# Monetary developments

## Money market management and central bank money requirements

*Steady-as-she-goes interest rate policy*

Since raising the securities repurchase rate from 3.0 % to 3.3 % in October of last year, the Bundesbank has left its interest rates unchanged. The discount rate and the lombard rate continue to be 2.5 % and 4.5 %, respectively. Since mid-October, securities repurchase agreements have been uniformly offered as fixed-rate tenders with an interest rate of 3.3 %. The terms were in all cases announced in advance following the Central Bank Council meetings. The steady-as-she-goes interest rate policy was facilitated by the monetary setting, which had again brightened up appreciably following the clouding in the summer months.

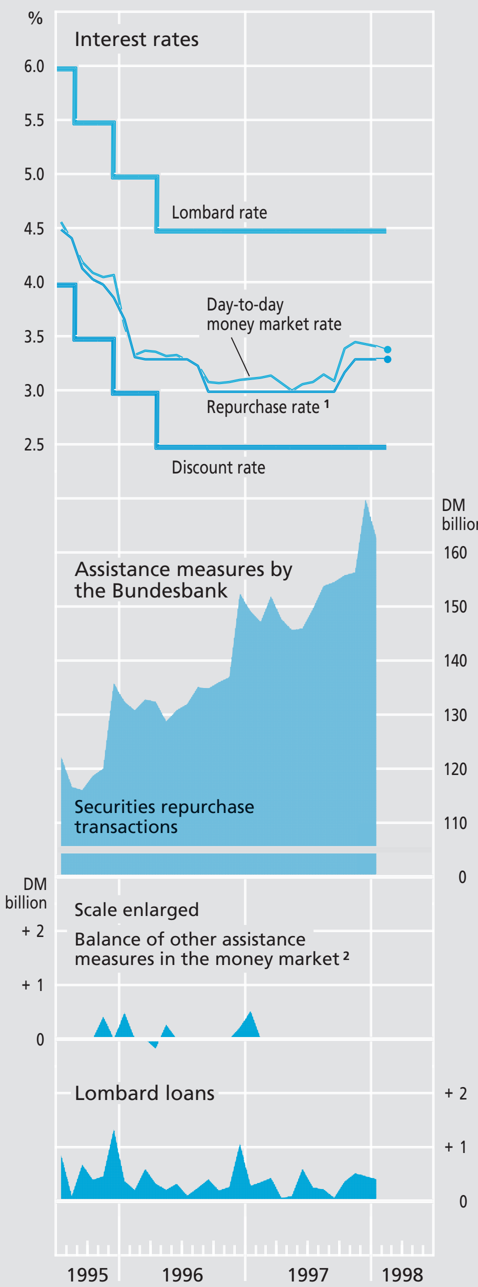
*Money market rates*

The time deposit rates in the money market have fallen slightly overall during the past few months. It was in the longer-term segment of the money market, in particular, that the quotations fell fairly sharply – not least under the impact of the very favourable capital market. One-year funds were barely higher of late than prior to the raising of the price of tenders by the Bundesbank in October of last year. The rate for one-month funds increased at the end of November owing to "end-of-year premiums", but fell back to its level of late autumn at the turn of the year. Overall, the yield curve in the money market has flattened.

*International interest rate range*

Over the turn of the year, interest rates in Europe's "stability core" tended to converge more strongly, ranging over the entire spread of maturities. In countries still having a com-

Operating variables
in the money market




1 Average monthly interest rate for securities repurchase transactions with two-week maturities, uniform allotment rate (fixed-rate tenders) or marginal allotment rate (variable-rate tenders). — 2 Quick tenders, foreign exchange swap and repurchase transactions and short-term Treasury bill sales. — • = Latest position: February 11, 1998.

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paratively high interest rate level in the money market sector, the downward trend continued during the winter months, but the gap between them and the group of core countries remained largely unchanged in the medium maturity range.

*Sharp fluctuations in the banks' liquidity requirements*

The Bundesbank's ongoing money market management had to take account of major fluctuations in the credit institutions' liquidity requirements during the months of December and January. The trend in currency in circulation, in particular, was rather unsteady – as is typical of the turn of the year. In early December and at Christmas, currency in circulation rose sharply, followed by a rapid decline up to the end of January. Moreover, on individual days, major changes in the external position and short-term fluctuations of the Bundesbank's cash items in the process of settlement led to pronounced fluctuations in the bank's central bank balances. In addition, the banks made a fairly sharp reduction in their use of rediscount quotas at the end of the year and increased it again only gradually in January. Finally, in its provision of liquidity, the Bundesbank needed to take account of the seasonally-induced sharp rise in the minimum reserve requirement during the period under review.

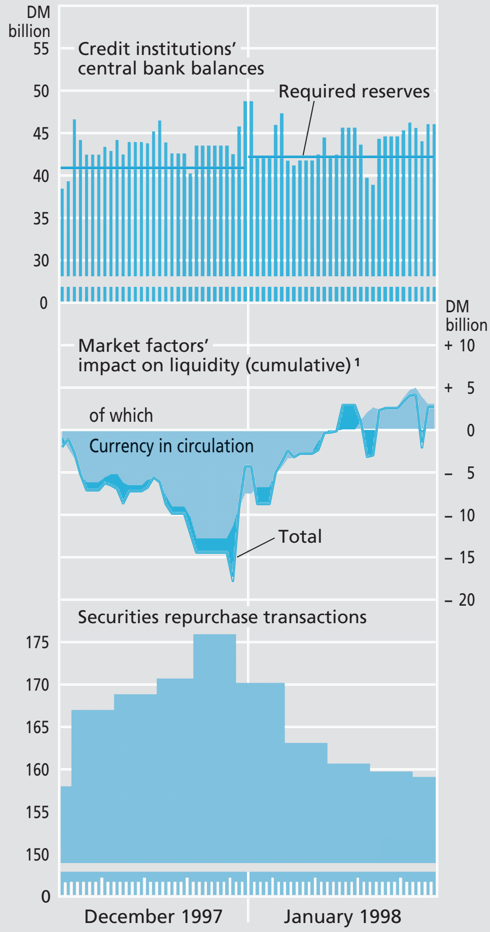
*Money market management through repurchase agreements*

Given the described trend in liquidity-determining factors, ongoing reserve maintenance in December and January was somewhat less steady than usual. Even so, owing to the buffer function of the minimum reserves, it was possible to keep fluctuations in the day-to-day money market rate mostly within narrow limits, which meant that no fine-tuning measures were necessary apart from the usual weekly conclusion of securities repurchase agreements at two weeks' maturity. In early December, the day-to-day money market became somewhat tighter in view of the relatively scarce supply of liquidity caused by sizeable withdrawals of cash. With the appreciable increase in the volume of repurchase agreements starting from the first regular fixed-rate tender of the month, however, the credit institutions' reserve maintenance improved steadily, which meant that interest rate movements quickly returned to normal. Before the Christmas holidays, the day-to-day money market rate temporarily dropped below the repo rate, since the credit institutions were tending to gauge their reserve balances conservatively in view of the healthy reserve provisions and the large number of upcoming bank holidays. At the end of the year, as usual, they took up a considerable amount of lombard loans as part of their concluding minimum reserve operations; the day-to-day money market rate rose to the lombard level. In the second half of January, unexpected major float movements and short-term, extensive changes in the Bundesbank's external position, which could not be simultaneously offset by a matching volume of repo transactions, led to temporary fluctuations in the banks' central bank balances and to moderate interest-rate changes.

*Banks' assistance measures*

Much as in previous years, the credit institutions' rediscount borrowing from the Bundesbank was perceptibly reduced during December. After the turn of the year, however, the use of rediscount quotas rose again, returning to the previously normal level of around 96 % by the end of the period under review. Daily recourse to lombard loans was mostly confined to low frictional basic amounts; only at the end of the month did the banks take recourse to lombard borrowing on a larger scale.

Liquidity management at the turn of 1997-8




1 Currency in circulation, the Bundesbank's external position, cash items in the process of settlement and other factors; provision (+) or absorption (–) of central bank balances.

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The table on page 18 shows the trend in the principal factors determining liquidity in December and January. As is typical of the turn

## Factors determining bank liquidity *

DM billion;
calculated on the basis of daily averages of the months

| Item | 1997 Dec. | 1998 Jan. pe | Dec. to Jan. pe |
|---|---|---|---|
| I. Provision (+) or absorption (–) of central bank balances by | | | |
| 1. Change in central bank money (increase: –) | – 7.6 | + 6.1 | – 1.6 |
| Currency in circulation | (– 7.0) | (+ 6.9) | (– 0.0) |
| Minimum reserves on domestic liabilities | (– 0.7) | (– 0.9) | (– 1.5) |
| Memo item Change in seasonally adjusted central bank money | (– 1.9) | (– 0.1) | (– 2.0) |
| 2. Change in the Bundesbank's external position 1 | + 0.1 | – 0.0 | + 0.1 |
| 3. Other factors | – 5.4 | + 1.3 | – 4.0 |
| Total | – 12.9 | + 7.4 | – 5.5 |
| II. Lasting provision (+) or absorption (–) of funds | – 0.6 | – 0.2 | – 0.7 |
| 1. Change in refinancing facilities | (+ 0.1) | (– 0.1) | (+ 0.0) |
| 2. Recourse to unused refinancing facilities (reduction: +) | (– 0.7) | (– 0.1) | (– 0.8) |
| III. Change in the short-term liquidity gap (I plus II; increase: –) | – 13.4 | + 7.2 | – 6.2 |
| IV. Meeting of remaining deficit (+) or absorption of surplus (–) by | | | |
| 1. Securities repurchase transactions | + 13.5 | – 7.1 | + 6.4 |
| 2. Lombard loans | – 0.1 | – 0.1 | – 0.1 |
| Memo items 2 | | | |
| Unused refinancing facilities | 3.0 | 3.1 | 3.1 |
| Securities repurchase transactions | 169.8 | 162.6 | 162.6 |
| Balance of very short-term assistance measures 3 | – | – | – |
| Lombard loans | 0.5 | 0.4 | 0.4 |

* For longer-term trends see pages 12*/13* in the Statistical Section of this Report. — 1 Excluding foreign exchange swap transactions. — 2 Levels (in the current month or in the last month of the period). — 3 Quick tenders, foreign exchange swap and repurchase transactions and sales of short-term Treasury bills.

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*Seasonally typical rise in the central bank money requirement*

of the year, banks' liquidity was reduced by the rise in the banks' need for central bank money (currency in circulation held by non-banks and minimum reserves on domestic liabilities at current reserve ratios). The increase (at DM 1.6 billion, on balance) remained distinctly below the preceding years' figures, however; after the elimination of seasonal influences, the stock of central bank money declined. This development is attributable solely to currency in circulation. After seasonal adjustment, the demand for currency declined sharply, particularly in December, after already having gone down during the autumn months. The reserves required on domestic liabilities, by contrast, rose moderately over the turn of the year, in line with monetary expansion.

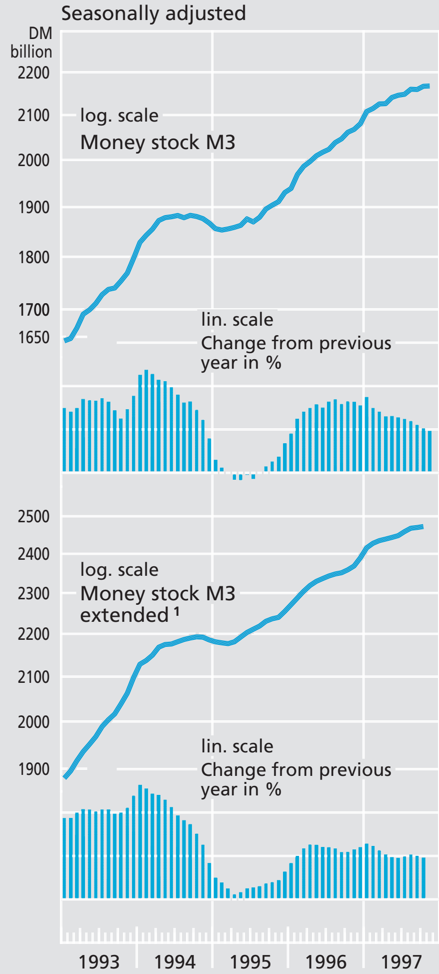
*Current transactions*

Credit institutions' current transactions with the Bundesbank were more sharply contractionary during the period under review. That was solely the result of the "other factors" (– DM 4.0 billion), which, besides ongoing entries to the profit and loss account, mainly reflect the increase in the credit institutions' cash balances typical of the end of the year. There was also an increase in the reserves required on foreign liabilities, changes in which are included here in the condensed form of the liquidity account. The large drop in December (– DM 5.4 billion) also owed something to the fairly sizeable overcompliance with the minimum reserve requirements which is usual in that month and a rise in the negative float in the Bundesbank system. In addition, this tended to be further increased by the fact that, in order to expand the float-free settlement of its payments, the Bundesbank began booking the entire volume of paperless direct debit and cheque collection on a same-day supraregional basis, too, at the end of November; prior to that, float-free settlements in this segment of payment operations had been subject to a minimum amount. The Bundesbank's net external position had scarcely any effect on banks' liquidity during the period under review, viewed as a monthly average.

*Short-term liquidity gap*

On the whole, the banks' outflow of funds in December and January resulting from changes in the stock of central bank money and current transactions totalled DM 5.5 billion. In addition, the credit institutions' rediscount borrowing over the turn of the year was, on average, above the autumn 1997 level. On balance, the banks' short-term liquidity gap rose during the period under review by DM 6.2 billion to DM 163.0 billion; the sharp increase in December contrasted with a decrease in January. The Bundesbank covered the increased shortage by stepping up its regular securities repurchase transactions. Lombard borrowing decreased slightly.

Movement of the money stocks




1 Derived from two end-of-month levels. From August 1994 including money market fund certificates in the hands of domestic non-banks.

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## Monetary developments

*Monetary target achieved*

The moderate growth in the money stock continued in the fourth quarter of 1997. The money stock M3[1] increased between October and December at a seasonally adjusted annual rate of just over 2 ½ %. The slowdown in monetary growth deemed necessary by the Central Bank Council when reviewing last year's monetary target in July 1997 has thus occurred. In December, the money stock was 4.6 % (annual rate) higher than in the fourth quarter of 1996. On an average of the fourth quarter of 1997, it surpassed its level in the fourth quarter of 1996 by 4.8 %. Not only was the 1997 monetary target (which envisaged an expansion of between 3 ½ % and

1 Currency in circulation and the sight deposits, time deposits for less than four years and savings deposits at three months' notice held by domestic non-banks – other than the Federal Government – at domestic credit institutions; viewed as a monthly average.

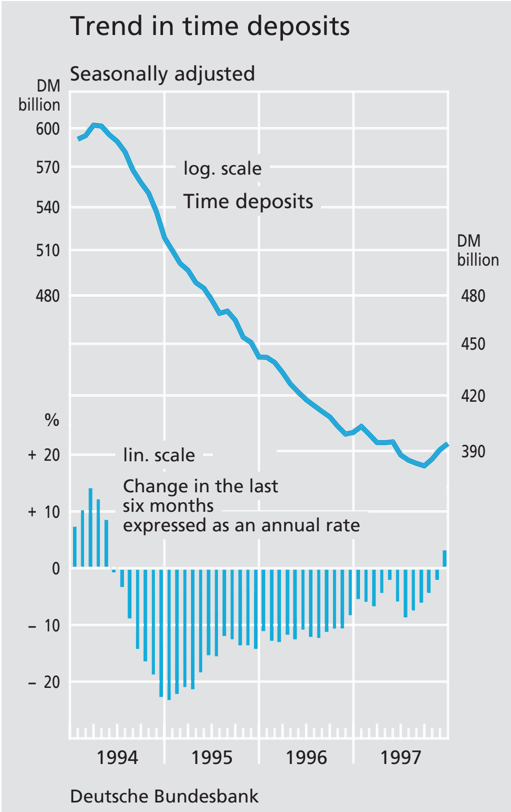
6½ % over this period) achieved; in addition, the multi-quarter growth rate of around 5 % per annum that is in line with production potential, and on which the two-year orientation for 1997 and 1998 is based, was also virtually met.

*Determinants of monetary growth*

It was a slowdown in lending to the public sector, in particular, which had a dampening impact on monetary growth in the period under review. Furthermore, monetary capital formation has become slightly more buoyant. Lending to domestic enterprises and individuals remained moderate. There were large inflows of capital in the foreign payments of domestic non-banks. Domestic non-banks made a further overall reduction in their holdings of money market fund certificates.

*Components of the money stock*

Of the individual (seasonally adjusted) components of the money stock, the largest increase in the fourth quarter of 1997 was in the shorter-term time deposits. This means that the reduction in these deposits, which had been virtually uninterrupted since the spring of 1994, temporarily came to a standstill. Besides the seasonally-induced higher interest rates for fixed-term deposits, the intermittent greater uncertainties in the financial markets during the period under review may have contributed to the reawakening of domestic investors' interest in risk-free time deposits. In the case of savings deposits at three months' notice, the pace of growth continued to decelerate. They expanded by no more than just over 3 % (annual rate) between October and December, which was a five-year low. With volatility still at a high level, sight deposits were reduced, on balance. There was a continuation of the decline in currency in circulation which had begun in mid-1997. Cash holdings were no higher at the end of the year than at the end of 1996, whereas they had risen by 5 % in each of the two preceding years.




*Further resales of money market fund certificates*

Domestic non-banks continued to reduce their holdings of money market fund certificates in the period under review (– DM 3.1 billion). Over the whole year, the volume of net sales was DM 7.7 billion, compared with DM 11.2 billion in 1996. Owing to the "dual nature" of money market fund certificates, which are likely to be held both as "precautionary holdings" and as a store of value, it can be assumed that only some of these sales flowed into M3 components. Apparently, this did not have a significant impact on monetary growth.

*Weak growth in M3 extended*

Domestic non-banks reduced their deposits in the Euro-market somewhat between September and November (December data are not yet available). The money stock M3 extended[2], which includes such deposits as well as money market fund certificates held by domestic non-banks, therefore grew only sluggishly in that period. Over the last twelve months, M3 and M3 extended had nearly parallel growth rates of just under 5 % and 4 ½ %, respectively.

*Slight slowdown in lending to the private sector*

Banks' lending to enterprises and individuals was once again sluggish in the fourth quarter of 1997. On balance, the credit institutions' lending to the private sector rose by DM 82.0 billion. This was much less than a year before (DM 111.7 billion), when the private sector borrowed heavily in anticipation of the changes in the taxation of property acquisition, particularly in eastern Germany, from the beginning of 1997. Seasonally adjusted and extrapolated to yield an annual rate, lending to enterprises and individuals grew by slightly less than 5 % in the fourth quarter, compared with just under 5 ½ % in the third. The key factor behind the slight slowdown in credit expansion was the trend in longer-term lending, which increased by an annual rate of around 6 % from October to December, compared with 7 % between July and September.

2 Money stock M3, domestic non-banks' deposits with the foreign subsidiaries and foreign branches of German banks and the short-term bank bonds and certificates of domestic and foreign money market funds in the hands of domestic non-banks, less the bank deposits and short-term bank bonds of domestic money market funds; calculated as the average of two end-of-month levels.

## The money stock and its counterparts *

DM billion; change during period

| Item | Oct. to Dec. 1996 | Oct. to Dec. 1997 |
|---|---|---|
| I. Bank lending to domestic non-banks, total 1 | + 147.7 | + 88.5 |
| to enterprises and individuals | + 111.7 | + 82.0 |
| of which Short-term lending | + 22.9 | + 11.3 |
| to public authorities | + 36.1 | + 6.5 |
| II. Net external assets of credit institutions and the Bundesbank | + 15.9 | + 23.2 |
| III. Monetary capital formation at credit institutions from domestic sources, total | + 34.4 | + 33.5 |
| of which Time deposits for four years and more | + 15.0 | + 14.0 |
| Savings deposits at more than three months' notice | + 1.0 | + 3.0 |
| Bank savings bonds | + 4.7 | + 5.1 |
| Bank bonds outstanding 2 | + 8.5 | + 1.6 |
| IV. Deposits of the Federal Government in the banking system 3 | + 6.2 | – 0.0 |
| V. Other factors | – 20.0 | – 29.3 |
| VI. Money stock M3 (Balance: I plus II less III less IV less V) | + 143.0 | + 107.6 |
| Currency in circulation | + 6.6 | + 3.5 |
| Sight deposits | + 100.5 | + 62.6 |
| Time deposits for less than four years | – 8.6 | + 11.1 |
| Savings deposits at three months' notice | + 44.5 | + 30.4 |
| Memo item M3 as a monthly average 4 in the 4th qtr of 1997 compared with the 4th qtr of 1996 in % | . | + 4.8 |

* The figures for the latest period are to be regarded as provisional. — 1 Including lending against Treasury bills and against securities. — 2 Excluding banks' holdings. — 3 Sight deposits and time deposits for less than four years. — 4 Change in the money stock M3 as a monthly average derived from five bank-week return days (end-of-month levels included with a weight of 50 %) compared with the average of the fourth quarter of 1996, seasonally adjusted.

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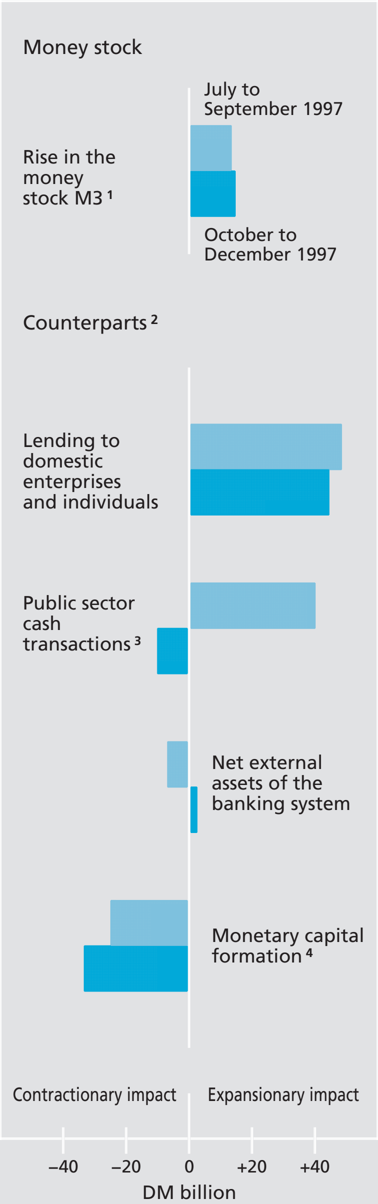
The money stock and its principal counterparts

DM billion, seasonally adjusted, change in the period mentioned




**1** M3 as a monthly average. — **2** The changes in the counterparts as shown reflect their expansionary (+) or contractionary (–) impact on the money stock; end-of-month levels. — **3** Lending by the banking system to public authorities less the deposits of the Federal Government in the banking system. — **4** Monetary capital formation by domestic non-banks at domestic credit institutions.

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Lending in the form of securities acquisition was also expanded to a somewhat lesser extent. By contrast, short-term lending, having been reduced previously, increased at the end of the year.

*Lending, by borrower*

According to the quarterly borrowers statistics, direct lending by banks to the enterprise sector rose in the fourth quarter of 1997, whereas consumer and housing loans grew more slowly than before. The corporate sector increased its indebtedness (excluding housing loans) to domestic credit institutions at a seasonally adjusted annual rate of just under 7 % between October and December 1997, compared with 3 % between July and September. In contrast to the two preceding quarters, manufacturing borrowed from banks again in the fourth quarter. On the whole, these were longer-term loans. In trade, however, it was especially short-term borrowing which increased. Low sales figures possibly caused gaps in the cash flow which were bridged by short-term loans. In the services sector (including the professions), which accounts for half of all corporate lending, the propensity to incur debt declined over the last three months of last year. At an annual rate of 2 %, consumer lending grew perceptibly less between October and December 1997 than in the third quarter (4 %). Housing loans expanded at an annual rate of 5 ½ % during the period under review, compared with just over 7 % between July and September. This relatively weak demand for housing financing reflects the fact that construction activity was subdued in general.

*Lending commitments*

In the fourth quarter, seasonally adjusted new medium and long-term lending commitments by banks continued to increase slightly. However, the rise was confined to October and November, when intermittent interest rate uncertainties evidently caused some borrowers to secure low interest rates over the long term. Lending commitments went down distinctly after interest rate expectations had stabilised at a low level in December. The amount of commitments outstanding was only slightly higher at the end of last year than at the end of September.

*Lending rates*

In some cases, effective rates for long-term loans fell to all-time lows at the turn of the year in line with trends in capital market rates. In January, mortgage loans secured by residential real estate with interest rates locked in for five years cost an average of just over 5 ¾ %, and just under 6 ½ % with interest rates locked in for ten years. Variable-rate mortgages most recently cost 6 ¼ %. The charges for long-term fixed-rate loans to enterprises and self-employed persons was mostly 6 ⅔ % (for amounts of DM 200,000 to less than DM 1 million) and 6 ⅓ % (for amounts of DM 1 million to less than DM 10 million). Short-term bank lending rates remained virtually unchanged recently; on balance, the raising of the securities repurchase rate in October did not have an impact on short-term lending rates. In January, between 10 % (for amounts under DM 200,000) and 7 ¾ % (for amounts of DM 1 million to less than DM 5 million) were charged on average for credit in current account. Bills were discounted at 4 ¾ %.

## Movement of major lending rates

% p.a.

| Type of credit | as in | Average interest rate 1 | Spread 2 |
|---|---|---|---|
| Personal credit | Nov. 1996 | 11.30 | 10.25 – 12.25 |
| lines 3 | Jan. 1998 | 11.27 | 9.75 – 12.25 |
| Current account credit | | | |
| from DM 1 million to | Jan. 1993 | 12.06 | 11.00 – 13.75 |
| less than DM 5 million | Jan. 1998 | 7.70 | 6.00 – 10.50 |
| Bills discounted | Jan. 1993 | 10.36 | 8.95 – 12.25 |
| | Jan. 1998 | 4.73 | 3.00 – 7.00 |
| Mortgage loans secured by residential real estate with interest rates locked in | Jan. 1993 | 8.33 | 7.98 – 9.28 |
| for ten years | Jan. 1998 | 6.40 | 6.17 – 6.97 |
| Long-term fixed-rate loans to enterprises and self-employed persons (excluding housing loans) 3 | | | |
| from DM 200,000 to | Nov. 1996 | 6.85 | 5.70 – 9.23 |
| less than DM 1 million | Jan. 1998 | 6.62 | 5.70 – 8.50 |
| from DM 1 million to | Nov. 1996 | 6.57 | 5.50 – 8.30 |
| less than DM 10 million | Jan. 1998 | 6.35 | 5.55 – 7.73 |

**1** The average rates are calculated as unweighted arithmetic means from the interest rates reported within the spread. — **2** The spread is ascertained by eliminating the reports in the top 5 % and the bottom 5 % of the interest rate range. — **3** First collected for November 1996 for the purposes of the restructured interest rate statistics.

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*Low public sector demand for credit*

Public sector cash transactions had a dampening impact on monetary growth in the fourth quarter of 1997. Banks' lending to the public sector rose by no more than DM 6.5 billion, which was much less sharply than a year before (DM 36.1 billion). After adjustment for seasonal variations, it declined after having risen in the third quarter by an annual rate of just over 13 %. One factor which played a part in sluggish bank lending to the public sector was that the Federal Government had only a low borrowing requirement in the fourth quarter, and even showed a cash surplus in December. In addition, the Federal Government reduced money market loans and simultaneously placed a major volume of bonds outside the domestic banking system. Finally, the credit institutions sharply reduced their securities lending transactions

Lending by the
credit institutions

Seasonally adjusted, annual rate 1


1 Change in the last six months expressed as an annual rate.

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in public paper at the end of the year; in the fourth quarter as a whole, their holdings of government paper went down by DM 17.8 billion.

*Inflows of funds in foreign payments*

Domestic non-banks' foreign payments did generate considerable inflows of funds in the fourth quarter of 1997. The net external assets of the banking system, in which such transactions are recorded, increased during that period by DM 23.2 billion, compared with DM 0.3 billion in the third quarter and DM 15.9 billion a year ago. If the pronounced seasonal influences are partly eliminated, however, the foreign payments of non-banks had relatively little impact on domestic monetary trends by themselves. However, their movement was uneven from month to month. Large outflows of funds in October contrasted with inflows in November and December. The uneven propensity of foreign investors to invest in the German securities markets may have contributed to these fluctuations. Following sales in October, they purchased a rather large volume of German securities in the two succeeding months. Furthermore, domestic enterprises evidently withdrew balances from foreign banks on a major scale in December, in connection with the usual balance sheet operations at the end of the year.

*Slight revival of monetary capital formation*

Having been very low in the late summer, the monetary capital formation of domestic non-banks with credit institutions picked up again during the period under review. The crises in East Asia and the concomitant expectations concerning future cyclical, price and interest rate trends may have contributed to a revival of the propensity to invest over the longer term. They led many investors to restructure their portfolios in favour of lower-risk domestic forms of investment. On the whole, between October and December longer-term funds to the tune of DM 33.5 billion accrued to credit institutions from domestic sources, i.e. only slightly less than in the same period of the previous year (DM 34.4 billion). After eliminating seasonal influences, monetary capital grew at an annual rate of just over 4½% in the fourth quarter of 1997, compared with 3½% between July and September. Most of the longer-term total inflow of funds consisted of long-term time deposits (DM 14.0 billion), which were augmented more strongly than in the previous months. The credit institutions received DM 5.1 billion from sales of bank savings bonds.

As a consequence of the interest credited[3] at the end of the year, savings deposits with a maturity of more than three months, for which there had scarcely been any demand for some time, increased in December 1997 for the first time that year; over the entire period under review, they rose by DM 3.0 billion. Bank bonds were sold to domestic non-banks to the tune of DM 1.6 billion. The banks' capital and reserves increased by DM 9.9 billion.

3 Interest credited to all savings deposits (a breakdown by maturity is not possible) totalled DM 29.5 billion in December 1997.