

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

2. Annual and monthly averages +

EUR 1 = CU ...

EU member countries								
Period	Bulgaria Bulgarian lev BGN	Croatia ¹ Kuna HRK	Czechia Czech koruna CZK	Denmark Danish krone DKK	Hungary Hungarian forint HUF	Poland Polish zloty PLN	Romania Romanian leu RON	Sweden Swedish krona SEK
2022	1.9558	7.5349	24.566	7.4396	391.29	4.6861	4.9313	10.6296
2023	1.9558	–	24.004	7.4509	381.85	4.5420	4.9467	11.4788
2022 June	1.9558	7.5252	24.719	7.4392	396.66	4.6471	4.9444	10.6005
July	1.9558	7.5185	24.594	7.4426	404.10	4.7682	4.9396	10.5752
Aug.	1.9558	7.5138	24.568	7.4393	402.10	4.7233	4.8943	10.5021
Sep.	1.9558	7.5222	24.576	7.4366	404.19	4.7414	4.9097	10.7840
Oct.	1.9558	7.5298	24.528	7.4389	418.31	4.8040	4.9259	10.9503
Nov.	1.9558	7.5426	24.369	7.4387	406.68	4.6964	4.9142	10.8798
Dec.	1.9558	7.5448	24.269	7.4377	407.68	4.6832	4.9224	10.9859
2023 Jan.	1.9558	–	23.958	7.4383	396.03	4.6974	4.9242	11.2051
Feb.	1.9558	–	23.712	7.4447	384.91	4.7415	4.9087	11.1725
Mar.	1.9558	–	23.683	7.4456	385.01	4.6893	4.9263	11.2276
Apr.	1.9558	–	23.437	7.4518	375.34	4.6320	4.9365	11.3370
May	1.9558	–	23.595	7.4485	372.37	4.5345	4.9477	11.3697
June	1.9558	–	23.695	7.4492	370.60	4.4608	4.9600	11.6766
July	1.9558	–	23.892	7.4508	379.04	4.4431	4.9411	11.6343
Aug.	1.9558	–	24.108	7.4522	385.05	4.4601	4.9411	11.8117
Sep.	1.9558	–	24.380	7.4566	386.43	4.5981	4.9656	11.8417
Oct.	1.9558	–	24.584	7.4604	385.33	4.5124	4.9682	11.6472
Nov.	1.9558	–	24.485	7.4581	379.19	4.4020	4.9703	11.5475
Dec.	1.9558	–	24.478	7.4556	381.80	4.3335	4.9707	11.2028
2024 Jan.	1.9558	–	24.716	7.4572	382.04	4.3648	4.9749	11.2834
Feb.	1.9558	–	25.232	7.4550	388.04	4.3256	4.9746	11.2500
Mar.	1.9558	–	25.292	7.4566	395.09	4.3069	4.9708	11.3054
Apr.	1.9558	–	25.278	7.4596	392.41	4.3026	4.9730	11.5910
May	1.9558	–	24.819	7.4606	387.18	4.2796	4.9754	11.6186
June	1.9558	–	24.779	7.4592	394.76	4.3209	4.9767	11.2851
July	1.9558	–	25.299	7.4606	392.84	4.2817	4.9730	11.5324

Other European and non-European countries								
Period	Australia Australian dollar AUD	Brazil Brazilian real BRL	Canada Canadian dollar CAD	China Yuan (renminbi) CNY	Hong Kong Hong Kong dollar HKD	Iceland Icelandic krona ISK	India Indian rupee INR	Indonesia Indonesian rupiah IDR
2022	1.5167	5.4399	1.3695	7.0788	8.2451	142.24	82.6864	15,625.25
2023	1.6288	5.4010	1.4595	7.6600	8.4650	149.13	89.3001	16,479.62
2022 June	1.5044	5.3209	1.3537	7.0734	8.2922	138.47	82.5112	15,531.74
July	1.4856	5.4718	1.3180	6.8538	7.9895	139.05	81.0182	15,258.22
Aug.	1.4550	5.2111	1.3078	6.8884	7.9473	140.12	80.5563	15,024.16
Sep.	1.4820	5.1791	1.3187	6.9508	7.7738	140.35	79.4558	14,847.40
Oct.	1.5474	5.1658	1.3477	7.0687	7.7128	141.50	80.9180	15,172.93
Nov.	1.5455	5.3846	1.3708	7.3171	7.9873	146.98	83.3384	15,975.07
Dec.	1.5685	5.5589	1.4379	7.3859	8.2434	150.76	87.3381	16,503.30
2023 Jan.	1.5523	5.6047	1.4474	7.3173	8.4217	154.06	88.1441	16,427.04
Feb.	1.5514	5.5386	1.4400	7.3244	8.4077	153.11	88.5004	16,232.58
Mar.	1.6034	5.5784	1.4649	7.3807	8.4026	149.89	88.1159	16,364.98
Apr.	1.6389	5.4995	1.4792	7.5561	8.6093	149.62	89.9311	16,313.20
May	1.6346	5.4092	1.4687	7.5948	8.5167	150.47	89.4602	16,116.84
June	1.6157	5.2695	1.4414	7.7653	8.4899	149.35	89.1134	16,194.88
July	1.6423	5.3099	1.4618	7.9482	8.6437	146.79	90.8395	16,639.99
Aug.	1.6818	5.3427	1.4703	7.9096	8.5370	143.87	90.3518	16,639.40
Sep.	1.6622	5.2770	1.4458	7.7967	8.3640	144.46	88.7372	16,424.67
Oct.	1.6637	5.3509	1.4474	7.7200	8.2648	146.50	87.8937	16,646.67
Nov.	1.6634	5.2963	1.4828	7.8087	8.4380	151.44	90.0102	16,853.56
Dec.	1.6321	5.3428	1.4653	7.7870	8.5152	150.55	90.8009	16,910.33
2024 Jan.	1.6422	5.3569	1.4631	7.8201	8.5244	149.43	90.6347	17,049.43
Feb.	1.6533	5.3559	1.4564	7.7651	8.4432	148.68	89.5608	16,898.59
Mar.	1.6586	5.4157	1.4726	7.8297	8.5049	149.04	90.2515	17,063.66
Apr.	1.6469	5.4975	1.4661	7.7658	8.4006	150.35	89.4676	17,258.77
May	1.6317	5.5529	1.4780	7.8206	8.4458	150.00	90.1573	17,375.67
June	1.6206	5.7884	1.4750	7.8051	8.4023	149.36	89.8106	17,595.94
July	1.6257	6.0053	1.4868	7.8750	8.4684	149.43	90.6557	17,623.29

* 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 2023.

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

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

EUR 1 = CU ...

Other European and non-European countries (cont'd)								
	Israel	Japan	Korea, Republic of	Malaysia	Mexico	New Zealand	Norway	Philippines
Period	New shekel ILS	Japanese yen JPY	South Korean won KRW	Malaysian ringgit MYR	Mexican peso MXN	New Zealand dollar NZD	Norwegian krone NOK	Philippine peso PHP
2022	3.5345	138.03	1,358.07	4.6279	21.1869	1.6582	10.1026	57.314
2023	3.9880	151.99	1,412.88	4.9320	19.1830	1.7622	11.4248	60.163
2022 June	3.6038	141.57	1,351.47	4.6496	21.1240	1.6640	10.2972	56.756
July	3.5309	139.17	1,332.00	4.5197	20.8955	1.6436	10.1823	56.917
Aug.	3.3408	136.85	1,337.90	4.5233	20.3909	1.6158	9.8309	56.542
Sep.	3.4181	141.57	1,381.71	4.5005	19.8718	1.6691	10.1697	57.074
Oct.	3.4823	144.73	1,403.51	4.6127	19.6481	1.7299	10.3919	57.738
Nov.	3.5488	145.12	1,384.19	4.7002	19.8393	1.6828	10.3357	58.655
Dec.	3.6562	142.82	1,370.59	4.6721	20.7608	1.6660	10.4480	58.888
2023 Jan.	3.7126	140.54	1,341.38	4.6589	20.4573	1.6851	10.7149	59.162
Feb.	3.7975	142.38	1,368.77	4.6794	19.9543	1.7016	10.9529	58.743
Mar.	3.8742	143.01	1,398.25	4.7816	19.7242	1.7242	11.2858	58.581
Apr.	3.9877	146.51	1,452.07	4.8561	19.8195	1.7673	11.5187	60.807
May	3.9863	148.93	1,442.31	4.9119	19.2755	1.7481	11.7330	60.604
June	3.9502	153.15	1,406.43	5.0208	18.6993	1.7686	11.7164	60.475
July	4.0546	155.94	1,419.16	5.0754	18.7085	1.7758	11.3474	60.690
Aug.	4.0861	157.96	1,443.24	5.0294	18.5202	1.8195	11.4127	61.461
Sep.	4.0793	157.80	1,424.53	5.0024	18.4757	1.8012	11.4525	60.665
Oct.	4.2034	158.04	1,427.33	5.0142	19.0882	1.7916	11.6284	59.994
Nov.	4.1118	161.84	1,412.57	5.0667	18.7877	1.8033	11.7958	60.285
Dec.	4.0057	157.21	1,423.13	5.0826	18.7665	1.7556	11.5333	60.593
2024 Jan.	4.0493	159.46	1,447.18	5.1105	18.6268	1.7673	11.3501	61.090
Feb.	3.9345	161.38	1,437.37	5.1468	18.4425	1.7618	11.3843	60.486
Mar.	3.9442	162.77	1,448.12	5.1272	18.2610	1.7869	11.5214	60.736
Apr.	4.0240	165.03	1,469.42	5.1139	18.0066	1.7992	11.6828	61.171
May	4.0062	168.54	1,474.96	5.0971	18.1549	1.7819	11.5988	62.523
June	4.0074	169.81	1,485.38	5.0680	19.6134	1.7539	11.4178	63.177
July	3.9902	171.17	1,499.62	5.0737	19.6397	1.7985	11.7160	63.416

Other European and non-European countries (cont'd)							
	Singapore	South Africa	Switzerland	Thailand	Turkey	United Kingdom	United States
	Singapore dollar SGD	South African rand ZAR	Swiss franc CHF	Thai baht THB	Turkish lira TRY	Pound sterling GBP	US dollar USD
2022	1.4512	17.2086	1.0047	36.856	17.4088	0.85276	1.0530
2023	1.4523	19.9551	0.9718	37.631	25.7597	0.86979	1.0813
2022 June	1.4624	16.6961	1.0245	36.928	17.9599	0.85759	1.0566
July	1.4211	17.1606	0.9876	37.028	17.7896	0.84955	1.0179
Aug.	1.4016	16.9182	0.9690	36.306	18.2701	0.84499	1.0128
Sep.	1.3999	17.3828	0.9640	36.670	18.1465	0.87463	0.9904
Oct.	1.4003	17.8214	0.9791	37.286	18.2655	0.87058	0.9826
Nov.	1.4144	17.8328	0.9842	37.087	18.9877	0.86892	1.0201
Dec.	1.4313	18.3036	0.9865	36.817	19.7613	0.86950	1.0589
2023 Jan.	1.4283	18.4320	0.9961	35.840	20.2312	0.88212	1.0769
Feb.	1.4262	19.1765	0.9905	36.486	20.1981	0.88550	1.0715
Mar.	1.4354	19.5602	0.9908	36.912	20.3491	0.88192	1.0706
Apr.	1.4609	19.9205	0.9846	37.549	21.2267	0.88115	1.0968
May	1.4555	20.6864	0.9751	37.166	21.4918	0.87041	1.0868
June	1.4596	20.3033	0.9764	37.852	25.7697	0.85861	1.0840
July	1.4753	20.1074	0.9663	38.243	29.3212	0.85856	1.1058
Aug.	1.4735	20.4723	0.9588	38.195	29.3788	0.85892	1.0909
Sep.	1.4562	20.2780	0.9600	38.301	28.8643	0.86158	1.0684
Oct.	1.4462	20.1390	0.9547	38.549	29.4506	0.86798	1.0563
Nov.	1.4575	20.0397	0.9634	38.327	30.9786	0.87045	1.0808
Dec.	1.4533	20.3373	0.9441	38.176	31.7243	0.86168	1.0903
2024 Jan.	1.4569	20.5161	0.9368	38.401	32.8165	0.85873	1.0905
Feb.	1.4513	20.5082	0.9462	38.709	33.2644	0.85466	1.0795
Mar.	1.4573	20.4955	0.9656	39.079	34.8229	0.85524	1.0872
Apr.	1.4554	20.2378	0.9761	39.454	34.6926	0.85658	1.0728
May	1.4606	19.9079	0.9830	39.607	34.8605	0.85564	1.0812
June	1.4547	19.8144	0.9616	39.492	35.0667	0.84643	1.0759
July	1.4602	19.7950	0.9676	39.324	35.6969	0.84332	1.0844

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