The Austrian economy experienced a period of robust expansion in 2007, as reflected by real GDP growth of roughly 3.4%. Output growth is, however, likely to have passed its cyclical peak. In the first half of 2007, export growth decelerated somewhat, given the recent economic slowdown in the euro area, but remained strong thanks to the continued high demand in CESEE markets. Investment activity broadly mirrored export developments and also accelerated strongly – but likewise at a reduced pace – in the face of high capacity utilization and healthy profits.

After having grown robustly in recent years, corporate profitability continued to improve despite the appreciation of the euro and despite high crude oil prices. Sales fared well in this favorable economic environment, and unit labor costs continued to develop moderately.

Amid the cyclical upswing the number of corporate insolvencies – typically a lagging indicator – decreased by 3.7% in the first three quarters of 2007 compared with the corresponding 2006 value. The number of no asset cases declined in particular, while the number of newly opened insolvency proceedings increased somewhat. The estimated default liabilities equaled the corresponding 2006 volumes in nominal terms. Default liabilities sank to 0.64% of the corporate sector’s total liabilities (according to the national accounts) in the third quarter of 2007.

The continued good availability of internal financing notwithstanding, corporate demand for external financing increased by 30% to EUR 18.3 billion in the first half of 2007 compared to the same period of 2006.

Loans accounted for close to one-fourth of this sum, having grown at an annual rate of 6.4% in the second quarter of 2007. Corporate loan growth has, in fact, not accelerated further since fall 2006 despite growing investment activity, and continually lagged euro area developments. The balance of new loans was denominated in euro, while the outstanding volume of foreign currency loans shrank further. The share of variable rate loans in the volume of new loans, which has typically been high in international comparisons, climbed to more than 96%.

According to the Austrian results of the Eurosystem bank lending survey, in the first three quarters of 2007, corporate demand for loans was motivated mainly by the need to fund mergers and acquisitions or to finance corporate restructuring. Fixed investment constituted another key motive for borrowing. At the

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1 According to MFI balance sheet statistics. By analogy to the method employed by the ECB, the outstanding volume of bank lending is calculated as the percentage change against the previous year on the basis of changes in transactions, i.e. adjusted for reclassifications, revaluations, exchange rate and other nontransaction changes.
same time, the issuance of debt securities reduced enterprises’ demand for bank loans.

Bond issuance continued to expand at a lively pace in Austria in the first half of 2007, thus contributing more than 10% of external finance in that period. According to securities issues statistics, the outstanding volume of corporate bonds increased by as much as 15.3% year on year. Construction and real estate companies were the biggest issuers. All in all, about 30 companies issued bonds in the first eight months of 2007, with fixed rate bonds accounting for 80% of the issuing volume and variable rate bonds for the remainder. The share of euro-denominated issues was broadly similar to the fixed rate share, while most other issues were made in Swiss francs.

New issues on the Vienna stock exchange by nonfinancial corporations totaled roughly EUR 6.2 billion according to securities issues statistics. This figure includes new listings representing about EUR 1 billion as well as a number of capital increases. On balance, funds raised through listed stocks contributed close to 30% of external corporate finance in the first six months of 2007. As before, the capital market was tapped above all by real estate companies. In addition, a number of industrial and services companies issued stocks at the Vienna exchange. Stocks are typically issued by large companies, but to cater specifically to small and medium-sized enterprises (SMEs) with lower capital needs, the Vienna stock exchange launched a new “mid market” segment in June 2007. This seg-

\[ Also based on the ECB method (see footnote 1).\]

\[ For more information on the development of real estate stocks, see the box entitled “The U.S. Subprime Crisis: Causes and Effects” in the section “Dynamic Performance of Austrian Financial Intermediaries despite Turbulent Framework Conditions.”\]
Financing Conditions Have Tightened for the Real Economy Sectors

Tighter Financing Conditions
The financing conditions for Austrian companies tightened in the first three quarters of 2007, both for borrowing funds and for issuing equity capital.

The Austrian Traded Index (ATX) continued its ascent in the first half of 2007 and climbed by around 9%. In spite of this uptrend, share prices at the Vienna stock exchange were not able to keep pace with the development of the profits of listed companies. Throughout the summer months of 2007 share prices declined in line with international developments. As a result the earnings yield\(^5\) rose visibly in the course of 2007, which implies that the cost of tapping the stock market increased.

The yields of corporate bonds on the euro bond market climbed in the

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\(^4\) The market capitalization of all stocks listed on Wiener Börse AG (including financial corporations) came to almost 62% of GDP at the end of June 2007.

\(^5\) The earnings yield is the inverse of the price-to-earnings ratio.

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Chart 4: Corporate Financing Conditions

![Corporate Financing Conditions Chart](chart.png)

Source: OeNB, Thomson Financial, Wiener Börse AG.

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Financing Conditions Have Tightened for the Real Economy Sectors

first half of 2007 and remained relatively stable thereafter. Since the onset of the financial market turmoil, short-term rates have been on the rise, in turn causing the yield curve to flatten. The risk premiums on corporate bonds relative to government bonds of comparable maturity rose considerably following the subprime crisis but thereafter reverted to the precrisis level. The concomitant decline in the yield of government bonds offset most of this rise, however.

Terms and conditions for loans worsened in the course of 2007. Interest rates on loans to enterprises have been going up since the end of 2005, reflecting key rate increases by the ECB as well as money market rate rises in the third quarter of 2007 — money market rates, the benchmark for variable rate loans, rose visibly during the crisis of confidence in international markets. At the same time, risk premiums for corporate loans hardly changed until very recently, as is evidenced by the development of the differential between corporate loan interest rates and swap rates with corresponding maturities (as an indicator of interest rates for largely risk-free assets) in 2007.

This evidence is broadly in line with the Austrian results of the Eurosystem’s bank lending survey. According to this survey, banks reported to have tightened, on balance, the margin on average loans for four quar-

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* The indicator we use here is the development of BBB euro area bonds, as the bond market has grown to be highly integrated in the euro area. No separate data series are available for Austria.

* The interest margin reflects not only credit risk, but also the specific competitive situation of the Austrian loan market, which, while not influencing risk adjustment as such, does have an impact on the volume of risk adjustment.
Financing Conditions Have Tightened for the Real Economy Sectors

ters in a row, before slightly easing the margin in the third quarter of 2007. Similarly, the margins on riskier loans were not eased in 2007 until the third quarter. At the same time, the survey indicated only a slight net tightening of credit standards for loans to enterprises in the first three quarters of 2007; this applies both to loans to larger enterprises and to loans to SMEs. The crisis of confidence in financial markets had only minor repercussions on the credit standards Austrian banks apply to the approval of loans or credit lines.

Lower Exposure to Interest Rate Risks

The corporate sector’s exposure to interest rate risks declined considerably in the past two years (chart 6). With regard to the corporate sector’s assets, the most recent quarters saw an increase in the share of deposits, which account for more than two-thirds of companies’ interest-bearing assets, and a decrease in the shares of direct equity and mutual fund holdings.

On the liability side, the corporate sector’s exposure to interest rate risk has also declined perceptibly in recent years, despite the recent dynamic growth of corporate lending. This decline was related above all to the rising significance of equity in corporates’ financing structure. The share of debt securities in total corporate liabilities shrank from 46% in 2005 to 40% in 2007. This decline reflects above all a contraction of liabilities with short-term interest rate risks (loans with an initial fixation period of interest rates up to one year and variable income bonds). In comparison, the share of fixed income bonds, which are subject to long-term interest rate risks, was very stable in

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6 Interest rate changes affect current interest income and expenses as well as the secondary-market rates of fixed-income bonds. In this section, we look only into effects on interest payments; for the effects of interest rate changes on securities prices, readers are referred to the section on securities price risks. For an explanation of the exposure indicators used here, see the article by Beer and Waschiczek on page 104 in this issue.
Financing Conditions Have Tightened for the Real Economy Sectors

In the past few quarters, liabilities that are subject to interest rate risks were two-and-a-half times the size of the corresponding asset volume in mid-2007.

Despite the declining share of loans in corporate liabilities, interest expense on bank loans continued to rise in the first half of 2007 (chart 7, left-hand panel). To obtain an indication of the development of the interest rate burden on companies over time, we multiplied the outstanding loan volume with the applicable interest rates taken from interest rate statistics. It should be noted that this exercise reflects interest payments only, no noninterest rate charges.

Chart 7 (right-hand panel) shows that the rise in interest expense in recent quarters can basically be attributed to the higher interest rate level. This development was reinforced by the high and rising share of variable rate loans.

**Lower Exchange Rate Risks**

In recent years, the corporate sector’s exposure to exchange rate risks has shrunk markedly on both sides of the balance sheet. As is evident from chart 8, the foreign currency share was very low on the asset side in recent years (excluding direct holdings).

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9 The interest rates for new business (both corporate and household) were used to determine interest on foreign currency loans, as the interest rate statistics do not contain any data on outstanding amounts of foreign currency loans. As the loan’s share of foreign currency loans is at variable rates, which are adjusted periodically, the inaccuracy of this method is not likely to be very large.
Financing Conditions Have Tightened for the Real Economy Sectors

of bonds and stocks, for which no data are available), and has continued to fall most recently.

On the liability side, companies have reduced their exchange rate risk substantially in recent years. The share of foreign currency loans in corporate loans came to 8.9% at the end of September 2007, which is just half as much as three years earlier. Moreover, the share of foreign currency-denominated corporate bonds has also fallen markedly in recent years. In mid-2007 foreign currency-denominated liabilities accounted for just 2.5% of overall corporate liabilities.

Corporate Financial Assets Increasingly Subject to Stock Price Risks

Price risks as a result of stock price changes have become considerably more important in recent years in companies’ financial investment portfolios, whereas interest rate-related price changes have lost significance. The share of bonds (held directly or through mutual fund shares) dropped from close to 16% in mid-2005 to...
about 10% in mid-2007, while the share of stocks in portfolios (again held directly or through mutual fund shares) has risen continually since 2003 and surpassed the share of interest rate-dependent assets in the third quarter of 2005. To some extent, this rise reflects the higher market value of corporates’ stock holdings, following stock price gains in recent years.

**Conclusion: Higher Risks for Corporate Finances**

On balance, the risk position of the Austrian corporate sector remained favorable. Profits have risen until recently, enhancing not only companies’ internal financing capacity but also their debt servicing capacity, enabling them to absorb the impact of higher interest rates on debt servicing. Another factor that comes into play here is the fact that the debt burden of the corporate sector in relation to its gross operating surplus declined from mid-2005 and did not rebound until mid-2007. Moreover, as mentioned above, companies have cut their exchange rate risk exposure substantially. This generally favorable risk perspective has also been mirrored by the decline in insolvencies until the third quarter of 2007.

At the same time, corporate finances have become subject to a higher degree of risk. While the relative dependence of corporate finances on interest rate developments continued to decline in 2007, the high share of variable rate loans has increased interest rate sensitivity. Corporate financial assets may be subject to lower interest rate and exchange rate risks, but their exposure to stock price risks has increased – something that is indeed relevant in an environment of continued investor uncertainty and heightened stock price volatility. A massive price setback would trigger valuation losses and might even adversely affect the financial position of companies.

Finally, external economic conditions are unlikely to positively influence corporate risk positions to the same extent as they did in the past. Amid the financial market turmoil, the downside risks of the growth forecast have risen markedly. According to the OeNB’s latest economic outlook, the Austrian economy will lose considerable momentum in 2008, and this may have a dampening effect on companies’ profit outlook. Last but not least, the euro’s strength and higher commodity prices might be an additional burden on companies.

**Risk Position of Households has Deteriorated**

**External Economic Conditions Remain Favorable**

The favorable economic environment continued to have a positive impact on the Austrian labor market. Labor growth was high, even though it declined in the first half of 2007, and contributed to a rise in household income. At the same time, per capita real income did not increase much. The rising need for private pension provision and uncertainty about future income paths contributed to a rise in the saving rate.

**High Financial Investment by Households**

Compared with recent years, Austrian households invested relatively heavily in financial assets in the first half of 2007. Deposits accounted for a disproportionately high share of financial investment, whereas net new investment in capital market in-
Financing Conditions Have Tightened for the Real Economy Sectors

In the second half of 2006, the share of bonds in financial investment was disproportionately high in comparison with recent years, while the share of stocks declined in net terms.

Exposure to Exchange Rate Risks Remains Stable

Investment in marketable instruments is subject to valuation risks stemming from both stock price changes (stocks and equity funds) and interest rate changes (bonds and fixed income funds). Marketable instruments accounted for approximately 29% of households’ financial assets in the first half of 2007. Within this category, households were holding mostly mutual fund shares (42%), followed by bonds (30%) and quoted shares (28%).

Of course, any indirect investments made through pension funds, severance funds and insurance plans is also subject to valuation risk. In mid-2007, approximately 14% of households’ financial assets were life insurance reserves, approximately 3% pension fund reserves and less than 1% severance fund reserves. On balance, these types of investment, thus, do not increase households’ valuation risk exposure substantially. Considering both direct and indirect investment, a total of 32% of households’ financial assets were subject to valuation risk in mid-2007; thereof, 20% were subject to valuation risks stemming from interest rate changes, and 12% to valuation risks stemming from stock price changes. However, in the case of indirect investments, households are not carrying all of the valuation risk themselves; part of the risk is transferred to the intermediaries involved through the minimum guarantees the latter provide. In addition, unlike most households, financial intermediaries can implement professional risk management programs. Furthermore, investment in life insurance plans and pension funds is typically undertaken on the basis of long-term contracts, which is why these funds are not readily accessible within short time frames, or only at a cost. Consequently, the short-term volatility of e.g. stock prices should not trigger major valuation effects; at the same time, however, funds locked into retirement savings and the like cannot be readily reallocated to pay down debts. This may be a disadvantage especially in the event of unexpected financial setbacks or rising interest rates. Life insurance contracts, finally, that come in the form of unit-linked policies often ultimately serve as repayment vehicles for foreign currency loans. Market developments that adversely affect the value of the life insurance policies therefore impact the debt servicing ability of the households concerned.

The shift in risk exposure from price risks stemming from interest rate changes to price risks stemming from stock price changes observed in recent years also continued in the first half of 2007. Since early 2004 the ratio of assets subject to valuation risks stemming from interest rate changes to assets subject to valuation risks stemming from stock price changes was relatively low, as in the second half of 2006. The share of bonds in financial investment was disproportionately high in comparison with recent years, while the share of stocks declined in net terms.

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10 Bonds also include structured products.
Financing Conditions Have Tightened for the Real Economy Sectors

Changes has dropped from 250% to 175%.\(^{12}\)

In the first two quarters of 2007, bond investors incurred relatively high valuation losses on account of rising interest rates. The interest rate increases also had a negative impact on the performance of fixed income funds. Investors in stocks, in contrast, achieved fairly high valuation gains in the first half of 2007, thanks to rising stock prices. However, the first-half figures do not yet reflect the financial market turmoil of the summer of 2007.

When assessing the significance of valuation risks from a financial stability perspective, one must take into account that only a minority of households actually invests directly in financial instruments that are subject to price risks — namely above all households in the upper income and wealth deciles, in other words, households which should be in a position to absorb potential price losses.

Diversification

The risks inherent in securities investment may be reduced by diversification strategies. In this respect, the geographical reach of equity investment by Austrian households is rather limited. Austrian stocks account for more than 70% of all investment in stocks. Moreover, the degree of dispersion among individual issuers and industries is low. At the end of 2006, the top ten instruments absorbed 64% of Austrian households’ investment in stocks. A particularly high share of funds went into real estate stocks.\(^{14}\)

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\(^{12}\) The higher share of assets subject to price risks stemming from stock price changes may, in part, be attributed to reclassifications in the financial accounts (see OeNB. 2007. Austrian Financial Accounts 2006. Analysis of Current Financial Accounts Data. Special issue of Statistiken June 07). The ensuing effect should add up to no more than 4 percentage points.


Indirect investments through mutual funds, which account for approximately 11% of households’ financial assets, increase diversification. Mutual fund portfolios usually cover a wider range of companies than direct investments by households, at the same time including fewer Austrian companies. Thus, while direct investments are highly concentrated, indirect investments are widely diversified.

**Interest Rate Risk**

Changes in interest rates affect the interest income on assets and interest expense on liabilities i.e. interest receivable on deposits and bonds on the asset side of the balance sheet, and interest to be paid on loans on the liability side of the balance sheet. Whether a change in the interest rate level affects interest income and expense also depends on the periods of rate fixation. The following analysis therefore distinguishes between short-term interest rate risk (interest rates locked in for periods of up to one year) and long-term interest rate risk.¹³

**Higher Interest Rate Income**

At the end of the second quarter of 2007, approximately 42% of households’ financial assets were subject to short-term interest rate risk, and approximately 26% to long-term interest rate risk. The high incidence of interest rate risk may be attributed to the high share of deposits in households’ financial investment (44%).

Existing savings deposits carried an interest rate of 1.9% in September 2007, which is 0.5 percentage points higher than in September 2006. Households’ interest income from deposits increased as a result of both stronger investment in deposits and higher interest rates.

**Little New Borrowing**

In the first half of 2007 the share of variable rate euro loans reached 83% in the new consumer loan business and 55% in the new housing loan business. Foreign currency loans tend to carry variable interest rates. The current high levels are broadly unchanged from recent years.

Loan growth was relatively weak in the first half of 2007. According to

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¹³ This assessment does not include risk-reducing effects of guarantees (such as guarantee bonds).
Financial accounts statistics, households’ liabilities to banks and other lenders rose by 4.0% year on year, with housing loans increasing by 5.0% but consumer and other loans by just 2.5%. The latter may reflect the lower growth rate of consumer demand.

To some extent, the low share of new loans can be attributed to the rise in lending interest rates. In the first three quarters of 2007, the real interest rate for housing loans rose by 0.5 percentage points to 2.89%, and the real interest rate for consumer loans increased by 0.55 per-cent.

16 The real interest rate is calculated as the nominal interest rate less the OeNB’s HICP forecast for the year following the forecast date.
Financing Conditions Have Tightened for the Real Economy Sectors

Percentage points to 4.52%. Those increases were basically made to pass on recent key rate hikes adopted by the Governing Council of the ECB; apart from that, banks left their credit standards broadly unchanged, according to the Eurosystem’s latest bank lending survey. This is also true for the third quarter of 2007, i.e. the period following the credit market turmoil triggered by the subprime loan crisis in the United States. In the third quarter, banks tightened their credit standards for consumer loans somewhat while even easing their credit standards for housing loans.

Increased Interest Expense

Because interest rates on loans rose further, as did debt volumes, the increase of interest expenses on household loans observed since early 2004 continued in the first half of 2007. Given the high share of short-term interest rate risk, the interest rate increases started to drive up interest rate expenses fairly soon. In mid-2007 interest expense\(^1\) totaled 3.5% of households’ disposable income according to the national accounts, which is 0.6 percentage points higher than the corresponding 2006 value. Almost three quarters of the higher interest expense may be attributed to the rise in interest rates.

However, interest expense is expressed by relation to the total disposable income of all households – including households that have not taken out any loans. A household survey conducted by the OeNB in 2004 indicates that some 40% of all households have taken out a loan. As those households tend to be higher-income

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\(^1\) Interest expense for household loans is calculated as the product of the volume of loans by maturity and purpose, and of the respective interest rate. Disposable income also covers the income of nonprofit institutions serving households.
Financing Conditions Have Tightened for the Real Economy Sectors

households, the share of interest expenses in their disposable income can be expected to come to about 7.5%.

In interpreting interest expense it is important to note that the underlying figures are merely an approximation of households’ debt burden. On the one hand, the estimates disregard additional costs of borrowing (other than interest rate charges) as well as subsidies, which play an important role especially for housing loans. On the other hand, the estimates cover only interest payments, not repayments of principal.

Based on interest expenses reported at mid-2007, a 100 basis point rise of loan interest rates would drive up the share of disposable income spent on interest expenses by 0.68 percentage points.  

**Exchange Rate Risk**

At the end of the first half of 2007, around 4.5% of the financial assets of Austrian households were exposed to exchange rate risks. As direct investment in stocks and bonds is highly concentrated on Austrian and euro area instruments, exchange rate risks are generally low in this segment. In the mutual fund segment, in contrast, 25% of retail fund assets were invested in non-euro-denominated instruments according to mutual fund statistics. Even though investments in mutual funds do increase exchange rate risks, they also add to the geographical diversification of portfolios, which alleviates risks in turn.

**Small Decline in Foreign Currency Loans**

Households’ exchange rate risk from borrowing declined somewhat in the first two quarters of 2007. In total, 29.4% of all loans were foreign currency loans (which corresponds to a drop by 1.7 percentage points), and over 95% of all foreign currency loans were denominated in Swiss francs. The shrinking share of foreign currency loans may reflect the declining positive interest rate differential that loans in Swiss francs retain over euro-denominated loans. At the same time, households may have become more sensitive to risks as well. Yet on balance the share of foreign currency loans remains high, which means that the exchange rate risk underlying household loans is not negligible.

About one-fifth of the entire interest expense for loans was for foreign currency loans in mid-2007. Compared with 2006, the interest expense for foreign currency loans thus rose by around 40% on account of the rising interest rate level. Because of the appreciation of the euro against the Swiss franc, households achieved – unrealized – high valuation gains in the first half of 2007 of around 2% of the amount of foreign currency loans outstanding.

Based on the interest expenses reported at the end of the second quarter of 2007, a 10% appreciation of the currencies in which the outstanding foreign currency loans are denominated would drive up the interest rate burden by 0.07 percentage points. When interpreting the relatively low impact of exchange rate changes, one must bear in mind that this indicator only takes account of interest payments and neglects the rise in liabilities resulting from the higher euro equivalent.

*Fixation periods and potential changes in borrowing behavior are not considered.*
**Conclusion: Risk Position of Households Worsened Somewhat**

The risk position of households remained robust, even though the slight tightening of financing conditions contributed to a slight worsening of the risk position.

The high share of variable rate loans implies a relatively rapid pass-through of interest rate changes to interest expense, which has in fact risen gradually since mid-2004. This rise was, however, offset partly by higher interest income from deposits and bonds. Moreover, favorable conditions in the labor market have had a positive effect on households’ ability to meet their loan liabilities. Although the share of foreign currency loans is declining, the underlying exchange rate risks remain high. Moreover, even if all foreign currency loans were to be converted into euro loans, there would still be the performance risk of the repayment vehicle. Yet in an international comparison the degree of indebtedness is low, and the volume of outstanding debt is highly concentrated in the segment of high-income or wealthy households.¹⁹

On the asset side, the share of assets that are subject to valuation risks due to stock price changes has been rising slowly but gradually in recent years. The overall share of such assets continues to be low, however. Moreover, those households that have invested directly in stocks are typically high-income households that are in a position to absorb potential price setbacks such as those in the summer of 2007.