Securities markets

Bond market

Interest rate movements

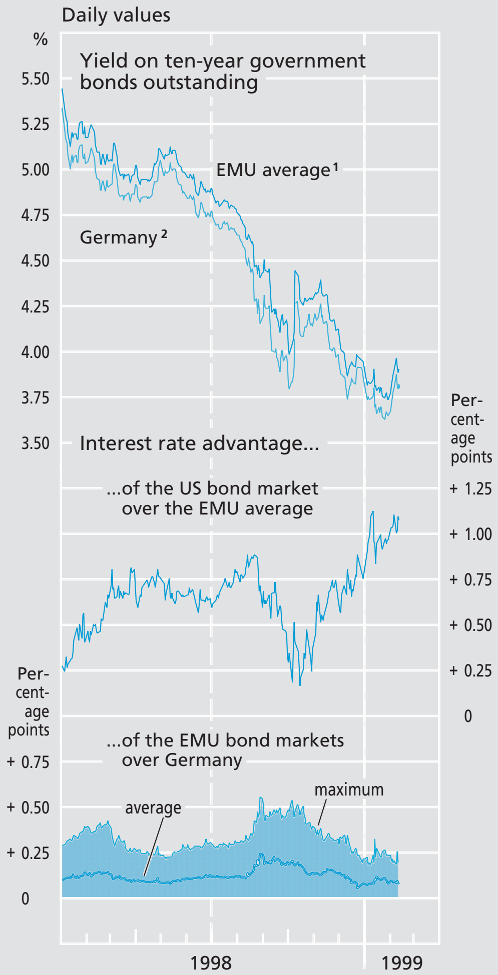
Persistent decline in interest rates

German capital market rates continued their decline during the winter months. Between the beginning of October and the end of 1998 the yield on domestic bonds outstanding fell by nearly ½ percentage point to 3¾% and thus reached a new all-time low. By the end of January 1999 bond yields had recorded a series of further all-time lows. Subsequently they picked up a little and stood at around 3¾% when this Report went to press in mid-February. This decline in interest rates was driven mainly by growing signs of an economic slowdown in Germany and the concerted interest rate cut by the central banks of EMU member countries in early December, which mainly affected shorter maturities. The aggravation of the situation in Brazil engendered further uncertainty in the international financial system around the turn of the year which triggered a renewed shift into "safe havens" and affected the long end of the market, in particular.

Yield curve virtually unchanged

On balance, the decline in interest rates affected virtually all maturity segments to a similar extent. The yield curve therefore did not flatten any further; the yield spread between ten-year and one-year bonds observable in the market came to about ¾ percentage point in mid-February 1999 – just as it had done in early October 1998. The interest rate gap between the securities of various German issuers likewise showed little change in the past few months. The interest rate differentials between the highly liquid ten-year Federal bonds and

Interest rate movements in the bond market



1 Weighted average yield on ten-year government bonds of the EMU member countries; GDP-weighted. — 2 Federal bonds suited as underlying for futures.

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bank bonds with a comparable maturity, which had risen to more than ½ percentage point during the turbulence in autumn, settled at just over ¼ percentage point. Even during the Brazil crisis they widened only marginally. This development evidently took market players less by surprise than the events in autumn, when a "flight to liquidity" had occurred with a consequent widening of interest rate differentials. However, investors' risk awareness is still very pronounced; the yield premiums payable by borrowers with a low credit rating are still distinctly higher worldwide than they were before the outbreak of the financial market crises in the autumn of last year.

Interest rate movements in the euro area

In Europe, the smooth launch of Stage Three of monetary union has helped to create a favourable assessment of the long-term outlook for prices and has thus contributed towards keeping nominal interest rates low. Member countries' capital market rates were moving along very similar lines in the period under review. In the case of ten-year government bonds, the yield on which usually serves as a reference variable for interest rate movements in the national bond markets, the interest rate advantage of securities issued by the partner countries over German Federal bonds amounted to ¼ percentage point at most at the end of the period under review. This came as no surprise inasmuch as foreign exchange risks had virtually ceased to be a cause of yield differences even prior to the start of Stage Three and have now disappeared altogether. The yield spreads remaining between the EMU capital markets are primarily caused by differences in creditworthiness and liquidity. In autumn, the yield spread of debt securities in individual European countries over the particularly liquid Federal bonds had at times amounted to more than ½ percentage point. As an EMU average, the long-term capital market rate stood at just under 4 %[1] of late. The interest rate advantage of the

1 The EMU capital market rate is calculated as the weighted average of the yields on ten-year government bonds in the individual EMU member states; the weights are the individual countries' share in the real gross domestic product of the euro area.

United States, the biggest capital market in the world, vis-à-vis the EMU countries has widened to more than 1 percentage point since the autumn. The less rapid decline in interest rates in the United States which this reflects primarily mirrors the enduring strength of the US economy.

Low interest rates conducive to growth

The broadly based interest rate decline in the European and German capital markets is conducive to encouraging growth and employment. Nominal interest rates for procuring long-term outside capital through bond issues or bank loans have reached all-time lows. But in real terms, too, long-term interest rates are relatively low. Adjusted for the current rate of price increases at the consumer level, capital market rates now amount to about 3 %, which is more than 1 percentage point below the average of the last twenty years. A more meaningful yardstick than this "statistical" real interest rate when it comes to investment decisions is a long-term real interest rate that takes account not only of the current rate of price increases but also of long-term inflation expectations for the duration of financing an investment project. At present this long-term "expected" real interest rate is around 2 %[2]. Capital market rates as low as that undoubtedly create propitious financing conditions for investment. However, they are no substitute for favourable earnings prospects and planning certainty.

Sales of bonds

Amount raised

At DM 237.2 billion (market value), gross sales of domestic bonds between October and December 1998 were slightly lower than in the previous quarter, when domestic borrowers had issued debt securities to the tune of DM 272.4 billion; in the final quarter of 1997, bond sales had totalled DM 193.1 billion gross. However, net sales, after redemptions and after taking due account of changes in issuers' holdings of their own bonds, were markedly lower than in the previous period as considerable amounts of securities matured at the end of the year; net sales between October and December came to DM 44.7 billion, compared with DM 94.6 billion in the previous three months. Foreign bonds worth DM 36.6 billion were sold in Germany in the fourth quarter of 1998, compared with only DM 11.0 billion from July to September. The bulk of this sum was accounted for by foreign currency bonds (DM 31.2 billion), with investors focusing on securities denominated in currencies of EMU member countries. The diversification of bond portfolios appears to have gained additional momentum immediately prior to the launch of monetary union. Residents purchased Deutsche Mark bonds issued by foreign borrowers in the amount of DM 5.4 billion net. The combined net sales of domestic and foreign bonds between October and December 1998 totalled DM 81.2 billion, following DM 105.6 billion in the three preceding months and DM 40.3 billion in the last quarter of 1997.

Bank bonds

At DM 28.0 billion, the amount raised by sales of domestic bank bonds in the last quar-

2 Nominal yield on ten-year Federal bonds, adjusted for inflation expectations for the next ten years (source: Consensus Forecast).

Sales and purchases of bonds

DM billion

Item	1998 July to Sep.	1998 Oct. to Dec.	1997 Oct. to Dec.
Sales			
Domestic bonds 1	94.6	44.7	32.6
of which			
Bank bonds	82.9	28.0	19.0
Public sector bonds	10.0	15.9	13.2
Foreign bonds 2	11.0	36.6	7.7
Purchases			
Residents	34.1	55.1	8.7
Credit institutions 3	16.9	38.0	– 9.8
Non-banks 4	17.2	17.1	18.5
of which			
Domestic bonds	– 0.2	19.8	15.7
Non-residents 2	71.5	26.2	31.7
Total sales/purchases	105.6	81.2	40.3

1 Net sales at market values plus/less changes in issuers' holdings of their own bonds. — **2** Transaction values. — **3** Book values, statistically adjusted. — **4** Residual.

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ter of 1998 was much smaller than between July and September, when credit institutions had raised DM 82.9 billion in the bond market. On balance, the net sales largely occurred in November; in that month the Länder Governments, in particular, took up considerable amounts of longer-term bank loans, which are usually refinanced by means of communal bonds *(Öffentliche Pfandbriefe)*. In November, sales of such paper yielded DM 13.8 billion net, and over the quarter as a whole communal bonds worth DM 21.1 billion were sold. The outstanding amount of other bank bonds and mortgage bonds *(Hypothekenpfandbriefe)* in the market went up by DM 7.2 billion and DM 3.6 billion, respectively. Bonds issued by the specialised credit institutions were redeemed to the extent of DM 3.9 billion net.

Public sector bonds

The public sector raised considerably more funds in the bond market from October to December 1998 than in the previous three months. In the period under review, the bonded debt of public authorities rose by DM 15.9 billion, compared with DM 10.0 billion between July and September. In the final quarter of last year, the Federal Government raised DM 29.7 billion in the bond market.[3] Borrowing was concentrated on October and November, whereas in December the Federal Government reduced its bonded debt by DM 2.1 billion owing to high cash surpluses. Given the very low capital market rates, it resorted mainly to long-running bonds to take up funds. The amount of ten-year and thirty-year Federal bonds outstanding went up by DM 19.7 billion and DM 9.7 billion, respectively. Five-year special Federal bonds and two-year Treasury notes were sold to the extent of DM 9.3 billion net and DM 0.7 billion net, respectively. By contrast, the outstanding amount of Federal savings bonds declined by DM 4.0 billion. Four-year Treasury notes and a 12-year bond were redeemed in the amount of DM 4.0 billion each. Bonds issued by the Treuhand agency were repaid to the tune of DM 6.9 billion net, while the outstanding amount of securities issued by the former special funds Federal Post Office and Federal Railways decreased by DM 7.2 billion and DM 2.0 billion, respectively. Bonds issued

3 As a rule, there is a mathematical discrepancy between the amounts raised by the Federal Government as a whole and the changes cited here in the outstanding amount of individual categories of Federal securities. This discrepancy is due to the fact that the total amount raised is calculated at market values and takes due account of the changes in the Federal Government's own holdings, whereas the changes in the outstanding amount are recorded at nominal values and exclude changes in own holdings.

by the Currency Conversion Equalisation Fund were allotted for DM 2.6 billion. The Länder Governments reduced their bonded debt by DM 0.1 billion.

Foreign Deutsche Mark bonds

Issuing activity in the market for foreign Deutsche Mark bonds picked up towards the end of the year after having virtually ceased in autumn during the financial market turmoil. In the last two months of the year foreign borrowers issued bonds denominated in Deutsche Mark worth DM 22.7 billion (nominal value), following a mere DM 2.5 billion in October. This development was associated with an improvement of the conditions in the international financial system. Net sales of foreign Deutsche Mark bonds came to DM 5.2 billion in the period under review. In the third quarter DM 23.4 billion had been raised, mainly thanks to the record sales in July (DM 18.7 billion) prior to the outbreak of the crisis in Russia. On balance, this paper was sold exclusively in the German market (DM 5.4 billion).

Short-dated bonds issued by domestic non-banks

The outstanding amount of short-dated bonds issued by domestic non-banks (with an agreed maturity of up to and including one year, which is not included in the figures discussed here) fell perceptibly from October to December; the total at the end of 1998 was DM 30.1 billion, compared with DM 34.6 billion at the end of September. As usual, domestic enterprises substantially reduced their short-term outside funding through Deutsche Mark commercial paper towards the end of the year (volume outstanding at the end of December: DM 6.8 billion, compared with DM 11.6 billion at the end of the third quarter of 1998). The outstanding amount of public sector securities running for less than one year rose slightly to DM 23.1 billion at the end of December.

Purchases of bonds

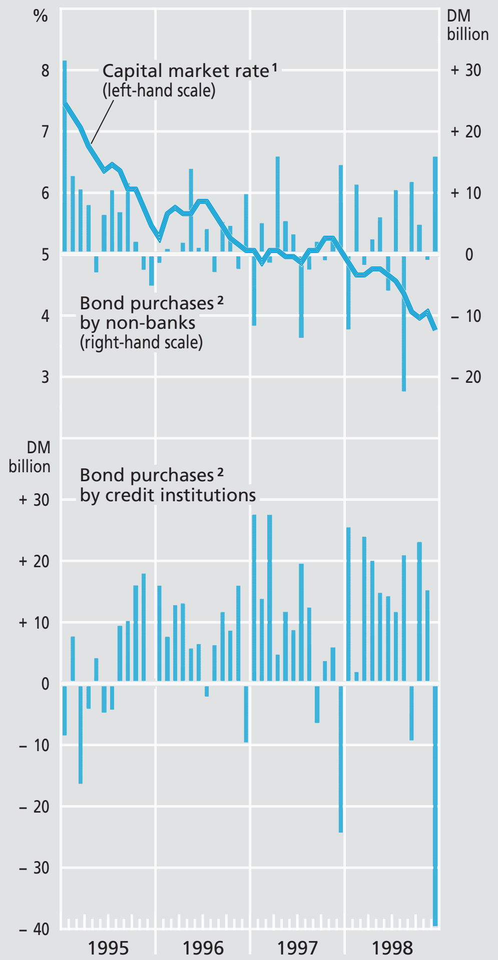
Sharp rise in banks' bond portfolios

In the last quarter, domestic credit institutions were the largest buyer group in the bond market. Their bond portfolios rose by DM 38.0 billion, compared with DM 16.9 billion in the previous period. On balance, this was entirely attributable to purchases of foreign debt securities (DM 39.3 billion). In the case of bonds issued by domestic borrowers, the banks acted as a "buffer" (as they quite often tend to do) between the supply of the issuers and the demand of the other investor groups. Given the low monetary capital formation of non-banks, credit institutions undertook maturity transformation via the bond market on a sizeable scale; they purchased bank bonds worth DM 26.7 billion. However, they ran down their holdings of public sector bonds by DM 28.6 billion. One reason for this was the fact that banks markedly reduced their securities lending transactions in public sector paper at the end of the year. Another reason was that they appear to have met part of the greater foreign demand during this period for bonds issued by German public authorities from their own portfolios.

Fluctuating interest of foreign investors

In the last quarter of 1998, foreign investors' activities in the German bond market, at DM 26.2 billion, decreased substantially compared with the previous quarter, when the "flight to quality and liquidity" had resulted in inflows of funds in the record amount of

Capital market rate and bond purchases by residents



1 Yield on domestic bonds outstanding. — 2 Net purchases/sales of domestic bonds.

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DM 71.5 billion. After the crisis had abated in October, foreign investors initially sold sizeable amounts of domestic bonds (– DM 11.0 billion). In the two subsequent months, they returned to the German capital market, investing a volume of DM 20.0 billion and DM 17.1 billion, respectively – which was greater than the average value prior to the outbreak of the crises. In the period under review, non-residents predominantly purchased public sector bonds (DM 22.9 billion), while increasing their holdings of bank bonds by only DM 3.3 billion.

Purchases by non-banks still subdued

Domestic non-banks increased their bond holdings by DM 17.1 billion in the last quarter of 1998, which matched the rise in the previous quarter (DM 17.2 billion) and was on a par with that from October to December 1997 (DM 18.5 billion). In contrast to the previous trend, their purchases focused on domestic bonds (DM 19.8) and, within this segment, almost exclusively on public sector bonds. Non-banks sold bank bonds on balance (– DM 2.1 billion), whereas they purchased small amounts of corporate bonds. These transactions were presumably attributable above all to institutional investors, who appear to have reduced their securities lending transactions with credit institutions to a considerable extent as part of their end-of-year operations. The muted interest of households in purchasing bonds is indicated, for example, by the fact that the outstanding amount of Federal savings bonds, which can only be purchased by this category of investors, fell by DM 4.0 billion. Domestic non-banks sold foreign bonds to the extent of DM 2.7 billion net.

Equity market

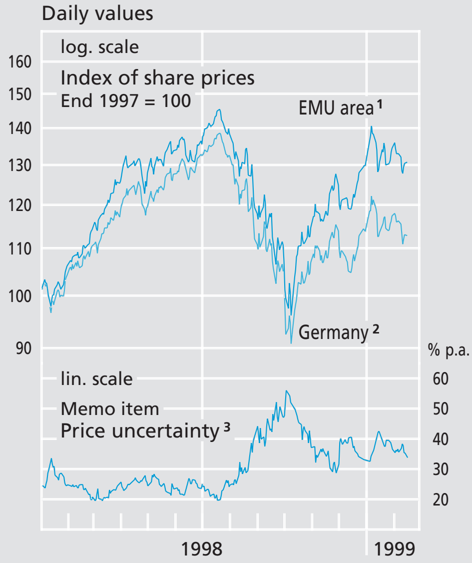
Sharp increase in share prices ...

In the German equity market, share prices have risen sharply since October against the backdrop of the rally in the US stock market. At the end of 1998, German equities (using the comprehensive CDAX share price index as a measure) were trading 25 % higher than in early October, when the massive slide in share prices resulting from the worldwide financial market turmoil had come to a halt. The stabilisation in international financial markets evidently triggered a shift of investment funds back to the equity market on a grand scale. In 1998 the CDAX was ahead by 14 % in spite of the slump in share prices in the summer months. In the euro area as a whole, equity prices rose even more rapidly than in Germany. The share prices of the largest public limited companies in the new currency area – in terms of the comprehensive Dow Jones EURO-STOXX index – went up by 35 % on average since early October and showed an increase of 30 % at the end of 1998. This was presumably due partly to the fact that institutional investors, already during the run-up to EMU, made increasing endeavours to include a representative range of the entire European equity market in their portfolios. The conversion of all share prices to the euro on the national stock exchanges in the new currency area at the beginning of January went smoothly and was accompanied by substantial share price gains.

... amid continuing high volatility

However, the upward movement in equity prices was repeatedly punctuated by pronounced short-lived price fluctuations. Given the worries about the consequences of the economic and monetary crisis in Brazil and the renewed discussion about what share price level is warranted by the fundamentals, a large degree of uncertainty remained in the equity market right up until this Report went to press. In mid-February, share prices in Germany were trading at a level approximately similar to that at the end of 1998; the EURO-STOXX, too, virtually matched its end-1998 level.

Price movements in the equity market



1 Dow Jones EURO STOXX share price index. — 2 CDAX share price index. — 3 Measured by the DAX volatility index (derived from the implied volatilities of DAX options). Source: Deutsche Börse AG.

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Share sales

Sales activity in the German equity market revived slightly towards the end of 1998. Domestic enterprises placed new shares to the market value of only DM 8.6 billion between October and December, following DM 10.8 billion from July to September; however, more than two-thirds of this amount was attributable to December alone. Between October and December 1998, foreign equities were sold in the German market to the tune of DM 81.8 billion, compared with DM 35.1 billion in the third quarter of 1998. The bulk of this amount related to the merger of two large industrial enterprises as a result of which foreign shares were contributed to a new domestic enterprise. To that extent, this

Sales and purchases of shares

DM billion

Item	1998 July to Sep.	1998 Oct. to Dec.	1997 Oct. to Dec.
Sales			
Domestic shares 1	10.8	8.6	8.4
Listed	9.6	7.2	7.5
Unlisted	1.3	1.4	0.9
Foreign shares 2	35.1	81.8	22.0
Portfolio purchases	31.8	22.5	10.3
Direct investment	3.4	59.2	11.6
Purchases			
Residents			
Credit institutions 3	– 18.8	3.2	1.5
of which			
Domestic shares	– 15.1	7.2	– 0.4
Non-banks 4	54.6	48.9	35.4
Non-residents 2	10.2	38.3	– 6.5
Total sales/purchases	45.9	90.3	30.4

1 Market values. — **2** Transaction values. — **3** Book values, statistically adjusted. — **4** Residual.

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exceptionally high figure did not constitute an additional inflow of funds. The combined total of domestic and foreign equities sold in the German share market in the period under review was DM 90.3 billion.

Share purchases

The above-mentioned corporate merger also made itself felt in the figures pertaining to purchases in the German equity market in the last quarter of 1998. Foreign investors bought German equities worth DM 38.3 billion which, on balance, was due entirely to the exchange of shares by the foreign partner in the aforementioned merger for a participation in the new domestic enterprise. Domestic non-banks expanded their share portfolios by DM 48.9 billion between October and December; this figure likewise includes the contribution of foreign shares in the context of the large merger, which was recorded as a direct investment. Non-banks' portfolio investment, too, was concentrated on foreign equities, with the adjustment to conditions pertaining in the single currency area presumably being a key motive. German credit institutions purchased shares in domestic enterprises to the extent of DM 7.2 billion in the fourth quarter of 1998, after having sold such paper in the amount of DM 15.1 billion in the previous period. A major factor in this was the transfer by the Federal Government of a large package of shares to a credit institution. The banks reduced their holdings of foreign equities by DM 4.0 billion; their share portfolios thus increased overall by DM 3.2 billion.

Investment funds

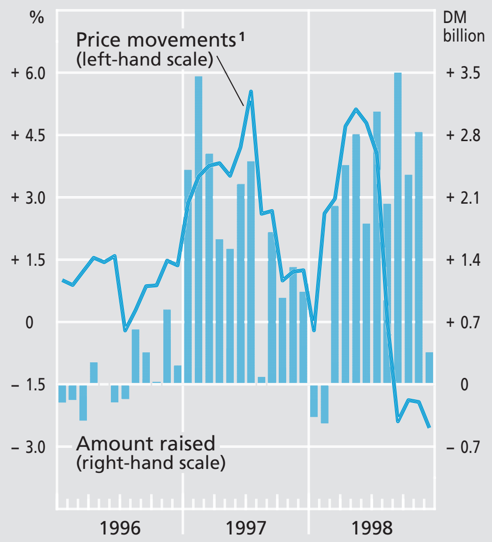
Amount raised

Sales of domestic investment fund certificates yielded DM 47.4 billion in the period under review, compared with DM 40.0 billion between July and September and DM 36.5 billion in the last quarter of 1997. Foreign investment fund certificates were sold in the German market to the extent of DM 2.8 billion between October and December. The combined amount raised by sales of domestic and foreign investment fund certificates thus came to DM 50.2 billion.

Specialised funds

Inflows to specialised funds, which are reserved for institutional investors, reached a new record high of DM 39.2 billion in the last quarter of 1998; in December alone they received DM 26.3 billion. Around two-thirds of the amount raised (DM 24.1 billion) accrued

Share price movements and amount raised by German share-based funds open to the general public



1 Average change in the CDAX share price index over the last six months.

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to mixed funds. Bond-based funds and share-based funds sold certificates worth DM 9.2 billion net and DM 5.3 billion net, respectively, while open-end real estate funds generated DM 0.5 billion.

Funds open to the general public

Funds open to the general public managed to sell certificates worth DM 8.2 billion (net) in the period under review (previous quarter: DM 7.3 billion). As has been the case since the spring of 1998, investors were mainly interested in share-based funds, which obtained DM 5.5 billion. The comparatively high and fairly steady inflow of funds – despite strongly fluctuating price movements in the equity market – may be an indication that share-based funds are now increasingly being regarded as an instrument of long-term asset acquisition. Open-end real estate funds attracted DM 1.4 billion and mixed funds DM 1.2 billion. Money market funds yielded DM 0.5 billion, whereas bond-based funds had to repurchase certificates worth DM 1.2 billion on balance. Private old age pension funds, which were offered for the first time in October, drew DM 0.7 billion. This new type of fund invests mainly in real estate and equities.

Purchases of investment fund certificates

Investment fund certificates were exclusively purchased by residents on balance between October and December. Non-banks bought certificates in domestic and foreign investment funds to the tune of DM 38.4 billion net, including money market fund certificates worth DM 1.4 billion. Domestic credit institutions invested DM 13.2 billion in investment fund certificates, which for the most part consisted of specialised fund certificates. Foreign investors sold domestic fund certificates in the amount of DM 1.4 billion on balance.