Recent developments in German banks' lending to domestic enterprises and households

The amount of German banks' unsecuritised lending to the domestic non-bank sector has shown barely any increase over the past few years. This is especially true of loans to enterprises and self-employed persons, although employees' consumer credit and housing loans have increased only slightly as well. Ultimately, this development is a reflection of economic growth over the past few years, which has not only been weak but also heavily reliant on exports, and of the structural adjustment in the construction sector, a process that was set in train as long ago as the mid-1990s.

However, there are identifiable signs that lending has recently started to pick up again slightly in Germany. This is probably due mainly to the demand for loans having increased somewhat and, to a lesser extent, to banks having marginally eased their credit standards. The present report provides a detailed account of these recent trends. However, it also shows that the rise in the demand for bank loans is still quite limited. One key reason for this is that German enterprises are in a favourable position with regard to their liquidity and profitability, which allows them to use their own resources for much of their funding.

German banks' lending to the domestic private sector

Weakening of lending since 1990

In Germany, bank loans are of major importance for the economy as a whole since they have traditionally been by far the most significant source of external financing for domestic enterprises and households.[1] Bank loans account for around 40% of German non-financial corporations' debt; households are, in any case, indebted almost exclusively to domestic banks. Since 1991-92, however, growth in outstanding bank loans declined from an average of 10% to around 7% in the second half of the 1990s. Along with the progressive withdrawal of tax incentives related to the reconstruction of eastern Germany and the end of the construction boom in this area, there was a fall not only in the demand for mortgage loans but also in the financing requirement for business investments, which had initially been at a high level. The technology boom up to the end of the 1990s did sharply inflate the borrowing requirement of some sectors, however. The resulting deterioration in the balance sheet ratios, combined with the economic slowdown, forced enterprises to undertake radical consolidation measures in the years that followed, which also led to a marked decline in general investment activities. Together with the persistent problems of structural adjustment in the construction sector and households' poorer employment and income prospects, this noticeably depressed the demand for bank loans further.

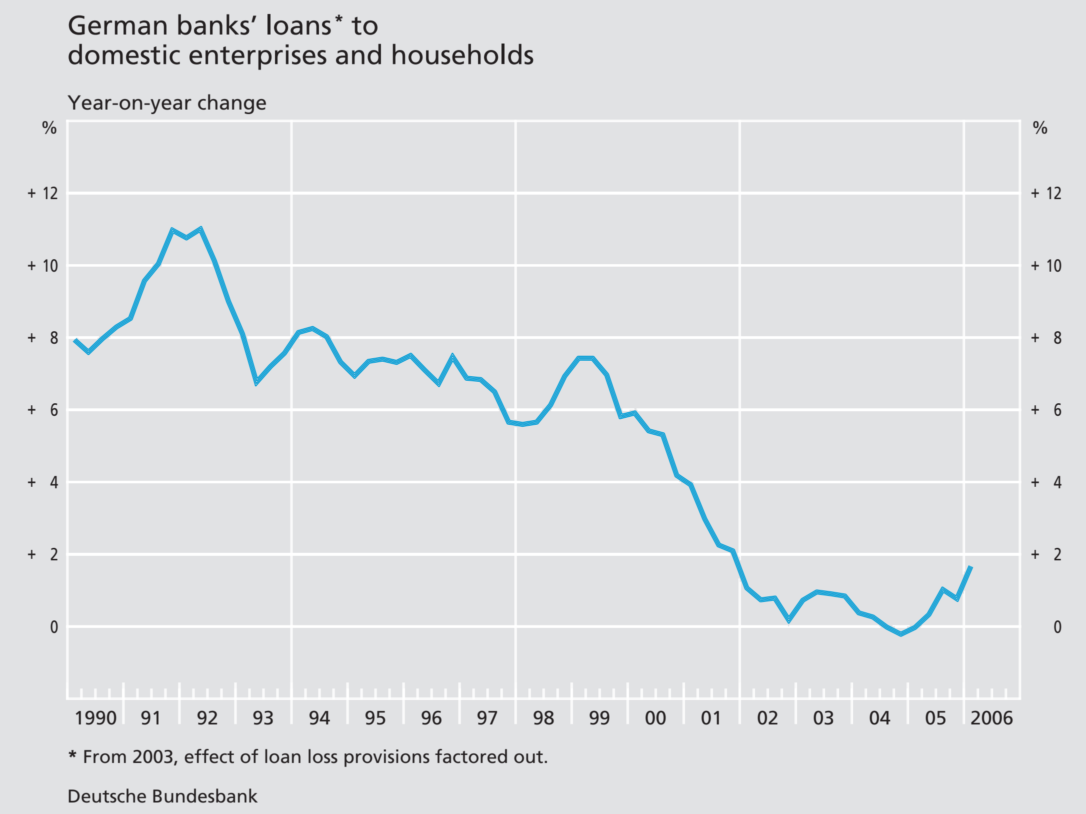
Marked slowdown in demand for housing loans since the mid-1990s

The above-mentioned trends in the economy as a whole have been reflected to varying degrees in the credit demand of the individual sectors. While the economic upswing at the end of the 1980s and, in particular, the subsequent "reunification boom" led to a rapid rise in the demand for business loans and consumer credit, it was only after some time that housing loans picked up momentum, achieving their highest growth rates in the middle of 1994. Various tax incentives were introduced in the late 1980s and early 1990s to stimulate the construction of rented housing as well as the acquisition or modernisation of owner-occupied residential property. After these incentives were cut back, there was a marked slowdown in the growth of housing loans in the second half of the 1990s.[2] Like the general private sector demand for borrowed funds, housing loans did grow somewhat more rapidly for a time in 1999, but then the trend slowdown set in once again. Bank loans for commercial residential construction, in particular, lost a great deal of momentum during this period.

Weak development of commercial loans on a broad basis

All in all, in fact, there has been a marked decline – in some cases in absolute terms – in loans to enterprises and self-employed persons in Germany during the past four years. All economic sectors have played a part in

1 See, for example, Deutsche Bundesbank, Investment and financing in 2005, Monthly Report, June 2006, pp 15-33.
2 The progressive withdrawal of tax incentives was often also associated with clear anticipatory effects on borrowing at the end of each year. Such an impact was apparent, for example, in the case of the changeover from a primarily income-tax-related promotion of residential property to a grant to homebuyers (also dependent on the number of children), which came into effect at the beginning of 1996. The limiting of the grant to homebuyers in the case of extensions scheduled for 1997 likewise resulted in a temporary marked increase in housing loans in the final quarter of 1996.

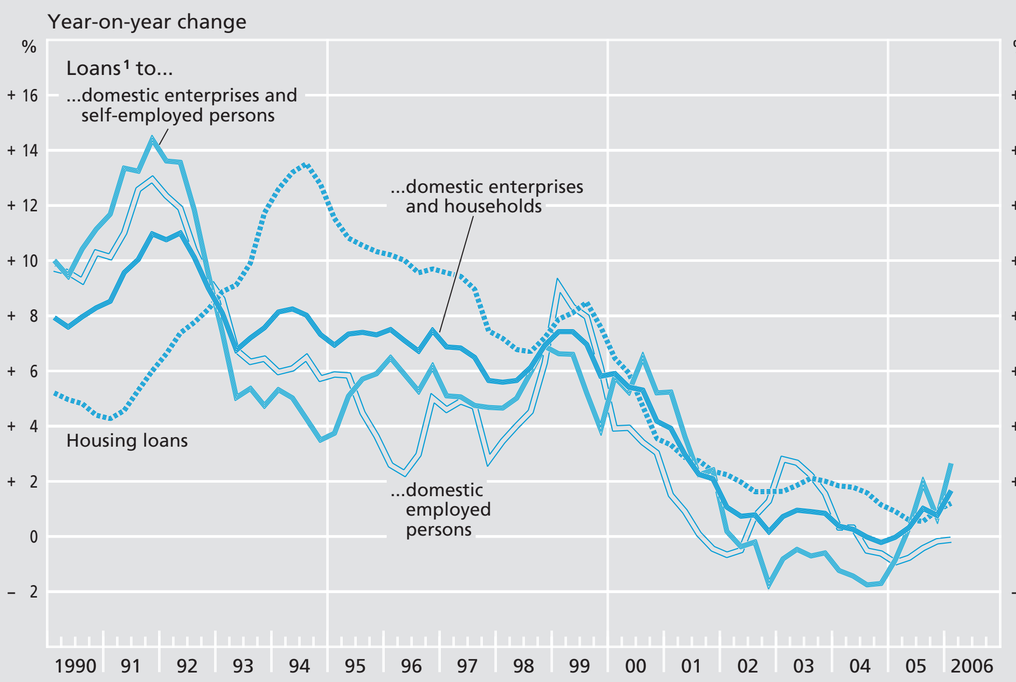


this development. Besides the construction sector, which, as mentioned earlier, was in a process of contraction from the mid-1990s up to last year and which has been steadily reducing its outstanding loans from domestic banks since 2001, manufacturing, too, has been running down its indebtedness to domestic credit institutions on a considerable scale in the past five years. Moreover, the wholesale and retail trade and the (statistically quite broadly defined) services sector (including the self-employed professions) have, on balance, been paying back loans from German banks over recent years. This has also been due to the lower financing requirements of housing enterprises and other real estate firms, which had benefited from the special boom in housing construction in the mid-1990s.

Only minor loan growth for almost all categories of banks

The weak growth of loans over the past four years is also apparent from the banks' perspective and has left its mark in the balance sheets of nearly all the major categories of banks. Commercial banks' loans to the private sector in Germany in March 2006 were only 5% up on their end-2001 level, for example. By contrast, from 1998 to 2001 they rose by just under 17½%. Nevertheless, it has been mainly growth in the big banks' lending that has been weak during the past four years; at the end of the period under review, it was almost 10½% down on its level at the end of 2001. By contrast, the other commercial banks (regional banks and branches of foreign banks) stepped up their lending to domestic enterprises and households by 24%, therefore more or less as sharply as in the period from 1998 to 2001.

Loans by borrower



1 From 2003, effect of loan loss provisions factored out.

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In the case of the Landesbanks and savings banks, the increase during the past four years was likewise slight at 3½% and almost 4½% respectively, while the credit cooperatives expanded their lending to domestic enterprises and households by as much as 7%. This means that, compared with the period from 1998 to 2001, these three categories of banks also experienced a marked slowdown in the pace of growth of their loans to domestic private debtors. This is especially true of the Landesbanks, which had increased their lending by almost one-half between 1998 and 2001. The slowdown was less marked in the case of the credit cooperatives, however. Between 1998 and 2001, they had expanded their loans to domestic enterprises and households at only a comparatively moderate annual average rate of 3%, however.

Mainly short-term loans have been paid back in the past few years and, given the lower capital market rates, have been replaced in some cases by medium and long-term loans. In this way, borrowers have improved the quality of their financing structure and secured lower interest rates for longer periods. This development has been especially pronounced in the savings banks and credit cooperatives sector.

German loan growth also weak in comparison with other euro-area countries

In the past few years, loan growth in Germany has been very slight not only from a historical perspective but also when compared with other euro-area countries. In the past three years, loans to the private sector in the euro area have increased at an average year-on-year rate of just over 8%. If the euro area is considered excluding Germany, the rate

Lending to enterprises and households in Germany by category of banks

Annual percentage change, end-of-period levels [1]

	Commercial banks											
	Big banks		Other commercial banks		Landesbanks		Savings banks		Credit cooperatives		Other banks	
Year	Total	*of which* longer-term	Total	*of which* longer-term	Total	*of which* longer-term	Total	*of which* longer-term	Total	*of which* longer-term	Total	*of which* longer-term
1990	15.7	10.1	11.9	8.8	5.6	0.7	6.9	6.1	8.7	8.4	4.3	3.5
1992	3.6	8.5	9.5	13.3	8.4	10.3	10.1	10.5	10.1	10.6	10.6	11.0
1994	2.6	5.4	9.3	11.7	9.6	9.1	9.9	11.5	10.3	12.0	2.3	3.1
1996	8.1	9.4	8.5	8.8	8.8	7.3	6.5	7.4	6.5	7.8	8.2	8.2
1998	10.1	8.6	5.5	5.0	6.8	6.3	6.0	6.3	4.9	5.7	10.0	8.8
2000	2.2	2.6	6.5	5.5	6.4	4.7	4.1	3.6	3.0	3.2	4.5	5.0
2001	– 2.0	– 2.4	4.1	4.4	4.6	3.8	3.3	3.5	1.3	2.0	2.0	2.3
2002	– 6.2	– 3.2	3.0	6.7	1.5	1.8	1.8	2.3	1.1	2.0	– 0.1	0.7
2003	– 4.8	– 5.6	4.0	7.3	0.2	0.3	1.7	2.7	1.4	2.8	2.1	1.1
2004	– 4.3	– 3.1	5.6	8.5	1.2	2.4	– 0.1	1.0	1.5	2.8	– 3.1	– 2.3
2005 Q1	– 2.0	– 2.4	6.2	7.9	– 0.8	1.3	0.0	0.7	1.5	2.5	– 2.8	– 2.7
Q2	0.5	– 1.9	7.2	8.0	0.0	– 0.6	0.0	0.9	1.4	2.6	– 3.4	– 3.2
Q3	3.1	– 2.0	8.0	7.8	0.4	0.3	0.1	1.1	1.7	2.7	– 2.8	– 3.0
Q4	1.0	– 0.9	7.8	8.8	– 1.9	0.7	0.7	1.4	2.2	3.2	– 2.3	– 2.4
2006 Q1	4.4	– 1.2	7.6	9.6	0.6	1.3	0.9	1.7	2.6	3.7	– 2.2	– 2.2

1 Loans; from 2003, excluding the effect of loan loss provisions.

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was, in fact, 11½%. There was an increase, in particular, in housing loans (15½%) – a development to which the sharp increase in property prices in some euro-area countries is also likely to have contributed. In many other euro-area countries, however, loans to enterprises also expanded at a rapid pace. If Germany is excluded, they have grown at an average rate of 9½% in the past three years.

Determinants of loan development in Germany

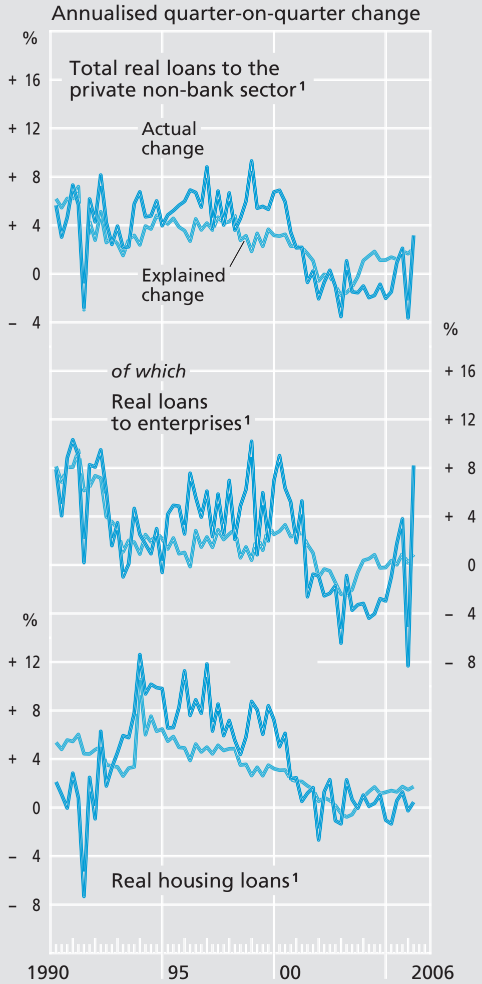
The described situation as it has developed over the past few years has been perceived as a major concern by various commentators and, given German banks' unfavourable profitability, as a reflection of a particularly restrictive loan supply stance on the part of the banks. However, a more in-depth analysis including not only an econometric assessment but also the incorporation of other relevant indicators reveals that loan developments as a whole in Germany since 1970 and, in particular, the weakening of loan expansion in 2001 may be explained largely in demand-side terms.

Estimation approach for determining loan development

In the empirical estimation approach, which is based on annualised rates of change, the explanatory variables used are the growth rate of real gross domestic product (GDP) as a general activity variable, the investment ratio as a rough measure of enterprises' need for external finance, and the spread between corporate and government bonds to capture

Loan growth explained by the estimation equation and actual loan growth

Annualised quarter-on-quarter change



1 Adjusted for changes in purchasing power.

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the external finance premium as a risk premium.

Model provides good explanation of loan development

An obvious method of assessing current loan development is a comparison with the values forecast on the basis of the estimation equation. The chart above compares the annualised actual quarter-on-quarter rate of change in real loans with the projection resulting from the model.[3] The estimated empirical relationship appears to exist over a relatively long period. The times of upswings and downswings in lending are captured well by the model. This applies, for example, to the oil price shocks in the 1970s and the period of relatively high growth rates at the end of the 1980s. The downswing in loans starting in early 2001 is also indicated correctly by the model, however.

Loan growth in the past few years not exceptionally low

Compared with the values explained from within the model, loan growth over the past few years does appear to have been weak but not exceptionally low. Thus, the actual rate of loan growth in most quarters since 2001 has been below the projected growth rate of real loans, ie below the development explained by the aforementioned fundamentals. Nevertheless, the scale of this deviation is comparable to that of earlier deviations, such as in the period of sharply declining loan growth in 1974-75.

Low investment ratio as major cause of subdued loan development

An analysis of the individual determinants of the low level of growth in the benchmark projection shows that the all-time low investment ratio, in which both enterprises' fixed investment and households' residential investment are combined, was a major cause of the weak loan development in the past few years. In addition, the external finance premium was also rather high in 2003-04. However, even after the spread had shown a marked decline again, loan development re-

3 This forecast is a dynamic in-sample projection. This takes into consideration only the actual development of the explanatory exogenous macrovariables (GDP, investment ratio, spread) but not the lagged real growth in loans. The relevant projected values are used for the latter.

Estimation of loan equations in Germany

The following variables are taken into account as determinants of real private loan development *(K)*: real gross domestic product *(BIP)* as a general activity variable, the investment ratio *(I/BIP)* as an approximation of the need for external financing, and the interest rate spread between corporate and government bonds *(S)* as a measure of the development of the risk premium. Using lagged values for the loan variables allows for any potential adjustment delays.

$$\Delta \ln K_t = a_0 + a_1 \Delta \ln BIP_t + a_2 (I/BIP)_t + a_3 S_t + a_4 (L) \Delta \ln K_{t-1} + \varepsilon_t \qquad (1)$$

The estimation draws on seasonally adjusted quarterly data. The dependent variable is first-differenced, providing a closer approximation of current loan development. Hence, the rate of loan growth, $\Delta \ln K_t$, was calculated as the quarterly difference at the end of the quarter in the logarithmic real loan stocks and then annualised. A GDP deflator is used to deflate the variable. Real GDP growth compared with the previous quarter, $\Delta \ln BIP_t$, ie the difference between the logarithmic GDP in two consecutive quarters, was also annualised. The investment ratio, $(I/BIP)_t$, is defined as the ratio of nominal investment to nominal GDP.[1] The interest rate spread, S_t, denotes the difference between the yields for corporate and government bonds respectively. This can be used to gauge the level of the external finance premium which, in turn, reflects the severity of the problems associated with an information asymmetry between the borrower and the lending bank. The underlying assumption here is that a higher external finance premium is accompanied by an increase in the bank's perceived loan risk, thus implying higher lending costs for the borrower and restraining banks' lending. It appears that, by taking investments into account, the impact of the actual interest rate level on loan development has, indirectly, already been factored in. At all events, estimations of the model which include real capital market interest rates as an additional explanatory variable have not indicated that the interest rate level has a significant additional impact.

In an OLS estimation of aggregated loans to the private sector for the period 1970 Q1 to 2006 Q1, all explanatory variables have the expected sign and, with the exception of the annualised rate of change in real lending (which is lagged by a quarter), all are statistically significant. According to these figures, real credit growth in Germany is positively dependent on real GDP growth and the investment ratio and negatively dependent on the spread.

In the sectoral estimation for corporate loans, GDP growth, the ratio of investment in machinery and equipment, $(IA/BIP)_t$, and the spread are significant. The development in loans for house purchase is determined by the ratio of investment in construction, $(IB/BIP)_t$, but also by GDP growth and the spread.

The explanatory power of all the estimation equations is comparatively high. In addition, the designated test statistics have not detected any misspecification in the model. Even so, there is a certain degree of uncertainty in the empirical results, which is reflected in fairly wide confidence intervals.

Determinants of real growth in loans to the private sector in Germany, 1970 Q1 to 2006 Q1[2]

Variable	Total loans	Corporate loans	Housing loans
$\Delta \ln BIP_t$	0.20 (0.06)*	0.27 (0.08)*	0.14 (0.06)*
I_t/BIP_t	0.05 (0.03)*		
IA_t/BIP_t		0.32 (0.11)*	
IB_t/BIP_t			0.05 (0.03)*
S_t	-0.37 (0.18)*	-0.44 (0.22)*	-0.35 (0.17)*
$\Delta \ln K_{t-1}$	0.11 (0.07)	0.04 (0.08)	0.24 (0.07)*
$\Delta \ln K_{t-2}$	0.29 (0.07)*	0.22 (0.08)*	0.39 (0.07)*
R^2	0.46	0.36	0.52
LM(1)	0.67	0.39	0.36
DW	1.91	2.04	2.08
RESET [3]	0.32	0.34	0.21

1 As capital goods prices and the GDP deflator often indicate very different developments, using correspondingly deflated variables might mean that inaccurate conclusions are drawn regarding the demand for real loans. — **2** * denotes significance at the 5% level. LM(1) test for serial correlation (p-value). Dummies to remove outliers: 1971 Q1 and 1991 Q2 for total loans, 1970 Q1 and 1993 Q4 for housing loans. An outlier was removed from the spread variable in 2003 Q1. — **3** RESET denotes Ramsey's Regression Specification Error Test (p-value).

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mained weak owing to the low investment ratio.

Analysis of loan development disaggregated by sector...

This empirical approach can be applied not only to overall lending but also largely to the loans to the most important private sector borrowers, ie loans to enterprises, which account for 40% of all loans to the domestic private non-bank sector, and to housing loans, which account for 50% of all loans. To do this, however, the aggregate investment ratio has to be replaced by a variable that is more appropriate to the loan aggregate in question, ie the ratio of investment in machinery and equipment in the case of loans to enterprises and the ratio of investment in premises in the case of housing loans.

... likewise illustrates the particular role of the relevant investment ratio

The weak growth in loans over the past few years can be even better explained by the results of such sectorally disaggregated estimations than in the context of the aggregated model which combines the entire corporate sector (including residential construction) and households. This applies particularly to housing loans, revealing the key relevance of historically low construction investment to the demand for construction finance. Much the same also applies to loans to enterprises and the multi-year weakness of investment. Overall, the sectoral analysis of loans to enterprises and housing loans, which cover as much as 90% of all loans, suggests that the growth in real loans predicted by the aggregated model for the first quarter of 2006 (roughly 2¼%) is, if anything, to be rated as rather high.

Possible causes of sluggish loan business in the past few years

Weak loan demand or loan supply restrictions?

Unfortunately, the estimated loan equations do not allow a precise separation of loan supply and loan demand factors. The reason for this is that the explanatory variables used cannot be unambiguously classified either as determinants solely of demand for borrowed funds or solely of the banks' supply of loans. Viewed less strictly, however, the GDP growth rate and the investment ratio are more likely to capture the loan demand side, while the spread tends to be assignable to the loan supply side. The fact that the estimations trace the sluggish loan business especially to the low investment ratio(s) therefore tends to point more towards weak loan demand and less towards restrictions on the supply of loans.

Bank Lending Survey points to German non-financial corporations' reduced need for external financing

This judgement is largely supported by additional reference to a number of other indicators. For example, the majority of banks covered by the Bank Lending Survey for 2003 and 2004 reported a declining demand for bank loans, especially loans to enterprises. In this context, enterprises' comparatively minor need for external finance was regarded mainly as a consequence of their weak investment activity. Furthermore, favourable profitability in the past few years has contributed to non-financial corporations being able to cover the vast majority of their financing needs from internal resources. This was also reflected, for instance, in their moderate recourse to the capital market. In the past four years, they have raised around €31 billion in the capital market on an annual average. In the period from 1998 to 2001, the figure was more than three times as high per year.

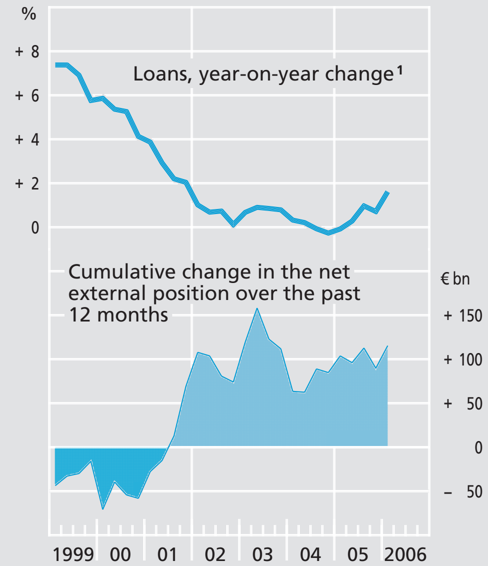
Inflows of resources from abroad curb need for domestic borrowing

Furthermore, sizeable funds from abroad have flowed into enterprises and households in the past few years. The net external asset position of the German banking system, in which the transactions of the domestic private sector with non-residents are recorded statistically, has shown mostly large inflows of funds in the past few years. At its peak, the cumulative increase in net external assets over 12 months amounted to €168 billion.[4] Overall, the inflows of funds, taken by themselves, are likely to have not only promoted the liquidity holding of the private sector but also dampened borrowing domestically.

Loan securitisations have only minor impact on loan levels ...

Finally, it should be pointed out that the weak loan development of the past few years has not been due to a sharp increase in securitisations or sales of loans. Both generally lead to a decline in the statistically recorded level of domestic banks' loans to domestic enterprises and households. However, the scale of such transactions has been too small to have made a crucial impact on credit developments in Germany over the past few years.[5] For example, bank loans managed on the basis of issued asset-backed securities (ABS) – and only such loans continue to be recorded in the statistics after they have been securitised – account for no more than roughly ½ percentage point of all German banks' loans to domestic enterprises and households. This is especially the case as bank loans managed through ABS securitisations rose sharply in 1998-99, showed subdued growth in the following years and have been declining almost

Loans to enterprises and households and net external position of German banks



1 From 2003, effect of loan loss provisions factored out.

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continuously since the second quarter of 2003. In any case, in the vast majority of cases it has been automotive banks that have been making use of ABS as a securitisation option in recent years. Overall, therefore, developments in the past few years cannot be used to determine a clear trend towards loan securitisation. The creation of Germany's own securitisation infrastructure by the 13 banks participating in the True Sale Initiative in 2004 means that the underlying conditions for

4 In addition to the "net external asset position" item shown in the consolidated balance sheet of the German banking system, this also covers German banks' net asset position vis-à-vis institutions in other euro-area countries, which forms part of "Other factors" in the consolidated balance sheet of the German banking system. The outcome of this is that the entire net external asset position of the German banking system is analysed.
5 Moreover, only true sale securitisations lower the statistically recorded credit level as loans remain in the originating bank's balance sheet if credit risks are synthetically securitised.

such transactions in Germany are now distinctly more favourable, however.

... and loan sales

German banks' sales of loans in the past few years have also been too insignificant in terms of their quantity. If at all, sales of entire portfolios of loans were an important factor. Such portfolios include not only sound loans but also, above all, non-performing loans. However, as part of the nominal volume of these non-performing loans had already been written off as specific loss provisions – for which the underlying figures on German banks' lending used here have been adjusted – this effect is likely to have been relatively limited. It may be assumed that the statistically relevant overall level of such sales of problem loans in the past two and a half years has been well below €10 billion, thus covering less than ½% of the loans to domestic enterprises and households.

Bank Lending Survey points to temporary worsening of supply, however

Nevertheless, indications from the Bank Lending Survey that German banks' lending policy has become somewhat stricter show that loan supply effects cannot be entirely ruled out. From the time the survey was introduced in January 2003, the responding institutions on balance reported a continuing supply-side tightening of their credit standards for corporate loans, which did not end until mid-2004. This trend was apparent across all size categories and maturities. The main reasons cited for this continuous tightening were the ongoing deterioration in the general economic outlook, the changed risk assessment of sector and firm-specific factors, and the decreasing value of the collateral.[6] When the survey started, there was also a continuous tightening of the credit standards for loans to households. Although this largely came to an end in the third quarter of 2003 in the case of consumer credit, it persisted until the second quarter of 2004 in the case of housing loans – in much the same way as with loans to enterprises. For retail customers, too, the reporting banks cited a worsening of the general economic outlook as the main reason for the supply-side tightening. As becomes clear from the surveyed institutions' margin policy, it was mainly more risky exposures that were affected. This may have been the result of banks' more risk-sensitive pricing, since the banks had had to cope with considerable write-downs from their loan portfolios.[7]

Conclusion: sluggish lending probably due mainly to demand side

Despite these indications of loan supply effects, the indictors tend to suggest by and large that the sluggish lending of the past few years has been determined mainly by the demand side. Although the empirical evidence does not rule out German banks exercising a certain cyclical restraint in their lending, there has not been an exceptional restriction of lending to enterprises and households in the past few years.

6 Corporate insolvencies affecting, in particular, young enterprises, rose sharply, especially in 2001-03, although the number of corporate failures fell again afterwards.
7 For an initial empirical study on the determinants of German banks' lending behaviour based on the Bank Lending Survey, see H S Hempell, Credit constraints in the euro area? – Bankers' perceptions, Kredit und Kapital (forthcoming).

Outlook for loan developments in Germany

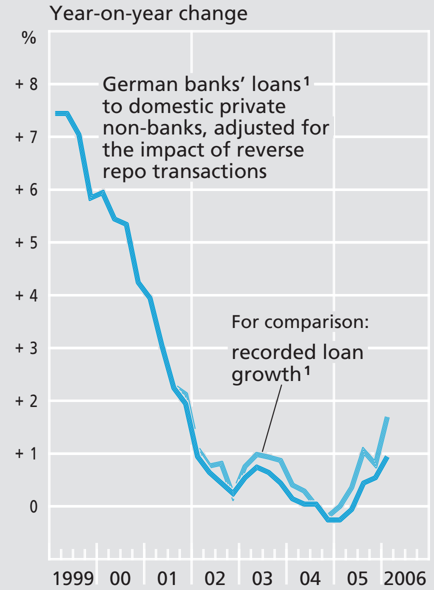
Slight acceleration in lending recently...

The most recent figures on lending in Germany now point to a slight acceleration in the expansion of private credit. At the end of the period under review, the year-on-year rate of unsecuritised lending to the domestic private sector was 1.9%. In the past few quarters, it has been mainly lending to enterprises and self-employed persons that has gathered pace. Housing loans were also picking up at the end of the period under review. The decline in consumer loans to employed persons has now come to a standstill.

... although this is biased upwards by money market operations between banks

When interpreting loan development, however, it should be borne in mind that, currently, the most important factor in the increase in loans to the domestic private sector is lending to non-monetary financial intermediaries (excluding insurance enterprises). This is due to short-term loans in connection with repo transactions (including securities repurchase agreements) between German banks and a large German securities trading house which, as the provider of an electronic trading platform, acts as the central counterparty in repo transactions between participants (usually banks). Since the start of 2005, such (reverse) repo transactions have been more in evidence. This has led not only to an increase in short-term loans to non-monetary financial intermediaries but also to an increase in the number of repo transactions with such customers.[8] Excluding such transactions, which ultimately do not involve any flow of funds to the private non-bank sector, the growth rate of loans to the private sector in Germany is ¾ percentage point lower, ie 1.2% in March 2006 rather than 1.9%. The (reverse) repo transactions are, furthermore, also responsible for the pronounced fluctuations in lending in the second half of 2005 and the first quarter of 2006.[9]

Impact of reverse repo transactions on domestic loan growth



1 From 2003, effect of loan loss provisions factored out.

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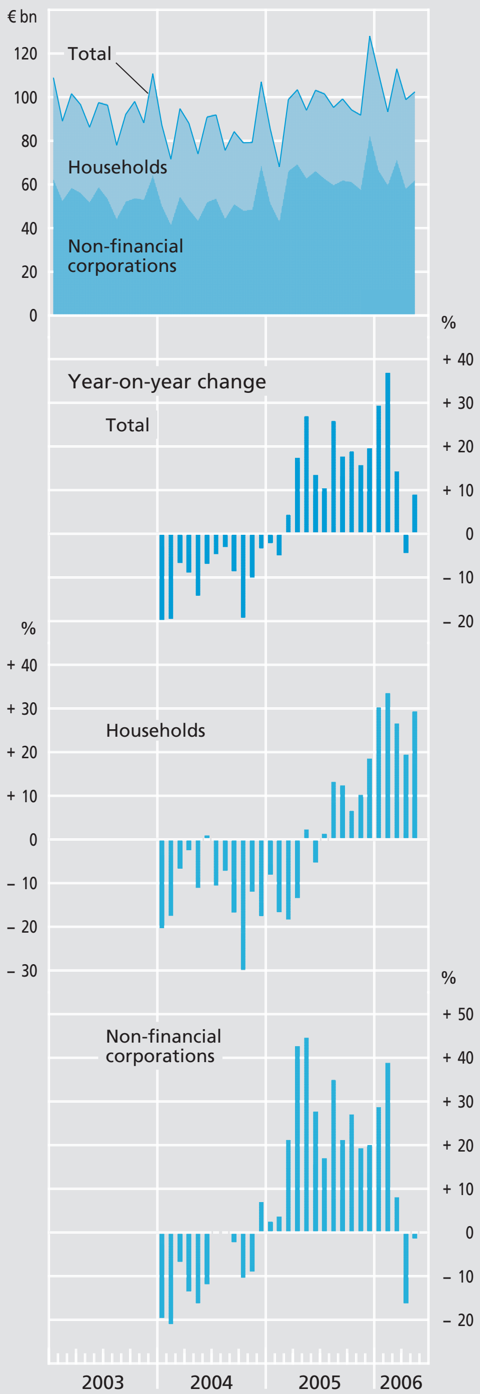
Volumes of new business from the interest rate statistics...

The monthly balance sheet statistics – especially after adjustment for the effects of the

8 As the electronic trading platform is used not only by German banks but also by foreign institutions and the German Finance Agency, the increase in short-term loans to non-monetary financial institutions associated with (reverse) repo transactions and the increase in the short-term repo deposits of such customers are not necessarily equally large.

9 Following a sharp rise in the associated short-term loans to non-monetary financial intermediaries in the third quarter of 2005, they were reduced markedly towards the end of 2005, probably for balance sheet reasons. They then increased again sharply in the first quarter of 2006. This is also shown in the sharp fluctuations of the seasonally adjusted annualised quarter-on-quarter rates in the chart on page 18.

German banks' new lending business* according to MFI interest rate statistics



* With households and non-financial corporations; excluding overdrafts.

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(reverse) repo transactions – point to no more than a slight acceleration in lending in Germany. By contrast, the figures of the MFI interest rate statistics on German banks' new lending business, which do not contain any loans to financial enterprises, show a much sharper increase. For example, total new loans by German banks as shown in the MFI interest rate statistics have been noticeably up on the year since as long ago as March 2005. Such monthly year-on-year comparisons are, by nature, very volatile, however (see the adjacent chart). Looking at the cumulative volumes of new business over 12 months, therefore, shows that of late they were almost 16½% up on the same period in the previous year.

... difficult to interpret as they overstate the actual inflow of funds

However, these figures systematically overstate the actual flow of funds to the private sector (see the box on pages 26-27), especially as short-term loans are by far the most prevalent in new business. It is precisely in this segment that the relationship between new business and changes in stocks is crucially affected by the average interest rate fixation. Even a comparatively minor shortening of this period perceptibly increases the average transaction velocity of the loans and, thus, the reported new business without this implying a matching increase in the stock of loans. Added to this is the fact that banks' new business gives an inflated impression of the underlying net financing volume – especially in periods of longer-term debt consolidation when enterprises and households typically reduce their short-term debt and replace it with long-term loans, as has been the case in the past few years.

Developments in types of loans to enterprises ...

Despite the problems of interpretation, the data on new lending business can provide certain clues to the factors underlying the development of loans, however. They essentially confirm the impression gained from the balance sheet statistics: in the case of loans to enterprises, both short-term loans (up to one year) and long-term loans (more than five years) have increased much more sharply during the past 12 months than in the 12-month period from June 2004 to May 2005. The recorded increase in the comparatively favourable short-term fixed-rate loans to enterprises ought also to be seen as closely connected with the reduction in their overdrafts (which are not captured in the new business volumes of the interest rate statistics), whereas the long-term loans – during a turnaround in interest rates – are likely to have also benefited from further debt restructurings from shorter-term loans.

... and new lending business with households

Up to now, new lending business with households has been driven mainly by housing loans, especially by those with a long interest fixation period. Their current slowdown suggests, however, that the sharp increase in volumes of new business since the third quarter of 2005 is likely to have also been influenced by the changes in assistance to homebuyers, the interest rate turnaround and the announced increase in value added tax. In the past 12 months, newly issued consumer loans have been only slightly higher than in the 12-month period up to and including May 2005.

According to Bank Lending Survey, certain supply-side easing of late

Irrespective of this, the recent results of the Bank Lending Survey also point to a marginal supply-side easing, especially in the case of loans to enterprises. According to the surveyed banks, the credit standards have been eased slightly across all maturities and size categories and the margins for average loans have been lowered again somewhat. In contrast to this, however, the margins for more risky exposures are still increasing slightly. Overall, however, the risk to banks that is associated with granting loans to enterprises appears to have declined of late. At least, the number of cumulative corporate insolvencies over 12 months and the associated exposure amounts have been falling for well over one and a half years.

Increased corporate demand for loans ...

At the same time, the institutions participating in the survey have reported a slight upturn in loan demand since the third quarter of 2005. In the case of loans to enterprises, this was initially attributed mainly to mergers, takeovers and corporate restructuring. In the meantime, debt restructuring and increased financing needs owing to greater fixed investment, larger inventories and more operating materials have contributed to a slight increase in demand. By contrast, the relaxed liquidity conditions and the sustained improvement in profitability owing, in particular, to exports continue, by themselves, to have a dampening impact on the demand for corporate loans.

... but only subdued demand for loans on the part of households

The banks rate households' demand for loans as somewhat more restrained than that of enterprises. In the case of housing loans, the banks report that it was only at the end of 2005 that a marked rise in demand occurred owing to anticipatory effects linked to the im-

New lending business according to the MFI interest rate statistics

In addition to the average interest rates of the individual loan categories, the corresponding business volumes of the banks (MFIs) for both outstanding amounts and new business are recorded and/or extrapolated for the German contribution to the euro-area MFI interest rate statistics. These volume data serve primarily to calculate the euro-area interest rates, which are determined as a volume-weighted average of the corresponding national rates.[1]

This means that another indicator for assessing credit developments in Germany is available, the information content of which is looked at in more detail below. For this purpose, the new business volumes taken from the interest rate statistics are compared with changes in loans taken from the monthly balance sheet statistics. The latter are the outcome of new lending and repayments. It is not possible to differentiate between new lending and repayments in this context. By contrast, the data from the interest rate statistics relate solely to new business.

Furthermore, discrepancies between the interest rate statistics and the balance sheet statistics in the reporting of credit developments in Germany can result from the different reporting schemes of the two sets of statistics.

– For example, German banks report their entire lending business with domestic non-banks to the balance sheet statistics, whereas the interest rate statistics solely comprise loans to non-financial corporations and households domiciled in the euro area. In particular, therefore, they do not capture credit relationships between banks and insurance corporations or other financial intermediaries.[2]

– Moreover, the monthly balance sheet statistics include foreign-currency loans granted by German banks to domestic non-banks, whereas the interest rate statistics are limited to euro loans.

Lending by German banks is therefore captured more broadly in the balance sheet statistics than in the interest rate statistics.

Unlike the balance sheet statistics, the interest rate statistics are not census but sample statistics.[3] Consequently, the uncertainty customarily associated with estimated values has to be taken into consideration when interpreting

1 For further details on the aggregation method and on MFI interest rate statistics in general, see Deutsche Bundesbank (2004), The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January, pp 45-59. — **2** In addition to this, there are minor differences in the sectoral definition. Thus in the interest rate statistics, non-profit institutions are assigned to the household sector, whereas in the balance sheet statistics they are recorded as a separate sector. — **3** The group of banks reporting comprises some 200 institutions, which were selected as a representative sample of the total MFI population in Germany. First, the total population was broken down into 15 strata that were as homogeneous as possible, then the number of banks reporting from each stratum was set. Finally, the largest institutions of each stratum were selected. — **4** This type of debt restructuring is likely to have been carried out on a larger scale in the low interest rate environment which has prevailed in recent years, especially in the corporate sector. Short-term

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the volumes of new business extrapolated for Germany using the Horvitz-Thompson estimator.

In addition, the underlying purpose of the interest rate statistics, namely to provide an assessment of the contractually agreed bank terms applicable at the reporting date, results in a number of other effects.

– First, new lending is defined in the MFI interest rate statistics in such a way that the entire credit volume is recorded at the time the contract is concluded, whereas only the funds actually drawn down by borrowers are recorded in the balance sheet statistics. Therefore, the new lending business numbers shown in the interest rate statistics may have a certain leading indicator property.

– Second, this focus of the interest rate statistics also embraces (non-automatic) loan extensions after the period of rate fixation has expired, in which new terms are agreed but which does not entail a flow of funds to non-banks. A sharp increase in new lending recorded may thus be caused by the expiry of the period of rate fixation of existing loan contracts and the agreement of new terms for the amounts still outstanding, without the banks actually disbursing additional funds. For example, debt restructuring from, say, short-term into longer-term maturities when an interest rate rise is expected is classified as new lending and likewise contributes to the systematic overestimation of the flow of funds to the private sector resulting from the new lending business volumes in the interest rate statistics.[4]

Finally, it should be noted that, for methodological reasons, bank overdrafts to non-financial corporations and households cannot be included in the analysis of business volumes.[5] The fact that bank overdrafts have been massively reduced for some time now curbs credit growth, although this is not reflected in the figures for new lending business.

All in all, therefore, using new lending business from the interest rate statistics as an indicator of the flow of funds to the private non-bank sector in the context of monetary policy analysis appears problematic.

loans to non-financial corporations, at least, have been reduced at an annual rate of 6% over the past four years, whereas the corresponding longer-term loans increased by around ½% per annum in the same period. — **5** Unlike the other credit categories, these are not reported as the sum of the relevant new business transactions but, for reasons of practicality and similarly to the way data on outstanding amounts are reported to the interest rate statistics, they are collected at the end of the month. Hence their change reflects the difference resulting from new lending and repayments and therefore cannot be meaningfully aggregated with the other categories of new lending business. For the methodology used in the MFI interest rate statistics, see Deutsche Bundesbank (2004), The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January, pp 45-59.

pending discontinuation of the grant to homebuyers. Most banks are unable to identify any change in the demand for credit in the case of consumer loans either. Overall, there are roughly just as many banks reporting slightly rising demand as there are ones reporting a slight fall.

Summary

Sluggish lending explicable in macroeconomic terms

The sluggish growth in lending in Germany over the past few years can generally be explained quite well in terms of developments in the German economy as a whole. Besides sluggish economic performance, enterprises' low propensity to invest and weak demand for housing construction have contributed to the domestic private sector's low demand for loans. Moreover, households have been restrained in their consumption, which has also dampened their demand for loans.

Identifiable acceleration trends in lending

Even so, the banks, too, have been tightening their lending conditions somewhat in the past few years, although this process has now come to a standstill. The conditions were relaxed again slightly at the end of the period under review. Lending to domestic enterprises and households has accelerated somewhat, with the rise in loans in the past few quarters increasingly being sustained by short-term transactions between banks and non-monetary financial institutions (reverse repo transactions) that did not directly involve any flow of funds to the private sector. Accordingly, the increase in loans to non-financial corporations and households was somewhat smaller than that in loans to the domestic private non-bank sector as a whole.