

**Monthly Report of the
Deutsche
Bundesbank**

January 1992

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More detailed statistics than those contained in this Report will be found in the Statistical Supplements to the Monthly Reports of the Deutsche Bundesbank:

Series 1 Banking statistics, by category of banks
Series 2 Securities statistics
Series 3 Balance of payments statistics
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Series 5 The currencies of the world

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Commentaries

Monetary developments

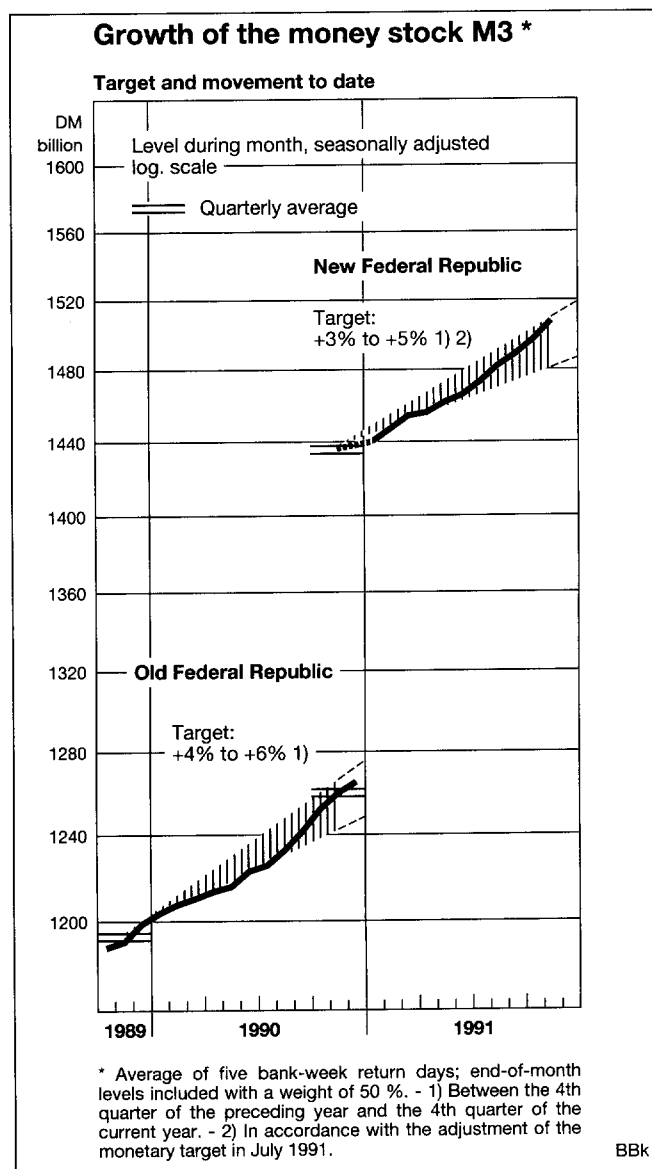
Monetary growth, which has accelerated since mid-year, continued unabated in November. In that month the *money stock M3* (currency in circulation and the sight deposits, time deposits for less than four years and savings deposits at statutory notice held by domestic non-banks at domestic banks; calculated as a monthly average) exceeded the average level of the fourth quarter of 1990 by a seasonally adjusted annual rate of 5.1%, compared with 4.7% in October and 4.5% in September. It was thus running along the top edge of last year's target corridor of 3% to 5%.

Of the seasonally adjusted *components* of the money stock, shorter-term time deposits expanded at an exceptionally fast pace during November. Savings deposits at statutory notice likewise grew comparatively strongly. If adjustment is made for the very pronounced seasonal influences, the growth of currency in circulation and sight deposits, which had risen steeply over the preceding months, was, by contrast, sluggish. According to preliminary, seasonally adjusted data, domestic non-banks further increased their short-term financial assets abroad in November. The trend rate of growth of the money stock M3 – extended to include money balances abroad and short-term bank bonds in the hands of domestic non-banks – continues to exceed that of traditional M3.

The expansionary impact which *bank lending to enterprises and individuals* has for some time been having on the money creation process intensified further in November. Both short-term loans to trade and industry and longer-term lending grew vigorously during that month. Overall, bank lending to the private sector went up by DM 29.3 billion, and thus almost twice as fast as a year before (DM 16.4 billion); over the last six months it has increased by a seasonally adjusted annual rate of 11 ½ %.

Domestic non-banks' external payments, which had slightly restrained monetary growth in October, likewise exerted an expansionary impact in November. In this area sizeable inflows were recorded, the greater part of them, however, owing to seasonal factors. The *net external assets of the banks and the Bundesbank*, a rise in which mirrors such inflows to non-banks, increased by DM 19.4 billion, compared with DM 16.2 billion in the corresponding month of the preceding year, and a decline of DM 2.9 billion in October.

Public sector cash transactions, by contrast, dampened the money creation process in November, after



seasonal adjustment. Although the *public authorities* increased their debt to banks and the Bundesbank by DM 5.9 billion, at the same time they strongly built up (by DM 2.9 billion) their balances with the Bundesbank, which are not counted towards the money stock and which they typically reduce during that month.

Domestic non-banks' *monetary capital formation* with banks, which had slackened in October, picked up again in November. Overall, DM 14.4 billion of longer-term funds accrued, as against DM 15.1 billion a year earlier. Once again, investors' interest focused mainly on bank bonds (DM 8.1 billion). There was also increased demand for long-term time deposits (DM 4.4 billion). A total of DM 1.8 billion accrued to banks from sales of bank savings bonds and from savings de-

The money stock and its counterparts				
DM billion; change during period				
Item	1991			Com- pare Nov. 1990
	Sep.	Oct.	Nov. p	
I. Bank lending to domestic non-banks, total	+23.6	+27.0	+35.1	+21.9
1. Lending by the Bundesbank	+ 0.1	+ 1.6	- 1.0	+ 0.4
2. Lending by banks 1 to enterprises and individuals of which	+23.5	+25.4	+36.2	+21.5
short-term lending	+26.1	+21.3	+29.3	+16.4
to public authorities	+10.9	+ 2.0	+ 6.7	+ 4.6
to public authorities	- 2.6	+ 4.1	+ 6.9	+ 5.1
II. Net external assets of banks and the Bundesbank	+ 9.2	- 2.9	+19.4	+16.2
III. Monetary capital formation at banks from domestic sources, total	+11.8	+ 8.2	+14.4	+15.1
of which				
Time deposits and funds borrowed for four years and over	+ 1.3	+ 2.4	+ 4.4	+ 2.4
Savings deposits at agreed notice	- 0.1	- 0.1	+ 0.8	+ 2.1
Bank savings bonds	+ 0.5	+ 1.0	+ 0.9	+ 2.2
Bank bonds outstanding 2	+ 8.9	+ 3.7	+ 8.1	+ 6.9
IV. Central bank deposits of domestic public authorities	+ 2.3	- 4.2	+ 2.9	- 8.1
V. Other factors	+14.7	+12.0	- 2.9	+ 4.9
VI. Money stock M3 (Balance: I plus II less III less IV less V)	+ 4.0	+ 8.1	+40.2	+26.2
Currency in circulation	- 0.1	+ 2.0	+ 5.0	+ 6.8
Sight deposits	+ 7.4	+ 1.0	+28.9	+21.1
Time deposits and funds borrowed for less than four years	- 1.6	+ 5.1	+ 5.8	+ 3.2
Savings deposits at statutory notice	- 1.7	+ 0.0	+ 0.6	- 4.9
Memorandum item				
M3 as a monthly average; annual change from 4th qtr of 1990 in % 3	+ 4.5	+ 4.7	+ 5.1	.
1 Including lending against Treasury bills and against securities. — 2 Excluding banks' holdings. — 3 Change in the money stock M3 (as a monthly average of five bank-week return days, end-of-month levels included with a weight of 50%) from the average of the fourth quarter of 1990, expressed as an annual rate, seasonally adjusted. — p Provisional. Discrepancies in the totals are due to rounding. BBk				

posits at agreed notice. DM 0.2 billion was added to banks' capital and reserves.

Securities markets

In November sales in the German bond market continued to run at a high level. Domestic borrowers issued *bonds* with a market value of DM 40.9 billion, compared with DM 46.2 billion in October and DM 46.7 billion a year before. On account of markedly smaller redemptions, net sales rose to DM 28.6 billion (after taking due account of changes in issuers' holdings of their own bonds), compared with DM 21.2 billion in the previous month; in November 1990 net sales came to DM 30.2 billion. At the same time foreign bonds (including foreign investment fund units) to the transaction value of DM 3.4 billion were placed in the domestic market. Total sales of domestic and foreign securities therefore amounted to DM 32.0 billion, compared with DM 22.7 billion in October and DM 30.6 billion a year before.

At DM 15.6 billion, the *public sector* received almost one-half of the amount raised in November, as much as DM 13.7 billion (net) of this sum accruing to the Federal Government. That entity increased the volume of Federal Treasury notes launched in September, with maturities of just over four years and a nominal interest rate of 8.75%, to DM 13 billion. The Federal Government received DM 3.1 billion (net) from ongoing sales of five-year special Federal bonds and DM 4.6 billion in connection with market regulation operations for "traditional" Federal bonds. The amount of Federal savings bonds outstanding increased by DM 0.2 billion. The Länder Governments and the Federal Post Office raised DM 2.1 billion and DM 0.3 billion net, respectively, in the bond market. The Federal Railways, by contrast, reduced its bond market debt by DM 0.8 billion. The *banks* recorded net sales totalling DM 13.0 in November. At DM 7.1 billion, bonds issued by specialised banks predominated; no less than DM 4.0 billion of this sum was accounted for by two issues by an east German bank. Communal bonds were sold to the amount of DM 2.9 billion, while sales of "other" bank bonds and mortgage bonds yielded DM 2.1 billion and DM 1.0 billion, respectively.

In the market for *foreign Deutsche Mark bonds* issuing activity remained fairly brisk in November. Foreign borrowers issued bonds denominated in Deutsche Mark to the nominal value of DM 3.8 billion. After deduction of redemptions, net sales came to DM 2.1 billion, which was virtually as much as in October.

In November *domestic non-banks'* propensity to invest was distinctly more pronounced than in the previous months. Their investments in the domestic

Sales and purchases of bonds *						
DM billion						
Period	Sales, total	Domestic bonds 1			Foreign bonds 2	
		Total	of which		Total	of which investment fund units
			Bank bonds	Public bonds		
1991 Sep.	17.7	16.8	8.4	8.4	0.9	1.5
Oct.	22.7	21.2	11.5	9.7	1.5	1.4
Nov. p	32.0	28.6	13.0	15.6	3.4	1.1
Compare 1990 Nov.	30.6	30.2	17.9	12.3	0.4	— 0.1
Period	Purchases, total	Banks (incl. the Bundesbank) 3	Non-banks 4			Non-residents 2
			Total	Domestic bonds	Foreign bonds	
1991 Sep.	17.7	5.2	6.0	6.7	— 0.6	6.5
Oct.	22.7	4.4	6.0	4.9	1.1	12.2
Nov. p	32.0	8.9	13.1	12.9	0.2	10.0
Compare 1990 Nov.	30.6	12.2	9.5	9.8	— 0.2	8.9

* Including foreign investment fund units, which are included in foreign bonds. — 1 Net sales at market values plus/less changes in issuers' holdings of their own bonds. — 2 Transaction values. — 3 Book values; statistically adjusted. — 4 Residual. — p Provisional.
Discrepancies in the totals are due to rounding. BBk

In November issuing activity in the *share market* virtually came to a standstill. Domestic enterprises placed new shares to the market value of less than DM 0.1 billion, against DM 1.3 billion in the previous month and DM 1.7 billion in November 1990. At the same time foreign equities to the transaction value of DM 2.0 billion were sold in the German market; they consisted mainly of German enterprises' direct investment abroad. Non-banks, by contrast, reduced their domestic participating interests. Overall, foreign investors bought German shares to the transaction value of DM 0.2 billion. Banks increased their share portfolios by DM 1.4 billion (book value), made up entirely of domestic paper.

bond market totalled DM 12.9 billion (net), of which DM 7.9 billion was in bank bonds and DM 5.1 billion in public bonds. In addition, they bought foreign investment fund units worth DM 1.1 billion; at the same time they ran down their holdings of foreign bonds by DM 0.9 billion. In November *foreign investors* bought bonds to the transaction value of DM 10.0 billion in the German bond market. Their purchases once again focused on public bonds (DM 9.0 billion). *Banks* enlarged their bond portfolios by DM 8.9 billion (book value). Almost two-thirds of the amount invested was accounted for by domestic paper (DM 5.7 billion), the bulk of which consisted of bank bonds (DM 4.2 billion). But foreign bonds, at DM 3.2 billion (net) in November, likewise played a greater role in banks' investments than in the previous months.

In November domestic *investment funds* (those open to the general public) received sizeable amounts of funds (DM 1.9 billion), benefiting in part from reinvestments of distributed earnings. As before, the bond-based funds received the lion's share (DM 1.4 billion); the share-based funds and the open-end real estate funds sold units to the value of DM 0.4 billion and DM 0.1 billion, respectively. The specialised funds received DM 1.9 billion.

8 Federal cash trend

In the autumn months of 1991 the cash figures of the Federal Government were relatively favourable. In *November* the cash deficit came to DM 7 billion, against DM 16 billion a year before. Admittedly, it must be borne in mind here that in November 1990 exceptionally heavy payments were made into the Federal Government's account with the Provisional Administrative Office of the Deutsche Bundesbank in Berlin, through which the transactions on behalf of the new Länder were settled. Hence cash spending was 17% below the previous year's level, while cash revenue grew by almost 7%.

The combined results for the months from *January to November* reveal the heavy financial calls made on the Federal Government, particularly as a result of the unification of the two Germanys. During that period the Federal Government cash deficit amounted to DM 54 billion, and was thus DM 10 billion higher than in the same period of the previous year. Chiefly as a result of unification-related spending and of the German contributions towards the cost of the Gulf war, cash expenditure was more than one-fifth above the preceding year's level. Admittedly, cash revenue grew at an equal pace; in addition to the territorial expansion, this owed something to additional revenue from the tax increases which came into effect in mid-year and from the introduction of a solidarity surcharge. In *December* (a major tax payment month) the Federal Government probably recorded a cash surplus, so that over the year as a whole the cash deficit was smaller than in the period up to November. However, the cash figures calculated from the transactions of the Federal Government through its accounts with the Bundesbank cannot be equated with the Federal budget deficit, which was estimated at DM 67.5 billion in the Federal budget and has recently been put at less than DM 60 billion by the Federal Ministry of Finance. The budget deficit will probably be larger than the cash deficit, particularly since a number of payments which, while relating to 1991, will in cash terms not be effected until in 1992 are still due to be booked to the debit of the 1991 Federal budget.

Public debt

In November the central, regional and local authorities drew heavily on the credit markets. Their borrowing in that month came to DM 21.5 billion. The Federal Government alone raised DM 13 billion net;

Federal finance on a cash basis * °				
DM billion				
Item	January- November		November	
	1990	1991 p	1990	1991 p
Cash receipts	289.97	351.41	26.22	28.00
Cash expenditure	333.98	405.40	42.24	35.06
Cash surplus (+) or deficit (—)	—44.01	—54.00	—16.02	— 7.05
Financing				
1. Change in cash resources 1	+ 2.69	—10.79	— 8.66	+ 4.17
2. Change in Bundesbank advances	—	—	—	— 1.77
3. Change in credit market debt, total	+ 43.02	+ 33.36	+ 7.23	+ 12.92
(a) Treasury discount paper	— 2.23	+ 0.00	— 0.03	—
(b) Treasury financing paper	+ 9.77	+ 0.36	+ 0.83	— 0.36
(c) Federal Treasury notes	— 2.80	+ 9.62	—	+ 5.52
(d) Special Federal bonds	+ 25.13	+ 13.09	+ 2.25	+ 3.18
(e) Federal savings bonds	— 2.84	+ 3.21	+ 0.18	+ 0.17
(f) Bonds	+ 36.53	+ 26.25	+ 5.58	+ 4.57
(g) Bank advances	—18.44	—18.91	— 1.60	— 0.17
(h) Loans from social security funds	— 0.18	+ 0.40	+ 0.02	—
(i) Loans from other non-banks	— 1.82	— 0.56	— 0.00	—
(j) Other debt	— 0.10	— 0.11	—	—
4. Items in course of settlement	+ 2.52	+ 8.82	—	—
5. Seigniorage	1.15	1.02	0.13	0.07
6. Total (1 less 2 less 3 less 4 less 5)	—44.01	—54.00	—16.02	— 7.05
Memorandum items				
Increase or decrease from the previous year in %				
Cash receipts	+ 8.9	+ 21.2	+ 13.1	+ 6.8
Cash expenditure	+ 16.4	+ 21.4	+ 37.4	—17.0

* The cash transactions recorded as cash receipts and cash expenditure comprise payments into and out of the accounts carried by the Bundesbank for the Federal Government. The cash receipts and cash expenditure differ from those shown in the official financial statistics primarily because they are recorded not at the time they are entered in the budgetary accounts but at the time of the actual receipt or outpayment, and because transactions on behalf of the European Communities (which are entered not in the Federal budget but in appendices thereto) are conducted through the accounts of the Federal Government. — ° From the beginning of 1991 including the cash transactions of the Federal Government on behalf of eastern Germany. — 1 Deposits at the Bundesbank and other credit balances. — p Provisional. Discrepancies in the totals are due to rounding. BBk

apart from the buoyant sales of its tap issues, this was attributable to the Treasury note tender which is carried out at two-monthly intervals. The Länder Governments, whose financing requirements are particularly high in November, also incurred relatively substantial debt, i.e. DM 6 billion. The east German Länder Governments likewise borrowed on a significant scale (DM 0.6 billion) for the first time. Of the other public sector borrowers, only the ERP Special Fund and the Debt-Processing Fund were of any importance, at about DM 1 billion each. In the first eleven months of the year together, net borrow-

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of the articles published in the Monthly Reports of the Deutsche Bundesbank between January 1970 and December 1991 and of the commentaries on monetary policy measures appearing between January 1983 and December 1991 *

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* The articles published in the Monthly Reports of the Deutsche Bundesbank prior to January 1960 and January 1970 were last listed in the indexes of December 1966 and December 1981, respectively; for the commentaries on monetary policy measures appearing up to December 1982 see the index of December 1984.

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	The statistics of the Deutsche Bundesbank on credit assurances	1979	May	11
	The monetary reserves of the Bundesbank as reflected in its Weekly Return	1982	Jan.	13
	The role of the Deutsche Bundesbank in cashless payments	1982	March	29
	The present state and future development of the automation of cashless payments at the Bundesbank	1985	Aug.	47
	The credit information exchange for loans of one million Deutsche Mark or more at the Deutsche Bundesbank	1987	Oct.	40
	The Weekly Return of the Deutsche Bundesbank	1990	Jan.	21
	The new banknotes of the Deutsche Bundesbank	1990	Aug.	32
	Development policy	Recent trends in the development policy cooperation of the Federal Republic of Germany	1990	Oct.	32
Econometric model	Structure and results of the econometric model of the Deutsche Bundesbank	1975	May	26
	Further development of the econometric model of the Deutsche Bundesbank	1978	April	22
	The impact of the second oil price shock on the economy of the Federal Republic of Germany (an econometric analysis)	1981	April	13
	Structure and properties of a new version of the econometric model of the Deutsche Bundesbank	1982	Aug.	29
	External influences on the current account and domestic trends in the econometric model of the Deutsche Bundesbank	1986	July	24
	Determinants of the German current account 1984 to 1987 (Results of an econometric analysis)	1988	May	31
	Macro-economic forecasting with the econometric model of the Deutsche Bundesbank	1989	May	27
Energy	Households' expenditure on energy after the second oil price shock	1981	April	18
	The external energy account of the Federal Republic of Germany see also: Econometric model	1981	July	16
Enterprises	Enterprises' annual accounts for 1967	1970	March	15
	Capital structure and earnings position of enterprises	1970	April	21
	Enterprises' annual accounts for 1968	1971	Jan.	12
	Enterprises' annual accounts for 1969	1971	Nov.	28
	Enterprises' annual accounts for 1970	1972	Nov.	24
	The annual accounts of private limited companies	1973	April	16
	Enterprises' annual accounts for 1971 and initial results for 1972	1973	Nov.	28
	Enterprises' annual accounts for 1972 and initial results for 1973	1974	Nov.	32
	The earnings position and self-financing of enterprises in 1973 and 1974	1975	Nov.	11
	The earnings position and financing of enterprises in 1975	1976	Dec.	38
	The annual accounts of partnerships and sole proprietorships for 1974	1977	Jan.	23
	The earnings position and financing of enterprises in 1976	1977	Nov.	13
	The own funds of enterprises	1978	Oct.	16
	Enterprises' profitability and financing in 1977 and their stocks	1979	Jan.	15
	Enterprises' profitability and financing...			
	... in 1978	1979	Nov.	16
	... in 1979	1980	Nov.	15
... in 1980	1981	Nov.	17	
... in 1981	1982	Nov.	14	
... in 1982	1983	Nov.	14	
... in 1983	1984	Nov.	12	

Topic	Heading	Year	Month	Page
Enterprises (cont'd)	Enterprises' profitability and financing...			
	... in 1984	1985	Nov.	13
	... in 1985	1986	Nov.	13
	... in 1986	1987	Nov.	13
	... in 1987	1988	Nov.	13
	... in 1988	1989	Nov.	12
	Overall economic trends and the earnings and self-financing of enterprises...			
	... in the second half of 1983	1984	March	12
	... in the second half of 1984	1985	March	13
	... in the second half of 1985	1986	March	17
	Company pension schemes in the Federal Republic of Germany	1984	Aug.	30
	Business finance in the United Kingdom and Germany	1984	Nov.	33
	Annual accounts of small and medium-sized enterprises	1985	April	22
	Enterprises' profitability, financial strength and liquidity	1985	Aug.	30
	The significance of enterprises' earnings for capital formation and trends in staff numbers	1986	April	17
	The significance of enterprises' earnings for capital formation and employment between 1983 and 1986	1988	April	29
	Enterprises' annual accounts in the years from 1983 to 1986	1988	July	19
	Enterprises' profitability and capital formation in the second half of 1988	1989	March	13
	The effects of the Act Concerning the EC Annual Accounts Directive on the figures of the corporate balance sheet statistics	1990	Oct.	17
	West German enterprises' profitability and financing			
	... in 1989	1990	Nov.	16
	... in 1990	1991	Nov.	14
	see also: Capital transactions			
Equalisation of burdens	Equalisation of burdens over a quarter of a century	1975	Oct.	19
Euro-money market	The Euro-DM market	1983	Jan.	26
	The markets for private ECUs	1987	Aug.	30
	Trends in the Euro-deposits of domestic non-banks	1988	Jan.	13
	Foreign currency deposits of German non-banks	1989	Jan.	22
European Monetary System	The European system of narrower exchange rate margins	1976	Jan.	22
	The European Monetary System	1979	March	11
	Exchange rate movements within the European Monetary System	1989	Nov.	28
European Communities	Monetary policy aspects of the revision of agricultural monetary compensatory amounts in the European Community	1984	May	37
	Monetary policy decisions at the EC level	1989	July	12
	The first stage of European economic and monetary union	1990	July	29
	Statement by the Deutsche Bundesbank on the establishment of an Economic and Monetary Union in Europe	1990	Oct.	40
	see also: Balance of payments; Public finance			
Exchange rate	Calculation of weighted revaluation rates for the Deutsche Mark	1973	Sep.	42
	Change in the method of calculation of the trade-weighted exchange rate of the Deutsche Mark	1977	Oct.	22
	The calculation of the weighted external value of the Deutsche Mark	1979	April	22
	New calculation of the external value of the Deutsche Mark and foreign currencies	1985	Jan.	38
	Revision of the method of calculating the external value of the Deutsche Mark and foreign currencies	1989	April	43
	see also: European Monetary System			
External assets and liabilities	External assets and liabilities of the Federal Republic of Germany	1974	Nov.	13
	External assets and liabilities of the Federal Republic of Germany	1976	Nov.	30
	External assets and liabilities of the Federal Republic of Germany	1977	Oct.	17
	External assets and liabilities of the Federal Republic of Germany	1979	Oct.	27
	External assets and liabilities of the Federal Republic of Germany...			
	... at the end of 1980	1981	May	24
	... at the end of 1982	1983	Aug.	28
	... in mid-1984	1984	Oct.	26
	External assets of the Federal Republic of Germany in mid-1986	1986	Oct.	30
External assets and liabilities of the Federal Republic of Germany in mid-1989	1989	Oct.	26	
External position	The short-term external position of the banks in the autumn of 1970	1970	Dec.	35
	The short-term external position of German banks	1972	Oct.	15
	Recent trends in the foreign business of German banks	1978	March	16
	see also: Capital transactions			

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Financial account	see: Capital finance account; National product			
Foreign employees	Foreign employees in Germany: their transfers to their home countries and their savings in the Federal Republic	1974	April	21
German monetary, economic and social union	Terms of the currency conversion in the German Democratic Republic on July 1, 1990	1990	June	40
	The monetary union with the German Democratic Republic	1990	July	13
	Technical and organisational aspects of the monetary union with the German Democratic Republic	1990	Oct.	25
	Promoting economic activity in the new Länder	1991	March	15
	Measurement of consumer price trends in united Germany	1991	May	32
	One year of German monetary, economic and social union	1991	July	18
	The west German economy under the impact of the economic unification of Germany	1991	Oct.	14
Income	see: Capital finance account; National product; Saving ratio			
Insurance enterprises	Asset formation and investment policy of insurance enterprises since 1965	1972	Jan.	15
	Capital formation and investment policy of insurance enterprises... ... since 1971	1976	Aug.	18
	... since 1975	1980	April	11
	... since 1979	1987	Jan.	17
	see also: Social security funds			
Interbank assets and liabilities	The mutual claims and liabilities of German banks	1970	Dec.	22
	Domestic interbank assets and liabilities	1980	Oct.	26
	Domestic banks' interbank assets and liabilities since 1980	1988	March	22
Interest rates	Changes in the interest rate structure in the Federal Republic of Germany since 1967	1971	Oct.	36
	Interest rate movements and changes in the interest rate structure in the Federal Republic of Germany since 1967	1978	April	11
	Interest rate movements since 1978	1983	Jan.	13
	Interest rate movements and the interest rate pattern since the beginning of the eighties	1991	July	31
International Monetary Fund	The increase in the German IMF quota and the new presentation of the reserve position in the IMF in the Bundesbank's balance sheet	1971	Jan.	37
	The second amendment to the Articles of Agreement of the International Monetary Fund — an important step in the further development of the international monetary order	1977	Aug.	21
	The financing of the International Monetary Fund and multilateral development banks	1983	Sep.	43
Investment	see: Capital transactions; National product; Public finance			
Investment funds	Recent developments in saving through investment companies	1970	Jan.	5
	Asset structure of the German security-based investment funds	1970	Oct.	41
	Real estate funds in the Federal Republic of Germany	1973	Jan.	11
	Developments among closed-end real estate investment funds	1975	Jan.	10
	Developments in saving through investment companies since 1970	1979	Aug.	11
	Saving through investment companies on the ascent	1988	Oct.	30
Labour market	Longer-term trends on the labour market	1989	Aug.	32
Licence transactions	see: Patent and licence transactions			
Liquidity	see: Bank liquidity			
Minimum reserves	Changes in the minimum reserve system	1977	March	20
	Changes in the minimum reserve regulations	1983	April	19
	Minimum reserve arrangements abroad	1990	March	21
Monetary policy	Current problems of monetary policy*	1971	Nov.	5
	The present monetary situation*	1976	Nov.	5
	Thirty years of the Deutsche Mark	1978	June	5
	The balance of payments and monetary policy	1981	March	5
	The Bundesbank's transactions in securities under repurchase agreements	1983	May	23
	Recent developments with respect to the Bundesbank's securities repurchase agreements	1985	Oct.	18

* Address by the President of the Deutsche Bundesbank

Topic	Heading	Year	Month	Page
Monetary policy (cont'd)	Forty years of the Deutsche Mark	1988	May	13
	New general conditions for foreign Deutsche Mark bonds see also: Capital transactions; Deutsche Bundesbank	1989	July	16
Monetary reserves	The monetary reserves of the Bundesbank	1988	Nov.	28
	Longer-term trends in global monetary reserves see also: Deutsche Bundesbank	1990	Jan.	33
Money market	see: Interbank assets and liabilities			
Money stock	Longer-term movement of the money stock	1971	July	11
	The longer-term trend and control of the money stock	1985	Jan.	13
	Methodological notes on the monetary target variable "M3"	1988	March	18
	see also: Euro-money market			
National product	National product and income in the second half of 1969	1970	Feb.	47
	Sources and uses of income, by sector...			
	... in the second half of 1970	1971	Feb.	47
	... in the second half of 1971	1972	March	17
	... in the second half of 1972	1973	March	15
	... in the second half of 1973	1974	March	10
	... in the second half of 1974	1975	March	13
	... in the second half of 1975	1976	March	10
	... in the second half of 1977	1978	March	11
	National product, investments and their financing...			
	... in the first half of 1970	1970	Oct.	10
	National product, capital formation and its financing...			
	... in the first half of 1971	1971	Oct.	10
	... in the first half of 1972	1972	Oct.	33
	... in the first half of 1973	1973	Oct.	15
	... in the first half of 1974	1974	Oct.	13
	Acquisition of financial assets, incurrence of liabilities and financial balances of the economic sectors in the first half of 1975	1975	Oct.	10
	Earnings and capital investments of enterprises in the first half of 1975	1975	Oct.	14
	Households' income and its uses in the first half of 1976	1976	Oct.	11
	Recent trends in private saving	1978	July	14
	Income, capital formation and its financing in the first half of 1978	1978	Oct.	11
	Income and its uses...			
	... in the second half of 1978, by sector	1979	March	19
	... in the second half of 1979, by sector	1980	March	15
	Enterprises' capital formation and financing...			
	... in the first half of 1979	1979	Oct.	11
	... in the first half of 1980	1980	Oct.	12
	... in the first half of 1981	1981	Oct.	17
	... in the first half of 1982	1982	Oct.	29
	... in the first half of 1983	1983	Oct.	14
	... in the first half of 1984	1984	Oct.	12
	... in the first half of 1985	1985	Oct.	12
	Overall economic developments and enterprises' earnings...			
... in the second half of 1980	1981	March	26	
... in the second half of 1981	1982	March	14	
National product and income in the second half of 1982	1983	March	13	
Households' income, consumption and saving in the first half of 1986	1986	Oct.	13	
Overall economic trends, income and consumption of households in the second half of 1986				
Overall economic trends and households' income in the first half of 1987	1987	March	13	
Households' and enterprises' income and its use in the second half of 1987	1987	Oct.	13	
The services sector in the Federal Republic of Germany as the driving force behind economic growth	1988	March	11	
Enterprises' and households' income and use of income in the first half of 1988	1988	Aug.	38	
Households' income and its use in the first half of 1989	1988	Oct.	13	
Households' income and its use in the first half of 1989	1989	Oct.	12	
Producing enterprises' income and its use since the beginning of the eighties	1990	May	12	
Trends in and distribution of income in western Germany since 1982	1991	Aug.	42	
see also: Capital finance account				
Patent and licence transactions	Patent and licence transactions with foreign countries...			
	... in 1968 and 1969	1970	May	23
	... in 1970 and 1971	1972	May	23
	... in 1972 and 1973	1974	Oct.	25

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Patent and licence transactions (cont'd)	Patent and licence transactions with foreign countries	1976	April	16
	Patent and licence transactions with foreign countries ...			
	... in 1978 and 1979	1980	July	19
	... in 1980 and 1981	1982	July	26
	... in 1982 and 1983	1984	July	23
	... in 1984 and 1985	1986	May	27
	Patent and licence transactions with foreign countries and other exchanges of technological know-how through service transactions ...			
	... in 1986 and 1987	1988	May	37
	... in 1988 and 1989	1990	May	27
	Principles concerning the capital and liquidity of banks	The revision of Principle III concerning the liquidity of banks, pursuant to section 11 of the Banking Act	1973	April	11
The new Principles I and Ia Concerning the Capital of Banks		1990	Aug.	36
Production potential	Production potential in the Federal Republic of Germany	1973	Oct.	27
	The growth of productivity in the Federal Republic of Germany and its determinants	1980	Jan.	11
	Recalculation of the production potential of the Federal Republic of Germany	1981	Oct.	30
Public finance	Recent trends in public debt	1970	Aug.	12
	Local authority finance in recent years	1970	Dec.	14
	Recent trends in the finances of the German Federal Railways and the German Federal Post Office	1971	April	14
	Receipts of the central, regional and local authorities since 1960	1971	Aug.	11
	Public authorities' bank balances and other claims on banks	1972	Jan.	38
	Public authorities' capital expenditure since 1961	1972	April	10
	Expenditure of central, regional and local authorities on personnel since 1961	1972	July	19
	Recent developments in local authority finance	1973	July	15
	The central, regional and local authorities in the business cycles since 1967	1973	Nov.	11
	Public finance in 1973	1974	April	11
	Recent trends in the finances of the German Federal Railways and the German Federal Post Office	1974	Aug.	12
	Public finance in 1974	1975	April	10
	Recent trends in Länder finance	1975	Aug.	18
	Recent trends in local authority finance	1976	April	10
	The movement of tax revenue under the influence of inflationary tendencies	1976	Aug.	12
	The growing importance of the European Communities for the public budgets of the Federal Republic of Germany	1977	Jan.	15
	Trends in the finances of the German Federal Railways and the German Federal Post Office since 1974	1977	July	19
	The development of the tax burden since the beginning of the seventies	1978	Nov.	21
	Debt of the public authorities	1979	July	15
	The finances of the local authorities since the mid-seventies	1980	Jan.	17
	The finances of the German Federal Railways and the German Federal Post Office since 1977	1980	Aug.	31
	The finances of the Länder Governments in 1980	1980	Nov.	12
	The expenditure of the central, regional and local authorities since the mid-seventies	1981	Jan.	19
	Recent trends in the finances of the local authorities	1981	July	22
	The finances of the Länder Governments in 1981	1981	Nov.	12
	The financial relations of the Federal Republic of Germany with the European Communities since the mid-seventies	1982	Jan.	17
	The finances of the local authorities in 1981	1982	July	20
	Trends in tax revenue since the mid-seventies	1982	Aug.	21
	Recent trends in the finances of the Länder Governments	1982	Nov.	25
	Expenditure on social assistance since the beginning of the seventies	1983	April	34
	The finances of the German Federal Railways and the German Federal Post Office since 1980	1983	Aug.	44
	The finances of the local authorities since the beginning of the eighties	1983	Nov.	26
	Recent trends in public debt	1984	Jan.	21
	Trends in the finances of the Länder Governments since the middle of the seventies	1984	May	28
	Capital formation, expenditure on loans and other financial aid by the central, regional and local authorities since the mid-seventies	1984	Nov.	24
	Trends in tax revenue since the beginning of the eighties	1985	July	24
	The financial relations of the Federal Republic of Germany with the European Communities since the beginning of the eighties	1985	Aug.	39
	The finances of the Federal Labour Office since 1981	1986	March	24

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Public finance (cont'd)	Bundesbank cash advances to the Federal Government and the Länder Governments	1986	May	22	
	The finances of the German Federal Railways and the German Federal Post Office since 1983	1986	Aug.	32	
	The finances of the local authorities since 1982	1986	Nov.	28	
	Changes in the structure of the public authorities' debt since 1980	1987	April	13	
	Trends in the finances of the Länder Governments since 1982	1987	Nov.	28	
	The finances of the local authorities since 1985	1988	April	13	
	Development and pattern of the central, regional and local authorities' capital formation	1988	Aug.	30	
	Recent developments in the financial relations of the Federal Republic of Germany with the European Communities	1988	Nov.	36	
	The finances of the Federal Labour Office since the middle of the eighties	1989	Jan.	13	
	Expenditure on social assistance since the beginning of the eighties	1989	April	33	
	Trends in tax revenue since 1986	1989	Aug.	40	
	The finances of the local authorities since 1988	1989	Nov.	37	
	The finances of the Länder Governments since the start of the tax cuts in 1986	1990	April	20	
	The expenditure of the central, regional and local authorities since 1982	1990	July	38	
	Trends in public sector debt since the mid-1980s	1991	Aug.	32	
	Rediscount quotas	Principles for the measurement of rediscount quotas	1975	April	20
	Saving	see: Capital finance account; National product			
Saving ratio	The saving ratio of households in the Federal Republic of Germany: an international comparison	1984	Jan.	30	
Seasonal fluctuations	Seasonal adjustment by the Census Method	1970	March	37	
	Seasonal adjustment as a tool for analysing economic activity	1987	Oct.	30	
	Data, adjusted for seasonal and working-day variations, on the expenditure components of GNP	1991	April	35	
Securities markets	The position of the Federal Republic of Germany in the international bond market	1978	Nov.	13	
	The share market in the Federal Republic of Germany and its development potential	1984	April	11	
	Longer-term trends in the banks' investments in securities	1987	May	24	
	Recent trends in residents' investment behaviour in the bond market	1988	July	13	
	The significance of shares as financing instruments see also: Capital transactions; Securities ownership	1991	Oct.	21	
Securities ownership	Security ownership	1970	Aug.	22	
	Security ownership in 1970	1971	Aug.	22	
	Security ownership in 1971: structure and changes	1972	Aug.	16	
	Security ownership in the Federal Republic of Germany in 1972	1973	Aug.	13	
	Security deposits of domestic individuals, classified by size categories	1974	Jan.	12	
	Security ownership in the Federal Republic of Germany in 1973	1974	Aug.	21	
	Security ownership in 1974	1975	May	21	
	Security ownership in the Federal Republic of Germany in 1975	1976	May	26	
	Security ownership...				
	... in 1976	1977	May	19	
	... in 1977	1978	May	18	
	... in 1978	1979	May	26	
	... in 1979	1980	May	22	
	... in 1980	1981	May	19	
	... in 1981	1982	May	23	
	... in 1982	1983	May	44	
	... in 1983	1984	May	21	
Securities ownership in the Federal Republic of Germany in the light of the domestic securities deposit statistics	1989	May	20		
Services transactions	Foreign travel: receipts and expenditure	1972	May	34	
	Foreign travel	1976	Jan.	14	
	The foreign travel account of the Federal Republic of Germany	1981	Aug.	34	
	The foreign travel account of the Federal Republic of Germany	1986	Jan.	24	
	Foreign travel and foreign travel expenditure 1985-86	1988	Jan.	22	
	The Federal Republic of Germany's service transactions with the rest of the world	1990	April	12	
	Payment media in foreign travel	1991	July	43	
	see also: Capital transactions				

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Social security funds	The assets and investment policy of the statutory pension insurance funds and the Federal Labour Office	1972	Nov.	15	
	The finances of the social security funds since the mid-sixties	1975	Nov.	22	
	The finances of the statutory pension insurance funds in recent years	1977	Nov.	32	
	The finances of the supplementary pension funds for government employees	1978	Aug.	21	
	The finances of the Federal Labour Office since the beginning of the seventies	1979	April	15	
	The finances of the social security funds since the mid-seventies	1980	March	20	
	The finances of the Federal Labour Office since 1979	1981	Aug.	28	
	The finances of the statutory pension insurance funds between 1978 and 1981	1982	April	14	
	Recent trends in the finances of the statutory health insurance institutions	1985	Jan.	27	
	The finances of the statutory pension insurance funds since the beginning of the eighties	1985	April	12	
	The burden imposed by social security contributions since the beginning of the seventies	1986	Jan.	16	
	The central, regional and local authorities' expenditure on social benefits in the last five years	1987	July	21	
	Recent trends in the finances of the statutory health insurance institutions	1991	Jan.	25	
	Current trends in the finances of the social security funds	1991	Nov.	30	
	see also: Enterprises				
	Travel	see: Services transactions			
Value of money	Value guarantee clauses	1971	April	24	
	Taking account of monetary erosion in the taxation of investment income	1979	Aug.	19	

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Discount and lombard rates of the central bank	Lowering of special lombard rate with effect from March 18, 1983	1983	April	5	
	Raising of lombard rate with effect from September 9, 1983	1983	Sep.	8/10	
	Raising of discount rate with effect from June 29, 1984	1984	July	6/7	
	ditto	1984	Sep.	9/10	
	Raising of lombard rate with effect from February 1, 1985 (owing to more securities repurchase agreements being offered)	1985	Feb.	8/9	
	Lowering with effect from August 16, 1985	1985	Sep.	9	
	Lowering of discount rate with effect from March 7, 1986	1986	March	5/7	
	Lowering with effect from January 23, 1987	1987	Feb.	7/8	
	Lowering of lombard rate with effect from November 6, 1987	1987	Dec.	11	
	Lowering of discount rate with effect from December 4, 1987	1987	Dec.	11	
	Raising of discount rate with effect from July 1, 1988	1988	Sep.	10	
	Raising of lombard rate with effect from July 29, 1988	1988	Sep.	10	
	Raising of discount rate with effect from August 26, 1988	1988	Sep.	10	
	Raising of lombard rate with effect from December 12, 1988	1988	Dec.	9	
	Raising with effect from January 20, 1989	1989	Feb.	8/10	
	Raising with effect from April 21, 1989	1989	June	8/9	
	Raising with effect from June 30, 1989	1989	Sep.	8/10	
	Raising with effect from October 6, 1989	1989	Dec.	7/10	
	Raising of the lombard rate with effect from November 2, 1990	1990	Dec.	9/11	
	Raising with effect from February 1, 1991	1991	Feb.	9/11	
Raising with effect from August 16, 1991	1991	Sep.	8/11		
Exchange rate	Realignment of exchange rates in the European Monetary Fund	1983	April	7	
	Realignment of exchange rates in the European Monetary Fund	1983	June	43	
	Adjustment of exchange rates within the European Monetary System	1986	April	5	
	Adjustment of central rates within the European Monetary System	1987	Jan.	15	
	Accession of the Spanish peseta to the exchange rate mechanism of the European Monetary System as from June 19, 1989	1989	July	12/15	
	Exchange rate realignment in the European Monetary System	1990	Feb.	41	
	Accession of the pound sterling to the exchange rate mechanism of the European Monetary System as from October 8, 1990	1990	Dec.	46	
Minimum reserve policy	Amendment of the minimum reserve regulations	1984	Feb.	11	
	Revision of the minimum reserve regulations see also: Monetary growth target	1986	Jan.	14/15	
	Across-the-board increase of 10% in the minimum reserve ratios as from February 1, 1987	1987	Feb.	10	
Monetary growth target	Reviewing the monetary growth target for 1983	1983	July	5	
	Setting a monetary growth target for 1984	1983	Dec.	5	
	Review of the monetary target for 1984	1984	Sep.	9	
	Setting a monetary target for 1985	1984	Dec.	8	
	Review of the monetary target for 1985	1985	July	5	
	Monetary target for 1986 and revision of the minimum reserve regulations	1986	Jan.	13	
	Reviewing the monetary target for 1986	1986	July	5	
	The monetary target for 1987	1987	Jan.	13	
	The monetary target for 1988	1988	Feb.	8/9	
	Methodological notes on the monetary target variable "M3"	1988	March	18/21	
	The monetary target for 1989	1988	Dec.	7/9	
	Review of the monetary target for 1989	1989	Sep.	8	
	The monetary target for 1990	1989	Dec.	8/9	
	The monetary target for 1991	1990	Dec.	9/10	
Review of the monetary target for 1991	1991	July	14/17		
The monetary target for 1992	1991	Dec.	8/10		
Open market policy	Increase of limits for the purchase of prime bankers' acceptances under money market regulating arrangements	1983	Feb.	10	
	Cut in some special refinancing lines	1987	Feb.	10	
	Cut in some special refinancing lines	1989	Dec.	10	
	Further comments on open market policy, in particular on transactions in securities under repurchase agreements and short-term sales of Treasury bills, appear, where necessary, in reports on the economic scene (Feb./June/Sep./Dec.) in the chapter "Money and credit" (see also Table V, 2 and V, 3 in the Statistical Section)				
Rediscount and refinancing quotas	Raising of rediscount quotas with effect from February 1, 1983	1983	Feb.	10	
	Reduction of rediscount quotas with effect from April 5, 1983	1983	April	5	
	ditto	1983	June	9	

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Rediscount and refinancing quotas (cont'd)	Raising of rediscount quotas with effect from July 6, 1984	1984	July	6/7
	ditto	1984	Sep.	9/11
	Raising of rediscount quotas with effect from August 1, 1985	1985	Sep.	9
	Reduction of rediscount quotas with effect from May 1, 1986	1986	March	5/7
	Reduction of rediscount quotas with effect from February 2, 1987	1987	Feb.	10
	Raising of rediscount quotas with effect from November 2, 1988	1988	Dec.	13
	Raising of rediscount quotas with effect from November 2, 1989	1989	Dec.	10/11
	Granting of refinancing quotas for the East German banking system as from July 1, 1990	1990	July	18/19
	Decisions on a "qualified utilisation" of the refinancing quotas with effect from February 1, 1991	1990	Dec.	13
	Reduction of refinancing quotas with effect from July 1, 1991	1991	June	13
	Reduction of refinancing quotas with effect from January 2, 1992	1991	Dec.	11
Shifts of Federal balances (under section 17 of the Bundesbank Act)	Comments, where necessary, in reports on the economic scene (Feb./June/ Sep./Dec.) in the chapter "Money and credit"			

ing by the central, regional and local authorities came to roughly DM 95 billion (excluding the debts totalling about DM 7 billion incurred by the east German local authorities under the local authority lending programme for which the Federal Government pays interest subsidies).

The other public sector borrowers which do not rank among the central, regional and local authorities in the strict sense (the Federal Railways, the Federal Post Office and the *Treuhandanstalt* privatisation agency) raised relatively few funds in November, borrowing DM 1.5 billion in the aggregate. Even so, their new debt between January and November, at over DM 25 billion, was considerable.

In view of its favourable cash position, the *Federal Government* limited its borrowing in *December* to sales of tap issues, which, owing to the ample liquidity in the market, were very buoyant, at just under DM 7.5 billion gross. However, since redemptions amounting to over DM 11 billion were due, net Federal Government liabilities declined by approximately DM 4 billion. In 1991 as a whole, new borrowing by the Federal Government came to just under DM 30 billion, against almost DM 52 billion in the previous year. The fact that the Federal Government drew far less on the credit markets in 1991 was attributable to the substantial "stockpile" of loans which it had built up at the end of 1990 and which was then available to finance deficits in 1991.

Western Germany

New orders

The seasonally adjusted *orders received by the manufacturing sector* in November increased somewhat against the two preceding months. If October and November are combined to eliminate random fluctuations and to show the somewhat longer-term trend, however, orders were nearly 1½% below the average of the third quarter. The level of the preceding year, which was high owing to the spate of demand from eastern Germany, was undershot by a good 1½% in value and by 3% at constant prices.

The slight fall in demand was caused mainly by *export orders*. In line with the still slack business activity in many partner countries, average orders in October-November, seasonally adjusted, were some 4% below the average of the summer months (July to September), in which they had risen perceptibly. Compared with the previous year, the decrease was of a similar magnitude. The fall in the inflow of orders to capital goods producers was particularly steep, but the consumer goods sector, too, recorded losses.

In October-November seasonally adjusted *orders from the home market*, by contrast, regained the average level of the third quarter. The corresponding 1990 figure, however, which had been high as a result of unification, was undershot by about 1% in value and by 2½% in volume. The basic and producer goods industries, in particular, recorded a positive trend, seasonally adjusted; but the capital goods producers, especially in mechanical engineering, likewise received more orders than before. On the other hand, the inflow of orders slowed down distinctly in the consumer goods sector.

The seasonally adjusted *orders placed with the construction industry* in October – more recent information is not yet available – remained below the exceptionally high figure of the preceding month, but the average of the summer months, which had been marked by heavy ordering, was again equalled. Compared with the corresponding period of the preceding year, orders increased by roughly 8½% at current prices, and by 1½% in price-adjusted terms. Whereas ordering by industrial clients seems to be moderating, demand for residential construction work was as high as before. Public institutions, too, issued sizeable orders.

General economic conditions in western Germany

Seasonally adjusted 1

Period	New orders; 1985 = 100				
	Manufacturing sector 2				Construc- tion, value
	Total value	Domestic orders		Foreign orders	
Total		of which Capital goods sector			
1991 1st qtr	134.1	146.1	160.4	114.4	166.2
2nd qtr	132.1	142.8	157.4	114.6	158.8
3rd qtr	134.5	143.6	158.4	119.7	170.3
Aug.	136.1	145.7	162.2	120.4	167.5
Sep.	132.9	142.4	158.5	117.4	182.1
Oct.	132.5	142.2	157.0	116.7	170.8
Nov. p	133.1	145.3	161.3	113.2	.
Output; 3 1985 = 100					
Manufacturing sector					
Period	Total	of which			Construc- tion
		Basic and producer goods sector	Capital goods sector	Con- sumer goods sector	
1991 1st qtr	123.4	112.8	127.4	124.1	128.6
2nd qtr	123.3	112.8	127.0	124.1	125.6
3rd qtr	122.9	111.5	127.3	124.0	124.8
Aug.	122.0	109.0	127.3	121.7	120.9
Sep.	122.1	112.4	126.1	121.8	126.5
Oct.	121.8	114.1	125.5	122.8	129.8
Nov. p	123.6	114.4	127.4	127.6	129.6
Labour market 4					
Period	Employed 5, p	Vacancies	Short- time workers 6	Unem- ployed	Unem- ployment rate 7
	Number in thousands				
1991 2nd qtr	28,969	337	140	1,679	5.6
3rd qtr	29,001	342	136	1,704	5.7
4th qtr	.	321	183	1,686	5.6
Sep.	28,970	333	133	1,700	5.7
Oct.	28,937	321	173	1,695	5.7
Nov.	8 28,921	316	204	1,677	5.6
Dec.	.	318	173	1,672	5.6
Prices; 1985 = 100					
Period	World market prices of raw materials 9	Import prices	Producer prices of industrial products	Cost-of- living index 10	Construc- tion prices 11
1991 2nd qtr	46.7	83.2	102.9	109.7	123.5
3rd qtr	48.4	82.9	104.1	111.7	125.2
4th qtr	46.3	.	.	112.7	.
Sep.	48.2	82.4	104.3	112.0	.
Oct.	50.2	82.8	104.2	112.3	.
Nov.	47.1	82.8	104.4	112.8	.
Dec.	41.5	.	.	112.9	.

1 Seasonally adjusted by the Census X-11 Method. — 2 Excluding food, drink and tobacco industry. — 3 Net production index calculated for kinds of activity units. — 4 Seasonal factors recalculated. — 5 Residents. — 6 Not seasonally adjusted. — 7 Unemployed as % of the total labour force (excluding armed forces). — 8 Unadjusted figure: first provisional estimate by the Federal Statistical Office. — 9 HWWA index in Deutsche Mark. — 10 All households. — 11 Overall construction price level, calculated by the Bundesbank. — p Provisional. BBk

Output

After adjustment for the usual seasonal fluctuations, the *output of the manufacturing sector* rose markedly in November, compared with the months before. On average in October-November, it nearly regained the average level of the third quarter. The production level twelve months earlier was exceeded by about 1%. In autumn a positive trend, seasonally adjusted, was recorded by the manufacturers of basic and producer goods, in particular, and by some areas of the consumer goods sector. The output of the capital goods sector was nearly as high as before. A noticeable decline in production, by contrast, was recorded by enterprises in the food, drink and tobacco industry, which had achieved high growth rates over an extended period owing to the opening of the east German markets.

Seasonally adjusted *construction output* in November was as high as in the preceding month. On average in October-November, output is likely even to have exceeded the level of the summer months, although a precise analysis is impaired by statistical recording problems. In October-November it was 3% higher than the corresponding 1990 figure.

Labour market

The labour market has lost some of its dynamism in the recent past. According to the latest figures from the Federal Statistical Office, figures which also include a downward revision for the previous months, the number of *employed residents* in November declined slightly further to 28.9 million, seasonally adjusted. Since its peak in mid-1991, employment has decreased by just under 1/2%. The comparable level of the preceding year was exceeded by 250,000, or 1%, at the end of the period under review; in July last year the growth had been as high as 2%. These figures do not, however, include the commuters from the new Länder, whose number is likely to have continued to rise of late. Irrespective of the trend in employment, seasonally adjusted *unemployment* remained unchanged. At the end of December, the number of unemployed came to 1.67 million, i.e. 53,000 fewer than a year earlier. The *unemployment rate* remained at 5.6%, seasonally adjusted. At almost 320,000 after adjustment for seasonal fluctuations, the number of *vacancies* in December was as high as before. *Short-time working* was reduced somewhat towards the end of the year; at 173,000,

however, the number of short-time workers was still a good 120,000 higher than twelve months earlier.

Prices

Price movements have recently still been marked by home-made inflationary stimuli and restraining influences from abroad. *International raw material prices*, in particular the oil prices, tended clearly to decline towards the end of 1991, a trend which was reinforced for German importers by the sustained depreciation of the US dollar against the Deutsche Mark. In November, when only first signs of the price falls had become noticeable, seasonally adjusted *import prices* therefore remained unchanged. The *producer prices of industrial products*, on which the falling mineral oil prices still had hardly any effect and which were therefore influenced more strongly by domestic inflationary tendencies, rose slightly in the same month, after adjustment for seasonal fluctuations; the year-on-year rate went up from 2.3% to 2.5% in November. At the consumer level, for which data are already available for December, mineral oil products cheapened rather noticeably. This contributed to the fact that the *cost-of-living index* increased only slightly, seasonally adjusted, towards the end of the year and that the rate of price increase amounted to 4.2% as in the previous month.

According to first reports from individual Länder, *construction prices* were raised further in autumn last year, too. The seasonally adjusted increase from August to November was probably about 1%; the year-on-year rate of change would thus again come to roughly 7%.

Eastern Germany

New orders

According to the unadjusted figures, and to those adjusted on the basis of the west German seasonal factors, the *orders received by the manufacturing sector* in October were slightly higher than in the previous month, but declined against the average level of the third quarter. The corresponding 1990 level, too, was still undershot by more than one-tenth. Demand from the home market, in particular, which had previously improved significantly, tended to be weak. On the other hand, foreign business developed comparatively favourably. This can, however, hardly be seen as a turn for the better; it rather

Selected economic data on eastern Germany						
Unadjusted figures						
Period	New orders and output					
	Manufacturing				Construction	
	New orders		Net output 1		New orders 2	
	2nd half of 1990 = 100	Change from previous period in %	3rd qtr of 1990 = 100	Change from previous period in %	2nd half of 1990 = 100	Change from previous period in %
1991 1st qtr	81.8	-10.3	63.4	-29.4	86.1	-15.3
2nd qtr	74.7	- 8.7	61.1	- 3.6	134.5	56.2
3rd qtr	75.9	1.6	63.2	3.4	181.8	35.1
May	68.5	-14.2	60.4	1.7	127.5	10.9
June	75.8	10.7	63.6	5.3	161.1	26.4
July	71.3	- 5.9	63.7	0.2	169.0	4.9
Aug.	84.9	19.1	60.4	- 5.2	176.7	4.6
Sep.	71.5	-15.8	65.5	8.4	199.6	13.0
Oct.	74.9	4.8	66.7	1.8	190.0	- 4.8
Labour market						
Period	Employed 3, 4		Vacancies 3	Short-time workers 5	Unemployed 3	Unemployment rate 3, 6
	Manufacturing p	Construction				
Number in thousands						
1991 2nd qtr	1,846.8	284.9	24.8	1,962.1	834.9	9.5
3rd qtr	1,547.6	274.0	40.4	1,464.3	1,022.5	11.6
4th qtr	.	.	38.7	1,112.6	1,037.5	11.8
July	1,548.8	272.8	40.3	1,610.8	1,068.6	12.1
Aug.	1,492.4	271.6	43.6	1,448.8	1,063.2	12.1
Sep.	1,440.8	275.6	43.0	1,333.4	1,028.8	11.7
Oct.	1,352.5	.	41.1	1,199.9	1,048.5	11.9
Nov.	.	.	35.9	1,103.4	1,030.7	11.7
Dec.	.	.	35.4	1,034.5	1,037.7	11.8
Prices						
Period	Producer prices of industrial products (domestic sales)	Construction prices		Cost-of-living index 7	Change from previous period in %	
		Housing construction	Road construction			
1989 = 100	Change from previous period in %	1989 = 100				
1991 1st qtr	63.3	- 1.3	r 157.3	111.8	110.0	8.8
2nd qtr	63.1	- 0.3	r 162.9	113.3	113.4	3.1
3rd qtr	63.1	0.1	166.1	116.5	115.2	1.6
June	63.0	- 0.2	.	.	114.1	0.6
July	63.1	0.2	.	.	115.1	0.9
Aug.	63.1	0.0	.	.	115.2	0.1
Sep.	63.2	0.2	.	.	115.4	0.2
Oct.	.	.	.	.	126.9	10.0
Nov.	.	.	.	.	127.6	0.6

1 Index calculated for kinds of activity units; per calendar month. — 2 Construction enterprises with 20 and more employees. — 3 End-of-month level; quarterly figures: averages. — 4 Enterprises with 20 and more employees. — 5 Mid-month level; quarterly figures: averages. — 6 Unemployed as % of the civilian dependent labour force. — 7 All employee households. — p Provisional. — r Revised. BBk

reflects sales-promoting assistance, inter alia in the form of export guarantees.

12 The *construction sector* again received sizeable *orders* in October. According to the unadjusted figures, these were not quite as high as in the preceding month. If the seasonal fluctuations known from western Germany are taken into account, however, there was a renewed rise. Apart from numerous new building projects of industrial clients, the demand for construction work on the part of the Federal Railways and the Federal Post Office increased as well.

Output

In October the *output of the manufacturing sector* (not seasonally adjusted) continued to rise; measured in terms of the west German seasonal pattern, however, the increase was much smaller than usual at that time of the year. After adjustment for seasonal fluctuations, there was also a distinct decline against the average of the third quarter. The comparable level of the preceding year was undershot by about one-quarter. Whereas much more was produced, seasonally adjusted, in the basic and producer goods sector, and as much as before in the consumer goods sector, the food industry, and particularly the capital goods sector, did not regain the level of output achieved before.

There are still no data available on the output of the *construction sector*. However, if the man-hours worked are taken as an indication, these were higher, not seasonally adjusted, in September (the last month for which figures are available) than in the preceding months. On average in the third quarter, the level reached in spring was likewise exceeded significantly. If, in addition, the productivity advances achieved in the meantime are taken into account, output in the construction industry is likely to have increased distinctly in the recent past.

Labour market

Developments on the labour market remained largely unchanged in December with regard to both unemployment and short-time working. The number of *unemployed* registered at the end of the year, at 1,038 million, was only 7,000 higher than a month earlier. If the west German seasonal pattern is taken as a basis, the rise was probably smaller than usual at that time of the year. The (unadjusted) *unemployment rate* went up slightly to 11.8%. The number of *short-time workers* decreased further; compared with November, it fell by roughly 70,000 to 1,035

million towards the end of the year. Considerable relief still resulted from the labour market policy measures, which were stepped up again. Of late, 390,000 persons have been employed in the context of job creation measures, and some 90,000 employees started further training, so that the total number of persons attending training courses, which had been an estimated 410,000 in November, is likely to have increased further. Transitional benefits for early retirement were paid to 330,000 persons.

Prices

In November, too, consumer prices, which had risen very sharply in October 1991 as a result of the adjustment of rents, went up somewhat more steeply than in the old Länder. The year-on-year rate of increase rose slightly further to 26.7%, after 26.1% previously. Food prices went up perceptibly, as they did in western Germany; the same holds true of, in particular, prices of services, and of those of goods for educational and recreational purposes.

Balance of payments

In November 1991, for the first time since the beginning of last year, the German *current account* – i.e. the combined result of foreign trade, services and transfer payments – ran a surplus. At DM 1.7 billion, this surplus was about as high as that of November 1990, whereas in October the current account had shown a deficit of DM 3.4 billion. Even after adjustment for seasonal fluctuations the German current account improved further in November.

This once again owed something to *foreign trade* trends. According to calculations by the Federal Statistical Office, a trade surplus of DM 3.5 billion was recorded in November, compared with DM 2.3 billion in October and DM 3.3 billion a year earlier. If the results for September to November are taken together in order to smooth random fluctuations, seasonally adjusted exports rose marginally by ½ % during that period against the previous three months, whereas imports fell by 1 ½ %.

In November 1991, the *services account* showed a surplus of DM 1.6 billion, after having run a deficit of DM 1.5 billion in October. This turnaround was due to the trend in net investment income from abroad, which fluctuates sharply from month to month and which – after having decreased significantly in October – rose by DM 2.0 billion to DM 3.0 billion. In addition, the deficit on foreign travel fell by DM 1.2 billion to DM 1.9 billion owing to seasonal factors. In November the deficit on *transfer payments account*, at DM 3.3 billion, was not quite as high as in October (DM 4.1 billion).

Capital imports predominated again in November in the field of *long-term capital transactions* with non-residents (according to partly estimated figures). However, capital inflows, at DM 4.9 billion net, were smaller than in October (DM 8.5 billion). The key factor in the net capital imports was the influx recorded in the area of securities transactions, which came to DM 6.9 billion in November, compared with DM 10.2 billion in October (both including transactions in official borrowers' notes). On the one hand, non-residents bought German securities worth DM 10.2 billion, almost all of them public bonds. On the other, German donors invested DM 3.6 billion in foreign securities, with foreign Deutsche Mark bonds (DM 1.5 billion) and foreign investment fund units (DM 1.1 billion) heading the list. Apart from securities transactions, long-term funds were as usual exported on balance (DM 1.6 billion) as a result of direct investment, while

Major items of the balance of payments ^o			
DM million			
Item	1990	1991	
	Nov.	Oct.	Nov. p
A. Current account			
Foreign trade			
Exports (f.o.b.)	58,369	60,623	58,149
Imports (c.i.f.)	55,079	58,363	54,616
Balance	+ 3,290	+ 2,260	+ 3,533
Supplementary trade items 1 and merchanting trade	— 177	— 55	— 146
Services	+ 2,753	— 1,450	+ 1,600
Transfer payments	— 4,234	— 4,108	— 3,300
Balance on current account	+ 1,632	— 3,353	+ 1,687
B. Capital account (net capital exports: —)			
Long-term capital transactions			
Direct investment	— 2,427	— 986	— 1,644
German investment abroad	— 2,786	— 1,294	— 3,248
Foreign investment in Germany	+ 359	+ 308	+ 1,604
Securities 2 plus official domestic borrowers' notes	+ 9,767	+ 10,216	+ 6,886
Securities	+ 9,463	+ 10,520	+ 6,746
Borrowers' notes	+ 304	— 304	+ 141
Bank loans	— 1,606	— 1,092	e + 121
Official loans	+ 310	— 194	— 327
Other	— 128	+ 538	— 113
Balance	+ 5,915	+ 8,483	e + 4,923
Short-term capital transactions			
Banks	— 11,996	+ 2,158	e—13,021
Enterprises 3	+ 2,802	— 8,530	+ 1,628
Official	— 2,527	+ 152	+ 1,885
Balance	— 11,721	— 6,219	e—9,508
Overall balance on capital account	— 5,805	+ 2,264	e—4,585
C. Balance of unclassifiable transactions (balancing item) 4			
	+ 5,765	+ 1,679	+ 6,242
D. Balancing item in respect of the Bundesbank's external position 5			
	+ 194	+ 111	+ 136
E. Change in the Bundesbank's net external assets (increase: +) 6 (A plus B plus C plus D)			
	+ 1,786	+ 700	+ 3,480

^o From July 1990 including the external transactions of the former GDR. — 1 Mainly warehouse transactions for account of residents and deduction of goods returned and of commission processing. — 2 Excluding direct investment. — 3 The November 1991 figures do not take due account of the changes in trade credits, which are still unknown (see footnote 4). — 4 The November 1991 figures still include the changes in trade credits. — 5 Differences between the transaction values and the changes in the external position that are shown in the Weekly Return at balance sheet rates. — 6 Valued at balance sheet rates. — e Estimated. — p Provisional.
Discrepancies in the totals are due to rounding. BBk

the other long-term capital movements, viewed as a whole, largely cancelled out.

In November 1991 – and again the figures are partly estimated – DM 9.5 billion net was exported through *short-term capital movements*, compared

- 14 with DM 6.2 billion in October. Capital outflows were mainly recorded by banks, whose short-term external assets increased by an estimated DM 12 billion, whereas their corresponding liabilities changed but slightly (– DM 1 billion). By contrast, the non-bank sector imported a total of DM 3.5 billion in short-term funds. The crucial reason for this was that both enterprises and the public sector ran down their balances in the Euro-market (by DM 2.7 billion and DM 2.0 billion, respectively).

The *net external assets of the Bundesbank* – valued at balance sheet rates – rose by DM 3.5 billion in November, mainly because foreign depositors made withdrawals from their Deutsche Mark balances with the Bundesbank.

New monetary policy measures

At its meeting on December 19, 1991 the Central Bank Council of the Deutsche Bundesbank took the following decisions:

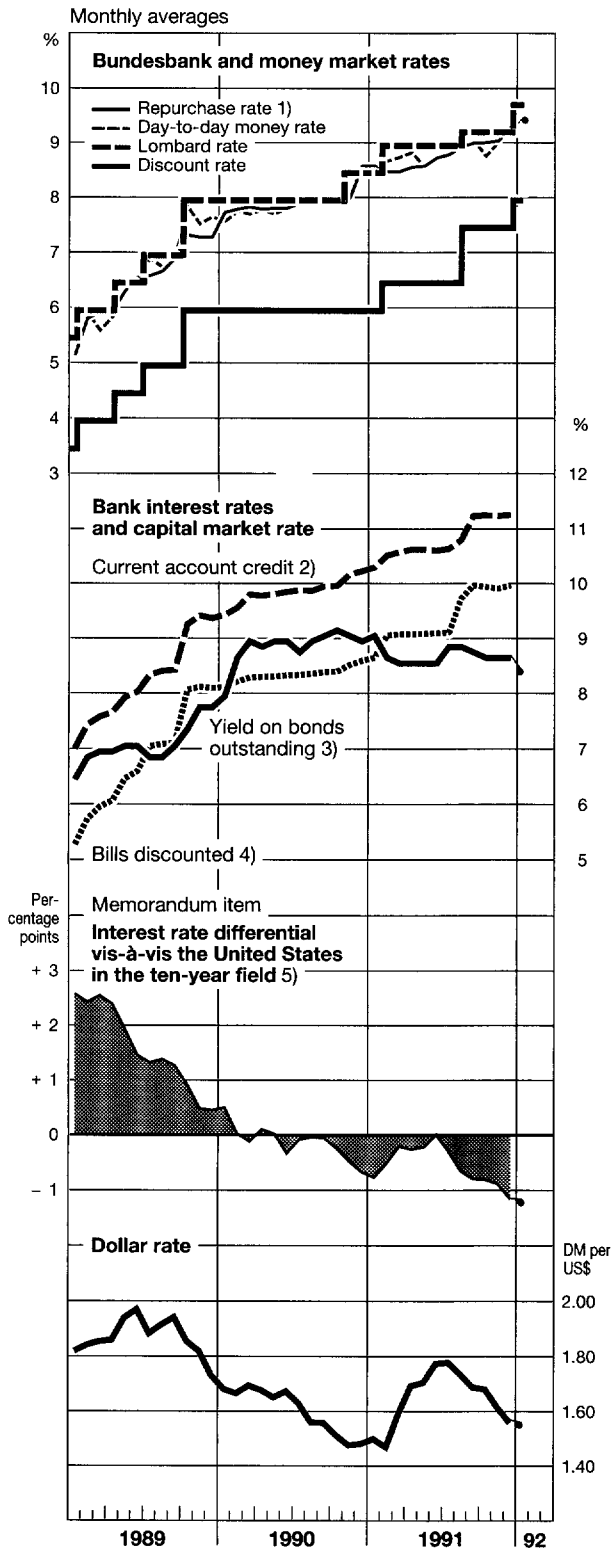
- (1) With effect from December 20, the discount rate of the Deutsche Bundesbank will be raised from 7.5% to 8%.
- (2) With effect from December 20, the lombard rate of the Deutsche Bundesbank will be increased from 9.25% to 9.75%.

By taking these measures, the Bundesbank is reaffirming its determination to keep to its tight monetary policy stance. The interest rate increase takes due account of the greater risks now being posed to stability. In particular, curbing the strong monetary growth is imperative so as not to jeopardise the achievement of the monetary target of 3½% to 5½% set for 1992.

Monetary growth has accelerated markedly since mid-1991. In November, the money stock M3 exceeded its average level in the fourth quarter of 1990 by a seasonally adjusted annual rate of 5.1%, compared with 4.7% in October, but a mere 3.7% as recently as June. This probably means that the monetary target for 1991, which provided for the money stock M3 growing by 3% to 5% between the fourth quarter of 1990 and the fourth quarter of 1991, will just about be met. When setting that target, however, the Bundesbank made it clear that it considered monetary growth at the bottom end of the target corridor to be more appropriate. Above all, since mid-1991 the pace of monetary expansion – at a rate of 7% (see the chart on page 17) – has been perceptibly faster than would appear consistent over the somewhat longer term with the aim of price stability. This applies all the more if non-banks' money balances abroad, which have been rising further of late, are also taken into account. The money stock M3, extended to include short-term deposits abroad and bank bonds held abroad by non-banks, is currently tending to expand at a pace which markedly exceeds the growth rate of traditional M3.

The acceleration of monetary growth has owed something to special factors (such as the uncertainty felt at times by investors on account of the debate on the reform of interest income taxation and the growing demand for Deutsche Mark notes in eastern and south-eastern Europe) which, in particular, have caused the amount of currency in circulation to increase.

Interest rate movements



1) Average monthly interest rate for securities repurchase agreements with one-month maturities, uniform allotment rate (fixed-rate tenders) or weighted allotment rate ("US-style" variable-rate tenders).- 2) DM 1 million and over but less than DM 5 million.- 3) Overall yield on bonds outstanding.- 4) Bills of less than DM 100,000 eligible for rediscount at the Bundesbank.- 5) Yields on ten-year Treasury bonds in the United States less yields on ten-year Federal bonds in Germany.- ● = Latest position: January 10, 1992.

BBk

The main factor, however, has been the strong momentum imparted by bank lending, especially bank loans to domestic non-banks. At the end of November 1991, bank lending to enterprises and individuals was 11 ½ % up on the year; over the past few months the growth rate has been even more rapid. Both short-term lending to trade and industry and longer-term loans have most recently been increasing at double-digit rates. Credit expansion has been widely spread across the individual groups of borrowers. One reason for this has been the continued buoyancy of investment activity in the old Länder, another the restructuring and reorganisation of ownership which have meanwhile got under way in the east German economy. Judging by the available information on enterprises bought, investment projects, the deficits incurred by the Treuhand privatisation agency, etc., developments in the east German economy may become even more significant factors in the future. At all events, new longer-term lending commitments have remained bullish, suggesting that the credit expansion will stay strong. There have so far been few signs that the demand for credit is responding to the further rise in short-term interest rates seen last year.

In this situation an increase in interest rates was appropriate in order to bring monetary growth back on to the potential output path. The tightening of monetary conditions therefore does not imply any departure from our policy strategy (which is geared to production potential), but rather its consistent continuation. The monetary conditions for non-inflationary growth thus also remain in place, insofar as the supply of liquidity stemming from both the currency conversion in eastern Germany and the present strong growth of the money stock must still be rated as ample.

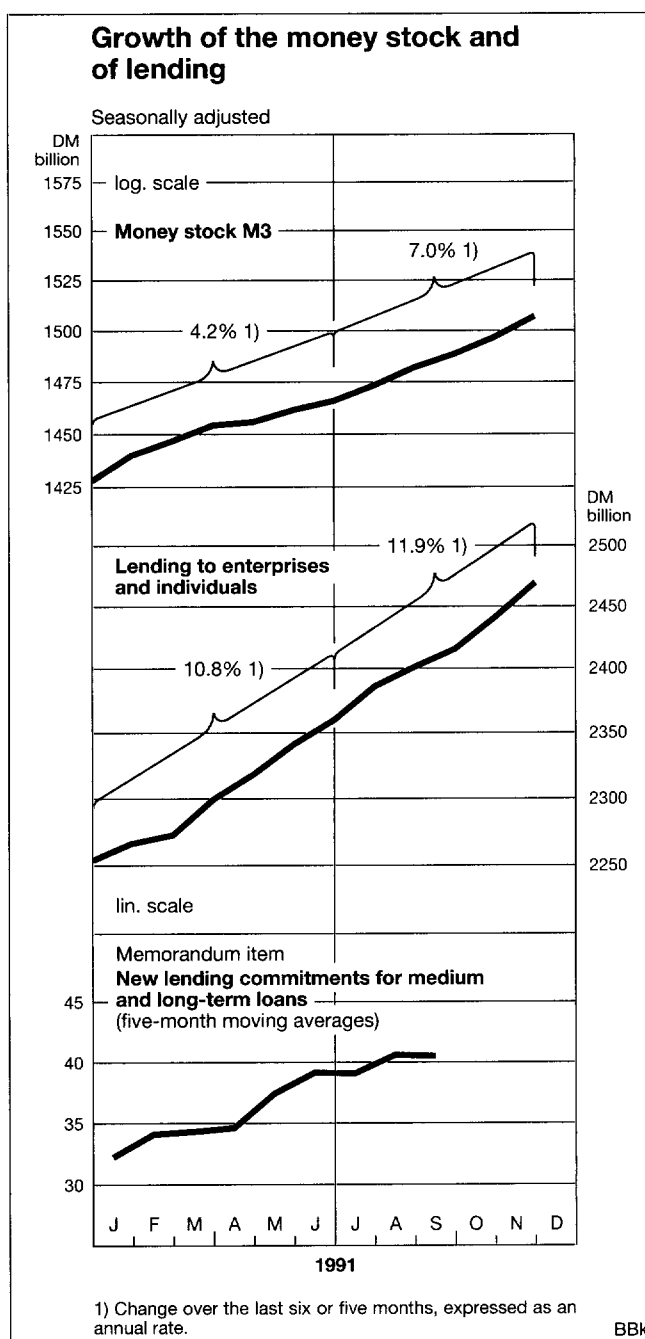
An interest rate policy signal was likewise desirable in the light of the immediately foreseeable trend in price performance. In the words of the Council of Economic Experts, the target of monetary stability is at present being "severely violated". In December 1991 the cost of living was 4.2% up on the year; while the mid-year raising of indirect taxation played a part in this, there has also been an appreciable increase in the "core inflation rate". The available price forecasts for this year are of a similar order of magnitude. Any such upturn in prices is not tolerable over the medium term. The Bundesbank must therefore do what it can to help ensure that permanently higher inflation expectations do not

arise on the basis of current price pressures – expectations which would then become ever more difficult and costly to correct.

At present, inflation expectations depend largely on the way costs develop. In the course of last year's wage round standard hourly pay rates in western Germany, including structural improvements, were increased by some 7%. That increase is roughly twice the annual average for the period from 1986 through 1990. Given that gains in productivity simultaneously slowed down considerably, wage costs now exert substantially more pressure, notably so since the third quarter of 1991, when the full effect of the new settlements was felt for the first time; this added to the upward trend in prices. 1991 as a whole probably saw unit labour costs rising by 4½ to 5%, or almost twice the rate of 1990.

Distributional margins will narrow further in 1992 as economic growth has been slowing down since the middle of last year. The Council of Economic Experts and the leading economic research institutes have therefore recommended distinctly lower wage settlements this year than last. The wage claims put in to date for the 1992 wage round fail to take account of the changed overall economic conditions. If, however, the 1991 wage round were to turn out not to have been a one-off "catch-up" move, then in the longer run prospective risks would emerge not only for monetary stability, but also for growth and employment. This applies to an even greater extent to the process of economic reconstruction in eastern Germany. In view of the goal of monetary stability, monetary policy must not accommodate in monetary terms income claims which are not warranted by trends in the real economy. That would lead to a deeply-entrenched psychological acceptance of inflation, and would set a wage-price spiral in motion – but it would not generate a rise in real incomes, for that presupposes an expansion of aggregate output.

In this context, besides management and labour, the fiscal policy makers are also called upon to act in a manner consistent with stability, and particularly to reduce the large public sector budget deficits. In its medium-term financial planning, the Federal Government has demonstrated the right approach here. Its example should be followed by the other central, regional and local authorities and "quasi-governmental agencies". In the light of stability and growth considerations, spending cuts are preferable to tax

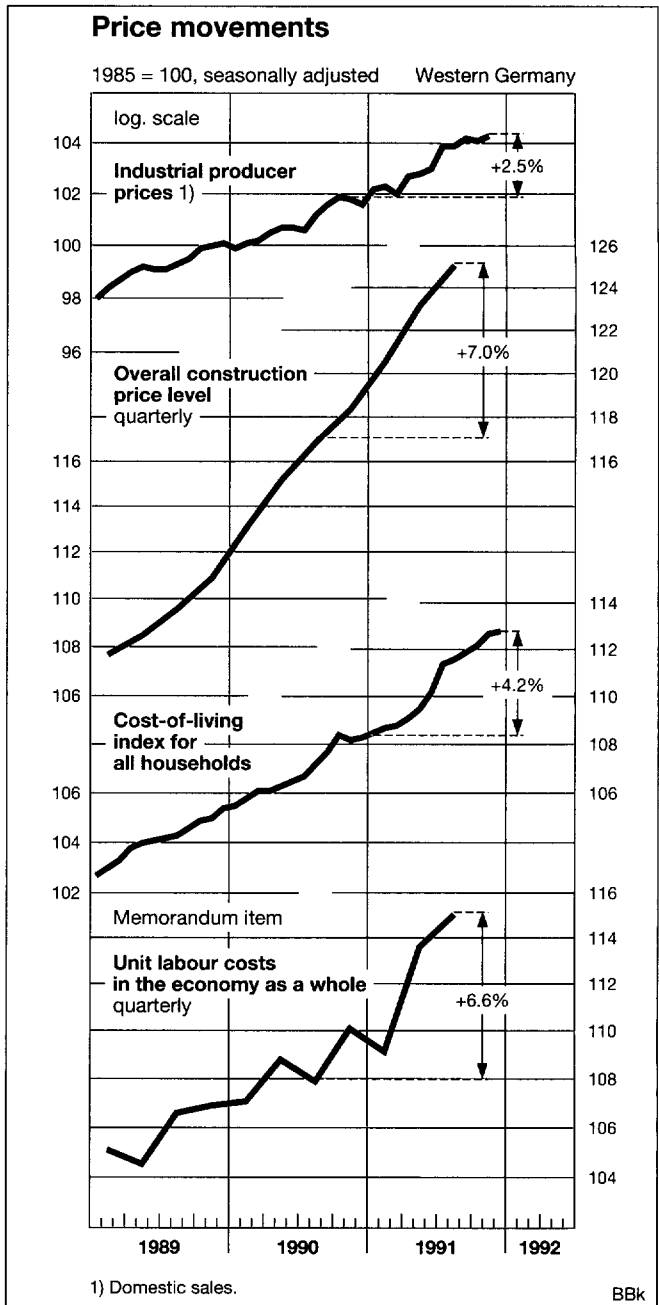


increases. Even though the budget deficits turned out to be lower last year than had originally been expected, it is important to adhere to a consistent strategy of fiscal retrenchment, especially as the finances of the pension and unemployment insurance funds will deteriorate in 1992 and the budget plans do not yet allow for all the risks associated with the transformation of the east German economy and the upheavals in eastern Europe.

The anti-inflationary thrust of monetary policy ultimately helps to improve the underlying inter-

18 national economic conditions. It is consistent with the objective of non-inflationary growth generally accepted in the context of international cooperation. Given the continuing divergence of price trends and price prospects, this currently precludes any uniform policy aimed at a global lowering of interest rates. Instead, the monetary policy makers must take due account of the differing economic settings in the individual countries – a requirement which was explicitly acknowledged in the communiqué issued at the end of the last G-7 meeting of Finance Ministers and Central Bank Governors in Bangkok.

Within the framework of the European Monetary System, the anchor function performed by the Deutsche Mark calls for particular efforts to defend the value of money in Germany. Otherwise, there would be a danger both of the partner countries increasingly importing inflation from Germany and of the pro-stability bias of the EMS as a whole being weakened. Such a scenario would constitute a setback for European monetary integration and for the long-term growth prospects of the Community. In particular, some of the smaller “hard currency countries” which traditionally maintain close ties with Germany have been facing similar inflation problems for some time now. This is why (as well as for domestic reasons) they immediately followed suit when the Bundesbank raised its interest rates. A number of other European countries, where such measures would have been less appropriate on domestic grounds, increased their interest rates in the light of exchange rate considerations after the Deutsche Mark had strengthened in the foreign exchange markets in the wake of the Bundesbank’s interest rate measures, and not least of the immediately subsequent lowering of the US discount rate to 3½%. Since then, conditions in the exchange markets have eased markedly. Against the backdrop of the sharp increase in the interest rate differential between short-term Deutsche Mark and US dollar assets, the scope for national interest rate movements in the EMS has obviously narrowed somewhat again of late, whereas previously, in the wake of German unification, many partner countries had managed to reduce the traditionally large interest rate gap between their currencies and the Deutsche Mark significantly without running the risk of a fall in the external value of their currencies. However, the closer interest rate linkages which have emerged cannot mean, from a European point of view either, that measures which are necessary in monetary policy terms in traditional “hard currency countries” are simply not taken.



The increases in the discount and lombard rates do not pose any unacceptable risks to economic growth and employment in Germany. Although economic expansion in western Germany has slackened markedly after the tempestuous growth evident up to the spring of 1991, there is, as things now stand, no danger of the current slowdown in economic activity gradually deteriorating into a bout of sustained weakness, let alone a recession, unless there are unwelcome developments in the context of the forthcoming wage settlements and unless global business activity poses new risks. In particular, recent demand trends, which are stronger in major sectors

than they were in the spring of 1991, suggest that the economy is comparatively resilient. For instance, exports have picked up and corporate propensity to invest remains high. Moreover, capacity utilisation continues to run well above the multi-year average. From the point of view of anti-inflation policy, an economic slowdown is certainly welcome as a help in normalising production conditions. In eastern Germany, it looks as if the downturn has bottomed out and an upswing is now imminent.

Overall, the main dangers in the path of future economic developments in western and eastern Germany are currently to be found in the fields of wages, the public sector budgets and possible external constraints, rather than in the field of interest rates. It should be borne in mind in this connection that the higher Bundesbank interest rates will not be fully transformed into market rates. In particular, long-term interest rates (which are key factors in investment decisions) have not only failed to rise, given the world-wide tendency for interest rates to fall and the strength of the Deutsche Mark in the foreign exchange market, but have actually declined noticeably following the Bundesbank's interest rate measures. This also reflects the fact that financial investors' confidence in longer-term interest rate and price movements has apparently increased. The already wide interest rate gap between the short and the long ends of the financial markets has grown still further. This inverse pattern of interest rates reduces the banks' scope for maturity transformation via security purchases and, as past experience has shown, fosters investors' propensity to accumulate long-term financial assets.

The interest charged on short-term lending to trade and industry is likely to rise less, on balance, than the Bundesbank's interest rates. For instance, the increase in the rates charged for bills discounted, which traditionally are closely linked to the Bundesbank's discount rate, has been accompanied by the abolition, from January 1, 1992, of the effective 0.60% p. a. stamp duty on domestic bills. (Some foreign bills have been exempt from such duty for some time.) The interest charged on current account overdraft facilities will depend on the further trend in money market rates. Immediately after the Bundesbank's interest rate decisions, quotations for call money went up by almost ½ percentage point to 9½%. Time deposit rates in the money market, which had previously risen to a similar level under the impact of the premiums offered on funds matur-

ing after the end of the year, on balance went up only minimally further. At the beginning of January, money market rates eased again; notably the quotations for somewhat longer-term maturities fell markedly. In mid-January the prevailing rate for one-month securities repurchase agreements was 9.40%, compared with a rate of between 9.20% and 9.25% at the beginning of December and one of 9.05% at the end of November.

20 The correlation between monetary growth and price movements in the Federal Republic of Germany

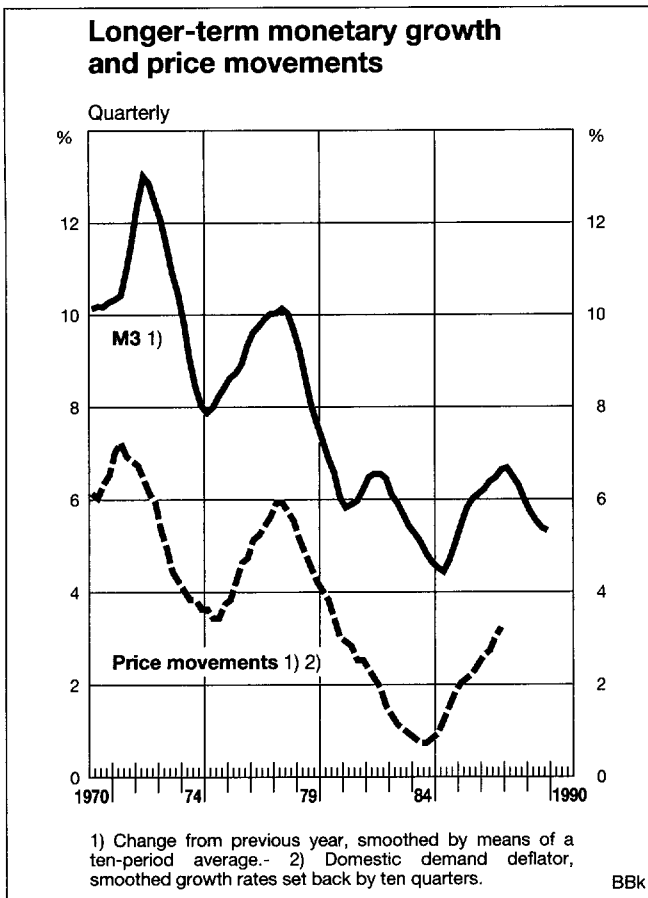
The Deutsche Bundesbank is required by law to regulate the quantity of money in circulation and of credit supplied to the economy, with the aim of safeguarding the currency. There is also a growing world-wide conviction that central banks should primarily ensure stable prices. In this connection, managing the money stock is of crucial importance, for there is broad agreement that inflation is a monetary phenomenon in the longer run. In this article, the correlation between monetary growth and price movements in the Federal Republic of Germany will be analysed.¹ Initially, comparatively simple empirical observation methods are used. They are then supplemented by an econometric procedure which combines the longer-term monetary determinants of price movements with short-term non-monetary influences. This procedure involves aids of a statistico-technical nature which primarily serve to provide guidance for practical central bank policy.

All the observation procedures employed confirm that, over the longer term, there is a fairly close correlation between the monetary aggregate used by the Bundesbank as an intermediate target and the price level (see the chart on page 21). This provides justification for a monetary policy strategy which tries to keep monetary growth in line with the economy's productive capacity. In the shorter and also in the medium term, however, prices may well deviate from a path mapped out by monetary growth. The reasons for this are complex. Interest and exchange rate influences impinging on the demand for money may obscure the longer-term correlation between the money stock and prices at times, as may non-monetary inflationary factors (such as oil price shocks, conflicts between management and labour over the distribution of income and increases in indirect taxes). In this setting, the Bundesbank has always pursued its potential-output-oriented policy pragmatically and evaluated a broad range of monetary and general economic data as well as the money stock, in order to verify and supplement on an ongoing basis the findings deriving from the observation of the money stock.

Some simple empirical observations regarding the relationship between monetary growth and price changes

When analysing the correlation between monetary expansion and changes in the price level, there initially arises the question of the statistical measurement of these variables. Just as money is not

¹ In view of the manifold transitional problems in the monetary and real economic sphere in the new Länder, the most recent developments in unified Germany have not yet been taken into account.



unequivocally and uniformly defined, there are analogously a number of different definitions of the money stock. In accordance with international practice, a distinction is generally made between M1, M2 and M3. In the Bundesbank's strategy, broadly defined aggregates have been playing a key role since the mid-seventies. At that time, the Bundesbank began gearing its policy to monetary targets. The main reason for choosing broadly defined monetary aggregates as the target variables for monetary policy is that they grow relatively steadily over the short term, too. From their trend, the "stance" of monetary policy and the relationship between the money stock and aggregate expenditure can therefore be identified relatively easily. The discussion below is based on the money stock M3, which the Bundesbank has been using as its intermediate target since 1988.²

A number of statistical yardsticks are likewise available for measuring price movements.³ In many cases, the cost-of-living index serves as a yardstick of inflation. It measures price rises at the consumer level, and thus reflects a major part, but not the whole range, of prices in an economy. There is

therefore a case for using for particular studies the domestic demand deflator, which includes all the prices of goods bought by residents. If the holding of cash in an economy is seen primarily in connection with the value added or production potential, the GNP deflator or the GDP deflator would also seem to be an obvious choice. For a longer-term analysis, however, the choice of the yardstick from among these alternatives is not very important for Germany (see the table on page 22). Viewed over a period of several years, the movement of prices as depicted by the various indices is normally much the same. Temporarily, it is true, quite pronounced divergencies may occur, especially if import prices are subject to wide fluctuations, like for instance those caused by oil price shocks or sharp appreciations or depreciations of the Deutsche Mark. In the analysis below, the focus will be on the domestic demand deflator. It also reflects fluctuations in import prices.

When comparing changes in the money stock and in the price level, it should be borne in mind that, even if prices remain stable, the economy will need more money over time to fund real growth. It therefore seems appropriate to adjust monetary expansion for actual or potential economic growth before comparing it with price movements. If monetary growth over the past two decades is adjusted in this way for the rise in real potential GNP, there is definitely a positive correlation with price movements (see the chart on page 23). During the seventies, the average increase in the money stock outpaced real potential GNP growth by over 6½%. This "excessive" increase in liquidity was accompanied by high rates of inflation. During that decade, the domestic demand deflator went up by an annual average of 5½%. In the eighties, monetary expansion was brought back more closely into line with the economy's real growth potential. This was accompanied by a gradual moderation of inflation. Between 1980 and 1990 the annual growth of the money stock M3 exceeded that of production potential by only 3½ percentage points. The domestic demand deflator increased by an average of 3%. In 1986 and 1987, in fact, prices were stable in absolute terms.

Over the long term the money stock, adjusted for the growth of production potential, increased faster than prices. The statistical ratio of nominal production potential to the money stock M3 therefore fell. When setting its annual monetary targets, the Bundesbank makes allowance for this trend fall by including an "increment". One of the reasons why money bal-

² From 1975 to 1987 it used the central bank money stock. Both aggregates essentially comprise the same money components. They therefore moved broadly parallel to one another over the medium term. See "The longer-term trend and control of the money stock" in Monthly Report of the Deutsche Bundesbank, Vol. 37, No. 1, January 1985, p. 13.
³ Regarding the concept and measurement of inflation, see also "The Extent of Depreciation of Money since 1950 and the Prospective Trend of

the Value of Money" in Monthly Report of the Deutsche Bundesbank, Vol. 20, No. 3, March 1968, p. 3.

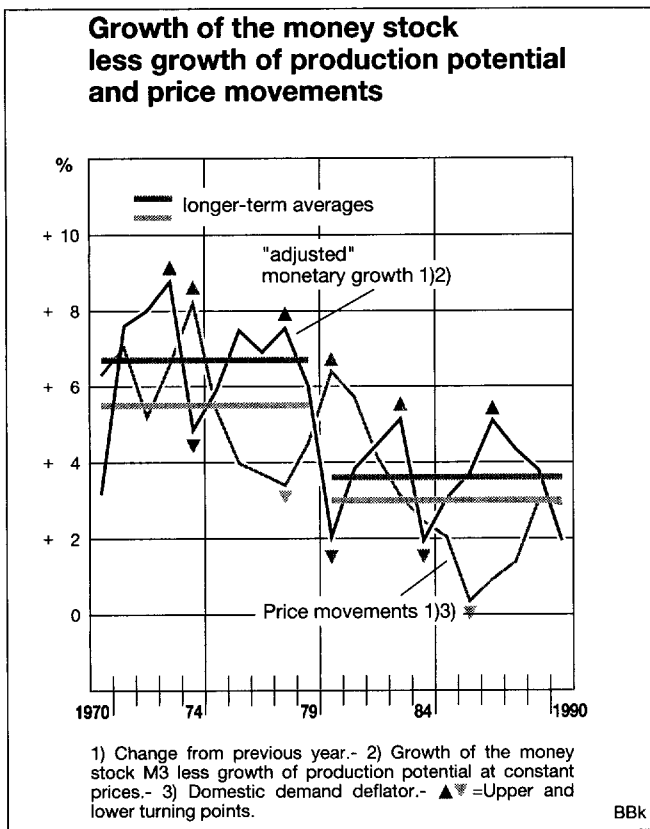
Price movements in terms of different statistical yardsticks			
Average change during period in %			
Period	Domestic demand deflator	GNP deflator	Cost-of-living index for all households
1970-1979	5.5	5.5	4.9
1980-1990	3.0	3.1	2.9
1970	6.3	7.6	3.3
1971	7.1	7.8	5.4
1972	5.2	5.3	5.5
1973	6.6	6.3	7.0
1974	8.2	7.0	7.0
1975	5.4	5.8	5.9
1976	4.0	3.6	4.3
1977	3.7	3.7	3.7
1978	3.4	4.3	2.7
1979	4.5	3.9	4.1
1980	6.4	4.9	5.5
1981	5.8	4.1	6.3
1982	4.2	4.4	5.2
1983	3.1	3.4	3.3
1984	2.5	2.1	2.4
1985	2.1	2.2	2.0
1986	0.4	3.3	-0.1
1987	1.0	1.9	0.2
1988	1.4	1.5	1.3
1989	3.0	2.6	2.8
1990	2.9	3.4	2.7

BBk

ances increased faster than nominal potential GNP (or GDP) in the longer run is probably that some of the bank deposits which are counted towards the money stock M3 are held not only for transaction purposes but also as a store of wealth. Over the longer term, however, financial assets grow more rapidly than production potential. In the eighties the decline in the ratio of production potential (at current prices) to the money stock M3 seems to have been smaller than in the seventies. This presumably owed something to the fact that during that decade the holding of liquid assets which are not counted as part of the traditional money stock increased in importance. Since the end of the seventies extended M3, which includes such financial assets (short-term bank bonds and German non-banks' deposits with domestic banks' foreign subsidiaries and branches), has been expanding at an average annual rate which exceeds that of traditional M3 by $\frac{3}{4}$ percentage point. Another significant factor may have been that since the turn of the decade the utilisation of production potential has been lower than it was in the previous period. The ratio of production potential to the money stock M3 has thus decreased less than the quotient of GNP and the money stock.

Observation of the money stock and prices by means of simple time series comparisons gives one the impression that monetary expansion runs ahead of price movements. While the precedence of the money stock (or of the growth differential between the money stock and production potential) must not automatically be interpreted as indicating a causal connection, it is consistent with the widely accepted view that monetary growth only gradually affects the movement of prices. But the relationship between the money stock and prices does not follow a rigid pattern. In fact, prices respond to changes in the pace of monetary growth with time-lags, which, moreover, change over time. This phenomenon can be ascribed in part to influences affecting money demand (such as interest rate and exchange rate movements) which, besides GNP growth, determine the holding of cash balances in the economy. In the second half of the seventies and eighties, for instance, such factors contributed to faster monetary growth showing up in prices with a major time-lag only. At that time, interest rates fell to historic lows; simultaneously, the Deutsche Mark appreciated strongly in the exchange markets. Against this backdrop, cash holdings temporarily increased quite sharply, while the rate of inflation initially remained moderate. Conversely, around the turn of the decade interest rates went up and reduced liquidity preferences.

How quickly monetary trends are translated into price movements depends, in addition, on many factors which are not, or not primarily, determined by monetary policy. These non-monetary influences, which in the shorter run also help to explain trends in domestic prices, include for instance oil price and exchange rate shocks, distributional conflicts between management and labour, and fiscal effects such as increases in indirect taxes. At the end of the sixties and the beginning of the seventies, for example, the stance of fiscal policy and the intensified domestic distributional conflict, as well as the inflationary global economic setting, contributed to a short "incubation period" within which monetary growth worked through to prices. Thus, government expenditure in Germany grew at double-digit rates from 1969. At the same time unit labour costs soared (see the chart on page 24). Finally, external conditions were another major determinant of the course of events at the time. Under the Bretton Woods fixed-rate system, which remained in force until 1973, there was only limited scope for the monetary policy makers to manage the money stock in accordance



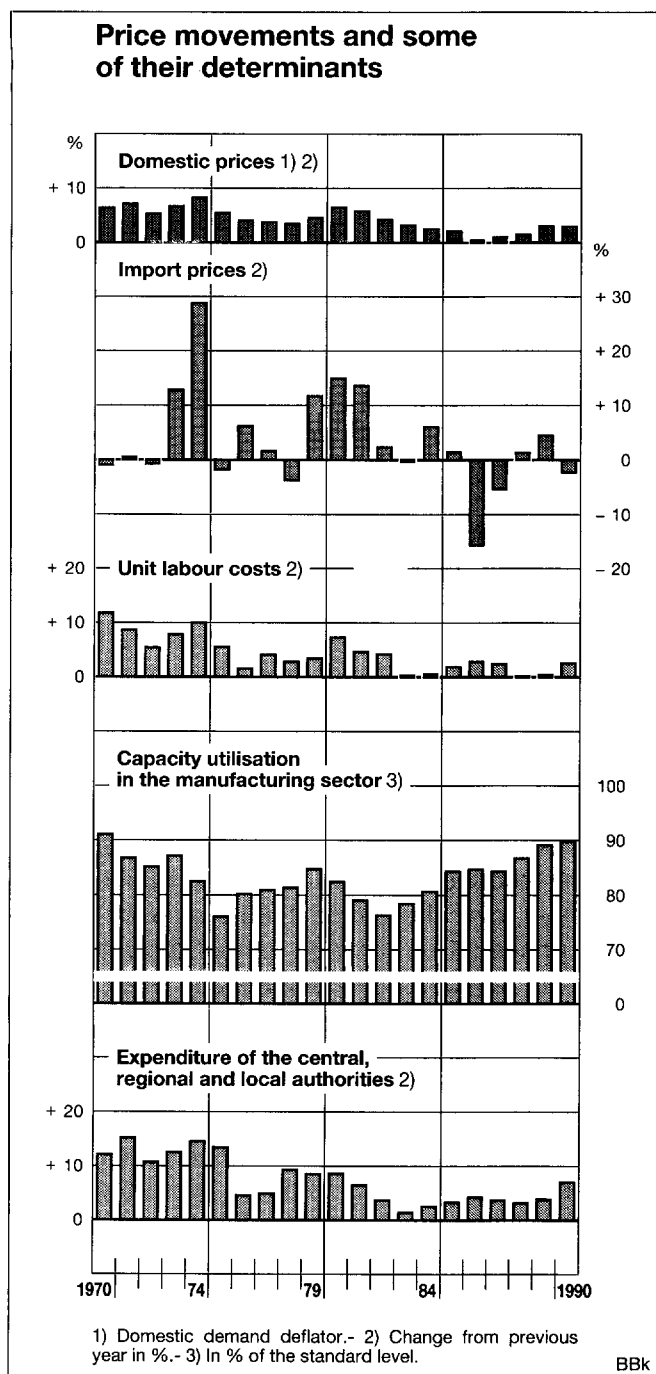
with domestic requirements. International price linkages were not interrupted by exchange rate developments. In addition, buoyant external demand aggravated the rise in domestic prices through its effect on production and capacity utilisation. In 1973-4 another special feature jeopardising stability was the oil price hike. In 1974 import prices rose by 28½%. Against this overall economic background, there was an interval of only one to two years between the peak level of monetary growth and the peak level of inflation rates.

Since the mid-seventies, by contrast, the correlation between monetary expansion and inflation has not appeared to be as close as it was before. Prices have tended to follow the growth of the money stock with a lag of about two to three years. In particular, external influences such as the transition to floating exchange rates between the Deutsche Mark and the US dollar have apparently contributed to the increased lag in reaction patterns. Thus, the acceleration of monetary growth in the second half of the seventies was accompanied by a strong appreciation of the Deutsche Mark, which had a dampening effect on domestic price movements through lower import price increases. Between the end of 1975 and the end of 1979 the value of the Deutsche Mark vis-à-vis

the US dollar went up by some 50%. Conversely, the sharp depreciation of the German currency at the beginning of the eighties caused the tight monetary policy stance at that time to affect price movements with a considerable time-lag only. The second oil price shock of 1979-80 operated in the same direction. Import prices rose by an annual average of 13½% between 1979 and 1981. From the mid-eighties onwards, external influences had the opposite effect. The dramatic fall in world commodity prices which began in 1984 and the appreciation of the Deutsche Mark had a favourable impact on domestic prices during that period.

These effects were enhanced by a fiscal policy geared to consolidation and restraining expenditure, which curbed demand and lent support to the supply side of the economy. Between 1981 and 1989 the expenditure of the central, regional and local authorities increased by an average annual rate of only 3½%. The overall tax ratio in the Federal Republic went down from 24½% of GNP at the beginning of the eighties to 22½% of GNP at the beginning of the nineties. Last but not least, wage increases were also fairly moderate. In 1988 and 1989 unit labour costs remained virtually unchanged. As a result, over the period 1986-8 as a whole, domestic prices (at an average annual growth rate of some 1%) remained almost constant, even though monetary expansion markedly exceeded the rise in potential GNP for quite some while. In these circumstances it was sometimes presumed that voluntary cash holdings were being increased more sharply than usual, since non-banks were not expecting any major inflationary shocks to occur, given the worldwide disinflation process at the time.

As the price-restraining external influences gradually ceased to be operative, however, and as domestic demand pressures and the utilisation of the production factors increased, the consequences of the accelerated monetary expansion since 1986 became evident at the end of the eighties and the beginning of the nineties. In 1989 domestic prices rose at a rate of 3% again. Most recently, the risks to price stability have increased further. This has above all been due to the special growth stimulus imparted to the west German economy by the German unification process, as well as to the stance adopted by those responsible for wage policy and financial policy.



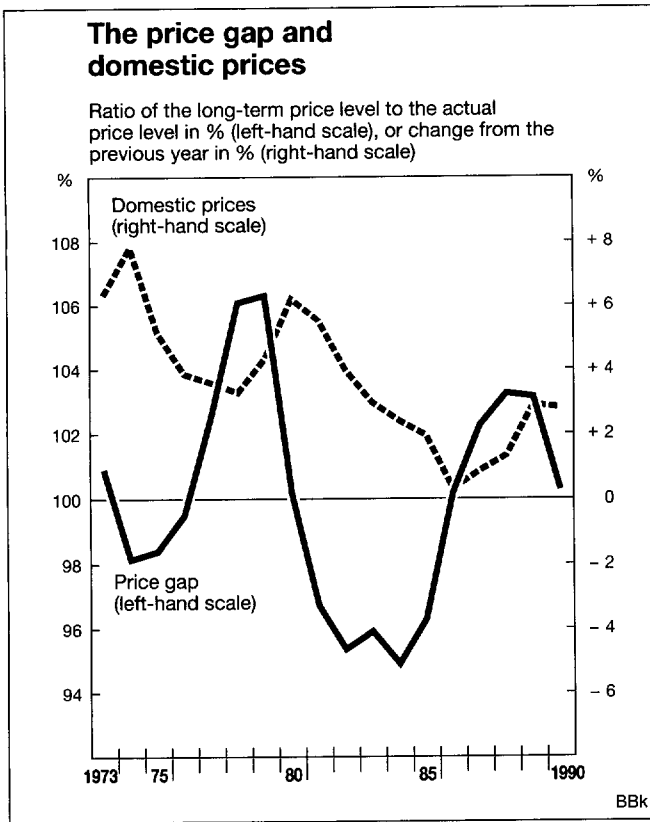
Considering the various influences, there is no evidence that the relationship between the money stock and prices has basically become looser in recent years. In order to investigate the longer-term linkages existing in this area somewhat more closely, a new econometric approach is presented here which ties together the long-run determinants of the money stock and the shorter-run determinants of price movements.

The price gap as an indicator of price movements

The following analysis is based on what is known as the "quantity equation". This postulates that the product of the money stock and the velocity of circulation equals the product of the price level and the transaction volume, which is mostly approximated to by real GNP. From this relationship, some members of the Federal Reserve Board staff developed an indicator of the long-term relationship between the money stock and the price level, which has become known as P-Star.⁴ They define the long-run equilibrium price level (P-Star) as the money stock per unit of real potential GNP, multiplied by long-term velocity. This indicator is therefore the price level which will emerge, if current cash balances are maintained, when output and velocity are at their equilibrium level, i.e. when capacities are fully utilised and liquidity holdings equal their long-run average. The P-Star indicator then gives the relationship between aggregate demand for money and real GNP. The simple basic idea behind this is that additional money which is not accompanied by an increased volume of goods will eventually give rise to an acceleration of prices if cash-holding patterns remain unchanged. The actual money stock will thus be translated into a long-run price level which can be compared with the current price level. Any deviations of the equilibrium price level from the current price level suggest that the pace of inflation has accelerated or slowed down.

However, the current price level is determined not only by the money stock but also by a number of other cost and demand factors. It therefore normally diverges from the long-run price level. Such deviations trigger adjustment processes which in the long run restore equilibrium. The ratio of the long-run price level to the current price level can therefore be interpreted as being the inflationary or deflationary price gap. Comparison of the price gap with the rates of change of the price level suggests that the price gap qualifies as an indicator of future price movements and indicates the turning points in the movement of prices (see the chart on page 25) at an early stage. For instance, in the first half of the eighties the prospective long-run price level in the Federal Republic of Germany was sometimes up to 5% below the current price level (deflationary price gap). Subsequently, inflation did in fact decelerate. In the second half of the eighties the long-run price level, at its peak, was more than 3% above the current price level (inflationary price gap). When infla-

⁴ Hallman, J.J., Porter, R.D. and Small, D.H., "M2 per Unit of Potential GNP as an Anchor for the Price Level", Staff Study No. 157, Board of Governors of the Federal Reserve System, April 1989, and Hallman, J.J., Porter, R.D. and Small, D.H., "Is the Price Level Tied to the M2 Monetary Aggregate in the Long Run?", American Economic Review, Vol. 81, No. 4, September 1991, pp. 841-58.



tion then accelerated considerably, the price gap narrowed again in the early nineties. The preceding growth of the money stock had increasingly been translated into rising prices. Determination of the price gap, which initially relates to western Germany only, is severely impeded by German unification in 1990 and the associated jump in the statistical series. Since mid-1990 major inflationary risks have re-emerged, upon the sharp growth of the money stock; they are not yet reflected in the price gap ascertained here.

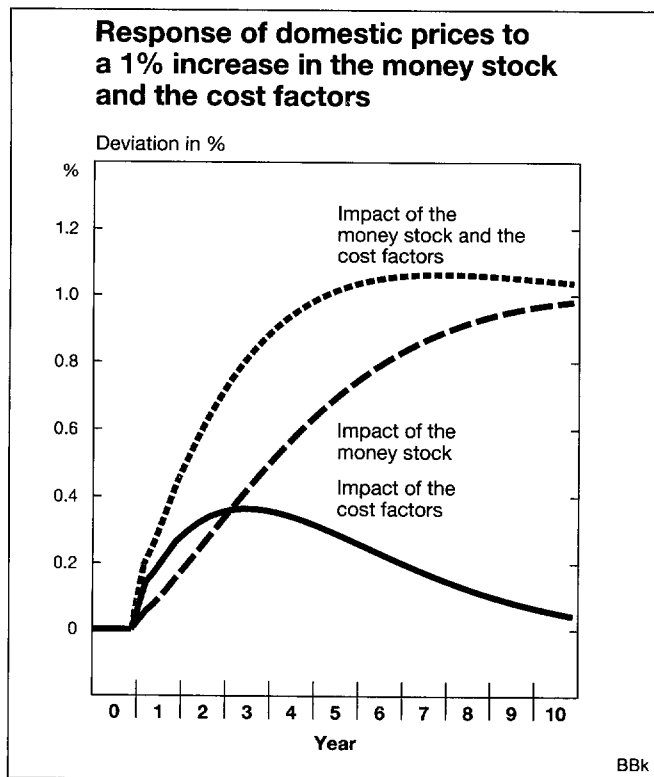
The long-run price level can also be used to check whether the actual money stock is consistent in the longer run with the goal of price stability. A positive price gap suggests that monetary expansion, measured in terms of potential GNP and long-run velocity, has been unduly strong in the past. The price gap therefore signals the inflationary dangers associated with excessive cash balances.

Moreover, the price gap approach reveals the mechanisms responsible for there being a tendency towards a return to the long-run price level. After all, the ratio of the expected long-run future price level to the current price level is made up of two components: the degree of productive capacity utilisation and the "degree of liquidity". The degree of

capacity utilisation indicates the ratio of real GDP to real potential GNP, while the degree of liquidity measures the ratio of long-run velocity to its current level. If the velocity is below and the cash holdings are therefore above their long-run equilibrium values, this indicates a liquidity overhang. Viewed in these terms, a high degree of capacity utilisation and a high degree of liquidity may alike lead to an acceleration of inflation. In this approach, the degree of capacity utilisation reflects those cash balances which have already been channelled into demand on the goods markets, while the liquidity overhang represents potential demand. Unlike indicators which are geared either only to real or only to monetary factors, the price gap covers both sides of the economy.

In the longer run, market forces will ensure that the current price level adjusts to the long-run price level, which is determined by current cash balances, potential GNP and long-run velocity. Once the price adjustment process gets under way, any existing inflationary price gap will tend to be closed – firstly, by liquidity and thus real cash holdings being lessened and, secondly, by higher prices reducing the demand for goods and/or stimulating supply. An expansion of the money stock which outpaces the growth of real potential GNP, adjusted for persistent changes in velocity, will therefore in the longer run lead to an increase of the same size in the price level. If, on the other hand, the expansion of the money stock is geared to the (adjusted) rate of growth of potential GNP, inflationary stimuli are avoided. Temporarily, however, the adjustment processes may – as mentioned before – largely be obscured by cost factors such as oil price shocks, exchange rate changes, a raising of indirect taxes or wage increases. But these factors will have a lasting (inflationary) impact on the price level only if they are accompanied by an increase in the money stock.

The empirical estimation of the relationship between the movement of prices on the one hand and the price gap plus temporary cost factors on the other hand raises a number of difficult questions. How is potential GNP to be determined? Are the money demand function and hence the determinants of portfolio behaviour stable enough to enable a long-run velocity to be calculated? How is the dynamic adjustment process to be specified? What period of time is to be used for the estimation? The key findings of detailed econometric studies of these questions are described in more detail in the Appendix to



this article. In these analyses, the calculation of the long-run price level and hence of the price gap was based on an income-determined trend of velocity: over the long term, velocity is declining. With the aid of a dynamic adjustment process, an attempt was then made to describe and empirically forecast the trend in inflation, as measured by the domestic demand deflator, the price gap and some cost factors. The duration and course of the adjustment process are apparent from the empirical studies, although these studies are subject to a considerable margin of uncertainty.⁵ For the short-term forecasting of price movements, it is essential to take due account of historic influences as well as of current cost trends.

While the econometric studies carried out furnish evidence of the long-run link between the money stock and price movements, they also show that considerable adjustment lags are likely to occur and that cost trends and other factors may often be superimposed on or temporarily even dominate this relationship. Price movements are subject to a dynamic process which is influenced not only by the price movements in preceding periods but also by cost trends, the changes in import prices and the price gap (see equation (8) in the Appendix). In the shorter term, price movements are determined by their intrinsic momentum and costs. In the long run, by con-

trast, the impact of the money stock, potential GNP and the trend in velocity prevails.

The estimated dynamic relationship between inflationary trends on the one hand and their short and long-term determinants on the other can be used to describe how changes in these factors over time are reflected in the price level. An expansion of the money stock in accordance with the Bundesbank's monetary target, which is in line with the growth of potential GNP and with the trend decline in velocity, has no inflationary impact on the price level, whereas a monetary expansion exceeding this rate, for instance by 1% – all other conditions remaining unchanged – will in the long run generate a corresponding rise in domestic prices. Price adjustments will begin virtually at once. After two years, one-third of the overall effect will be operative. If monetary growth accelerates by 1%, domestic prices will have risen by ½% after three years. The adjustment process will have been just about completed after some six years (see the adjacent chart). A one-off additional upsurge in costs, for instance caused by an increase in wages, would – on the assumption that the actual money stock was maintained – trigger only a temporary rise in the price level. Assuming that the money stock does not increase (which, of course, has never been the case for more than a very brief spell), cost increases could not durably be passed on in prices throughout the economy as a whole. This does not imply, however, that the price pattern and thus relative prices will remain unchanged after a cost surge. In the intervening period, which will cover several years, considerable price rises will occur even if monetary policy is non-accommodating, and correcting these rises will pose considerable risks to employment and growth. If, by contrast, a cost surge is accompanied by an expansion of the money stock (which, of course, is the general rule), there will be a lasting rise in the price level relatively soon. On the other hand, prices may remain unchanged for some time or even fall when the money stock is growing at an excessive rate if this is associated with an easing of cost pressures, for example on account of falling oil prices or an appreciation of the Deutsche Mark. In the longer run, however, an expansion of the money stock will push up the price level.

The use of the price gap as an indicator of the long-run link between the money stock and the price level is subject to a number of conditions which, in addition to the empirical uncertainties mentioned above,

⁵ In connection with the extension of the Deutsche Mark currency area to include the territory of the former GDR, a considerable jump in the statistical series occurred in mid-1990, which further complicates the analysis.

will have to be taken into consideration when interpreting the findings. In particular, one of these conditions is that the trends in real potential GNP, the various cost factors and long-run velocity, like the trend in monetary growth, are regarded as exogenous factors. In reality, however, a complex pattern of relationships exists between these variables on the one hand and price movements on the other, which must not be ignored in the ongoing analysis of the relationship between the money stock and the price level. This is why the effects of monetary targeting are reflected to only a limited extent in the specific equation described here. The transmission channels between the money stock and the price level are highly intricate. Even though these interdependencies can be captured only by a sizeable structural model, the price gap would appear to be a useful indicator for describing the relationship between the money stock and price movements.

Appendix: the concept of the price gap

The concept of the price gap is based on the quantity equation

$$(1) \quad P Y = M V.$$

In other words, the product of the price level (P) and real GNP (Y) equals the product of the money stock in circulation (M) and velocity (V). On the basis of this relationship, the equilibrium price level (P^*) is defined as being the money stock per unit of real potential GNP (Y^*), when velocity is at its equilibrium value (V^*):

$$(2) \quad P^* = (M / Y^*) V^*.$$

This indicator is a measure of the level to which prices would gravitate if the current level of the money stock were maintained when output and velocity settled down to their equilibrium values (Y^* and V^*). The equation thus translates the money stock into a variable which is directly comparable with the current price level.

The equilibrium price level can also be seen, however, as expressing the relationship between aggregate money demand ($M V^*$) and real potential GNP (Y^*): the greater the discrepancy, the higher the price level will ultimately be. If the current price level is lower than the equilibrium price level, this signals a future acceleration of inflation, whereas in the opposite case a deceleration is to be expected. The derivation of the monetary targets first adopted by the Bundesbank in 1975 is consistent with the concept of the price gap: if the year-on-year growth rate of the money stock is set in such a way that it is identical with the growth rate of real potential GNP (adjusted for changes in the equilibrium velocity), the emergence of inflationary or deflationary price gaps can be prevented and the price level stabilised in the medium term.

If the two equations (1) and (2) are combined, it becomes apparent that the relationship between the two price levels, P^* / P , i.e. the price gap, is made up of two components: the degree of utilisation of potential GNP (Y / Y^*) and the "degree of liquidity" (V^* / V):

$$(3) \quad \frac{P^*}{P} = \left(\frac{Y}{Y^*} \right) \left(\frac{V^*}{V} \right).$$

Splitting up the equation in this way shows that a risk of an acceleration of inflation exists not only when the utilisation of productive capacity exceeds the standard rate but also when velocity is below – and hence cash holdings are above – the long-run average. The price gap therefore not only measures the inflation potential of cash balances which have already affected demand and resulted in an increase in the degree of utilisation but also incorporates cash balances which have not yet impinged on demand but constitute a future inflation potential, in the shape of an above-average level of cash holdings (liquidity overhang).

The empirical determination of the equilibrium price level requires estimates to be made of potential GNP and equilibrium velocity. The Bundesbank bases the derivation of its monetary targets on forecasts of the growth rate of potential GNP and of the expected change in velocity. For the determination of the equilibrium price level, the level values of these variables are required. While such values for potential GNP have regularly been ascertained in the past, determining an equilibrium velocity is not a thing one would obviously be inclined to do. The Bundesbank currently uses the money stock in the definition M3 for the formulation of its monetary targets. If one looks at the velocity of M3 for the Federal Republic of Germany, one finds that it has exhibited a downward trend in the past. In other words: currency in circulation has tended to grow faster than GNP. It therefore seems appropriate to ascertain the long-run course of velocity with the aid of a money demand function.

As a rule, aggregate real demand for money is explained by an income component (real GNP) and an interest rate component. An increase in the income component is expected to have a positive impact and an increase in the interest rate component a negative impact on the demand for money. As the money stock M3 itself includes interest-bearing components (such as savings deposits at statutory notice and time deposits), it seems appropriate to express the interest rate component in terms of an interest rate difference, viz. the difference between the average rate of interest paid on the financial assets of the private sector which are not included in M3 and those which are included in M3. The interest rate component is thus defined as being the difference between weighted long and short-term interest rates.

Under these conditions, velocity will fall when the real money stock increases faster than real GNP, i.e. whenever the long-run income elasticity of the demand for money is greater than one. A fall in velocity would also have to be expected, however, when there is a trend fall in the interest rate difference. In the past, there have been alternating periods of increasing and decreasing interest rate differences. But there has been no trend drop in the interest rate difference over the last fifteen to twenty years to explain the fact that the velocity has

28 been tending to decline. Over the long term, real demand for money (M/P) can therefore, by way of approximation, be regarded only as being a function of real GNP (Y):

$$(4) \quad M/P = Y^\beta / V_0,$$

with V_0 being a level constant and β the long-run income elasticity of the demand for money. The quantity equation then yields the following expression for velocity at its long-run equilibrium level:

$$(5) \quad V^* = V_0 Y^{*1-\beta}.$$

If the long-run income elasticity of the demand for money were precisely one, then velocity would – except for some temporary fluctuations – be constant in the long run. If, however, income elasticity is greater than one, velocity will show a trend fall, with the amount of the fall depending on the growth rate of potential GNP. The incorporation of the long-run demand for money will thus yield the following identity for the equilibrium price level:

$$(6) \quad P^* = M V_0 / Y^{*\beta}.$$

This indicator can be regarded as the equilibrium value of the price level only if the current price level P and the equilibrium price level P^* do not persistently diverge. On the contrary, there should be long-term cohesion between the two variables so that divergences will tend to be reduced again; in this case, one talks of “co-integration”. Even though the two variables, P and P^* , are subject to trend, they should hence develop along a path which is such that disequilibria which have emerged disappear again over time, so that the (relative) differences (u) follow a stationary stochastic process:^{6,7}

$$(7) \quad p = p^* + u.$$

If p^* is replaced by equation (6), this yields a long-run relationship whose coefficients can be consistently estimated by the ordinary least squares method.⁸

The estimate yields a long-run income elasticity of the demand for money which is distinctly above the value one, a result which is also obtained when estimating conventional dynamic money demand functions. This should not be interpreted as being only transaction demand, but probably also reflects investment effects. In an economy with a trend growth of income and wealth accumulation, it is empirically difficult to separate the two effects. For a graphic illustration of the estimated price gap and price movements, see the chart on page 25.

In accordance with the definition of P^* in equation (6), an increase in the money stock (while potential GNP remains constant) leads to a proportionate increase in the equilibrium price level. Market forces ensure that in the long run there will be a corresponding rise in the current price level. If these assumptions are correct, disequilibria between P and P^* should help to explain future inflationary trends. Moreover, changes in the equilibrium price level should in the longer run show up in the course of inflation. Changes in the equilibrium price level will invariably occur whenever the

growth of the money stock outpaces that of potential GNP, plus or less trend changes in velocity. Furthermore, price movements are also determined and sometimes even dominated by other factors such as wages, import prices or exchange rates. The concept of the price gap, however, is based on the belief that these factors will have a lasting impact on the price level only if they are accommodated by a corresponding adjustment of the money stock.

Formally, the interaction of short-term influences and the long-run link can be depicted in a dynamic error correction equation by tying together rates of change and levels. In the following regression equation the rates of change of domestic prices (Δp)⁹ are initially explained by changes in the equilibrium price level (Δp^*) and by the average price gap in the four preceding quarters ($\bar{p}^* - \bar{p}$). The impact of the cost factors on the rates of price changes is captured by the variable Δk , where k is a weighted mean of labour costs, capital costs and import prices and also incorporates the impact of tax factors. On account of their special relevance, import prices are also included in the equation as an autonomous regressor (Δp_m). The intrinsic dynamics of the inflationary process are reflected by the lagged inflation rates ($\Delta p(-i)$). The specification of the equation used here with the results of the estimates (t-values in brackets) reads as follows:

$$(8) \quad \Delta p = b_1 \Delta p(-1) + b_2 \Delta p(-2) + b_3 \Delta p(-3) + b_4 \Delta k + b_5 \Delta p_m + b_6 \Delta p^* + b_7 (\bar{p}^* - \bar{p})$$

$$b_1 = 0.30 (2.9)$$

$$b_2 = 0.27 (2.6)$$

$$b_3 = 0.18 (1.9)$$

$$b_4 = 0.08 (3.6)$$

$$b_5 = 0.06 (3.6)$$

$$b_6 = 0.06 (1.8)$$

$$b_7 = 0.06 (2.5)$$

Estimation period: 1973.1-90.4; $R^2 = 0.983$, $DW = 1.83$.

As the results of the estimation show, the inflation dynamics are described relatively well by this equation. While in the shorter run price movements are determined by their intrinsic dynamism, cost factors and changes in the equilibrium price level also have a significant influence. The long-run trend is entirely determined by the disequilibrium between the current price level and the equilibrium price level, the price gap. Changes in the money stock which exceed the (corrected) growth of potential GNP show up in full in the long-run price level. The small value (0.06) of the estimated coefficient b_7 indicates, however, that existing disequilibria “wear off” relatively slowly. It is therefore not surprising that the long-run link between the money stock and the price level constantly has other factors superimposed on it, which tend to “mask” it. The chart on page 26 summarises the reactions of the price level to increases in the money stock and in costs, as revealed by the above estimation results.

⁶ See Granger, C.W.J., “Some Properties of Time Series Data and their Use in Econometric Model Specification”, *Journal of Econometrics*, Vol. 16, 1981, pp. 121-30, and Engle, R.F., and Granger, C.W.J., “Co-Integration and Error Correction: Representation, Estimation and Testing”, *Econometrica*, Vol. 55, 1987, pp. 251-76.

⁷ Small letters designate the natural logarithms of a variable; e.g. $p = \ln(P)$.

⁸ See Stock, J.H., “Asymptotic Properties of Least Squares Estimators of Cointegrating Vectors”, *Econometrica*, Vol. 55, 1987, pp. 1035-56.

⁹ The letter Δ represents the fourth differences of a variable. Applied to logarithmic quarterly data, Δp for instance means the logarithmic rate of growth of the price level against the corresponding quarter of the previous year.

Analysis of business insolvencies within the scope of the Deutsche Bundesbank's credit assessments

Under the provisions of the Bundesbank Act the Deutsche Bundesbank is – as a matter of principle – only permitted, within the scope of its lending operations with banks, to purchase or lend against bills of exchange backed by three parties known to be solvent. One of these parties is the bank presenting the bill; on account of its current business transactions with that bank and thanks to its involvement in banking supervision, the Bundesbank always has up-to-date information on the bank's financial situation. As a rule, the other two liable parties are non-bank enterprises. The Bundesbank has traditionally regarded this mandatory credit assessment of also these liable parties not as a mere monitoring of current payment patterns but rather as a comprehensive review of their credit standing which serves to recognise risks early, and thus to avoid losses in its lending business. The assessments rest primarily on the annual accounts requested of the enterprises for that purpose. Apart from other, rather conventional methods of analysis, the Bundesbank has for more than ten years now also used mathematical-statistical procedures (discriminant analyses) to allow it to assess the viability of the enterprises (non-banks) involved in its lending business. The experience gained from more than one million credit assessments to date proves that this instrument is suitable for a quantitative analysis of borrowers. In addition to general findings about the causes of insolvencies, the methods used in and the results of the discriminant analysis in respect of actual cases of insolvency are described below.

Analytical method

Discriminant analysis is understood to be a mathematical-statistical procedure to break down a given set of objects into partial sets defined as non-overlapping, the differences between which are to be explained with the aid of certain recorded features. At the Bundesbank the goal is to use a comparison of the figures taken from the annual accounts of solvent enterprises with those of enterprises which became insolvent shortly after the annual accounts were drawn up, i.e. something of an "insolvency-oriented comparison of enterprises", to find those operational ratios, and their weight in an overall context, which have the greatest impact, in empirical terms, on the *viability* (credit standing, solvency) of an enterprise. If the data used fulfil certain mathematical-statistical requirements, the discriminant analysis provides an objective yardstick in the form of the *discriminant function*, which – when applied

30 specifically to the annual accounts – allows enterprises to be classified in terms of their creditworthiness on the basis of the *overall ratio* derived.¹ This considerably facilitates the efficient processing and evaluation of a great number of annual accounts on the basis of consistent criteria. For the Bundesbank, which reviews the credit standing of more than 70,000 enterprises each year, this is an important aid.

The branch offices of the Bundesbank regularly record the insolvencies that occur in their respective banking or business areas (bankruptcies, bankruptcy proceedings following a failure of composition proceedings, court settlements) in a standardised form for central evaluation. These data are used primarily to select enterprises which have become insolvent from the stock of annual accounts available for further discriminant analyses, so as to be able to review the accuracy of the discriminant function. In addition, they also provide a great deal of specific information on the types, causes and consequences of insolvency – and thus a good insight into the extremely varied trends in insolvency.

The data used for analysis

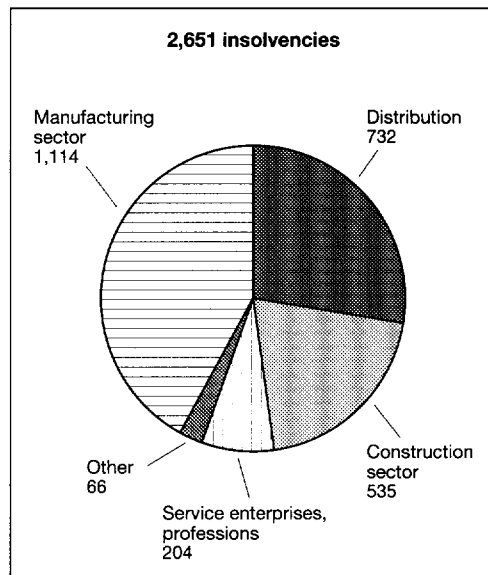
In the period from 1985 to 1990, the branch offices of the Bundesbank recorded a total of 2,651 insolvent enterprises, for which at least one complete set of annual accounts was on file in the Bundesbank's data base. The number of cases of insolvency in the Bundesbank's area of operations in this period declined from year to year in line with the general trend in insolvencies in the Federal Republic of Germany.

Measured in terms of the total number of insolvencies recorded by the Federal Statistical Office in the period under review, that covered by the data used by the Bundesbank is small. This is due to the fact that about one-third of all cases of insolvency involves individuals, in particular homeowners, and estates of deceased persons, and that the great number of small enterprises is less than proportionately represented in the Bundesbank's bill-based lending operations. In addition, the Bundesbank, too, has fixed summary ceilings, below which a comprehensive credit assessment of the parties to the bill is dispensed with on simplification grounds. A not insignificant role, however, is probably played by the fact that the rediscounting banks have themselves investigated the creditworthiness of the other parties to the bill, so that they only present such bills

¹ See footnote 5 for definitions of the "discriminant function" and the "overall ratio".

Business insolvencies, by economic sector *

1985-1990



* Cases of insolvency recorded by the branch offices of the Deutsche Bundesbank.

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that they do not expect to be rejected or booked as unpaid on grounds of an inadequate credit standing.

The structural features of the insolvent enterprises

Broken down by *economic sector*, 1,114 (42%) of the insolvent enterprises covered by the analysis were accounted for by the manufacturing sector, 732 (28%) by the distribution sector, 535 (20%) by the construction industry, 204 (8%) by the services sector and the professions, and 66 (2%) by the other main branches of industry. Compared with the overall pattern of the insolvent enterprises recorded by the Federal Statistical Office, manufacturing enterprises are represented more than proportionately in the Bundesbank's data (42%, as against 17%), while the opposite is true of service enterprises and the professions (8%, as against 29%). The construction and distribution sectors have roughly equal shares in both the overall figures and the data used for this analysis (22% versus 25% and 20% versus 28%, respectively).

The large proportion – now observed for years – of private limited companies in the total number of insolvencies among enterprises in the Commercial Register (74% between 1985 and 1990) and the very high susceptibility of businesses of this legal form to

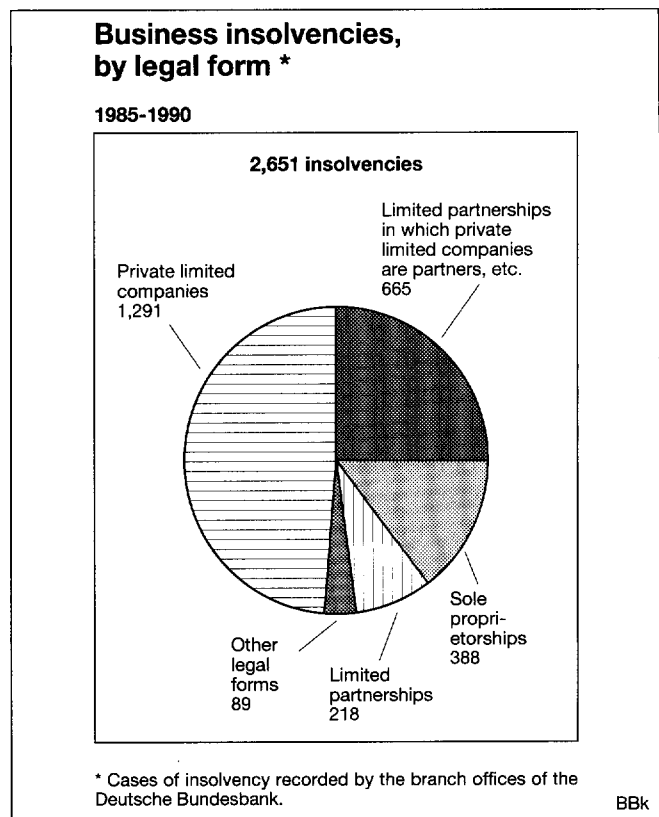
become insolvent (in 1990, for instance, the incidence of insolvency per 10,000 private limited companies was 125 – and thus three times the average among all enterprises) are also visible in the Bundesbank's breakdown of insolvencies by *legal form*. Roughly half of all the insolvencies involved private limited companies. A further quarter was accounted for by limited partnerships in which private limited companies are partners, with likewise only limited liability – a legal form of establishment that is markedly overrepresented in the Bundesbank's data (their share in the total number of insolvencies in the period under review was 9%). Relatively few insolvencies were recorded among true partnerships (general and limited partnerships) and sole proprietorships, in which not only the operating assets but also the private assets are fully liable. These legal forms nevertheless have a share of 25% in the data analysed (as against 17% in the overall figure).

The fact that the composition of the Bundesbank's data base differs in some respects from the overall pattern of business insolvencies, as was also noted in earlier analyses, presumably has a certain impact on the discriminant function ascertained by the Bundesbank. This alone prevents the discriminant function from being generally applicable.

Causes of insolvency

The situation in respect of the causes of insolvency is different. Here, the findings based on the Bundesbank's data are probably quite representative. The official insolvency statistics of the Federal Statistical Office do not provide any information on the *causes of insolvency*; they merely note, for instance, that young enterprises (which were established less than eight years earlier) become insolvent considerably more often than older businesses, or that the incidence of insolvency is particularly high among private limited companies and in the construction sector. The branch offices of the Bundesbank, by contrast, can as a rule investigate and systematically process the causes of insolvency "on site" by contacting the enterprise involved, the lending banks or the liquidator, for example.

The analysis of the insolvencies on the basis of the causes determined by the Bundesbank's branch offices – in most cases several factors played a role – shows that an *inadequate capital base* (a bad capital structure) was the reason for the failure of an



enterprise cited relatively most frequently (24% of the total number given). In young enterprises, in particular, which – on account of the lack of collateral – often have only limited access to bank loans, start-up losses rapidly lead to an erosion of the low equity capital and excessive debt. Another cause of insolvency cited almost as often (22%) were *unfavourable trends in sales or orders*, with corresponding consequences for the earnings and financial situation. Involved were both normal cyclical fluctuations in demand and problems specific to the enterprise concerned (e.g. outdated products, a lack of competitiveness). Causes of insolvency due to *management errors* in their broadest definition were also mentioned relatively frequently, namely an *inadequate management/organisation* (19%), *costing errors* (8%) and an *erroneous investment policy/product range* (5%). The growing interlinks between enterprises and the, in individual cases, marked orientation to a single or only a few customers (sometimes also suppliers) likewise proved to be rather important causes of insolvency (*extraneous effects* – 6% – often what are known as consequential bankruptcies). The *owners' lifestyles* (excessive private withdrawals from entrepreneurial income, for instance) were cited relatively rarely as a cause of insolvency (1%). In the case of "other factors", by contrast, attention was often drawn to the death or

32 retirement of a major partner or manager, or to bankruptcy offences. It is generally rare to find only one single cause of an insolvency. Several factors come together, and often exacerbate one another.

Signs of crisis visible in the balance sheet evaluations

As a prime basis for assessing the credit standing of the enterprises involved in lending transactions, the Bundesbank regularly undertakes what is known as a *balance sheet evaluation* covering up to four successive annual accounts. The balance sheet evaluation consists of the *financial flow account* (sources and uses of funds) and a number of *ratios* (seven individual ratios, the overall ratio, sector-specific comparative figures). On the basis of repeated discriminant analyses, which also included a review both of the ability of numerous individual ratios to classify partial sets and of their effectiveness of classification, the Bundesbank has found that a number of operational ratios have special significance for the viability of enterprises – or, viewed differently, for their susceptibility to insolvency – while other ratios contribute comparatively little. This finding holds true – in a more accentuated manner – also of *combinations* of differently weighted individual ratios in multivariate *discriminant functions*. The linear discriminant function currently used by the Bundesbank contains three individual ratios, namely (listed in declining sequence of their weights) the equity capital ratio, the capital recovery ratio and the pre-tax profits-turnover ratio.² The application of the discriminant function to the annual accounts of a given enterprise results in the *overall ratio*, which allows the enterprise to be classified provisionally as falling into one of three credit standing categories (category A = area of excellent credit standing, category B = transitional area, category C = area of risk). This classification is reviewed on the basis of further information (e.g. on that of the trend after the balance sheet date) and revised, where necessary.

Individual ratios

In terms of the three major individual operational ratios contained in the discriminant function, the evaluation of the last set of annual accounts submitted prior to insolvency³ presents the following picture:⁴

In 41 % of all cases the capital had already been eroded by losses, the *equity capital ratio* was

² See the table on page 34 for the definitions.

³ Involved is predominantly the set of annual accounts submitted two years before insolvency. Annual accounts for the year immediately preceding insolvency are available in only about 10 % of the cases in question. In general, the evaluation is complicated by a lack of balance sheet continuity. A complete series of six sets of annual accounts for the period under review is an exception rather than the rule.

Causes of insolvencies in the period from 1985 to 1990 *		
Item	Number of instances cited	As % of total cited
Capital structure	1,401	24
Trend in sales/orders	1,306	22
Management/organisation	1,139	19
Costing errors	459	8
Extraneous effects	364	6
Investment policy/production range	317	5
Owner's lifestyle	86	1
Other factors	746	13
No reason given	111	2
Total	5,929	100
* Causes of insolvencies, as determined by the branch offices of the Bundesbank. Several causes could be cited for each case of insolvency. BBk		

negative and the balance sheet debt excessive. A further 41 % of the enterprises which became insolvent only a little later had equity capital ratios of merely between 0% and 10%. Insofar as enterprises became insolvent which had had high equity capital ratios shortly before insolvency but often only little equity capital in absolute terms, this was usually due not so much to errors of their own as to their often becoming the victims of bankruptcies of other enterprises (as in the case of splits of unitary enterprises or high losses of receivables, for instance).

44 % of the enterprises which had become insolvent were no longer capable of meeting their current operational expenditure through appropriate earnings. The *capital recovery ratio*, the cash flow relative to the capital employed (tied-up capital), was negative and insolvency thus preprogrammed – after the use of possibly still existing liquid funds and the exhaustion of credit facilities. A further 19 % of the enterprises had only very low capital recovery ratios (0 % to 4 %). High capital recovery ratios in excess of 20 %, as were recorded for as many as 8 % of the enterprises, are generally an indication of exceptional operations (such as the liquidation of undisclosed reserves, the reduction of excessive stocks via prices, high payments received on account).

The *pre-tax profits-turnover ratio* was negative in the case of 46 % of the insolvent enterprises, i.e. current losses diminished the often already low equity capital. 22 % of the enterprises were only marginally in profit (between 0 % and 1 % of the turnover before

⁴ The percentages subsequently given are expressed in terms of the number of enterprises for which ratios could be calculated.

taxes on earnings). High profits-turnover ratios in excess of 4% were rare and were very often due – wherever this could be ascertained – to extraordinary income, such as the mobilisation of last undischarged reserves.

The other individual ratios derived from the Bundesbank's balance sheet evaluation are not included in the discriminant function. They nevertheless have a certain significance for the assessment of entrepreneurial behaviour and round off the picture presented of an enterprise in the course of a credit assessment. As does the capital recovery ratio (see above), the *net receipts ratio* and the *debt repayment capability*, for instance, give an indication of an enterprise's ability to achieve financial surpluses on turnover, and thus to repay other debts. Most insolvent enterprises had lost this ability, or had possessed it only to an inadequate degree. The net receipts ratio was negative, or very low (up to 4%), in the case of 73% of the enterprises. A similar picture was presented by the debt repayment capability (negative or up to 4% in 62% of all cases).

27% of the enterprises had a negative *return on total capital employed*, which includes both the pre-tax profit and the interest on debt. And in the case of a further 24% it was very low (up to 4%).

As was already observed in earlier analyses of insolvencies, the *change in turnover* proved to be only very marginally suitable for characterising trends in the credit standing unequivocally. At any rate, marked changes in the trend in turnover, as often occurred in the insolvent enterprises analysed, are a sign of an increased risk of insolvency. As many as 47% of the enterprises analysed recorded a sometimes considerable decline in turnover in the year preceding insolvency, while about one-third raised their turnover by more than 8% against the year before. Analysts require additional explanatory information here.

Overall ratio

Past experience shows that the individual operational ratios of significance for the viability of an enterprise do not by any means always point in a negative direction, even if calculated just prior to its insolvency. In order to be able to view different sets of facts and, in certain circumstances, also opposing trends in an overall context, the Bundesbank has for some time now used the overall ratio derived from

Value of the individual ratios in the last annual accounts before insolvency *		
Item	Number	% 1
Equity capital ratio 2		
Negative	1,087	41
0– 5	762	29
> 5–10	334	12
>10–20	291	11
>20–30	97	4
>30	80	3
Capital recovery ratio 3		
Negative	996	44
0– 4	417	19
> 4– 8	302	13
> 8–12	179	8
>12–16	120	5
>16–20	72	3
>20	169	8
Not calculable	396	—
Pre-tax profits-turnover ratio 4		
Negative	1,214	46
0– 1	596	22
> 1– 2	286	11
> 2– 4	258	10
> 4– 8	179	7
> 8	102	4
Not calculable	16	—
Net receipts ratio 5		
Negative	986	44
0– 2	387	17
> 2– 4	264	12
> 4– 8	284	11
> 8–12	129	6
>12–16	46	2
>16–20	35	3
>20	112	5
Not calculable	408	—
Debt repayment capability 6		
Negative	966	43
0– 1	163	7
> 1– 2	97	4
> 2– 4	177	8
> 4– 8	246	11
> 8–16	268	12
>16	338	15
Not calculable	396	—
Return on total capital employed 7		
Negative	709	27
0– 2	265	10
> 2– 4	364	14
> 4– 8	709	27
> 8–12	333	12
>12–16	129	5
>16	142	5
Change in turnover 8		
Negative	1,064	47
0– 1	102	5
> 1– 2	48	2
> 2– 4	69	3
> 4– 8	132	6
> 8	830	37
Not calculable	406	—

* The ratios given are derived from the balance sheet evaluation. Included were 2,651 enterprises which became insolvent between 1985 and 1990. — 1 As % of those enterprises for which a ratio could be calculated. — 2 Equity capital (adjusted) as % of total capital. — 3 Net receipts/net expenditure as % of the capital invested. — 4 Pre-tax profit or loss (excluding receipts from participating interests and profit/loss transfers) as % of turnover/total output. — 5 Net receipts/net expenditure as % of operating receipts. — 6 Net receipts/net expenditure as % of debts less liquid funds. — 7 Profit or loss (excluding receipts from participating interests and profit/loss transfers) before taxes and before interest paid as % of total capital. — 8 Change in operating receipts from previous year in %.

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34 repeated linear discriminant analyses. The comprehensive data available on cases of insolvency in the period from 1985 to 1990 allows the current discriminant function,⁵ which has been in use in lending business since 1985, to be reviewed empirically as to its capability of recognising insolvency risks as early and precisely as possible.

In the year immediately preceding insolvency, annual accounts were available for only 278 of the 2,651 enterprises analysed, and an overall ratio, the calculation of which requires two successive sets of annual accounts, could be established in only 247 cases (= 9.3%). These relatively low figures are probably due to the fact that, as insolvency approaches or becomes acute, annual accounts are compiled only with a considerable delay, or not at all, and that submitting annual accounts to the Deutsche Bundesbank no longer makes any sense after an enterprise has become insolvent. The data base for the year preceding insolvency is thus comparatively small and, in this respect, limits the informative value of the results. As many as 190 (77%) of the 247 enterprises that had become insolvent were allocated to the *area of risk* (category C), i.e. were classified correctly as being in great danger of insolvency. Their overall ratios corresponded to those of enterprises which became insolvent a little later. The overall ratios of 42 enterprises (17%) fell into the *transitional area* (category B), in which an unequivocal credit assessment is impossible solely on the basis of the annual accounts (a so-called grey area of indifferent creditworthiness). Viewed ex post, 15 enterprises (6%) were wrongly classified as falling into the *area of excellent credit standing* (category A). In these cases the figures of the annual accounts gave no indication that insolvency was imminent. The analysis of these enterprises on an individual basis showed that their failure was due almost exclusively to the effects of difficulties in other enterprises (i.e. that they were so-called consequential bankruptcies), or was connected to bankruptcy offences (such as falsifications of balance sheets, fraudulent bankruptcies). A system which is based solely on annual account figures cannot ascertain such risks. As a rule, any comprehensive credit assessment must therefore also include supplementary quantitative and, above all, qualitative factors.

The overall ratios of a large majority of the enterprises analysed here classified them as being threatened by insolvency already several years prior to their

⁵ The linear discriminant function reads as follows: $Z = a x_1 + b x_2 + c x_3$, with Z standing for the overall ratio, x_1 for the equity capital ratio, x_2 for the capital recovery ratio and x_3 for the pre-tax profits-turnover ratio, and a, b and c representing the weighting factors derived from the discriminant analysis.

Business insolvencies, by credit standing category, in the period from 1985 to 1990

Year 1	Credit standing categories 2						Other 3	
	A		B		C			
	Number of enterprises	% 4	Number of enterprises	% 4	Number of enterprises	% 4	Number of enterprises	%
n - 5	230	19	276	23	685	58	1,460	55
n - 4	268	16	395	23	1,037	61	951	36
n - 3	242	14	357	20	1,178	66	874	33
n - 2	140	9	307	20	1,061	71	1,143	43
n - 1	15	6	42	17	190	77	2,404	91

1 n = year of insolvency; n - 1 = year before insolvency, etc. —
 2 Category A = area of excellent credit standing; category B = transitional area; category C = area of risk. — 3 Enterprises which had not submitted annual accounts or for which an overall ratio could be calculated. For the reasons, see section "Overall ratio" of the text. —
 4 As % of those enterprises for which an overall ratio could be calculated. BBk

actually becoming insolvent. Five years before insolvency as many as 58% of the enterprises were allocated to category C, and 23% to category B. The proportion of category C enterprises rises virtually steadily as insolvency draws closer, while the percentages of enterprises classified as having an "indifferent" or an "excellent" credit standing decline correspondingly strongly. Properly processed and analysed annual accounts therefore provide quite an early indication of *insolvency risks*, so that lenders may have adequate time to react accordingly (by arranging for collateral, for instance, or by reducing their exposure).

The fact must be taken into consideration, however, that a continuous deterioration of the overall ratio in the years preceding insolvency, as is indicated almost ideally in the overall assessment, is not always given in individual cases. Enterprises in difficulties do not, as it were, move towards insolvency as though they were sliding down a "slope". The managers and/or owners undertake much to avert failure (the melting-down of undisclosed reserves, for instance, or an injection of outside capital). It is therefore not infrequently that the overall ratio fluctuates widely in the years prior to insolvency, the reasons for which must be investigated in the course of the credit assessments.

Attention must moreover be drawn to the fact that by no means all of the enterprises that are classified as being at risk in category C actually become insolvent within a certain period of time. At an estimated

75%, the "survival rate" in a period of about six years after first being listed in category C is almost three times as high as the "failure rate" of 25%. In categories B and A the "survival rates" are considerably higher, namely about 90% and 98%, respectively, and the "failure rates" correspondingly lower (10% and 2%, respectively), than in category C. Many enterprises with a credit standing that is bad in balance sheet terms exist for years without crossing the threshold to insolvency. They stabilise their situation at a low level, or even move out of the area of risk. Classification in category C does not therefore predict that insolvency will probably occur within the foreseeable future, but rather indicates risks that may, but need not necessarily, result in insolvency. The increased risk is reflected in a significantly higher "failure rate" of category C enterprises, a rate which is some 2½ and 12½ times higher than that of enterprises in categories B and A, respectively.

Summary

The study shows that the discriminant analysis, or the results thereof (the major individual operational ratios, the overall ratio, the credit standing categories), allows enterprises to be classified rather reliably in terms of the risk of insolvency, and that the risks are often already indicated early. Its results largely coincide with what can be ascertained from the causes of insolvency determined by the branch offices of the Bundesbank. The use of discriminant analyses thus plays a major role in the Bundesbank's credit assessments. This holds true, above all, in respect of an "advance classification" of a great number of enterprises in risk categories. As the classification of enterprises is based solely on the figures of their respective annual accounts, however, consideration of further (current) quantitative and qualitative factors is generally essential, and also an evaluation within an overall context by an experienced loan officer. In spite of the good results achieved with this procedure, it does not by any means allow either credit assessments to be effected, as it were, "automatically" solely on the basis of the overall ratio derived from the discriminant analysis or "insolvency forecasts" entailing any statistical probability to be deduced therefrom.

Statistical Section

Note

From the inception of the monetary union, the tables for banks contain the assets and liabilities of the banks in the former GDR; the Deutsche Mark opening balance sheet reports prepared by these banks as at July 1, 1990 have been aggregated with the figures of the west German banks from the end of June 1990. The statistical break caused by the inclusion of the east German banks has been eliminated in Tables I,1 and III,1 of the Monthly Report and in the tables of the Statistical Supplements, Series 1. The levels shown in the Deutsche Mark opening balance sheet reports of the banks in the former GDR can be seen from the Annex to the Statistical Supplements, Series 1 for the months of November 1990 to February 1991. The data for the new Länder as included in the figures given have to be regarded as provisional for the time being.

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II. Deutsche Bundesbank

1. Assets and liabilities of the Bundesbank

(a) Assets

DM million

End of year or month/ Reporting date	Total assets	Monetary reserves and other external assets 1, 2										Lending to domestic		
		Monetary reserves										External loans and other external assets	Total	Securities purchased in open market transactions under re-purchase agreements
		Total	Gold	Reserve position in the IMF and special drawing rights			Claims on the EMCF in connection with the European Monetary System	Memo item Claims on the EMCF in connection with the EMS (gross)	Foreign currency balances					
				Drawing rights within the reserve tranche	Loans under special borrowing arrangements	Special drawing rights								
1986	220,851	94,036	91,592	13,688	6,462	1,006	3,920	16,321	32,618	50,195	2,444	96,418	33,191	
1987	230,474	122,630	120,193	13,688	5,779	388	3,106	28,953	46,980	68,279	2,437	82,356	27,640	
1988	268,925	97,126	94,689	13,688	5,957	—	3,307	21,554	37,969	50,183	2,437	144,736	77,980	
1989	308,571	99,960	97,528	13,688	5,166	—	3,063	17,303	32,125	58,308	2,432	175,325	108,829	
1990	349,598	106,446	104,023	13,688	4,565	—	2,808	18,445	29,370	64,517	2,423	208,524	117,435	
1991 March	347,153	98,684	96,261	13,688	5,011	—	2,858	19,402	29,424	55,302	2,423	217,498	124,532	
April	340,527	98,500	96,077	13,688	5,146	—	2,836	17,857	29,030	56,550	2,423	211,317	127,820	
May	329,920	99,587	97,164	13,688	5,226	—	2,876	17,858	29,031	57,516	2,423	202,641	119,230	
June	353,931	96,885	94,462	13,688	5,177	—	2,833	17,859	29,032	54,905	2,423	216,785	128,674	
July	361,839	96,835	94,412	13,688	5,283	—	2,831	17,416	30,570	55,194	2,423	224,580	137,390	
Aug.	333,788	97,972	95,549	13,688	5,272	—	2,868	17,417	30,571	56,304	2,423	211,239	124,590	
Sep.	352,526	98,260	95,837	13,688	5,384	—	2,864	17,418	30,572	56,483	2,423	218,964	131,990	
Oct.	343,180	98,770	96,347	13,688	5,304	—	2,851	17,747	29,127	56,757	2,423	215,346	136,379	
Nov. 7	335,239	99,100	96,677	13,688	5,304	—	2,798	17,747	29,127	57,140	2,423	208,511	129,136	
Nov. 15	331,143	99,357	96,934	13,688	5,295	—	2,862	17,747	29,127	57,342	2,423	206,671	126,895	
Nov. 23	335,799	100,789	98,366	13,688	5,295	—	2,860	17,747	29,127	58,776	2,423	209,545	130,458	
Nov. 30	346,291	99,908	97,485	13,688	5,291	—	2,859	17,748	29,128	57,899	2,423	222,042	133,388	
Dec. 7	345,208	100,258	97,835	13,688	5,335	—	2,850	17,748	29,128	58,214	2,423	221,768	142,456	
Dec. 15	350,332	100,372	97,949	13,688	5,302	—	2,850	17,748	29,128	58,361	2,423	224,933	146,145	
Dec. 23	350,079	100,073	97,650	13,688	5,296	—	2,848	17,748	29,128	58,070	2,423	228,711	148,285	

(b) Liabilities

DM million

End of year or month/ Reporting date	Total liabilities	Banknotes in circulation	Deposits								
			Domestic banks 8	Domestic public authorities					Domestic enterprises and individuals		
				Total	Federal Government	EBF, ERP Special Fund, "German Unity" Fund	Länder Governments	Other public depositors 9	Total	Federal Post Office	Other enterprises and individuals
1986	220,851	113,983	55,869	1,144	404	5	689	46	3,277	2,388	889
1987	230,474	125,608	60,491	4,664	3,877	9	753	25	3,263	2,475	788
1988	268,925	143,942	61,241	3,535	2,718	108	682	27	5,009	4,259	750
1989	308,571	150,548	66,874	6,129	5,149	3	932	45	5,516	4,693	823
1990	349,598	166,909	76,678	19,145	15,348	14	3,685	98	6,420	5,222	1,198
1991 March	347,153	165,896	76,740	14,116	5,784	7	8,197	128	7,152	6,509	643
April	340,527	164,420	85,026	9,295	2,093	29	6,789	384	6,025	5,392	633
May	329,920	165,766	63,068	13,800	8,783	8	4,925	84	8,509	7,820	689
June	353,931	166,363	81,744	10,825	4,996	34	5,703	92	18,291	17,583	708
July	361,839	168,888	86,135	7,679	3,505	5	4,109	60	21,319	20,609	710
Aug.	333,788	170,213	73,416	4,735	1,728	8	2,952	47	7,451	6,779	672
Sep.	352,526	170,944	79,649	7,076	1,716	9	5,299	52	16,012	15,324	688
Oct.	343,180	172,716	75,638	2,846	61	12	2,700	73	8,048	7,385	663
Nov. 7	335,239	173,675	72,273	3,609	55	4	3,490	60	6,131	5,508	623
Nov. 15	331,143	173,685	72,116	2,378	634	3	1,596	145	2,716	2,029	687
Nov. 23	335,799	173,949	66,148	11,974	9,721	3	2,186	64	2,280	1,627	653
Nov. 30	346,291	177,239	81,116	3,422	1,927	2	1,440	53	4,375	3,708	667
Dec. 7	345,208	182,664	75,951	2,044	65	7	1,912	60	3,882	3,211	671
Dec. 15	350,332	182,273	77,331	7,225	5,901	7	1,263	54	2,302	1,648	654
Dec. 23	350,079	186,363	71,835	6,441	5,217	84	1,054	86	5,081	4,367	714

1 The Bundesbank's external positions denominated in foreign currencies, ECUs and SDRs are shown at the balance sheet rates of the respective end-of-year dates. — 2 For further breakdown see Table IX, 6, and Statistical Supplements to the Monthly Reports of the Deutsche Bundesbank, Series 3, Balance of payments statistics, Table 12. — 3 l. e. excluding prime bankers' acceptances. — 4 Including Equalisation

of Burdens Fund and ERP Special Fund. — 5 Resulting from the currency reform of 1948, including non-interest-bearing debt certificate in respect of the currency conversion in Berlin (West); including amounts exchanged for Treasury bills and Treasury discount paper and sold; see also item "Liabilities arising from mobilisation and liquidity paper sold". — 6 Including foreign securities (from Dec. 31, 1990: DM 149

From July 1990 the time series cover the entire Deutsche Mark currency area

banks				Lending to and other claims on domestic public authorities				Securities		Other assets 7	End of year or month/ Reporting date	
Domestic bills	Foreign bills	Lombard loans	Memo item Loans to domestic banks excluding money market bills purchased 3	Total	Federal Government 4		Länder Governments	Lending to Federal Railways and Federal Post Office	Bonds and interest-bearing Treasury paper of Federal and Länder Governments			Bonds and interest-bearing Treasury paper of Federal Railways and Federal Post Office 6
					Advances	Equalisation claims 5						
40,496	20,363	2,368	92,907	11,634	2,015	8,683	936	—	3,668	1,540	13,555	1986
33,744	20,206	766	78,977	9,492	—	8,683	809	—	3,151	1,348	11,497	1987
33,485	22,027	11,244	141,826	9,694	—	8,683	1,011	—	3,593	1,322	12,454	1988
34,102	27,207	5,187	173,391	9,736	—	8,683	1,053	—	3,150	1,111	19,289	1989
54,116	30,793	6,180	207,555	9,425	—	8,683	742	—	3,300	952	20,951	1990
52,918	33,745	6,303	216,514	8,777	—	8,683	94	100	3,220	935	17,939	1991 March
46,612	34,993	1,892	210,334	8,863	—	8,683	180	—	3,142	935	17,770	April
46,550	35,934	927	201,647	8,683	—	8,683	—	140	3,094	935	14,840	May
47,004	37,210	3,897	215,815	8,763	—	8,683	80	—	3,082	935	27,481	June
40,255	37,182	9,753	223,610	9,590	—	8,683	907	—	3,072	935	26,827	July
40,639	37,744	8,266	210,251	9,570	—	8,683	887	—	3,351	878	10,778	Aug.
40,229	37,724	9,021	218,019	9,039	—	8,683	356	120	3,888	878	21,377	Sep.
39,180	39,392	395	214,363	10,775	1,768	8,683	324	—	3,887	849	13,553	Oct.
39,449	39,716	210	207,543	13,453	4,634	8,683	136	—	3,887	815	9,473	Nov. 7
39,155	39,747	874	205,674	8,773	—	8,683	90	—	3,887	815	11,640	Nov. 15
38,911	39,780	396	208,547	8,747	—	8,683	64	—	3,887	815	12,016	Nov. 23
39,009	39,791	9,854	221,043	9,788	—	8,683	1,105	—	3,887	815	9,851	Nov. 30
38,758	39,950	604	220,770	9,565	819	8,683	63	—	3,952	815	8,850	Dec. 7
38,562	40,016	210	223,981	8,746	—	8,683	63	—	4,050	815	11,416	Dec. 15
38,101	40,423	1,902	227,883	8,817	—	8,683	134	—	4,064	815	7,599	Dec. 23

Foreign depositors 1	Liabilities to banks	Liabilities arising from mobilisation and liquidity paper sold	Liabilities to the EMCF in connection with the European Monetary System 1	Counterpart of special drawing rights allocated 1	Provisions	Capital and reserves	Other liabilities	Memorandum items			End of year or month/ Reporting date
								Currency in circulation		Rediscount quotas fixed 10	
								Total	of which Coins		
19,898	—	4,808	—	2,874	5,792	5,851	7,355	123,733	9,750	59,444	1986
17,066	—	5,233	—	2,716	4,743	6,279	411	135,901	10,293	52,668	1987
23,976	—	4,729	—	2,901	4,287	6,347	12,958	154,823	10,881	53,302	1988
48,421	—	4,062	—	12 2,702	4,760	7,777	11,782	162,144	11,596	58,769	1989
49,105	—	4,756	—	14 2,573	4,952	8,107	10,953	179,690	12,781	84,563	1990
47,510	—	5,902	—	2,573	4,952	8,107	14,205	178,758	12,862	84,545	1991 March
47,718	—	5,392	—	2,573	5,472	8,925	5,681	177,329	12,909	84,555	April
48,016	—	6,123	—	2,573	5,472	8,925	7,668	178,777	13,011	84,560	May
44,479	—	6,029	—	2,573	5,472	8,925	9,230	179,387	13,024	84,593	June
43,949	—	6,190	—	2,573	5,472	8,925	10,709	181,986	13,098	78,634	July
42,764	—	5,445	—	2,573	5,472	8,925	12,794	183,326	13,113	78,795	Aug.
42,028	—	5,196	—	2,573	5,472	8,925	14,651	184,176	13,232	78,948	Sep.
42,017	2,076	6,943	—	2,573	5,472	8,925	15,926	185,853	13,137	78,935	Oct.
41,540	—	4,608	—	2,573	5,472	8,925	16,433	186,777	13,102	—	Nov. 7
41,779	—	4,674	—	2,573	5,472	8,925	16,825	186,756	13,071	—	Nov. 15
41,764	—	4,579	—	2,573	5,472	8,925	18,135	187,035	13,086	—	Nov. 23
39,777	—	5,010	—	2,573	5,472	8,925	18,382	190,359	13,120	—	Nov. 30
39,967	—	4,959	—	2,573	5,472	8,925	18,771	195,828	13,164	—	Dec. 7
40,453	—	4,931	—	2,573	5,472	8,925	18,847	195,483	13,210	—	Dec. 15
40,071	—	3,868	—	2,573	5,472	8,925	19,450	199,719	13,356	—	Dec. 23

million). — 7 Including the items "German coins", "Balances on postal giro accounts" and "Other assets". — 8 Excluding deposits of the Federal Post Office. — 9 Local authorities, local authority associations and social security funds. — 10 In addition, there are several minor special refinancing facilities (see "Kreditpolitische Regelungen" [monetary policy regulations] published in the German version of the

Annual Reports of the Deutsche Bundesbank). From July 1990 including the refinancing quotas set for banks in the former GDR. — 11 Decrease of DM 0.7 billion owing to a valuation adjustment. — 12 Decrease of DM 0.2 billion owing to a valuation adjustment. — 13 Decrease of DM 5.2 billion owing to a valuation adjustment. — 14 Decrease of DM 0.1 billion owing to a valuation adjustment.

From June 1990 the time series cover the entire Deutsche Mark currency area

									Long-term 3, 4	
Advances and loans	Bills discounted	Securities (excluding bank securities)	Total including securities portfolios, equalisation claims	excluding equalisation claims	Advances and loans 3	Loans on a trust basis 4	Securities (excluding bank securities) 5	Equalisation claims 6	End of year or month	
132,261	5,308	1,900	846,225	829,421	780,370	49,051	16,804	—	1982	
141,130	4,489	2,288	914,630	897,077	846,988	50,089	17,553	—	1983	
140,509	3,760	2,524	14 981,783	14 962,430	14 910,818	51,612	19,353	—	1984	
136,707	2,850	2,340	16 1,060,370	16 1,037,791	16 984,557	53,234	22,579	—	1985 7	
140,542	2,851	2,343	17 1,076,836	1,054,141	1,000,505	53,636	17 22,695	—	1985 7	
135,469	1,781	1,607	20 1,162,036	1,135,045	20 1,080,342	54,703	26,991	—	1986	
131,548	1,108	1,077	15 1,240,227	20 1,206,955	18 1,148,507	48 58,448	15 33,272	—	1987	
130,319	924	368	25 1,317,855	1,281,075	1,222,272	58,803	25 36,780	—	1988	
135,807	2,642	568	1,408,465	1,367,768	1,307,715	60,053	40,697	—	1989	
30 157,911	2,016	304	29 1,589,983	29 1,537,373	29 1,475,856	61,517	52,610	—	1990	
144,224	2,739	296	1,547,678	1,499,486	1,438,866	60,620	48,192	—	1990 July	
145,806	2,900	295	1,553,267	1,504,028	1,443,030	60,998	49,239	—	Aug.	
147,351	2,917	317	1,557,319	1,506,820	1,445,953	60,867	50,499	—	Sep.	
149,690	2,751	314	1,567,719	1,515,956	1,454,824	61,132	51,763	—	Oct.	
31 153,045	2,967	314	32 1,574,658	32 1,522,098	32 1,460,828	61,270	52,560	—	Nov.	
157,911	2,016	304	1,589,983	1,537,373	1,475,856	61,517	52,610	—	Dec.	
13 159,229	1,970	323	1,592,669	34 1,542,666	1,483,593	34 59,073	23 50,003	—	1991 Jan.	
161,064	1,941	311	38 1,595,676	38 1,544,973	38 1,485,749	59,224	50,703	—	Feb.	
163,403	2,059	325	41 1,603,855	41 1,551,500	41 1,492,364	59,136	52,355	—	March	
166,560	1,980	355	1,614,319	1,560,148	1,500,806	59,342	54,171	—	April	
170,397	1,890	439	40 1,622,681	40 1,568,318	40 1,508,739	59,579	54,363	—	May	
174,234	2,075	362	1,633,190	1,575,866	1,516,430	59,436	57,324	—	June	
178,810	2,111	548	1,647,262	1,589,717	1,530,229	59,488	57,545	—	July	
182,282	2,100	410	14 1,660,036	14 1,601,456	14 1,541,881	59,575	58,580	—	Aug.	
185,291	2,019	638	1,672,069	1,611,358	1,551,836	59,522	60,711	—	Sep.	
188,153	1,971	1,254	1,687,966	1,626,089	1,566,330	59,759	61,877	—	Oct.	
191,225	2,097	1,472	1,707,140	1,643,141	1,583,294	59,847	63,999	—	Nov. p	
47,845	—	9,284	331,823	300,419	293,839	6,580	27,914	3,490	1982	
48,290	—	12,095	349,928	311,475	304,432	7,043	35,187	3,266	1983	
43,215	—	12,085	379,830	330,370	322,939	7,431	46,405	3,055	1984	
38,865	—	10,132	405,468	343,825	335,653	8,172	58,802	2,841	1985 7	
38,895	—	10,175	406,643	344,461	336,286	8,175	59,290	2,892	1985 7	
29,063	—	22 8,421	423,414	355,893	346,689	9,204	64,895	2,626	1986	
25,772	—	7,429	34 457,535	42 378,426	367,760	40 10,666	76,674	2,435	1987	
28,010	—	5,747	497,373	400,325	389,010	11,315	94,891	2,157	1988	
30,692	—	4,981	19 501,100	401,397	389,572	11,825	19 97,791	1,912	1989	
42,758	—	4,038	21 529,883	48 413,331	48 400,966	12,365	15 114,895	1,657	1990	
36,137	—	4,266	499,287	393,131	381,069	12,062	104,441	1,715	1990 July	
38,370	—	4,145	509,775	398,778	386,631	12,147	109,298	1,699	Aug.	
38,568	—	3,919	514,281	402,236	390,034	12,202	110,353	1,692	Sep.	
40,347	—	3,770	522,308	406,870	394,625	12,245	113,747	1,691	Oct.	
41,052	—	3,961	526,183	411,095	398,712	12,383	113,395	1,693	Nov.	
42,758	—	4,038	529,883	413,331	400,966	12,365	114,895	1,657	Dec.	
44,367	—	4,429	49 532,069	418,346	405,788	12,558	50 112,077	1,646	1991 Jan.	
44,249	—	4,895	529,850	418,276	405,628	12,648	109,929	1,645	Feb.	
45,867	—	5,126	534,198	419,385	406,675	12,710	113,168	1,645	March	
45,982	—	5,490	534,080	421,993	409,260	12,733	110,442	1,645	April	
47,187	—	7,019	537,248	423,818	411,002	12,816	111,784	1,646	May	
48,750	—	6,065	535,943	423,569	410,822	12,747	110,834	1,540	June	
48,446	—	6,841	538,862	426,827	414,031	12,796	110,612	1,423	July	
48,409	—	6,463	541,231	428,297	415,439	12,858	111,515	1,419	Aug.	
49,070	—	6,872	539,831	425,142	412,188	12,954	113,271	1,418	Sep.	
48,977	—	7,451	540,141	428,245	415,208	13,037	110,470	1,426	Oct.	
50,473	—	7,694	545,205	432,822	419,662	13,160	110,957	1,426	Nov. p	

23 — c. DM 1.5 billion. — 24 — c. DM 1.6 billion. — 25 — c. DM 1.7 billion. — 38 — c. DM 5.0 billion. — 39 + c. DM 2.2 billion. — 40 + c. DM 700 million. —
 26 + c. DM 900 million. — 27 + c. DM 170 billion. — 28 + c. DM 70 billion. — 41 + c. DM 1.5 billion. — 42 + c. DM 800 million. — 43 — c. DM 500 million. —
 29 + c. DM 100 billion. — 30 + c. DM 2.8 billion. — 31 + c. DM 1.4 billion. — 44 + c. DM 15 billion. — 45 + c. DM 4.5 billion. — 46 + c. DM 14 billion. —
 32 — c. DM 2.6 billion. — 33 — c. DM 4.0 billion. — 34 + c. DM 1.2 billion. — 47 + c. DM 13 billion. — 48 + c. DM 3.5 billion. — 49 — c. DM 1.8 billion. —
 35 + c. DM 1.3 billion. — 36 — c. DM 10 billion. — 37 — c. DM 5.5 billion. — 50 — c. DM 2.0 billion. — p Provisional.

5. Lending commitments to domestic enterprises and individuals *

DM million													
Period	Commitments for medium and long-term loans of fixed amounts and for fixed periods					Memorandum items Commitments for residential building (reduced range of reporting banks 1)							
	Loans promised as at beginning of period	Loans promised during period	Loans promised and paid out	Cancellations	Loans promised but not yet paid out at end of period	Loans promised as at beginning of period	Loans promised				Loans promised and paid out	Cancellations, etc. 5	Loans promised but not yet paid out at end of period
							Total	for new construction 2	for modernisation, purchase and acquisition 3	for repayment of other loans 4			
1987					72,683	16,529	57,648	20,190	30,735	6,723	57,451	1,773	14,953
1988	72,683	306,263	278,724	17,915	82,307	14,953	60,218	20,740	33,356	6,122	57,195	1,061	16,915
1989	82,307	328,143	297,573	19,588	93,289	16,915	61,188	22,046	34,954	4,188	58,521	826	18,756
1990	93,289	332,581	302,590	22,346	100,934	18,756	55,328	21,659	30,953	2,716	54,060	1,173	18,851
1990 Nov.	98,523	27,952	25,930	1,678	98,867	18,781	4,547	1,688	2,666	193	4,321	22	18,985
Dec.	98,867	43,946	39,046	2,833	100,934	18,985	7,335	3,101	3,912	322	7,413	56	18,851
1991 Jan.	6 103,987	31,581	27,784	3,412	104,372	18,851	3,501	1,374	1,965	162	3,871	250	18,231
Feb.	104,372	28,909	23,503	7 4,820	104,958	18,231	4,132	1,570	2,365	197	3,592	190	18,581
March	104,958	35,436	25,878	2,853	111,663	18,581	4,940	1,866	2,788	286	3,931	99	19,491
April	111,663	34,251	29,500	1,963	114,451	19,491	5,529	2,184	3,100	245	4,546	175	20,299
May	114,451	30,978	27,603	2,297	115,529	20,299	5,489	2,077	3,185	227	4,651	112	21,025
June	115,529	39,507	32,110	1,990	120,936	21,025	6,473	2,516	3,631	326	5,045	83	22,370
July	120,936	45,419	38,172	7 3,250	124,933	22,370	7,794	2,943	4,442	409	6,223	89	23,852
Aug.	124,933	41,641	33,505	2,832	130,237	23,852	6,756	2,654	3,826	276	5,706	75	24,827
Sep.	130,237	36,213	32,457	2,778	131,215	24,827	5,629	2,019	3,358	252	5,560	77	24,819
Oct.	131,215	38,312	35,915	2,853	130,759	24,819	6,149	2,488	3,431	230	6,268	65	24,635
Nov. p	130,759	36,151	32,534	2,304	132,072	24,635	5,890	2,306	3,335	249	5,686	2	24,837

* Including non-profit organisations. From January 1991 including commitments to borrowers in the former GDR. — 1 Source: Statistics of the Ministry for Regional Planning, Building and Urban Development; only institutions affiliated to the following associations: Deutscher Sparkassen- und Giroverband (excluding Länder building and loan associations), Verband deutscher Hypothekbanken, Verband öffentlicher Banken (excluding housing promotion institutions); excluding banks in the former

GDR. — 2 Creation of new housing. — 3 Including commitments for repairs. — 4 Repayment of housing loans from other banks. — 5 Ascertained as a difference. — 6 Statistical increase owing to the inclusion of commitments to borrowers in the former GDR to the amount of DM 3.1 billion (DM 2.1 billion to banks in the new Länder; DM 1.0 billion to banks in the old Länder). — 7 Cancellations reported late: DM 2.2 billion in February 1991, DM 0.5 billion in July 1991. — p Provisional.

6. Off-balance-sheet activities

DM million											
End of year or month	Placing/underwriting commitments (RUFs, NIFs, etc.) 1		Memorandum items Claims on foreign			Interest-rate and currency swaps 3				Liabilities arising from forward transactions in bonds	
	Total	of which Used 2	non-banks arising from Euro-notes and commercial paper	banks arising from certificates of deposit	Total	Interest-rate swaps	Currency swaps	Cross-currency interest-rate swaps	Commitments to take	Commitments to deliver	
Domestic banks											
1988	347		390	232	154,471	118,315	11,616	24,540	1,749	5,319	
1989	361	53	283	133	242,543	189,351	14,455	38,737	754	4,122	
1990	605	14	120	248	403,406	337,639	20,639	45,128	1,519	8,285	
1991 July	318		218	334	525,182	439,948	22,205	63,029	1,790	6,248	
Aug.	274		276	280	545,009	457,582	23,079	64,348	3,379	2,475	
Sep.	266		303	249	543,649	455,602	23,101	64,946	4,471	11,190	
Oct.	272		239	239	563,223	471,624	25,000	66,599	4,225	10,286	
Nov. p	267		205	613	564,288	470,941	23,680	69,667	3,914	6,695	
Foreign branches of domestic banks											
1988	5,952	288	1,971	3,144	55,093	39,342	2,906	12,845			
1989	4,177	135	1,428	3,143	71,033	50,756	4,937	15,340			
1990	4,528	596	1,044	3,136	95,409	70,467	6,655	18,287	690	542	
1991 July	5,437	547	1,083	4,709	118,930	85,561	13,403	19,966	2,835	2,032	
Aug.	5,462	643	1,082	4,581	125,020	91,499	13,399	20,122	3,162	3,442	
Sep.	5,106	639	1,170	4,961	127,328	92,385	15,478	19,465	1,680	1,765	
Oct.	5,207	645	1,122	4,543	129,757	94,058	15,212	20,487	2,558	2,493	
Nov. p	5,129	703	1,175	5,063	131,745	96,510	14,964	20,271	2,667	2,838	
Foreign subsidiaries of domestic banks											
1988	2,231	124	1,379	495	28,556	20,320	1,323	6,913			
1989	2,294	249	743	382	51,365	42,457	2,471	6,437			
1990	1,977	541	718	2,727	142,390	128,614	6,721	7,055			
1991 July	2,356	699	550	3,974	126,299	112,098	6,012	8,189			
Aug.	2,276	690	540	3,758	115,902	101,418	6,357	8,127			
Sep.	2,165	649	553	3,013	114,876	100,644	6,342	7,890			
Oct. p	2,273	638	568	3,168	117,607	101,429	8,264	7,914			

1 Excluding underwriting commitments arising from usual syndicated lending. — 2 Commercial paper, Euro-notes and CDs purchased in connection with underwriting

commitments. — 3 It is the principal amounts that are listed. — p Provisional.

III. Banks

From June 1990 the time series cover the entire Deutsche Mark currency area

Bank savings bonds 2			Savings deposits						Loans on a trust basis	Memo item Liabilities arising from transactions under repurchase agreements (unless shown above the line)	End of year or month
Total	Less than 4 years	4 years and over	Total	Statutory notice	Agreed period of notice						
					Total	Less than 4 years	4 years and over				
						Under the Savings Bonuses and Personal Asset Acquisition Acts	Other				
121,543	13,948	107,595	513,658	326,037	187,621	92,706	51,538	43,377	2,166	1982	
134,298	5 17,815	6 116,483	543,081	7 356,055	8 187,026	8 99,085	41,661	46,280	2,221	1983	
150,386	21,421	128,965	563,203	370,116	193,087	109,056	34,940	49,091	2,487	1984	
160,386	22,752	137,634	596,123	391,713	204,410	117,969	32,133	54,308	2,604	1985 3	
163,486	23,418	140,068	617,998	404,589	213,409	122,978	33,111	57,320	2,610	1985 3	
12 176,163	13 22,093	14 154,070	664,511	435,884	228,627	133,695	30,489	64,443	2,802	1986	
185,730	21,487	164,243	701,325	463,000	238,325	139,523	26,476	72,326	3,033	1987	
185,260	20,279	164,981	722,058	489,569	232,489	131,991	29,193	71,305	3,612	1988	
199,178	27,474	171,704	699,760	474,862	224,898	136,454	21,992	66,452	4,647	1989	
223,436	35,266	188,170	19 749,432	19 511,219	238,213	158,074	18,604	61,535	5,692	1990	
210,631	32,704	177,927	772,581	551,134	221,447	144,513	16,818	60,116	5,049	1990 July	
213,060	33,381	179,679	765,542	542,038	223,504	146,349	17,266	59,889	5,145	Aug.	
215,301	33,974	181,327	762,359	536,836	225,523	148,073	17,740	59,710	5,280	Sep.	
217,211	34,515	182,696	10 758,144	10 531,227	226,917	149,245	18,226	59,446	5,339	Oct.	
219,399	34,909	184,490	755,126	526,185	228,941	150,896	18,742	59,303	5,478	Nov.	
223,436	35,266	188,170	21 749,432	21 511,219	238,213	158,074	18,604	61,535	5,692	Dec.	
225,162	35,834	189,328	741,086	507,718	233,368	158,948	15,321	59,099	5,741	1991 Jan.	
227,058	36,428	190,630	738 230	504,568	233,662	159,852	15,524	58 286	5,823	Feb.	
227,193	35,766	191,427	23 735,850	501,578	24 234,272	25 160,489	15,926	57,857	5,961	March	
227,547	35,651	191,896	730,989	497,410	233,579	159,696	16,341	57,542	6,105	April	
228,594	35,681	192,913	727,921	494,516	233,405	159,195	16,829	57,381	6,188	May	
229,572	35,765	193,807	725,768	492,433	233,335	158,638	17,362	57,335	6,307	June	
228,468	35,630	192,838	27 712,410	27 483,007	229,403	157,656	15,105	56,642	6,312	July	
228,517	35,433	193,084	29 712,424	29 483,695	228,729	156,843	15,531	56,355	6,380	Aug.	
228,998	35,419	193,579	23 712,076	8 483,569	228,507	156,343	15,951	56,213	6,419	Sep.	
230,011	35,656	194,355	29 713,685	29 485,207	228,478	156,170	16,399	55,909	6,490	Oct.	
230,933	35,950	194,983	38 715,838	38 486,550	229,288	156,806	16,840	55,642	6,583	Nov. p	
1,129	77	1,052	4,527	2,720	1,807	994	—	813	45,255	1982	
1,419	239	1,180	5,349	3,424	1,925	1,136	—	789	46,399	1983	
1,698	364	1,334	5,611	3,728	1,883	1,194	—	689	47,187	1984	
2,002	455	1,547	5,476	3,701	1,775	1,144	—	631	48,331	1985 3	
2,016	458	1,558	5,580	3,764	1,816	1,178	—	638	48,338	1985 3	
2,362	412	1,950	5,806	3,878	1,928	1,268	—	660	48,402	1986	
2,629	326	2,303	5,769	3,797	1,972	1,371	—	601	33 53,601	1987	
2,920	334	2,586	5,923	3,969	1,954	1,354	—	600	54,642	1988	
3,203	326	2,877	5,856	4,215	1,641	1,123	—	518	55,822	1989	
3,279	266	3,013	6,134	4,435	1,699	1,179	—	520	56,135	1990	
3,183	275	2,908	5,953	4,390	1,563	1,080	—	483	56,275	1990 July	
3,175	267	2,908	5,970	4,440	1,530	1,051	—	479	56,536	Aug.	
3,209	257	2,952	5,911	4,373	1,538	1,065	—	473	56,462	Sep.	
3,261	264	2,997	5,875	4,353	1,522	1,043	—	479	56,889	Oct.	
3,251	262	2,989	5,900	4,319	1,581	1,096	—	485	56,328	Nov.	
3,279	266	3,013	6,134	4,435	1,699	1,179	—	520	56,135	Dec.	
3,275	264	3,011	5,909	4,300	1,609	1,152	—	457	23 53,833	1991 Jan.	
3,273	258	3,015	5,870	4,257	1,613	1,161	—	452	54,053	Feb.	
3,264	246	3,018	5,833	4,210	1,623	1,178	—	445	53,939	March	
3,239	246	2,993	5,551	3,955	1,596	1,156	—	440	54,314	April	
3,232	240	2,992	5,453	3,892	1,561	1,121	—	440	54,350	May	
3,263	235	3,028	5,315	3,813	1,502	1,070	—	432	54,295	June	
3,260	221	3,039	5,077	3,614	1,463	1,039	—	424	54,476	July	
3,241	207	3,034	5,034	3,596	1,438	1,015	—	423	54,745	Aug.	
3,278	213	3,065	4,953	3,537	1,416	1,003	—	413	54,788	Sep.	
3,291	204	3,087	4,846	3,463	1,383	966	—	417	55,328	Oct.	
3,318	203	3,115	4,848	3,469	1,379	964	—	415	55,599	Nov. p	

19 + c. DM 90 billion. — 20 + c. DM 33 billion. — 21 — c. DM 33 billion. — 31 + c. DM 500 million. — 32 — c. DM 4.0 billion. — 33 + c. DM 4.5 billion. —
 22 + c. DM 1.0 million. — 23 + c. DM 1.4 billion. — 24 + c. DM 1.1 billion. — 34 + c. DM 8.0 billion. — 35 + c. DM 5.0 billion. — 36 + c. DM 2.9 billion. —
 25 + c. DM 900 million. — 26 + c. DM 7.5 billion. — 27 — c. DM 7.5 billion. — 37 — c. DM 1.0 billion. — 38 + c. DM 800 million. — p Provisional.
 28 — c. DM 1.6 billion. — 29 + c. DM 1.6 billion. — 30 — c. DM 1.8 billion. —

From June 1990 the time series cover the entire Deutsche Mark currency area

Bank savings bonds 2			Savings deposits						Loans on a trust basis	Memo item Liabilities arising from transactions under repurchase agreements (unless shown above the line)	End of year or month
Total	Less than 4 years	4 years and over	Total	Statutory notice	Agreed period of notice						
					Total	Less than 4 years	4 years and over				
						Under the Savings Bonuses and Personal Asset Acquisition Acts	Other				
3,502	191	3,311	5,451	2,833	2,618	1,127	—	1,491	1,865	1982	
4,006	319	3,687	5,743	3,005	2,738	1,168	—	1,570	1,877	1983	
5,220	574	4,646	5,645	3,111	2,534	1,159	—	1,375	2,073	1984	
6,981	655	6,326	6,033	3,494	2,539	1,173	—	1,366	2,135	1985 3	
7,024	663	6,361	6,295	3,632	2,663	1,248	—	1,415	2,135	1985 3	
9,324	679	8,645	6,733	3,945	2,788	1,264	—	1,524	2,146	1986	
11,393	613	10,780	7,174	4,163	3,011	1,332	—	1,679	2,150	1987	
13,299	518	12,781	7,432	4,330	3,102	1,351	—	1,751	2,575	1988	
15,605	467	15,138	6,189	3,797	2,392	1,102	—	1,290	3,650	1989	
16,385	440	15,945	5,695	3,507	2,188	1,077	—	1,111	4,499	1990	
15,989	400	15,589	5,628	3,468	2,160	1,062	—	1,098	4,017	1990 July	
16,073	404	15,669	5,646	3,479	2,167	1,070	—	1,097	4,091	Aug.	
16,132	413	15,719	5,604	3,455	2,149	1,058	—	1,091	4,216	Sep.	
16,150	413	15,737	5,574	3,444	2,130	1,046	—	1,084	4,292	Oct.	
16,270	440	15,830	5,528	3,423	2,105	1,050	—	1,055	4,386	Nov.	
16,385	440	15,945	5,695	3,507	2,188	1,077	—	1,111	4,499	Dec.	
16,173	378	15,795	5,518	3,418	2,100	1,064	—	1,036	4,627	1991 Jan.	
16,316	400	15,916	5,452	3,385	2,067	1,050	—	1,017	4,706	Feb.	
16,288	398	15,890	5,435	3,376	2,059	1,046	—	1,013	4,830	March	
16,319	383	15,936	5,395	3,364	2,031	1,026	—	1,005	4,942	April	
16,539	376	16,163	5,428	3,359	2,069	1,020	—	1,049	5,000	May	
16,641	364	16,277	5,374	3,328	2,046	999	—	1,047	5,067	June	
16,865	358	16,507	5,253	3,300	1,953	953	—	1,000	5,092	July	
17,052	363	16,689	5,214	3,288	1,926	951	—	975	5,159	Aug.	
17,105	358	16,747	5,178	3,262	1,916	948	—	968	5,182	Sep.	
17,272	356	16,916	5,194	3,284	1,910	947	—	963	5,226	Oct.	
17,394	337	17,057	5,173	3,265	1,908	941	—	967	5,301	Nov. p	
118,041	13,757	104,284	508,207	323,204	185,003	91,579	51,538	41,886	301	1982	
130,292	13,496	112,796	537,338	353,050	16,184,288	16,97,917	41,661	44,710	344	1983	
145,166	20,847	124,319	557,558	367,005	190,553	107,897	34,940	47,716	414	1984	
153,405	22,097	131,308	590,090	388,219	201,871	116,796	32,133	52,942	469	1985 3	
156,462	22,755	133,707	611,703	400,957	210,746	121,730	33,111	55,905	475	1985 3	
19 166,839	12 21,414	20 145,425	657,778	431,939	225,839	132,431	30,489	62,919	656	1986	
174,337	20,874	153,463	694,151	458,837	235,314	138,191	26,476	70,647	883	1987	
171,961	19,761	152,200	714,626	485,239	229,387	130,640	29,193	69,554	1,037	1988	
183,573	27,007	156,566	693,571	471,065	222,506	135,352	21,992	65,162	997	1989	
207,051	34,826	172,225	22 743,737	22 507,712	236,025	156,997	18,604	60,424	1,193	1990	
194,642	32,304	162,338	766,953	547,666	219,287	143,451	16,818	59,018	1,032	1990 July	
196,987	32,977	164,010	23 759,896	23 538,559	221,337	145,279	17,266	58,792	1,054	Aug.	
199,169	33,561	165,608	756,755	533,381	223,374	147,015	17,740	58,619	1,064	Sep.	
201,061	34,102	166,959	752,570	527,783	224,787	148,199	18,226	58,362	1,047	Oct.	
203,129	34,469	168,660	749,598	522,762	226,836	149,846	18,742	58,248	1,092	Nov.	
207,051	34,826	172,225	24 743,737	24 507,712	236,025	156,997	18,604	60,424	1,193	Dec.	
208,989	35,456	173,533	15 735,568	15 504,300	231,268	157,884	15,321	58,063	1,114	1991 Jan.	
210,742	36,028	174,714	732,778	501,183	231,595	158,802	15,524	57,269	1,117	Feb.	
210,905	35,368	175,537	10 730,415	498,202	26 232,213	27 159,443	15,926	56,844	1,131	March	
211,228	35,268	175,960	725,594	494,046	231,548	158,670	16,341	56,537	1,163	April	
212,055	35,305	176,750	722,493	491,157	231,336	158,175	16,829	56,332	1,188	May	
212,931	35,401	177,530	720,394	489,105	231,289	157,639	17,362	56,288	1,240	June	
211,603	35,272	176,331	23 707,157	23 479,707	227,450	156,703	15,105	55,642	1,220	July	
211,465	35,070	176,395	30 707,210	30 480,407	226,803	155,892	15,531	55,380	1,221	Aug.	
211,893	35,061	176,832	10 706,898	16 480,307	226,591	155,395	15,951	55,245	1,237	Sep.	
212,739	35,300	177,439	30 708,491	30 481,923	226,568	155,223	16,399	54,946	1,264	Oct.	
213,539	35,613	177,926	32 710,665	32 483,285	227,380	155,865	16,840	54,675	1,282	Nov. p	

16 + c. DM 1.5 billion. — 17 — c. DM 3.0 billion. — 18 — c. DM 2.6 billion. — 25 — c. DM 1.4 billion. — 26 + c. DM 1.1 billion. — 27 + c. DM 900 million. —
 19 + c. DM 3.0 billion. — 20 + c. DM 2.4 billion. — 21 + c. DM 500 million. — 28 + c. DM 7.5 billion. — 29 — c. DM 1.6 billion. — 30 + c. DM 1.6 billion. —
 22 + c. DM 90 billion. — 23 — c. DM 7.5 billion. — 24 — c. DM 33 billion. — 31 — c. DM 800 million. — 32 + c. DM 800 million. — p Provisional.

From June 1990 the time series cover the entire Deutsche Mark currency area

Local authorities and local authority associations				Municipal special-purpose associations with administrative functions				Social security funds				End of year or month
Total	Short-term 1	Medium-term	Long-term 2	Total	Short-term 1	Medium-term	Long-term 2	Total	Short-term 1	Medium-term	Long-term 2	
130,434	2,746	3,209	124,479	8,702	163	306	8,233	336	164	17	155	1987
134,668	2,461	2,299	129,908	8,964	191	238	8,535	296	122	19	155	1988
138,013	2,361	2,089	133,563	9,401	214	213	8,974	346	178	35	133	1989
143,634	2,914	2,829	137,891	10,024	282	184	9,558	298	19	32	247	1990
140,969	2,946	2,350	135,673	9,439	145	142	9,152	378	156	30	192	1990 July
140,863	2,131	2,400	136,332	9,721	143	141	9,437	349	87	32	230	Aug.
142,064	2,759	2,429	136,876	9,769	186	149	9,434	427	168	32	227	Sep.
142,536	2,673	2,565	137,298	9,985	242	148	9,595	367	108	30	229	Oct.
142,763	2,478	2,647	137,638	9,979	250	156	9,573	442	287	30	125	Nov.
143,634	2,914	2,829	137,891	10,024	282	184	9,558	298	19	32	247	Dec.
145,529	3,575	2,919	139,035	9,995	236	177	9,582	433	163	43	227	1991 Jan.
145,856	3,019	3,106	139,731	9,915	221	179	9,515	524	222	52	250	Feb.
146,951	3,264	3,276	140,411	10,176	270	413	9,493	482	188	45	249	March
148,604	3,540	3,471	141,593	10,297	291	428	9,578	568	279	47	242	April
148,078	2,666	3,559	141,853	10,226	332	301	9,593	566	280	46	240	May
149,745	4,149	3,672	141,924	10,212	321	295	9,596	685	397	52	236	June
151,766	3,877	3,935	143,954	10,403	320	309	9,774	603	326	50	227	July
152,214	2,708	4,165	145,341	10,367	268	257	9,842	458	179	51	228	Aug.
153,119	3,154	4,287	145,678	10,659	571	277	9,811	557	293	50	214	Sep.
155,451	3,654	4,523	147,274	10,741	270	302	10,169	595	332	49	214	Oct.
155,839	3,054	4,709	148,076	11,271	306	401	10,564	763	500	49	214	Nov. p

changes of DM 500 million and more are given separately in footnote 3 ff. (Increase: +, decrease: -). — 1 Including bills discounted. — 2 Including loans on a trust basis. — 3 + c. DM 800 million. — 4 + c. DM 4.5 billion. — 5 + c. DM 1.0 billion. — 6 + c. DM 3.5 billion. — 7 + c. DM 4.0 billion. — p Provisional.

From June 1990 the time series cover the entire Deutsche Mark currency area

Local authority associations			Municipal special-purpose associations with administrative functions				Social security funds				End of year or month		
Time deposits and borrowed funds		Savings deposits and bank savings bonds	Total	Sight deposits	Time deposits and borrowed funds		Savings deposits and bank savings bonds	Total	Sight deposits	Time deposits and borrowed funds		Savings deposits and bank savings bonds	
Less than 4 years	4 years and over 2				Less than 4 years	4 years and over 2				Less than 4 years			4 years and over 2
10,339	628	4,282	1,874	587	875	63	349	43,915	5,797	23,562	10,886	3,670	1987
12,577	567	4,409	1,900	661	793	93	353	44,367	5,964	22,176	12,274	3,953	1988
14,391	559	4,306	2,137	665	965	126	381	50,954	7,273	26,330	13,122	4,229	1989
13,204	572	3,943	3,356	1,760	1,089	137	370	59,743	8,718	33,076	12,954	4,995	1990
12,554	563	3,941	2,207	652	1,060	139	356	50,312	4,999	27,616	12,956	4,741	1990 July
15,630	575	3,926	2,639	1,029	1,109	144	357	50,958	4,772	28,479	12,942	4,765	Aug.
14,821	566	3,891	2,656	1,025	1,126	138	367	51,570	6,171	27,713	12,922	4,764	Sep.
12,762	587	3,826	2,707	993	1,211	139	364	51,932	5,132	29,006	12,945	4,849	Oct.
13,860	577	3,813	3,186	1,544	1,148	139	355	52,639	6,215	28,579	12,960	4,885	Nov.
13,204	572	3,943	3,356	1,760	1,089	137	370	59,743	8,718	33,076	12,954	4,995	Dec.
12,668	569	3,811	2,472	870	1,101	138	363	58,991	6,844	34,260	12,970	4,917	1991 Jan.
14,246	561	3,804	2,608	1,009	1,105	137	357	59,781	6,792	35,265	12,833	4,891	Feb.
14,238	584	3,853	2,741	1,036	1,211	138	356	57,752	7,110	32,899	12,944	4,799	March
13,711	594	3,626	2,707	918	1,298	138	353	56,779	6,014	33,070	12,972	4,723	April
16,256	605	3,587	2,743	957	1,305	138	343	60,580	7,819	35,080	13,014	4,667	May
14,696	605	3,533	2,591	892	1,225	135	339	61,870	8,080	36,126	13,048	4,616	June
13,459	600	3,347	2,667	912	1,272	139	344	58,940	6,586	34,654	13,141	4,559	July
16,594	570	3,344	2,777	996	1,302	139	340	59,472	6,587	35,158	13,220	4,507	Aug.
15,287	580	3,317	2,955	1,138	1,338	134	345	58,176	6,918	33,432	13,341	4,485	Sep.
13,710	582	3,256	2,757	988	1,295	133	341	55,537	5,659	31,934	13,487	4,457	Oct.
14,549	571	3,276	2,859	1,159	1,244	133	323	57,508	6,790	32,717	13,518	4,483	Nov. p

excluding west German banks' liabilities to public authorities in the former GDR. — 5 + c. DM 3.5 billion. — 6 + c. DM 3.0 billion. — 7 + c. DM 800 million. — 8 + c. DM 1.4 billion. — p Provisional.

III. Banks

13. Assets of the various categories of banks *

Domestic and external assets

DM million

End of month	Number of reporting banks	Volume of business 1	Cash balances	Balances with the Bundesbank	Cheques and paper for collection 2	Lending to banks 3					Lending to non-banks 6		
						Total	Balances and loans 3	Bills discounted	Loans on a trust basis	Bank securities 4, 5	Total	Advances and loans	
											Total	Up to 1 year	
All categories of banks													
1991 Oct.	4,361	5,408,349	20,394	82,557	4,509	1,779,164	1,311,390	24,807	13,032	429,935	3,251,193	2,872,024	538,516
Nov. p	4,332	20 5,508,228	19,703	84,661	6,119	21 1,835,704	22 1,362,087	25,663	23 13,001	434,953	24 3,289,767	25 2,903,625	26 543,465
Commercial banks													
1991 Oct.	345	1,428,450	5,419	25,888	1,445	334,018	266,323	5,930	5,640	56,125	971,641	839,280	297,950
Nov. p	346	29 1,450,700	5,364	25,582	2,070	30 343,806	31 273,156	6,672	23 5,563	58,415	32 983,544	27 848,282	33 301,458
Big banks 15													
1991 Oct.	4	505,624	3,282	15,406	496	105,634	89,854	277	34	15,469	348,828	294,575	113,102
Nov. p	4	25 517,277	3,262	13,144	826	35 111,330	35 94,624	470	33	16,203	34 356,633	23 298,683	23 116,229
Regional banks and other commercial banks 16													
1991 Oct.	195	778,614	1,955	8,620	775	158,239	114,324	5,157	5,164	33,594	554,143	496,656	154,551
Nov. p	196	36 787,995	1,916	10,412	1,037	35 161,946	32 116,116	5,682	23 5,081	35,067	26 557,734	37 501,068	39 154,618
Branches of foreign banks													
1991 Oct.	61	76,604	14	349	39	47,602	44,960	179	—	2,463	27,329	14,842	11,169
Nov. p	61	38 76,226	14	349	63	26 47,436	26 44,831	173	—	2,432	23 27,090	14,808	11,151
Private bankers 17													
1991 Oct.	85	67,608	168	1,513	135	22,543	17,185	317	442	4,599	41,341	33,207	19,128
Nov. p	85	23 69,202	172	1,677	144	23,094	17,585	347	449	4,713	42,087	33,723	19,460
Regional giro institutions (including Deutsche Girozentrale)													
1991 Oct.	11	789,984	251	4,152	363	346,080	276,047	690	1,658	67,685	415,772	344,651	31,516
Nov. p	11	39 811,020	239	3,352	634	32 354,929	32 284,746	676	1,657	67,850	28 428,125	34 355,214	36,793
Savings banks													
1991 Oct.	750	1,123,622	10,014	28,687	524	308,166	118,146	5,895	23	184,102	706,472	638,609	107,340
Nov. p	746	1,143,095	9,634	29,890	844	320,338	129,407	5,735	22	185,174	712,502	643,878	106,223
Regional institutions of credit cooperatives (including Deutsche Genossenschaftsbank)													
1991 Oct.	4	193,623	115	1,887	443	108,426	88,965	2,088	550	16,823	64,646	44,916	15,585
Nov. p	4	23 200,697	102	2,099	625	23 117,375	23 97,339	2,075	550	17,411	62,922	43,550	14,360
Credit cooperatives													
1991 Oct.	3,183	615,048	4,505	13,993	836	173,795	97,652	4,486	13	71,644	392,398	352,486	77,403
Nov. p	3,157	624,947	4,271	15,410	1,001	179,411	103,224	4,592	10	71,585	395,120	353,433	76,396
Mortgage banks													
1991 Oct.	36	636,575	9	325	22	150,401	139,977	46	275	10,103	472,682	458,126	2,366
Nov. p	36	23 644,614	9	397	160	151,662	140,424	73	277	10,888	478,507	463,988	2,745
Private													
1991 Oct.	28	478,964	8	282	14	110,851	104,565	24	—	6,262	357,667	352,954	1,654
Nov. p	28	484,417	8	293	142	111,131	104,365	31	—	6,735	362,175	357,485	1,949
Public													
1991 Oct.	8	157,611	1	43	8	39,550	35,412	22	275	3,841	115,015	105,172	712
Nov. p	8	160,197	1	104	18	40,531	36,059	42	277	4,153	116,332	106,503	796
Banks with special functions													
1991 Oct.	16	553,296	81	783	876	336,206	316,567	5,672	4,873	9,094	191,467	164,774	5,832
Nov. p	16	37 565,503	84	930	785	346,641	326,513	5,840	4,922	9,366	37 193,010	28 166,308	4,996
Postal giro and postal savings bank offices													
1991 Oct.	16	67,751	—	6,842	—	22,072	7,713	—	—	14,359	36,115	29,182	724
Nov. p	16	67,652	—	7,001	—	21,542	7,278	—	—	14,264	36,037	28,972	494
Memorandum item: Foreign banks 18													
1991 Oct.	143	211,826	224	1,706	142	102,431	85,790	1,043	3,328	12,270	101,336	66,881	34,488
Nov. p	143	39 214,623	213	2,099	163	32 105,038	32 87,895	1,067	3,307	12,749	28 101,143	23 66,977	23 34,258
of which: Banks majority-owned by foreign banks 19													
1991 Oct.	82	135,222	210	1,357	103	54,829	40,830	864	3,328	9,807	74,007	52,039	23,319
Nov. p	82	38 138,397	199	1,750	100	33 57,602	37 43,064	914	3,307	10,317	23 74,053	52,169	23,107

* Excluding the assets of foreign branches; statistical changes of DM 100 million and more are given separately in footnote 20 ff. (increase: +, decrease: —). — For footnotes 1 to 13 see Table III, 2, Assets. — 14 Excluding own issues; excluding registered bonds. — 15 Deutsche Bank AG, Dresdner Bank AG, Commerzbank AG and their Berlin subsidiaries. — 16 Including private bankers whose business is not organised

in the form of a sole proprietorship or partnership. — 17 Only banks organised in the form of a sole proprietorship or partnership; see footnote 16. — 18 Sum of the banks (of independent legal status) majority-owned by foreign banks and included in other categories of banks, and of the category "Branches of foreign banks" (of dependent legal status). — 19 Separate presentation of the banks (of independent

The time series cover
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Over 1 year	Bills dis- counted	Loans on a trust basis	Treasury bill credits 7	Securities (excluding bank securities) 5, 8	Equalisa- tion claims	Mobilisa- tion and liquidity paper (Treasury bills and Treasury discount paper) 10	Bonds from own issues	Particip- ating interests 11	Other assets 12	Memorandum items				End of month
										Bill portfolios			Securities (including bank securities) 5, 14	
										Total	of which Bills eligible for rediscount at the Bundes- bank 13			
All categories of banks														
2,333,508	67,326	87,360	13,140	209,917	1,426	3,650	19,832	61,671	185,379	13,445	7,465	639,852	1991 Oct.	
27 2,360,160	68,830	23 87,489	13,322	23 215,075	1,426	2,000	20,958	23 61,859	187,457	13,955	8,614	28 650,028	Nov. p	
Commercial banks														
34 541,330	39,677	21,469	2,154	68,766	295	—	795	36,563	52,681	8,401	5,546	124,891	1991 Oct.	
546,824	41,242	23 21,341	2,276	70,108	295	—	840	23 36,657	52,837	8,931	6,180	128,523	Nov. p	
Big banks 15														
181,473	19,493	3,565	1,620	29,391	184	—	201	24,268	7,509	4,883	3,692	44,860	1991 Oct.	
182,454	21,060	3,595	1,709	31,402	184	—	202	24,300	7,580	4,988	3,885	47,605	Nov. p	
Regional banks and other commercial banks 16														
23 342,105	13,782	9,442	501	33,656	106	—	582	11,742	42,558	2,622	1,240	67,250	1991 Oct.	
346,450	13,709	9,440	538	32,873	106	—	618	11,802	42,530	2,840	1,471	67,940	Nov. p	
Branches of foreign banks														
3,673	2,940	7,040	19	2,488	—	—	—	62	1,209	473	341	4,951	1991 Oct.	
3,657	2,907	6,858	13	2,504	—	—	—	62	1,212	582	442	4,936	Nov. p	
Private bankers 17														
14,079	3,462	1,422	14	3,231	5	—	12	491	1,405	423	273	7,830	1991 Oct.	
14,263	3,566	1,448	16	3,329	5	—	20	493	1,515	521	382	8,042	Nov. p	
Regional giro institutions (including Deutsche Girozentrale)														
23 313,135	8,584	35,197	167	27,054	119	750	5,152	11,641	5,823	1,031	372	94,739	1991 Oct.	
318,421	9,143	35,317	207	28,125	119	—	5,566	11,642	6,533	795	388	23 95,975	Nov. p	
Savings banks														
531,269	8,971	8,737	10	49,717	428	—	106	4,359	65,294	1,893	850	233,819	1991 Oct.	
537,655	8,797	8,782	16	50,601	428	—	109	4,358	65,420	2,244	1,208	235,775	Nov. p	
Regional institutions of credit cooperatives (including Deutsche Genossenschaftsbank)														
29,331	3,583	18	503	15,604	22	600	198	4,547	12,761	491	135	32,427	1991 Oct.	
29,190	3,347	21	503	15,479	22	—	201	4,570	12,803	411	168	32,890	Nov. p	
Credit cooperatives														
275,083	5,559	3,068	69	31,053	163	—	91	2,494	26,936	1,167	503	102,697	1991 Oct.	
277,037	5,520	3,065	75	32,864	163	—	90	2,545	27,099	1,311	648	104,449	Nov. p	
Mortgage banks														
455,760	69	7,386	21	7,041	39	—	3,956	929	8,251	11	5	17,144	1991 Oct.	
461,243	78	7,384	21	6,997	39	—	4,197	929	8,753	6	1	17,885	Nov. p	
Private														
351,300	12	1,419	3	3,246	33	—	3,397	388	6,357	7	1	9,508	1991 Oct.	
355,536	15	1,420	3	3,219	33	—	3,632	388	6,648	6	1	9,954	Nov. p	
Public														
104,460	57	5,967	18	3,795	6	—	559	541	1,894	4	4	7,636	1991 Oct.	
105,707	63	5,964	18	3,778	6	—	565	541	2,105	—	—	7,931	Nov. p	
Banks with special functions														
159,142	883	11,485	9,126	5,175	24	650	9,534	1,138	12,561	451	54	14,269	1991 Oct.	
28 161,312	703	11,579	9,134	5,262	24	—	9,955	1,158	12,940	257	21	14,628	Nov. p	
Postal giro and postal savings bank offices														
28,458	—	—	1,090	5,507	336	1,650	—	—	1,072	—	—	19,866	1991 Oct.	
28,478	—	—	1,090	5,639	336	2,000	—	—	1,072	—	—	19,903	Nov. p	
Memorandum item: Foreign banks 18														
32,393	7,293	10,896	396	15,866	4	—	20	693	5,274	1,198	688	28,136	1991 Oct.	
32,719	7,283	10,726	424	15,729	4	—	21	693	5,253	1,446	944	28,478	Nov. p	
of which: Banks majority-owned by foreign banks 19														
28,720	4,353	3,856	377	13,378	4	—	20	631	4,065	725	347	23,185	1991 Oct.	
29,062	4,376	3,868	411	13,225	4	—	21	631	4,041	864	502	23,542	Nov. p	

legal status) majority-owned by foreign banks and included in the categories "Regional banks and other commercial banks", "Private bankers" and "Mortgage banks". — 20 — c. DM 3.5 billion. — 21 — c. DM 2.5 billion. — 22 — c. DM 2.3 billion. — 23 — c. DM 100 million. — 24 — c. DM 1.1 billion. — 25 — c. DM 900 million. — 26 — c. DM 350 million. — 27 — c. DM 500 million. — 28 — c. DM 200 million. —

29 — c. DM 2.4 billion. — 30 — c. DM 1.7 billion. — 31 — c. DM 1.6 billion. — 32 — c. DM 600 million. — 33 — c. DM 300 million. — 34 — c. DM 150 million. — 35 — c. DM 700 million. — 36 — c. DM 1.0 billion. — 37 — c. DM 250 million. — 38 — c. DM 400 million. — 39 — c. DM 800 million. — p Provisional.

The time series cover
the entire Deutsche Mark
currency area

borrowed funds and savings		deposits and borrowed		Loans on a trust basis	Bearer bonds outstanding	Provisions	Provisions for losses on loans and advances	Capital (including published reserves pursuant to section 10 of the Banking Act)	Other liabilities	Memorandum items			End of month
3 months to less than 4 years	4 years and over	Bank savings bonds	Savings deposits							Balance sheet total	Liabilities arising from guarantees	Liabilities arising from re-purchase agreements (unless shown above the line)	
All categories of banks													
162,708	531,014	237,212	728,665	67,471	1,023,223	59,384	30,114	216,496	182,367	5,329,661	192,426	871	1991 Oct.
162,120	22 536,284	238,137	27 730,897	23 67,853	1,037,449	58,974	30,004	217,011	26 180,205	18 5,427,690	194,097	969	Nov. p
Commercial banks													
45,931	88,100	29,880	119,151	11,447	125,143	20,127	13,707	90,786	46,548	1,391,244	108,007	500	1991 Oct.
45,859	23 88,060	29,929	120,281	23 11,531	125,957	20,033	13,687	90,875	22 45,233	28 1,411,717	109,394	581	Nov. p
Big banks 13													
19,598	32,366	11,531	75,219	3,009	27,085	10,914	5,896	34,228	17,465	490,737	57,384	266	1991 Oct.
19,205	32,070	11,568	76,052	3,042	27,174	10,866	5,891	34,232	36 17,173	34 500,735	57,622	266	Nov. p
Regional banks and other commercial banks 14													
21,258	53,396	16,065	40,166	6,178	97,463	8,479	7,228	49,000	26,748	762,297	37,853	223	1991 Oct.
21,393	53,623	16,049	40,451	6,143	98,163	8,443	7,219	49,068	36 25,813	26 771,444	38,825	304	Nov. p
Branches of foreign banks													
971	536	64	73	1,690	—	241	210	4,102	635	73,958	4,976	—	1991 Oct.
972	532	64	72	1,718	—	236	210	4,102	643	33 73,728	4,983	—	Nov. p
Private bankers 15													
4,104	1,802	2,220	3,693	570	595	493	373	3,456	1,700	64,252	7,794	11	1991 Oct.
4,289	1,835	2,248	3,706	628	620	488	367	3,473	1,604	23 65,810	7,964	11	Nov. p
Regional giro institutions (including Deutsche Girozentrale)													
9,925	84,398	551	4,026	34,241	314,728	5,543	4,464	20,117	11,986	781,741	21,301	—	1991 Oct.
9,126	84,698	551	4,010	34,384	316,117	5,525	4,426	20,117	35 11,640	24 801,996	21,343	—	Nov. p
Savings banks													
49,470	7,525	140,074	374,090	2,062	51,123	8,649	2,679	42,687	44,698	1,110,649	27,191	343	1991 Oct.
49,631	7,552	140,587	27 375,331	2,061	51,745	8,407	2,637	42,751	45,046	1,130,807	27,519	346	Nov. p
Regional institutions of credit cooperatives (including Deutsche Genossenschaftsbank)													
1,032	6,240	545	37	441	17,696	1,225	1,124	7,142	2,893	188,443	7,876	26	1991 Oct.
911	6,239	535	23	447	18,273	1,222	1,119	7,162	23 2,894	23 195,668	8,007	26	Nov. p
Credit cooperatives													
53,174	15,410	66,095	187,730	428	16,811	4,514	1,130	23,605	18,488	606,170	15,080	2	1991 Oct.
53,426	15,563	66,443	187,792	432	17,051	4,477	1,125	23,778	17,860	616,146	15,278	16	Nov. p
Mortgage banks													
1,419	219,301	34	164	4,363	302,571	2,544	1,574	15,869	21,006	636,471	6,242	—	1991 Oct.
1,495	222,153	34	163	4,365	306,166	2,537	1,574	15,870	21,313	23 644,469	6,261	—	Nov. p
Private													
812	139,665	31	163	412	269,363	1,150	286	10,658	14,536	478,935	1,853	—	1991 Oct.
706	140,132	31	162	408	272,722	1,148	286	10,659	14,638	484,377	1,843	—	Nov. p
Public													
607	79,636	3	1	3,951	33,208	1,394	1,288	5,211	6,470	157,536	4,389	—	1991 Oct.
789	82,021	3	1	3,957	33,444	1,389	1,288	5,211	6,675	160,092	4,418	—	Nov. p
Banks with special functions													
1,757	109,950	33	49	14,489	195,151	16,782	5,436	16,290	34,868	547,192	6,729	—	1991 Oct.
1,672	38 111,929	33	47	14,633	202,140	16,773	5,436	16,458	35,795	32 559,217	6,295	—	Nov. p
Postal giro and postal savings bank offices													
—	90	—	43,418	—	—	—	—	—	1,880	67,751	—	—	1991 Oct.
—	90	25	43,250	—	—	—	—	—	424	67,652	—	—	Nov. p
Memorandum item: Foreign banks 16													
4,822	4,253	4,348	6,114	4,096	1,177	1,281	737	12,201	5,458	204,688	17,852	222	1991 Oct.
5,132	4,231	4,300	6,220	4,178	1,264	1,255	734	12,201	5,333	24 207,699	18,191	303	Nov. p
of which: Banks majority-owned by foreign banks 17													
3,851	3,717	4,284	6,041	2,406	1,177	1,040	527	8,099	4,823	130,730	12,876	222	1991 Oct.
4,160	3,699	4,236	6,148	2,460	1,264	1,019	524	8,099	4,690	33 133,971	13,208	303	Nov. p

21 — c. DM 500 million. — 22 — c. DM 300 million. — 23 — c. DM 100 million. — 24 — c. DM 800 million. — 25 — c. DM 700 million. — 26 — c. DM 1.0 billion. — 27 + c. DM 800 million. — 28 — c. DM 2.4 billion. — 29 — c. DM 1.6 billion. — 30 — c. DM 1.5 billion. — 31 — c. DM 350 million. — 32 — c. DM 250 million. —

33 — c. DM 400 million. — 34 — c. DM 900 million. — 35 — c. DM 450 million. — 36 — c. DM 150 million. — 37 — c. DM 600 million. — 38 — c. DM 200 million. — p Provisional.

From June 1990 the time series cover the entire Deutsche Mark currency area

Other securities 5				Foreign securities										End of year or month
Total	Banks	Enterprises	Memorandum item Shares under syndicate agreements	Total	Bonds			Banks	Public authorities	Enterprises	Marketable shares including investment fund units 4	Other securities 5		
					Total	Zero bonds	Floating-rate notes							
1,793	560	1,233	2,298	18,433	15,973	524	1,296	6,448	3,996	5,529	2,106	354	1987	
1,769	575	1,194	2,501	12 22,429	19,648	320	1,667	8,308	4,876	6,464	12 2,413	368	1988	
2,530	992	1,538	2,178	28,133	24,629	218	2,964	9,814	5,224	9,591	2,965	539	1989	
3,128	1,264	1,864	753	20 38,753	20 35,921	192	8,839	21 14,702	6,958	14,261	2,171	661	1990	
2,959	1,276	1,683	2,647	34,579	31,379	205	7,022	12,757	6,070	12,552	2,504	696	1990 July	
3,051	1,308	1,743	3,142	36,086	32,950	229	7,656	13,269	6,240	13,441	2,434	702	Aug.	
3,044	1,226	1,818	2,680	36,544	33,428	233	7,580	12,221	6,881	14,326	2,330	786	Sep.	
2,826	1,108	1,718	3,553	37,636	34,434	246	8,315	13,537	6,201	14,696	2,438	764	Oct.	
2,845	1,109	1,736	1,713	38,089	35,007	214	8,787	14,070	7,057	13,880	2,296	786	Nov.	
3,128	1,264	1,864	753	38,753	35,921	192	8,839	14,702	6,958	14,261	2,171	661	Dec.	
2,856	1,221	1,635	811	28 36,961	34,822	190	9,091	14,104	6,666	14,052	1,658	481	1991 Jan.	
2,692	1,228	1,464	720	37,763	35,538	197	9,177	14,081	7,227	14,230	1,703	522	Feb.	
2,697	1,277	1,420	1,095	29 39,585	29 37,220	222	9,605	14,492	7,987	14,741	1,810	555	March	
2,847	1,288	1,559	1,124	40,453	38,008	186	9,855	14,956	7,523	15,529	1,822	623	April	
2,986	1,392	1,594	830	41,800	39,424	234	10,097	14,862	7,858	16,704	1,803	573	May	
2,845	1,346	1,499	601	43,005	40,568	230	10,061	15,287	8,629	16,652	1,860	577	June	
2,899	1,375	1,524	642	42,953	40,394	218	10,521	14,950	8,880	16,564	1,972	587	July	
3,749	1,658	2,091	534	43,369	40,711	199	10,642	15,316	8,074	17,321	1,973	685	Aug.	
4,002	1,732	2,270	1,001	44,581	41,814	211	10,940	15,813	8,014	17,987	2,065	702	Sep.	
3,821	1,498	2,323	591	44,856	42,190	221	11,222	15,991	8,262	17,937	2,016	650	Oct.	
3,549	1,428	2,121	678	47,803	45,125	236	11,333	16,850	8,639	19,636	2,050	628	Nov. p	

9 — c. DM 1.0 billion. — 10 — c. DM 1.7 billion. — 11 — c. DM 1.6 billion. — 21 — c. DM 500 million. — 22 — c. DM 900 million. — 23 — c. DM 800 million. — 12 — c. DM 600 million. — 13 — c. DM 4.5 billion. — 14 — c. DM 2.9 billion. — 24 + c. DM 4.5 billion. — 25 — c. DM 6.0 billion. — 26 + c. DM 4.0 billion. — 15 — c. DM 1.3 billion. — 16 — c. DM 10.0 billion. — 17 — c. DM 9.0 billion. — 27 — c. DM 2.0 billion. — 28 — c. DM 700 million. — 29 + c. DM 500 million. — 18 — c. DM 6.5 billion. — 19 — c. DM 2.7 billion. — 20 — c. DM 1.1 billion. — p Provisional.

19. Bonds of domestic public authorities and their special funds held by banks, by issuer *

From June 1990 the time series cover the entire Deutsche Mark currency area

End of year or month	Bonds of domestic public authorities and their special funds			Public authorities				
	Total	of which With maturities of up to 4 years	Total	Federal Government (incl. "German Unity" Fund, Debt-Processing Fund)		Länder Governments	Local authorities and local authority associations	Federal Railways, GDR Railways and Federal Post Office
1987	100,845	8,506	84,103	70,216	13,833	54	16,742	
1988	119,900	6,115	100,638	85,908	14,663	67	19,262	
1989	1 121,689	5,549	2 102,772	2 87,714	14,949	109	18,917	
1990	3 139,836	4,342	4 118,933	5 101,628	17,208	97	20,903	
1990 July	127,590	4,562	108,707	93,640	14,937	130	18,883	
Aug.	132,913	4,440	113,443	98,269	15,039	135	19,470	
Sep.	133,895	4,236	114,272	98,838	15,334	100	19,623	
Oct.	137,795	4,084	117,517	101,728	15,681	108	20,278	
Nov.	138,429	4,275	117,356	100,402	16,855	99	21,073	
Dec.	139,836	4,342	118,933	101,628	17,208	97	20,903	
1991 Jan.	5 136,698	4,752	6 116,506	7 99,317	17,067	122	20,192	
Feb.	134,824	5,206	114,824	97,519	17,167	138	20,000	
March	137,880	5,443	118,294	100,857	17,293	144	19,586	
April	135,685	5,813	115,932	97,911	17,803	218	19,753	
May	138,600	7,349	118,803	100,975	17,658	170	19,797	
June	137,860	6,342	116,899	98,905	17,842	152	20,961	
July	139,058	7,146	117,453	99,376	17,918	159	21,605	
Aug.	139,192	6,775	117,978	100,017	17,813	148	21,214	
Sep.	142,763	7,190	120,143	101,569	18,431	143	22,620	
Oct.	141,300	8,477	117,921	98,405	19,339	177	23,379	
Nov. p	142,776	8,937	118,651	98,135	20,337	179	24,125	

For footnote * see Table III, 2. — 1 — c. DM 1.3 billion. — 2 — c. DM 1.1 billion. — 6 — c. DM 1.7 billion. — 7 — c. DM 1.6 billion. — p Provisional.
3 — c. DM 2.7 billion. — 4 — c. DM 2.3 billion. — 5 — c. DM 2.0 billion. —

III. Banks

20. Lending to domestic enterprises and individuals, by borrower * (excluding Treasury bill credits and securities portfolios) (cont'd) (d) Lending to the services sector (including the professions), by type of services

DM million

End of month	Lending to the services sector (including the professions) 1, 3									
	Total	Housing enterprises	Holding companies	Other real estate enterprises and other property administration	Catering industry and hostels	Economic and tax counselling, legal consultancy, advertising 8	Health care and veterinary sector (enterprises and the professions)	Letting of movables	Other services	
	Lending, total									
1990 Sep.	476,603	120,298	21,258	85,390	34,443	66,991	57,108	5,379	85,736	
Dec.	500,024	123,481	22,629	92,051	35,532	70,862	59,321	6,229	89,919	
1991 March	66 561,229	73 170,254	35 23,717	35 95,202	41 36,949	83 73,954	59,847	6,301	39	95,005
June	580,987	174,470	25,805	101,558	37,674	74,075	61,189	6,788	99,428	
Sep.	30 598,685	87 177,040	25,053	110,381	38,353	77,144	62,833	7,271	37	100,610
	of which: Short-term lending									
1990 Sep.	81,587	9,285	6,958	16,220	5,621	14,532	7,140	1,693	20,138	
Dec.	93,447	10,191	7,828	19,817	6,200	16,442	8,362	2,315	22,292	
1991 March	63 100,361	10,227	35 8,315	65 20,716	6,815	76 18,566	7,998	2,315	72	25,409
June	106,099	11,275	10,075	23,111	6,879	17,375	8,344	2,451	26,589	
Sep.	37 109,777	12,388	9,186	26,253	6,643	18,032	8,352	2,645	37	26,278
	Long-term lending									
1990 Sep.	364,242	107,887	11,901	62,679	26,741	47,760	46,992	1,918	58,364	
Dec.	373,176	109,890	12,328	65,001	27,203	49,233	47,785	2,015	59,721	
1991 March	73 423,900	58 154,888	12,882	22 66,414	27,942	49,927	48,566	2,065	23	61,216
June	433,420	157,027	13,029	69,386	28,450	50,811	49,437	2,216	63,064	
Sep.	26 443,704	26 157,964	13,084	72,992	29,285	52,495	50,910	2,384	64,590	

21. Savings deposits *

(a) Level of savings deposits, by group of savers

From June 1990 the time series cover the entire Deutsche Mark currency area

DM million

End of year or month	Savings deposits							
	Total	Domestic individuals			Domestic non-profit organisations	Domestic enterprises	Domestic public authorities	Non-residents
		Total	of which	Special savings schemes 1				
			Under the Savings Bonuses and Personal Asset Acquisition Acts					
1987	716,263	679,530	26,476	169,685	14,621	7,174	5,769	9,169
1988	737,474	699,602	29,193	177,039	15,024	7,432	5,923	9,493
1989	715,236	679,171	21,992	3 191,360	14,400	6,189	5,856	9,620
1990	4 765,374	4 729,701	18,604	216,106	14,036	5,695	6,134	9,808
1991 June	741,057	707,805	17,362	234,371	12,589	5,374	5,315	9,974
July	5 727,488	5 694,679	15,105	235,264	12,478	5,253	5,077	10,001
Aug.	6 727,497	6 694,874	15,531	235,416	12,336	5,214	5,034	10,039
Sep.	3 727,116	3 694,589	15,951	236,709	12,309	5,178	4,953	10,087
Oct.	6 728,665	6 696,291	16,399	238,632	12,200	5,194	4,846	10,134
Nov. p	7 730,897	7 698,642	16,840	241,469	12,023	5,173	4,848	10,211

(b) Changes

DM million

Period	Total savings deposits at beginning of period 2	Credits		Debits		Balance of credits and debits	Interest credited	Total savings deposits at end of period 2
		Total	of which To savings accounts under the Savings Bonuses and Personal Asset Acquisition Acts	Total	of which To savings accounts under the Savings Bonuses and Personal Asset Acquisition Acts			
1987	678,581	406,930	8,732	389,801	13,700	+ 17,129	20,607	716,263
1988	716,240	409,327	8,998	408,847	7,147	+ 480	20,761	737,474
1989	737,459	425,668	9,050	471,549	17,082	- 45,881	23,666	715,236
1990	715,237	580,590	8,820	646,616	12,934	- 66,026	29,089	765,374
1991 June	743,320	35,898	701	38,524	212	- 2,626	363	741,057
July	5 733,338	43,220	759	49,612	3,037	- 6,392	542	5 727,488
Aug.	6 729,081	38,436	586	40,536	166	- 2,100	516	6 727,497
Sep.	3 728,878	38,487	571	40,768	147	- 2,281	519	3 727,116
Oct.	6 728,668	43,569	589	44,185	143	- 616	613	6 728,665
Nov. p	7 729,407	41,002	590	40,179	131	+ 823	667	7 730,897

For footnote * see Table III, 7. — 1 Savings deposits for which an increasing rate of interest or — not only for a limited time — a bonus or generally a higher interest than the normal rate is paid under special contracts. — 2 Discrepancies between level at beginning of period and level at end of preceding period, and between

changes in levels of turnover, are mainly due to changes caused by mergers, etc. — 3 + c. DM 1.4 billion. — 4 + c. DM 90 billion. — 5 — c. DM 7.5 billion. — 6 + c. DM 1.6 billion. — 7 + c. DM 800 million. — p Provisional.

III. Banks

23. Balance sheet total, lending and deposits of credit cooperatives

DM million

End of year	Number of credit cooperatives 1	Balance sheet total	Advances and loans, and bill-based lending to non-banks 2	Deposits of and borrowing from non-banks 2		
				Total	Sight deposits, time deposits and borrowed funds 3	Savings deposits 4
1973	5,481	123,040	77,441	102,341	33,125	69,216
1974	5,324	136,800	82,231	115,204	37,687	77,517
1975	5,196	154,841	89,319	131,651	33,330	98,321
1976	5,044	174,135	104,108	147,560	36,021	111,539
1977	4,814	196,253	118,187	165,868	42,376	123,492
1978	4,607	225,875	137,882	187,806	51,839	135,967
1979	4,448	254,290	164,657	208,124	63,967	144,157
1980	4,226	283,999	186,830	230,369	80,028	150,341
1981	3,935	310,195	205,814	250,005	98,963	151,042
1982	3,823	337,759	219,027	275,396	110,135	165,261
1983	3,761	364,796	237,349	294,199	111,104	183,095
1984	3,711	390,100	254,501	315,242	116,846	198,396

Source: Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V., Bonn. The figures cover the transactions of all credit cooperatives (including those mentioned in footnote 1), whereas in the banking statistics collected by the Bundesbank until November 1985 only the cooperatives subject to reporting requirements were covered (since end-1973 about 2,400, prior to that about 2,000) (see Table III, 2, footnote *). From December 1985 the data for all credit cooperatives can be taken from Tables III, 13 and 14. — 1 Including banks affiliated to the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. and not organised in the form of a cooperative, but excluding regional institutions of credit cooperatives. — 2 Excluding loans on a trust basis. — 3 Excluding bank savings bonds. — 4 Including bank savings bonds.

24. Debits to giro accounts of non-banks *

DM million

Period	Debits	Period	Debits
1988 Jan.	1,443,419	1990 Jan.	2,159,857
Feb.	1,470,978	Feb.	1,961,192
March	1,635,832	March	2,141,285
April	1,406,604	April	1,878,377
May	1,471,460	May	1,984,171
June	1,690,059	June	1,985,894
July	1,646,338	July	1,962,048
Aug.	1,630,945	Aug.	1,971,138
Sep.	1,650,883	Sep.	1,818,061
Oct.	1,647,216	Oct.	1,998,460
Nov.	1,779,902	Nov.	1,996,698
Dec.	2,029,756	Dec.	2,208,911
1989 Jan.	1,874,358	1991 Jan.	2,168,916
Feb.	1,687,431	Feb.	2,008,740
March	1,858,479	March	2,135,478
April	1,787,026	April	2,258,844
May	1,822,635	May	2,183,904
June	2,059,645	June	2,301,163
July	1,947,060	July	2,467,903
Aug.	1,866,769	Aug.	2,202,702
Sep.	1,926,108	Sep.	2,216,067
Oct.	2,117,255	Oct.	2,306,001
Nov.	2,111,190	Nov. p	2,319,098
Dec.	2,218,665		

* Arising from credit transfers, direct debits and cheque clearing. Notwithstanding the other time series, east German banks have been included here only from January 1991. — p Provisional.

25. Number of monthly reporting banks and their classification by size

Banks in the entire Deutsche Mark currency area

End-December 1990

Category of banks	Total number of monthly reporting banks 1	The banks reporting for the monthly banking statistics are graded as follows, according to their volume of business								
		Less than DM 10 million	DM 10 million to less than DM 25 million	DM 25 million to less than DM 50 million	DM 50 million to less than DM 100 million	DM 100 million to less than DM 250 million	DM 250 million to less than DM 500 million	DM 500 million to less than DM 1 billion	DM 1 billion to less than DM 5 billion	DM 5 billion and over
Commercial banks	341	19	12	11	32	54	46	43	91	33
Big banks 2	6	—	—	—	—	—	—	—	—	6
Regional banks and other commercial banks 3	192	3	4	7	14	34	24	28	54	24
Branches of foreign banks	60	—	1	3	9	8	11	7	18	3
Private bankers 4	83	16	7	1	9	12	11	8	19	—
Regional giro institutions (incl. Deutsche Girozentrale)	11	—	—	—	—	—	—	—	—	11
Savings banks	771	—	—	—	7	84	191	188	267	34
Regional institutions of credit cooperatives (incl. Deutsche Genossenschaftsbank)	4	—	—	—	—	—	—	—	—	4
Credit cooperatives 5	3,392	25	177	701	1,000	950	338	134	64	3
Mortgage banks	36	—	—	—	—	1	3	1	4	27
Private	27	—	—	—	—	—	2	1	4	20
Public	9	—	—	—	—	1	1	—	—	7
Banks with special functions	18	—	—	—	1	—	2	2	2	11
Postal giro and postal savings bank offices	16	—	—	—	—	—	—	—	—	—
Building and loan associations	32	—	—	1	—	2	—	7	13	9
Private	19	—	—	1	—	1	—	4	9	4
Public	13	—	—	—	—	1	—	3	4	5
Total 6 excluding building and loan associations including building and loan associations	4,589 4,621	(44) (44)	(189) (189)	(712) (713)	(1,040) (1,040)	(1,089) (1,091)	(580) (580)	(368) (375)	(428) (441)	(123) (132)

1 Including banks in liquidation. — 2 Deutsche Bank AG, Dresdner Bank AG, Commerzbank AG and their Berlin subsidiaries. — 3 Including private bankers whose business is not organised in the form of a sole proprietorship or partnership. — 4 Only banks organised in the form of a sole proprietorship or partnership; see also footnote 3. — 5 Including other banks not organised in the form of a cooperative but

affiliated to the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. Up to December 1971 the figures for credit cooperatives (Schulze-Delitzsch) and credit cooperatives (Raiffeisen) were recorded and published separately. — 6 Figures in brackets do not contain postal giro and postal savings bank offices.

26. Number of banks and their branches *

(a) Total

Level at end of year or change during year	Level					Change			
	Banks	Domestic branches	Domestic bank offices, total	Memorandum items		Banks	Domestic branches	Domestic bank offices, total	
				Foreign branches 1	Foreign subsidiaries 2				
1957	13,359	12,974	26,333	.	.	.	.	.
1962	12,960	19,267	32,227	.	.	- 192	+ 1,115	+ 923	
1967	10,859	26,285	37,144	.	.	- 497	+ 1,686	+ 1,189	
1972	7,190	35,387	42,577	26	.	- 647	+ 1,475	+ 828	
1977	5,997	37,764	43,761	58	.	- 279	+ 510	+ 231	
1979	5,591	38,753	44,344	77	.	- 181	+ 526	+ 345	
1980	5,355	39,311	44,666	88	.	- 236	+ 558	+ 322	
1981	5,052	39,821	44,873	103	.	- 303	+ 510	+ 207	
1982	4,930	39,909	44,839	108	.	- 122	+ 186	+ 64	
1983	4,848	39,821	44,669	114	.	- 82	+ 18	- 64	
1984	4,798	39,900	44,698	115	.	- 50	+ 94	+ 44	
1985	4,739	39,990	44,729	118	.	- 59	+ 90	+ 31	
1986	4,662	39,979	44,641	121	109	- 77	- 11	- 88	
1987	4,543	39,913	44,456	122	117	- 119	- 66	- 185	
1988	4,428	39,852	44,280	160	131	- 115	- 61	- 176	
1989	4,297	39,859	44,156	164	157	- 131	- 11	- 142	
1990 10, 12	4,170	39,807	43,977	177	214	- 174	- 59	- 233	
1990 10, 13	4,711	43,559	48,270	177	214	.	.	.	

(b) By category of banks

Level at end of year	Level at end of year											
	Category of banks	1957			1990 12			1990 13			Memorandum items	
		Banks	Domestic branches	Domestic bank offices, total	Banks	Domestic branches	Domestic bank offices, total	Banks	Domestic branches	Domestic bank offices, total	Foreign branches 1	Foreign subsidiaries 2
Commercial banks 3	364	1,917	2,281	332	6,289	6,621	338	6,552	6,890	141	163	
Big banks	8	787	795	6	3,105	3,111	6	3,234	3,240	100	100	
Regional banks and other commercial banks 3	96	1,020	1,116	185	2,847	3,032	191	2,976	3,167	39	60	
Branches of foreign banks	15	6	21	60	34	94	60	34	94	-	-	
Private bankers 3, 4	245	104	349	81	303	384	81	308	389	2	3	
Regional giro institutions 5	14	191	205	12	11 309	321	12	311	323	22	35	
Savings banks	871	8,192	9,063	574	11 17,212	17,786	769	19,036	19,805	-	-	
Regional institutions of credit cooperatives 6	19	89	108	4	31	35	4	33	37	8	13	
Credit cooperatives 3, 7	11,795	2,305	14,100	3,042	15,769	18,811	3,380	17,402	20,782	-	-	
Mortgage banks	44	19	63	36	49	85	36	58	94	-	-	
Private	25	8	33	27	42	69	27	50	77	-	-	
Public	19	11	30	9	7	16	9	8	17	-	-	
Instalment sales financing institutions 3	194	225	419	3	3	3	3	3	3	-	-	
Banks with special functions	16	34	50	16	82	98	18	98	116	3	3	
Building and loan associations 8, 9	.	.	.	23	61	84	23	63	86	3	-	
Private	.	.	.	19	61	80	19	63	82	3	-	
Public	.	.	.	4	-	4	4	-	4	-	-	
Categories of banks not covered by the monthly balance sheet statistics	42	2	44	131	5	136	131	6	137	-	-	
Housing enterprises with savings facilities 10	.	.	.	47	1	48	47	1	48	-	-	
Investment companies	5	-	5	54	3	57	54	3	57	-	-	
Securities depositories	7	1	8	2	1	3	2	1	3	-	-	
Guarantee banks and other banks	30	1	31	28	-	28	28	1	29	-	-	
Memorandum items	.	.	.	.	.	.	.	.	.	.	.
Banks majority-owned by foreign banks	.	.	.	85	473	558	.	.	.	.	.
by foreign non-banks	.	.	.	32	50	82	.	.	.	.	.
Total	13,359	12,974	26,333	4,170	39,807	43,977	4,711	43,559	48,270	177	214	

* Excluding postal giro and postal savings bank offices and, up to 1971, excluding building and loan associations; also excluding banks in liquidation, but including banks transferred to the Federal area after 1945. Branches within the meaning of section 24 (1) 7 of the Banking Act handling inpayments and outpayments, i.e. excluding deposit-receiving agencies, exchange bureaux, commission agencies, sub-offices and representations. Registered offices, second and other registered offices of banks are recorded as branches, if banking business is conducted there. The first branch established by a foreign bank in the Federal territory is recorded as a bank in accordance with section 53 (1) of the Banking Act; all further branches are recorded as branches. Statistical changes have been included in the levels at the end of the year, but they have not been included in the dates on changes. — 1 Including sub-branches. — 2 Participations of at least 50% in banks, factoring enterprises and leasing enterprises. — 3 Through the dissolution of the category "Instalment sales financing institutions" at the end of 1986, reclassification of 72 banks with 469 branches as "Regional banks" (42 banks/418 branches), "Private bankers" (22/39) and "Credit cooperatives" (8/12). — 4 Only banks organised in the form of a

sole proprietorship or partnership. — 5 Including Deutsche Girozentrale — Deutsche Kommunalbank. — 6 Including Deutsche Genossenschaftsbank. — 7 Including other banks not organised in the form of a cooperative but affiliated to the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. — 8 In 1957 — before the Building and Loan Associations Act became effective — there were 17 private and 3 public building and loan associations of independent legal status. — 9 Since 1972 including (private and public) building and loan associations of independent legal status and their branches. 9 (1973-1985; 10) public building and loan associations of dependent legal status (divisions or institutions of other public banks) with 4 branches are not recorded separately. — 10 From January 1, 1990 housing enterprises with savings facilities are considered banks within the meaning of the Banking Act and are, therefore, included in the statistics of bank offices for the first time. — 11 92 branches of a savings bank which in 1990 became a legally dependent division of a Landesbank/regional bank institution, have been deducted from the category of "Savings banks" and added to the category of "Regional giro institutions". — 12 Excluding the new Länder. — 13 Including the new Länder.

IV. Minimum reserves

1. Reserve ratios									
% of liabilities subject to reserve requirements									
Liabilities subject to reserve requirements to residents									
Sight liabilities									
Time liabilities									
Savings deposits									
Stage on the progressive scale 1									
Stage on the progressive scale 1									
Stage on the progressive scale 1									
1									
2									
3									
1									
2									
3									
1									
2									
3									
DM 10 mn and under									
DM 100 mn and under, but more than DM 10 mn									
more than DM 100 mn									
DM 10 mn and under									
DM 100 mn and under, but more than DM 10 mn									
more than DM 100 mn									
DM 10 mn and under									
DM 100 mn and under, but more than DM 10 mn									
more than DM 100 mn									
1977 March 1	9.35	12.7	14.9	6.6	8.8	10.45	6.15	6.4	6.6
June 1	8.9	12.05	14.15	6.3	8.4	9.95	5.85	6.05	6.3
Sep. 1	8	10.85	12.75	5.65	7.55	8.95	5.3	5.45	5.65
1978 March 1	8.65	11.7	13.75	6.1	8.15	9.65	5.7	5.9	6.1
June 1	8.05	10.9	12.8	5.7	7.55	9	5.3	5.5	5.7
Nov. 1	8.75	11.85	13.95	6.2	8.25	9.8	5.8	6	6.2
1979 Feb. 1	9.2	12.45	14.65	6.5	8.65	10.3	6.05	6.3	6.5
1980 May 1	8.45	11.45	13.45	6	8	9.45	5.6	5.8	6
Sep. 1	7.65	10.3	12.1	5.4	7.2	8.5	5	5.2	5.4
1981 Feb. 1	7.1	9.6	11.25	5	6.7	7.95	4.65	4.85	5
1982 Oct. 1	6.4	8.65	10.15	4.5	6	7.15	4.2	4.35	4.5
1986 May 1	6	9	11	4.5			3.75		
1987 Feb. 1	6.6	9.9	12.1	4.95			4.15		
Liabilities subject to reserve requirements to non-residents									
Sight liabilities									
Time liabilities									
Savings deposits									
Growth of liabilities									
Sight liabilities									
Time liabilities									
Savings deposits									
Explanatory notes on the growth reserve regulations									
1977 March 1	14.9	10.45	6.6	no special ratios					
June 1	14.15	9.95	6.3	no special ratios					
Sep. 1	12.75	8.95	5.65	no special ratios					
1978 Jan. 1	20	15	10	80			Additional reserve ratio for growth over the average level during the period from September 16 to December 15, 1977		
June 1	12.8	9	5.7	no special ratios					
Nov. 1	13.95	9.8	6.2	no special ratios					
1979 Feb. 1	14.65	10.3	6.5	no special ratios					
1980 May 1	13.45	9.45	6	no special ratios					
Sep. 1	12.1	8.5	5.4	no special ratios					
1981 Feb. 1	11.25	7.95	5	no special ratios					
1982 Oct. 1	10.15	7.15	4.5	no special ratios					
1986 May 1	11	4.5	3.75	no special ratios					
1987 Feb. 1	12.1	4.95	4.15	no special ratios					

1 The ratio of stage 1 on the progressive scale applies to the first DM 10 million of liabilities subject to reserve requirements, the ratio of stage 2 to the next DM 90 million, and the ratio of stage 3 to liabilities exceeding DM 100 million. — 2 From March 1, 1977 to February 28, 1978 the following discounts were in force for liabilities

to residents in places without a Bundesbank office: 1 percentage point for sight liabilities, 0.5 percentage point for savings deposits. — 3 From May 1, 1986 the differentiation of the reserve ratios by stages on the progressive scale is no longer applicable to time liabilities and savings deposits.

IV. Minimum reserves

(c) Breakdown by category of banks °												
Monthly average 1	Number of banks subject to reserve requirements	Liabilities subject to reserve requirements DM million	Required reserves prior to deduction of deductible cash balances 5	Average reserve ratio 14 for liabilities to					Memorandum items			
				residents and non-residents, total	residents		non-residents	Deductible cash balances 6	Required reserves after deduction of deductible cash balances 7	Excess reserves 9		
					Total	of which For sight liabilities					%	DM million
All categories of banks												
1991 Oct.	4,347	1,477,857	90,581	6.1	6.1	10.9	8.4	19,144	71,437	834		
Nov.	4,330	1,485,083	90,912	6.1	6.1	10.9	8.3	19,289	71,623	618		
Commercial banks												
1991 Oct.	328	407,175	28,719	7.1	6.9	11.8	9.1	5,050	23,669	264		
Nov.	326	409,220	28,777	7.0	6.9	11.8	8.9	5,165	23,612	215		
Big banks												
1991 Oct.	4	222,326	15,938	7.2	7.0	12.1	8.8	2,995	12,943	102		
Nov.	4	223,372	16,001	7.2	7.0	12.1	8.6	3,101	12,900	72		
Regional banks and other commercial banks 15												
1991 Oct.	187	156,487	10,716	6.8	6.7	11.7	9.3	1,887	8,828	105		
Nov.	185	157,148	10,700	6.8	6.6	11.7	9.2	1,889	8,810	104		
Branches of foreign banks												
1991 Oct.	61	4,518	413	9.1	7.9	9.7	10.6	11	402	30		
Nov.	61	4,279	386	9.0	7.9	9.7	10.5	11	375	20		
Private bankers 16												
1991 Oct.	76	23,844	1,652	6.9	6.8	10.9	9.1	157	1,495	28		
Nov.	76	24,421	1,690	6.9	6.8	11.0	9.1	163	1,527	20		
Regional giro institutions												
1991 Oct.	11	33,882	2,478	7.3	7.2	11.9	9.3	211	2,267	114		
Nov.	11	31,958	2,322	7.3	7.2	11.8	9.6	212	2,111	11		
Savings banks												
1991 Oct.	748	631,316	36,788	5.8	5.8	11.0	5.4	9,333	27,455	184		
Nov.	747	635,999	37,104	5.8	5.8	11.0	5.4	9,411	27,693	146		
Regional institutions of credit cooperatives												
1991 Oct.	4	5,532	520	9.4	9.2	11.8	11.5	90	430	28		
Nov.	4	5,278	497	9.4	9.2	11.8	11.8	85	412	6		
Credit cooperatives												
1991 Oct.	3,172	387,317	21,176	5.5	5.5	9.2	5.6	4,411	16,765	203		
Nov.	3,160	391,033	21,391	5.5	5.5	9.2	5.6	4,369	17,022	208		
Mortgage banks												
1991 Oct.	35	3,555	237	6.7	6.8	9.8	5.1	11	226	14		
Nov.	35	3,360	224	6.7	6.7	9.8	5.4	10	213	25		
Banks with special functions												
1991 Oct.	15	7,478	573	7.7	8.2	11.4	5.2	36	537	24		
Nov.	13	6,605	504	7.6	7.9	11.5	5.7	35	469	4		
Building and loan associations												
1991 Oct.	34	1,601	90	5.6	5.6	9.2	8.5	1	89	2		
Nov.	34	1,629	92	5.7	5.7	9.2	8.5	1	91	3		
Memorandum item: Postal giro and postal savings bank offices												
1991 Oct.	16	58,387	3,847	6.6	6.6	12.1	10.0	—	3,847	.		
Nov.	16	58,248	3,855	6.6	6.6	12.1	10.1	—	3,855	.		

* Excluding minimum reserves kept by the Federal Post Office on behalf of the postal giro and postal savings bank offices, which since the introduction on May 1, 1958 of the optional central maintenance of minimum reserves are in practice no longer distinguishable from the other central bank deposits of the Federal Post Office. — ° The category "Installment sales financing institutions" was dissolved in December 1986; the banks it used to contain are now included in the categories "Regional banks and other commercial banks", "Private bankers" and "Credit cooperatives", in accordance with their legal form. — 1 Pursuant to sections 5 to 7 of the Minimum Reserves Order. — 2 Liabilities subject to reserve requirements cannot be broken down statistically according to residents and non-residents if the same reserve ratios applied to such liabilities and only overall amounts were reported. — 3 Including liabilities arising from initial sales to non-residents of bearer bonds and order bonds forming part of a total issue. — 4 From August to December 1990 including liabilities in "giro accounts with savings banks and savings accounts evidenced by a passbook" in eastern Germany; from January 1991 including liabilities in "savings accounts evidenced by a passbook" in eastern Germany. — 5 Amount after applying the reserve ratios to liabilities subject to reserve requirements (section 5 (1) of the Minimum Reserves Order). Owing to the introduction in March 1978 of deductible cash

balances, accompanied by a compensatory increase in reserve ratios, the continuity of the series is not assured. — 6 Banks' holdings of German legal tender pursuant to section 5 (2) of the Minimum Reserves Order. — 7 To be maintained as credit balances on giro accounts at the Bundesbank. — 8 Average credit balances of banks subject to reserve requirements maintained on giro accounts at the Bundesbank. — 9 Actual reserves less required reserves after deduction of deductible cash balances. — 10 Required reserves after deduction of deductible cash balances. — 11 Between May 1961 and end-December 1966 liabilities to non-residents were exempt from the reserve requirements to an amount equal to credit balances with banks abroad and foreign money market investments. — 12 The exemption of institutions mainly engaged in long-term business and of building and loan associations was abolished with effect from January 1, 1984. — 13 The stages on the progressive scale for time liabilities and savings deposits have been eliminated since May 1986; uniform reserve ratios apply. — 14 Required reserves prior to deduction of deductible cash balances as % of liabilities subject to reserve requirements. — 15 Including guarantee banks with small amounts. — 16 Only banks organised in the form of a sole proprietorship or partnership. Discrepancies in the totals are due to rounding.

V. Interest rates

3. The Bundesbank's open market transactions in securities under repurchase agreements *

Day of credit advice	Bids by banks		Purchases by the Bundesbank						Running for ... days	
	Number of bidders	Amount	Number	Amount	Fixed-rate tenders			Variable-rate tenders		
		DM million			DM million	Fixed rate	Marginal rate			Major allotment rate 1
1991 Sep. 4	775	68,853	602	35,889	—	—	9.00	9.00—9.05	28	
" Sep. 4	428	22,070	146	9,017	—	—	9.10	9.10	63	
" Sep. 11	735	67,700	535	28,067	—	—	9.00	9.00	28	
" Sep. 18	680	54,544	532	21,170	—	—	9.00	9.00	28	
" Sep. 18	323	11,567	190	8,421	—	—	9.05	9.05—9.10	64	
" Sep. 25	790	36,893	651	10,766	—	—	9.00	9.00	28	
" Oct. 2	684	65,123	582	36,063	—	—	9.00	9.00	35	
" Oct. 2	358	23,467	253	11,978	—	—	9.05	9.05	63	
" Oct. 9	714	64,454	610	31,836	—	—	9.00	9.00	35	
" Oct. 16	635	56,590	536	19,117	—	—	9.00	9.00	36	
" Oct. 16	328	14,338	234	9,796	—	—	9.05	9.05	63	
" Oct. 23	757	58,668	662	10,151	—	—	9.00	9.05	35	
" Nov. 6	639	63,871	353	23,809	—	—	9.05	9.05	28	
" Nov. 6	535	33,778	271	14,028	—	—	9.20	9.25	58	
" Nov. 13	704	72,487	481	29,595	—	—	9.05	9.05	28	
" Nov. 21	518	33,538	408	20,800	—	—	9.05	9.05	27	
" Nov. 21	441	24,893	266	10,301	—	—	9.20	9.25	55	
" Nov. 27	594	30,428	485	13,082	—	—	9.05	9.05	30	
" Dec. 4	839	54,958	492	32,292	—	—	9.20	9.25	30	
" Dec. 4	408	24,925	270	12,562	—	—	9.25	9.30	63	
" Dec. 11	820	53,459	726	33,284	—	—	9.20	9.20—9.25	28	
" Dec. 18	694	37,927	639	23,686	—	—	9.20	9.20—9.25	28	
" Dec. 18	261	10,613	187	9,054	—	—	9.25	9.25	63	
" Dec. 27	552	25,193	186	13,254	—	—	9.55	9.55	26	
1992 Jan. 3 p	604	43,300	...	32,700	—	—	9.40	9.40—9.45	33	
" Jan. 3 p	318	25,400	...	10,100	—	—	9.45	9.50—9.60	61	
" Jan. 8 p	757	58,500	...	30,600	—	—	9.40	9.40	35	

* Purchases of bonds eligible as collateral for lombard loans; since July 11, 1983 also of Treasury discount paper with a remaining period to maturity of up to one year; first such transaction on June 21, 1979. Excluding quick tenders; first such transaction on

November 28, 1988. — 1 Spread of the rates at which the majority of the allotments was effected. — p Provisional.

4. Rates for sales of money market paper

Rates of the Bundesbank for money market paper included in the money market regulating arrangements		Rates for money market paper not included in the money market regulating arrangements	
Treasury bills of Federal Government		Treasury discount paper of the Federal Government, Federal Railways and Federal Post Office	
running for		running for	
Applicable from	30 to 59 days	60 to 90 days	6 months 12 months 18 months 24 months
Applicable from	Sales on market terms		Tender procedure 1
	12 months	24 months	
1986 March 7	3.00	3.15	3.30 3.40 3.50 3.60
1987 Jan. 23	2.50	2.65	2.80 2.90 3.00 3.10
" Dec. 4	2.00	2.15	2.30 2.40 2.50 2.60
1988 July 1	2.50	2.65	2.80 2.90 3.00 3.10
" Aug. 26	3.00	3.15	3.30 3.40 3.50 3.60
1989 Jan. 20	3.50	3.65	3.80 3.90 4.00 4.10
" April 21	4.00	4.15	4.30 4.40 4.50 4.60
" June 30	4.50	4.65	4.80 4.90 5.00 5.10
" Oct. 6	5.50	5.65	5.80 5.90 6.00 6.10
1991 Feb. 1	6.00	6.15	6.30 6.40 6.50 6.60
" Aug. 16	7.00	7.15	7.30 7.40 7.50 7.60
" Dec. 20	7.50	7.65	7.80 7.90 8.00 8.10
1989 Dec. 5	—	7.49	—
1990 Feb. 6	—	—	—
" Feb. 15	—	—	—
" Feb. 22	—	—	—
" April 30	—	—	—
" Oct. 12	—	—	—
1991 Jan. 30	—	2 8.45	—
" July 17	—	2 8.43	—
" Aug. 26	—	2 8.56	—
" Nov. 1	—	—	—
" Nov. 5	—	2 8.47	2 8.27
" Dec. 23	—	—	—
1989 Dec. 5	—	8.10	—
1990 Feb. 6	—	—	—
" Feb. 15	—	—	—
" Feb. 22	—	—	—
" April 30	—	—	—
" Oct. 12	—	—	—
1991 Jan. 30	—	9.23	—
" July 17	—	9.20	—
" Aug. 26	—	9.36	—
" Nov. 1	—	—	—
" Nov. 5	—	9.26	9.22
" Dec. 23	—	—	—
1989 Dec. 5	—	—	—
1990 Feb. 6	—	—	—
" Feb. 15	—	—	—
" Feb. 22	—	—	—
" April 30	—	—	—
" Oct. 12	—	—	—
1991 Jan. 30	—	—	—
" July 17	—	—	—
" Aug. 26	—	—	—
" Nov. 1	—	—	—
" Nov. 5	—	—	—
" Dec. 23	—	—	—

* No change in the selling rate; see the preceding date. — 1 Except as otherwise noted, rate applicable only on the date stated. — 2 Weighted average of all offers accepted. —

3 From November 7, 1989.

5. Rates for prime bankers' acceptances *

% p.a.

Applicable from	Prime bankers' acceptances with a remaining maturity of 10 to 90 days		
		Buying	Selling
1980 Feb. 29		7.30	7.15
May 2		7.80	7.65
1982 Aug. 27		7.05	6.90
Oct. 22		5.80	5.65
Dec. 3		4.80	4.65
1983 March 18		3.55	3.40
1984 June 29		4.05	3.90
1985 Aug. 16		3.55	3.40
1986 March 7		3.05	2.90
1987 Jan. 23		2.55	2.40
Dec. 4		2.05	1.90
1988 July 1		2.55	2.40
Aug. 26		3.05	2.90
1989 Jan. 20		3.55	3.40
April 21		4.05	3.90
June 30		4.55	4.40
Oct. 6		5.55	5.40
1991 Feb. 1		6.05	5.90
Aug. 16		7.05	6.90
Dec. 20		7.55	7.40

* Rates of Privatdiskont AG for transactions with banks.

6. Money market rates, by month

% p.a.

Period	Money market rates reported by Frankfurt banks 1		Fibor 2, 3				Old-style Fibor 2, 4	
	Day-to-day money		One-month funds	Three-month funds	Six-month funds	Twelve-month funds	Three-month funds	Six-month funds
	Monthly averages	Lowest and highest rates							Monthly averages
1989 Oct.	7.86	7.20-8.05					8.13	8.12
Nov.	7.54	6.90-8.00					8.29	8.28
Dec.	7.67	5 7.30-8.50					8.11	8.21
1990 Jan.	7.58	2.00-8.10					8.30	8.50
Feb.	7.77	7.00-8.50					8.31	8.69
March	7.72	7.00-8.00					8.48	8.89
April	7.79	7.30-8.00					8.27	8.68
May	7.72	2.00-8.00					8.33	8.65
June	7.83	7.50-8.10					8.30	8.59
July	8.02	7.85-8.25	8.13	8.26	8.48	8.73	8.44	8.69
Aug.	8.03	7.95-8.25	8.26	8.45	8.67	8.91	8.65	8.85
Sep.	8.03	7.95-8.20	8.26	8.47	8.75	8.99	8.57	8.82
Oct.	8.04	7.90-8.10	8.28	8.60	8.75	9.00	8.80	8.85
Nov.	8.12	7.30-8.55	8.43	8.88	9.00	9.15	9.04	9.05
Dec.	8.43	6 7.90-8.55	9.14	9.21	9.28	9.33	9.20	9.36
1991 Jan.	8.53	8.40-8.65	8.98	9.35	9.48	9.57	9.36	9.52
Feb.	8.69	8.55-9.00	8.93	9.08	9.13	9.19	9.00	9.19
March	8.76	8.65-9.00	8.98	9.09	9.13	9.15	9.29	9.33
April	8.85	8.75-9.00	9.00	9.18	9.29	9.33	9.28	9.44
May	8.58	6.00-8.95	8.93	9.08	9.17	9.24	9.26	9.39
June	8.79	8.65-8.95	8.93	9.06	9.13	9.19	9.26	9.30
July	8.83	8.65-9.00	8.97	9.15	9.33	9.42	9.36	9.53
Aug.	8.93	8.20-9.20	9.13	9.31	9.48	9.53	9.51	9.69
Sep.	9.07	8.95-9.25	9.14	9.27	9.40	9.45	9.37	9.52
Oct.	8.78	2.00-9.20	9.17	9.38	9.42	9.44	9.56	9.56
Nov.	9.04	8.90-9.25	9.20	9.43	9.45	9.45	9.62	9.57
Dec.	9.23	7 8.95-9.75	9.60	9.58	9.56	9.54	9.67	9.71

1 Money market rates are not fixed or quoted officially; the monthly averages computed from daily quotations are unweighted. — 2 Frankfurt Interbank Offered Rate. — 3 Since July 2, 1990 rate ascertained by Telerate on a broader basis than before and calculated according to the method of computing interest on the basis of 365/360 days. — 4 Rate calculated

by Privatdiskont AG since August 1985 according to the method of computing interest on the basis of 360/360 days; from July 1990 only as a basis for maturing transactions. — 5 At the end of December: 8.00 % to 8.50 %. — 6 At the end of December: 8.40 % to 8.50 %. — 7 At the end of December: 9.50 % to 9.75 %.

7. Lending and deposit rates * Average interest rates and spread

Reporting period 1	Lending rates							
	Current account credit 2				Bills discounted 2			
	Less than DM 1 million		DM 1 million and over but less than DM 5 million		Bills of less than DM 100,000 eligible for rediscount at the Bundesbank			
	Average interest rate	Spread	Average interest rate	Spread	Average interest rate	Spread	Average interest rate	Spread
1990 Nov.	11.91	10.50-13.25	10.22	9.25-11.75	8.57	7.75-10.25		
Dec.	11.97	10.50-13.00	10.28	9.25-12.00	8.65	7.75-10.25		
1991 Jan.	11.85	10.00-13.00	10.35	9.30-11.75	8.70	7.90-10.25		
Feb.	12.18	10.25-13.50	10.57	9.50-12.25	9.11	8.25-10.65		
March	12.22	10.50-13.50	10.63	9.50-12.25	9.13	8.50-10.75		
April	12.26	10.50-13.50	10.68	9.50-12.25	9.13	8.50-10.75		
May	12.24	10.50-13.50	10.68	9.50-12.25	9.14	8.50-10.75		
June	12.26	10.50-13.50	10.66	9.50-12.25	9.15	8.50-10.75		
July	12.27	10.50-13.50	10.69	9.30-12.50	9.16	8.50-10.75		
Aug.	12.47	10.75-13.75	10.85	9.50-12.50	9.78	8.50-11.25		
Sep.	12.92	11.00-14.25	11.29	10.00-13.00	10.02	9.00-11.50		
Oct.	12.95	11.25-14.25	11.30	10.00-12.75	9.99	9.00-11.50		
Nov.	12.98	11.25-14.25	11.29	10.00-12.75	9.96	9.00-11.50		
Dec. p	12.95	11.00-14.25	11.31	10.00-12.75	10.02	9.00-11.50		

* Since January 1991 the rates of the banks in the new Länder have been included in the interest rate survey. For the method of data collection see Monthly Report of the Deutsche Bundesbank, most recently Vol. 35, No. 1, January 1983, p. 14 ff. The average rates are calculated as unweighted arithmetic means from the interest rates reported

to be within the spread. The spread is ascertained by eliminating the reports in the top 5 % and the bottom 5 % of the interest rate range. — 1 Second and third weeks of the months indicated. — 2 Interest rates as % p.a. — p Provisional.

2. Sales of bonds issued by residents

DM million nominal value

Period	Total	Bank bonds 1					Industrial bonds 6	Public bonds 7	Memo item DM bonds issued by non-residents
		All bank bonds	Mortgage bonds 2	Communal bonds 3	Bonds of specialised banks 4	Other bank bonds 5			
Gross sales 8									
1988	208,952	130,448	19,699	62,460	12,707	35,584	30	78,475	40,346
1989	253,262	183,904	23,678	61,500	25,217	73,509	300	69,058	33,591
1990 o	428,698	286,709	14,923	70,701	89,755	111,326	—	141,990	35,168
1990 Nov.	46,752	27,165	1,637	9,189	9,463	6,875	—	19,587	1,860
Dec.	46,237	31,740	1,403	6,812	15,282	8,243	—	14,498	3,287
1991 Jan.	50,029	31,764	3,048	9,420	9,113	10,183	335	17,930	370
Feb.	42,925	26,470	1,533	8,652	6,644	9,641	—	16,455	2,547
March	29,614	23,386	1,248	6,625	7,287	8,225	—	6,228	2,422
April	33,727	27,739	1,349	7,572	8,232	10,587	280	5,708	3,094
May	39,820	22,015	880	5,625	7,778	7,732	—	17,805	3,455
June	24,189	17,372	970	6,337	2,709	7,356	—	6,817	2,617
July	35,378	25,005	2,327	9,869	4,277	8,532	—	10,373	2,725
Aug.	33,923	22,946	2,317	7,776	5,240	7,613	30	10,947	2,557
Sep.	31,328	19,188	1,366	6,045	2,731	9,045	—	12,140	1,318
Oct.	46,265	28,515	1,219	8,243	10,440	8,613	—	17,750	4,153
Nov.	41,017	24,137	1,821	7,760	8,690	5,866	62	16,817	3,798
of which: Bonds with a maximum maturity according to the terms of issue of over 4 years									
1988	169,746	93,757	16,890	50,948	8,742	17,178	30	75,958	39,771
1989	192,435	124,958	21,092	50,943	20,170	32,751	300	67,175	29,598
1990 o	272,642	133,347	10,904	43,250	26,767	52,425	—	139,295	29,791
1990 Nov.	28,935	9,778	856	4,372	1,379	3,172	—	19,157	1,510
Dec.	24,321	9,854	1,024	3,715	1,356	3,759	—	14,468	2,842
1991 Jan.	33,585	15,320	1,878	5,548	3,293	4,601	335	17,930	190
Feb.	29,533	13,473	794	5,747	2,196	4,737	—	16,060	1,402
March	19,320	13,572	664	4,957	4,469	3,482	—	5,748	2,007
April	23,141	17,503	856	5,432	7,343	3,871	280	5,358	2,139
May	25,579	12,664	572	4,222	4,867	3,003	—	12,914	1,860
June	17,125	10,800	722	5,101	2,092	2,885	—	6,326	1,677
July	22,339	15,675	1,387	8,125	3,504	2,659	—	6,664	793
Aug.	23,173	13,339	1,342	5,173	4,216	2,608	30	9,805	1,371
Sep.	21,735	10,780	927	3,845	1,961	4,047	—	10,955	1,001
Oct.	34,953	19,982	688	6,319	9,918	3,057	—	14,971	3,017
Nov.	32,454	16,582	1,135	5,570	7,772	2,105	62	15,810	3,761
Net sales 9									
1988	40,959	— 8,032	—4,698	1,420	—2,888	—1,869	— 100	49,092	28,604
1989	80,594	52,813	3,780	929	9,155	38,947	254	27,530	22,843
1990 o	226,707	140,327	—3,922	— 72	73,287	71,036	— 67	86,449	21,717
1990 Nov.	30,439	18,263	— 180	6,448	8,383	3,612	— 0	12,176	1,243
Dec.	16,623	6,547	— 727	—3,168	8,660	1,782	— 10	10,086	2,660
1991 Jan.	32,697	21,905	2,391	5,251	7,668	6,594	327	10,465	— 811
Feb.	26,262	15,707	503	3,667	5,681	5,856	— 4	10,559	1,794
March	11,687	8,332	— 443	— 783	6,397	3,161	— 0	3,355	1,752
April	12,149	14,024	— 162	692	6,656	6,838	280	— 2,155	2,052
May	23,525	11,614	85	1,443	6,722	3,364	— 9	11,919	2,561
June	9,182	7,762	— 167	1,931	1,976	4,023	0	1,420	1,760
July	19,263	11,117	454	2,475	3,079	5,108	— 5	8,152	1,335
Aug.	17,620	10,180	899	3,633	4,064	1,582	30	7,410	1,811
Sep.	18,228	9,152	89	1,512	1,922	5,629	0	9,076	917
Oct.	23,144	12,319	— 2	1,213	8,981	2,128	— 26	10,851	1,967
Nov.	29,434	14,222	988	3,204	7,611	2,419	— 25	15,237	2,124

o From July 1990 including bonds launched by east German issuers. — 1 Excluding registered bank bonds. — 2 Including ship mortgage bonds, excluding public mortgage bonds. — 3 Including public mortgage bonds, Kommunalschatzanweisungen, Landesbodenbriefe, Bodenkulturschuldverschreibungen, bonds issued to finance shipbuilding and guaranteed by local authorities as well as bonds with other designations, provided that they were issued under section 8 (2) of the Act on Mortgage and Similar Bonds Issued by Public Banks. — 4 This includes all bearer bonds of the following banks: AKA-Ausfuhrkredit-Gesellschaft mbH, Bayerische Landesanstalt für Aufbaufinanzierung, Berliner Industriebank AG, Deutsche Ausgleichsbank (formerly: Lastenausgleichsbank (Equalisation of Burdens Bank)), Deutsche Genossenschaftsbank, Deutsche Siedlungs- und Landesrentenbank, Deutsche Verkehrs-Bank AG, IKB Deutsche Industriebank AG, Kreditanstalt für Wiederaufbau (Reconstruction Loan Corporation), Landwirtschaftliche Rentenbank, Staatsbank Berlin (State Bank Berlin) and building and loan associations. — 5 This item contains,

in particular, bonds issued by regional giro institutions, the proceeds of which are, in the main, extended as credit to trade and industry. Also including "uncovered" mortgage bonds, bearer bonds (including convertible and option bonds) issued by banks, and marketable savings bonds. — 6 Bonds of private enterprises, also in the form of convertible and option bonds. — 7 Including Federal Railways and Federal Post Office, but excluding bonds issued on behalf of the Equalisation of Burdens Fund. — 8 Gross sales means only initial sales of newly issued securities, not, however, resales of repurchased bonds. Securities sales in respect of which the buyer has not received any physical securities, for reasons connected with printing or for other reasons, are included. — 9 Gross sales less redemptions; the minus sign indicates an excess of redemptions over the amount newly sold during the period under review.

Discrepancies in the totals are due to rounding.

VI. Capital market

3. Redemption of bonds * issued by residents

DM million nominal value

Period	Total	Bank bonds 1					Industrial bonds	Public bonds	Memo item DM bonds issued by non-residents
		All bank bonds	Mortgage bonds	Communal bonds	Bonds of specialised banks	Other bank bonds			
1988	167,996	138,480	24,394	61,039	15,594	37,452	130	29,385	11,743
1989	172,669	131,093	19,901	60,570	16,062	34,560	46	41,529	10,748
1990	201,990	146,380	18,844	70,773	16,467	40,291	67	55,540	13,450
1990 Nov.	16,313	8,902	1,817	2,741	1,080	3,263	0	7,411	617
Dec.	29,614	25,193	2,130	9,980	6,622	6,461	10	4,411	626
1991 Jan.	17,332	9,859	657	4,169	1,445	3,589	8	7,465	1,181
Feb.	16,664	10,763	1,029	4,986	963	3,785	4	5,896	753
March	17,927	15,053	1,690	7,409	890	5,064	0	2,873	670
April	21,578	13,715	1,510	6,880	1,576	3,748	0	7,863	1,041
May	16,295	10,401	795	4,182	1,056	4,368	9	5,886	893
June	15,007	9,610	1,137	4,407	733	3,333	0	5,397	857
July	16,115	13,888	1,873	7,394	1,197	3,423	5	2,222	1,390
Aug.	16,303	12,766	1,417	4,143	1,175	6,031	0	3,536	746
Sep.	13,100	10,036	1,277	4,533	809	3,417	0	3,063	401
Oct.	23,121	16,196	1,221	7,031	1,459	6,485	26	6,899	2,186
Nov.	11,583	9,915	833	4,556	1,079	3,447	87	1,580	1,674

* Including change in the amount held by trustees. The minus sign (—) indicates that the decline in the amount held by trustees was in excess of the redemptions. The explanations given in Table VI, 2 (footnotes 2 to 7) regarding the individual categories

of securities and the footnotes regarding the area involved also apply to Tables VI, 3 and 4. — 1 Excluding registered bank bonds. Discrepancies in the totals are due to rounding.

4. Outstanding amount of bonds * issued by residents

DM million nominal value

End of year or month	Total	Bank bonds 1					Industrial bonds	Public bonds	Memo item DM bonds issued by non-residents	
		All bank bonds	Mortgage bonds	Communal bonds	Bonds of specialised banks	Other bank bonds				
1984	849,985	619,760	134,134	327,328	46,691	111,607	2,164	228,061	96,269	
1985	929,353	654,628	138,588	346,565	55,022	114,453	2,388	272,337	117,387	
1986	1,017,723	685,523	144,338	360,777	64,866	115,541	2,576	329,625	141,243	
1987	1,110,682	715,870	142,866	367,622	74,748	130,633	2,520	392,292	150,011	
1988	1,151,640	707,837	138,169	369,043	71,859	128,765	2,420	441,383	178,617	
1989	1,232,236	760,650	141,948	369,973	81,015	167,714	2,672	468,914	201,460	
1990 o	1,458,943	900,977	138,025	369,901	155,045	238,005	2,604	555,362	223,176	
1990 Nov.	1,442,320	894,430	138,752	373,070	146,385	236,223	2,614	545,275	220,516	
Dec.	1,458,943	900,977	138,025	369,901	155,045	238,005	2,604	555,362	223,176	
1991 Jan.	1,491,639	922,882	140,417	375,153	162,714	244,599	2,931	565,826	222,365	
Feb.	1,517,901	938,589	140,920	378,819	168,395	250,455	2,927	576,385	224,159	
March	1,529,588	946,921	140,477	378,036	174,792	253,616	2,927	579,740	225,911	
April	1,541,737	960,945	140,316	378,727	181,447	260,455	3,207	577,585	227,963	
May	1,565,262	972,560	140,400	380,171	188,170	263,819	3,198	589,504	230,525	
June	1,574,444	980,322	140,234	382,101	190,146	267,842	3,198	590,924	232,285	
July	1,593,707	991,439	140,688	384,576	193,225	272,950	3,193	599,076	233,620	
Aug.	1,611,327	1,001,618	141,587	388,210	197,289	274,532	3,222	606,486	235,431	
Sep.	1,629,555	1,010,771	141,676	389,722	199,211	280,161	3,222	615,562	236,348	
Oct.	1,652,699	1,023,090	141,674	390,935	208,192	282,289	3,196	626,414	238,314	
Nov.	1,682,133	1,037,312	142,662	394,138	215,804	284,708	3,171	641,651	240,439	
Maturity in years	Breakdown by remaining period to maturity 2 Position as of November 30, 1991									
Issues falling due en bloc										
4 and under	954,582	692,569	74,123	256,816	136,483	225,147	1,166	260,848	126,746	
over 4 but less than 10	679,662	299,535	41,725	121,852	77,087	58,871	1,788	378,340	98,014	
10 and over	6,920	4,256	256	1,816	1,570	614	200	2,464	11,514	
Issues not falling due en bloc										
4 and under	15,090	15,073	9,445	5,434	160	33	17	—	2,513	
over 4 but less than 10	18,257	18,257	11,316	6,395	503	42	—	—	1,159	
10 to less than 20	7,513	7,513	5,754	1,760	—	—	—	—	96	
20 and over	107	107	42	65	—	—	—	—	397	

* Including bonds temporarily held in the issuers' portfolios. — 1 Excluding bonds handed to the trustee for temporary safe custody and excluding registered bank bonds. — 2 Calculated from month under review until final maturity for issues falling

due en bloc and until mean maturity of the residual amount outstanding for issues not falling due en bloc. — o For the footnotes regarding the area involved see Table VI, 2. Discrepancies in the totals are due to rounding.

5. Changes in share circulation *

DM million nominal value

Period	Circulation at end of period under review	Net increase or net decrease during period under review	Increase during period under review									Decrease during period under review		
			Cash payment 1	Ex-change of convertible bonds, etc.	Issue of bonus shares 2	Contri-bution of claims	Contri-bution of shares, mining shares, GmbH shares, etc.	Contri-bution of other real assets	Merger and transfer of assets	Change from a different legal form	Con- version of Reichs- mark capital	Re- duction of capital, and liquida- tion	Merger and transfer of assets	Change into a different legal form
1985	108,911	+ 4,216	3,761	8	842	29	193	452	197	318	—	945	566	73
1986	114,680	+ 5,769	4,543	17	1,050	20	554	11	160	1,030	—	1,017	476	123
1987	117,768	+ 3,088	3,072	9	425	176	184	62	527	1,060	—	1,165	992	269
1988	121,906	+ 4,137	2,712	0	1,226	28	1,070	290	86	847	—	1,241	409	470
1989	132,036	+ 10,132	4,728	2	767	232	546	785	25	3,936	—	571	107	211
1990	144,686	+ 12,650	7,326	36	751	182	1,049	3,533	148	1,505	—	1,466	191	221
1990 Nov.	144,056	+ 489	313	—	21	—	27	—	12	173	—	13	17	27
Dec.	144,686	+ 631	669	—	105	—	246	—	3	143	—	526	—	9
1991 Jan.	145,352	+ 665	303	0	56	62	128	3	—	208	—	53	31	12
Feb.	145,423	+ 71	195	2	20	—	2	—	40	0	—	16	163	9
March	145,783	+ 360	156	72	—	—	133	—	—	0	—	0	—	2
April	146,076	+ 293	314	0	—	—	29	—	—	18	—	16	1	50
May	146,427	+ 351	236	0	115	1	—	—	20	10	—	11	—	20
June	147,290	+ 863	288	—	224	9	2	206	—	319	—	141	41	3
July	147,884	+ 594	573	—	29	200	28	—	—	53	—	44	175	70
Aug.	150,238	+ 2,354	343	—	60	4	1	1,860	73	31	—	8	—	10
Sep.	150,504	+ 267	405	13	69	—	10	21	1	59	—	26	—	285
Oct.	151,014	+ 510	350	—	11	—	22	2	38	87	—	0	—	—
Nov.	151,162	+ 148	64	—	6	—	—	—	70	57	—	36	13	—

* Excluding the shares of east German companies. — 1 Including share issues out of company profits. — 2 Issued under the Act on Capital Increases out of Company Resources and on the Profit and Loss Account of December 23, 1959, and the

Companies Act of September 6, 1965, sections 207 to 220. Discrepancies in the totals are due to rounding.

6. Yields on domestic securities

% p.a.

Period	Fully taxed bonds 1											Memo item DM bonds issued by non-residents 2		Shares 3 including tax credit	
	Bonds issued during period under review (yields on newly issued bonds)					Bonds outstanding (yields on bonds outstanding)									
	Bonds, total	of which				Bonds, total	of which				DM bonds issued by non-residents 2	including tax credit	excluding tax credit		
		Mortgage bonds	Com-munal bonds	Industrial bonds	Public bonds		Mortgage bonds	Com-munal bonds	Industrial bonds	Public bonds					
1986	6.1	6.3	6.1	—	5.9	6.0	6.1	6.0	6.6	5.9	6.6	2.74	1.75		
1987	5.9	5.9	5.8	6.7	6.0	5.8	5.9	5.8	6.6	5.8	6.4	4.42	2.83		
1988	6.0	6.0	5.9	—	6.2	6.0	6.1	5.9	6.8	6.1	6.0	3.50	2.24		
1989	7.0	7.1	7.1	—	6.9	7.1	7.2	7.2	7.2	7.0	7.1	2.85	1.82		
1990	8.7	8.7	8.8	—	8.7	8.9	9.0	9.0	9.0	8.8	9.2	3.78	2.42		
1991	...	...	...	...	...	8.7	8.9	8.9	8.9	8.6	9.2	3.80	2.43
1990 Nov.	8.9	8.9	9.0	—	9.0	9.1	9.2	9.2	9.3	9.0	9.6	3.69	2.36		
Dec.	8.9	8.9	9.0	—	8.9	9.0	9.1	9.1	9.2	9.0	9.6	3.78	2.42		
1991 Jan.	9.0	9.0	9.0	—	9.0	9.1	9.2	9.2	9.3	9.1	9.6	3.80	2.43		
Feb.	8.6	8.6	8.7	—	8.5	8.7	8.8	8.8	9.1	8.6	9.3	3.52	2.25		
March	8.4	8.5	8.5	—	8.5	8.6	8.7	8.7	8.7	8.5	9.1	3.71	2.37		
April	8.5	8.5	8.5	—	8.5	8.6	8.7	8.7	8.7	8.5	9.1	3.56	2.28		
May	8.4	8.6	8.5	—	8.4	8.6	8.7	8.7	8.7	8.5	9.1	3.41	2.18		
June	8.4	8.5	8.5	—	8.3	8.6	8.7	8.7	8.6	8.5	8.9	3.54	2.26		
July	8.7	8.9	8.8	—	8.6	8.9	9.0	9.0	8.9	8.8	9.2	3.59	2.30		
Aug.	8.8	8.9	8.9	—	8.7	8.9	9.1	9.1	9.0	8.8	9.4	3.55	2.27		
Sep.	8.7	8.8	8.8	—	8.7	8.8	9.0	9.0	8.9	8.7	9.2	3.65	2.33		
Oct.	8.5	8.7	8.7	—	8.4	8.7	8.9	8.9	8.9	8.6	9.0	3.72	2.38		
Nov.	8.7	8.8	8.7	—	8.6	8.7	8.9	8.9	8.9	8.6	9.1	3.77	2.41		
Dec.	...	...	...	...	...	8.7	8.9	8.8	8.9	8.5	9.3	3.80	2.43

1 Bearer bonds with maximum maturities according to the terms of issue of over 4 years, if their mean residual maturities exceed 3 years. Convertible bonds, etc., bank bonds with unscheduled redemption, zero bonds, floating-rate notes and foreign-currency bonds of domestic issuers are not included. Group yields for the various categories of securities are weighted with the amounts outstanding or (in the case of issue yields) the amounts sold of the bonds included in the calculation. Monthly figures

for yields on bonds outstanding are calculated on the basis of the yields on the four bank-week return dates of a month (including the yields on the last day of the preceding month); from 1986 they are calculated on the basis of the yields on all the business days of a month. The annual figures are the unweighted means of the monthly figures. — 2 As far as quoted on German stock exchanges. — 3 Dividend yield; end of year or month. Source: Federal Statistical Office.

End of month	Number of enterprises covered	Liquid funds 1 (except time balances with banks)	Time balances with banks and investments										
			Total	Time balances with banks 2	Investments					Participating interests	Loans and advance payments on insurance policies	Real estate and equivalent titles	Equalisation claims 4
					Total	Mortgage loans, and land charges in annuity and other forms	Registered bonds, loans against borrowers' notes and other loans	Securities 3	Loans and advance payments on insurance policies				
Reinsurance companies													
1988 Dec.	30	233	45,081	645	44,436	91	11,112	17,287	12,597	—	3,218	131	
1989 March	29	262	46,770	613	46,157	93	11,127	18,254	13,271	—	3,127	285	
June	30	207	48,150	1,010	47,140	92	11,152	18,927	13,621	—	3,063	285	
Sep.	30	138	49,895	1,025	48,870	116	11,332	19,899	14,158	—	3,083	282	
Dec.	30	153	50,464	822	49,642	117	11,638	19,214	15,227	—	3,162	284	
1990 March	29	112	50,655	748	49,907	151	11,500	18,985	15,627	—	3,226	418	
June	30	188	51,861	1,213	50,648	154	11,236	19,129	16,499	—	3,213	417	
Sep.	30	133	52,322	935	51,387	155	11,186	19,617	16,748	—	3,269	412	
Dec.	30	41	54,497	928	53,569	159	10,925	18,941	19,831	—	3,304	409	
1991 March	6 27		54,772	1,453	53,319	122	10,720	18,219	20,420	—	3,362	476	
June	27		55,584	2,034	53,550	123	10,709	18,329	20,542	—	3,372	475	
Sep. p	27		57,331	1,769	55,562	126	10,977	20,463	20,010	—	3,508	478	

* Source: Federal Supervisory Office for Insurance Enterprises. — 1 Cash balances, balances with the Bundesbank, postal giro account balances and balances on current accounts with banks. Since 1991 those data have only been enquired about as at the reporting date at the end of the year. — 2 At fixed period or notice of one month or more. — 3 Excluding Debt Register claims; see footnote 4. — 4 Including other Debt Register claims which used to be included in "Securities". — 5 Including transport

insurance enterprises. — 6 Changes in the range of reporting insurance enterprises owing to the reorganisation of statistical reporting methods; from January 1, 1991 all insurance companies with an investment portfolio of more than DM 3 million have submitted statistical reports (formerly reporting requirements depended on the accounting method). — p Provisional.

8. Investment companies' sales receipts

Period	Total	Domestic investment funds open to the general public				Domestic special-ised investment funds (securities-based and open-end real estate funds)	Net acquisition of foreign investment fund units by residents
		Total	Securities-based funds		Open-end real estate funds		
			Share-based funds 1	Bond-based funds			
1981	31	— 2,530	— 1,105	— 1,339	— 86	2,553	7
1982	4,743	998	— 672	1,335	335	3,809	63
1983	7,559	3,815	574	1,719	1,522	3,706	38
1984	8,691	4,166	— 1,128	4,536	758	4,590	65
1985	15,548	8,281	— 957	8,489	749	7,360	91
1986	25,138	12,935	— 530	12,142	1,323	12,291	89
1987	32,218	14,757	755	10,977	3,025	17,068	393
1988	49,415	20,724	594	17,937	2,193	15,634	13,057
1989	39,567	16,435	1	15,942	492	16,839	6,292
1990	25,637	7,904	3,393	4,639	— 128	18,953	— 1,219
1989 Nov.	3,634	2,143	52	2,070	21	1,343	148
Dec.	4,101	852	— 124	1,004	— 28	3,004	245
1990 Jan.	3,797	1,432	332	760	340	2,539	— 174
Feb.	3,385	1,724	230	1,516	— 22	2,011	— 350
March	2,071	352	94	322	— 64	1,547	172
April	1,722	361	253	110	— 2	1,356	5
May	873	52	198	— 44	— 102	782	39
June	665	— 1	92	— 85	— 8	653	13
July	910	5	101	23	— 119	923	— 18
Aug.	2,544	791	592	253	— 54	1,918	— 165
Sep.	1,287	450	189	255	6	1,066	— 229
Oct.	1,695	614	505	166	— 57	1,078	3
Nov.	3,206	1,617	460	1,181	— 24	1,704	— 115
Dec.	3,482	507	347	182	— 22	3,376	— 401
1991 Jan.	3,535	356	187	— 292	462	2,505	674
Feb.	4,174	1,584	352	1,043	189	1,954	636
March	5,131	2,243	1,462	690	92	1,862	1,026
April	3,363	1,381	28	1,234	120	1,269	713
May	4,344	1,117	150	924	44	2,405	822
June	3,884	1,930	40	1,707	182	698	1,256
July	5,208	180	108	— 97	169	2,958	2,070
Aug.	3,620	493	116	196	182	1,272	1,855
Sep.	3,279	195	5	— 6	197	1,608	1,476
Oct.	3,819	1,096	229	728	139	1,364	1,359
Nov.	4,897	1,901	384	1,393	124	1,864	1,132

1 Including mixed funds, which hold bonds among their assets as well as shares. Discrepancies in the totals are due to rounding.

VII. Public finance

1. Finances of the public sector *

DM billion

Period	Central, regional and local authorities 1									Social security funds 2			Public sector, total 3			
	Receipts			Expenditure						Balance of receipts and expenditure	Re-ceipts 6	Ex-pend-iture	Balance of receipts and expenditure	Re-ceipts	Ex-pend-iture	Balance of receipts and expenditure
	Total	of which Taxes	Total 4	of which												
				Person-nel ex-pend-iture	Other operat-ing ex-pend-iture	Current grants	Interest paid	Capital forma-tion	Financial aid 5							
1970 7	188.3	154.2	196.3	61.5	31.7	49.3	6.9	32.3	15.3	- 8.0	91.1	86.2	+ 4.9	267.4	270.6	- 3.2
1975	297.2	242.1	361.5	119.0	51.9	105.2	14.8	47.8	22.5	- 64.3	189.5	192.3	- 2.8	459.6	526.7	- 67.1
1980	452.7	365.0	510.1	164.0	76.5	142.1	29.7	62.4	35.4	- 57.4	275.2	271.6	+ 3.6	690.4	744.2	- 53.7
1983	515.2	396.6	570.5	183.9	89.0	158.1	51.4	50.4	37.7	- 55.3	315.7	316.9	- 1.2	791.9	848.4	- 56.4
1984	538.5	414.7	584.9	186.7	93.2	160.8	53.6	49.4	41.0	- 46.3	328.2	331.1	- 2.8	828.1	877.3	- 49.2
1985	565.0	437.2	604.3	193.6	97.3	165.5	56.0	52.0	39.4	- 39.3	343.6	341.7	+ 1.9	868.5	905.9	- 37.4
1986	587.8	452.4	629.9	202.5	100.6	172.6	57.8	55.6	40.2	- 42.1	360.0	353.9	+ 6.1	907.0	943.0	- 36.0
1987	602.0	468.7	653.0	211.1	103.4	182.4	58.6	57.2	39.9	- 51.0	374.2	370.7	+ 3.5	933.7	981.3	- 47.6
1988	620.3	488.1	673.6	216.5	105.0	192.6	60.4	58.2	40.4	- 53.3	393.3	394.8	- 1.5	966.9	1 021.7	- 54.8
1989 pe	678.5	535.5	699.5	222.0	111.0	201.5	61.0	61.5	41.0	- 21.0	413.5	400.0	+ 13.5	1 042.5	1 050.0	- 7.5
1990 pe	702.0	549.5	748.5	234.5	119.5	214.0	65.0	66.5	47.5	- 46.5	441.0	424.5	+ 16.5	1 091.0	1 121.0	- 30.0
1989 1st qtr	145.9	124.3	155.7	45.3	22.3	52.4	18.2	9.1	8.7	- 9.8	98.1	98.7	- 0.6	229.9	240.3	- 10.4
2nd qtr	159.3	127.1	156.1	45.5	22.4	51.7	14.0	12.1	10.0	+ 3.2	100.7	98.9	+ 1.9	246.9	241.9	+ 5.0
3rd qtr	157.4	133.8	156.5	45.8	23.3	49.1	14.8	14.0	10.0	+ 0.8	102.2	99.9	+ 2.2	247.8	244.8	+ 3.1
4th qtr	178.3	150.3	193.7	58.8	29.5	54.4	13.7	20.4	16.4	- 15.4	112.3	102.3	+ 9.9	280.0	285.5	- 5.5
1990 1st qtr	150.5	127.1	165.2	47.4	23.9	55.3	18.8	10.1	10.1	- 14.7	104.9	104.0	+ 0.9	240.5	254.2	- 13.7
2nd qtr	160.1	126.2	163.3	48.3	23.8	53.3	14.7	12.9	10.1	- 3.1	108.3	105.3	+ 3.0	254.6	254.7	- 0.1
3rd qtr	164.2	138.5	176.2	48.5	24.9	58.6	16.3	15.4	12.4	- 12.0	108.7	106.1	+ 2.6	261.0	270.4	- 9.4
4th qtr pe	186.9	157.9	202.7	62.1	32.0	53.6	14.4	21.3	19.2	- 15.8	118.8	108.7	+ 10.1	295.0	300.7	- 5.6

* The budgetary definition used here differs from the methods employed for the government account of the national accounts and, in the case of the quarterly figures, in some respects also from the financial statistics. — 1 Federal Government, Länder Governments, local authorities, municipal special-purpose associations, Equalisation of Burdens Fund, ERP Special Fund, EC shares; 1990 excluding "German Unity" Fund and section B of the Federal budget. The quarterly figures, unlike the annual figures based on the annual accounts statistics of the Federal Statistical Office, do not include municipal special-purpose associations, hospitals keeping commercial accounts and various special accounts. For the receipts of Bundesbank profit see footnote 1 to Table VII, 2. — 2 Statutory pension insurance funds, Federal Labour Office, statutory health insurance and accident insurance institutions, agricultural old-age

pension funds, and supplementary pension funds for government employees. The annual figures differ from the sum of the quarterly figures, as the latter are all provisional. The quarterly figures for some fields of insurance are estimated. — 3 After adjustment for payments by the central, regional and local authorities to the social security funds. — 4 Including discrepancies in clearing transactions between the central, regional and local authorities. — 5 Expenditure on investment grants, loans and acquisition of participating interests. — 6 Including Federal Government liquidity assistance to the Federal Labour Office. — 7 Excluding municipal special-purpose associations and excluding supplementary pension funds for government employees. — pe Partly estimated.

Discrepancies in the totals are due to rounding.

2. Finances of the Federal Government, Länder Governments and local authorities *

DM billion

Period	Federal Government 1			Länder Governments 2, 3			Local authorities 3		
	Receipts	Expenditure	Balance of receipts and expenditure	Receipts	Expenditure	Balance of receipts and expenditure	Receipts	Expenditure	Balance of receipts and expenditure
1970	88.6	87.6	+ 1.0	74.0	77.1	- 3.1	50.8	56.5	- 5.7
1975	125.0	160.0	- 35.0	126.4	146.3	- 19.9	92.0	101.2	- 9.2
1980	189.9	217.6	- 27.6	186.2	208.6	- 22.4	139.9	145.6	- 5.7
1983	216.8	248.7	- 31.9	206.9	228.3	- 21.4	150.3	151.7	- 1.3
1984	225.2	253.9	- 28.6	216.1	234.3	- 18.2	155.8	154.7	+ 1.1
1985	236.7	259.4	- 22.8	226.2	243.3	- 17.1	163.6	162.9	+ 0.7
1986	240.6	263.9	- 23.3	236.4	254.1	- 17.7	170.8	172.5	- 1.7
1987	243.6	271.5	- 27.9	244.4	263.9	- 19.5	176.7	179.2	- 2.6
1988	242.2	278.2	- 36.0	253.7	270.1	- 16.3	185.1	184.4	+ 0.6
1989 pe	278.0	293.0	- 15.0	275.0	282.5	- 7.5	196.5	194.5	+ 2.0
1990 pe	290.0	311.0	- 21.0	280.5	300.0	- 19.5	206.0	209.5	- 3.5
1989 1st qtr	60.2	71.0	- 10.9	60.6	61.7	- 1.1	35.3	37.4	- 2.1
2nd qtr	1 73.2	70.6	+ 2.6	61.9	62.7	- 0.8	41.5	39.9	+ 1.6
3rd qtr	66.0	69.4	- 3.4	64.9	62.9	+ 2.0	42.7	41.1	+ 1.6
4th qtr	78.1	81.4	- 3.4	74.6	82.1	- 7.5	53.3	52.2	+ 1.1
1990 1st qtr	61.2	76.2	- 15.0	62.1	65.2	- 3.2	39.4	40.4	- 1.0
2nd qtr	1 73.6	72.0	+ 1.7	61.6	65.8	- 4.2	42.3	42.8	- 0.4
3rd qtr	71.1	80.5	- 9.4	65.9	67.7	- 1.9	45.0	45.3	- 0.2
4th qtr pe	84.2	82.4	+ 1.8	77.1	87.3	- 10.2	53.6	55.5	- 1.9

* See corresponding footnote to Table VII, 1. — 1 In this table the Bundesbank profit transfer is shown in full as Federal Government receipts. The Federal Government, by contrast, has shown only the scheduled amount of the Bundesbank profit as receipts in its budget from 1989 (receipts over and above the scheduled amount are used to repay due debt). — 2 Including Berlin, Bremen, Hamburg. — 3 The quarterly figures,

unlike the annual figures based on the annual accounts statistics of the Federal Statistical Office, do not include hospitals keeping commercial accounts and various special accounts. — pe Partly estimated.

Discrepancies in the totals are due to rounding.

3. Federal finance on a cash basis

DM billion												
Period	Cash receipts 1	Cash expenditure 1, 2	Cash surplus (+) or deficit (—)	Financing 3						Items in course of settlement (e)	Seigniorage (f)	Cash surplus (+) or deficit (—), cumulative from beginning of year
				Change								
				in cash resources 4 (a)	in Bundesbank advances (b)	in market debt (c)	in liabilities arising from investment assistance levy (d)					
1970	86.47	87.04	— 0.56	+ 1.74	+ 0.12	+ 1.84	—	—	0.03	0.38	— 0.56	
1975	130.14	164.19	— 34.05	+ 3.13	— 1.08	+ 37.44	—	+ 0.01	0.80	— 34.05		
1980	199.50	228.26	— 28.76	— 1.45	+ 1.34	+ 25.46	—	+ 0.04	0.48	— 28.76		
1985	257.54	280.45	— 22.90	+ 0.74	— 1.77	+ 27.35	— 0.52	— 1.76	0.34	— 22.90		
1986	266.01	289.51	— 23.50	— 0.75	+ 2.01	+ 21.04	— 0.02	— 0.60	0.32	— 23.50		
1987	270.68	296.10	— 25.42	+ 3.47	— 2.01	+ 27.10	— 0.00	+ 3.39	0.42	— 25.42		
1988	274.29	310.71	— 36.42	— 1.16	—	+ 34.69	— 0.00	—	0.56	— 36.42		
1989	306.52	320.27	— 13.74	+ 2.43	—	+ 15.37	— 0.00	—	0.80	— 13.74		
1990	332.99	368.85	— 35.86	+ 8.27	—	+ 51.65	— 0.00	— 8.82	1.31	— 35.86		
1990 Oct.	25.33	34.27	— 8.94	+ 2.51	—	+ 11.28	— 0.00	—	0.18	— 27.99		
Nov.	26.22	42.24	— 16.02	— 8.66	—	+ 7.23	— 0.00	—	0.13	— 44.01		
Dec.	43.03	34.88	+ 8.15	+ 5.59	—	+ 8.63	— 0.00	— 11.34	0.15	— 35.86		
1991 Jan.	23.82	37.12	— 13.30	+ 5.04	—	+ 9.41	— 0.00	+ 8.82	0.10	— 13.30		
Feb.	31.58	35.16	— 3.58	— 4.16	—	+ 2.77	— 0.00	— 3.46	0.11	— 16.88		
March	33.54	43.60	— 10.06	— 10.26	—	— 3.17	— 0.00	+ 2.84	0.13	— 26.94		
April	36.38	37.75	— 1.37	— 3.57	—	— 2.93	— 0.00	+ 0.62	0.10	— 28.31		
May	27.18	33.30	— 6.12	+ 6.72	—	+ 12.76	— 0.00	—	0.08	— 34.43		
June	36.06	32.76	+ 3.29	+ 0.94	—	— 2.43	— 0.00	—	0.07	— 31.13		
July	33.08	38.79	— 5.71	— 3.22	—	+ 2.41	— 0.00	—	0.08	— 36.84		
Aug.	31.86	36.53	— 4.67	— 4.80	—	— 0.19	— 0.00	—	0.06	— 41.51		
Sep.	40.56	39.01	+ 1.55	+ 0.01	—	— 1.69	— 0.00	—	0.15	— 39.96		
Oct.	29.34	36.40	— 7.05	— 1.65	+ 1.77	+ 3.56	— 0.00	—	0.07	— 47.01		
Nov. p	28.01	35.06	— 7.05	+ 4.17	— 1.77	+ 12.92	— 0.00	—	0.07	— 54.06		

1 The cash transactions recorded as cash receipts and cash expenditure comprise payments into and out of the accounts carried by the Bundesbank for the Federal Government. The cash receipts and cash expenditure differ from those shown in the official financial statistics primarily because they are recorded not at the time they are entered in the budgetary accounts but at the time of the actual receipt or outpayment,

and because transactions on behalf of the European Communities (which are entered not in the Federal budget but in appendices thereto) are conducted through the accounts of the Federal Government. — 2 Including small amounts of special transactions. — 3 Cash balance = column (a) less (b) less (c) less (d) less (e) less (f). — 4 Deposits at the Bundesbank and other credit balances. — p Provisional.

4. Tax revenue of the central, regional and local authorities

DM million									
Period	Total	Federal and Länder Governments and European Communities					Local authorities 4		Balance of untransferred tax shares 5
		Total 1	Federal Government	Länder Governments		European Communities 3	Total	of which in the new Länder	
				Total	of which New Länder 2				
1970	8 154,245	135,660	83,597	50,482	—	—	18,240	—	+ 237
1975	242,068	208,747	120,012	81,560	—	5,933	33,273	—	+ 49
1980	364,991	313,711	177,543	125,474	—	10,619	51,203	—	+ 78
1985	437,201	375,642	207,930	152,516	—	15,193	61,469	—	+ 91
1988	488,097	419,303	222,672	172,964	—	23,667	68,862	—	— 69
1989	535,526	461,796	249,786	189,214	—	22,795	73,620	—	+ 111
1990 6, p	549,667	474,482	261,832	191,266	—	21,384	74,447	—	+ 738
1990 1st qtr	127,088	107,861	57,267	45,221	—	5,373	13,332	—	+ 5,894
2nd qtr	126,167	108,461	58,901	44,040	—	5,519	18,051	—	— 345
3rd qtr	138,519	119,187	66,334	47,904	—	4,949	18,749	—	+ 583
4th qtr 6, p	157,894	138,973	79,329	54,102	—	5,542	24,315	—	— 5,394
1990 July	·	36,917	20,892	14,256	·	1,769	·	·	·
Aug.	·	36,090	20,383	14,355	·	1,353	·	·	·
Sep.	·	46,179	25,059	19,293	·	1,827	·	·	·
Oct. 6	·	33,948	19,396	12,793	·	1,759	·	·	·
Nov. 6	·	35,761	19,834	14,063	·	1,864	·	·	·
Dec. 6	·	69,265	40,099	27,246	·	1,919	·	·	·
1991 1st qtr 7	·	124,556	66,708	50,530	4,019	7,318	·	·	·
2nd qtr	·	132,122	71,842	52,737	4,658	7,543	·	·	·
3rd qtr	·	148,118	82,895	57,602	5,255	7,620	·	·	·

1 Including receipts from the Equalisation of Burdens levies which were charged until the end of the seventies (receipts 1970: DM 1,582 million, 1975: DM 1,241 million, 1980: DM 75 million). — 2 After taking account of the distribution of the Länder Governments' share in all-german turnover tax revenue on the basis of the number of inhabitants in the old and new Länder. — 3 Including the (GNP-related) receipts accruing to the EC from 1988 to the detriment of the Federal Government's tax revenue. — 4 Including local authority taxes of Berlin, Bremen and Hamburg. — 5 Difference be-

tween the local authorities' share in the income taxes received by the Länder cash offices in the period in question (see Table VII, 5) and the amounts passed on to the local authorities during the same period. — 6 Excluding the tax revenue of the former GDR. — 7 Including the tax revenue in the new Länder; the figures for the whole of Germany for the first quarter 1991 have not been broken down by month. — 8 Excluding anticyclical surcharge; including DM 109 million of levies on defence imports. — p Provisional.

VII. Public finance

7. Indebtedness of the public sector* (cont'd)

DM million

End of month	Total	Bundesbank advances	Treasury discount paper	Treasury notes 1	5-year special Federal bonds 1	Federal savings bonds	Bonds 1	Direct lending by banks 2	Loans from non-banks		Old debt		Liabilities arising from the investment assistance levy
									Social security funds 3	Other 2	Equalisation claims 4	Other 5	
Länder Governments 11													
1970 Dec.	27,786	311	12 50	210	—	—	5,794	10,817	617	2,181	7,726	80	—
1975 Dec.	67,001	361	12 723	533	—	—	10,764	42,271	4,397	1,019	6,893	40	—
1980 Dec. 7	137,804	1,101	—	300	—	—	11,241	112,989	3,608	2,648	5,915	2	—
1985 Dec.	247,411	179	595	10,250	—	—	17,131	204,079	2,319	8,068	4,790	2	—
1986 Dec.	264,351	936	141	10,059	—	—	24,022	215,086	1,942	7,622	4,542	2	—
1987 Dec.	284,609	808	230	8,481	—	—	28,254	232,153	1,637	8,759	4,286	2	—
1988 Dec.	302,560	1,010	186	6,962	—	—	28,546	251,709	1,468	8,656	4,021	2	—
1989 Dec.	309,860	1,053	331	7,082	—	—	29,148	258,159	1,440	8,898	3,748	2	—
1990 Sep.	317,156	1,019	331	8,127	—	—	28,340	265,747	1,258	8,711	3,623	2	—
Dec. p	328,474	742	—	11,329	—	—	28,344	273,367	1,431	9,793	3,466	2	—
1991 March p	328,386	94	—	11,654	—	—	28,348	273,239	1,784	9,801	3,466	2	—
June p	332,695	80	—	12,144	—	—	28,359	277,171	1,795	9,798	3,348	2	—
Sep. pe	334,354	356	—	12,654	—	—	28,359	278,135	1,712	9,527	3,609	2	—
Local authorities 11, 13													
1970 Dec.	40,295	—	—	—	—	—	702	32,324	984	6,260	—	26	—
1975 Dec.	74,411	—	—	—	—	—	475	67,183	4,294	2,458	—	1	—
1980 Dec.	95,208	—	—	—	—	—	232	88,726	4,445	1,805	—	0	—
1985 Dec.	113,738	—	—	—	—	—	180	107,404	4,516	1,638	—	0	—
1986 Dec.	114,811	—	—	—	—	—	160	108,704	4,313	1,634	—	0	—
1987 Dec.	117,818	—	—	—	—	—	150	111,912	4,153	1,603	—	0	—
1988 Dec.	119,316	—	—	—	—	—	150	113,582	4,071	1,513	—	—	—
1989 Dec.	121,374	—	—	—	—	—	150	115,615	3,904	1,705	—	—	—
1990 Sep.	123,200	—	—	—	—	—	150	117,500	3,860	1,690	—	—	—
Dec. pe	124,900	—	—	—	—	—	150	119,200	3,860	1,690	—	—	—
1991 March	125,700	—	—	—	—	—	150	120,000	3,860	1,690	—	—	—
June	127,400	—	—	—	—	—	150	121,700	3,860	1,690	—	—	—
Sep. p	128,400	—	—	—	—	—	150	122,700	3,860	1,690	—	—	—

* Excluding public authorities' mutual indebtedness. — 1 Excluding bonds in the issuers' portfolios. — 2 Mainly loans against borrowers' notes. Including loans raised abroad. — 3 Including Debt Register claims and special Federal paper. — 4 Up to 1982 including covering claims. — 5 Commutation and compensation debt, and old debt mainly expressed in foreign currency, in accordance with the London Debts Agreement; excluding bonds in own portfolios. — 6 In this table (unlike Table VII, 10) the German Public Works Corporation and the Equalisation of Burdens Fund have been included in the Federal Government debt from 1970, and not from 1972 and 1980, respectively. — 7 From 1978 including net borrowing for the Housing Promotion Institu-

tion of the Land of North Rhine-Westphalia. — 8 Including DM 387 million of special Bundesbank credit to the Federal Government. — 9 Including bonds taken over from the Federal Railways (March 1991 level: DM 11,772 million). — 10 Including the provisional level of indebtedness of the former GDR. — 11 Only in the former territory of the Federal Republic of Germany. — 12 In 1970 and 1975 including small amounts of tax reserve certificates. — 13 Data other than end-of-year figures have been estimated. Including indebtedness of municipal special-purpose associations (from 1975) and municipal hospitals. — p Provisional. — pe Partly estimated.

8. Equalisation claims*

DM million

Item	Total	Bundesbank	Banks 1	Insurance enterprises	Building and loan associations
I. Origin					
(1) Amount of equalisation claims allocated 2	22,229	5 8,683	7,615	5,865	66
(2) Scheduled and additional redemptions up to end of December 1990	8,716	—	4,720	3,951	45
(3) Amount of equalisation claims at end of December 1990	13,513	8,683	2,895	1,914	21
of which Held by the Fund for the Purchase of Equalisation Claims 3	2,183	—	1,256	916	11
II. Breakdown by debtor and type of interest					
(1) Breakdown by debtor					
(a) Federal Government	10,046	8,683	340	1,023	—
(b) Länder Governments	3,467	—	2,555	891	21
(2) Breakdown by type of interest					
(a) Non-interest-bearing equalisation claims	—	—	—	—	—
(b) 3% equalisation claims	10,938	6 8,136	2,802	—	—
(c) 3 ½% equalisation claims	1,934	—	3	1,910	21
(d) 4 ½% equalisation claims	90	—	90	—	—
(e) 3% special equalisation claims	4	—	—	4	—
(f) Non-interest-bearing debt certificate 4	547	547	—	—	—
(3) Total (1a plus 1b = 2a to 2f)	13,513	8,683	2,895	1,914	21

* Owing to differences in method, these figures may deviate from those given in Tables VII, 7, 9 and 10. — 1 Including equalisation claims for postal giro and postal savings bank offices. — 2 Including rights to equalisation claims which are already being serviced, i.e. are attracting interest and being redeemed, although they have not yet been inscribed in the Debt Registers. — 3 In accordance with section 8 ff. of the

Act on the Redemption of Equalisation Claims dated July 30, 1965. — 4 Non-interest-bearing debt certificate for providing Berlin (West) with funds. — 5 According to the Weekly Return of the Bundesbank as of December 31, 1990. — 6 In accordance with the Act Accompanying the Budget of 1983, article 9, bearing interest at the rate of only 1% from January 1, 1983.

VIII. General economic conditions – western Germany

1. Origin, distribution and expenditure of national product

Item	1986	1987	1988	1989 p	1990 p	1st half 1991 p	1988	1989 p	1990 p	1st half 1991 p	1988	1989 p	1990 p
	DM billion						Change from previous year in %				Percentage of total		
I. Origin of national product													
at current prices													
Gross value added													
Agriculture, forestry and fisheries	34.0	30.2	33.7	38.0	38.4	6.4	+ 11.5	+ 12.6	+ 1.0	-35.3	1.6	1.7	1.6
Producing sector	786.5	795.0	826.8	873.7	942.2	489.7	+ 4.0	+ 5.7	+ 7.8	+ 6.6	39.2	38.9	38.8
Energy supply, 1 mining	65.9	68.7	67.8	69.7	71.6	36.9	- 1.2	+ 2.8	+ 2.8	+ 0.6	3.2	3.1	3.0
Manufacturing	620.4	624.7	652.7	689.6	740.7	385.3	+ 4.5	+ 5.7	+ 7.4	+ 6.7	31.0	30.7	30.5
Construction	100.1	101.7	106.3	114.3	129.8	67.6	+ 4.5	+ 7.6	+13.5	+ 9.7	5.0	5.1	5.4
Distribution, transportation 2	269.6	279.5	294.7	311.1	333.3	173.7	+ 5.4	+ 5.6	+ 7.2	+ 9.1	14.0	13.9	13.7
Services 3	520.5	548.6	592.8	633.3	694.8	372.4	+ 8.1	+ 6.8	+ 9.7	+ 9.8	28.1	28.2	28.6
All enterprises	1,610.5	1,653.4	1,748.0	1,856.0	2,008.6	1,042.2	+ 5.7	+ 6.2	+ 8.2	+ 7.7	82.9	82.7	82.8
do. adjusted 4	1,526.9	1,571.1	1,662.8	1,767.6	1,914.3	991.7	+ 5.8	+ 6.3	+ 8.3	+ 7.6	78.9	78.7	78.9
Government	217.1	225.8	231.9	238.5	252.8	125.2	+ 2.7	+ 2.8	+ 6.0	+ 6.9	11.0	10.6	10.4
Households 5	46.4	49.3	51.7	53.9	58.4	29.4	+ 4.8	+ 4.4	+ 8.2	+10.3	2.5	2.4	2.4
All sectors	1,790.4	1,846.2	1,946.4	2,060.0	2,225.5	1,146.2	+ 5.4	+ 5.8	+ 8.0	+ 7.6	92.3	91.7	91.8
Gross domestic product 6	1,925.3	1,990.5	2,096.0	2,220.9	2,404.5	1,246.8	+ 5.3	+ 6.0	+ 8.3	+ 8.7	99.4	98.9	99.1
Net factor incomes from abroad	+ 10.8	+ 12.5	+ 12.0	+ 24.3	+ 21.0	+ 9.8	.	.	.	.	0.6	1.1	0.9
Gross national product at market prices	1,936.1	2,003.0	2,108.0	2,245.2	2,425.5	1,256.6	+ 5.2	+ 6.5	+ 8.0	+ 8.7	100	100	100
II. Distribution of national product													
Wage and salary income 7	1,079.5	1,124.7	1,169.4	1,221.9	1,313.9	661.5	+ 4.0	+ 4.5	+ 7.5	+ 8.1	55.5	54.4	54.2
Entrepreneurial and property income	418.1	425.3	466.2	512.4	557.5	298.0	+ 9.6	+ 9.9	+ 8.8	+ 6.5	22.1	22.8	23.0
National income	1,497.6	1,550.0	1,635.5	1,734.3	1,871.5	959.5	+ 5.5	+ 6.0	+ 7.9	+ 7.6	77.6	77.2	77.2
III. Expenditure of national product													
Private consumption	1,066.4	1,108.0	1,153.7	1,209.6	1,299.2	666.7	+ 4.1	+ 4.8	+ 7.4	+ 6.6	54.7	53.9	53.6
Government consumption	382.6	397.3	412.4	418.8	443.1	216.0	+ 3.8	+ 1.6	+ 5.8	+ 4.2	19.6	18.7	18.3
Machinery and equipment	160.9	169.4	182.5	204.9	234.5	122.4	+ 7.7	+ 12.3	+14.5	+14.2	8.7	9.1	9.7
Construction	212.6	216.4	227.4	246.5	275.0	143.6	+ 5.1	+ 8.4	+11.5	+ 9.7	10.8	11.0	11.3
Increase in stocks	+ 2.9	- 0.6	+ 10.3	+ 20.7	+ 19.5	+ 22.6	.	.	.	.	0.5	0.9	0.8
Domestic expenditure	1,825.4	1,890.5	1,986.3	2,100.5	2,271.3	1,171.3	+ 5.1	+ 5.7	+ 8.1	+ 8.0	94.2	93.6	93.6
Foreign balance 8	+ 110.7	+ 112.5	+ 121.7	+ 144.7	+ 154.2	+ 85.3	.	.	.	.	5.8	6.4	6.4
Exports	637.0	637.5	687.9	787.9	872.9	489.9	+ 7.9	+ 14.5	+10.8	+17.7	32.6	35.1	36.0
Imports	526.3	525.0	566.1	643.2	718.7	404.6	+ 7.8	+ 13.6	+11.7	+17.5	26.9	28.6	29.6
Gross national product at market prices	1,936.1	2,003.0	2,108.0	2,245.2	2,425.5	1,256.6	+ 5.2	+ 6.5	+ 8.0	+ 8.7	100	100	100
at 1985 prices													
Private consumption	1,072.0	1,106.9	1,137.0	1,156.7	1,211.1	607.2	+ 2.7	+ 1.7	+ 4.7	+ 3.5	57.7	56.5	56.6
Government consumption	375.0	380.9	389.1	382.6	390.5	191.1	+ 2.2	- 1.7	+ 2.1	- 0.3	19.7	18.7	18.3
Machinery and equipment	159.5	167.3	178.3	195.7	220.9	113.8	+ 6.6	+ 9.8	+12.9	+12.4	9.0	9.6	10.3
Construction	209.0	209.0	215.4	225.7	237.7	117.8	+ 3.1	+ 4.8	+ 5.3	+ 2.6	10.9	11.0	11.1
Increase in stocks	+ 2.7	+ 1.0	+ 12.0	+ 21.9	+ 22.5	+ 24.5	.	.	.	.	0.6	1.1	1.1
Domestic expenditure	1,818.2	1,865.0	1,931.8	1,982.6	2,082.7	1,054.4	+ 3.6	+ 2.6	+ 5.0	+ 4.2	98.0	96.9	97.4
Foreign balance 8	+ 56.2	+ 37.4	+ 40.0	+ 64.2	+ 56.0	+ 30.4	.	.	.	.	2.0	3.1	2.6
Exports	645.2	651.3	689.6	768.3	844.0	467.7	+ 5.9	+ 11.4	+ 9.9	+15.4	35.0	37.5	39.5
Imports	589.1	614.0	649.6	704.1	788.1	437.3	+ 5.8	+ 8.4	+11.9	+15.4	32.9	34.4	36.8
Gross national product at market prices	1,874.4	1,902.3	1,971.8	2,046.8	2,138.7	1,084.8	+ 3.7	+ 3.8	+ 4.5	+ 4.5	100	100	100

Source: Federal Statistical Office. — 1 Including water supply. — 2 Including telecommunications. — 3 Banks, insurance enterprises, letting of dwellings and other services. — 4 Enterprises' gross value added less imputed remuneration for bank services. — 5 Including private non-profit organisations. — 6 Gross value added by all economic sectors plus turnover tax receipts and turnover tax withheld because of statutory special regulations and import levies (import duties, excise taxes on imports,

price adjustment levies and monetary compensatory amounts on imports of agricultural products). — 7 Including employers' contributions to social security funds and other social security expenditure by employers (inter alia on company old-age pension schemes). — 8 Including transactions in goods and services with the former GDR of the new Länder. — p Provisional. Discrepancies in the totals are due to rounding.

5. Orders received by construction, and housing finance

Period	Orders received by construction 1							Orders on hand 1, 4 in construction		Estimated cost 5 of approved buildings		Capital promised for residential building 7	
	Total		Building				Civil engineering 1985 = 100	1985 = 100	Change from previous year in %	DM million 6	Change from previous year in %	DM million	Change from previous year in %
	1985 = 100	Change from previous year in %	1985 = 100	Residential building	Industrial building 2	Public building 3							
1985 average	100.0	- 1.8	100.0	100.0	100.0	100.0	100.0	- 6.5	6,371	-11.3	8,673	+ 1.9	
1986 "	109.1	+ 9.1	107.5	95.0	117.6	109.1	111.2	+ 5.7	6,551	+ 2.8	8,693	+ 0.2	
1987 "	106.2	- 2.7	105.7	89.4	117.0	111.7	106.7	+ 0.8	6,421	- 2.0	8,479	- 2.5	
1988 "	116.0	+ 9.2	118.2	100.0	138.5	107.3	113.1	+ 2.6	7,354	+14.5	8,565	+ 1.0	
1989 "	132.2	+14.0	135.9	116.0	162.7	113.9	127.1	+ 9.1	8,360	+13.7	8,845	+ 3.3	
1990 "	152.1	+15.1	160.6	145.6	192.0	119.3	140.2	+18.6	10,316	+23.4	8,801	- 0.5	
1990 Aug.	155.0	+ 9.0	161.2	144.7	200.6	104.8	146.3		10,805	+26.4	8,815	+ 4.6	
Sep.	165.0	+ 8.6	170.5	157.7	192.3	146.4	157.3	145.2	10,449	+22.0	8,076	-10.9	
Oct.	162.0	+17.9	167.9	153.6	200.5	122.8	153.7		10,678	+19.4	8,808	-14.1	
Nov.	139.9	+17.6	158.4	152.4	189.7	100.1	114.1		10,752	+30.4	8,095	- 9.0	
Dec.	144.6	+12.3	158.8	141.0	188.8	125.6	125.0	142.6	10,931	+15.6	11,705	- 1.5	
1991 Jan.	118.8	+ 5.4	137.5	112.4	179.6	91.7	92.9		9,688	+12.8	7,331	- 4.7	
Feb.	128.9	+ 1.3	140.4	132.3	170.5	88.7	113.0		9,093	+16.2	8,228	- 6.9	
March	184.8	+ 4.1	187.2	184.3	219.4	121.3	181.5	158.3	10,233	- 3.3	9,482	- 8.4	
April	165.5	+ 8.6	173.3	163.7	207.7	114.8	154.6		11,534	+16.5	10,629	+26.9	
May	168.8	+ 9.5	178.7	160.6	218.2	125.3	155.0		10,453	- 1.5	9,356	+17.1	
June	201.2	+12.5	208.6	193.3	242.5	162.6	190.9	166.2	11,965	+ 8.6	11,012	+41.6	
July	177.6	+14.3	181.1	163.2	220.7	127.1	172.7		12,726	+ 9.3	13,289	+46.2	
Aug.	175.2	+13.0	183.5	168.0	224.1	122.9	163.6		11,927	+10.4	11,493	+30.4	
Sep.	208.0	+26.1	212.9	199.9	259.8	133.6	201.2	170.1	10,511	+ 0.6	9,953	+23.2	
Oct.	175.4	+ 8.3	184.7	183.5	212.1	126.0	162.5		...	...	11,702	+32.9

Source: Federal Statistical Office; banking associations. — 1 Excluding value-added tax. — 2 Including Federal Railways and Federal Post Office. — 3 Excluding Federal Railways and Federal Post Office. — 4 End of quarter. — 5 Including value-added tax. — 6 Annual figures are ascertained separately and differ slightly from the aggregated

monthly figures. — 7 Loans promised by savings banks, regional giro institutions, public and private mortgage banks and building and loan associations for new housing construction, for the modernisation and upkeep of older flats, for the purchase of flats and residential buildings, as well as for the rescheduling of debts.

6. Retail turnover *

Period	Total			of which									
	Total			Enterprises 2 mainly dealing in									
	Total			food, drink and tobacco		textiles, clothing, footwear, leather goods		household furniture and appliances 3		vehicles 4		Department stores	
	1986 = 100	Change from previous year in % not adjusted	price-adjusted 1	1986 = 100	Change from previous year in %	1986 = 100	Change from previous year in %	1986 = 100	Change from previous year in %	1986 = 100	Change from previous year in %	1986 = 100	Change from previous year in %
1985 average	97.1	+ 2.4	+ 0.7	98.1	+ 1.6	96.3	+ 3.8	96.4	- 0.7	87.7	+ 3.3	97.6	+ 0.6
1986 "	100.0	+ 3.0	+ 3.5	100.0	+ 1.9	100.0	+ 3.8	100.0	+ 3.7	100.0	+14.0	100.0	+ 2.5
1987 "	104.2	+ 4.2	+ 3.8	102.0	+ 2.0	102.9	+ 2.9	107.4	+ 7.4	109.0	+ 9.0	99.4	- 0.6
1988 "	108.3	+ 3.9	+ 3.4	106.1	+ 4.0	103.1	+ 0.2	115.2	+ 7.3	114.8	+ 5.3	101.2	+ 1.8
1989 "	113.5	+ 4.8	+ 2.2	111.5	+ 5.1	104.7	+ 1.6	122.3	+ 6.2	125.1	+ 9.0	102.9	+ 1.7
1990 " p, r	125.6	+10.7	+ 8.2	120.7	+ 8.3	114.8	+ 9.6	135.5	+10.8	147.0	+17.5	110.4	+ 7.3
1990 p, r Oct.	136.7	+16.0	+12.3	123.5	+10.7	135.4	+11.4	150.9	+15.0	164.3	+30.5	106.8	+10.4
Nov.	142.0	+13.2	+10.0	126.6	+ 7.4	139.5	+ 9.8	165.9	+15.4	155.5	+27.7	137.2	+ 4.3
Dec.	157.5	+ 8.3	+ 6.0	140.5	+ 3.5	158.5	+12.6	192.3	+ 6.0	140.4	+19.3	185.9	+ 7.2
1991 p, r Jan.	125.6	+17.2	+13.9	115.4	+ 7.3	109.4	+13.7	130.8	+14.3	155.6	+38.6	122.8	+ 5.8
Feb.	117.9	+12.9	+ 9.9	109.0	+ 4.4	93.3	+ 8.5	126.3	+10.8	156.0	+27.2	92.6	+ 5.7
March	142.1	+11.6	+ 9.0	127.3	+ 3.5	132.1	+13.8	144.6	+ 6.5	204.2	+26.0	108.5	+ 8.8
April	138.4	+15.2	+12.1	118.7	+ 0.1	123.5	+13.1	143.3	+16.3	209.3	+40.5	96.7	+ 2.0
May	135.9	+ 9.0	+ 6.4	125.3	+ 2.4	114.1	- 0.9	138.1	+10.0	195.5	+23.3	97.9	+ 5.7
June	132.7	+14.2	+10.8	119.6	+ 0.1	107.2	+15.3	137.4	+14.3	199.6	+36.3	95.4	+ 8.9
July	140.6	+11.4	+ 6.4	127.0	+ 4.4	120.0	+14.8	142.4	+10.8	216.1	+26.1	117.6	+ 3.2
Aug.	124.1	+ 0.4	- 2.3	124.5	- 1.1	105.6	+ 5.7	129.3	+ 3.5	132.7	-10.0	103.0	- 1.4
Sep.	124.1	+ 2.2	- 0.5	115.4	+ 1.1	118.9	- 4.1	133.7	+ 2.9	137.1	+ 2.0	93.6	- 4.7
Oct.	142.3	+ 4.1	+ 1.9	126.3	+ 2.3	153.5	+13.4	156.5	+ 3.7	162.2	- 1.3	112.9	+ 5.7

Source: Federal Statistical Office. — * Including value-added tax. — 1 At 1980 prices. — 2 Excluding department stores and other enterprises not dealing mainly in

a specific field. — 3 Including electrical equipment and apparatus as well as musical instruments. — 4 Including vehicle parts and tyres. — p Provisional. — r Revised.

VIII. General economic conditions – western Germany

7. Prices

Period	Index of producer prices of industrial products in domestic sales 1					Index of producer prices of farm products 1			Indices of prices in foreign trade		Indices of unit values in foreign trade				Index of world market prices of raw materials 3, 4
	Total		of which Products of			Total		of which Vegetable products	Exports	Imports	Exports	Imports	Terms of trade 2		
	1985 = 100	Change from previous year in %	the basic and producer goods sector	the capital goods sector	the consumer goods sector	1985 = 100	Change from previous year in %								
								1985 = 100		1980 = 100					
1981 average	88.3	+ 7.8	90.4	88.0	89.4	103.3	+ 6.1	107.5	88.7	91.2	106.3	113.8	93.4	122.0	
1982 "	93.5	+ 5.9	93.8	93.0	92.9	107.0	+ 3.6	106.3	92.5	93.3	110.9	114.5	96.9	115.9	
1983 "	94.9	+ 1.5	93.4	95.5	94.5	105.4	- 1.5	108.0	94.1	93.0	112.4	114.1	98.5	106.1	
1984 "	97.6	+ 2.8	97.2	97.6	97.5	104.1	- 1.2	107.3	97.4	98.6	116.3	120.8	96.3	103.9	
1985 "	100	+ 2.5	100	100	100	100	- 3.9	100	100	100	120.8	123.9	97.5	100.0	
1986 "	97.5	- 2.5	89.1	102.1	101.0	94.3	- 5.7	98.3	98.2	84.3	116.8	104.1	112.2	72.6	
1987 "	95.1	- 2.5	86.3	103.8	101.9	91.7	- 2.8	98.9	97.3	79.8	113.8	97.8	116.4	75.7	
1988 "	96.3	+ 1.3	87.9	105.5	103.8	91.8	+ 0.1	96.0	99.3	80.8	114.8	98.7	116.3	72.7	
1989 "	99.3	+ 3.1	93.4	107.8	106.5	99.8	+ 8.7	97.4	102.1	84.4	120.0	106.0	113.2	80.1	
1990 "	101.0	+ 1.7	93.1	110.7	109.1	94.7	- 5.1	97.4	102.2	82.5	118.6	103.3	114.8	94.1	
1990 Dec.	101.5	+ 1.5	94.1	111.6	110.2	92.0	- 8.6	100.1	102.3	83.4	119.2	104.1	114.5	102.0	
1991 Jan.	102.4	+ 2.3	95.6	112.2	110.9	91.6	- 5.2	101.5	102.7	83.2	116.5	103.3	112.8	92.4	
Feb.	102.3	+ 2.2	94.5	112.5	111.2	94.4	- 2.7	104.6	102.8	82.2	117.1	103.5	113.1	79.9	
March	102.0	+ 1.8	92.5	112.9	111.3	94.7	- 3.1	106.4	103.2	82.4	117.0	103.2	113.4	79.0	
April	102.9	+ 2.2	92.4	113.7	111.5	94.2	- 4.1	108.5	103.7	83.3	117.8	105.1	112.1	80.1	
May	103.0	+ 2.2	92.1	113.9	111.8	95.9	- 2.8	111.8	103.8	83.3	117.3	104.9	111.8	80.7	
June	103.1	+ 2.3	91.8	114.2	112.0	95.4	- 3.5	111.2	103.9	83.4	118.6	106.7	111.2	77.8	
July	104.0	+ 3.3	94.2	114.5	112.4	94.1	- 4.1	108.3	103.9	83.3	118.6	108.6	109.2	80.2	
Aug.	104.0	+ 2.7	94.0	114.5	112.5	94.3	\pm 0	103.6	103.8	82.9	118.7	105.0	113.0	81.0	
Sep.	104.3	+ 2.6	94.3	114.7	112.7	96.3	+ 3.2	103.3	103.8	82.7	118.9	106.5	111.6	83.0	
Oct.	104.4	+ 2.3	94.3	115.0	112.9	p 94.8	p + 4.5	p 101.7	103.7	82.9	117.5	105.0	111.9	87.0	
Nov.	104.3	+ 2.5	93.9	115.0	112.8	p 96.7	p + 6.0	p 103.5	103.6	82.4	...	...	...	85.2
Dec.	...	...	...	...	...	...	...	...	...	...	...	...	...	77.9

Period	Overall price index for residential buildings 5		Price index for road construction 5		Cost-of-living index for all households								Cost of living excluding food		sources of energy 6	
	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %	Total		Food	Other consumer goods	Services and repairs	Rents, including garage rents	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %		
					1985 = 100	Change from previous year in %										
1981 average	91.8	+ 5.8	100.0	+ 2.7	88.0	+ 6.3	92.0	88.7	87.1	83.9	87.3	+ 6.5	87.7	+ 5.2		
1982 "	94.8	+ 3.3	97.7	- 2.3	92.6	+ 5.2	96.5	93.3	91.9	88.5	92.0	+ 5.4	92.3	+ 5.2		
1983 "	96.7	+ 2.0	96.9	- 0.8	95.7	+ 3.3	98.0	95.7	95.6	93.5	95.3	+ 3.6	95.8	+ 3.8		
1984 "	99.3	+ 2.7	98.2	+ 1.3	98.0	+ 2.4	99.8	97.8	97.9	97.0	97.6	+ 2.4	98.1	+ 2.4		
1985 "	100	+ 0.7	100	+ 1.8	100	+ 2.0	100	100	100	100	100	+ 2.5	100	+ 1.9		
1986 "	101.4	+ 1.4	102.1	+ 2.1	99.9	- 0.1	99.6	97.7	102.3	101.8	99.9	- 0.1	101.6	+ 1.6		
1987 "	103.3	+ 1.9	103.2	+ 1.1	100.1	+ 0.2	99.1	96.6	104.3	103.4	100.3	+ 0.4	102.7	+ 1.1		
1988 "	105.4	+ 2.0	104.3	+ 1.1	101.4	+ 1.3	99.1	96.9	107.2	105.6	101.7	+ 1.4	104.4	+ 1.7		
1989 "	109.1	+ 3.5	106.6	+ 2.2	104.2	+ 2.8	101.3	99.9	109.9	108.7	104.6	+ 2.9	106.8	+ 2.3		
1990 "	115.9	+ 6.2	113.2	+ 6.2	107.0	+ 2.7	104.9	102.1	112.6	112.5	107.3	+ 2.6	109.5	+ 2.5		
1991 "	...	...	...	...	110.7	+ 3.5	108.2	105.4	116.5	117.3	111.1	+ 3.5	113.0	+ 3.2
1990 Dec.	...	...	...	...	108.1	+ 2.8	104.9	103.5	113.2	114.2	108.6	+ 2.8	110.4	+ 2.6
1991 Jan.	...	...	...	...	108.8	+ 2.8	106.0	104.2	114.0	114.6	109.2	+ 2.9	110.9	+ 2.5
Feb.	121.0	+ 7.3	117.3	+ 6.6	109.1	+ 2.7	106.7	104.3	114.2	115.1	109.5	+ 2.9	111.3	+ 2.2		
March	...	...	...	...	109.0	+ 2.5	107.1	103.5	114.5	115.7	109.3	+ 2.5	111.6	+ 2.4
April	...	...	...	...	109.5	+ 2.8	108.0	104.0	115.0	116.2	109.7	+ 2.8	112.1	+ 2.7
May	124.6	+ 7.7	121.0	+ 7.0	109.9	+ 3.0	108.7	104.3	115.3	116.8	110.1	+ 3.1	112.4	+ 2.6		
June	...	...	...	...	110.5	+ 3.5	109.6	104.5	116.4	117.2	110.6	+ 3.5	113.1	+ 3.1
July	...	...	...	...	111.5	+ 4.4	109.8	106.0	117.4	117.8	111.8	+ 4.5	113.6	+ 3.6
Aug.	126.1	+ 7.7	122.4	+ 7.2	111.5	+ 4.1	108.6	106.0	117.7	118.1	111.9	+ 4.1	113.6	+ 3.7		
Sep.	...	...	...	...	111.7	+ 3.9	107.7	106.5	117.9	118.5	112.3	+ 4.0	113.7	+ 3.7
Oct.	...	...	...	...	112.0	+ 3.5	107.7	106.8	118.0	118.9	112.6	+ 3.6	114.0	+ 3.7
Nov.	...	...	...	...	112.5	+ 4.2	109.0	107.3	118.3	119.2	113.0	+ 4.1	114.5	+ 4.1
Dec.	...	...	...	...	112.6	+ 4.2	109.3	107.0	118.7	119.7	113.1	+ 4.1	114.8	+ 4.0

Source: Federal Statistical Office; for index of world market prices: Hamburgisches Welt-Wirtschafts-Archiv. — 1 Excluding value-added tax. — 2 Index of export unit values as % of the index of import unit values. — 3 Food and industrial raw materials; on a dollar basis. — 4 Rebased from original base 1975 = 100. — 5 Including value-

added tax. — 6 Mineral oil products, electricity, gas and coal as well as contributions towards the cost of central heating, warm water and district heating (calculated by the Bundesbank). — p Provisional. — o Series levels not fully comparable (some items changed in 1988; the 1980 unit values are therefore partly estimated).

8. Households' income

Period	Gross wages and salaries 1		Net wages and salaries 2		Government current transfers 3		"Mass income" 4		Disposable income 5		Private saving 6		Saving ratio 7
	DM billion	Change from previous year in %	DM billion	Change from previous year in %	DM billion	Change from previous year in %	DM billion	Change from previous year in %	DM billion	Change from previous year in %	DM billion	Change from previous year in %	%
1975	506.4	+ 3.6	376.2	+ 3.9	162.6	+25.1	538.8	+ 9.5	696.2	+10.1	112.8	+14.1	16.2
1976	543.6	+ 7.3	395.4	+ 5.1	173.3	+ 6.6	568.7	+ 5.5	739.0	+ 6.1	107.1	- 5.0	14.5
1977	583.5	+ 7.3	420.2	+ 6.3	187.0	+ 7.9	607.2	+ 6.8	786.0	+ 6.4	103.9	- 3.1	13.2
1978	623.1	+ 6.8	453.6	+ 7.9	196.7	+ 5.2	650.3	+ 7.1	837.0	+ 6.5	111.1	+ 7.0	13.3
1979	674.6	+ 8.3	494.0	+ 8.9	207.9	+ 5.7	702.0	+ 8.0	907.5	+ 8.4	126.2	+13.6	13.9
1980	733.9	+ 8.8	531.3	+ 7.5	222.8	+ 7.1	754.1	+ 7.4	975.0	+ 7.4	138.0	+ 9.3	14.2
1981	766.8	+ 4.5	553.5	+ 4.2	239.2	+ 7.3	792.7	+ 5.1	1,035.6	+ 6.2	152.1	+10.2	14.7
1982	788.4	+ 2.8	564.8	+ 2.0	250.6	+ 4.8	815.4	+ 2.9	1,064.8	+ 2.8	148.7	- 2.2	14.0
1983	803.4	+ 1.9	571.5	+ 1.2	255.4	+ 1.9	826.8	+ 1.4	1,093.7	+ 2.7	134.4	- 9.6	12.3
1984	831.4	+ 3.5	585.6	+ 2.5	257.4	+ 0.8	843.0	+ 2.0	1,148.7	+ 5.0	147.5	+ 9.8	12.8
1985	861.9	+ 3.7	600.1	+ 2.5	262.1	+ 1.8	862.2	+ 2.3	1,187.8	+ 3.4	151.3	+ 2.5	12.7
1986	906.1	+ 5.1	632.9	+ 5.5	271.1	+ 3.4	904.0	+ 4.9	1,233.3	+ 3.8	166.9	+10.3	13.5
1987	945.1	+ 4.3	654.6	+ 3.4	285.4	+ 5.3	940.0	+ 4.0	1,283.2	+ 4.0	175.2	+ 5.0	13.7
1988	982.2	+ 3.9	682.3	+ 4.2	298.5	+ 4.6	980.8	+ 4.3	1,339.8	+ 4.4	186.2	+ 6.2	13.9
1989 p	1,027.1	+ 4.6	707.2	+ 3.6	308.3	+ 3.3	1,015.5	+ 3.5	1,398.1	+ 4.4	188.6	+ 1.3	13.5
1990 p	1,104.6	+ 7.6	779.4	+10.2	326.8	+ 6.0	1,106.1	+ 8.9	1,523.8	+ 9.0	224.6	+19.1	14.7
1990 p 3rd qtr	273.0	+ 7.1	195.4	+10.3	82.1	+ 6.9	277.5	+ 9.3	368.8	+ 9.9	46.8	+25.2	12.7
4th qtr	318.2	+ 8.5	219.5	+10.1	85.2	+ 7.4	304.7	+ 9.3	419.7	+ 9.0	68.0	+15.1	16.2
1991 p 1st qtr	264.9	+ 6.8	188.7	+ 6.0	85.3	+ 5.6	274.1	+ 5.9	391.0	+ 6.2	65.2	+ 5.8	16.7
2nd qtr	290.6	+ 9.5	198.2	+ 6.4	83.4	+ 6.0	281.6	+ 6.2	394.9	+ 7.6	54.0	+12.2	13.7
3rd qtr	297.5	+ 9.0	205.0	+ 4.9	87.6	+ 6.7	292.6	+ 5.4	387.5	+ 5.1	47.0	+ 0.3	12.1

1 Including employers' other social security expenditure (inter alia on company old-age pension schemes but excluding employers' contributions to social security funds). — 2 After deducting wage tax payable on gross wages and salaries and employees' contributions to social security funds. — 3 Social security pensions, maintenance payments and civil servants' pensions (net), less households' transfers to government. — 4 Net wages and salaries plus government current transfers. —

5 "Mass income" plus all households' property income and plus self-employed persons' private withdrawals from entrepreneurial income, less current transfers to non-residents. — 6 Including claims on company pension funds. — 7 Saving as a percentage of disposable income. — p Provisional. Discrepancies in the totals are due to rounding.

9. Pay rates and actual earnings *

Period	Overall economy						Producing sector (including construction)					
	Negotiated wage and salary level				Wages and salaries per employee		Negotiated wage and salary level				Wages and salaries per employee	
	on an hourly basis		on a monthly basis				on an hourly basis		on a monthly basis			
	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %	1985 = 100	Change from previous year in %
1975	61.7	+ 9.3	62.6	+ 8.5	62.0	+ 6.2	60.4	+ 9.1	61.4	+ 9.1	58.5	+ 7.5
1976	65.4	+ 6.0	66.3	+ 5.9	66.2	+ 6.9	64.2	+ 6.2	65.2	+ 6.2	63.4	+ 8.3
1977	69.9	+ 6.9	70.8	+ 6.9	70.7	+ 6.8	69.0	+ 7.5	70.1	+ 7.5	67.6	+ 6.7
1978	73.9	+ 5.7	74.8	+ 5.6	74.5	+ 5.3	73.1	+ 5.9	74.3	+ 5.9	71.4	+ 5.5
1979	77.6	+ 4.9	78.4	+ 4.8	78.7	+ 5.7	76.7	+ 4.9	77.9	+ 4.9	76.0	+ 6.5
1980	82.8	+ 6.7	83.6	+ 6.7	83.9	+ 6.6	82.0	+ 6.9	83.2	+ 6.9	81.4	+ 7.1
1981	87.4	+ 5.6	88.3	+ 5.5	87.9	+ 4.8	86.6	+ 5.7	88.0	+ 5.7	85.7	+ 5.3
1982	91.0	+ 4.1	91.7	+ 4.0	91.4	+ 3.9	90.2	+ 4.1	91.6	+ 4.1	89.7	+ 4.7
1983	94.0	+ 3.3	94.7	+ 3.3	94.3	+ 3.2	93.2	+ 3.3	94.7	+ 3.4	93.2	+ 3.9
1984	96.7	+ 2.8	97.3	+ 2.8	97.2	+ 3.0	96.0	+ 3.0	97.4	+ 2.9	96.6	+ 3.7
1985	100.0	+ 3.4	100.0	+ 2.7	100.0	+ 2.9	100.0	+ 4.2	100.0	+ 2.6	100.0	+ 3.5
1986	104.1	+ 4.1	103.5	+ 3.5	103.6	+ 3.6	104.4	+ 4.4	103.8	+ 3.8	104.2	+ 4.2
1987	108.1	+ 3.8	107.0	+ 3.4	106.8	+ 3.1	108.2	+ 3.7	107.6	+ 3.7	107.6	+ 3.3
1988	111.7	+ 3.3	110.0	+ 2.7	110.0	+ 3.0	112.4	+ 3.8	110.6	+ 2.7	112.0	+ 4.0
1989 p	115.9	+ 3.7	112.9	+ 2.7	113.3	+ 3.0	116.7	+ 3.8	113.4	+ 2.5	116.0	+ 3.6
1990 p	122.5	+ 5.7	118.1	+ 4.6	118.6	+ 4.7	123.5	+ 5.8	118.6	+ 4.6	121.9	+ 5.1
1991 p 1st qtr	126.5	+ 6.1	121.3	+ 5.2	112.8	+ 4.2	126.2	+ 6.1	121.1	+ 5.7	115.9	+ 4.9
2nd qtr	131.4	+ 7.0	125.9	+ 6.4	122.5	+ 7.0	132.3	+ 6.5	126.8	+ 6.2	130.0	+ 6.4
3rd qtr	132.3	+ 7.1	126.8	+ 6.6	124.8	+ 6.9	133.4	+ 6.7	127.9	+ 6.5	126.5	+ 5.9
1991 p April	130.8	+ 6.8	125.3	+ 6.1	.	.	131.9	+ 6.3	126.4	+ 6.0	121.1	+ 7.1
May	131.7	+ 7.1	126.2	+ 6.5	.	.	132.5	+ 6.6	127.0	+ 6.3	132.1	+ 5.2
June	131.8	+ 7.1	126.3	+ 6.5	.	.	132.5	+ 6.6	127.1	+ 6.3	136.7	+ 7.0
July	132.2	+ 7.2	126.7	+ 6.6	.	.	133.1	+ 6.6	127.6	+ 6.4	130.6	+ 5.8
Aug.	132.4	+ 7.1	126.9	+ 6.7	.	.	133.5	+ 6.7	127.9	+ 6.5	125.5	+ 4.6
Sep.	132.5	+ 7.1	126.9	+ 6.7	.	.	133.6	+ 6.8	128.0	+ 6.6	123.5	+ 7.4
Oct.	132.7	+ 6.9	127.1	+ 6.5	.	.	133.8	+ 6.7	128.2	+ 6.5	129.9	+ 5.6
Nov.	132.7	+ 6.7	127.2	+ 6.3	.	.	133.9	+ 6.5	128.3	+ 6.4	...	...

* In calculating the negotiated wage and salary level, lump-sum payments and across-the-board increases were added together and related to the entire duration of the wage

agreements. — p Provisional.

VIII. General economic conditions – eastern Germany

10. Selected economic data for eastern Germany

Period	Labour market													Memorandum item			
	Wage and salary earners 1, 2				Short-time workers 3		Unemployed 1		Unemployment rate in % 1, 4	Vacancies 1	Placements		New businesses registered				
	Manufacturing p	Change from previous month	Construction	Change from previous month	Number	Change from previous month	Number	Change from previous month			in the relevant month	cumulative since the start of 1990	in the relevant month	cumulative since the start of 1990 5			
Thousands									Thousands								
1990 Dec.					1,794	+ 84	642	+ 53	7.3	23	18	146	28	281			
1991 Jan.	1,922		281		1,841	+ 47	757	+ 115	8.6	23	26	172	6	26			
Feb.	1,933	+ 11	290	+ 9	1,947	+ 106	787	+ 30	8.9	21	26	198		25			
March	1,904	- 29	292	+ 2	1,990	+ 43	808	+ 21	9.2	21	30	228	24	357			
April	1,874	- 30	285	- 7	2,019	+ 29	837	+ 29	9.5	23	43	271		29			
May	1,833	- 41	283	- 2	1,968	- 50	842	+ 5	9.5	25	47	318		24			
June	1,762	- 71	280	- 3	1,899	- 70	843	+ 0	9.5	32	61	379	22	432			
July	1,549	- 213	273	- 7	1,611	- 288	1,069	+ 226	12.1	40	96	475	23				
Aug.	1,492	- 57	272	- 1	1,449	- 162	1,063	- 5	12.1	44	83	558	20				
Sep.	1,441	- 51	276	+ 4	1,333	- 115	1,029	- 34	11.7	43	87	645	20	495			
Oct.	1,352	- 89			1,200	- 133	1,049	+ 20	11.9	41	66	711	20	515			
Nov.					1,103	- 97	1,031	- 18	11.7	36	59	769	18	533			
Dec.					1,035	- 68	1,038	+ 7	11.8	35	48	818					
Producing sector																	
Manufacturing																	
Net output 7					New orders		Turnover			Output 8		New orders		Turnover		Orders on hand	
3rd qtr 1990 = 100	Change from previous month in %	2nd half of 1990 = 100	Change from previous month in %	2nd half of 1990 = 100	Change from previous month in %	DM billion	Change from previous month in %	2nd half of 1990 = 100	Change from previous month in %	DM billion	Change from previous month in %	2nd half of 1990 = 100	Change from previous month in %	DM billion	Change from previous month in %	2nd half of 1990 = 100	Change from previous quarter in %
1990 Oct.	90.6	- 0.2	85.7	+ 0.2	92.2	- 2.6	2.1	+ 2.3	100.9	- 19.5							
Nov.	98.3	+ 8.5	89.3	+ 4.2	96.1	+ 4.2	2.0	- 2.0	100.6	- 0.3							
Dec.	80.5	- 18.1	98.7	+ 10.5	102.1	+ 6.2	1.9	- 5.5	103.4	+ 2.8					82.0	- 30.5	
1991 Jan.	66.6	- 17.3	86.8	- 12.1	53.1	- 48.0			82.4	- 20.3	981						
Feb.	60.6	- 9.0	66.4	- 23.5	47.5	- 10.5			73.0	- 11.4	917	- 6.4					
March	63.1	+ 4.1	92.2	+ 38.9	54.4	+ 14.5			103.0	+ 41.1	1,224	+ 33.4	77.7	- 5.2			
April	59.4	- 5.9	79.8	- 13.4	54.1	- 0.6			115.0	+ 11.7	1,571	+ 28.3					
May	60.4	+ 1.7	68.5	- 14.2	49.4	- 8.7			127.5	+ 10.9	1,613	+ 2.7					
June	63.6	+ 5.3	75.8	+ 10.7	53.6	+ 8.5			161.1	+ 26.4	1,729	+ 7.2	83.5	+ 7.5			
July	63.7	+ 0.2	71.3	- 5.9	53.2	- 0.7			169.0	+ 4.9	1,816	+ 5.1					
Aug.	60.4	- 5.2	84.9	+ 19.1	51.7	- 2.8			176.7	+ 4.6	1,780	- 2.0					
Sep.	65.5	+ 8.4	71.5	- 15.8	56.7	+ 9.7			199.6	+ 13.0	1,928	+ 8.3	96.2	+ 15.2			
Oct.	66.7	+ 1.8	74.9	+ 4.8	59.0	+ 4.1			190.0	- 4.8							
Retail trade, price 9																	
Retail turnover 10, p				Index of producer prices of industrial products (domestic sales)				Cost-of-living index 13									
of which		Enterprises mainly dealing in		Total		Total, excluding rents and energy costs 14		Food, drink, tobacco		Clothing, footwear		Rents, energy costs 14		Furniture, white goods and other household appliances		Goods for transport and tele-communications	
Retail trade, total	food, drink and tobacco	household furniture and appliances 11	vehicles, vehicle parts, tyres etc.	1989 = 100	Change from previous month in % 12	1989 = 100	Change from average of 1989 in % 12	1989 = 100	Change from average of 1989 in % 12	1989 = 100	1989 = 100	1989 = 100	1989 = 100	1989 = 100	1989 = 100	1989 = 100	
1990 Nov.	107.1	102.6	135.6	102.4	62.5	- 0.6	100.7	+ 0.7	+ 0.7	115.8	68.2	100.4	80.3	90.9			
Dec.	120.1	114.5	126.4	101.6	62.1	- 0.6	101.9	+ 1.9	+ 2.0	117.8	69.8	100.9	81.2	89.9			
1991 Jan.	95.2	98.0	98.1	95.1	63.3	+ 1.9	108.9	+ 8.9	+ 6.0	119.3	69.9	158.6	82.4	97.7			
Feb.	86.6	90.6	97.9	114.9	63.4	+ 0.2	109.7	+ 9.7	+ 6.8	120.2	70.4	159.5	82.9	97.8			
March	95.2	102.9	108.3	117.0	63.2	- 0.3	111.4	+ 11.4	+ 8.6	122.5	70.8	159.6	83.1	102.2			
April	93.2	100.6			63.2	± 0.0	112.6	+ 12.6	+ 9.8	123.2	71.2	160.3	83.4	106.0			
May					63.1	- 0.2	113.4	+ 13.4	+ 10.1	123.5	71.0	170.6	83.7	106.3			
June					63.0	- 0.2	114.1	± 14.1	+ 10.8	125.0	71.0	170.5	83.7	106.4			
July					63.1	- 1.7	115.1	+ 17.4	+ 14.3	126.2	70.8	170.5	83.7	110.0			
Aug.					63.1	± 0.0	115.2	+ 17.8	+ 14.8	125.6	71.1	170.8	83.9	111.1			
Sep.					63.2	+ 0.6	115.4	+ 16.6	+ 13.3	125.1	71.6	172.3	84.3	111.5			
Oct.							126.9	+ 26.1	+ 11.7	125.2	72.0	375.7	84.7	111.5			
Nov.							127.6	+ 26.7	+ 12.3	126.4	72.4	375.8	85.0	111.8			

Source: Federal Statistical Office, Joint Statistical Office of the Länder Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia or former Statistical Office of the GDR, Federal Labour Office. — 1 End-of-month figures. — 2 Enterprises with 20 or more employees. — 3 Mid-month figures. — 4 Unemployed as a percentage of the dependent civilian labour force. — 5 The cumulated figures contain revisions not included in the individual monthly figures. — 6 From January 1991 excluding Berlin (east). Of a total of 281,096 new business registrations for 1990,

23,690 were accounted for by Berlin (east). — 7 Index for kinds of activity units; per calendar month. — 8 Construction enterprises with 20 or more employees. — 9 From July 1990, prices in Deutsche Mark; previously, prices in GDR Mark. — 10 At current prices. — 11 Excluding electrical equipment and apparatus. — 12 From July 1991 excluding changes from the previous year. — 13 All households of employees. — 14 Sources of energy, excluding fuel. — p Provisional. — r Revised.

1. Major items of the balance of payments (Balances)

DM million

Period	Current and capital accounts										Balancing item in respect of the Bundesbank's external position 6	Change in the Bundesbank's net external assets (increase: +) 7
	Current account					Capital account (capital exports: -)						
	Balance on current account	Foreign trade 1	Supplementary trade items 2 and merchanting trade	Services 3	Transfer payments	Balance on capital account	Long-term capital transactions	Short-term capital transactions 4	Balance of unclassified transactions 5			
1971	+ 3,346	+ 15,892	+ 145	- 2,380	- 10,311	+ 8,730	+ 6,293	+ 2,438	+ 4,280	- 5,370	+ 10,986	
1972	+ 3,837	+ 20,278	- 240	- 4,146	- 12,056	+ 10,321	+ 15,551	- 5,231	+ 1,533	- 495	+ 15,195	
1973	+ 13,403	+ 32,979	+ 559	- 6,415	- 13,720	+ 10,725	+ 12,950	- 2,224	+ 2,300	- 10,279	+ 16,149	
1974	+ 27,286	+ 50,846	- 406	- 7,999	- 15,155	- 28,772	- 6,282	- 22,490	- 419	- 7,231	- 9,136	
1975	+ 10,647	+ 37,276	- 1,004	- 8,325	- 17,300	- 12,560	- 18,231	+ 5,671	- 307	+ 5,480	+ 3,260	
1976	+ 9,324	+ 34,469	- 638	- 6,349	- 18,157	- 10,774	- 780	- 294	+ 539	+ 7,489	+ 1,301	
1977	+ 9,314	+ 38,436	- 435	- 11,045	- 17,642	+ 1,579	- 12,611	+ 14,190	- 442	- 7,880	+ 2,570	
1978	+ 17,883	+ 41,200	+ 774	- 5,898	- 18,193	+ 6,228	+ 2,805	+ 9,033	- 4,339	- 7,586	+ 12,185	
1979	- 9,925	+ 22,429	+ 544	- 11,305	- 20,506	+ 9,438	+ 12,200	+ 2,762	- 4,466	- 2,334	+ 7,288	
1980	- 25,125	+ 8,947	- 489	- 10,118	- 23,466	- 404	+ 5,807	- 6,211	- 2,365	+ 2,164	- 25,730	
1981	- 8,026	+ 27,720	- 183	- 10,745	- 24,817	+ 5,756	+ 8,386	- 2,630	- 14	+ 3,561	+ 1,278	
1982	+ 12,408	+ 51,277	+ 780	- 13,720	- 25,928	- 3,150	- 14,156	+ 11,005	- 6,180	- 411	+ 2,667	
1983	+ 13,540	+ 42,089	+ 3,270	- 6,614	- 25,205	- 18,435	- 6,979	- 11,456	+ 820	+ 2,430	- 1,644	
1984	+ 27,940	+ 53,966	+ 1,052	+ 4,748	- 29,723	- 37,491	- 19,827	- 17,663	+ 6,451	+ 2,118	- 981	
1985	+ 48,327	+ 73,353	- 1,337	+ 5,402	- 29,091	- 54,564	- 12,865	- 41,699	+ 8,080	- 3,104	- 1,261	
1986	+ 85,793	+ 112,619	+ 1,468	+ 1,698	- 27,056	- 82,551	+ 33,416	- 115,967	+ 2,722	+ 3,150	+ 2,814	
1987	+ 82,462	+ 117,735	- 1,122	- 5,045	- 29,107	- 38,997	- 21,973	- 17,024	- 2,245	- 9,303	+ 31,916	
1988	+ 88,749	+ 128,045	+ 1,196	- 8,501	- 31,991	- 127,589	- 86,837	- 40,752	+ 4,164	+ 2,158	- 32,519	
1989	+ 107,619	+ 134,576	+ 1,134	+ 8,217	- 34,040	- 136,165	- 23,251	- 112,914	+ 9,550	- 2,564	- 21,560	
1990 o	+ 77,431	+ 105,382	- 672	+ 8,353	- 35,632	- 94,479	- 68,502	- 25,976	+ 28,023	- 5,105	+ 5,871	
1987 1st qtr	+ 21,217	+ 27,713	+ 587	- 600	- 6,483	- 1,494	+ 17,072	- 18,566	- 5,507	- 77	+ 14,139	
2nd qtr	+ 20,150	+ 28,046	- 176	- 1,118	- 6,603	- 16,392	+ 1,403	- 17,795	+ 2,026	- 283	+ 5,502	
3rd qtr	+ 14,895	+ 27,888	- 830	- 5,140	- 7,023	- 15,791	- 18,247	+ 2,456	- 610	+ 142	- 1,365	
4th qtr	+ 26,199	+ 34,089	- 704	+ 1,813	- 8,998	- 5,319	- 22,201	+ 16,882	+ 1,845	- 9,085	+ 13,640	
1988 1st qtr	+ 16,785	+ 25,191	+ 1,342	- 2,821	- 6,927	- 22,551	- 24,512	+ 1,960	+ 2,829	- 131	- 3,068	
2nd qtr	+ 25,079	+ 34,040	- 892	- 1,263	- 6,806	- 34,109	- 26,728	- 7,381	- 920	+ 1,057	- 8,893	
3rd qtr	+ 17,127	+ 31,680	- 685	- 5,750	- 8,117	- 37,898	- 17,109	- 20,789	- 1,604	+ 1,926	- 20,448	
4th qtr	+ 29,759	+ 37,134	+ 1,431	+ 1,334	- 10,141	- 33,031	- 18,489	- 14,543	+ 3,858	- 695	- 109	
1989 1st qtr	+ 31,017	+ 35,777	- 392	+ 2,885	- 7,253	- 39,739	- 31,715	- 8,024	- 344	+ 262	- 8,803	
2nd qtr	+ 28,249	+ 34,321	- 774	+ 2,692	- 7,990	- 33,406	+ 1,057	- 34,463	- 2,787	- 455	- 8,398	
3rd qtr	+ 22,561	+ 34,224	- 94	+ 2,258	- 9,311	- 24,602	- 6,288	- 18,314	- 442	- 1,198	- 3,680	
4th qtr	+ 25,791	+ 30,253	+ 126	+ 4,898	- 9,487	- 38,418	+ 13,696	- 52,113	+ 13,122	- 1,173	- 678	
1990 1st qtr	+ 31,764	+ 36,977	- 369	+ 3,051	- 7,895	- 38,041	- 37,236	- 805	+ 7,794	- 167	+ 1,351	
2nd qtr	+ 17,889	+ 27,834	- 826	- 73	- 9,045	- 23,211	- 16,480	- 6,731	+ 8,908	- 206	+ 3,380	
3rd qtr o	+ 14,954	+ 25,384	+ 308	- 1,991	- 8,747	- 20,210	- 22,707	+ 2,497	+ 6,785	+ 133	+ 1,661	
4th qtr	+ 12,824	+ 15,187	+ 215	+ 7,366	- 9,944	- 13,017	+ 7,921	- 20,937	+ 4,536	- 4,865	- 522	
1991 1st qtr	- 9,313	+ 6,761	+ 602	+ 5,597	- 22,273	- 5,668	- 16,629	+ 10,962	+ 7,765	+ 1,146	- 6,069	
2nd qtr	- 10,742	- 1,792	+ 1,947	- 401	- 10,497	+ 7,620	- 23,937	+ 31,557	+ 3,742	+ 570	+ 1,190	
3rd qtr	- 10,746	+ 4,882	+ 376	- 4,504	- 11,499	+ 15,984	- 728	+ 16,712	- 1,752	+ 249	+ 3,734	
1990 Jan.	+ 10,569	+ 12,838	- 96	- 272	- 1,902	- 9,513	- 485	- 9,027	- 41	- 69	+ 946	
Feb.	+ 8,576	+ 10,718	+ 178	+ 658	- 2,978	- 8,528	- 18,998	+ 10,469	+ 1,756	- 101	+ 1,703	
March	+ 12,619	+ 13,421	- 451	+ 2,666	- 3,016	- 20,000	- 17,753	- 2,247	+ 6,080	+ 3	- 1,297	
April	+ 5,930	+ 7,651	+ 685	+ 730	- 3,136	- 7,296	- 7,705	+ 408	+ 2,432	- 65	+ 1,000	
May	+ 9,054	+ 12,021	- 934	+ 769	- 2,802	- 11,687	- 2,266	- 9,422	+ 3,850	- 97	+ 1,120	
June	+ 2,905	+ 8,162	- 577	- 1,572	- 3,107	- 4,228	- 6,509	+ 2,282	+ 2,626	- 44	+ 1,260	
July o	+ 4,585	+ 9,949	+ 436	- 2,480	- 3,320	- 7,806	- 4,094	- 3,711	+ 3,849	+ 61	+ 689	
Aug.	+ 3,843	+ 7,405	- 303	- 841	- 2,418	- 4,135	- 8,236	+ 4,101	+ 681	+ 45	+ 435	
Sep.	+ 6,526	+ 8,030	+ 175	+ 1,330	- 3,009	- 8,270	- 10,376	+ 2,107	+ 2,255	+ 26	+ 537	
Oct.	+ 6,918	+ 8,358	+ 425	+ 547	- 2,412	- 6,304	- 605	- 5,699	+ 1,221	+ 26	+ 1,861	
Nov.	+ 1,632	+ 3,290	- 177	+ 2,753	- 4,234	- 5,805	+ 5,915	- 11,721	+ 5,765	+ 194	+ 1,786	
Dec.	+ 4,274	+ 3,539	- 33	+ 4,066	- 3,298	- 907	+ 2,610	- 3,517	- 2,450	- 5,086	- 4,169	
1991 Jan.	- 2,145	+ 1,316	+ 192	+ 240	- 3,893	- 364	+ 1,464	- 1,828	+ 3,002	+ 74	+ 567	
Feb.	- 1,494	+ 2,608	+ 546	+ 3,208	- 7,856	+ 1,959	+ 7,525	- 5,566	+ 664	+ 232	+ 1,360	
March	- 5,673	+ 2,837	- 137	+ 2,149	- 10,523	- 7,263	- 25,618	+ 18,355	+ 4,099	+ 840	- 7,997	
April	- 2,584	- 1,398	+ 1,046	+ 1,437	- 3,669	+ 1,761	- 11,102	+ 12,862	+ 255	- 92	- 477	
May	- 4,431	- 784	+ 477	- 518	- 3,606	+ 6,372	- 2,619	+ 8,990	- 1,101	- 68	+ 771	
June	- 3,726	+ 390	+ 425	- 1,320	- 3,222	- 512	- 10,217	+ 9,704	+ 4,588	+ 546	+ 896	
July	- 5,841	+ 207	+ 78	- 2,384	- 3,742	+ 7,251	+ 1,941	+ 9,192	- 980	+ 44	+ 474	
Aug.	- 3,165	+ 3,099	- 513	- 1,682	- 4,069	+ 9,545	+ 2,244	+ 7,301	- 4,231	+ 56	+ 2,205	
Sep.	- 1,740	+ 1,575	+ 811	- 438	- 3,688	- 812	- 1,032	+ 219	+ 3,459	+ 148	+ 1,055	
Oct.	- 3,353	+ 2,260	- 55	- 1,450	- 4,108	+ 2,264	+ 8,483	- 6,219	+ 1,679	+ 111	+ 700	
Nov. p	+ 1,687	+ 3,533	- 146	+ 1,600	- 3,300	-	-	-	-	+ 136	+ 3,480	

o From July 1990 including the external transactions of the former GDR. — 1 Special trade according to the official foreign trade statistics: imports c.i.f., exports f.o.b. — 2 Mainly warehouse transactions for account of residents and deduction of goods returned and of cross-border commission processing. — 3 Excluding the expenditure on freight and insurance included in the c.i.f. import value. — 4 The figure for the last month is provisional and excludes trade credits, changes in which are included in the balance of unclassified transactions until they are recorded under short-term capital transactions. — 5 Net errors and omissions on current and capital accounts (= balancing item). — 6 Counterpart of changes in the Bundesbank's external position which

are not due to current and capital transactions with non-residents: changes in the Deutsche Mark value of the Bundesbank's assets and liabilities denominated in foreign currencies owing to the valuation adjustment at the end of the year and the allocation of IMF special drawing rights; from 1982 also the differences between the transaction values and the changes in the external position shown in the Weekly Return at balance sheet rates. — 7 From 1982 valued at balance sheet rates; see Monthly Report of the Deutsche Bundesbank, January 1982, p. 13. — p Provisional. Discrepancies in the totals are due to rounding.

IX. Foreign trade and payments

2. Foreign trade (special trade),
by group of countries and country *

Group of countries/Country		Federal Republic of Germany										
		Former territory					From July 1990 including the former GDR					
		1989	1990	1991			1990		1991			
				Jan.-Oct.			1990	2nd half	Jan.-Oct.	Oct.	Nov. p	Oct.	Nov. p
DM million											Change from previous year in %	
All countries 1		Exports	641,041	642,785	538,065	662,047	334,261	552,431	60,623	58,149	- 3.0	- 0.4
		Imports	506,465	550,628	530,678	556,665	293,690	540,321	58,363	54,616	+ 7.8	- 0.8
		Balance	+ 134,576	+ 92,157	+ 7,387	+ 105,382	+ 40,571	+ 12,111	+ 2,260	+ 3,533		
I. Industrialised western countries		Exports	548,969	549,236	454,687	551,475	270,802	458,314	50,030	...	- 3.9	...
		Imports	418,809	454,599	436,379	456,350	238,142	439,571	47,101	...	+ 6.7	...
		Balance	+ 130,161	+ 94,637	+ 18,309	+ 95,125	+ 32,659	+ 18,743	+ 2,929	...		...
A. EC member countries		Exports	352,668	350,442	297,380	351,836	172,629	299,783	33,019	...	- 1.4	...
		Imports	258,660	286,608	277,747	287,618	151,671	279,679	30,461	...	+ 7.5	...
		Balance	+ 94,007	+ 63,834	+ 19,633	+ 64,218	+ 20,958	+ 20,104	+ 2,558	...		...
of which												
Belgium and Luxembourg		Exports	45,979	47,756	40,352	47,957	23,966	40,709	4,476	...	- 1.8	...
		Imports	34,968	39,749	38,515	39,864	21,052	38,714	4,025	...	- 3.4	...
		Balance	+ 11,011	+ 8,007	+ 1,836	+ 8,093	+ 2,914	+ 1,995	+ 451	...		...
Denmark		Exports	12,103	11,937	10,215	12,047	6,042	10,370	1,138	...	- 0.1	...
		Imports	9,237	10,986	10,656	11,064	6,242	10,877	1,165	...	- 3.6	...
		Balance	+ 2,866	+ 950	- 441	+ 983	- 200	- 506	- 28	...		...
France		Exports	84,314	83,835	71,881	84,181	41,493	72,450	7,877	...	- 4.3	...
		Imports	60,403	65,111	65,832	65,425	34,318	66,152	7,289	...	+ 9.8	...
		Balance	+ 23,911	+ 18,724	+ 6,048	+ 18,756	+ 7,176	+ 6,298	+ 588	...		...
Italy		Exports	59,807	59,980	50,629	60,162	28,769	50,967	5,843	...	+ 3.0	...
		Imports	45,189	51,820	49,888	51,954	27,131	50,229	5,428	...	+ 10.5	...
		Balance	+ 14,618	+ 8,160	+ 741	+ 8,209	+ 1,638	+ 738	+ 415	...		...
Netherlands		Exports	54,395	54,313	46,613	54,623	27,251	47,171	5,013	...	- 6.5	...
		Imports	51,903	55,965	51,516	56,210	29,666	52,010	5,557	...	+ 3.1	...
		Balance	+ 2,493	- 1,651	- 4,903	- 1,587	- 2,415	- 4,838	- 544	...		...
United Kingdom		Exports	59,359	54,794	42,272	54,950	26,638	42,501	4,679	...	- 6.3	...
		Imports	34,687	37,042	35,284	37,119	19,734	35,541	4,081	...	+ 12.7	...
		Balance	+ 24,671	+ 17,752	+ 6,988	+ 17,832	+ 6,904	+ 6,960	+ 598	...		...
B. Other European countries		Exports	117,872	120,568	98,266	121,320	60,196	99,325	10,496	...	- 7.1	...
		Imports	79,357	87,864	79,893	88,510	46,639	80,926	8,689	...	+ 1.8	...
		Balance	+ 38,516	+ 32,704	+ 18,373	+ 32,810	+ 13,557	+ 18,399	+ 1,808	...		...
of which												
Austria		Exports	35,269	36,841	32,820	37,033	18,726	33,126	3,621	...	+ 1.4	...
		Imports	20,995	23,941	22,077	24,187	12,670	22,413	2,470	...	+ 5.5	...
		Balance	+ 14,273	+ 12,900	+ 10,743	+ 12,847	+ 6,057	+ 10,713	+ 1,152	...		...
Norway		Exports	5,233	5,534	4,296	5,599	2,800	4,366	452	...	- 11.2	...
		Imports	7,240	7,808	6,815	7,833	4,332	6,890	692	...	- 10.3	...
		Balance	- 2,007	- 2,275	- 2,519	- 2,234	- 1,533	- 2,524	- 240	...		...
Sweden		Exports	18,353	16,650	12,270	16,849	8,032	12,525	1,382	...	- 10.5	...
		Imports	12,793	13,192	11,875	13,273	6,810	12,085	1,310	...	+ 5.5	...
		Balance	+ 5,560	+ 3,457	+ 394	+ 3,576	+ 1,222	+ 440	+ 72	...		...
Switzerland		Exports	38,147	38,443	31,627	38,547	18,790	31,789	3,257	...	- 8.3	...
		Imports	21,237	23,304	20,868	23,488	12,521	21,077	2,203	...	- 1.5	...
		Balance	+ 16,910	+ 15,139	+ 10,759	+ 15,058	+ 6,269	+ 10,712	+ 1,054	...		...
C. Non-European countries		Exports	78,430	78,225	59,042	78,319	37,977	59,205	6,515	...	- 10.3	...
		Imports	80,792	80,127	78,739	80,222	39,833	78,965	7,951	...	+ 9.4	...
		Balance	- 2,362	- 1,901	- 19,697	- 1,903	- 1,856	- 19,760	- 1,436	...		...
of which												
Canada		Exports	5,116	4,705	4,138	4,717	2,259	4,152	495	...	+ 25.2	...
		Imports	4,356	4,509	3,990	4,511	2,263	4,001	470	...	+ 6.1	...
		Balance	+ 760	+ 196	+ 148	+ 206	- 4	+ 151	+ 24	...		...
Japan		Exports	15,268	17,415	13,573	17,440	8,589	13,606	1,535	...	- 16.4	...
		Imports	32,143	32,871	33,516	32,924	17,102	33,612	3,517	...	+ 13.6	...
		Balance	- 16,875	- 15,456	- 19,942	- 15,485	- 8,513	- 20,007	- 1,983	...		...
United States		Exports	46,624	46,870	34,142	46,921	22,786	34,250	3,742	...	- 13.7	...
		Imports	38,265	36,994	36,268	37,029	17,618	36,352	3,499	...	+ 9.4	...
		Balance	+ 8,359	+ 9,876	- 2,126	+ 9,892	+ 5,167	- 2,102	+ 243	...		...
II. Centrally planned economies 2		Exports	29,306	27,475	24,314	43,595	29,710	33,895	3,745	...	- 18.4	...
		Imports	25,143	29,602	31,612	33,512	19,920	37,486	4,140	...	+ 16.9	...
		Balance	+ 4,163	- 2,127	- 7,298	+ 10,083	+ 9,791	- 3,590	- 395	...		...
III. OPEC countries 3		Exports	16,402	18,200	17,205	18,357	9,494	17,419	2,155	...	+ 48.4	...
		Imports	12,360	14,105	12,551	14,118	8,011	12,732	1,518	...	+ 3.0	...
		Balance	+ 4,042	+ 4,095	+ 4,654	+ 4,239	+ 1,483	+ 4,688	+ 638	...		...
IV. Developing countries 4		Exports	45,351	46,832	41,068	47,561	23,660	42,012	4,599	...	+ 5.8	...
		Imports	49,828	52,034	49,941	52,391	27,449	50,336	5,561	...	+ 11.9	...
		Balance	- 4,477	- 5,202	- 8,872	- 4,830	- 3,789	- 8,324	- 962	...		...

* Compiled from the official foreign trade statistics. Exports (f.o.b.) by country of destination, imports (c.i.f.) by country of origin. A detailed breakdown of the regional structure of foreign trade is contained in the Statistical Supplements to the Monthly Reports of the Deutsche Bundesbank, Series 3, Balance of payments statistics, Table 2 (c). — 1 Including fuel and other supplies for ships and aircraft and other data not classifiable by region. — 2 Including the countries of eastern Europe which are in

the midst of economic reforms. — 3 OPEC (Organization of the Petroleum Exporting Countries): Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela. — 4 Excluding the OPEC countries. — p Provisional.
Discrepancies in the totals are due to rounding.

**3. Service transactions with non-residents
(Balances)**

DM million

Period	Total 1	Travel	Transportation	Insurance	Investment income	Government transactions		Other service transactions			
						Total	Receipts from foreign military agencies 2	Total	of which		
									Commission fees, publicity and trade fair charges	Patents and licenses 3	Remuneration for work as an employee
1986	+ 1,698	-25,365	+ 9,119	+ 116	+ 8,995	+ 19,584	+ 20,365	-10,750	- 6,987	- 2,174	- 1,586
1987	- 5,045	-27,857	+ 8,184	+ 385	+ 7,065	+ 19,163	+ 19,943	-11,984	- 7,207	- 2,331	- 1,419
1988	- 8,501	-28,699	+ 8,914	- 334	+ 9,146	+ 17,954	+ 19,127	-15,482	- 7,126	- 2,594	- 1,400
1989	+ 8,217	-28,056	+ 10,922	- 856	+ 21,811	+ 19,575	+ 20,705	-15,180	- 8,022	- 3,168	- 1,231
1990 o	+ 8,353	-30,948	+ 10,673	- 1,329	+ 27,351	+ 20,021	+ 21,077	-17,415	- 9,010	- 3,066	- 1,344
1990 1st qtr	+ 3,051	- 5,837	+ 2,592	- 278	+ 5,811	+ 4,914	+ 5,026	- 4,151	- 2,286	- 1,045	- 337
2nd qtr	- 73	- 7,611	+ 2,771	- 596	+ 5,536	+ 4,616	+ 4,902	- 4,789	- 2,265	- 739	- 355
3rd qtr o	- 1,991	-12,006	+ 2,288	- 183	+ 6,727	+ 5,151	+ 5,498	- 3,967	- 2,163	- 524	- 273
4th qtr	+ 7,366	- 5,494	+ 3,022	- 272	+ 9,277	+ 5,340	+ 5,651	- 4,507	- 2,296	- 758	- 380
1991 1st qtr	+ 5,597	- 6,554	+ 2,602	- 410	+ 10,001	+ 5,521	+ 5,327	- 5,562	- 2,499	- 1,111	- 344
2nd qtr	- 401	- 7,715	+ 3,216	- 483	+ 5,031	+ 5,517	+ 5,682	- 5,966	- 2,262	- 1,008	- 317
3rd qtr	- 4,504	-13,351	+ 2,629	- 118	+ 6,600	+ 5,184	+ 5,323	- 5,447	- 2,190	- 779	- 295
1991 Jan.	+ 240	- 1,957	+ 780	- 100	+ 1,650	+ 2,147	+ 1,873	- 2,280	- 1,024	- 324	- 119
Feb.	+ 3,208	- 1,846	+ 927	- 100	+ 4,209	+ 1,616	+ 1,662	- 1,599	- 767	- 452	- 114
March	+ 2,149	- 2,751	+ 895	- 210	+ 4,141	+ 1,758	+ 1,791	- 1,683	- 707	- 336	- 111
April	+ 1,437	- 2,150	+ 1,202	- 100	+ 2,265	+ 1,930	+ 1,962	- 1,710	- 740	- 201	- 69
May	- 518	- 2,710	+ 1,033	- 100	+ 1,628	+ 1,766	+ 1,881	- 2,135	- 752	- 440	- 137
June	- 1,320	- 2,855	+ 980	- 283	+ 1,138	+ 1,821	+ 1,836	- 2,120	- 770	- 367	- 111
July	- 2,384	- 4,204	+ 887	- 100	+ 1,052	+ 1,948	+ 1,773	- 1,968	- 727	- 242	- 108
Aug.	- 1,682	- 5,121	+ 730	- 100	+ 2,461	+ 1,870	+ 1,878	- 1,322	- 784	- 168	- 98
Sep.	- 438	- 4,027	+ 1,011	+ 82	+ 3,088	+ 1,566	+ 1,673	- 2,157	- 679	- 368	- 90
Oct.	- 1,450	- 3,099	+ 913	- 100	+ 966	+ 1,660	+ 1,668	- 1,791	- 781	- 281	- 112
Nov. p	+ 1,600	- 1,930	+ 860	- 100	+ 3,044	+ 1,570	+ 1,714	- 1,844			

o From July 1990 including the external transactions of the former GDR. — 1 Excluding the expenditure on freight and insurance included in the c.i.f. import value, but including the receipts of German maritime shipping and of German insurance enterprises from services connected with merchandise transactions. — 2 Receipts in

respect of goods and services supplied. — 3 Including copyrights and other non-industrial property rights. — p Provisional. Discrepancies in the totals are due to rounding.

**4. Transfer payments to and from non-residents
(Balances)**

DM million

Period	Total	Private 1				Official 1					
		Total	Remittances by foreign workers 2	Maintenance payments and pensions	Other payments	Total	Indemnification payments	International organisations		Maintenance payments and pensions 3	Other payments
								Total	of which European Communities		
1986	-27,056	-10,581	- 7,450	- 2,318	- 813	-16,474	- 1,546	- 9,833	- 7,980	- 4,502	- 592
1987	-29,107	-10,267	- 7,350	- 2,226	- 691	-18,840	- 1,523	-11,801	- 9,914	- 4,693	- 823
1988	-31,991	-11,408	- 7,450	- 2,072	- 1,886	-20,583	- 1,464	-14,420	-12,278	- 4,923	+ 224
1989	-34,040	-10,920	- 7,550	- 2,294	- 1,076	-23,121	- 1,427	-15,117	-12,899	- 5,117	- 1,460
1990 o	-35,632	-11,068	- 7,350	- 2,051	- 1,667	-24,563	- 1,395	-13,399	-11,113	- 5,489	- 4,280
1990 1st qtr	- 7,895	- 2,674	- 1,850	- 512	- 312	- 5,222	- 343	- 3,475	- 2,549	- 1,306	- 96
2nd qtr	- 9,045	- 2,872	- 1,850	- 572	- 450	- 6,173	- 341	- 4,036	- 3,428	- 1,338	- 457
3rd qtr o	- 8,747	- 2,878	- 1,850	- 596	- 432	- 5,869	- 363	- 2,767	- 2,553	- 1,407	- 1,332
4th qtr	- 9,944	- 2,644	- 1,800	- 371	- 473	- 7,300	- 347	- 3,121	- 2,582	- 1,437	- 2,395
1991 1st qtr	-22,273	- 2,871	- 1,850	- 490	- 531	-19,402	- 336	- 5,214	- 4,324	- 1,419	-12,432
2nd qtr	-10,497	- 2,732	- 1,800	- 459	- 473	- 7,765	- 333	- 4,388	- 4,050	- 1,416	- 1,627
3rd qtr	-11,499	- 2,877	- 1,800	- 518	- 558	- 8,623	- 392	- 4,737	- 3,953	- 1,497	- 1,997
1991 Jan.	- 3,893	- 986	- 600	- 194	- 192	- 2,907	- 112	- 1,099	- 901	- 494	- 1,203
Feb.	- 7,856	- 877	- 600	- 122	- 155	- 6,979	- 114	- 2,229	- 1,689	- 454	- 4,181
March	-10,523	- 1,008	- 650	- 174	- 183	- 9,515	- 111	- 1,886	- 1,734	- 471	- 7,048
April	- 3,669	- 854	- 600	- 115	- 139	- 2,814	- 113	- 1,186	- 1,182	- 468	- 1,048
May	- 3,606	- 956	- 650	- 157	- 149	- 2,650	- 110	- 1,676	- 1,548	- 443	- 421
June	- 3,222	- 921	- 550	- 187	- 185	- 2,300	- 110	- 1,527	- 1,320	- 506	- 158
July	- 3,742	- 915	- 600	- 164	- 152	- 2,827	- 110	- 2,020	- 1,803	- 519	- 177
Aug.	- 4,069	- 1,009	- 600	- 181	- 228	- 3,060	- 136	- 1,603	- 1,059	- 488	- 833
Sep.	- 3,688	- 952	- 600	- 174	- 179	- 2,736	- 145	- 1,114	- 1,091	- 490	- 986
Oct.	- 4,108	- 942	- 550	- 166	- 225	- 3,166	- 97	- 1,970	- 1,894	- 514	- 585
Nov. p	- 3,300	- 800	- 500	- 160	- 140	- 2,500	- 186	- 1,424	- 1,374	- 493	- 397

o From July 1990 including the external transactions of the former GDR. — 1 Private: Transactions between private residents and non-residents. Official: All transactions in which resident or non-resident public authorities are involved. — 2 Estimated, after

allowing for currency exported by foreign workers travelling home. — 3 Including payments by the social security funds. — p Provisional. Discrepancies in the totals are due to rounding.

IX. Foreign trade and payments

5. Capital transactions with non-residents *

DM million

Item	1988	1989	1990 o	1990 o		1991						
				3rd qtr	4th qtr	1st qtr	2nd qtr	3rd qtr	Sep.	Oct.	Nov. p	
I. Long-term capital transactions												
1. Total net German investment abroad												
(increase/capital exports: —)	— 97,927	— 94,110	— 106,857	— 28,942	— 19,516	— 19,674	— 31,227	— 22,412	— 9,080	— 4,858		
Direct investment	— 20,054	— 26,468	— 36,077	— 7,264	— 11,967	— 6,593	— 9,230	— 8,176	— 3,604	— 1,294	— 3,248	
in shares	— 8,962	— 12,822	— 20,801	— 2,843	— 7,228	— 2,298	— 5,094	— 3,645	— 1,144	— 775	— 1,876	
in other capital interests	— 7,885	— 7,314	— 7,896	— 2,212	— 3,273	— 2,942	— 2,326	— 2,546	— 614	— 649	— 1,257	
other investment	— 3,206	— 6,332	— 7,380	— 2,210	— 1,466	— 1,354	— 1,811	— 1,985	— 1,845	+ 131	— 115	
Securities investment	— 72,648	— 50,207	— 24,017	— 5,894	— 1,633	— 5,881	— 11,402	— 6,375	— 1,426	— 1,435	— 3,486	
in shares 1	— 17,968	— 9,421	+ 1,091	+ 280	+ 817	— 2,485	— 4,206	— 7,018	— 2,026	— 1,313	— 1,219	
in bonds	— 54,681	— 40,786	— 25,108	— 6,174	— 2,450	— 3,396	— 7,197	+ 642	+ 600	— 122	— 2,267	
of which												
DM bonds issued by non-residents 2	— 12,241	— 14,328	— 20,440	— 4,451	— 4,168	— 910	— 4,295	— 1,593	— 314	— 477	— 1,343	
Long-term credit transactions	— 2,453	— 14,193	— 43,255	— 14,892	— 5,260	— 6,213	— 9,144	— 6,504	— 3,568	— 1,722		
of which												
Public sector lending to developing countries 3	— 3,492	— 3,906	— 3,834	— 44	— 2,360	— 612	— 670	— 401	— 376	— 80	— 318	
Other capital movements 4	— 2,772	— 3,242	— 3,508	— 892	— 656	— 987	— 1,450	— 1,356	— 483	— 408	— 283	
2. Total net foreign investment in the Federal Republic of Germany (increase/capital imports: +)	+ 11,090	+ 70,859	+ 38,355	+ 6,235	+ 27,437	+ 3,044	+ 7,289	+ 21,683	+ 8,048	+ 13,341		
Direct investment	+ 1,988	+ 12,615	+ 2,471	— 427	+ 395	+ 572	+ 1,558	+ 136	+ 244	+ 308	+ 1,604	
in shares	+ 2,679	+ 2,468	+ 343	— 1,812	— 58	— 130	— 137	— 1,499	— 534	+ 16	— 1	
in other capital interests 5	+ 28	+ 2,467	+ 3,294	+ 1,823	+ 763	— 241	+ 585	+ 853	+ 240	+ 239	+ 1,443	
other investment	+ 4,639	+ 7,680	— 1,166	— 438	— 310	+ 943	+ 1,110	+ 782	+ 538	+ 52	+ 162	
Securities investment	+ 7,651	+ 44,962	+ 17,015	— 3,354	+ 28,406	+ 2,876	+ 10,921	+ 22,747	+ 6,792	+ 11,955	+ 10,232	
in shares 1	+ 5,631	+ 22,159	— 3,251	— 4,220	+ 394	— 2,595	+ 2,870	+ 4,210	+ 338	— 257	+ 243	
in bonds	+ 2,019	+ 22,802	+ 20,266	+ 865	+ 28,012	+ 5,471	+ 8,051	+ 18,537	+ 6,454	+ 12,213	+ 9,989	
of which												
Government and municipal bonds 6	+ 15,171	+ 22,480	+ 15,672	— 417	+ 23,768	+ 3,234	+ 4,389	+ 14,933	+ 5,475	+ 10,073	+ 9,024	
Credit transactions	+ 1,624	+ 13,418	+ 19,244	+ 10,066	— 1,065	— 414	— 5,178	— 1,128	+ 1,013	+ 1,093		
of which												
Loans against borrowers' notes	— 11,463	— 4,098	+ 87	+ 3,413	+ 103	— 367	+ 288	+ 1,983	+ 1,197	+ 556	+ 1,677	
Other capital movements	— 173	— 136	— 375	— 50	— 299	+ 10	— 13	— 72	+ 0	— 15	— 2	
Overall balance of long-term capital transactions	— 86,837	— 23,251	— 68,502	— 22,707	+ 7,921	— 16,629	— 23,937	— 728	— 1,032	+ 8,483		
II. Short-term capital transactions												
1. Banks 7												
Assets	— 30,134	— 81,008	— 24,323	— 9,387	— 18,644	+ 10,858	+ 28,222	+ 7,933	+ 879	— 2,707		
Liabilities	+ 9,932	+ 24,327	+ 24,973	+ 14,940	+ 1,470	+ 20,559	— 3,793	— 854	— 5,969	+ 4,865		
Balance	— 20,202	— 56,681	+ 651	+ 5,553	— 17,174	+ 31,416	+ 24,429	+ 7,079	— 5,089	+ 2,158		
2. Enterprises and individuals												
Financial operations 7												
Assets	— 11,659	— 53,127	— 34,005	— 7,583	— 6,650	— 20,566	— 96	+ 10,072	+ 4,123	— 9,973	+ 4,054	
Liabilities	— 1,321	+ 11,806	+ 15,014	+ 4,537	+ 606	+ 9,995	+ 10,479	+ 2,950	+ 150	+ 2,395	— 2,426	
Balance	— 12,981	— 41,321	— 18,991	— 3,046	— 6,044	— 10,571	+ 10,383	+ 13,022	+ 4,273	— 7,578	+ 1,628	
Trade credits 7, 8												
Assets	— 16,163	— 14,997	— 8,048	+ 1,240	— 1,066	— 6,217	— 7,081	+ 1,032	— 3,600	— 3,140		
Liabilities	+ 7,750	+ 4,711	+ 6,610	+ 289	+ 4,485	+ 1,482	+ 4,294	— 1,962	+ 3,514	+ 2,188		
Balance	— 8,413	— 10,286	— 1,438	+ 1,529	+ 3,419	— 4,735	— 2,787	— 930	— 86	— 952		
Balance	— 21,394	— 51,607	— 20,429	— 1,517	— 2,625	— 15,306	+ 7,596	+ 12,092	+ 4,187	— 8,530		
3. Official	+ 843	— 4,626	— 6,198	— 1,539	— 1,138	— 5,149	— 467	— 2,458	+ 1,122	+ 152	+ 1,885	
Overall balance of short-term capital transactions	— 40,752	— 112,914	— 25,976	+ 2,497	— 20,937	+ 10,962	+ 31,557	+ 16,712	+ 219	— 6,219		
III. Balance of all statistically recorded capital movements (net capital exports: —)	— 127,589	— 136,165	— 94,479	— 20,210	— 13,017	— 5,668	+ 7,620	+ 15,984	— 812	+ 2,264		

* Increase in assets and decrease in liabilities: —; decrease in assets and increase in liabilities: +. — 1 Including investment fund units. — 2 At the time of issue, excluding shares of foreign syndicate members. — 3 As defined by the DAC. — 4 Mainly private real estate and Federal Government participations in international organisations. — 5 Mainly shares in private limited companies. — 6 Including bonds issued by the Railways and Post Office. — 7 The transaction values shown here are mostly derived from changes in totals. As far as possible, purely statistical changes have been

eliminated. The transaction values of the balance of payments in short-term capital transactions may therefore deviate from the changes in totals shown in Tables IX, 7 and 8. — 8 Credit terms and advance payments in merchandise and service transactions, including long-term assets and liabilities which cannot be shown separately. — o From the third quarter of 1990 including the external transactions of the former GDR. — p Provisional.

Discrepancies in the totals are due to rounding.

6. External position of the Bundesbank ***(a) Levels according to the Weekly Return**

DM million

End of year or month	Monetary reserves and other claims on non-residents							Liabilities to non-residents			Net external position (col. 1 less col. 8)
	Total	Monetary reserves					Loans and other claims on non-residents 4	Total	Liabilities arising from external transactions 5	Liabilities to the EMCF 3 in connection with the European Monetary System	
		Total	Gold	Foreign currency balances 1	Reserve position in the International Monetary Fund and special drawing rights 2	Claims on the EMCF 3 in connection with the European Monetary System (net) 2					
1	2	3	4	5	6	7	8	9	10	11	
1985	86,004	83,555	13,688	39,502	13,180	17,186	2,449	18,338	18,338	—	67,666
1986	94,036	91,592	13,688	50,195	11,389	16,321	2,444	23,556	23,556	—	70,480
1987	122,630	120,192	13,688	68,280	9,273	28,953	2,437	20,234	20,234	—	102,396
1988	97,126	94,689	13,688	50,183	9,264	21,554	2,437	27,249	27,249	—	69,877
1989	99,959	97,527	13,688	58,308	8,229	17,303	2,432	51,642	51,642	—	48,317
1990	106,446	104,023	13,688	64,517	7,373	18,445	2,423	52,259	52,259	—	54,188
1990 Nov.	110,191	107,766	13,688	67,344	7,431	19,304	2,425	51,834	51,834	—	58,357
1990 Dec.	106,446	104,023	13,688	64,517	7,373	18,445	2,423	52,259	52,259	—	54,188
1991 Jan.	107,409	104,986	13,688	64,296	7,601	19,401	2,423	52,654	52,654	—	54,755
1991 Feb.	105,697	103,273	13,688	62,241	7,943	19,401	2,423	49,582	49,582	—	56,115
1991 March	98,683	96,260	13,688	55,302	7,869	19,401	2,423	50,565	50,565	—	48,118
1991 April	98,500	96,077	13,688	56,550	7,982	17,857	2,423	50,859	50,859	—	47,641
1991 May	99,587	97,164	13,688	57,516	8,102	17,858	2,423	51,175	51,175	—	48,412
1991 June	96,885	94,462	13,688	54,905	8,010	17,859	2,423	47,577	47,577	—	49,308
1991 July	96,836	94,412	13,688	55,195	8,114	17,416	2,423	47,054	47,054	—	49,782
1991 Aug.	97,972	95,548	13,688	56,304	8,140	17,416	2,423	45,985	45,985	—	51,987
1991 Sep.	98,260	95,836	13,688	56,483	8,248	17,417	2,423	45,218	45,218	—	53,042
1991 Oct.	98,770	96,346	13,688	56,757	8,155	17,747	2,423	45,027	45,027	—	53,742
1991 Nov.	99,908	97,484	13,688	57,899	8,150	17,748	2,423	42,685	42,685	—	57,222

(b) Supplementary figures on "Reserve position in the International Monetary Fund and special drawing rights" and "Claims on the EMCF in connection with the European Monetary System"

DM million

End of year or month	Reserve position in the IMF and special drawing rights						Claims on the EMCF in connection with the European Monetary System			
	Total	Reserve position in the IMF		Special drawing rights			Total	ECU balances 8	Difference between ECU value and book value of the reserves contributed	Other claims 9
		Drawing rights within the reserve tranche 6	Loans under special borrowing arrangements 7	Total	Allocated	Accepted				
1985	13,180	7,418	1,955	3,807	3,273	533	17,186	39,822	— 22,637	—
1986	11,389	6,462	1,007	3,920	2,874	1,046	16,321	31,661	— 16,297	957
1987	9,273	5,779	388	3,106	2,716	389	28,953	39,975	— 18,027	7,005
1988	9,264	5,957	—	3,307	2,901	406	21,554	37,969	— 16,415	—
1989	8,229	5,166	—	3,063	2,701	361	17,303	32,125	— 14,823	—
1990	7,373	4,565	—	2,808	2,573	235	18,445	29,370	— 10,925	—
1990 Nov.	7,431	4,482	—	2,950	2,701	248	19,304	29,369	— 10,066	—
1990 Dec.	7,373	4,565	—	2,808	2,573	235	18,445	29,370	— 10,925	—
1991 Jan.	7,601	4,793	—	2,808	2,573	235	19,401	29,423	— 10,022	—
1991 Feb.	7,943	5,082	—	2,861	2,573	288	19,401	29,424	— 10,022	—
1991 March	7,869	5,011	—	2,858	2,573	285	19,401	29,424	— 10,022	—
1991 April	7,982	5,146	—	2,836	2,573	262	17,857	29,030	— 11,173	—
1991 May	8,102	5,226	—	2,876	2,573	302	17,858	29,031	— 11,173	—
1991 June	8,010	5,177	—	2,833	2,573	259	17,859	29,031	— 11,173	—
1991 July	8,114	5,283	—	2,832	2,573	258	17,416	30,570	— 13,154	—
1991 Aug.	8,140	5,272	—	2,869	2,573	295	17,416	30,571	— 13,154	—
1991 Sep.	8,248	5,384	—	2,864	2,573	291	17,417	30,571	— 13,154	—
1991 Oct.	8,155	5,304	—	2,851	2,573	278	17,747	29,127	— 11,380	—
1991 Nov.	8,150	5,291	—	2,859	2,573	286	17,748	29,128	— 11,380	—

* Valuation of the gold holdings and the claims on non-residents according to the provisions of the Commercial Code (until end-1986: Companies Act) and the Bundesbank Act (assets according to the lower-value method, i. e. purchase value or lowest value on a balance sheet date). In the course of the year, valuation at the balance sheet rates of the preceding year. — 1 Mainly US dollar assets. — 2 For breakdown see Table (b). — 3 European Monetary Cooperation Fund. — 4 Loans to the World Bank only. — 5 Including mobilisation and liquidity paper sold to non-residents by the Bundesbank (see sections 42 and 42a of the Bundesbank Act). — 6 Comprising

subscription payments in cash and Deutsche Mark callings by the IMF to finance its sales of Deutsche Mark (net) to other countries. — 7 Including the "Witteveen Facility". — 8 Resulting from the provisional contribution of gold and dollar reserves and from transfers from other central banks. — 9 Assets resulting from the very short-term financing mechanism and from short-term monetary support. Discrepancies in the totals, including discrepancies from Table II, 1, are due to rounding.

IX. Foreign trade and payments

7. Assets and liabilities of domestic banks vis-à-vis non-residents* (excluding the Bundesbank)

DM million

End of reporting period	Claims on non-residents						Liabilities to non-residents										
	Total	Short-term 1			Long-term 1			Total	Short-term 6			Long-term 7, 8					
		Total	Claims on		Notes and coins in foreign currencies	Total	Claims on		Foreign securities and participating interests 5	Total	Total	Liabilities to		Total	Liabilities to		
			foreign banks 2, 3	foreign non-banks 2, 4			foreign banks 2					foreign non-banks 2	foreign banks 2, 6		foreign non-banks 2	foreign banks 2, 7	foreign non-banks 2
1986	353,286	173,470	160,515	12,465	490	179,816	66,015	86,884	26,917	192,958	103,622	75,693	27,929	89,336	66,729	22,607	
1987	373,901	180,320	164,728	15,102	490	193,581	76,700	89,161	27,720	202,978	106,228	77,682	28,546	96,750	67,610	29,140	
1988	417,853	216,189	198,058	17,581	550	201,664	76,104	92,399	33,161	229,419	120,097	94,878	25,219	109,322	77,106	32,216	
1989	513,406	292,752	270,356	21,817	579	220,654	80,397	97,766	42,491	267,212	141,230	112,376	28,854	125,982	88,055	37,927	
1990	606,864	332,447	302,267	29,457	723	274,417	104,603	112,484	57,330	328,756	162,353	129,095	33,258	166,403	120,746	45,657	
1990 Sep.	586,627	315,809	287,642	27,378	789	270,818	103,327	112,436	55,055	333,280	163,863	131,785	32,078	169,417	124,292	45,125	
Oct.	578,165	305,195	277,264	27,156	775	272,970	104,820	112,597	55,553	327,068	158,179	127,248	30,931	168,889	123,987	44,902	
Nov.	589,961	315,315	286,208	28,368	739	274,646	105,185	113,244	56,217	324,962	156,837	125,626	31,211	168,125	123,135	44,990	
Dec.	606,864	332,447	302,267	29,457	723	274,417	104,603	112,484	57,330	328,756	162,353	129,095	33,258	166,403	120,746	45,657	
1991 Jan.	598,724	322,980	292,769	29,488	723	275,744	104,796	115,424	55,524	330,025	162,305	129,246	33,059	167,720	121,869	45,851	
Feb.	617,835	316,926	284,446	31,770	710	300,909	127,115	117,422	56,372	334,692	167,391	134,203	33,188	167,301	121,422	45,879	
March	623,448	313,924	281,322	31,783	819	309,524	129,474	121,616	58,434	360,556	190,209	154,909	35,300	170,347	122,688	47,659	
April	606,151	291,117	258,361	31,882	874	315,034	131,305	123,810	59,919	355,585	185,386	150,901	34,485	170,199	122,052	48,147	
May	597,980	279,167	245,080	33,147	940	318,813	132,282	125,133	61,398	347,979	178,458	143,848	34,610	169,521	120,691	48,830	
June	613,880	290,436	254,164	35,288	984	323,444	133,753	127,210	62,481	358,606	190,034	153,519	36,515	168,572	118,308	50,264	
July	598,314	274,409	239,903	33,456	1,050	323,905	134,076	126,985	62,844	352,270	185,881	150,856	35,025	166,389	116,281	50,108	
Aug.	608,033	279,663	242,768	36,088	807	328,370	134,242	127,298	66,830	357,543	192,381	156,773	35,608	165,162	114,831	50,331	
Sep.	602,159	274,999	240,671	33,448	880	327,160	134,982	127,590	64,588	347,691	183,552	149,294	34,258	164,139	113,308	50,831	
Oct.	607,794	278,060	244,949	32,188	923	329,734	136,393	128,459	64,882	353,944	188,747	152,792	35,955	165,197	112,929	52,268	

* Excluding the external assets and liabilities of the foreign branches of domestic banks. From November 1989 up to June 1990 including the assets and liabilities vis-à-vis parties in the former GDR; the external assets and liabilities of banks in the former GDR have been included from June 1990. Statistical increases and decreases have not been eliminated. The assets also include those long-term external bank claims changes in which are ascribed to official capital transactions in the balance of payments; to this extent the changes in totals are not comparable with the figures shown in Table IX, 5. The assets and liabilities in foreign currencies are valued at the middle rates on the reporting date. — 1 In February 1991, short-term assets worth about DM 24 billion stemming from the former clearing agreement with the CMEA

countries were converted into long-term assets after the cancellation of that agreement. — 2 Including the associated international organisations. — 3 For Deutsche Mark demand claims, the level at the end of the previous year is used for accounting reasons. — 4 Including foreign Treasury bills and Treasury discount paper. — 5 Including the working capital of the foreign branches of domestic banks. — 6 Including repurchase commitments (which do not have to be shown in the balance sheet); for lack of detailed records, they are attributed to the foreign banking sector. — 7 Including the working capital of the branches of foreign banks. — 8 Excluding foreign-held bearer bonds outstanding.

8. Assets and liabilities of domestic enterprises vis-à-vis non-residents* (excluding banks)

DM million

End of reporting period	Claims on non-residents							Liabilities to non-residents								
	Total	from short-term financial operations			from long-term financial operations			Total	from short-term financial operations			from long-term financial operations				
		Total	Claims on		Total	Claims on			Total	Total	Liabilities to		Total	Liabilities to		
			foreign banks	foreign non-banks 1		foreign banks	foreign non-banks				foreign banks 2	foreign non-banks 1		foreign banks	foreign non-banks	from trade credits
1986	197,163	59,178	37,337	21,841	18,348	1,834	16,514	119,637	168,776	54,179	35,917	18,262	39,982	16,414	23,568	74,615
1987	203,344	64,569	42,204	22,365	20,482	1,740	18,742	118,293	172,607	52,743	34,106	18,637	44,571	15,580	28,991	75,293
1988	222,223	69,158	44,437	24,721	20,838	1,862	18,976	132,227	186,419	51,700	32,916	18,784	51,676	15,799	35,877	83,043
1989	270,392	103,116	64,745	38,371	25,407	2,214	23,193	141,869	206,712	62,576	35,486	27,090	55,362	15,313	40,049	88,774
1990	297,583	124,377	82,538	41,839	26,661	2,739	23,922	146,545	235,791	77,470	41,419	36,051	61,911	18,339	43,572	96,410
1990 Nov.	306,883	128,078	87,997	40,081	26,951	3,043	23,908	151,854	239,045	81,571	47,237	34,334	62,692	18,865	43,827	94,782
Dec.	297,583	124,377	82,538	41,839	26,661	2,739	23,922	146,545	235,791	77,470	41,419	36,051	61,911	18,339	43,572	96,410
1991 Jan.	307,223	133,970	91,486	42,484	26,701	2,837	23,864	146,552	237,172	80,220	44,500	35,720	62,061	18,385	43,676	94,891
Feb.	311,163	136,751	92,970	43,781	26,767	2,838	23,929	147,645	243,931	84,361	48,086	36,275	64,042	19,127	44,915	95,528
March	322,049	144,631	97,573	47,058	27,083	2,932	24,151	150,335	249,902	87,234	49,569	37,665	64,776	19,042	45,734	97,892
April	329,736	150,503	102,433	48,070	27,083	3,222	23,861	152,150	254,739	90,161	51,740	38,421	65,482	19,423	46,059	99,096
May	326,659	149,489	102,956	46,533	26,938	3,262	23,676	150,232	256,794	92,013	52,919	39,094	65,895	18,948	46,947	98,886
June	327,043	145,936	97,959	47,977	27,276	3,102	24,174	153,831	264,329	95,670	54,568	41,102	66,633	18,900	47,733	102,026
July	326,618	147,465	101,889	45,576	28,101	3,319	24,782	151,052	265,465	97,763	54,531	43,232	67,580	19,614	47,966	100,122
Aug.	317,520	140,590	96,564	44,026	28,479	3,331	25,148	148,451	263,404	99,333	57,338	41,995	67,521	19,114	48,407	96,550
Sep.	317,635	136,316	90,794	45,522	28,698	3,106	25,592	152,621	266,523	99,218	57,272	41,946	67,241	18,960	48,281	100,064
Oct.	327,974	146,176	101,085	45,091	28,261	3,001	25,260	153,537	271,478	101,545	57,819	43,726	67,681	18,753	48,928	102,252
Nov. p	327,974	146,176	101,085	45,091	28,261	3,001	25,260	153,537	271,478	101,545	57,819	43,726	67,681	18,753	48,928	102,252
Dec.	327,974	146,176	101,085	45,091	28,261	3,001	25,260	153,537	271,478	101,545	57,819	43,726	67,681	18,753	48,928	102,252

* Including external assets and liabilities of domestic individuals. The external assets and liabilities of enterprises and individuals in the former GDR have been included from July 1990. Statistical increases and decreases have not been eliminated; to this

extent the changes in totals are not comparable with the figures shown in Table IX, 5. — 1 Including balances on clearing accounts. — 2 Including endorsement liabilities in respect of bills discounted abroad. — p Provisional.

9. Average official exchange rates on the Frankfurt Exchange *

Spot middle rates in Deutsche Mark

Period	Telegraphic transfer									
	Amsterdam	Brussels	Dublin	Helsinki	Copenhagen	Lisbon	London	Madrid	Milan/Rome	
	100 guilders	100 francs	1 Irish pound	100 markkaa	100 kroner	100 escudos	1 pound sterling	100 pesetas	1,000 lire	
	Annual average									
1987	88.744	4.813	2.671	40.890	26.275	1.275	2.941	1.457	1.3862	
1988	88.850	4.777	2.675	41.956	26.089	1.219	3.124	1.508	1.3495	
1989	88.648	4.772	2.665	43.836	25.717	1.194	3.081	1.588	1.3707	
1990	88.755	4.837	2.673	1 42.245	26.120	1.133	2.877	1.586	1.3487	
1991	88.742	4.857	2.671	41.087	25.932	1.149	2.926	1.597	1.3377	
	Monthly average									
1990 May	88.913	4.844	2.681	42.357	26.243	1.132	2.790	1.600	1.3610	
June	88.851	4.866	2.681	42.570	26.272	1.139	2.879	1.620	1.3623	
July	88.753	4.858	2.682	42.728	26.273	1.139	2.963	1.631	1.3650	
Aug.	88.760	4.864	2.683	42.413	26.152	1.132	2.984	1.619	1.3570	
Sep.	88.724	4.863	2.684	42.333	26.189	1.129	2.951	1.594	1.3397	
Oct.	88.714	4.858	2.681	42.150	26.208	1.134	2.967	1.594	1.3349	
Nov.	88.663	4.849	2.677	41.760	26.090	1.136	2.920	1.581	1.3304	
Dec.	88.641	4.832	2.662	41.413	25.944	1.128	2.880	1.566	1.3262	
1991 Jan.	88.704	4.854	2.668	41.451	25.975	1.123	2.919	1.587	1.3302	
Feb.	88.733	4.857	2.661	41.205	25.991	1.137	2.909	1.599	1.3324	
March	88.718	4.855	2.665	41.809	26.042	1.146	2.930	1.609	1.3408	
April	88.755	4.863	2.674	42.649	26.122	1.152	2.979	1.621	1.3497	
May	88.757	4.861	2.677	42.509	26.134	1.151	2.963	1.616	1.3471	
June	88.770	4.859	2.675	42.227	25.956	1.142	2.939	1.604	1.3452	
July	88.766	4.858	2.675	41.699	25.862	1.159	2.947	1.597	1.3431	
Aug.	88.738	4.858	2.674	41.207	25.866	1.167	2.936	1.602	1.3377	
Sep.	88.741	4.855	2.673	41.075	25.905	1.165	2.926	1.594	1.3376	
Oct.	88.749	4.857	2.674	41.047	25.890	1.163	2.911	1.587	1.3376	
Nov.	88.744	4.855	2.671	38.979	25.752	1.147	2.886	1.582	1.3281	
Dec.	88.737	4.854	2.663	36.839	25.695	1.127	2.856	1.567	1.3224	
	Difference between buying or selling rate and middle rate, in Deutsche Mark									
	0.110	0.010	0.007	0.100	0.060	0.010	0.007	0.005	0.0050	

Period	Telegraphic transfer							
	Montreal	New York	Oslo	Paris	Stockholm	Tokyo	Vienna	Zurich
	1 Canadian dollar	1 US dollar	100 kroner	100 French francs	100 kronor	100 yen	100 Schillinge	100 Swiss francs
	Annual average							
1987	1.3565	1.7982	26.687	29.900	28.341	1.2436	14.217	120.588
1988	1.4307	1.7584	26.942	29.482	28.650	1.3707	14.222	120.060
1989	1.5899	1.8813	27.230	29.473	29.169	1.3658	14.209	115.042
1990	1.3845	1.6161	25.817	29.680	2 27.289	1.1183	14.212	116.501
1991	1.4501	1.6612	25.580	29.409	27.421	1.2346	14.211	115.740
	Monthly average							
1990 May	1.4150	1.6617	25.793	29.699	27.462	1.0822	14.211	117.259
June	1.4351	1.6840	26.018	29.729	27.655	1.0942	14.214	118.201
July	1.4166	1.6399	26.021	29.812	27.560	1.0991	14.214	117.706
Aug.	1.3717	1.5707	25.816	29.801	27.187	1.0653	14.213	119.963
Sep.	1.3552	1.5697	25.846	29.856	27.228	1.1316	14.214	120.116
Oct.	1.3128	1.5233	25.765	29.860	27.018	1.1766	14.215	118.901
Nov.	1.2773	1.4870	25.609	29.707	26.717	1.1524	14.217	118.246
Dec.	1.2855	1.4920	25.489	29.441	26.573	1.1173	14.213	116.963
1991 Jan.	1.3064	1.5100	25.568	29.439	26.790	1.1292	14.213	118.706
Feb.	1.2815	1.4799	25.559	29.379	26.733	1.1354	14.214	116.857
March	1.3849	1.6022	25.618	29.381	27.239	1.1695	14.214	115.705
April	1.4764	1.7031	25.715	29.590	27.837	1.2430	14.210	118.241
May	1.4914	1.7153	25.674	29.491	27.922	1.2424	14.211	118.006
June	1.5596	1.7843	25.618	29.476	27.739	1.2766	14.210	116.545
July	1.5570	1.7887	25.642	29.466	27.637	1.2976	14.209	115.402
Aug.	1.5232	1.7452	25.596	29.425	27.545	1.2756	14.211	114.747
Sep.	1.4930	1.6981	25.556	29.380	27.476	1.2619	14.211	114.359
Oct.	1.4988	1.6915	25.539	29.333	27.447	1.2947	14.211	114.308
Nov.	1.4376	1.6250	25.466	29.264	27.360	1.2536	14.208	113.009
Dec.	1.3717	1.5695	25.390	29.265	27.336	1.2245	14.207	112.902
	Difference between buying or selling rate and middle rate, in Deutsche Mark							
	0.0040	0.0040	0.060	0.080	0.080	0.0015	0.020	0.100

* Calculated from daily quotations. Figures on average rates for previous years, on daily rates and on the daily exchange rate movements of the US dollar are to be found in the Statistical Supplements to the Monthly Reports of the Deutsche Bundesbank.

Series 5, The currencies of the world. — 1 Quotation suspended from Jan. 30 to March 5, 1990. — 2 Quotation suspended from Jan. 26 to Feb. 16, 1990.

IX. Foreign trade and payments

Canadian dollar	Norwegian krona	against the currencies of the countries participating in the EMS 3	against the currencies of the EC countries	Total (against the currencies of 18 industrial countries)	Real external value of the Deutsche Mark (measured by consumer prices) 4	Weighted external value of selected foreign currencies 5										Yearly or monthly average
						US dollar	French franc	Italian lira	Pound sterling	Dutch guilder	Belgian and Luxembourg franc	Japanese yen	Swiss franc	Austrian Schilling	Swedish krona	
122.2	104.6	110.6	110.7	110.7	109.4	91.2	103.6	88.5	94.0	103.6	102.4	107.4	108.4	104.5	98.9	1973
122.5	103.6	119.2	119.2	117.0	108.3	93.6	97.1	80.0	90.9	109.0	104.0	100.5	117.6	109.7	98.2	1974
134.1	103.0	121.0	121.3	119.2	103.5	93.5	106.6	76.5	83.3	112.1	106.0	96.9	131.3	113.0	102.1	1975
126.9	105.1	136.1	136.4	126.4	103.7	97.0	103.1	63.6	71.6	114.8	108.6	101.4	145.8	116.4	103.6	1976
148.5	111.3	149.3	150.0	136.2	105.2	95.2	97.9	58.2	67.7	120.4	114.3	112.0	148.2	121.7	99.0	1977
184.3	126.6	158.7	160.1	143.3	105.8	85.5	96.5	54.3	67.7	123.2	117.5	137.2	180.3	122.6	89.2	1978
207.1	134.0	162.9	164.9	150.6	106.1	84.5	97.0	52.5	71.8	125.3	119.0	127.0	183.1	125.1	89.4	1979
208.4	131.9	162.9	165.3	151.5	100.2	84.9	97.5	50.7	79.0	125.6	118.4	122.1	180.9	129.0	90.0	1980
172.3	123.2	165.4	167.8	143.1	90.6	93.0	90.0	44.9	80.1	119.2	111.7	138.6	183.9	126.4	88.2	1981
164.7	128.8	181.0	183.8	150.4	92.0	103.2	82.9	41.8	76.8	124.9	101.2	130.7	198.2	130.4	79.1	1982
156.6	138.7	195.6	199.5	155.9	92.5	106.6	77.2	40.2	71.3	126.9	98.0	144.0	206.2	132.9	69.5	1983
147.7	139.0	200.3	205.0	153.8	88.0	113.8	73.9	38.1	68.3	124.6	95.9	152.8	203.0	132.1	70.7	1984
151.4	141.8	202.2	207.8	154.0	85.5	117.5	74.7	36.0	68.0	124.5	96.5	156.1	201.1	132.5	70.1	1985
208.0	165.8	215.7	222.6	168.2	90.7	94.7	76.9	36.8	62.0	133.8	101.2	196.5	216.8	138.3	68.1	1986
239.2	181.9	224.9	232.6	178.9	94.0	83.3	77.1	37.0	60.8	140.5	105.0	211.8	227.0	142.7	67.1	1987
227.4	180.0	224.4	232.5	177.4	91.4	77.7	75.5	35.7	64.4	139.7	103.6	234.7	224.4	142.0	67.1	1988
204.1	178.2	223.9	232.3	175.7	89.0	81.3	74.7	35.9	62.5	138.3	102.7	225.3	212.6	141.4	67.5	1989
234.4	187.9	226.5	235.4	185.5	91.8	77.5	78.8	37.0	61.6	144.1	108.1	201.2	225.5	145.7	66.4	1990
224.5	189.6	226.6	235.7	183.1	...	76.2	77.1	36.3	61.8	142.6	107.7	218.7	221.4	144.6	66.1	1991
252.1	186.3	225.9	233.9	181.0	94.3	76.6	77.2	36.6	62.6	142.3	105.2	230.4	233.4	143.3	66.2	1988 Jan.
242.0	183.2	225.8	233.8	179.8	93.7	77.6	76.7	36.3	62.2	141.7	104.7	230.0	230.4	143.1	66.6	Feb.
241.1	182.9	225.0	233.1	179.7	93.3	76.4	76.3	36.1	64.2	141.4	104.6	232.0	228.5	143.0	66.9	March
238.9	179.9	224.2	232.3	179.1	92.6	75.6	76.0	35.9	65.5	141.1	104.3	235.0	227.7	142.7	67.1	April
236.4	177.0	223.6	231.7	178.2	92.1	75.8	75.9	35.7	65.7	140.7	104.1	236.8	225.1	142.3	67.4	May
224.4	176.3	224.0	232.0	177.0	91.5	77.3	75.8	35.5	64.2	139.6	103.4	235.8	224.1	141.8	67.2	June
212.0	176.4	223.7	231.7	175.3	90.3	79.9	75.3	35.3	63.9	138.1	102.7	230.8	222.8	141.2	67.3	July
209.7	177.0	223.2	231.2	174.2	89.4	81.0	74.5	35.1	64.8	137.3	102.1	232.2	219.4	140.8	67.0	Aug.
212.8	179.5	224.7	232.8	175.7	89.8	81.1	74.6	35.1	63.9	138.2	102.7	230.4	219.3	141.4	67.2	Sep.
214.3	179.8	224.6	232.7	175.9	89.5	78.8	74.5	35.2	64.5	138.5	102.8	237.0	219.0	141.5	67.4	Oct.
225.1	182.1	224.5	232.6	176.9	90.2	76.4	74.7	35.5	65.0	139.1	103.3	243.7	222.0	141.8	67.1	Nov.
220.5	180.0	223.4	231.6	176.3	89.9	76.1	74.4	35.7	65.8	138.6	103.0	242.7	220.5	141.4	67.2	Dec.
210.7	176.6	222.1	230.2	174.2	89.4	78.0	73.8	35.5	65.9	137.3	102.2	240.2	216.3	140.7	67.3	1989 Jan.
207.7	175.9	222.0	230.2	173.8	89.0	78.5	73.7	35.5	65.6	137.0	102.0	240.2	215.8	140.4	67.3	Feb.
207.4	176.6	222.5	230.7	174.2	89.0	79.4	74.2	35.4	64.6	137.3	102.1	236.6	213.5	140.7	67.3	March
205.7	176.1	222.4	230.7	174.2	88.8	79.8	74.5	35.5	64.3	137.4	102.3	233.7	208.7	140.8	67.5	April
198.0	175.1	222.2	230.4	173.2	88.2	82.5	74.0	35.6	63.5	136.8	101.8	227.9	206.0	140.5	67.6	May
195.9	175.9	223.7	232.0	173.7	88.2	84.5	74.0	35.8	61.6	137.3	102.0	220.8	212.4	140.5	67.9	June
203.3	178.0	223.5	231.8	175.3	88.7	82.1	74.5	36.2	62.2	138.1	102.7	221.3	214.5	141.2	67.7	July
197.6	177.2	222.8	231.1	174.3	88.0	82.5	74.5	36.3	61.9	137.6	102.3	221.7	213.4	140.7	67.8	Aug.
196.0	176.9	223.0	231.3	174.3	87.7	83.9	74.5	36.2	61.6	137.5	102.2	217.2	212.7	140.7	68.0	Sep.
203.8	180.4	225.9	234.4	177.6	89.2	82.0	75.3	36.0	60.5	139.3	103.3	218.2	213.5	142.2	67.7	Oct.
206.9	182.7	227.2	235.8	179.5	90.1	81.7	75.9	36.3	59.3	140.6	104.2	214.7	212.7	143.1	67.3	Nov.
216.0	186.7	229.7	238.5	183.5	92.1	80.2	76.9	36.6	58.4	142.9	105.6	210.5	212.2	144.9	66.6	Dec.
224.1	187.5	229.4	238.2	185.0	92.9	79.6	77.7	36.7	59.3	143.8	106.5	205.7	214.9	145.7	66.5	1990 Jan.
231.2	187.2	228.1	236.9	184.9	92.6	79.6	77.9	36.9	60.5	143.7	106.7	203.8	217.0	145.5	66.6	Feb.
224.3	187.5	228.2	237.0	185.0	92.3	81.3	78.4	37.1	58.8	143.9	107.5	195.3	217.5	145.7	67.1	March
223.4	188.2	227.4	236.3	185.8	92.3	81.6	79.1	37.4	58.9	144.4	108.2	187.7	219.7	146.0	67.2	April
228.8	188.0	227.0	235.9	185.4	92.0	80.2	78.7	37.4	59.5	144.4	108.3	191.9	227.0	145.7	66.8	May
225.6	186.4	225.4	234.2	183.9	91.2	80.5	78.3	37.1	61.1	143.3	108.1	192.1	227.5	145.1	66.8	June
228.6	186.4	223.9	232.8	184.0	90.9	78.3	78.5	37.2	63.2	143.1	107.9	195.1	226.5	145.0	66.6	July
236.1	187.8	224.0	232.9	185.8	91.4	76.4	79.1	37.3	64.4	144.1	108.7	193.4	232.9	145.7	66.3	Aug.
238.9	187.6	225.2	234.1	185.1	90.9	75.2	79.2	36.7	63.4	143.8	108.5	205.9	232.5	145.4	66.2	Sep.
246.7	188.2	225.1	234.1	185.4	91.0	72.6	79.3	36.6	63.9	143.9	108.6	217.6	230.2	145.5	65.8	Oct.
253.5	189.4	226.4	235.4	187.3	91.6	72.0	79.6	36.8	63.5	145.0	109.2	216.4	230.7	146.3	65.6	Nov.
251.9	190.2	227.9	237.0	188.7	92.5	73.0	79.3	36.9	63.0	145.7	109.4	209.9	229.5	147.0	65.7	Dec.
247.9	189.7	226.9	236.1	187.5	91.9	73.2	78.8	36.9	63.5	145.1	109.4	210.4	231.9	146.4	65.9	1991 Jan.
252.7	189.7	227.0	236.1	188.2	92.0	72.0	78.8	37.1	63.5	145.5	109.7	213.9	228.8	146.7	66.0	Feb.
233.8	189.3	226.3	235.5	185.0	90.1	75.7	77.7	36.7	62.7	143.6	108.4	211.1	223.3	145.4	66.1	March
219.3	188.6	224.8	233.9	180.9	88.1	77.5	76.8	36.3	62.3	141.4	106.9	216.5	224.3	143.6	66.3	April
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March 13, 1979; the weighted external value against the currencies of the countries currently participating in the exchange rate mechanism is shown for the period prior to this date, too. — 4 Weighted external value against the currencies of 18 industrial countries after adjustment for the differences in inflation rates (geometric means). —

5 The indices are weighted geometric means and relate to the same group of countries as the calculation of the external value of the Deutsche Mark. For information on other currencies see Statistical Supplements to the Monthly Reports, Series 5, The currencies of the world. — 6 Official exchange rate quotation suspended. — p Provisional.

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Information on previously published special studies will be found in the index of special studies appended to the Monthly Report of January 1992.

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