K. and Hypo Alpe-Adria: No Threat to Financial Stability**

*In the past few months, two Austrian banking groups made headlines:*

*1 In the fall of 2005, BAWAG P.S.K. granted the U.S. broker Refco a loan in the triple-digit millions. Refco filed for bankruptcy protection only a few days later. In the course of the bankruptcy proceedings, Refco's creditors sued BAWAG P.S.K. for a total of USD 1.3 billion. In the wake of the media reports about this (and additional) lawsuits, and about substantial previously undisclosed losses in the late 1990s, customer withdrawals surged toward the end of April 2006, whereupon the OeNB announced that it would ensure that BAWAG would immediately have the necessary cash on hand in the event of a liquidity bottleneck. As the events unfolded, it became clear that BAWAG P.S.K. – Austria's fourth-largest bank, for which the Republic of Austria is liable with an amount of around EUR 5.5 billion since BAWAG's acquisition of the formerly state-owned P.S.K. – would not be in a position to ensure compliance with capital adequacy provisions for the current year and to close the balance sheet for 2005, as it would have to allocate substantial funds to provisions in order to cover prospective damage claims. As a consequence, the Austrian federal government, the Financial Market Authority, the OeNB and representatives of the Austrian financial sector drew up a financing package for BAWAG comprising a federal act to safeguard BAWAG's future which provides for an authorization of a federal government guarantee of up to EUR 900 million and the provision of capital in the amount of EUR 450 million by Austrian banks and insurers.*

*In early June, a comprehensive settlement of Refco-related claims against BAWAG P.S.K. could be reached pending the conclusion of the last formalities. This settlement was instrumental for the unimpeded access to and release of frozen BAWAG P.S.K. assets in the U.S.A. and made it possible for the bank to finalize its financial statements for 2005 on the basis of the above-mentioned federal act.*

*2 In fall 2004, Hypo Alpe-Adria International AG incurred losses in the triple-digit millions of euro on liabilities from structured swaps (swaps containing components of foreign currency options). After it had become known in late March 2006 that these losses had only been partly recognized in the financial statements for 2004, the accounts for 2004 were reopened and the losses were booked on an accrual basis. The certified financial statements for 2004, which were approved by the supervisory board on May 26, 2006, posted an annual loss of EUR 99 million. The certified financial statements for 2005, which were approved by the supervisory board on the same day, showed a pretax profit of EUR 217 million.*

*Neither of these two cases represented a threat to financial stability in Austria. The financing package for BAWAG P.S.K. succeeded in fending off a run on the bank and represented the first step in reestablishing customer confidence. Moreover, the conclusion of the settlement made it possible to continue with plans to sell the bank. The planned restructuring measures are expected to result in an upgrade of BAWAG P.S.K.'s financial strength rating, which had been downgraded by Moody's from D- to E+. At the editorial close, supervisory and judicial reviews of both BAWAG P.S.K. and Hypo Alpe-Adria were still underway to ensure that matters would be fully clarified and settled. Moreover, comprehensive on-site examinations by the OeNB and the FMA were conducted to turn up more facts.*

In the Austrian banking system as a whole, the asset-weighted average of the Basel ratio for interest rate risk in the banking book<sup>25</sup> climbed from 6.4% to 6.6% in the latter part of 2005. Yet this rise falls far short of offsetting the marked drop from 7.5% to 6.1% recorded in the second half of 2004. The larger banks,<sup>26</sup> too, reported only a broadly moderate rise in nontraded interest rate risks during 2005: The number of larger banks with a Basel ratio exceeding 10% rose from 7 to 9 in this period; not a single one reached a ratio of 20%. At the end of 2003, as many as 12 larger banks still reported a Basel ratio above 10%, and 2 institutions even exceeded the 20% threshold.

Turning to interest rate risk in the trading book, the development of the corresponding capital requirements was rather volatile in the second half of 2005, following an initial peak: These requirements jumped from EUR 610 million in early 2005 to EUR 810 million in mid-year and then dropped to EUR 703 million at year-end. It should also be noted that interest rate trading activity was dominated by a few larger banks at end-2005.

With regard to equity price risk in the trading book, finally, capital requirements rose to a historic high of EUR 121 million in the second half of 2005. Compared with the period of lowest stock trading activity since banks started to report such data in 2002–2003, average capital requirements trebled in 2005. Yet individual

positions continue to be comparatively small, e.g. in relation to the interest rate risk positions in the trading book, and combined stock trading figures would not imply a higher risk potential at the aggregated level. At year-end 2005, stock trading activities were also dominated by a handful of larger banks, actually even more so than interest rate trades.

The direct foreign exchange risk, to which banks are exposed due to their outstanding foreign currency positions, remained broadly stable in the second half of 2005 at medium levels from a historical perspective. The associated capital requirements rose from EUR 53 million in early 2005 to EUR 97 million in mid-year and finally stood at EUR 93 million at year-end.

#### **Payment and Securities Settlement Systems' Business Remains Dynamic**

In the second half of 2005, 224.2 million transactions worth a total of EUR 6,068.6 billion were processed through the payment and securities settlement systems that are subject to payment systems oversight by the OeNB. Compared with the first half of 2005, this corresponds to a rise by 8.8% in terms of volume and by 4.4% in terms of value; this increase reflects both a higher level of transaction activity and a higher number of payment systems subject to OeNB oversight. Apart from running and overseeing the payment system ARTIS/TARGET,<sup>27</sup> the OeNB is cur-

<sup>25</sup> Defined as the decline in economic value following a parallel downward yield curve shift in all currencies by 200 basis points relative to a bank's eligible capital.

<sup>26</sup> Banks reporting total assets of more than EUR 2 billion at end-2005.

<sup>27</sup> ARTIS: Austrian Real Time Interbank Settlement; TARGET: Trans-European Automated Real-time Gross settlement Express Transfer.

Table 6

**Transactions and System Disturbances**

July to December 2005	Transactions		System disturbances
	Number in million	Value in EUR billion	Number
ARTIS/TARGET	2.1	5,335.1	8
Securities settlement systems	1.1	152.5	0
Retail payment systems	214.9	15.6	29
Participation in international payment systems	6.1	565.4	3

Source: OeNB.

rently responsible for overseeing three securities settlement systems, 16 retail payment systems, five payment infrastructure providers and 15 Austrian banks participating in international payment systems.

With a transaction value of EUR 5,335.1 billion, ARTIS/TARGET remained the single most important payment system in terms of value. As measured by the number of transactions, direct debit payment systems led the field with 111.2 million transactions. With regard to securities settlement systems, above all Central Counterparty Austria (CCP.A) managed to benefit from the favorable stock market conditions. Over-the-counter business, in contrast, declined.

In addition, Austrian banks routed a total of 6.1 million transactions worth EUR 565.4 billion through international payment systems in the second half of 2005. With 4.3 million transactions, the retail payment system STEP2 was the single largest provider in terms of volume, while

EURO1, the biggest international large-value payment system next to TARGET, processed the highest transaction values with EUR 468.1 billion.

In the second half of 2005, altogether 40 system disturbances<sup>28</sup> were registered – all minor incidents, however, with no impact on the stability of Austria's financial system.

### **Growing Exposure of Austrian Banks to Central and Eastern Europe<sup>29</sup>**

Central and Eastern European countries (CEECs) continue to grow in importance for the Austrian banking market. According to the business segment reports of the six major Austrian banks active in Central and Eastern Europe (CEE),<sup>30</sup> total assets in this segment have grown to around EUR 136 billion on a consolidated basis (+33.4%), thus accounting for 16.1% of the Austrian banking system's consolidated total assets in December 2005 (December 2004: 13.9%). Corresponding pretax prof-

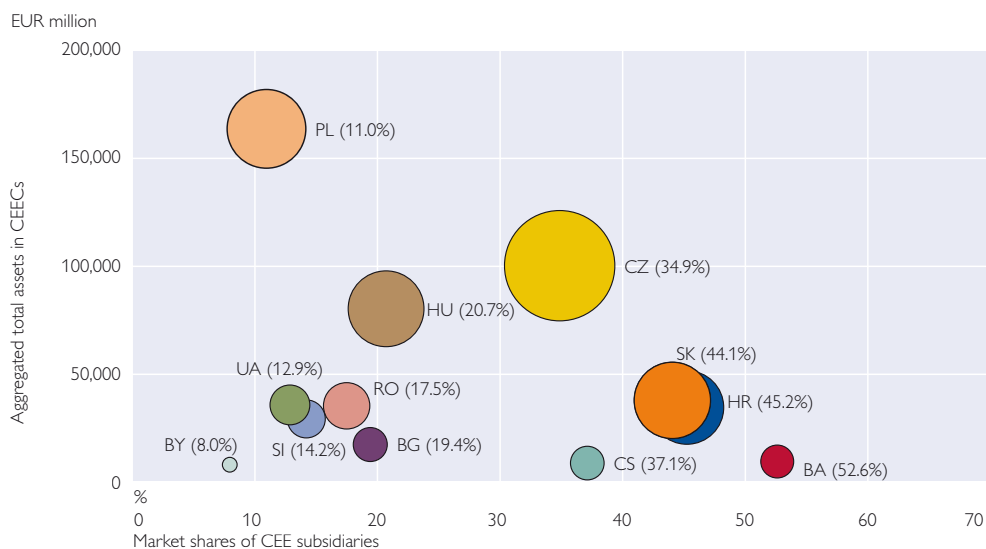
<sup>28</sup> System disturbance is defined as an interruption of the system during running times that lasts more than 30 minutes and is induced by the payment system, or as any interruption of the system that is induced by failure and occurs within the 30-minute period before the end of accounting.

<sup>29</sup> Based on the reports of condition and income Austrian banks have published on a quarterly basis since early 2002. These reports contain selected items from the consolidated annual reports of parent banks and their fully consolidated subsidiaries abroad.

<sup>30</sup> Bank Austria Creditanstalt AG (BA-CA), Erste Bank der oesterreichischen Sparkassen AG (Erste Bank), Raiffeisen Zentralbank Österreich AG (RZB), Bank für Arbeit und Wirtschaft und Österreichische Postsparkasse AG (BAWAG P.S.K.), Österreichische Volksbanken AG (ÖVAG) and Hypo Alpe-Adria International AG.

### Market Shares of Austrian Banks' CEE Subsidiaries

As at December 31, 2005



Source: OeNB.

its surged by 54.7% to EUR 2.2 billion, as a result of which the CEE business segment accounted for a share of 35% in the consolidated pre-tax profits of all Austrian banks in December 2005 (December 2004: 26.9%).

The rising exposure of the Austrian banking sector to Central and Eastern Europe is attributable to the growth of existing subsidiaries and further large acquisitions in 2005 on the one hand, and to the growing volume of direct lending<sup>31</sup> on the other. Aggregated total assets put the 3 biggest Austrian financial institutions (BA-CA, Erste Bank and RZB) in the top ranks among the roughly 20 major international banks that do business in the area. In total, 11 Austrian

banks with 61 fully consolidated subsidiaries operated in this market at end-2005. Of these, 29 were active in EU Member States of the latest enlargement round<sup>32</sup> (+3 compared with 2004), 15 in EU acceding and accession countries<sup>33</sup> (+2) and 17 in other CEECs<sup>34</sup> (+3). Between them, they currently hold approximately 15.7% of total banking sector assets in Central and Eastern Europe, or indeed as much as 23.0% if Russia is factored out. The diameter of the circles in chart 19 reflects the importance of individual countries as measured by the total assets of the respective CEE subsidiaries. For instance, compared with the 52.6% market share of Austrian banks in Bosnia and Herzegovina, Austrian credit institu-

<sup>31</sup> Loans granted by Austrian banks to borrowers resident in other countries.

<sup>32</sup> Czech Republic (CZ), Hungary (HU), Poland (PL), Slovakia (SK) and Slovenia (SI).

<sup>33</sup> Bulgaria (BG) and Romania (RO) as well as Croatia (HR).

<sup>34</sup> Albania (AL), Belarus (BY), Bosnia and Herzegovina (BA), Russia (RU), Serbia and Montenegro (CS) as well as Ukraine (UA).

tions account for a mere 11.0% share of the Polish market. This relationship is, however, put in perspective by a comparison of total banking assets, which add up to EUR 163 billion in Poland, but only to EUR 6 billion in Bosnia and Herzegovina. Moreover, chart 19 reveals the Czech Republic to be the single most important foreign market of Austrian banks.

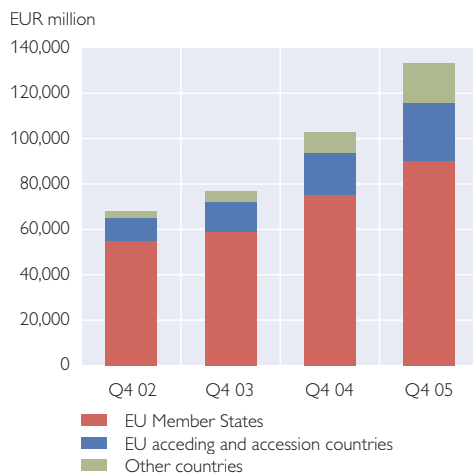
Austrian banks' concentration on the new EU Member States is evident from the latter's share of 67.9% in the aggregate total assets (approximately EUR 133 billion), followed by a share of 19% in EU acceding and accession countries, and a share of 13.1% in other CEECs at the end of December 2005. Overall, total assets grew by 29.6% year on year, which corresponds to a drop of 4.4 percentage points in the growth rate. Subsidiaries in EU acceding/accession countries and in other CEECs actually posted more dynamic growth rates. The latter managed to almost double their asset totals in 2005, albeit starting from lower levels (see chart 20).

Chart 20

### Total Assets of Austrian

#### Banks' CEE Subsidiaries

As at December 31, 2005



Source: OeNB.

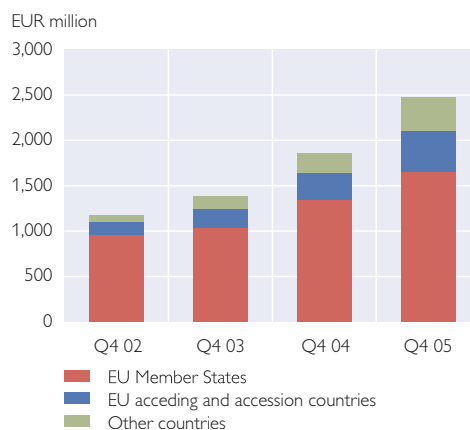
Aggregated operating profits of CEE subsidiary banks reveal the same picture: They rose by 33.8%, at roughly the same pace as in 2004, to about EUR 2.5 billion. Here, too, subsidiaries in EU acceding/accession countries and in other CEECs posted higher growth rates at +56.7% and +72.4%, respectively, than subsidiaries based in EU Member States with +22.6% (see chart 21).

Chart 21

### Operating Profit of Austrian

#### Banks' CEE Subsidiaries

As at December 31, 2005



Source: OeNB.

The cost/income ratio of fully consolidated subsidiary banks in the CEECs improved from 58.7% in December 2004 to 56.7% in December 2005; this rise is attributable to a sharper increase in operating income (+27.8%) than in operating expenses (+23.6%).

Direct lending by Austrian banks to Central and Eastern European borrowers, finally, tells the same story as lending by subsidiaries. As much as 59.0% of the total loan volume of EUR 27.1 billion are attributable to the new EU Member States, followed by 24.2% to EU acceding and accession countries and 16.8% to other CEECs (see table 7). Direct loan growth to borrowers in EU acceding/

Table 7

### Credit Exposure to Central and Eastern European Countries

As at December 2005

EUR billion

	Rest of the world																
	Central and Eastern Europe																Other Countries <sup>3</sup>
	EU Member States								EU Acceding and Accession Countries								
	CZ	HU	PL	SI	SK		BG	HR	RO		BA	RU	UA				
<b>Direct loans<sup>1</sup></b>	71.8	27.1	16.0	5.1	2.9	3.4	2.8	1.8	6.6	0.5	4.3	1.8	4.6	0.4	2.9	0.2	
Share in foreign loans (%)		37.8	22.3	7.1	4.0	4.7	4.0	2.5	9.1	0.7	6.0	2.5	6.4	0.6	4.1	0.3	
<b>Indirect loans<sup>2</sup></b>	63.6	58.6	39.9	14.6	9.4	7.4	2.3	6.2	10.9	1.6	7.5	1.8	7.9	1.8	2.0	2.1	
Share in foreign loans (%)		92.2	62.7	23.0	14.8	11.6	3.6	9.7	17.1	2.5	11.7	2.9	12.4	2.8	3.1	3.3	
<b>Total</b>	135.4	85.8	55.9	19.7	12.3	10.8	5.1	8.0	17.5	2.1	11.7	3.6	12.4	2.2	4.9	2.3	
Share in foreign loans (%)		63.3	41.3	14.5	9.1	8.0	3.8	5.9	12.9	1.5	8.7	2.7	9.2	1.6	3.6	1.7	

Source: OeNB.

<sup>1</sup> Nonsecuritized loans granted by Austrian banks to foreign nonbanks.<sup>2</sup> Nonsecuritized loans granted to nonbanks by subsidiaries of Austrian banks.<sup>3</sup> In addition to Bosnia and Herzegovina (BA), Russia (RU) and Ukraine (UA), the item „Other Countries“ also includes Albania (AL), Serbia and Montenegro (CS) and Belarus (BY).

accession countries and other CEECs was considerably more robust at 39.7% and 95.0%, respectively (again starting from lower levels) than the corresponding growth rate in the new EU Member States at 17.6%.

Austrian banks' strong concentration on the new EU Member States in CEE lowers, above all, the associated risks with regard to the institutional, legal and thus economic conditions in those markets. In this respect, it is even more important to monitor the more dynamic activity of Austrian banks in those countries which have not (yet) joined the EU. The latest large acquisitions, such as the purchase of Banca Comerciala Romana by Erste Bank in December 2005 or that of the Russian Impexbank by Raiffeisen International in January 2006, happened after the cutoff date

for data of this analysis (December 31, 2005). Further acquisitions in Eastern and Southeastern Europe are in the pipeline, as are, in fact, sales of CEE subsidiaries. Cases in point are the sale of BA-CA's Polish subsidiary and of its Croatian subsidiary Splitska Banka, both of which BA-CA must sell as a precondition for assuming responsibility for UniCredit Group's business in Central and Eastern Europe. Austrian banks continue to expand in Central and Eastern Europe, but they are increasingly moving to Eastern and Southeastern European countries. In this process, the institutional, legal and economic conditions in those markets are going to pose increasing risks for Austrian banks in the long term: The promise of higher profits simply comes at the price of higher risks.



### Banks in Central and Eastern Europe Remain Highly Profitable<sup>1</sup>

In a context of broadly favorable macroeconomic conditions, (inflation-adjusted) the growth rates of credit to the private sector continued to rise throughout 2005 in all countries under review in this section with the exception of Hungary, Bulgaria and Romania. Yet in the second half of 2005, credit growth accelerated also in Hungary and Romania, and Bulgaria continued to post high real credit growth rates exceeding 20% year on year, a rate surpassed only by Romania. Slovenia and Slovakia also reported above-average credit growth rates, while the Czech Republic, Hungary and Croatia posted two-digit credit growth rates. The latest increase of credit growth rates in Romania and Croatia actually came in the wake of central bank measures to curb credit growth. Poland registered comparatively low credit growth in 2005, with the growth rate of credit to the corporate sector going down again. In early 2006, however, Poland reported a robust acceleration of credit growth and above all, for the first time since early 2004, an acceleration of lending to corporate customers.

Foreign currency loans to domestic nonbanks continue to characterize lending to residents in a number of countries. In fact, in Croatia, Romania, Bulgaria, Hungary and Slovenia, the share of foreign currency loans granted to resident businesses and households is particularly high, ranging from 35% to 80% (in the case of Croatia, the figure includes local currency loans linked to the euro). In Croatia, Hungary and Slovenia this ratio even increased during 2005, starting from already comparatively high levels at the end of 2004. In Romania and Bulgaria, by contrast, the share of foreign currency loans dropped somewhat, partly in response to central bank measures taken during 2005 with a view to curbing (foreign currency) loan growth. These developments notwithstanding, the foreign currency ratio remains high with around 50%. In Poland, Slovakia and above all in the Czech Republic the share of foreign currency loans is substantially lower (within a range of 10% to 25%), partly reflecting (especially in the case of the Czech Republic) the lower interest rate differentials to the euro area. Still, households have taken out substantial loans in foreign currencies in Poland, and the share of foreign currency loans increased slightly in Poland and in Slovakia during 2005. Through their foreign currency loans to domestic sectors, banks are exposed to credit risk in the form of indirect foreign currency risk to the extent that borrowers – increasingly households and small and medium-sized enterprises – are insufficiently hedged against adverse exchange rate developments. Risks are exacerbated by loans in currencies not linked to the euro (such as Swiss francs) as well as by rising direct borrowing abroad (mostly by larger companies). The underlying credit risk appears to be limited in Slovenia, provided that the country introduces the euro as expected at the beginning of 2007.

Banks' performance improved in most countries under review in 2005. To be sure, net interest income (in percent of assets) shrank in a number of countries, but banks were able to offset this deterioration with cost efficiency gains and, in some countries, also through an increase in noninterest income and a decrease of risk provisioning costs. The latter benefited from an ongoing decline in the share of nonperforming loans.<sup>2</sup> However, this trend could change in the future as loan portfolios mature or as credit growth slows down.

<sup>1</sup> This section examines the performance of the entire banking sector in the Czech Republic, Hungary, Poland, Slovakia, Slovenia as well as in Bulgaria, Croatia and Romania, rather than focusing only on the performance of Austrian banks' subsidiaries in these countries.

<sup>2</sup> Nonperforming loans are defined as substandard, doubtful and loss loans. In view of differences in both national classification rules and the range of loans included in this classification, a cross-country comparison is difficult.

### Nominal Return on Equity

%

	2002	2003	2004	2005	H1 04	H1 05
Bulgaria	14.6	14.8	16.6	18.4	18.5	18.6
Croatia	13.7	14.5	16.1	15.6	17.9	14.5
Poland	5.3	5.5	17.4	20.8	17.7	21.2
Romania	21.0	17.7	17.7	15.6	20.5	19.7
Slovakia	11.5	10.5	12.3	13.5	13.8	14.6
Slovenia	8.5	8.2	8.7	11.1	..	..
Czech Republic	27.1	23.4	23.1	24.9	22.4	29.3
Hungary	16.1	18.7	23.8	22.3	25.8	27.3

Note: Based on profits after tax. Intra-year data are annualized linearly.

### Net Interest Income

% of annual average bank assets

	2002	2003	2004	2005	H1 04	H1 05
Bulgaria	3.9	4.7	4.9	4.5	4.9	4.4
Croatia	3.3	3.3	3.0	2.9	3.1	3.0
Poland	3.4	3.1	3.2	3.1	3.2	3.1
Romania	3.4	4.7	4.8	3.5	5.4	3.7
Slovakia	2.7	2.9	2.8	2.2	2.9	2.2
Slovenia	3.7	3.2	2.8	2.5	2.9	2.7
Czech Republic	2.4	2.1	2.3	2.2	2.2	2.3
Hungary	4.3	4.0	4.3	4.1	4.0	3.9

### Operating Costs

% of annual average bank assets

	2002	2003	2004	2005	H1 04	H1 05
Bulgaria	4.5	4.5	4.2	3.6	4.1	3.5
Croatia	2.7	2.6	2.3	2.2	2.4	2.2
Poland	4.1	3.9	3.7	3.7	3.6	3.7
Romania	6.6	6.9	6.1	5.3	6.0	5.3
Slovakia	2.5	2.6	2.4	2.1	2.5	2.1
Slovenia	3.2	2.9	2.7	2.5	2.6	2.4
Czech Republic	1.9	1.9	1.9	1.8	1.8	1.8
Hungary	3.8	3.4	3.3	2.9	3.0	2.8

**Net Change in Loan Loss Provisions**

% of annual average bank assets

	2002	2003	2004	2005	H1 04	H1 05
Bulgaria	0.1	0.3	0.7	0.8	0.5	0.9
Croatia	0.3	0.3	0.3	0.2	0.2	0.2
Poland	1.5	0.9	0.4	0.2	0.4	0.3
Romania	0.2	0.6	0.7	0.5	0.6	0.2
Slovakia	-0.4	-0.5	-0.4	-0.3	-0.6	-0.1
Slovenia	1.1	0.8	0.7	0.7	0.8	0.8
Czech Republic	0.3	0.0	0.4	0.5	0.4	0.3
Hungary	0.3	0.3	0.5	0.2	0.5	0.1

**Nonperforming Loans**

% of total loans

	2002	2003	2004	2005	H1 04	H1 05
Bulgaria	3.6	4.2	3.6	2.8	2.4	2.8
Croatia	5.9	5.1	4.6	4.0	5.1	4.3
Poland <sup>1</sup>	21.1	21.2	14.7	11.0	17.2	13.2
Romania	2.3	8.3	8.1	8.3	8.5	8.2
Slovakia	11.0	9.1	7.0	5.5	7.8	6.9
Slovenia	7.0	6.5	5.5	4.7	6.0	5.3
Czech Republic	8.5	5.0	4.1	4.0	4.6	4.3
Hungary	3.7	3.0	2.9	2.7	3.4	2.8

<sup>1</sup> In the case of Poland, nonperforming loans also include so-called irregular claims.

Source: National central banks.

Note: Data are not comparable between countries. Intra-year data are annualized linearly.

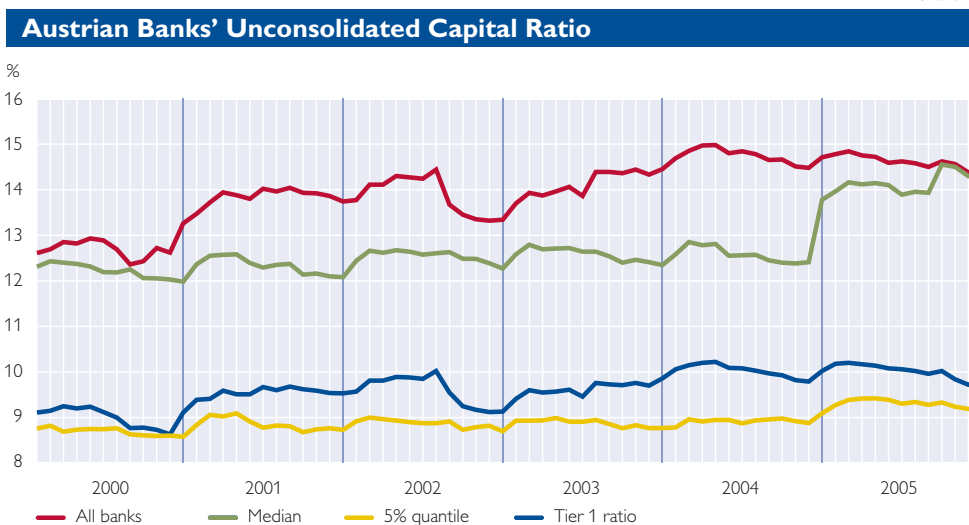
**Capital Adequacy of Austrian Banks Remains Satisfactory**

Capital ratios are key indicators for assessing the Austrian banking sector's risk-bearing capacity. At end-2005, the unconsolidated capital ratio, which relates own funds to risk-weighted assets as reported by banks, was 14.5% for all Austrian banks<sup>35</sup> (2004: 14.7%, see chart 22). The ratio has thus been well above 14% for more than two and a half years, which is not only considerably higher than the regulatory minimum of 8% under the Austrian Banking Act, but also high by European standards.

The corresponding consolidated capital ratio was 11.7%, which represents a decrease from the latest quarterly figures of above 12%, but is nonetheless a considerable capital buffer for stress or crisis situations.

This slight decline is attributable to a stronger increase in risk-weighted assets than in the capital ratio. Different factors are responsible for this increase in risk-weighted assets, depending on the bank (acquisitions, shifts in the loan portfolio, etc.).

<sup>35</sup> Excluding special purpose banks, which are not considered in the calculation of the capital ratio.



The median unconsolidated capital ratio – on which outliers have little effect – came to 14.4% at end-2005, which reflects a relatively strong convergence of capital ratios in the Austrian banking industry (see chart 22). Moreover, this figure compares favorably with the corresponding ratio of major euro area banks<sup>36</sup>, which came to 11.1% at end-2005 (2004: 11.5%).

Austrian banks' core capital ratio, finally, which relates tier 1 capital (core capital) to risk-weighted assets, was also high by euro area standards. In December 2005, the unconsolidated core capital ratio of Austrian banks stood at 9.8% (2004: 10%), while the corresponding value of major euro area banks came to 7.9% at end-2005 (2004: 8.3%).

All in all, the trend development of Austrian banks' aggregated capital ratio is satisfactory also by euro area standards.

### **New Stress Testing Methodology Confirms Austrian Banking System's Good Resilience to Shocks**

The OeNB has developed a dedicated software program ("Systemic Risk Monitor" or SRM for short) to assess systemic risk in the Austrian banking sector and conduct corresponding stress tests. The underlying model is described, and first results are presented, in a special topics contribution in this Financial Stability Report. The stress tests described in this article are based on a Monte Carlo simulation, which allows determining the aggregate loss distribution. In addition, SRM may also be used to conduct sensitivity stress tests, which establish the loss resulting from a change in one particular risk factor, while assuming all other risk factors to be constant.

The stress tests developed by the IMF in the context of the Financial Sector Assessment Programs (FSAP),

<sup>36</sup> This value refers to the capital ratio of a representative sample of major euro area banks as given in the ECB's Financial Stability Review 2006.

### Financial Stability Analysis and International Financial Reporting Standards

Under regulation (EC) No. 1606/2002 on the application of international accounting standards, listed companies governed by the law of an EU Member State have had to follow International Financial Reporting Standards (IFRS) in preparing their consolidated financial statements for accounting periods starting on or after January 1, 2005. Companies that have only debt securities publicly traded are exempt from this requirement until January 1, 2007. One aim of this regulation is to enhance the comparability and transparency of financial statements prepared by publicly traded companies and to improve the efficiency of the European capital market. While this is basically an advantageous development from a financial stability point of view, the implementation of IFRS will, however, also have an influence on banking data. In the following, we will therefore summarize the potential IFRS impact on the stability indicators used in Financial Stability Report assessments.

**Total asset growth** may become more volatile in those cases in which fair value accounting and impairment testing of goodwill and loans are applied. The required detailed disclosure of derivative positions may lead to further changes in total assets.

**Provisions for losses on loans** which are rated at fair value and subject to impairment testing are to be recognized only on an incurred loss basis. Thus, the level of loan loss provisioning, which is an indicator of credit risk, may fall.

**Banks' capital levels** may change owing to the new valuation rules and the reclassification of individual equity items as debt. Even though the IFRS impact is currently restricted to an accounting effect – capital adequacy is still assessed in line with the statutory provisions laid down in the Austrian Banking Act – the planned first-time application of IFRS accounting rules to calculating the consolidated capital ratio for supervisory purposes may have unintended transition and valuation effects. To eliminate these effects, the Committee of European Banking Supervisors (CEBS) developed prudential filters to maintain the current definition and quality of regulatory capital.

**Bank performance** indicators will certainly be affected by the reclassification of balance sheet items resulting from the adoption of IFRS.

As many as eight Austrian banks now prepare their consolidated annual accounts in line with IFRS (some already since 2000). In response to the rising importance of IFRS, Austria is going to adjust the prevailing statutory provisions and implement a new supervisory reporting framework (which will take effect in 2007/2008). The OeNB will continue to closely monitor the IFRS impact from a financial stability perspective both at the individual bank level and at the systemic level.

used in Financial Stability Report analyses so far, are also based on sensitivity stress tests.<sup>37</sup> There are, however, several differences in methodol-

ogy and data input, which are attributable (1) to the specific modeling approach of SRM and (2) to methodological improvements.

<sup>37</sup> For a description of the stress testing methodology developed for the FSAP, see the OeNB's Financial Stability Report 7.

Table 8 shows the results of both approaches over time. With regard to credit risk, the key difference between the two tests is that the FSAP framework uses the ratio of loan loss provisions to outstanding loans as a credit risk factor and determines the risk exposure profile by raising this ratio by a certain percentage, while the SRM method relies on increasing default probabilities in domestic industries and in regional sectors abroad. Furthermore, the SRM model does not permit conducting stress tests for indirect credit risk associated with foreign currency lending, so that it is impossible to run stress tests for accumulated credit risk.

Table 8 shows that a simulated decrease in the capital ratio relative to the domestic credit exposure between end-2003 and end-2005 causes domestic credit risk to rise slightly, while the credit exposure to Central and Eastern European countries (CEECs) declines somewhat with both testing methods. The impact on the capital ratio is smaller for the SRM tests than for the FSAP stress tests, which is partly attributable to the use of different credit risk factors. Furthermore, while the FSAP approach also includes indirect credit exposure to the CEECs, the SRM approach accounts only for direct credit exposure to CEECs, thus excluding

Table 8

FSAP and SRM Stress Test Results for the Austrian Banking System over Time						
	FSAP stress tests			Systemic Risk Monitor		
	End-2003	End-2004	End-2005	End-2003	End-2004	End-2005
Current capital ratio	14.45	14.71	14.51	14.45	14.71	14.51
Decrease of capital adequacy ratio in the stress scenario (in percentage points)						
<b>Credit risk</b>						
Domestic credit exposure 30% increase in credit risk <sup>1</sup>	0.87	0.92	0.93	0.71	0.79	0.73
Credit exposure in Central and Eastern Europe 40% increase in credit risk <sup>1</sup>	0.28	0.27	0.27	0.18	0.10	0.12
Foreign currency loans						
10% appreciation of the Swiss franc against the euro	0.28	0.30	0.29	..	..	..
20% appreciation of the Japanese yen against the euro	0.16	0.07	0.05	..	..	..
Accumulated credit risk Simultaneous analysis of all three credit risk components <sup>2</sup>	1.38	1.39	1.37	..	..	..
<b>Market risk</b>						
Interest rate risk						
Euro: Upward parallel shift of the yield curve by 130 basis points	0.61	0.35	0.35	0.39	0.36	0.32
U.S. dollar: Upward parallel shift of the yield curve by 110 basis points	0.04	0.06	0.06	0.02	0.05	0.05
Swiss franc: Upward parallel shift of the yield curve by 150 basis points	0.04	0.01	-0.01	0.02	0.01	0.00
Japanese yen: Downward shift of the yield curve <sup>3</sup>	0.06	0.03	0.01	0.01	0.01	0.01
Equity price risk						
Domestic stock market crash, 30% decline in ATX	0.16	0.16	0.18	0.19	0.19	0.22
International stock market crash, 35% decline in international stock indices	0.22	0.21	0.22	0.26	0.26	0.29
Exchange rate risk						
Worst case estimate <sup>4</sup> for a 10% appreciation/depreciation of the euro	0.10	0.09	0.10	0.10	0.09	0.10

Source: OeNB calculations based on data reported to the OeNB.

<sup>1</sup> FSAP: ratio of loan loss provisions to total outstanding loans, SRM: borrowers' average probability of default.

<sup>2</sup> The accumulated credit risk loss estimated by the FSAP stress tests equals the sum of the stress test losses established for the three components of credit risk, excluding banks' claims in currencies other than euro for domestic credit risk.

<sup>3</sup> In the case of the Japanese yen, no parallel downward shift in the yield curve was simulated so as to prevent interest rates from having negative values. The scenario consists of a cut by 20 basis points in short-term interest rates, by 40 basis points in medium-term interest rates and by 130 basis points in long-term interest rates.

<sup>4</sup> Reduction in absolute values of all banks' outstanding foreign exchange positions in 12 (FSAP) and 4 (SRM) major currencies.



loans extended by Austrian banks' subsidiaries in the CEECs.

With the exception of the U.S. dollar, the stress test results for interest rate risk showed a slightly declining effect on the banks' capital ratio in the period under review, which may be at least partly attributable to the increasing significance of variable rate loans. The effects are generally somewhat lower for the SRM stress tests, as they cover only four maturity buckets (i.e. periods until the next interest-rate resets) for methodological reasons, while the FSAP stress tests cover 13 maturity buckets. With regard to equity price risk, the capital ratio increases slightly in both types of stress tests. The increases are somewhat more pronounced for the SRM stress tests, which rely on market prices for the valuation of equity portfolios, whereas the FSAP stress tests generally rely on book values. The stress tests for exchange rate risk produce uniform, almost constant results over time with both methods.

All in all, the data of end-2005 again confirm the satisfactory level of shock resilience in the Austrian banking system; the effects of the stress tests on the capital ratios remain relatively constant over time. This result is found by both testing methods – the FSAP stress tests, which have been in use until now, and the SRM stress tests on the basis of both sensitivity stress tests and Monte Carlo simulations (as documented in the article mentioned).

### **Ratings of Major Austrian Banks Changing**

In addition to supervisory reporting data, financial stability analysis may also use publicly available information and indicators of international rating

agencies such as Moody's, including long-term deposit ratings and the Bank Financial Strength Rating (BFSR).

The events in the Austrian banking market over the past half year have caused a number of changes in Austrian credit institutions' ratings (see table 9). When the takeover of Bayerische Hypo- und Vereinsbank AG (the parent company of BA-CA) by UniCredit Group led to insecurities regarding the future allocation of business in the CEECs, BA-CA's BFSR outlook was downgraded, while Moody's confirmed its long-term deposit rating of A2. The purchase of Banca Comerciala Romana by Erste Bank led Moody's to downgrade Erste Bank's BFSR from B– to C+ in early June, given the size of the deal relative to the bank's capital in combination with Romania's low sovereign rating. The ratings of BAWAG P.S.K. had been placed under review for possible downgrade by Moody's owing to the granting of a large-scale loan to REFCO (as already reported in Financial Stability Report 10). The group's BFSR was lowered from C+ to C in January 2006, and when the bank confirmed the size of losses it had made in Caribbean offshore deals over the past years, the long-term deposit rating was downgraded from A2 to A3, while the BFSR was again lowered to C– in March 2006. Up to the end of the latest review process, BAWAG P.S.K. suffered two further BFSR downgrades, namely to D– at end-April and to E+ at end-May 2006. Following news of treasury losses at Hypo Alpe-Adria, its BFSR was downgraded from C+ to D– for poor risk management. The rating remains under review for possible downgrade.

Table 9

**Austrian Major Banks – Selected Ratings**

As of June 10, 2006

	Deposit Rating		BFSR <sup>1</sup>	
	LT <sup>2</sup>	Outlook		Outlook
BA-CA	A2	stable	B-	negative
Erste Bank	A1	stable	C+	stable
RZB	A1	stable	C+	stable
BAWAG P.S.K.	A3	stable	E+	stable
ÖVAG	A2	stable	C	stable
Hypo Alpe-Adria International	Aa2	stable	D-	under review

Source: Moody's Investors Service.

<sup>1</sup> Bank Financial Strength Rating.<sup>2</sup> Long-term deposit rating.**Stock Prices of Major Austrian Banks Continue to Rise**

As of March 31, 2006, the three banks listed on the ATX Prime Market (BA-CA, Erste Bank and Raiffeisen International) reported a combined market capitalization of EUR 40.6 billion, almost twice the value recorded in March 2005 (+EUR 19.7 billion).<sup>38</sup> This figure also includes EUR 1.1 billion of Raiffeisen International's IPO in April 2005 and around EUR 2.8 billion of a capital increase by Erste Bank in January 2006. Between end-March 2005 and end-March 2006, the market capitalization of domestic stocks traded on the Vienna stock exchange rose by EUR 52.5 billion to EUR 116.0 billion. Thus, the share of all three bank stocks increased from 34.2%

to 35.0% of ATX Prime's total market capitalization in this period (see chart 23).

Over the past years, the implied volatilities of at-the-money call options<sup>39</sup> for banks listed on ATX Prime remained basically unchanged. The increase in implied volatilities for BA-CA in March following uncertainties regarding its organizational integration into UniCredit Group was only temporary. All in all, however, the level of implied volatilities for banks listed on ATX Prime exceeds that of the whole index and is also well above the level measured by the EURO STOXX Financial Services index. This may be attributable to Austrian banks' valuation gains in recent years resulting from their business activities in CEECs, among others.

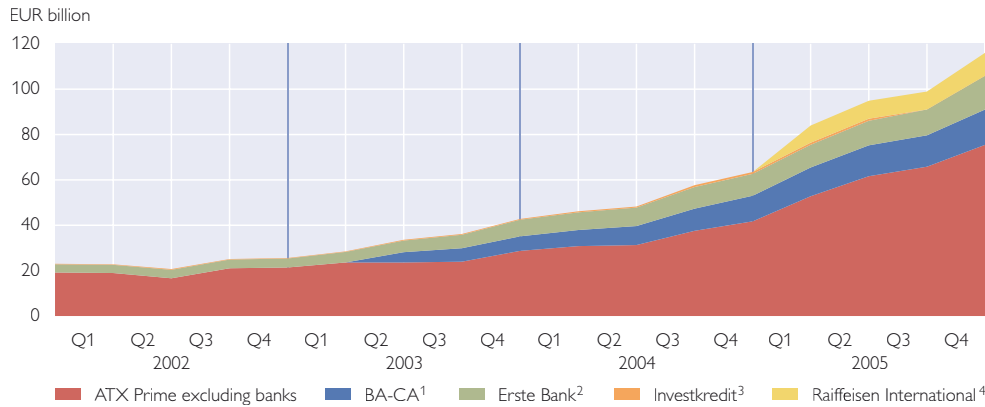
<sup>38</sup> At end-March 2005, another bank (Investkredit) had been listed on the ATX Prime Market. Since it was delisted at end-2005 after its takeover by ÖVAG, it was not taken into account in 2005 for the sake of data comparability.

<sup>39</sup> Implied volatility refers to the market's assessment of future stock price volatility. Source: Bloomberg.

Chart 23

### Market Capitalization of Austrian Banks Listed on ATX Prime

As of March 31, 2006



Source: Wiener Börse AG.

<sup>1</sup> Relisted on July 9, 2003.

<sup>2</sup> Including capital increases on June 12, 2002, and January 27, 2006.

<sup>3</sup> Delisted at end-2005 after its takeover by ÖVAG.

<sup>4</sup> IPO on the Vienna stock exchange on April 25, 2005.

## Insurance Companies and Mutual Funds Benefit from Favorable Capital Market Sentiment

### Insurance Sector Continues to Recover

#### Demand for Life Insurance Products Increases as Financial Market Conditions Remain Advantageous

Even though a number of natural disasters occurred in the second half of 2005, the European insurance sector continued to pick up, with investment results increasing thanks to the benign financial market environment. Moreover, improved risk management had a positive effect on the stability of insurance companies. Damage covered by insurance reached a record value in 2005, affecting mainly U.S. property/casualty insurance companies and European reinsurers. Nevertheless, Standard and Poor's changed their outlook for the latter from "negative" to "stable" in April 2006.

The development of Austrian insurance companies was positive in 2005, with insurance premium income across all insurance categories growing by 9.6%.<sup>40</sup> The driving force behind this favorable trend was the continued rise in retirement provision products, which were complemented by the introduction of occupational group insurance. An essential contribution to the dynamic development in the life insurance sector came from state-subsidized personal pension plans and from the growth of one-off payments. Moreover, strong growth in Central and Eastern European markets and the favorable development in international capital markets promoted business activity and profit performance. Payments by insurance companies climbed by a moderate 1.1% in 2005. This slow growth was attributable to the fact that natural disasters only occurred at a regional level and that there was no wave of expiring life insurance con-

<sup>40</sup> Source: Austrian Association of Insurance Companies, March 2006.

tracts in 2005. Both ratings and stock price developments reflect the positive course Austrian insurance companies took in 2005. At the end of the first quarter of 2006, the rating outlook for the large Austrian insurers was stable. Stocks of insurance companies listed on the prime market segment of Wiener Börse AG continued to be dynamic, even if their upward trend flattened considerably.

#### Insurance Companies Increasingly Rely on Foreign Investment

In 2005, the highest growth rate (+12.4%) reported since the introduction of the OeNB's insurance statistics in 1996 drove up Austrian insurance companies' total assets<sup>41</sup> to EUR 76.8 billion. On the asset side, this increase can to a large extent be attributed to domestic equity securities and other domestic securities (+EUR 3.7 billion or +21.3%), to foreign fixed income securities (+EUR 2.6 billion or +16.5%) and to foreign equity securities and other foreign securities (+EUR 1.5 billion or +53.4%). Together, the latter three positions accounted for 73.5% of gross asset growth. Austrian insurance companies' stronger orientation toward foreign investment is mirrored by the share of foreign assets in total assets, which reached a record high of 32.7% in 2005. Accounting for close to 73% of foreign assets, fixed income securities played a dominant role. At 23.8%, their share in total assets was almost twice as high as that of domestic fixed income securities (12.1%). All in all, 35.9% of assets were invested in fixed income

securities at end-2005. At 38.4%, (domestic and foreign) equity securities and other securities as well as domestic participating interests had an even higher share in total assets. Loans granted by insurance companies continued the trend of previous years, with their volume contracting by 12.5% to EUR 5.7 billion. While loans to the government went down by EUR 1 billion to EUR 4 billion, loans to domestic credit institutions expanded by EUR 0.2 billion, thus coming to EUR 0.4 billion. The total exposure of insurance companies vis-à-vis domestic banks climbed at a slower pace (+9% year on year) than total assets and reached EUR 10.6 billion. Thus, its share in insurance companies' total assets decreased slightly year on year, coming to 13.8% at end-December 2005. The share of insurance companies' investments with domestic credit institutions in Austrian banks' consolidated total assets fell slightly to 1.3%. Owing to positive business and profit performance and insurance companies' modest exposure vis-à-vis the banking sector, the risk of contagion between the banking and insurance sectors is still low.

#### Equity Funds Profit from Favorable Capital Market Environment

The continued beneficial financial market sentiment and investors' increasing confidence in mutual funds have had a positive effect on the European equity funds market. In 2005, assets under management by mutual funds<sup>42</sup> went up by 23% to a record high of EUR 6,566 billion. In its third

<sup>41</sup> Excluding reinsurance business; based on quarterly reports (OeNB insurance statistics).

<sup>42</sup> Here, mutual funds comprise undertakings for collective investment in transferable securities (UCITS) and non-UCITS.

## Prudential Requirements for Financial Conglomerates

Over the last few years, there has been a strong trend toward the integration of banking, insurance and other financial services. Well-known international examples for this trend are ING, Allianz, Lloyds TBC and Fortis. Under a uniform structure, these enterprises provide both banking and insurance services. If an enterprise's individual business lines exceed specified size limits, such an enterprise is called a financial conglomerate. Since January 1, 2005, financial conglomerates have been subject to the requirements of the Financial Conglomerates Act. If an enterprise qualifies as a financial conglomerate, it must in particular comply with the following regulatory framework conditions:

### Capital adequacy

Aside from capital adequacy at the level of individual financial institutions, a defined minimum capital level must be maintained across the entire financial conglomerate. There are three prudential methods that may be applied to determine the capital requirements on a financial conglomerate: the accounting consolidation method, the deduction and aggregation method and the book value and/or requirement reduction method. Each method may be used individually or in combination with one or both of the other methods. All three methods are essentially based on the capital requirements laid down in the individual sectoral frameworks (e.g. Basel II, Solvency II).

### Intragroup transactions and risk concentration

A key focus of financial conglomerates oversight is the observation and supervision of conglomerate-wide risk concentration and intragroup transactions, as these intensify contagion risks and conflicts of interests within the conglomerate. To facilitate observation and supervision, the Financial Conglomerates Act contains the obligation (to be specified individually) to report risk concentration and intragroup transactions and requires official measures, but no additional regulatory capital backing.

### Internal control mechanisms and risk management

Adequate risk management is indispensable if the risk transfer within a financial conglomerate is to make economic sense. A financial conglomerate should be able to establish management strategies and to adequately monitor and control risks (in particular those arising from intragroup transactions and risk concentration); moreover, it should have mechanisms in place that are suitable for reviewing capital adequacy across the entire financial conglomerate.

year, the uptrend in this area clearly gained momentum, with asset value increases and inflows acting as the main pillars of asset growth. While all funds categories recorded net inflows year on year, fixed income funds saw net outflows in the last quarter of 2005 owing to changes in the interest outlook for Europe. In the same quarter, equity funds, by contrast, recorded the highest inflows

in five years. At 27%, their 2005 performance clearly exceeded the 12% reached by UCITS mutual funds.

### Assets of Austrian Mutual Funds Grow Dynamically

The overall performance of the 27 Austrian investment companies was satisfactory in 2005. The assets held by Austrian mutual funds<sup>43</sup> (including fund-of-fund investments) grew by

<sup>43</sup> In 2005, invested capital augmented by 22% to EUR 133 billion.

25% to EUR 156.7 billion in 2005, thus recording the highest growth rate since 1999. Net inflows went up by 76.6% year on year and reached EUR 13.5 billion, and price gains soared by 101.3% to EUR 14.2 billion. Dividend payments rose by 8.7%, amounting to EUR 3.4 billion. The upward trend in financial markets boosted the capital-weighted average total performance of all Austrian mutual funds from 6.0% in 2004 to 10.1% in 2005. Performance was positive in each quarter of 2005. The positive market sentiment also contributed to the fact that only 30 out of a total of 2,087 mutual funds registered in Austria developed unfavorably. Equity funds and balanced funds showed above-average performance, with yields coming to 26.3% and 11.2%, respectively. By contrast, yields of fixed income funds, real estate funds, money market funds and alternative funds remained below average in 2005, ranging from 2.7% to 8.3%.

#### Holdings of Equity Fund Shares Remain Low in Austrian Mutual Funds

Following the European trend observed in 2005, retail funds in Austria – broken down by investment policy – recorded a decrease in the share of fixed income funds to 57.2% and of balanced funds to 18.2%, while the share of equity funds went up to 18.9%. In Austria, the fact that the redemption of shares in individual real estate funds was suspended in Germany did not affect net inflows; in fact the share of real estate funds in retail funds' assets doubled to 1% in the course of 2005. In terms of investment stocks, the share of equity funds in mutual funds registered in Austria was clearly lower than in other countries; figures for Germany

(around 32%) and the U.S.A. (around 54%), for example, were considerably higher than the values recorded in Austria.

#### Severance Funds Continue to Develop Dynamically

In the fourth quarter of 2005, nine severance funds were licensed to operate in Austria. Their total assets came to EUR 727.32 million, up 87.8% against the comparable period of 2004. In 2005, the vested rights to future severance payments climbed from EUR 362.06 million to EUR 696.04 million (+92.2%). Eligible capital, by comparison, only augmented by 7.9% from EUR 20.16 million to EUR 21.76 million. Still its share of 3.1% in vested rights to future severance payments clearly exceeds the required 0.25%.

Severance funds invested the assets assigned to investment groups (EUR 696.49 million) mainly in (euro-denominated) mutual fund shares, which accounted for EUR 490.40 million or 70.4% of assets assigned to investment groups. Foreign currency-denominated mutual fund shares accounted for an additional EUR 47.77 million. Indirect investments thus accounted for a total of 77.26% of collective funds' assets.

At end-2005, the number of employers that had signed severance fund agreements was 284,531. Compared to the previous year (204,329 agreements), the number of agreements climbed by 39.25%. The three largest severance funds controlled a 75% share in the market, which means that they succeeded in maintaining high market concentration also in 2005 (2004: 74.5%). In 2005, severance fund agreements established around 3.26 million vesting periods for 1.74 million people. This corre-



sponds to a rise by 56.82% and 31.87%, respectively, against 2004.

The number of vesting periods not assigned to any of the severance funds went down from 215,728 in 2004 to 115,134 in 2005. Legislation reacted to the high number of unassigned vesting periods by amending the Company Pension Fund Act (Betriebliches Mitarbeitervorsorgekassengesetz – BMVG) and by introduc-

ing, in Article 27 letter a, the obligation for the Central Association of Austrian Social Insurance Institutions – under certain circumstances – to assign employers that fail to enter into a severance fund agreement to a fund of its choice. Still, at end-2005, almost 100,000 persons entitled to 115,134 vesting periods were not assigned to a severance fund.