The securitised money market in Germany

Role and trends

The securitised money market is relatively small in Germany. Traditionally, money market paper has played a minor role in terms of interbank trading in central bank money, the short-term financing of non-banks and the investment of funds by non-banks. Since the early nineties, however, the importance of securitisation in the money market has increased as a result of the introduction of new instruments and dealing methods. With that situation in mind, the present article describes important trends in the securitised money market in Germany and evaluates them from a monetary policy angle.

Functions and forms of securitisation in the money market

Definition of the money market

Short-term loans and advances and securities are traded in the money market. In this general definition, the money market is the counterpart of the capital market where long-term financial contracts are concluded. However, a clear dividing line between the short and long-term areas cannot be drawn using economic criteria because "short-term" and "long-term" are ultimately determined subjectively, i.e. by the planning horizon of economic agents. It is common practice in international and national statistics[1] to count maturities of one year or less towards the

1 See Deutsche Bundesbank, Bankenstatistik Richtlinien, Statistische Sonderveröffentlichung 1, December 1996, page 11 ff.

money market; this definition is also applied here unless expressly stated otherwise.

Functions of the money market

Fundamentally, market participants, such as commercial banks, producing enterprises, public authorities or institutional investors, use money market transactions for the purpose of liquidity management. A distinction should be made between money market transactions, in which central bank money – i.e. credit balances with the central bank – are traded, and those where deposit money – i.e. deposits with credit institutions – are transferred. Whereas bank deposit money enables non-banks to synchronise their payment flows, credit institutions additionally need central bank money to comply with their minimum reserve requirements and to feed currency in circulation.

Motives and market participants

The principal players in the market for central bank money, which normally is also called the money market in the narrow sense, are the commercial banks which operate in that market in order to clear individual surpluses or shortages of liquidity. The main concern of the individual credit institution is to safeguard its liquidity. The central bank manages the overall supply of central bank money by deploying its monetary policy instruments. Hence, the money market in the narrow sense is the operational point of leverage for its policy, and the terms on which central bank money is provided are set in the light of monetary policy considerations. Trading in bank deposit money, which is also termed the money market in the broader sense, is, by contrast, determined by the commercial motives of the credit institutions or the "major" non-banks. In actual fact, both markets are closely interlinked by arbitrage activities. Owing to the central bank's position as an "interest rate leader" in the market for central bank money, its interest rate policy measures are thus usually soon reflected by a similar trend in interest rates applied to other money market transactions.

Forms of securitisation in the money market

In line with the various functions performed by the money market in the narrower and broader sense, various forms of the securitised lendings and borrowings in the money market have emerged besides the unsecuritised money market transactions, which are heavily predominant. In addition to its short original maturity, a common feature of original money market paper is its fungibility. In legal terms, such paper may be bearer or order bonds.[2] Various forms have evolved over time for the individual groups of issuers, such as short-term government paper, commercial paper (CP) of enterprises or certificates of deposit (CDs) issued by banks. The maturities and yields of such paper differ only slightly, if at all. As a rule, money market paper is issued in the form of discount paper. Its yield is geared to representative money market rates for similar maturities; if its credit rating and liquidity are sufficiently high, money market paper can also serve as a "benchmark".

Money market-related securities ...

Just as there is no standardised definition of money market maturities, there is no clear

2 In addition, interbank trading in trade bills and bank acceptances eligible for refinancing at the Bundesbank, serving the purpose of optimum utilisation of rediscount quotas, may also be counted as part of the securitised money market. On account of their lack of fungibility, the bills traded here can scarcely be deemed to be genuine marketable paper, however.

Circulation of money market paper since the early nineties

DM billion nominal value; end-of-month levels

Period	Total	Public issuers 1		Enterprises 2	Bonds issued by banks with an original maturity of one year or less	Memo item Bulis
		Total	of which Bubills			
1991	22.2	10.9	–	8.2	3.1	–
1992	43.4	20.5	–	15.6	7.3	–
1993	43.2	15.9	–	11.0	16.3	24.9
1994	41.0	14.0	–	6.0	21.0	4.9
1995	30.3	4.2	–	5.8	20.3	–
1996	51.3	23.7	19.5	5.9	21.7	–
1997 Jan.	54.0	23.3	19.8	9.4	21.3	–
Feb.	53.3	23.0	19.8	10.4	19.9	–
March	52.9	22.8	19.8	10.8	19.3	–
April	55.9	23.0	20.0	11.8	21.1	–
May	55.5	22.9	20.0	11.7	20.9	–
June	54.8	22.9	20.0	12.2	19.7	–
July	55.2	21.9	19.1	11.6	21.7	–

1 Treasury discount paper and Treasury financing paper issued by the Federal Government and its special funds and other public sector issues. — **2** Deutsche Mark commercial paper (including that issued by the Treuhand agency and the post office) and industrial bonds.

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demarcation line for money market paper. Close substitutes in economic terms for original money market paper are, first of all, bonds with corresponding remaining maturities. Floating-rate notes, too, have a comparable yield and similar risk profile to those of money market paper. The same applies to money market fund certificates which, although issued for an unlimited period of time in principle, are "indirect" money market fund investments because of the money market funds' focal points of investment activity.

... and money market transactions collateralised by securities

In addition, securities are also used as collateral for money market lendings and borrowings not evidenced by securities. The main transactions of this kind are sale and repurchase transactions, whereby liquid funds are provided against the (temporary) transfer of securities. These take the form of, firstly, securities repurchase transactions conducted as part of the Bundesbank's money market management and, secondly, the transactions concluded between commercial banks or credit institutions and non-banks; the latter are generally known as "repos", which is short for the term "repurchase agreements".

Securitised dealings in central bank money

"Securitisation" of central bank money in the form of financing paper ...

Money market paper constitutes a securitisation of central bank money if the Bundesbank undertakes to purchase such paper ("potential" central bank money) or if it is required to meet all liabilities arising from paper issued on its initiative. Section 21 of the Bundesbank

Act provides the legal basis for providing specified money market paper with a commitment to purchase it, thereby giving the holders the option of converting such paper into central bank balances at any time. It entitles the Bundesbank to buy and sell specified debt instruments in the open market at market prices in order to regulate the money market. In the past, a major role in this connection was played, in particular, by what is known as financing paper, which is created by public sector borrowing (Treasury bills and Treasury discount paper).

... and mobilisation and liquidity paper

Section 42 of the Bundesbank Act provides the Bundesbank with the option of issuing short-term debt instruments for the purpose of managing the money market on its initiative and independently of the issue of financing paper. In 1955, the Federal Finance Minister agreed for the first time to allow "equalisation claims" of the central bank system to be exchanged into Federal money market paper, initially up to an amount of DM 2 billion. The limit for such "mobilisation paper" was later gradually raised to around DM 8 billion, i.e. the level of the "equalisation claims". As part of the Stability and Growth Act, a provision was added to section 42 of the Bundesbank Act in 1967 to the effect that the Federal Government had to supply to the Bundesbank additional Treasury bills or Treasury discount paper (designated liquidity paper) up to the maximum amount of DM 8 billion. In November 1992, the reference to equalisation claims was dropped along with the term mobilisation paper. The maximum issue amount for liquidity paper was raised to DM 50 billion. As before, such paper is Federal Government paper. The Bundesbank is, however, liable to the Federal Government for meeting all obligations arising from such paper; this paper hence de facto represents issues of the Bundesbank. The funds may be used only to redeem liquidity paper that has fallen due; the issue of such paper does not therefore constitute lending to the Federal Government.

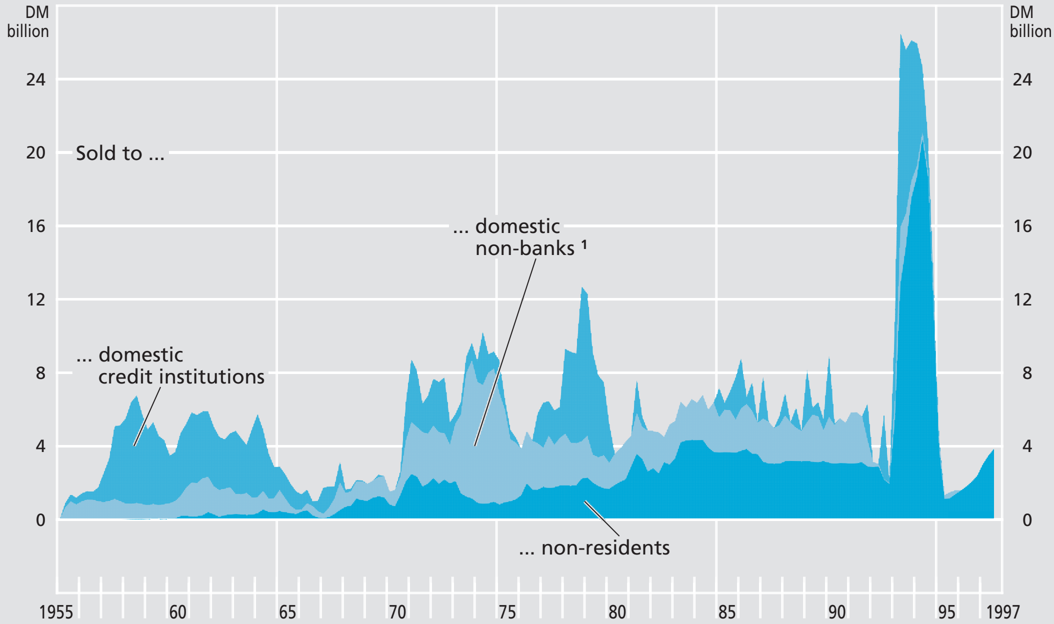
Open market operations with credit institutions ...

Up to the early seventies mobilisation and liquidity paper was primarily issued in order to offer credit institutions a facility for investing their excess central bank balances, which resulted from sometimes very sizeable inflows of funds from abroad (intervention obligations in favour of the US dollar), in interest-bearing liquid assets. These open market transactions were initially concluded almost exclusively with banks;[3] until the spring of 1975, all mobilisation and liquidity paper was included in money market regulating arrangements and hence returnable at any time. At the end of 1978, the Bundesbank used non-returnable mobilisation and liquidity paper (up to the amount of DM 14½ billion) to absorb another wave of heavy liquidity inflows from abroad. To offset subsequent outflows of foreign exchange, it repurchased such paper still held by credit institutions prior to maturity up to the spring of 1980. Since then no such paper – with or without a buying commitment – has been permanently included in domestic banks' portfolios.

3 In addition, social security funds, in particular, sometimes invested their funds in open market paper. Moreover, there were investment facilities for public authorities (postal services, Fund for the Purchase of Equalisation Claims) and the ERP Special Fund with the Bundesbank.

Sales of mobilisation and liquidity paper *

Quarterly averages



* Sold by the Bundesbank. Since November 1992, liquidity paper only. Including sales of short-term Treasury bills to credit institutions. — 1 Including Federal Post Office/Postbank.

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... and non-banks

From mid-1971 the Bundesbank began to involve non-banks more in open market operations in money market paper. At times – between January 1973 and April 1975 – such paper, under the designation of *"Bundesbankschätze"*, was also offered to private investors in the form of standardised Treasury discount paper not returnable before maturity (with maturities of three to 24 months). At the end of 1973, the amount of mobilisation and liquidity paper in the hands of domestic non-banks (especially social security funds and the post office) reached a record level, at almost DM 8 billion; by the early eighties it had dropped back to below DM 1 billion, however.

Issue of Bulis

In the first half of the nineties – under the impact of massive inflows of liquidity from abroad during the turbulence within the Exchange Rate Mechanism of the European Monetary System in the summer of 1992 – the Bundesbank once again tried to exert an influence on domestic non-banks' cash holdings through its open market policy. Within the limit for its open market policy transactions, which had been raised to DM 50 billion, it offered for sale up to DM 25 billion of liquidity paper between March 1993 and the autumn of 1994. These "Bulis" (Bundesbank liquidity Treasury discount paper) were not returnable before maturity. They were issued by revolving quarterly auctions with maturities of three, six and nine months.

Acquisition of Bulis

Foreign monetary authorities, which often are subject to strict investment regulations and place their funds only in high-quality and highly liquid paper, were the principal buyers of Bulis. Their share in Buli purchases amounted to almost two-thirds in the autumn of 1993 and rose to over 80 % by mid-1994. Domestic non-banks' participation, on the other hand, remained small; their share in total Buli circulation did not exceed 15 % initially and fell virtually to zero by the end of 1993. The Bundesbank thus failed to meet its original objective of tying up non-banks' liquid funds. The Buli auctions were therefore discontinued in the autumn of 1994. With that decision, the Bundesbank simultaneously took account of the impending changes in the financial markets resulting from the authorisation of genuine money market funds as from August 1, 1994. The Bundesbank did not itself wish to provide investment outlets for these funds and thus encourage structural shifts in the financial markets towards shorter maturities.

Liquidity paper of little importance at present

Currently, the Bundesbank sells liquidity paper on a regular basis to foreign investors only. Occasionally, it offers such paper also to domestic banks in order to absorb short-term excess liquidity. As a rule, these transactions have a maturity of only three days and serve to prevent the day-to-day money market rate from falling too sharply. This instrument was applied for the first time in 1973; it gained greater importance especially in the initial period following the move to flexible money market management in the mid-eighties.

Significance in terms of liquidity and interest rate policy of returnable ...

The significance of Bundesbank operations in money market paper in terms of liquidity and interest rate policy has changed perceptibly over time. The liquidity policy impact of transactions in money market paper included in money market regulating arrangements was slight; they merely resulted in a shifting of the banks' free liquidity reserves. Even so, the interest-bearing liquid investment of liquidity surpluses in money market paper tended to reduce the supply in the market for central bank balances. The interest rate policy impact of Bundesbank transactions in debt instruments included in its money market regulating arrangements was mainly due to the fact that the selling and buying rates which it set were in direct competition with the corresponding quotations in the forward markets.

... and non-returnable money market paper

In contrast to this, the Bundesbank's money market transactions with non-banks and in paper not included in the money market regulating arrangements withdraw liquidity direct from the banking system; this also has an impact on the interest rate level in the money markets. Moreover, the Bundesbank offers investment opportunities in non-bank business on terms which compete with credit institutions' deposit rates. This was still a key objective in the issue of Bundesbank Treasury discount paper, whereas the issue of Bulis was intended to influence liquidity in the non-bank sector.

Present situation

Since the move to flexible money market management in the mid-eighties, the Bundesbank has almost exclusively used the instrument of securities repurchase agreements to meet its operational objectives in the money market. The liquidity and interest rates of these open market operations which are reversible at short notice adequately guarantee that the Bundesbank can rapidly bring about the desired conditions in the money market. These then spill over to the deposit and lending rates applied to non-banks. Domestic transactions in securitised central bank money are at present limited to rare, very short-term Treasury bill sales; the Bundesbank can also largely refrain from using other instruments of very short-term liquidity adjustment because of the stabilising effect of the minimum reserves in the money market.

Securitised short-term finance

International comparison of securitised financing through the money market

In Germany, the raising of borrowed funds by issuing short-term debt securites plays a minor role both by international standards and in comparison with the issue of long-term paper. This applies to banks and non-banks alike. At the end of 1996, the German market for securitised short-term borrowed funds, with the equivalent of US dollar 33 billion outstanding, was at the lower end of the international scale. By far the largest securitised money market worldwide is that of the United States (US dollar 2,073 billion at the end of 1996), followed by Japan and Italy (US dollar 709 ½ billion and US dollar 474 billion, respectively). As a percentage of the total volume of debt securities outstanding, the German money market, at merely 1¾ %, occupies the last place among all the countries listed in the table on this page.

Securitised money market – an international comparison

Circulation at the end of 1996

Country	US dollar billion	as a percentage of total bond circulation
European markets		
Belgium	61.5	15.2
Denmark	8.6	3.0
Finland	29.4	35.0
France	219.2	17.7
Germany	33.1	1.7
Italy	474.1	28.1
Netherlands	17.2	6.5
Portugal	13.7	21.4
Spain	111.3	32.7
Sweden	59.8	19.9
Switzerland	10.9	5.4
United Kingdom	199.0	27.4
Non-European markets		
Australia	65.2	35.1
Japan	709.5	14.9
Canada	129.7	25.5
United States	2 073.2	17.8
Memo item		
International markets	171.3	5.3

Sources: BIS, Bundesbank calculations.

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Growth slowed down by market factors ...

The development of the securitised money market in Germany is, above all, the result of the macroeconomic environment and the competitive situation in the financial sector. A comparativly high degree of price stability favoured the emergence of long-term financial relationships and lock-in periods for interest rates and worked against a pronounced short-termism in the financial sector. The strong position of the banks in the German financial system likewise reduced incentives to enter into securitised financial relationships. The liberalisation of bank interest rates in 1967, in particular, enabled credit institutions to offer loans and deposits at fair market rates at an early stage. In contrast to many other countries, there were hence few incentives for non-banks to circumvent a regulated banking system by shifting financial relationships to the securities markets.

The development of a securitised money market was also discouraged until the early nine-

... but also by regulations and administrative obstacles

ties by administrative and tax regulations as well as by monetary policy regulations which affected the individual market segments to differing degrees. Thus, the Bundesbank considered the issue of CDs to be undesirable until bank bonds running for less than two years were subjected to minimum reserves in 1986. Furthermore, until 1991 the issue of CP was hampered by the issue authorisation procedure. The Bundesbank had basic monetary policy objections to the public sector using paper running for less than one year. All dealings in short-dated paper were subject to securities transfer tax until the end of 1990; tax at a rate of 1‰ was payable for each securities transaction.

Growth of short-dated debt securities issued by credit institutions...

Traditionally, the most important role in the securitised money market in Germany is played by short-dated bank debt securities. Until the early eighties, the circulation of such paper moved largely in line with the level of interest rates; issuing activity increased sharply during the two periods of high capital market rates and inverse yield curves in the mid-seventies and early eighties. In January 1982, the circulation of short-dated bank debt securities reached a record high at DM 43 ½ billion or just under 9 % of all bank issues.

... slowed down by the inclusion in minimum reserve requirements

Short-dated bank debt securities were particularly attractive because of their freedom from minimum reserve requirements. In the mid-eighties they were increasingly used to circumvent minimum reserve requirements. To prevent the minimum reserve instrument from becoming blunt, bank debt securities with an original maturity of less than two years – and hence also CDs – were (as mentioned above) included in minimum reserve requirements from May 1986. In the ensuing period, the circulation of short-term bank debt securities dropped to less than DM 2 billion. Reserve ratios were lowered markedly as part of the revision of the minimum reserve regulations between 1993 and 1995; this – together with the competition from Bulis and the renewed inverse slope of the yield curve – led to a revival in short-dated bank bonds;

Circulation of short-term bank bonds, minimum reserve burden and interest rate movements

Quarterly

1 Circulation of banks bonds with an original maturity of one year or less. — 2 Minimum reserve ratio on time liabilities. — 3 Yield on domestic bonds outstanding. — 4 3-month money market rate.

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since the beginning of 1994 their circulation has stabilised at a level of around DM 20 billion. Short-dated bank debt securities – including those in the form of CDs – have therefore been of little significance as surrogates for bank deposits to date.

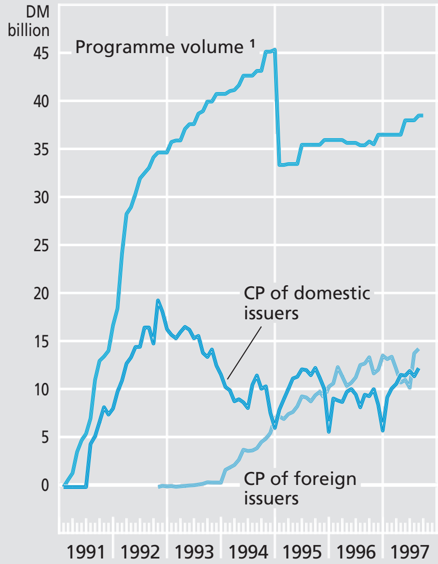
Issue of Deutsche Mark commercial paper

Short-dated corporate debt securities denominated in Deutsche Mark (commercial paper – CP) were issued for the first time at the beginning of 1991. Until then, administrative barriers – the securities transfer tax and the relatively cumbersome issue authorisation procedure – had impeded the use of short-dated debt securities by enterprises. In July 1992, the Bundesbank opened the Deutsche Mark CP market to foreign non-banks by amending the Statement concerning Deutsche Mark issues.[4] Following a brief period of soaring growth, there was soon a marked consolidation. On the expiry of the CP programmes of the post office and Treuhand agency at the end of 1994 the volume of CP programmes shrank by more than one-quarter. At the end of June 1997, the circulation of CPs issued by domestic borrowers stood at DM 12 billion. The Deutsche Mark CP volume of foreign issuers is of a similar magnitude; in mid-1997 it amounted to DM 10 ½ billion.

Acquisition of Deutsche Mark commercial paper

The Deutsche Mark CP, which is tailored to the needs of institutional investors, was bought on a large scale by non-residents from the outset. In 1991 and 1992, foreign investors purchased almost DM 8 billion (net) of such paper, or roughly one-half of the circulation of Deutsche Mark CP of domestic issuers at that time. The CP of the Treuhand

Programme volume and circulation of Deutsche Mark commercial paper (CP)



1 Including Deutsche Mark denominated multi-currency commercial paper programmes.

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agency met with particularly brisk demand; by far the greater part was sold to non-residents. This trend – in the same way as foreign demand for Bulis – highlighted the international demand for short-dated high-quality Deutsche Mark debt securities.

Short-dated debt securities issued by the public sector

For a long time, market participants complained about the lack of standardised regularly issued public sector debt securities with maturities of less than one year which might have broken the ground for other issuers. The main reason for this was that the Bundesbank had reservations, on monetary policy grounds, concerning short-dated public sector

4 Before, a minimum maturity of two years was required for Deutsche Mark issues of non-residents; see Deutsche Bundesbank, Statement of the Bundesbank concerning Deutsche Mark issues, Monthly Report, July 1992, page 37 ff.

paper. The government taking the lead in issuing short-term paper tends to encourage short-termism in the financial sector. If a major part of credit terms is geared to short-term interest rates, however, the impact of the central bank's interest rate policy measures on the real economy increases, as does the risk of conflicts of interest. Against that backdrop, the issue of money market paper by the public sector – apart from Treasury financing paper which is designed to satisfy the needs of private investors – was for a long time essentially confined to the sporadic use of Treasury discount paper by the Federal Government and its special funds. Such paper acquired greater importance in the early nineties when the Debt-Processing Fund took over DM 20 billion of the debt of the former GDR in the form of Treasury discount paper.

Sales and purchases of Bubills

DM billion

Period	Net sales 1	Purchasers: Domestic credit institutions	Domestic non-banks 2	Non-residents 3
1996 July	10.8	2.7	0.0	8.0
Aug.		– 1.2	0.0	1.2
Sep.		0.0	0.4	– 0.4
Oct.	8.4	4.7	0.0	3.7
Nov.		– 1.1	– 0.2	1.3
Dec.		– 1.0	1.3	– 0.2
1997 Jan.	0.3	– 0.1	– 1.0	1.3
Feb.		– 0.1	– 0.1	0.2
March		– 0.7	0.3	0.4
April	0.2	– 1.1	– 0.6	1.8
May		– 0.5	0.4	0.1
June		– 0.2	0.0	0.1
July	– 0.9	0.1	– 0.2	– 0.8
Memo item Cumulative	18.8	1.5	0.3	16.7

1 Market values. — **2** Residual. — **3** Transaction values.

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Introduction of Bubills in 1996

In the summer of 1996, the Federal Ministry of Finance and the Bundesbank agreed on the issue of Federal Treasury discount paper (Bubills) with maturities of less than one year; its circulation is not to exceed the limit of DM 20 billion.[5] This circulation limit takes account of the Bundesbank's continued reservations concerning a growth in short-termism in the financial sector. On the other hand, the agreement takes into consideration the Federal Government's budget policy interests as well as the change in the competitive situation at the beginning of the third stage of European Monetary Union. There was a distinct increase in the circulation of public sector paper running for less than one year following the introduction of Bubills in the summer of 1996. At the end of 1996, the circulation of Bubills reached the limit of DM 20 billion; money market paper issued by the public sector therefore accounts for just over one-third of the total volume of debt securities with a maturity of one year or less. As was to be expected in the light of the findings with Bulis and Treuhand CP, the principal buyers of such paper were non-resident investors. At the end of July 1997, DM 16½ billion of Bubills (or almost 90 % of the circulation) was held by foreign investors.

Money market-related instruments

Deutsche Mark money market funds

Money market fund certificates hold an intermediate position between "genuine" money

5 In 1996, the Länder Governments were likewise granted issue volumes totalling DM 20 billion for paper with maturities of less than one year.

market instruments and long-term assets. Through their portfolios, which pursuant to the investment regulations of the Act on Investment Companies must comprise money market instruments and (short-term) bank deposits, money market funds offer purchasers the opportunity of investing even small amounts on money market conditions. On the other hand, money market fund certificates have no specified maturity and can therefore, in principle, also be used for the long-term investment of funds. For a long time, the Bundesbank was opposed to authorising money market funds as the use of this instrument on a large scale might have led to an erosion of the minimum reserve basis. Following the revision of the minimum reserve regulations these reservations could be put aside. Another factor was that German investment legislation had to be brought into line with EC regulations.

Growth of the money market funds

In the initial period, growth of the Deutsche Mark money market funds authorised since August 1994 was mainly determined by tax considerations and competetive reactions on the part of the banks. At the end of 1994, large purchases of money market fund certificates were made, which were subject to only ½ % property tax (compared with 1% for assets held direct as from August 1995); in February 1996, domestic money market funds' assets, at DM 40 billion, reached an all-time high. Following the (de facto) abolition of property tax at the beginning of 1997 and the further fall in the interest rate level in the money market, interest in money market fund certificates since then has declined. The banks' attempt to stem the outflow of funds from their system by offering competing products at market-related rates had a similar effect. In mid-1997, domestic money market funds managed assets worth DM 30 billion.

Money market instruments and money market-related paper

Circulation; DM billion

Item	Mid-1997	Compare End of 1991
Money market paper		
Bank bonds 1	19.7	3.1
Commercial paper	12.1	8.2
Public sector money market paper	22.9	10.9
of which: Bubills	20.0	–
Money market-related paper		
Money market fund certificates	30.1	–
Compare Time deposits 2	417.8	490.0
Floating-rate notes	297.1	105.3
Compare Bond circulation	3,288.8	1,686.8
Memo item Bonds with short remaining maturities 3	481.2	224.0

1 Bank bonds with an agreed original maturity of one year or less. — 2 Time deposits held with banks with maturities of one year or less. — 3 Bonds with remaining maturities of one year or less.

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Floating-rate notes

At DM 297 billion, the volume of floating-rate notes, whose interest rates are normally linked to representative money market rates, reached more than five times the circulation of original money market paper in mid-1997. Two-thirds of this amount are accounted for by issues of domestic credit institutions. For them, capital market paper for which money market rates are payable have the advantage that they are fully recognised as long-term financial resources for the purposes of the Liquidity Principles of the Banking Act, whereas only 60 % of bonds with maturities of less one year is recognised. Another factor is that floating-rate notes provide the basis for interest rate swaps. Finally, bank debt securities with a maturity of two years and over are not subject to minimum reserve requirements; this is probably why such paper was especially attractive prior to the marked lowering of reserve ratios between 1993 and 1995. The circulation of floating-rate notes issued by the public sector amounted to DM 101½ billion in mid-1997. No less than DM 71 billion of this amount consisted of floating-rate notes issued by the Currency Conversion Equalisation Fund allocated to east German banks and foreign trade firms in exchange for equalisation claims.

Bonds with short remaining maturities

Bonds with short remaining maturities may likewise act as substitutes for original money market paper. They differ from other securities bearing money market-related rates, however, in that – unlike floating-rate notes – they are not issued on money market terms but fall into the money market area as their maturity approaches and are then comparable to original money market paper in terms of yield and price risk. While such paper can act as a substitute for money market assets, it is less suitable, however, as a benchmark for original money market paper because of its heterogeneity. In mid-1997, DM 481 billion of bonds with a remaining maturity of one year or less was in circulation.

Collateralisation of money market transactions

Money market transactions traditionally unsecured

In Germany, no collateral is traditionally provided to back interbank borrowings. The principal basis for money market dealings is confidence in the first-rate credit standing of the counterparties. The risks involved in money market dealings are limited by the Banking Act which sets ceilings for credit institutions' placement of funds with individual counterparties (large exposure limits); moreover, bilateral limits are a common practice whereby individual counterparties or countries are allocated maximum dealing amounts or maximum maturities.[6]

Growing importance of repos

The collateralisation of money market borrowings not evidenced as such by certificates has become increasingly important recently. In addition to the securities repurchase transactions offered by the Deutsche Bundesbank on a regular basis since the mid-eighties, there has now been a growth in interbank lendings and money market transactions between credit institutions and non-banks backed by securities in the form of repos. In such transactions, the transferor sells securities for a limited period to the transferee against a sum of money. The fact that unsecured money market transactions used to be common practice is not the only reason why the repo market played only a minor role for a long time. One motive for repo transactions is that – much as in the case of stock lending – securities are (temporarily) transferred and can be used to meet obligations to deliver securities or for arbitraging. Universal banks, however, can often meet these requirements by recourse to their own port-

6 Another option is the provision of collateral in the form of land charges, guarantees, assignments of claims, or collateralisation of a limit by means of longer-term time deposits and letters of comfort.

folios, i.e. without market transactions in the form of repos. A further reason for the slow development of the repo market in Germany was the burden imposed by the minimum reserve requirement. The heavy international demand for Deutsche Mark repos was therefore met in financial markets abroad, whereas repo transactions in Germany mostly took the form of minimum reserve-free transactions between domestic credit institutions. These structures remained largely in place even after the reductions of the minimum reserve ratios between 1993 and 1995.

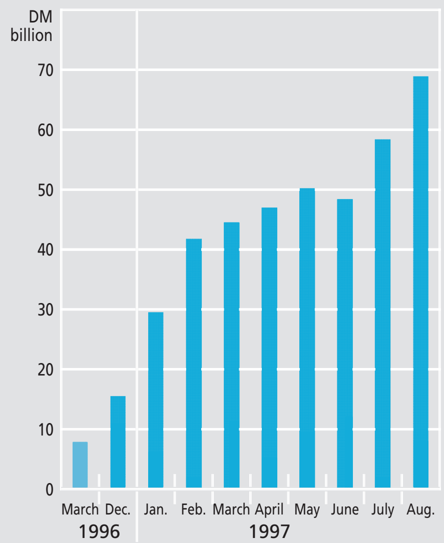
Effects of the exemption from minimum reserves

Domestic repo activities began to expand sharply only following the Bundesbank's decision in December 1996 to exempt all liabilities arising from "genuine" repurchase transactions with a maturity of one year or less in marketable securities from minimum reserve requirements with effect from January 1, 1997.[7] In March 1996, the repo liabilities of banks in Germany – which at the time were still subject to minimum reserve requirements – amounted to almost DM 8 billion.[8] Since December 1996, exempted liabilities arising from repo transactions have increased from DM 15½ billion to latterly just under DM 69 billion (August 1997). Transactions with non-residents – including foreign central banks – account for around 90 %, while the significance of internationally operating funds and enterprises is increasing. Repo transactions with non-banks continue to be almost negligible; there are virtually no transactions with individuals.[9]

Outlook for the repo market

Although the focus of repo transactions is still on securities at present, German institutions might in future also make greater use of this instrument for backing money market dealings. The collateralisation of money market operations is consistent with international practice; it is likely to predominate in the future Euro money market and might there-

Liabilities arising from repo operations *



* Liabilities arising from repo operations exempted pursuant to section 2 (2) b of the Minimum Reserves Order with agreed maturities of one year or less in marketable securities other than own-debt securities.

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7 Pursuant to section 2 (2) b of the Minimum Reserves Order, own-debt issues of the transferor are not exempted from minimum reserve requirements.
8 Figures based on a (voluntary) special survey by the Bundesbank of stock lending and repo transactions. At the end of March 1996, the level of German credit institutions' repo transactions in which they acted as transferors and transferees amounted to DM 22 billion and around DM 35 billion, respectively; the maturities of these transactions were in most cases less than one month. London's share in the Deutsche Mark-repo market amounted to around 90 %.
9 Figures based on the minimum reserve statistics; repos between domestic credit institutions and repos in which domestic banks act only as transferees are not recorded separately in the statistics. According to a sample survey conducted by the Land Central Bank in Hesse, repo transactions outstanding but not reported may be of a similar magnitude to that of exempted repo liabilities.

fore also feature increasingly in German institutions' money market activities. Moreover, repo transactions do not need to be counted towards the banks' above-mentioned internal trading limits in interbank transactions and – in the case of repos in government paper – they do not have to be backed by capital. The collateralisation of borrowings in the money market by means of high-quality securities therefore tends to reduce the transferor's cost of funds. Finally, repos promote the interlinking of capital and money markets, spot and forward markets and thereby increase the efficiency of the financial market.

Impact of the exemption on minimum reserves

In exempting liabilities arising from repos from minimum reserve requirements, the Bundesbank assumed that this would not impair the buffer and stabilising function of the minimum reserves in the money market. This assumption has been borne out. In the previous course of the year, minimum reserves required on liabilities to non-residents have, in fact, increased markedly. Repos therefore probably represent mainly new business rather than being at the expense of reserve-carrying liabilities.

Assessment from the point of view of monetary policy and outlook

"Dual nature" of the securitised money market

On account of its dual nature as an operational point of leverage for monetary policy and a market for short-term corporate finance, the Bundesbank has traditionally paid particular attention to the securitised money market. From the point of view of monetary policy, a potentially greater flexibility of the set of monetary policy instruments had to be weighed against the possible shocks and conflicts for the monetary policy strategy and the implementation of a non-inflationary monetary policy due to a rapid advance of short-term financial relationships. At the strategic level, the main concern is that a surge in money substitutes might jeopardise or even destroy the empirical basis of monetary targeting. At the operational level, the chief consideration is the effectiveness of the minimum reserve instrument. Another factor is that a predominance of short-termism in the financial system might increase the pressure on the central bank to adapt its interest rate policy to requirements which are questionable in terms of stability policy.

Outlook for securitised dealings in central bank money

Extending the set of monetary policy instruments by the addition of liquidity paper was of little overall significance in Germany. From the present perspective, major stimuli are scarcely to be expected in that area in future either. Although outright transactions in debt instruments will be possible in the European System of Central Banks (ESCB), they will only be an option for very short-term fine-tuning operations or for permanently influencing the structural liquidity position of the banking system vis-à-vis the ESCB. The issue of own-debt instruments is being prepared solely for the purpose of structural operations. As in the case of the Bundesbank, the main refinancing operations will take the form of short-term securities repurchase transactions rather than that of outright purchases of (short-term) debt instruments.

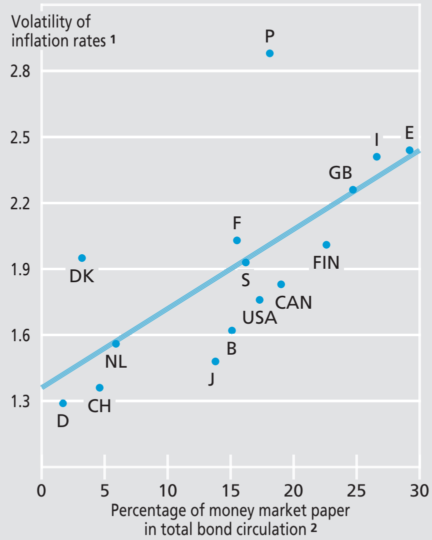
Short-term securitised financing and monetary policy

The fact that little use is made of securitised short-term financing and its minor significance in absolute terms show that potential shocks to monetary policy have so far remained within narrow limits. This trend can scarcely be regarded as the result of regulatory intervention in the financial markets. The moderate growth of some market segments – such as the Deutsche Mark CP market or money market funds – indicates instead that financing and investment needs were evidently being met quite well even before these markets emerged. Viewed in those terms, the subordinate role played by the securitised money market in Germany is, not least, a reflection of a successful monetary policy which has kept demand for short-term forms of finance at a low level. This view is also supported by an international comparison which reveals that, in an environment of fairly sharply fluctuating inflation rates (which have often simultaneously destabilised the banking system), short-term securitised borrowing tends to be more common than in countries having more stable prices.

Changes in emphasis due to internationalisation

Given the far-reaching changes in the financial markets – notably, the globalisation of investment decisions and the simultanous concentration of savings in the hands of institutional investors – it would now scarcely be possible to limit short-termism effectively by means of regulations. At the same time, an internationally efficient allocation of capital requires also taking particular account of the investment needs of institutional investors. A broad range of short-term financial instruments is therefore, not only on competitive grounds, of greater importance than it was even a few years ago.

Uncertainty about inflation and significance of the securitised money market



1 Standard deviation of annual inflation rate at the consumer level 1976-96. — 2 End of 1996.

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Role of monetary policy

The further development of the securitised money market is, however, fundamentally the responsibility of those competing in the markets for funds. Monetary policy creates the appropriate underlying conditions for this process by maintaining a stable monetary environment and by conducting a credible monetary policy to counteract – still undesirable – excessive short-termism in the financial sector. If it succeeds in stabilising longer-term inflation expectations at a low level, it has fulfilled a key requirement of action geared to the long term. In that way, the central bank simultaneously provides the best basis for efficient market structures and an organic development of the securitised money market.