

### III. Money and capital market

#### 1. Central bank interest rates\*

%, year-end data

Period	Discount rate (Bundesbank) or interest rate on the deposit facility (ECB)	Lombard rate (Bundesbank) or interest rate on the marginal lending facility (ECB)	Repo rate (Bundesbank) <sup>1</sup> or interest rate on the main refinancing operations (ECB)	
1948	5.00		6.00	.
1949	4.00		5.00	.
1950	6.00		7.00	.
1951	6.00		7.00	.
1952	4.50		5.50	.
1953	3.50		4.50	.
1954	3.00		4.00	.
1955	3.50		4.50	.
1956	5.00		6.00	.
1957	4.00		5.00	.
1958	3.00		4.00	.
1959	4.00		5.00	.
1960	4.00		5.00	.
1961	3.00		4.00	.
1962	3.00		4.00	.
1963	3.00		4.00	.
1964	3.00		4.00	.
1965	4.00		5.00	.
1966	5.00		6.25	.
1967	3.00		3.50	.
1968	3.00		3.50	.
1969	6.00		9.00	.
1970	6.00		7.50	.
1971	4.00		5.00	.
1972	4.50		6.50	.
1973	7.00		9.00	.
1974	6.00		8.00	.
1975	3.50		4.50	.
1976	3.50		4.50	.
1977	3.00		3.50	.
1978	3.00		3.50	.
1979	6.00		7.00	.
1980	7.50		9.00	.
1981	7.50		9.00	.
1982	5.00		6.00	.
1983	4.00		5.50	.
1984	4.50		5.50	.
1985	4.00		5.50	5.16
1986	3.50		5.50	4.40
1987	2.50		4.50	3.70
1988	3.50		5.50	3.78
1989	6.00		8.00	6.47
1990	6.00		8.50	7.91
1991	8.00		9.75	8.79
1992	8.25		9.50	9.36
1993	5.75		6.75	7.38
1994	4.50		6.00	5.25
1995	3.00		5.00	4.42
1996	2.50		4.50	3.23
1997	2.50		4.50	3.07
1998	2.50		4.50	3.28
1999	2.00		4.00	3.00
2000	3.75		5.75	4.75
2001	2.25		4.25	3.25
2002	1.75		3.75	2.75
2003	1.00		3.00	2.00
2004	1.00		3.00	2.00
2005	1.25		3.25	2.25
2006	2.50		4.50	3.50
2007	3.00		5.00	4.00
2008	2.00		3.00	2.50
2009	0.25		1.75	1.00
2010	0.25		1.75	1.00
2011	0.25		1.75	1.00
2012	0.00		1.50	0.75
2013	0.00		0.75	0.25
2014	-0.20		0.30	0.05
2015	-0.30		0.30	0.05
2016	-0.40		0.25	0.00
2017	-0.40		0.25	0.00
2018	-0.40		0.25	0.00
2019	-0.50		0.25	0.00
2020	-0.50		0.25	0.00

Sources: European Central Bank and Bundesbank calculations. \* Up to 1998 Deutsche Bundesbank interest rates, from 1999 European Central Bank interest rates. 1 Interest rate on open market operations of the Deutsche Bundesbank with securities repurchase agreements.

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#### 2. Money market rates

Annual averages in %

Period	FIBOR/EURIBOR					Memo item: Frankfurt banks' money market rates <sup>1</sup>				
	Overnight deposits <sup>2</sup>	One-month deposits <sup>3</sup>	Three-month deposits <sup>3</sup>	Six-month deposits <sup>3</sup>	Twelve-month deposits <sup>3</sup>	Overnight deposits	One-month deposits	Three-month deposits	Six-month deposits	Twelve-month deposits
1949	3.24	4.48	4.77							
1950	4.31	5.25	4.92							
1951	6.01	6.97	7.08							
1952	5.11	5.81	6.39							
1953	3.57	4.07	4.34							
1954	2.89	3.47	3.75							
1955	3.16	3.85	4.20							
1956	4.71	5.63	6.15							
1957	3.96	4.45	4.95							
1958	3.08	3.29	3.60							
1959	2.70	2.92	3.22							
1960	4.56	4.89	5.10			4.56	4.89	5.10		
1961	2.93	3.31	3.59			2.93	3.31	3.59		
1962	2.66	3.04	3.42			2.66	3.04	3.42		
1963	3.00	3.48	3.98			3.00	3.48	3.98		
1964	3.29	3.64	4.09			3.29	3.64	4.09		
1965	4.10	4.63	5.14			4.10	4.63	5.14		
1966	5.34	5.99	6.63			5.34	5.99	6.63		
1967	3.35	3.61	4.27			3.35	3.61	4.27		
1968	2.59	3.27	3.81			2.59	3.27	3.81		
1969	4.81	5.42	5.79			4.81	5.42	5.79		
1970	8.65	9.22	9.41			8.65	9.22	9.41		
1971	6.16	6.81	7.15			6.16	6.81	7.15		
1972	4.30	5.11	5.61			4.30	5.11	5.61		
1973	10.18	11.26	12.14			10.18	11.26	12.14		
1974	8.87	9.46	9.90			8.87	9.46	9.90		
1975	4.40	4.68	4.96			4.40	4.68	4.96		
1976	3.89	4.05	4.25			3.89	4.05	4.25		
1977	4.14	4.25	4.37			4.14	4.25	4.37		
1978	3.36	3.55	3.70			3.36	3.55	3.70		
1979	5.87	6.31	6.69			5.87	6.31	6.69		
1980	9.06	9.38	9.54			9.06	9.38	9.54		
1981	11.26	11.88	12.11			11.26	11.88	12.11		
1982	8.67	8.81	8.88	8.83	8.86	8.67	8.81	8.88	8.83	8.86
1983	5.36	5.60	5.78	5.91	6.27	5.36	5.60	5.78	5.91	6.27
1984	5.55	5.77	5.99	6.13	6.43	5.55	5.77	5.99	6.13	6.43
1985	5.19	5.32	5.44	5.52	5.64	5.19	5.32	5.44	5.52	5.64
1986	4.57	4.60	4.60	4.61	4.67	4.57	4.60	4.60	4.61	4.67
1987	3.72	3.87	3.99	4.10	4.21	3.72	3.87	3.99	4.10	4.21
1988	4.01	4.16	4.28	4.42	4.58	4.01	4.16	4.28	4.42	4.58
1989	6.59	6.84	7.07	7.19	7.26	6.59	6.84	7.07	7.19	7.26
1990	7.92	8.16	8.43	8.69	8.93	7.92	8.16	8.43	8.69	8.93
1991	8.84	9.08	9.25	9.33	9.38	8.84	9.02	9.18	9.27	9.31
1992	9.42	9.52	9.52	9.42	9.26	9.42	9.47	9.46	9.36	9.20
1993	7.49	7.49	6.98	6.52	6.52	7.49	7.43	7.24	6.92	6.46
1994	5.35	5.39	5.36	5.35	5.43	5.35	5.34	5.31	5.30	5.38
1995	4.50	4.52	4.53	4.57	4.73	4.50	4.47	4.48	4.52	4.68
1996	3.27	3.32	3.31	3.31	3.42	3.27	3.28	3.27	3.27	3.38
1997	3.22	3.27	3.33	3.40	3.56	3.18	3.24	3.30	3.37	3.53
1998	3.45	3.49	3.54	3.60	3.71	3.41	3.48	3.52	3.58	3.68
1999	2.74	2.86	2.97	3.05	3.18	2.73	2.84	2.94	3.03	3.16
2000	4.12	4.24	4.39	4.55	4.78	4.11	4.21	4.37	4.52	4.76
2001	4.38	4.33	4.26	4.16	4.08	4.37	4.31	4.24	4.13	4.06
2002	3.28	3.31	3.32	3.35	3.49	3.28	3.28	3.30	3.33	3.48
2003	2.32	2.35	2.33	2.31	2.34	2.32	2.33	2.32	2.29	2.32
2004	2.05	2.08	2.11	2.15	2.27	2.05	2.06	2.09	2.13	2.25
2005	2.09	2.14	2.19	2.23	2.33	2.09	2.12	2.17	2.22	2.32
2006	2.84	2.94	3.08	3.23	3.44	2.84	2.92	3.06	3.22	3.42
2007	3.86	4.08	4.28	4.35	4.45	3.86	4.06	4.26	4.33	4.43
2008	3.86	4.27	4.63	4.72	4.81	3.82	4.26	4.62	4.70	4.80
2009	0.72	0.90	1.23	1.44	1.62	0.63	0.87	1.20	1.41	1.59
2010	0.44	0.57	0.81	1.08	1.35	0.38	0.53	0.75	1.02	1.28
2011	0.87	1.18	1.39	1.64	2.01	0.81	1.14	1.35	1.59	1.96
2012	0.23	0.33	0.57	0.83	1.11					
2013	0.09	0.13	0.22	0.34	0.54					
2014	0.10	0.13	0.21	0.31	0.48					
2015	-0.11	-0.07	-0.02	0.05	0.17					
2016	-0.32	-0.34	-0.26	-0.16	-0.04					
2017	-0.36	-0.37	-0.33	-0.26	-0.15					
2018	-0.36	-0.37	-0.32	-0.27	-0.17					
2019	-0.39	-0.40	-0.36	-0.30	-0.22					
2020	-0.46	-0.50	-0.43	-0.36	-0.30					

Sources: Deutsches Geld- und Bankwesen in Zahlen 1876 – 1975, Verlag Fritz Knapp GmbH, Frankfurt am Main, 1976, pp. 274 ff., and Bundesbank calculations. <sup>1</sup> Not officially set or quoted. The rates given here are unweighted monthly averages based on data reported by Frankfurt banks. Beginning in March 1970 the series were based on a new, broader survey group. Up to June 1990, calculated using the German 360/360 days method; from July 1990, using the actual/360 method. Data no longer collected as from 1 June 2012. <sup>2</sup> Up to December 1996 money market rates reported by Frankfurt banks; for 1997 and 1998 using the FIBOR for overnight money (O/N) calculated using the actual/360 method; from January 1999 EURIBOR calculated using the actual/360 method. <sup>3</sup> Up to December 1990 money market rates reported by Frankfurt banks; from January 1991 using the FIBOR calculated using the actual/360 method; from January 1999 EURIBOR calculated using the actual/360 method.

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#### 3. Deposit and lending rates of German banks

Period	Banks' effective interest rates <sup>1</sup>						Banks' real interest rates			
	Households' deposits			Revolving loans and overdrafts <sup>2</sup>		Loans to households for house purchase <sup>5</sup>	Households' deposits			
	Maturity of up to 1 year <sup>3</sup>	Maturity of over 2 years	At notice of up to 3 months <sup>4</sup>	Households	Non-financial corporations		Overnight	Maturity of up to 1 year	Maturity of over 2 years	At notice of up to 3 months
1949	2.67		2.50	8.97	8.97					
1950	2.61		2.54	8.86	8.86			9.51	9.43	
1951	3.88		3.00	10.50	10.50			-3.65	-4.47	
1952	3.71		3.00	9.73	9.73			1.51	0.81	
1953	2.79		3.00	8.23	8.23			4.62	4.83	
1954	2.50		3.00	7.88	7.88			2.33	2.83	
1955	2.53		3.00	7.85	7.85			0.89	1.35	
1956	4.16		3.31	9.27	9.27			1.50	0.67	
1957	4.19		3.50	8.87	8.87			2.10	1.42	
1958	2.94		3.17	7.78	7.78			0.77	1.00	
1959	2.13		3.00	7.53	7.53			1.14	2.00	
1960	3.10		3.75	8.94	8.94			1.62	2.26	
1961	2.50		3.50	7.70	7.70			0.22	1.20	
1962	2.25		3.25	7.50	7.50			-0.73	0.24	
1963	2.25		3.25	7.50	7.50			-0.68	0.29	
1964	2.25		3.25	7.50	7.50			-0.08	0.90	
1965	2.58		3.52	8.16	8.16			-0.58	0.33	
1966	3.50		4.50	9.09	9.09			-0.13	0.84	
1967	2.85		3.54	7.65	7.65	7.18		1.16	1.84	
1968	2.90		3.50	7.56	7.56	7.05		1.29	1.88	
1969	3.82		3.75	8.52	8.52	7.20		1.90	1.84	
1970	7.51		4.88	11.12	11.12	8.56		3.98	1.44	
1971	6.21		4.72	10.13	10.13	8.50		0.92	-0.49	
1972	5.14		4.14	8.73	8.73	8.29		-0.34	-1.29	
1973	9.37		5.11	12.26	12.26	9.89		2.22	-1.76	
1974	8.28		5.51	13.60	13.60	10.47		1.19	-1.40	
1975	4.20		4.36	10.14	10.14	8.69		-1.63	-1.48	
1976	3.62	6.81	3.63	8.45	8.45	7.84		-0.64	2.42	
1977	3.65	5.73	3.13	7.99	7.99	7.01		-0.04	1.97	
1978	3.06	4.98	2.55	7.33	7.33	6.42		0.35	2.22	
1979	5.13	6.47	3.15	8.63	8.63	7.66		0.99	2.28	
1980	7.95	7.83	4.64	12.05	12.05	9.55		2.40	2.29	
1981	9.74	9.13	4.92	14.69	14.69	11.06		3.21	2.63	
1982	7.54	8.18	4.85	13.50	13.50			2.16	2.76	
1983	4.56	7.04	3.26	10.05	10.05	8.99		1.24	3.64	
1984	4.86	7.11	3.01	9.82	9.82	8.87		2.39	4.59	
1985	4.44	6.29	2.88	9.53	9.53	7.96		2.31	4.12	
1986	3.71	5.32	2.50	8.75	8.75	6.98		3.84	5.46	
1987	3.20	4.88	2.11	8.36	8.36	6.59		2.95	4.63	
1988	3.29	5.03	2.01	8.33	8.33	6.68		1.98	3.70	
1989	5.50	6.35	2.43	9.94	9.94	7.94		2.63	3.45	
1990	7.07	7.78	2.81	11.59	11.59	9.73		4.27	4.96	
1991	7.62	8.03	2.83	12.46	12.46	9.79		3.85	4.25	
1992	8.01	7.73	2.81	13.59	13.59	9.35		3.86	3.59	
1993	6.27	5.85	2.54	12.85	12.85	7.52		2.58	2.17	
1994	4.47	5.61	2.10	11.48	11.48	7.61		1.79	2.90	
1995	3.85	5.73	2.04	10.94	10.94	7.49		2.06	3.91	
1996	2.83	4.62	1.99	10.02	10.02	6.44		1.38	3.15	
1997	2.69	4.29	1.71	9.13	9.13	5.90	0.02	0.74	2.31	
1998	2.88	4.04	1.56	9.02	9.02	5.41	1.10	1.98	3.13	
1999	2.43	3.54	1.31	8.81	8.81	5.14	1.14	1.80	2.90	
2000	3.40	4.76	1.25	9.63	9.63	6.36	0.68	1.95	3.29	
2001	3.56	4.12	1.19	10.01	10.01	5.68	0.30	1.52	2.07	
2002	2.65	3.77	1.02	9.70	9.70	5.53	0.42	1.24	2.35	
2003	2.17	2.99	2.20	10.55	6.59	4.91	0.06	1.06	1.84	
2004	1.93	2.88	2.13	10.34	6.19	4.74	-0.52	0.26	1.17	
2005	1.92	2.52	2.05	10.40	5.92	4.25	-0.33	0.37	0.93	
2006	2.63	2.66	2.06	10.86	6.24	4.61	-0.26	0.97	1.01	
2007	3.78	3.09	2.35	11.67	6.91	5.09	-0.54	1.44	0.74	
2008	4.15	3.43	2.52	11.88	6.99	5.22	-0.64	1.48	0.72	
2009	1.52	2.92	1.81	10.80	5.22	4.25	0.74	1.07	2.64	
2010	1.10	2.57	1.42	10.31	5.08	3.69	-0.43	-0.02	1.34	
2011	1.41	2.69	1.52	10.49	5.30	3.84	-1.25	-0.65	0.61	
2012	1.19	2.30	1.32	10.13	4.79	3.06	-1.28	-0.80	0.25	
2013	0.73	1.49	0.99	9.67	4.59	2.76	-1.08	-0.76	-0.02	
2014	0.58	1.29	0.76	9.41	4.57	2.49	-0.64	-0.35	0.34	
2015	0.37	0.98	0.46	9.03	4.10	1.95	-0.37	-0.16	0.44	
2016	0.31	0.87	0.29	8.68	3.75	1.76	-0.40	-0.18	0.37	
2017	0.20	0.68	0.20	8.49	3.56	1.83	-1.46	-1.30	-0.83	
2018	0.29	0.67	0.16	8.26	3.27	1.87	-1.70	-1.43	-1.06	
2019	0.20	0.71	0.13	7.86	3.01	1.52	-1.40	-1.23	-0.71	
2020	0.13	0.63	0.11	7.37	2.81	1.25	-0.51	-0.38	0.12	

Source: Bundesbank calculations. <sup>1</sup> Up to 1966 government-regulated interest rates. Limited comparability with the averages of the freely agreed interest rates from 1967. <sup>2</sup> From 1949 to 1966 costs of agreed current account credit. No interest rate fixation period for loans with a maturity of 4 years or more. As a rule, the nominal rates for agreed loans were 4.5% higher than the discount rate. Until 28 February 1965 the loan fee for agreed loans was included in the rates. From 1967 to October 1996 loans of less than DEM 1 million; from November 1996 to December 2001 loans of DEM 200,000 up to but not exceeding DEM 1 million; from January 2002 to December 2002 loans of € 100,000 up to but not exceeding € 500,000. From January 2003 revolving loans and overdrafts. <sup>3</sup> From 1949 to 1966 with an agreed maturity of 90 to 179 days. For deposits of more than DEM 50,000 or DEM 1 million, higher rates applied from 1 September 1949 to 19 November 1958. From 1967 to May 1986 maturity of 3 months; from June 1986 to October 1996 maturity of 1 month to 3 months; thereafter 1 month. From July 1966 to May 1986 the rates refer to time deposits of less than DEM 1 million; from June 1986 to December 2001 of DEM 100,000 up to but not exceeding DEM 1 million; from January 2002 of € 50,000 up to but not exceeding € 500,000. From January 2003 interest rates on households' deposits with an agreed maturity of up to 1 year. <sup>4</sup> Up to December 2002 computed as unweighted arithmetic mean of reported interest rates. From January 1991, the interest rates of banks in the former GDR were also included in the survey. Up to June 1993 savings deposits at statutory notice. Only minimum rates of return, but no premium or bonus. From January 2003 the interest rates are computed as volume-weighted averages from the monthly data (volume-weighted average rate of holdings at month-end), including loyalty incentives and growth premiums. <sup>5</sup> Effective interest rate; until May 1982 loans with any kind of interest rate agreement; from June 1982 mortgage loans at fixed 5-year rates. From January 2003 lending rates for households for house purchase.

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#### 4. Capital market developments

Period	Net issuance of domestic bonds		Net purchases of domestic bonds		Capital market rates <sup>1</sup> %, annual average	CDAX annual average
	Total	Public debt securities	Domestic non-banks	Non-residents		
	DEM/€ million					
1948	19	.	.	.	.	.
1949	771	420	.	.	.	.
1950	677	218	.	.	.	.
1951	748	56	.	.	.	.
1952	1,549	412	.	.	.	.
1953	2,865	773	.	.	.	.
1954	4,568	346	.	.	.	.
1955	3,607	302	.	.	.	.
1956	2,149	33	.	.	.	.
1957	3,437	115	.	.	.	.
1958	7,418	1,645	.	.	.	.
1959	8,043	1,433	.	.	.	.
1960	4,342	1,179	.	.	.	.
1961	7,976	1,893	.	.	.	.
1962	9,531	2,350	.	.	.	.
1963	12,067	3,267	.	.	.	.
1964	13,507	3,267	.	.	.	.
1965	12,468	3,109	.	.	.	.
1966	5,526	419	.	.	.	.
1967	15,321	5,094	.	.	.	.
1968	17,795	3,700	.	.	.	.
1969	13,479	610	5,408	.	.	.
1970	15,059	2,069	10,712	.	.	.
1971	21,267	4,464	12,380	1,075	.	.
1972	35,043	7,402	18,409	7,857	.	.
1973	26,825	4,365	14,980	5,666	.	.
1974	26,655	6,033	12,258	-2,057	.	41.6
1975	48,924	13,471	15,368	-3,208	.	49.1
1976	48,361	16,883	29,702	3,638	.	52.1
1977	50,474	21,191	18,802	573	.	52.3
1978	44,620	14,239	15,489	964	.	56.6
1979	42,134	5,294	38,637	3,233	.	54.4
1980	44,997	4,938	29,962	1,015	.	52.2
1981	67,142	-2,931	51,997	-1,354	.	53.3
1982	74,474	28,791	24,655	3,031	.	54.2
1983	87,572	34,456	36,018	11,480	.	72.3
1984	72,111	37,011	34,653	12,836	.	82.5
1985	79,368	44,276	16,453	30,753	.	112.2
1986	88,370	57,289	1,298	57,421	.	157.2
1987	92,960	62,667	11,242	33,608	.	136.4
1988	40,959	49,092	-233	1,842	.	113.7
1989	80,594	27,530	42,013	22,171	.	146.0
1990	226,707	86,449	121,144	20,387	8.7	172.2
1991	227,822	87,868	125,809	65,965	8.5	155.1
1992	304,751	189,142	45,581	121,066	7.8	148.7
1993	403,212	243,049	23,284	227,745	6.5	157.2
1994	270,088	153,630	133,966	8,583	6.9	180.6
1995	205,482	32,039	89,055	77,891	6.9	176.3
1996	238,427	42,788	36,400	121,602	6.2	199.1
1997	257,521	67,437	17,611	134,881	5.6	272.7
1998	327,991	60,243	14,247	166,610	4.6	348.5
1999	209,096	36,840	34,129	139,710	4.5	361.2
2000	155,615	25,522	33,245	74,825	5.3	458.8
2001	84,122	14,479	19,536	68,946	4.8	346.2
2002	131,976	61,277	12,277	114,920	4.8	265.4
2003	124,556	65,253	45,999	79,122	4.1	205.7
2004	167,233	66,605	-41,091	125,772	4.0	253.1
2005	141,715	65,819	-25,150	157,940	3.4	292.8
2006	129,423	55,482	19,794	116,583	3.8	365.3
2007	86,579	32,093	-125,594	244,560	4.2	453.8
2008	119,472	28,302	-80,506	58,254	4.0	361.0
2009	76,441	103,482	-43,256	-19,945	3.2	271.6
2010	21,566	85,464	-22,893	53,938	2.7	328.8
2011	22,518	80,289	7,748	57,525	2.6	344.8
2012	-85,298	21,298	-55,401	55,581	1.5	346.0
2013	-140,017	-15,479	-35,049	-32,379	1.6	409.9
2014	-34,020	12,383	-16,157	14,366	1.2	458.7
2015	-65,147	-13,174	113,945	-83,471	0.5	518.7
2016	21,951	-7,020	161,574	-92,768	0.1	476.7
2017	2,669	-10,114	147,025	-86,621	0.3	568.2
2018	2,758	-33,630	85,386	-37,028	0.4	559.6
2019	59,719	519	38,987	39,834	-0.3	531.8
2020	335,438	260,877	206,104	152,304	-0.5	528.8

Sources: Deutsche Börse AG, Federal Statistical Office, European Central Bank and Bundesbank calculations. 1 Long-term capital market rate according to EU convergence criteria.