II. Euro foreign exchange reference rates of the European Central Bank *

1. End-of-month and daily rates

EUR 1 = CU ...

Period		EU member countries						
		Bulgaria [1]	Czechia	Denmark	Hungary	Poland	Romania	Sweden
		Bulgarian lev BGN	Czech koruna CZK	Danish krone DKK	Hungarian forint HUF	Polish zloty PLN	Romanian leu RON	Swedish krona SEK
2025 Oct.		1.9558	24.327	7.4677	388.10	4.2560	5.0858	10.9250
Nov.		1.9558	24.177	7.4688	381.43	4.2390	5.0909	10.9695
Dec.		1.9558	24.237	7.4689	385.15	4.2210	5.0968	10.8215
2026 Jan.		–	24.325	7.4674	380.70	4.2073	5.0964	10.5205
Feb.		–	24.244	7.4718	376.63	4.2243	5.0957	10.6643
Mar.		–	24.514	7.4730	384.88	4.2890	5.0991	10.9430
Apr.		–	24.366	7.4716	364.85	4.2605	5.1823	10.8555
May		–	24.282	7.4731	353.69	4.2275	5.2523	10.7720
June		–	24.256	7.4744	356.30	4.2955	5.2439	11.0935
July		–	24.212	7.4752	364.25	4.3135	5.2467	10.9855
Aug.		–	24.122	7.4751	364.35	4.3280	5.2592	11.1100
Sep.		–	24.440	7.4755	366.20	4.3690	5.2788	11.3310
Oct.		–	24.353	7.4735	366.33	4.4038	5.3447	10.9780
2026 Oct.	28	–	24.367	7.4741	366.88	4.4045	5.3508	11.0560
	29	–	24.336	7.4736	365.95	4.3938	5.3441	10.9995
	30	–	24.353	7.4735	366.33	4.4038	5.3447	10.9780
Nov.	2	–	24.351	7.4737	364.50	4.4185	5.3405	10.9475
	3	–	24.343	7.4735	364.40	4.4190	5.3428	10.9515
	4	–	24.309	7.4738	363.03	4.3990	5.3440	10.9718
	5	–	24.289	7.4747	363.18	4.3890	5.3385	10.9845
	6	–	24.350	7.4752	363.90	4.3925	5.3403	11.0260
	9	–	24.365	7.4753	362.99	4.3843	5.3430	10.9960
	10	–	24.337	7.4754	362.98	4.3870	5.3442	10.9910
	11	–	24.378	7.4755	365.08	4.4038	5.3451	11.0510
	12	–	24.379	7.4754	364.98	4.4088	5.3473	11.0628
	13	–	24.424	7.4756	365.60	4.4113	5.3494	11.1075
	16	–	24.428	7.4752	364.35	4.4030	5.3493	11.0950
	17	–	24.387	7.4749	364.93	4.4038	5.3482	11.1100
	18	–	24.386	7.4744	368.40	4.4118	5.3467	11.1430
	19	–	24.427	7.4742	369.43	4.4170	5.3473	11.1470
	20	–	24.469	7.4746	373.55	4.4583	5.3493	11.2125
	23	–	24.455	7.4746	372.28	4.4588	5.3483	11.2375

Period		Other European and non-European countries						
		Australia	Brazil	Canada	China	Hong Kong	Iceland	India
		Australian dollar AUD	Brazilian real BRL	Canadian dollar CAD	Yuan (renminbi) CNY	Hong Kong dollar HKD	Icelandic krona ISK	Indian rupee INR
2025 Oct.		1.7672	6.2171	1.6207	8.2220	8.9787	144.80	102.5070
Nov.		1.7721	6.1752	1.6210	8.1836	9.0020	148.20	103.4905
Dec.		1.7581	6.4364	1.6088	8.2262	9.1464	147.20	105.5965
2026 Jan.		1.7001	6.2233	1.6120	8.2834	9.3067	145.20	109.5825
Feb.		1.6612	6.0862	1.6139	8.0961	9.2359	143.50	107.5205
Mar.		1.6693	6.0065	1.6022	7.9341	9.0136	143.60	107.8788
Apr.		1.6371	5.8292	1.5994	7.9910	9.1662	144.00	111.0695
May		1.6238	5.8747	1.6074	7.8793	9.1238	143.40	110.6195
June		1.6544	5.9003	1.6220	7.7314	8.9350	144.00	107.8565
July		1.6365	5.8095	1.6126	7.7539	9.0079	142.60	109.5495
Aug.		1.6191	5.9972	1.6102	7.7922	9.0888	140.80	110.3610
Sep.		1.6297	5.9077	1.6105	7.6130	8.9095	137.00	108.8205
Oct.		1.5904	6.0692	1.5606	7.4326	8.7652	136.00	106.0840
2026 Oct.	28	1.5830	5.9307	1.5638	7.4217	8.7339	135.80	106.0095
	29	1.5842	5.9563	1.5577	7.4144	8.7330	135.80	106.0345
	30	1.5904	6.0692	1.5606	7.4326	8.7652	136.00	106.0840
Nov.	2	1.6004	6.0990	1.5673	7.4567	8.8002	136.20	106.4505
	3	1.6007	6.1411	1.5623	7.4590	8.7710	136.20	105.9155
	4	1.6061	6.1579	1.5701	7.5177	8.8399	136.80	106.6318
	5	1.6033	6.1355	1.5675	7.4846	8.8055	136.80	106.0395
	6	1.6250	6.1449	1.5705	7.4485	8.7505	136.80	104.8645
	9	1.6236	6.1748	1.5785	7.4689	8.7772	136.80	105.1435
	10	1.6244	6.2257	1.5852	7.4801	8.7973	137.20	105.3315
	11	1.6222	6.1827	1.5839	7.4225	8.7298	136.80	104.2540
	12	1.6246	6.2241	1.5789	7.3891	8.6928	136.60	104.2118
	13	1.6288	6.2595	1.5758	7.3738	8.6714	136.60	104.1575
	16	1.6301	6.2838	1.5734	7.3425	8.6427	136.80	103.4520
	17	1.6316	6.3539	1.5704	7.3254	8.6221	137.00	102.7200
	18	1.6294	6.3818	1.5690	7.3126	8.6063	137.00	102.4905
	19	1.6378	6.4765	1.5719	7.3280	8.6239	137.20	102.5500
	20	1.6487	6.5259	1.5723	7.3388	8.6150	137.20	101.8500
	23	1.6532	6.5611	1.5711	7.2905	8.5772	137.20	101.6395

***** See Explanatory notes, p. 48. **1** Accession to the euro area on 1 January 2026.

II. Euro foreign exchange reference rates of the European Central Bank *

1. End-of-month and daily rates (cont'd)

EUR 1 = CU ...

Period	Other European and non-European countries (cont´d)							
	Indonesia Indonesian rupiah IDR	Israel New shekel ILS	Japan Japanese yen JPY	Korea, Republic of South Korean won KRW	Malaysia Malaysian ringgit MYR	Mexico Mexican peso MXN	New Zealand New Zealand dollar NZD	Norway Norwegian krone NOK
2025 Oct.	19,251.16	3.7544	178.14	1,650.07	4.8388	21.4286	2.0212	11.6485
Nov.	19,269.07	3.7705	180.57	1,699.81	4.7796	21.2168	2.0247	11.7645
Dec.	19,640.83	3.7471	184.09	1,696.94	4.7682	21.1180	2.0380	11.8430
2026 Jan.	20,010.00	3.6799	183.59	1,719.47	4.7044	20.5979	1.9660	11.3885
Feb.	19,833.70	3.7107	184.13	1,702.25	4.5933	20.3189	1.9731	11.2085
Mar.	19,506.24	3.6380	183.39	1,753.22	4.6555	20.7101	2.0061	11.2125
Apr.	20,297.94	3.4553	183.21	1,728.39	4.6457	20.4973	1.9957	10.9123
May	20,745.24	3.2682	185.45	1,753.90	4.6168	20.1905	1.9491	10.7735
June	20,398.91	3.3953	185.08	1,767.08	4.6544	19.9030	2.0136	11.3105
July	20,733.18	3.5114	184.03	1,657.99	4.6933	19.9512	1.9589	10.9420
Aug.	20,536.52	3.4647	185.22	1,586.37	4.6685	19.7228	1.9599	10.8320
Sep.	20,315.34	3.4901	178.27	1,539.06	4.6306	20.5816	2.0115	10.9015
Oct.	20,275.17	3.4950	175.68	1,491.76	4.5325	21.1237	1.9823	10.3120
2026 Oct. 28	20,235.79	3.4801	175.86	1,492.35	4.5389	20.7416	1.9833	10.3475
29	20,193.16	3.4680	175.92	1,488.40	4.5182	20.8661	1.9817	10.3315
30	20,275.17	3.4950	175.68	1,491.76	4.5325	21.1237	1.9823	10.3120
Nov. 2	20,341.45	3.5210	177.10	1,506.20	4.5655	20.9963	1.9934	10.3775
3	20,275.02	3.5292	176.95	1,503.12	4.5577	20.7896	1.9876	10.3185
4	20,425.83	3.5641	178.30	1,508.18	4.5789	21.0086	1.9988	10.3970
5	20,281.15	3.5598	177.85	1,509.28	4.5412	20.8655	1.9966	10.4365
6	20,208.93	3.5717	176.77	1,517.02	4.5319	20.8828	2.0141	10.5260
9	20,234.31	3.5490	176.79	1,507.46	4.5432	20.8343	1.9941	10.5325
10	20,255.34	3.5507	177.38	1,501.56	4.5484	20.8063	1.9925	10.6155
11	20,223.32	3.5290	177.18	1,487.57	4.5326	20.7623	1.9928	10.6145
12	20,225.76	3.5495	176.96	1,478.32	4.5194	20.7113	1.9942	10.5630
13	20,163.71	3.5485	176.83	1,477.80	4.5175	20.5491	1.9978	10.5695
16	20,110.00	3.5509	175.78	1,470.23	4.5102	20.4429	1.9971	10.5740
17	20,077.73	3.5674	175.05	1,468.36	4.4983	20.2895	1.9985	10.5755
18	20,020.71	3.5798	174.85	1,461.30	4.5144	20.3738	1.9951	10.6045
19	20,073.10	3.6149	175.84	1,460.23	4.5205	20.7946	1.9890	10.6475
20	20,071.37	3.6737	174.35	1,472.04	4.5196	20.9547	1.9968	10.7180
23	19,932.94	3.6643	174.01	1,475.51	4.5101	21.0528	2.0079	10.7285

Period	Other European and non-European countries (cont´d)							
	Philippines Philippine peso PHP	Singapore Singapore dollar SGD	South Africa South African rand ZAR	Switzerland Swiss franc CHF	Thailand Thai baht THB	Turkey Turkish lira TRY	United Kingdom Pound sterling GBP	United States US dollar USD
2025 Oct.	67.835	1.5039	20.0452	0.9287	37.348	48.5832	0.88160	1.1554
Nov.	67.853	1.5008	19.7962	0.9318	37.237	49.1509	0.87520	1.1566
Dec.	69.266	1.5105	19.4439	0.9314	37.218	50.4838	0.87260	1.1750
2026 Jan.	70.211	1.5111	18.9906	0.9157	37.455	51.8324	0.86620	1.1919
Feb.	68.095	1.4942	18.8178	0.9104	36.696	51.8946	0.87630	1.1805
Mar.	69.780	1.4811	19.6271	0.9194	37.667	51.1433	0.86833	1.1498
Apr.	71.918	1.4934	19.6480	0.9190	38.084	52.8757	0.86625	1.1702
May	71.694	1.4870	18.8913	0.9111	37.866	53.4297	0.86723	1.1644
June	69.911	1.4754	18.6544	0.9224	37.862	53.1642	0.86178	1.1394
July	70.367	1.4757	19.0364	0.9304	38.435	54.5829	0.85573	1.1485
Aug.	72.355	1.4758	18.6885	0.9376	38.458	55.9648	0.85648	1.1596
Sep.	71.204	1.4503	18.6123	0.9478	38.113	55.6596	0.85463	1.1355
Oct.	71.143	1.4282	18.6455	0.9194	37.683	55.8015	0.83380	1.1172
2026 Oct. 28	71.240	1.4274	18.5339	0.9247	37.602	55.4846	0.83785	1.1133
29	71.052	1.4265	18.5218	0.9222	37.569	55.4691	0.83578	1.1130
30	71.143	1.4282	18.6455	0.9194	37.683	55.8015	0.83380	1.1172
Nov. 2	71.274	1.4344	18.6619	0.9193	37.865	56.0442	0.83580	1.1216
3	70.943	1.4322	18.5995	0.9166	37.735	55.8921	0.83358	1.1179
4	71.578	1.4398	18.5404	0.9188	37.902	56.3598	0.83460	1.1267
5	70.706	1.4336	18.4268	0.9180	37.533	56.1729	0.83393	1.1224
6	70.358	1.4309	18.4649	0.9143	37.459	55.9957	0.83415	1.1165
9	70.712	1.4328	18.4105	0.9164	37.485	56.1199	0.83430	1.1193
10	70.540	1.4335	18.3861	0.9203	37.522	56.3207	0.83545	1.1214
11	70.379	1.4271	18.4307	0.9234	37.487	55.8897	0.83618	1.1127
12	70.616	1.4249	18.5219	0.9232	37.470	55.6906	0.83595	1.1081
13	70.526	1.4236	18.7481	0.9266	37.483	55.6667	0.83559	1.1052
16	70.439	1.4195	18.6610	0.9244	37.326	55.5020	0.83450	1.1014
17	69.974	1.4163	18.6073	0.9233	37.187	55.3987	0.83305	1.0989
18	69.832	1.4144	18.8897	0.9243	37.264	55.3197	0.83290	1.0968
19	70.014	1.4176	18.9948	0.9262	37.268	55.4737	0.83581	1.0992
20	70.091	1.4160	19.1987	0.9223	37.262	55.5788	0.83735	1.0990
23	69.851	1.4124	19.1513	0.9186	37.242	55.3405	0.83673	1.0939

* See Explanatory notes, p. 48.

II. Euro foreign exchange reference rates of the European Central Bank *

2. Annual and monthly averages +

EUR 1 = CU ...

Period	EU member countries						
	Bulgaria [1]	Czechia	Denmark	Hungary	Poland	Romania	Sweden
	Bulgarian lev BGN	Czech koruna CZK	Danish krone DKK	Hungarian forint HUF	Polish zloty PLN	Romanian leu RON	Swedish krona SEK
2024	1.9558	25.120	7.4589	395.30	4.3058	4.9746	11.4325
2025	1.9558	24.688	7.4634	397.77	4.2397	5.0424	11.0663
2024 Sep.	1.9558	25.099	7.4600	394.86	4.2761	4.9744	11.3577
Oct.	1.9558	25.298	7.4593	401.90	4.3170	4.9750	11.4048
Nov.	1.9558	25.301	7.4583	409.25	4.3317	4.9762	11.5828
Dec.	1.9558	25.136	7.4589	411.99	4.2704	4.9749	11.5040
2025 Jan.	1.9558	25.163	7.4609	411.73	4.2467	4.9752	11.4797
Feb.	1.9558	25.077	7.4592	403.13	4.1722	4.9770	11.2474
Mar.	1.9558	25.001	7.4597	399.81	4.1820	4.9768	10.9675
Apr.	1.9558	25.039	7.4648	406.44	4.2652	4.9775	10.9744
May	1.9558	24.923	7.4600	403.94	4.2538	5.0714	10.8812
June	1.9558	24.804	7.4597	402.08	4.2658	5.0454	11.0094
July	1.9558	24.625	7.4625	399.19	4.2541	5.0716	11.1985
Aug.	1.9558	24.517	7.4638	396.45	4.2613	5.0651	11.1610
Sep.	1.9558	24.347	7.4644	391.63	4.2589	5.0740	11.0004
Oct.	1.9558	24.315	7.4680	389.91	4.2488	5.0872	10.9699
Nov.	1.9558	24.234	7.4679	384.20	4.2376	5.0867	10.9915
Dec.	1.9558	24.259	7.4696	384.97	4.2239	5.0913	10.8956
2026 Jan.	–	24.278	7.4703	384.18	4.2127	5.0919	10.6815
Feb.	–	24.260	7.4702	378.61	4.2184	5.0945	10.6351
Mar.	–	24.438	7.4717	389.19	4.2715	5.0954	10.7614
Apr.	–	24.381	7.4728	368.96	4.2502	5.0991	10.8348
May	–	24.313	7.4728	358.23	4.2412	5.2296	10.8613
June	–	24.208	7.4744	353.94	4.2568	5.2421	10.9548
July	–	24.207	7.4752	359.47	4.3179	5.2372	11.0458
Aug.	–	24.179	7.4755	363.38	4.3096	5.2493	11.0232
Sep.	–	24.296	7.4752	364.93	4.3445	5.2633	11.2329
Oct.	–	24.367	7.4746	365.77	4.3813	5.3392	11.1530

Period	Other European and non-European countries						
	Australia	Brazil	Canada	China	Hong Kong	Iceland	India
	Australian dollar AUD	Brazilian real BRL	Canadian dollar CAD	Yuan (renminbi) CNY	Hong Kong dollar HKD	Icelandic krona ISK	Indian rupee INR
2024	1.6397	5.8283	1.4821	7.7875	8.4454	149.31	90.5563
2025	1.7518	6.3072	1.5787	8.1185	8.8104	144.66	98.5239
2024 Sep.	1.6398	6.1528	1.5037	7.8611	8.6528	152.21	93.0808
Oct.	1.6250	6.1195	1.4993	7.7276	8.4726	149.07	91.6266
Nov.	1.6267	6.1729	1.4855	7.6617	8.2699	146.72	89.6717
Dec.	1.6529	6.3843	1.4915	7.6298	8.1459	145.24	89.0453
2025 Jan.	1.6626	6.2408	1.4904	7.5560	8.0605	145.40	89.3418
Feb.	1.6528	6.0053	1.4893	7.5749	8.1031	146.26	90.6346
Mar.	1.7158	6.2368	1.5518	7.8353	8.4000	145.26	93.4985
Apr.	1.7844	6.4759	1.5701	8.1850	8.7071	145.00	95.9723
May	1.7521	6.3953	1.5646	8.1348	8.8022	145.49	96.1427
June	1.7723	6.3913	1.5754	8.2700	9.0387	143.45	98.9782
July	1.7862	6.4611	1.5982	8.3754	9.1661	142.39	100.6043
Aug.	1.7920	6.3439	1.6057	8.3442	9.1035	143.10	101.8425
Sep.	1.7795	6.3013	1.6227	8.3586	9.1342	142.98	103.6023
Oct.	1.7781	6.2614	1.6280	8.2810	9.0426	142.22	102.8353
Nov.	1.7772	6.1728	1.6248	8.2149	8.9898	146.83	102.7101
Dec.	1.7634	6.3806	1.6168	8.2491	9.1114	148.19	105.4131
2026 Jan.	1.7304	6.2674	1.6173	8.1806	9.1523	146.32	106.6826
Feb.	1.6763	6.1529	1.6140	8.1682	9.2421	144.75	107.3203
Mar.	1.6470	6.0498	1.5848	7.9703	9.0461	144.04	107.3446
Apr.	1.6489	5.8830	1.6097	8.0005	9.1703	143.73	109.4829
May	1.6258	5.8191	1.6027	7.9352	9.1436	143.55	111.5368
June	1.6391	5.8989	1.6165	7.8045	9.0272	143.94	109.3451
July	1.6396	5.8449	1.6119	7.7371	8.9526	143.27	109.4158
Aug.	1.6325	5.9684	1.6123	7.8092	9.0920	141.76	110.6529
Sep.	1.6166	5.9227	1.6073	7.7242	9.0301	139.25	109.9142
Oct.	1.6032	5.7430	1.5839	7.4883	8.7895	136.46	107.0116

***** See Explanatory notes, p. 48. + Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB. **1** Accession to the euro area on 1 January 2026.

II. Euro foreign exchange reference rates of the European Central Bank *

2. Annual and monthly averages + (cont'd)

EUR 1 = CU ...

Period	Other European and non-European countries (cont´d)							
	Indonesia Indonesian rupiah IDR	Israel New shekel ILS	Japan Japanese yen JPY	Korea, Republic of South Korean won KRW	Malaysia Malaysian ringgit MYR	Mexico Mexican peso MXN	New Zealand New Zealand dollar NZD	Norway Norwegian krone NOK
2024	17,157.68	4.0067	163.85	1,475.40	4.9503	19.8314	1.7880	11.6290
2025	18,623.06	3.8927	169.04	1,605.45	4.8339	21.6705	1.9422	11.7173
2024 Sep.	17,020.23	4.1452	159.08	1,478.72	4.7341	21.7625	1.7845	11.7852
Oct.	16,988.19	4.1020	163.20	1,484.59	4.6883	21.4603	1.7917	11.7907
Nov.	16,817.07	3.9523	163.23	1,482.25	4.7141	21.6152	1.7967	11.7408
Dec.	16,810.95	3.7896	161.08	1,506.85	4.6728	21.2338	1.8217	11.7447
2025 Jan.	16,832.40	3.7450	161.92	1,503.60	4.6232	21.2951	1.8393	11.7456
Feb.	17,020.42	3.7149	158.09	1,505.02	4.6261	21.3268	1.8337	11.6574
Mar.	17,800.79	3.9523	161.17	1,576.45	4.7927	21.8760	1.8879	11.5472
Apr.	18,871.74	4.1460	161.67	1,617.41	4.9510	22.5071	1.9256	11.8380
May	18,526.84	4.0189	163.14	1,566.14	4.8091	21.9250	1.8998	11.5968
June	18,776.57	4.0064	166.52	1,573.37	4.8848	21.9261	1.9114	11.5841
July	19,029.69	3.9148	171.53	1,608.95	4.9462	21.8347	1.9471	11.8537
Aug.	18,967.88	3.9507	171.79	1,617.15	4.9166	21.7728	1.9721	11.8653
Sep.	19,399.67	3.9235	173.55	1,634.39	4.9417	21.7063	1.9940	11.6702
Oct.	19,310.79	3.8204	176.15	1,655.92	4.9028	21.4305	2.0198	11.6633
Nov.	19,303.88	3.7629	179.32	1,687.64	4.8021	21.2957	2.0439	11.7402
Dec.	19,548.05	3.7648	182.50	1,717.44	4.7920	21.1787	2.0249	11.8428
2026 Jan.	19,757.02	3.6916	183.94	1,710.38	4.7262	20.7288	2.0090	11.6670
Feb.	19,896.39	3.6699	183.45	1,712.39	4.6261	20.3806	1.9683	11.3206
Mar.	19,561.24	3.5988	183.40	1,723.13	4.5687	20.5284	1.9762	11.1658
Apr.	20,083.87	3.5438	186.21	1,734.05	4.6484	20.4023	2.0000	11.0332
May	20,538.00	3.3830	184.71	1,740.27	4.6121	20.2055	1.9786	10.7936
June	20,614.71	3.3802	185.11	1,762.32	4.6866	20.0105	1.9914	11.0338
July	20,564.00	3.4629	185.54	1,702.16	4.6614	19.9487	1.9768	11.0822
Aug.	20,641.11	3.4671	184.10	1,626.41	4.7125	19.7814	1.9623	10.9274
Sep.	20,426.18	3.4907	180.04	1,563.92	4.6862	19.8457	1.9961	10.8003
Oct.	20,164.79	3.4576	176.91	1,497.12	4.5727	20.6419	1.9877	10.5914

Period	Other European and non-European countries (cont´d)							
	Philippines Philippine peso PHP	Singapore Singapore dollar SGD	South Africa South African rand ZAR	Switzerland Swiss franc CHF	Thailand Thai baht THB	Turkey Turkish lira TRY	United Kingdom Pound sterling GBP	United States US dollar USD
2024	62.007	1.4458	19.8297	0.9526	38.181	35.5734	0.84662	1.0824
2025	64.977	1.4756	20.1789	0.9370	37.116	44.8161	0.85679	1.1300
2024 Sep.	62.256	1.4396	19.5634	0.9414	37.012	37.8238	0.84021	1.1106
Oct.	62.655	1.4283	19.1609	0.9386	36.411	37.3473	0.83496	1.0904
Nov.	62.410	1.4206	19.0553	0.9355	36.596	36.6237	0.83379	1.0630
Dec.	61.203	1.4144	19.0606	0.9339	35.794	36.6588	0.82804	1.0479
2025 Jan.	60.479	1.4092	19.3821	0.9414	35.444	36.8091	0.83908	1.0354
Feb.	60.443	1.4022	19.2451	0.9413	35.189	37.6927	0.83071	1.0413
Mar.	62.013	1.4441	19.7403	0.9548	36.522	40.1683	0.83703	1.0807
Apr.	63.744	1.4852	21.1972	0.9370	37.883	42.7740	0.85379	1.1214
May	62.742	1.4589	20.4124	0.9356	37.143	43.7908	0.84350	1.1278
June	64.901	1.4782	20.5631	0.9380	37.564	45.4347	0.84981	1.1516
July	66.415	1.4960	20.7477	0.9325	37.883	46.9835	0.86469	1.1677
Aug.	66.452	1.4954	20.6230	0.9387	37.755	47.4983	0.86528	1.1631
Sep.	67.212	1.5075	20.4793	0.9350	37.549	48.4914	0.86895	1.1732
Oct.	67.884	1.5074	20.0976	0.9289	37.886	48.6799	0.87155	1.1630
Nov.	68.066	1.5058	19.9088	0.9290	37.436	48.8908	0.87997	1.1560
Dec.	68.941	1.5120	19.7180	0.9332	37.009	49.9695	0.87500	1.1709
2026 Jan.	69.479	1.5027	19.1152	0.9272	36.735	50.7458	0.86828	1.1738
Feb.	68.790	1.4979	18.9206	0.9140	36.960	51.6771	0.87032	1.1824
Mar.	68.874	1.4790	19.3533	0.9094	37.298	51.0938	0.86631	1.1558
Apr.	70.609	1.4933	19.3554	0.9213	37.784	52.4489	0.86933	1.1706
May	71.650	1.4891	19.2317	0.9149	37.951	53.1584	0.86565	1.1673
June	70.462	1.4833	18.8681	0.9205	37.874	53.3090	0.86372	1.1518
July	70.335	1.4746	18.8035	0.9256	38.259	53.7599	0.85392	1.1417
Aug.	71.236	1.4796	18.7357	0.9362	38.270	55.5105	0.85606	1.1593
Sep.	72.097	1.4652	18.6640	0.9430	38.240	56.0149	0.85813	1.1513
Oct.	70.769	1.4338	18.5546	0.9282	37.692	55.4170	0.84282	1.1202

***** See Explanatory notes, p. 48. + Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB.

II. Euro foreign exchange reference rates of the European Central Bank *

3. End-of-year rates and annual averages

EUR 1 = CU …

Period	EU member countries							
	Bulgaria [1]	Croatia [1]	Czechia	Denmark	Hungary	Latvia [1]	Lithuania [1]	Poland
	Bulgarian lev BGN	Kuna HRK	Czech koruna CZK	Danish krone DKK	Hungarian forint HUF	Latvian lats LVL	Lithuanian litas LTL	Polish zloty PLN
End of year								
2012	1.9558	7.5575	25.151	7.4610	292.30	0.697700	3.4528	4.0740
2013	1.9558	7.6265	27.427	7.4593	297.04	0.702804	3.4528	4.1543
2014	1.9558	7.6580	27.735	7.4453	315.54	–	3.4528	4.2732
2015	1.9558	7.6380	27.023	7.4626	315.98	–	–	4.2639
2016	1.9558	7.5597	27.021	7.4344	309.83	–	–	4.4103
2017	1.9558	7.4400	25.535	7.4449	310.33	–	–	4.1770
2018	1.9558	7.4125	25.724	7.4673	320.98	–	–	4.3014
2019	1.9558	7.4395	25.408	7.4715	330.53	–	–	4.2568
2020	1.9558	7.5519	26.242	7.4409	363.89	–	–	4.5597
2021	1.9558	7.5156	24.858	7.4364	369.19	–	–	4.5969
2022	1.9558	7.5365	24.116	7.4365	400.87	–	–	4.6808
2023	1.9558	–	24.724	7.4529	382.80	–	–	4.3395
2024	1.9558	–	25.185	7.4578	411.35	–	–	4.2750
2025	1.9558	–	24.237	7.4689	385.15	–	–	4.2210
Annual averages +								
2012	1.9558	7.5217	25.149	7.4437	289.25	0.6973	3.4528	4.1847
2013	1.9558	7.5786	25.980	7.4579	296.87	0.7015	3.4528	4.1975
2014	1.9558	7.6344	27.536	7.4548	308.71	–	3.4528	4.1843
2015	1.9558	7.6137	27.279	7.4587	310.00	–	–	4.1841
2016	1.9558	7.5333	27.034	7.4452	311.44	–	–	4.3632
2017	1.9558	7.4637	26.326	7.4386	309.19	–	–	4.2570
2018	1.9558	7.4182	25.647	7.4532	318.89	–	–	4.2615
2019	1.9558	7.4180	25.670	7.4661	325.30	–	–	4.2976
2020	1.9558	7.5384	26.455	7.4542	351.25	–	–	4.4430
2021	1.9558	7.5284	25.640	7.4370	358.52	–	–	4.5652
2022	1.9558	7.5349	24.566	7.4396	391.29	–	–	4.6861
2023	1.9558	–	24.004	7.4509	381.85	–	–	4.5420
2024	1.9558	–	25.120	7.4589	395.30	–	–	4.3058
2025	1.9558	–	24.688	7.4634	397.77	–	–	4.2397

	EU member countries (cont´d)		Other European and non-European countries					
	Romania	Sweden	Australia	Brazil	Canada	China	Hong Kong	Iceland
	Romanian leu RON	Swedish krona SEK	Australian dollar AUD	Brazilian real BRL	Canadian dollar CAD	Yuan (renminbi) CNY	Hong Kong dollar HKD	Icelandic krona ISK [2]
End of year								
2012	4.4445	8.5820	1.2712	2.7036	1.3137	8.2207	10.2260	–
2013	4.4710	8.8591	1.5423	3.2576	1.4671	8.3491	10.6933	–
2014	4.4828	9.3930	1.4829	3.2207	1.4063	7.5358	9.4170	–
2015	4.5240	9.1895	1.4897	4.3117	1.5116	7.0608	8.4376	–
2016	4.5390	9.5525	1.4596	3.4305	1.4188	7.3202	8.1751	–
2017	4.6585	9.8438	1.5346	3.9729	1.5039	7.8044	9.3720	–
2018	4.6635	10.2548	1.6220	4.4440	1.5605	7.8751	8.9675	133.20
2019	4.7830	10.4468	1.5995	4.5157	1.4598	7.8205	8.7473	135.80
2020	4.8683	10.0343	1.5896	6.3735	1.5633	8.0225	9.5142	156.10
2021	4.9490	10.2503	1.5615	6.3101	1.4393	7.1947	8.8333	147.60
2022	4.9495	11.1218	1.5693	5.6386	1.4440	7.3582	8.3163	151.50
2023	4.9756	11.0960	1.6263	5.3618	1.4642	7.8509	8.6314	150.50
2024	4.9743	11.4590	1.6772	6.4253	1.4948	7.5833	8.0686	143.90
2025	5.0968	10.8215	1.7581	6.4364	1.6088	8.2262	9.1464	147.20
Annual averages +								
2012	4.4593	8.7041	1.2407	2.5084	1.2842	8.1052	9.9663	–
2013	4.4190	8.6515	1.3777	2.8687	1.3684	8.1646	10.3016	–
2014	4.4437	9.0985	1.4719	3.1211	1.4661	8.1857	10.3025	–
2015	4.4454	9.3535	1.4777	3.7004	1.4186	6.9733	8.6014	–
2016	4.4904	9.4689	1.4883	3.8561	1.4659	7.3522	8.5922	–
2017	4.5688	9.6351	1.4732	3.6054	1.4647	7.6290	8.8045	–
2018	4.6540	10.2583	1.5797	4.3085	1.5294	7.8081	9.2559	127.89
2019	4.7453	10.5891	1.6109	4.4134	1.4855	7.7355	8.7715	137.28
2020	4.8383	10.4848	1.6549	5.8943	1.5300	7.8747	8.8587	154.59
2021	4.9215	10.1465	1.5749	6.3779	1.4826	7.6282	9.1932	150.15
2022	4.9313	10.6296	1.5167	5.4399	1.3695	7.0788	8.2451	142.24
2023	4.9467	11.4788	1.6288	5.4010	1.4595	7.6600	8.4650	149.13
2024	4.9746	11.4325	1.6397	5.8283	1.4821	7.7875	8.4454	149.31
2025	5.0424	11.0663	1.7518	6.3072	1.5787	8.1185	8.8104	144.66

* See Explanatory notes, p. 48. + Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB. **1** Accession to the euro area, see p. 7 (Table I.1.). **2** The ECB did not fix euro foreign exchange reference rates for the Icelandic krona from 4 December 2008 to 31 January 2018.

II. Euro foreign exchange reference rates of the European Central Bank *

3. End-of-year rates and annual averages (cont´d)

EUR 1 = CU …

Period	Other European and non-European countries (cont´d)								
	India Indian rupee INR	Indonesia Indonesian rupiah IDR	Israel New shekel ILS	Japan Japanese yen JPY	Korea, Republic of South Korean won KRW	Malaysia Malaysian ringgit MYR	Mexico Mexican peso MXN	New Zealand New Zealand dollar NZD	Norway Norwegian krone NOK
End of year									
2012	72.5600	12,713.97	4.9258	113.61	1,406.23	4.0347	17.1845	1.6045	7.3483
2013	85.3660	16,764.78	4.7880	144.72	1,450.93	4.5221	18.0731	1.6762	8.3630
2014	76.7190	15,076.10	4.7200	145.23	1,324.80	4.2473	17.8679	1.5525	9.0420
2015	72.0215	15,039.99	4.2481	131.07	1,280.78	4.6959	18.9145	1.5923	9.6030
2016	71.5935	14,173.43	4.0477	123.40	1,269.36	4.7287	21.7719	1.5158	9.0863
2017	76.6055	16,239.12	4.1635	135.01	1,279.61	4.8536	23.6612	1.6850	9.8403
2018	79.7298	16,500.00	4.2972	125.85	1,277.93	4.7317	22.4921	1.7056	9.9483
2019	80.1870	15,595.60	3.8845	121.94	1,296.28	4.5953	21.2202	1.6653	9.8638
2020	89.6605	17,240.76	3.9447	126.49	1,336.00	4.9340	24.4160	1.6984	10.4703
2021	84.2292	16,100.42	3.5159	130.38	1,346.38	4.7184	23.1438	1.6579	9.9888
2022	88.1710	16,519.82	3.7554	140.66	1,344.09	4.6984	20.8560	1.6798	10.5138
2023	91.9045	17,079.71	3.9993	156.33	1,433.66	5.0775	18.7231	1.7504	11.2405
2024	88.9335	16,820.88	3.7885	163.06	1,532.15	4.6454	21.5504	1.8532	11.7950
2025	105.5965	19,640.83	3.7471	184.09	1,696.94	4.7682	21.1180	2.0380	11.8430
Annual averages +									
2012	68.5973	12,045.73	4.9536	102.49	1,447.69	3.9672	16.9029	1.5867	7.4751
2013	77.9300	13,857.50	4.7948	129.66	1,453.91	4.1855	16.9641	1.6206	7.8067
2014	81.0406	15,748.92	4.7449	140.31	1,398.14	4.3446	17.6550	1.5995	8.3544
2015	71.1956	14,870.39	4.3122	134.31	1,256.54	4.3373	17.6157	1.5930	8.9496
2016	74.3717	14,720.83	4.2489	120.20	1,284.18	4.5835	20.6673	1.5886	9.2906
2017	73.5324	15,118.01	4.0622	126.71	1,276.74	4.8527	21.3286	1.5897	9.3270
2018	80.7332	16,803.22	4.2423	130.40	1,299.07	4.7634	22.7054	1.7065	9.5975
2019	78.8361	15,835.27	3.9901	122.01	1,305.32	4.6374	21.5565	1.6998	9.8511
2020	84.6392	16,627.37	3.9258	121.85	1,345.58	4.7959	24.5194	1.7561	10.7228
2021	87.4392	16,920.72	3.8208	129.88	1,354.06	4.9015	23.9852	1.6724	10.1633
2022	82.6864	15,625.25	3.5345	138.03	1,358.07	4.6279	21.1869	1.6582	10.1026
2023	89.3001	16,479.62	3.9880	151.99	1,412.88	4.9320	19.1830	1.7622	11.4248
2024	90.5563	17,157.68	4.0067	163.85	1,475.40	4.9503	19.8314	1.7880	11.6290
2025	98.5239	18,623.06	3.8927	169.04	1,605.45	4.8339	21.6705	1.9422	11.7173

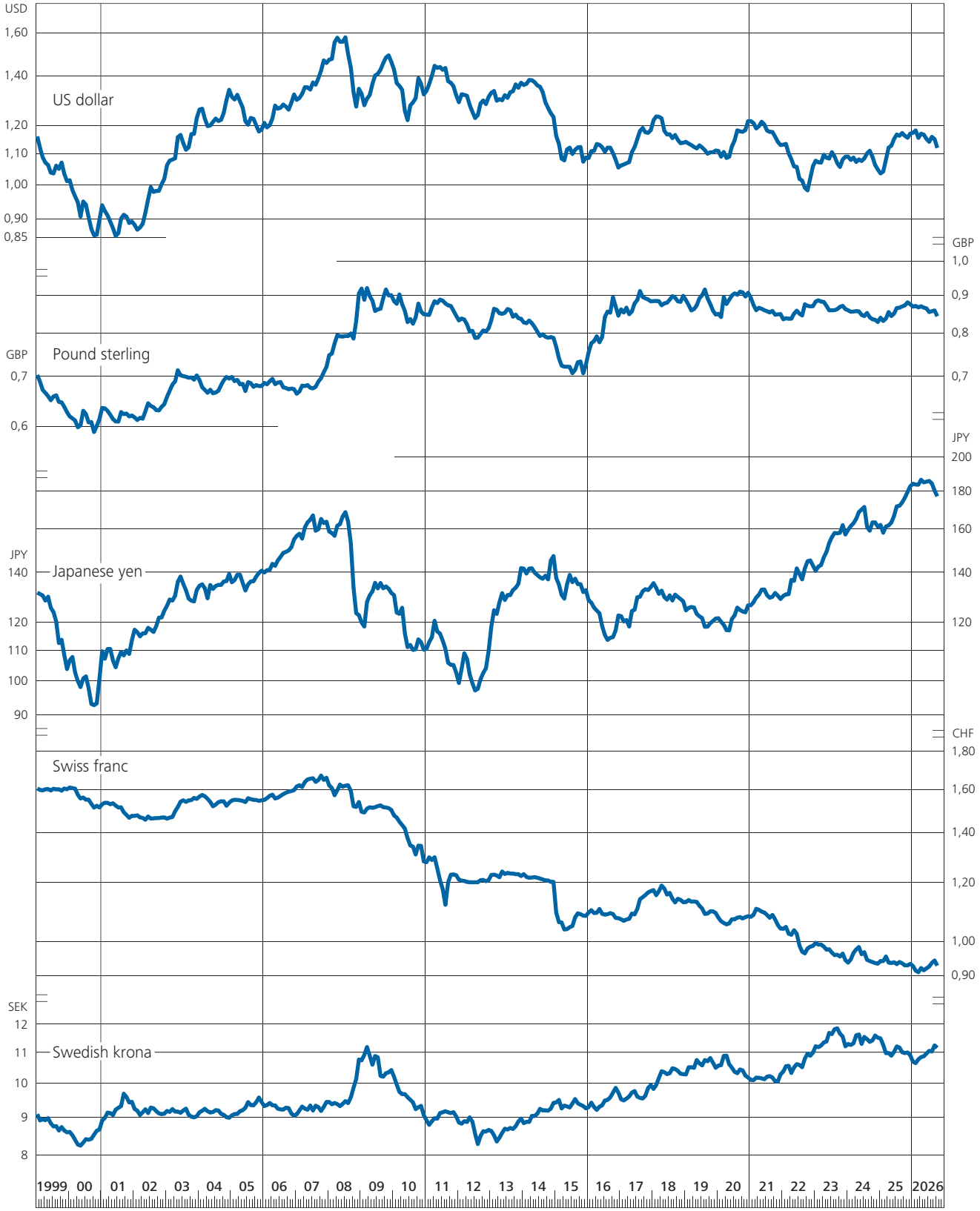
	Other European and non-European countries (cont´d)								
	Philippines Philippine peso PHP	Russian Federation Russian rouble RUB **1**	Singapore Singapore dollar SGD	South Africa South African rand ZAR	Switzerland Swiss franc CHF	Thailand Thai baht THB	Turkey Turkish lira TRY	United Kingdom Pound sterling GBP	United States US dollar USD
End of year									
2012	54.107	40.3295	1.6111	11.1727	1.2072	40.347	2.3551	0.81610	1.3194
2013	61.289	45.3246	1.7414	14.5660	1.2276	45.178	2.9605	0.83370	1.3791
2014	54.436	72.3370	1.6058	14.0353	1.2024	39.910	2.8320	0.77890	1.2141
2015	50.999	80.6736	1.5417	16.9530	1.0835	39.248	3.1765	0.73395	1.0887
2016	52.268	64.3000	1.5234	14.4570	1.0739	37.726	3.7072	0.85618	1.0541
2017	59.795	69.3920	1.6024	14.8054	1.1702	39.121	4.5464	0.88723	1.1993
2018	60.113	79.7153	1.5591	16.4594	1.1269	37.052	6.0588	0.89453	1.1450
2019	56.900	69.9563	1.5111	15.7773	1.0854	33.415	6.6843	0.85080	1.1234
2020	59.125	91.4671	1.6218	18.0219	1.0802	36.727	9.1131	0.89903	1.2271
2021	57.763	85.3004	1.5279	18.0625	1.0331	37.653	15.2335	0.84028	1.1326
2022	59.320	–	1.4300	18.0986	0.9847	36.835	19.9649	0.88693	1.0666
2023	61.283	–	1.4591	20.3477	0.9260	37.973	32.6531	0.86905	1.1050
2024	60.301	–	1.4164	19.6188	0.9412	35.676	36.7372	0.82918	1.0389
2025	69.266	–	1.5105	19.4439	0.9314	37.218	50.4838	0.87260	1.1750
Annual averages +									
2012	54.246	39.9262	1.6055	10.5511	1.2053	39.928	2.3135	0.81087	1.2848
2013	56.428	42.3370	1.6619	12.8330	1.2311	40.830	2.5335	0.84926	1.3281
2014	58.979	50.9518	1.6823	14.4037	1.2146	43.147	2.9065	0.80612	1.3285
2015	50.522	68.0720	1.5255	14.1723	1.0679	38.028	3.0255	0.72584	1.1095
2016	52.556	74.1446	1.5275	16.2645	1.0902	39.043	3.3433	0.81948	1.1069
2017	56.973	65.9383	1.5588	15.0490	1.1117	38.296	4.1206	0.87667	1.1297
2018	62.210	74.0416	1.5926	15.6186	1.1550	38.164	5.7077	0.88471	1.1810
2019	57.985	72.4553	1.5273	16.1757	1.1124	34.757	6.3578	0.87777	1.1195
2020	56.615	82.7248	1.5742	18.7655	1.0705	35.708	8.0547	0.88970	1.1422
2021	58.299	87.1527	1.5891	17.4766	1.0811	37.837	10.5124	0.85960	1.1827
2022	57.314	–	1.4512	17.2086	1.0047	36.856	17.4088	0.85276	1.0530
2023	60.163	–	1.4523	19.9551	0.9718	37.631	25.7597	0.86979	1.0813
2024	62.007	–	1.4458	19.8297	0.9526	38.181	35.5734	0.84662	1.0824
2025	64.977	–	1.4756	20.1789	0.9370	37.116	44.8161	0.85679	1.1300

* See Explanatory notes, p. 48. + Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB. **1** The ECB has suspended the publication of the euro foreign exchange reference rate against the Russian rouble with effect from 2 March 2022.

II. Euro foreign exchange reference rates of the European Central Bank*

4. Exchange rates of major currencies

EUR 1 = CU ..., monthly averages[1], log. scale



* See explanatory notes, p. 48. **1** Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB.