

The relationship between bank lending and the bond market in Germany

Lending relationships in Germany are characterised by three features: bank lending occupies a pre-eminent position, the significance of corporate bonds is still virtually negligible, and bank debt securities are used intensively to refinance loans. The present article studies the reasons for these structures and retraces important lines of development. On the whole, it can be said that the intermediation of banks in lending business with domestic enterprises has so far been rooted in specific advantages regarding credit assessment and monitoring. In deposit business, however, the bank functions associated with the classic deposit forms have been eclipsed by high-yielding, highly liquid securitised assets. For the future, it is to be expected that, owing to the plummeting costs of information and transactions and to the fact that the demand for securitised products will tend to continue to grow, for enterprises the raising of funds via the bond market will likewise gradually gain in importance at the expense of bank loans.

The significance of credit financing for the macro economy

In Germany, taking up loans constitutes by far the most important method of raising capital "from without". Loans, which are mainly granted by banks and, to a lesser extent, by other financial intermediaries such as

*Loans as the
most important
form of
external
financing in
macroeconomic
terms*

Structure of credit liabilities by sector

Position as at end-1998

Sector	Bank lending ²		Debt securities ³	
	€ billion	as % of all liabilities	€ billion	as % of all liabilities
Households	200	93.5	–	–
Producing enterprises excluding the postal service	1,102	41.7	1 50	1.9
Housing sector	n.a.	n.a.	1 8	0.3
Public sector	806	81.9	–	–
Financial sectors	450	36.8	727	59.4
of which banks	37	0.6	1,189	20.6
	–	–	1,187	28.9
Total	2,596	24.0	1,965	18.2

¹ Excluding bonded debt of foreign financial subsidiaries. — ² Short-dated and longer-dated loans by domestic banks. — ³ Liabilities arising from domestic money market paper and bonds.

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insurance companies, as well as lending to all domestic sectors evidenced by debt securities, reached a volume of € 4.8 trillion by the end of 1998.¹ Lending by foreign banks to Germany is not included here. For financial and non-financial enterprises, for instance, own funds in the form of equity, totalling € 1.3 trillion, contrasted with securitised and non-securitised debt amounting to € 3.2 trillion.

Regarding the structure of credit financing, securitised borrowing via the issuance of shorter-dated and long-dated debt securities and loans from banks have a similar significance in the macro economy. By the end of 1998 bank lending had gone up to around € 2.6 trillion, as opposed to € 2.0 trillion worth of bonds and money market paper outstanding (see table on this page). This has

been fed, particularly in the nineties, by a rapid recovery of securitised lending; at the end of 1990, only € 0.7 trillion worth of such lending was outstanding, or around half the volume of bank loans (€ 1.4 trillion).

However, there are major sectoral differences in the structure of indebtedness. The extreme ends of the scale are formed by households (excluding the housing sector) and the public sector. Households raise external funds – mainly to finance consumption – exclusively in the form of loans, with bank loans making up nearly 94 % as at the end of 1998, and loans extended by insurance companies accounting for another 5 %. The pattern is similar in the housing sector, with bank lending making up 82 % of overall liabilities and loans from building and loan associations and insurance companies accounting for 10 % and 6 % of debt, respectively. The public sector is the only sector in which, at the end of 1998, bonded debt (at 59 % of overall liabilities) accounted for a larger share than funds borrowed from banks (37 %). In the financial sectors, deposits, accounting for 74 % of all liabilities, remain the most important form of external capital, ahead of bank debt securities, which account for just under 21 %. However, bank debt securities have gained ground since 1990, when that ratio was 81 % to 18 %. Bonds play only a minor role in the financing of producing enterprises from external sources; at the end of 1998 only 2 % of liabilities were accounted for by bonds and money market paper. Most of these were

... with major sectoral differences

Loans and bonds have similar significance in the macro economy...

¹ These values are based on statistics deriving from financial flows accounts. Lending by foreign banks to Germany is not included here.

postal bonds, which were assumed by Deutsche Telekom. Genuine corporate bonds only accounted for around ¼ % of liabilities. This contrasted with bank loans, at 42 %, loans by insurance companies, at 4 %, and other borrowing in Germany and abroad, at 29 %. The last item also includes the proceeds from bonds issued through foreign financial subsidiaries, totalling an estimated € 31 billion or so, or 1¾ % of overall liabilities.

An international comparison of features

Compared with other industrial countries, particularly the Anglo-Saxon countries, there are two structural features of indebtedness in Germany that stand out. One is that bonds and money market paper play a relatively insignificant role in corporate financing, and the other is that bank debt securities are used intensively to refinance lending, which leads, on balance, to indirect borrowing on the capital markets with intermediation by banks. Enterprises' securitised debt (including funds raised via foreign financial subsidiaries) came to about 3 % of gross domestic product in Germany in mid-1999, compared with 34 % in the United States (see table on this page). Conversely, the share of bank debt securities in bank lending in Germany, at 33 %, was several times the comparable figure for the US (5 %). The securitisation of public sector debt, however, has been at a level similar to that in other industrial countries. This raises the question as to why, for one thing, industrial bonds have hardly been able to establish a foothold as substitutes for bank loans in Germany, and for another, why to a large extent bank debt securities are employed to complement bank lending. Both aspects will be examined more closely in the sections below.

An international comparison of securitised debt

As at mid-1999

Item	Germany	France	Japan	United States	United Kingdom
Enterprises 1 in € billion	52	180	727	2,747	260
as % of gross domestic product	3	14	20	34	20
Banks in € billion	1,233	361	342	220	–
as % of the credit volume	33	17	6	5	–
Public sector in € billion	763	670	3,749	2 3,146	450
as % of total debt	65	88	77	58	50

Sources: Bank for International Settlements, the Federal Reserve System, International Monetary Fund and Bundesbank calculations. — 1 Foreign and domestic issues. — 2 Marketable US Treasury debt securities.

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The issuance of bonds as an alternative to borrowing from banks

Borrowers can generally choose between either borrowing the funds they need from banks or obtaining them direct from the capital market by issuing debt securities. The main factor in choosing a form of financing is, in the end, the question of what is more cost-effective on the whole: obtaining funds direct from the market or having a credit institution as an intermediary. In the theoretical event of perfect markets, which are characterised in particular by the absence of either transaction costs or information differentials between creditors and debtors, all credit relations can be executed smoothly via the capital market. The fact that German enterprises obtain the vast majority of their external funds

Reasons why the bond market and bank lending exist side-by-side

from banks shows, conversely, that imperfect markets – characterised by such things as institutionally related transaction costs or asymmetric information – play a major role in real life. Ultimately the depth to which lending business is rooted in banks hinges on the extent of such imperfections.

*Administrative
barriers ...*

Against this background, administrative barriers (which are to be regarded as transaction costs in the broadest sense) are one explanation for the traditionally negligible significance of domestic industrial bonds. In particular, the issue authorisation procedure, required by law until the end of 1990, made it difficult to issue debt securities. This was joined by a stamp duty (also in force until 1990) of 0.25 % of the market price, which hampered bond trading. To circumvent these disadvantages, German enterprises issued debt securities mostly through foreign financial subsidiaries. At the same time this also makes tax advantages possible via the trade earnings tax. When calculating this tax, 50 % of interest on permanent debt (with a maturity of more than one year) is included in the assessment basis, whereas interest on short-term loans is tax-free. In principle, this burden can be avoided by having an enterprise finance itself over the long term on the market via a foreign financial subsidiary, which would then extend a short-term loan to the parent company in Germany.

*... are only
of minor
importance*

However, these tax considerations do not explain the “bank-heavy” credit structure, since interest on bank loans, like coupon payments, is subject to the trade earnings tax. The stamp duty and the issue authorisation procedure, though, were burdens that only af-

fectured securities. Apparently, their significance should not be overrated, since the volume of domestic corporate bonds and commercial paper outstanding has still remained low even after the removal of those hurdles (see chart on page 37). Issuing activity among foreign financing companies did not pick up until 1997, and only in 1999 did such activity increase in Germany. The important determinants of German enterprises’ borrowing behaviour are therefore not to be found so much in financial market regulations as instead in the corporate sector itself, namely its size structure and variety of legal forms.

German industry has been traditionally characterised by medium-sized enterprises. In 1997 nearly two-thirds of all turnover subject to value-added tax was accounted for by enterprises with an annual turnover of less than DM 500 million (see table on page 38). For small and medium-sized firms, cost factors alone are enough to put limits on opportunities for direct capital market financing. As regards bond-based financing, besides ongoing interest payments, costs are generated mostly independently of the amount of funds raised, and these costs can be considerably high, particularly when a bond is launched. They include underwriting and broker fees charged by the consortium, the stock market listing fee, and publication costs. The costs of issuing listed corporate bonds can reach as high as several percentage points of the face value. These costs are joined by ongoing ancillary costs for coupon payments and for the trustee. The high overhead costs of an issue alone mean that issuing listed bonds is only an option if large volumes are to be is-

*Financing
through bond
issues curtailed
by enterprise
size ...*

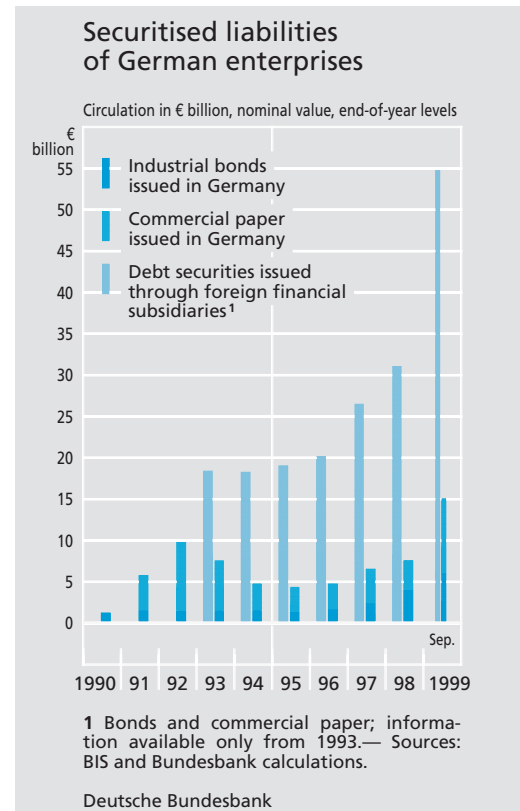
sued. Issue amounts of less than DM 50 million have therefore for a long time been the exception. Only recently have a number of smaller issues been placed; however, they were often not “classical” bonds but instead issued as convertible bonds.

... and legal form

The interaction of enterprise size and legal form, and the concomitant information and disclosure practices, have tended to be a greater hindrance to the issuance of corporate bonds. This can be attributed to the asymmetry of information between debtors and (potential) lenders: since the lender – regardless of whether this involves bank lending or bonds – bears a default risk but does not participate in the profits, debtors may be tempted to provide misleading information on risks and profitability, and then turn around and actually carry out more high-risk projects which would yield large profits if successful. Thus, if the lender has incomplete information, this could lead to adverse selection. There is also the danger of moral hazard, should the creditors not be able to monitor the use of the credit granted or the profit gained by the project. In that case, funds might, without anyone knowing it, be diverted to uses that are not in the interest of the lender.

Mechanisms for monitoring loans

A careful credit assessment may reduce adverse selection problems, and monitoring may have the same effect on moral hazard. However, they entail examination and monitoring costs which may at times be considerable, and which would also have to be borne separately by each bondholder if the project were funded directly from the capital market.



Borrowing on the capital market therefore presupposes the availability of sufficient information for a credit assessment and for monitoring, and hinges on the existence of an incentive to employ funds for credit assessments and monitoring. As regards the availability of information, tapping the capital market is a viable option especially for those enterprises which are either subject to far-reaching disclosure requirements anyway or have a good reputation as borrowers. This requirement is met, in particular, by listed public limited companies, which are not only required by the Companies Act to publish reports but are also required by securities regulators to disclose certain facts. Seen in this light, the dominance of bank lending goes hand in hand with the fact that for a long time equity financing in Germany played only

Size and legal form of German enterprises

As at end-1997

Turnover size category	Public limited companies	Private limited companies	Partnerships	Sole proprietorships	Other	Total
Total turnover (in DM million)						
Less than DM 5 million	1,567	410,778	218,270	747,095	26,456	1,404,165
DM 5 million and more but less than DM 10 million	1,378	195,034	117,179	85,123	15,225	413,940
DM 10 million and more but less than DM 50 million	10,749	458,371	425,840	103,127	55,663	1,053,749
DM 50 million and more but less than DM 100 million	12,842	188,774	221,648	17,378	34,866	475,508
DM 100 million and more but less than DM 500 million	82,391	414,792	474,970	28,440	80,969	1,053,119
DM 500 million and more but less than DM 1 billion	78,789	158,812	188,545		28,234	482,820
DM 1 billion and more	1,302,251	462,245	363,391		104,000	2,231,887
Total	1,489,967	2,288,805	2,009,843	981,162	345,413	7,115,190
Number of enterprises						
Less than DM 5 million	1,301	362,049	293,566	1,973,609	42,550	2,673,075
DM 5 million and more but less than DM 10 million	190	27,998	16,602	12,532	2,151	59,473
DM 10 million and more but less than DM 50 million	450	23,007	19,983	5,873	2,537	51,850
DM 50 million and more but less than DM 100 million	180	2,724	3,205	257	496	6,862
DM 100 million and more but less than DM 500 million	325	2,056	2,405	85	394	5,180
DM 500 million and more but less than DM 1 billion	108	237	283		40	753
DM 1 billion and more	169	198	157		42	566
Total	2,723	418,269	336,201	1,992,356	48,210	2,797,759

Source: Federal Statistical Office.

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a minor role.² Enterprises having other legal forms must also comply with certain publication requirements, yet those requirements are not as extensive as those governing listed enterprises. In addition, German accounting regulations are tailored to continuity in valuation but not to ongoing credit assessment by the capital market.

The virtual impossibility, in practice, of changing the terms of contracts following an issue is a factor that also contributes to driving up the information costs of bond-based financing. By contrast, loan agreements with banks afford the opportunity of flexible contract adjustments over time. In the event of occasional liquidity shortfalls, it is much easier to obtain a payment deferral or a bridging loan from a bank than from the (scattered)

bond creditors. This, however, is dependent on the existence of a long-term relationship between the credit institution and the enterprise, in which the bank would be able to cover the additional costs of such a follow-up negotiation with increased profits from future transactions with the customer. Such a relationship can be achieved either by contract (such as a long-dated loan) or if a "house bank" can specially attest to the borrower's creditworthiness. House banking relationships are a characteristic feature of the German financial system. According to a survey,³ 40 % of the small and medium-sized

² See Deutsche Bundesbank, Shares as financing and investment instruments, Monthly Report, January 1997, pages 27 to 40.

³ Harhoff, D. & T. Körting (1998), Lending Relationships in Germany – Empirical Evidence from Survey Data, Journal of Banking & Finance, 22 (10–11): pages 1317 to 1354.

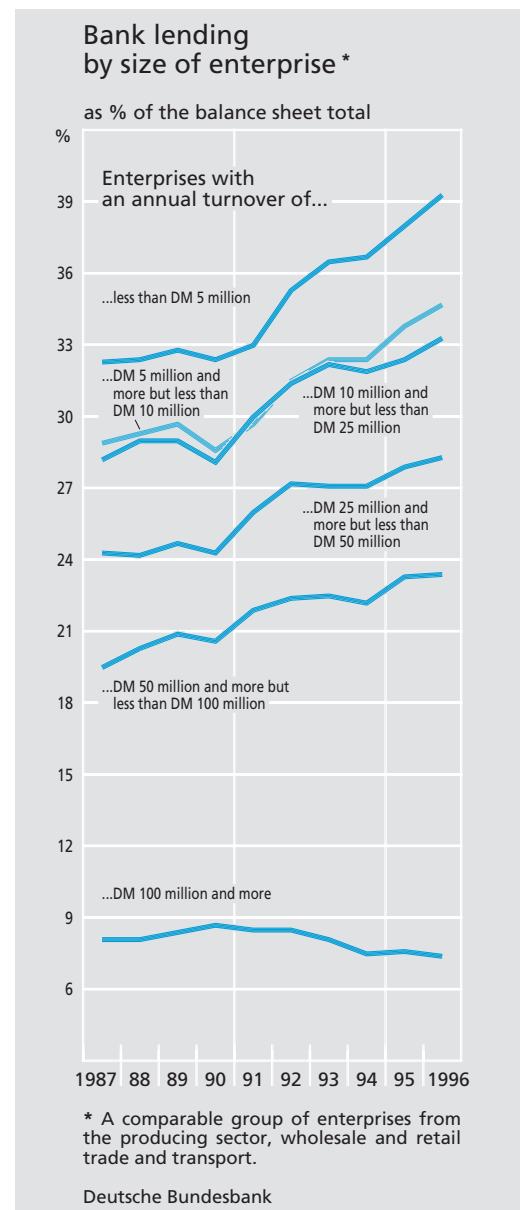
firms surveyed have one banking connection only. Three-quarters of overall indebtedness to credit institutions, on average, is concentrated on that enterprise's "house bank".

Asymmetric information and enterprise size

Asymmetric information tends to decrease in inverse proportion to the size of the enterprise. For one thing, major firms, and listed public limited companies in particular, are subject to stricter publication requirements which make it possible to look into the state of their finances. For another thing, the costs of a credit assessment are largely independent of the enterprise's size, which means such assessments have a greater impact, in relative terms, on smaller companies. Thus, both the size structure and the legal form place limits on the scope for capital market-based financing. Against this background, it is no surprise that the significance of bank loans as a source of financing declines as the size of enterprises increases (see adjacent chart). For small enterprises having an annual turnover of less than DM 25 million, the share of bank loans in liabilities ranged between 33% and 40% in 1996. However, for companies having an annual turnover of at least DM 100 million, less than 10% of liabilities were accounted for by bank loans. Over time, this disparity has widened. Whereas bank loans taken up by major companies, which started at a low level, have tended to decline further in importance, the dependence of smaller enterprises on bank loans has even gone up.

Substitution of bank loans by bond so far so only to a limited extent

However, the lower level of recourse to bank loans by major firms has not benefited the market for corporate bonds to the same extent. A genuine substitution of bank lend-



ing by bonds has only been observed up to now among the largest, internationally operating public limited companies, in particular; two-thirds of the companies listed on the German Stock Index, or DAX (excluding banks and insurance companies), and seven out of eight German industrial enterprises listed in the EURO STOXX 50 index have issued corporate bonds direct or via foreign financial subsidiaries. Instead, the relatively large en-

An international comparison of the significance of institutional investors

As at end-1996

Country	Assets, in € billion				Assets as % of GDP
	Total	of which			
		Investment funds	Pension funds	Insurance companies	
Euro area ¹	3,678	1,464	356	1,617	67
of which					
Germany	929	327	52	550	50
France	1,016	456	–	560	83
Italy	385	103	31	116	40
Netherlands	534	53	295	179	169
United Kingdom	1,770	248	711	812	193
United States	10,638	2,686	3,786	2,402	181
Japan	2,833	357	–	1,386	78
OECD countries, total	20,670	5,148	5,431	6,953	–

Sources: OECD, Bundesbank calculations. — ¹ Excluding Ireland.

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terprises' most important source of external funds is pension provisions, which make up some 15% of the liabilities of enterprises having an annual turnover of at least DM 100 million.

Demand-related brakes on industrial bonds

Another reason why bond-based financing is of subordinate importance to German enterprises is the fact that the presence of institutional investors in Germany has tended to be minor (see table above). Institutional investors are important to the development of capital markets for two reasons: they are potential securities purchasers, and they contribute to evening out the aforementioned information differentials. The size of their portfolios makes it profitable for specialised players such as investment funds or pension funds to invest in the procurement and evaluation of

information. A broad base of professional players is an important institutional prerequisite for an effective credit assessment and monitoring via the capital market (see also the box on "Banks and rating agencies"). A reason why the significance of institutional investors is only minor is to be found especially in the legal and economic policy framework, particularly the system of largely unfunded pensions or of provisions set aside by enterprises for pensions. This is why pension funds, which are one of the most important groups of institutional investors at the international level, have up to now not played a role here in Germany.

Refinancing of loans using bank debt securities

When funds are procured in a securitised fashion by issuing bank debt securities, both lending and securitised liabilities remain on the bank's balance sheet. This "on-balance-sheet securitisation" differs fundamentally from the "securitisation" of assets in the narrower sense, where bank lending is removed from the bank's balance sheet through securitisation (see also the box on "Mortgage bonds and asset-backed securities" on page 42). As at the end of November 1999 the nominal value of debt securities in circulation issued by domestic credit institutions was around € 1.3 trillion. This was accounted for almost exclusively by capital market paper, whereas money market paper (having a maturity of up to one year) only accounted for

High degree of "on-balance-sheet securitisation" at credit institutions

€ 60 billion.⁴ Thus, bank debt instruments make up nearly two-thirds of the entire outstanding volume of domestic bonds. In terms of the total amount of lending to non-banks (including lending against securities), the volume of bank debt securities in circulation has now reached a level of around 40%. In the nineties, this ratio rose by some ten percentage points, whereas in the eighties that figure had hovered at around 30% for a long time (see chart on page 44).

The market for mortgage bonds (Pfandbriefe)

Mortgage bonds (*Pfandbriefe*), "backed" by certain assets, form the centrepiece of the German market for bank debt securities. *Hypothekentpfandbriefe*, which serve to finance private investment over the long term and which are backed by loans secured by mortgages, have traditionally occupied a prominent position. Inversely, public mortgage bonds (*Öffentliche Pfandbriefe*, formerly known as *Kommunalobligationen*) are used to refinance loans to government agencies; they are "backed" by loans to the public sector. Mortgage bonds are issued by mortgage banks (private mortgage banks and public mortgage banks) and, in the case of "*Öffentliche Pfandbriefe*", also by the Land banks.

Within the *Pfandbrief* segment the focus has shifted distinctly towards *Öffentliche Pfandbriefe*, in line with rising public sector indebtedness (see chart on page 43). Whereas at the beginning of the seventies *Hypothekentpfandbriefe* represented as much as around

⁴ They are joined by registered bank debt securities and savings bonds; although these instruments are securities, they are not negotiable and therefore not genuine capital market paper. Registered bank debt securities and savings bonds will not be discussed any further in this article.

Banks and rating agencies: Two solutions to the problem of delegation

Credit assessments and regular monitoring generate costs which, in the event of direct lending relations, would have to be borne by each individual investor or lender. This would cause costs to accumulate and provides an incentive for "free riders" to use these services. By transferring assessment and monitoring functions to a specially designated institution, these negative effects can be limited. Two different institutional solutions have prevailed, each of which is tailored to a specific financial structure. In "banking-based" systems, this solution is lending via intermediaries which collect savings and provide them as loans. In "capital-market-oriented" systems, rating agencies have traditionally assumed the function of credit assessment and monitoring and forward this information to the market players.

Efficient monitoring, however, presupposes the ability to effectively "monitor the monitor". Banks which are "delegated monitors" have two incentives to monitor creditworthiness carefully. Firstly, these banks are liable to the extent of their own capital if the borrower defaults. Secondly, the earnings trends in loan business allow outsiders to draw conclusions on the quality of credit assessments and monitoring. Besides that, in practice there is always the threat of prudential regulators imposing sanctions. If they were lax in their monitoring, rating agencies would quickly squander their reputations as independent critics. The result would be that borrowers would no longer be prepared to pay for a rating that is no longer taken seriously by the market and which is therefore worthless. Hence, internal credit assessments by banks and external ratings both contain mechanisms that counteract errors in the assessment of the borrowers' creditworthiness.

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Mortgage bonds (Pfandbriefe) and asset-backed securities (ABS): Two ways of securitising assets

Mortgage bonds and ABS are "asset-backed" types of bonds. Whereas for mortgage bonds both the group of issuers and the lien on property or communal loans which are eligible as collateral are clearly defined by law, ABS transactions can, in principle, be executed by all institutions having sufficiently similar and thus "combinable" loan portfolios. Besides classic ABS, which securitise consumer lending, and mortgage backed securities (MBS), based on mortgages, there is now a series of "second-generation" ABS, such as collateralised loan obligations (CLOs), which are backed by corporate loans.

The key economic difference between mortgage bonds and ABS lies in the treatment of credit risks. In an ABS transaction, the first lending institution sells loans to a special-purpose firm which refinances itself by issuing ABS. The credit risks are thus passed on to the purchasers of ABS. As for mortgage bonds, however, the loans and liabilities remain on the bank's balance sheet. The credit risk for the purchaser of mortgage bonds depends, first of all, on the creditworthiness of the issuing bank; on top of that, it depends on the quality of the cover of the mortgage bond.

In terms of their credit quality, mortgage bonds are first-class paper; moreover, the emergence of the market for "Jumbo Mortgage Bonds" has increased liquidity in this market segment by a wide margin. By contrast, ABS, in terms of both their credit quality and the design of the bond, cover a wider spectrum. They constitute a form of refinancing for those institutions in particular which cannot issue mortgage bonds or which seek to offer certain investors tailor-made products.

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40 % of all bank debt securities in circulation, the € 137 billion outstanding at the end of November 1999 only made up around 10 % of the volume in circulation. The "market share" of *Öffentliche Pfandbriefe* rose over the same period, also starting at 40 %, to around one-half (€ 663 billion as at the end of November 1999).

Unsecured bank debt securities have made considerable gains in significance since the beginning of the nineties. They include securities issued by specialised credit institutions (such as the Reconstruction Loan Corporation) and all other paper statistically recorded as "other bank debt securities". The volume of debt securities issued by specialised credit institutions, at € 161 billion as at the end of November 1999, accounted for slightly more than 10 % of all bank bonds in circulation. At the beginning of the nineties, in the wake of the consolidation of the east German banking system, this percentage had at times gone up to around 20 %. Until recently, the sale of other bank debt securities, used extensively particularly by commercial banks to refinance their general lending business, rose sharply. The outstanding volume was € 367 billion as at the end of November 1999; their share in the overall volume of bank debt securities in circulation was thus somewhat more than 25 %.

*Unsecured
bank debt
securities*

"On-balance-sheet securitisation" by issuing bank debt securities causes the chain of financial intermediation to grow longer by combining banks and bond markets. Whereas, for borrowers, not only lot size considerations (for households, but also for smaller

*Extension of
the chain of
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through the
on-balance-
sheet securiti-
sation ...*

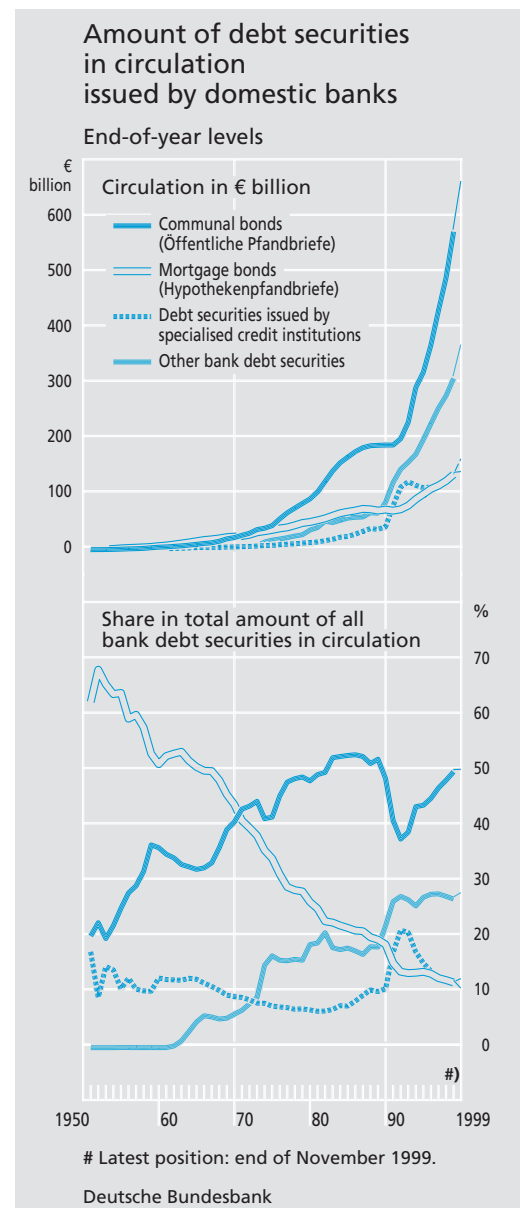
and medium-sized enterprises as well as for regional or local public authorities) but also advantages in overcoming asymmetric information (for enterprises) favour the intermediation of banks in borrowing, the question arises as to why credit institutions choose to refinance themselves in a securitised fashion. This is all the more surprising as the raising of funds in the capital market is generally more expensive than collecting deposits having the appropriate maturities.

... and its
causes

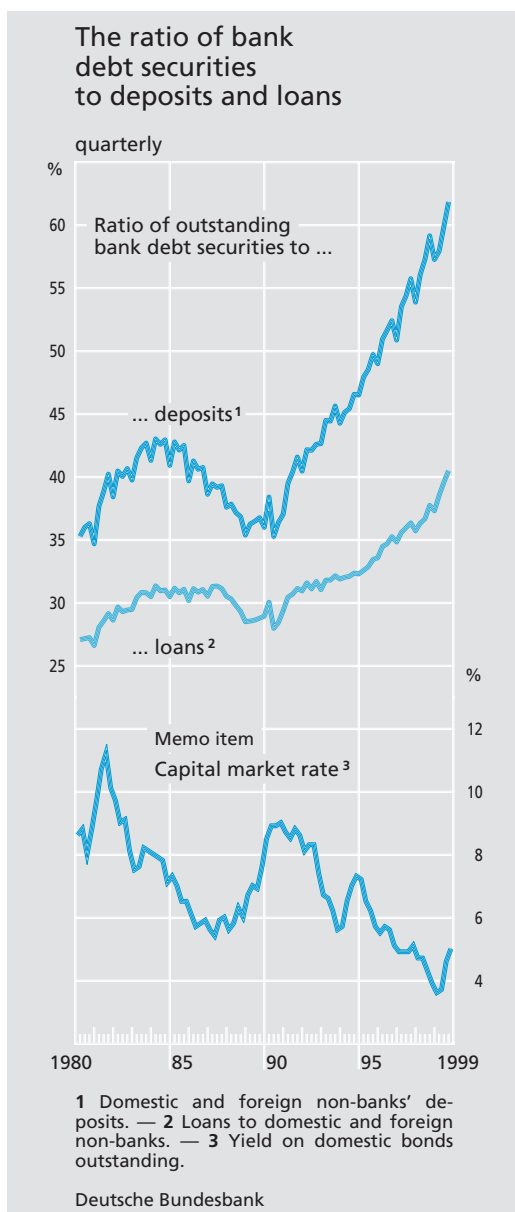
A reduced rate of interest on deposits compared with marketable instruments can fundamentally be viewed as a "fee" for bank-specific services such as the implied "protection" against price fluctuations (for long-term deposits) and default risk (through deposit insurance), for the possibility of using payment services (for sight deposits), or for the administrative expenses of account-keeping. This discount may also be a result of the existence of little competitive pressure, allowing banks to reduce their deposit rates to a level below the capital market rate. The increased recourse to bank debt securities, seen from this perspective, can also be attributed to changed customer preferences or to stiffer competition in the financial sector. On the whole, both factors have probably contributed to bank debt securities rapidly gaining in importance.

Changed
investor
preferences ...

The sharp rise in financial assets in Germany has been accompanied by a decline, in relative terms, in the demand for "classic" intermediary banking services in deposit business. The profitability of investment seems to have become more and more important, at the ex-



pense of, for instance, price security and the constant availability of funds for payment purposes. At all events, the share of assets subject to price risk (equities, bonds and investment fund certificates) in households' financial assets doubled over the period between the beginning of the eighties and the end of 1998, from 16 % to 32 %. At the same time the assets held by domestic and foreign institutional investors rose sharply. At



the end of 1998 over 70 % of the bank debt securities held in safe custody by domestic credit institutions for their customers belonged to domestic and foreign institutional investors, compared with 50 % as at the end of the eighties. The growing demand for marketable products has also been reflected in the structure of bank debt securities. Since the mid-nineties the credit institutions have successfully undertaken a number of steps –

such as, in particular, establishing “Jumbo Mortgage Bonds” – to improve the liquidity of their bonds and thus also these bonds’ chances of being accepted by their institutional customers.⁵

The more yield-oriented behaviour of investors has gone hand in hand with a further intensification of the already quite heated competition in deposit business. This trend has been reflected particularly in the relative rise in interest paid by German credit institutions. Whereas interest paid and interest received, in relation to the business volume during the interest rate cycle, normally used to change to an equal extent up to the beginning of the nineties, since the mid-nineties, when the interest rate level has also been falling, interest paid has gone down distinctly less than interest received. That means that in 1998 net interest received, at 1.37 % of the business volume, hit a new all-time low. To that extent, the increasing securitisation of the liabilities side of bank balance sheets can be construed as a process driven to a large degree by a structural shift in demand.

Trends in the volume of deposits and lending relative to the circulation of bank debt securities likewise support this assessment (see adjacent chart). Since the beginning of the nineties securitised liabilities have grown much faster than lending and deposits. Apparently the issuing of bank debt securities has been influenced not just by the extension of lending but also by the substitution of de-

... and competitive pressure continuing to increase

Indications of long-term shifts in demand

⁵ See: Deutsche Bundesbank, Structural changes in the German capital market in the run-up to European monetary union, Monthly Report, April 1998, pages 55 to 69.

posits. The securitisation of the liabilities side has been boosted by the downward trend in capital market rates, to be sure, yet all the same it has exceeded the trend which was observed in the preceding interest rate cycle.

*Supply-side
factors*

The securitisation of deposit business has been supported by supply-side factors too, however. One of these factors is the mounting public sector debt, which – particularly at the level of the Länder and local governments – has generated considerable potential for issuing large-volume public mortgage bonds. In addition, the aforementioned abolishment of the issue authorisation procedure at the end of 1990 has facilitated the issuing, in particular, of unsecured other bank debt securities. Since then, that market segment has seen a rapid upswing. The volume of other bank debt securities in circulation has witnessed an annual rise of 12½% since 1991 – an increase surpassed only by public mortgage bonds (15%). Besides, short-dated bank debt securities (having a maturity of less than two years) and certificates of deposit were, until the end of 1998, at a disadvantage owing to the fact that non-interest-bearing minimum reserves had to be held. Since the beginning of 1999 short-dated bank debt securities, too, have seen explosive growth; the volume of such debt securities in circulation tripled between January and November 1999, reaching a value of € 60 billion.

Outlook

Up to now the German financial system has been characterised by the way bank lending

and the bond market complement one another through the issuing of bank debt securities. This makes it a mixture between a purely “capital-market-oriented” system and a “bank-based” system. In view of future developments, a further increase in the yield sensitivity of investors, seen in itself, would provide a further impetus to the securitisation of liabilities-side business and would further accentuate the mixed nature. If enterprises’ borrowing preferences were at the same time to shift to the bond market, this would entail a disintermediation of traditional lending business, at the very least.

The driving forces behind the disproportionately large increase in the securitisation of liabilities-side business in the nineties – increasing yield sensitivity and propensity of investors to run risks, and, at the same time, the greater concentration of assets in the hands of institutional investors – are likely to become even more significant in future. The increasing emphasis on funded pensions, which is beginning to show up in a rudimentary fashion, is likely to provide an additional impetus to the demand for marketable financial instruments.⁶ In this connection, the current debate on the creation of a legal basis for company pension funds should also be mentioned.

Moreover, the base of institutional investors has been expanded by the introduction of the euro. The assets being managed by insurance

*The German
financial system
as a “mixed
system”*

*Demand for
debt securities
continuing to
grow owing to
old-age
provision ...*

*... and
European
monetary union*

⁶ See: Deutsche Bundesbank, Prospects for, and obstacles to, a stronger reliance on funding in the statutory system of old-age provision in Germany, Monthly Report, December 1999, pages 15 to 32.

companies, investment funds and pension funds in the euro area, worth € 3.7 trillion at the end of 1996, amounted to nearly four times the value of the portfolios of German institutional investors (see table on page 40). The elimination of exchange-rate risks for investments within the euro area has facilitated the cross-border diversification of securities portfolios. This is all the more the case as the existing regulations on currency-matched investment (generally for 80% of the assets) that govern institutional investors in many euro area countries – especially insurance companies – now permit to a great extent cross-border investment within the borders of monetary union. This has contributed to a jump in net purchases of bank debt securities by non-residents: at € 55 billion over the first nine months of 1999, they exceeded the entire value of the previous year (€ 37 billion) by over one-half and were more than twice the figure for 1997 (€ 23 billion).

Credit quality and liquidity gaining in importance as investment criteria

The irrevocable fixing of exchange rates pushed other investment criteria, such as credit quality and liquidity, to the forefront. It is therefore to be suspected that there is growing interest not only in securities issued by banks but also in corporate bonds. Institutional investors are likely to be interested, in particular, in the fact that debt instruments issued by enterprises from various sectors make it possible to diversify one's portfolio more broadly across categories of credit risk than is the case for bank bonds, which generally have a high credit rating. However, the liquidity of the individual securities, too, is of great importance especially to institutional investors. To that extent, the possibility of

“combining” certain loans to form large-volume, liquid bond issues is likely to put the banks, as issuers, at a competitive advantage over non-financial enterprises in the longer term, too.

On the whole, bank intermediation seems to be primarily based on “assets-side business”, i.e. focusing on enterprises' financing behaviour and not so much on investors' needs. Developments which will reduce asymmetry of information and lot-size effects, two particular impediments to enterprises raising funds direct in the capital market, are likely to be the main factor behind the future momentum of disintermediation in the German financial system. Technological progress in data processing and telecommunications are working to reduce the effects of both impediments. For example, electronic media could be used to provide information on an enterprise in a timely, simple manner virtually for free to a broad segment of the general public. In addition, the possibility of using modern communications systems to place securities direct and trade them over-the-counter is likely to reduce the “critical mass” for bond issues and to cause the importance of lot-size arguments to diminish.

Bank intermediation primarily based on assets-side business

To the extent that this process will cause competition in lending business to increase further and profit margins to shrink, especially the banks themselves will probably continue to expand their services in the investment banking sector at the expense of traditional lending business. It is also to be expected that the new prudential supervisory standards for assessing credit risk which are being pre-

Impetus for disintermediation being provided by banks

pared right now will have an impact on lending. It remains to be seen whether this will promote tendencies towards disintermediation, though, and to what extent this will happen.

*Willingness to
take recourse
to the capital
market*

With the "technological" hurdles becoming lower and lower, the subjective willingness of a firm's management to disclose information could begin to supersede the objective costs of taking recourse to the capital market as the key factor in deciding an enterprise's ability to tap the capital market. The ownership and financing structures that for many firms have been fixed for quite a long time, though, tend to speak against a dramatic change. However, economic policy measures, such as changes in tax law or also steps towards deregulation, could accelerate the process of change in corporate and financial structures. The liberalisation of the German telecommunications market may serve as an example; it led to a wave of restructuring and takeovers. In connection with such activities,

some of the largest corporate bond issues in German history were launched in 1999.

On balance, there are many indications that the substitution of bank loans by corporate bonds is increasingly superseding the complementary use of bank loans and bank debt securities. The momentum and force of such an underlying trend seem to be influenced to a large degree by technological advances, the pace of structural change in the real sector of the economy and economic policy reforms, such as in tax law or old-age provision. Additional impetus is being provided by European monetary union. The complex network of economic, legal and cultural factors which ultimately characterises financial structures, though, tends to favour a gradual change, in macroeconomic terms. Thus, in the German financial system the functions and significance of banks are not very likely to diminish rapidly; what is more likely is that the variety of financing forms will increase and that intermediary services will continue to become more diversified.

Conclusion

