

II. Term structure of interest rates in the debt securities market *

b) Term structure of interest rates in the debt securities market - estimated values, Pfandbriefe

% per annum

Interest rate at a residual maturity of ... years										
End of year or month or trading day	1	2	3	4	5	6	7	8	9	10
2013	0.50	0.60	0.84	1.12	1.40	1.67	1.92	2.15	2.37	2.58
2014	0.25	0.23	0.27	0.34	0.44	0.54	0.65	0.76	0.87	0.97
2015	0.10	0.10	0.14	0.25	0.39	0.54	0.69	0.84	0.97	1.09
2016	–	0.03	0.07	0.06	0.09	0.16	0.26	0.38	0.51	0.74
2017	–	0.12	–	0.03	0.08	0.20	0.33	0.46	0.59	0.84
2018	–	0.11	–	0.04	0.04	0.15	0.29	0.44	0.59	0.73
2019	–	0.21	–	0.20	–	0.09	–	0.02	0.11	0.18
2020	–	0.42	–	0.40	–	0.37	–	0.34	–	0.21
2021	–	0.41	–	0.23	–	0.07	–	0.03	–	0.17
2022	3.22	3.33	3.28	3.26	3.26	3.26	3.27	3.28	3.29	3.28
2023	3.53	3.01	2.79	2.71	2.71	2.73	2.76	2.80	2.83	2.86
2023 May	3.87	3.61	3.36	3.24	3.19	3.17	3.17	3.17	3.18	3.18
June	4.07	3.93	3.69	3.51	3.41	3.34	3.31	3.29	3.27	3.26
July	4.08	3.80	3.57	3.45	3.38	3.35	3.34	3.33	3.33	3.33
Aug.	4.03	3.74	3.52	3.41	3.35	3.33	3.32	3.32	3.33	3.33
Sep.	4.18	3.90	3.73	3.66	3.63	3.62	3.63	3.63	3.64	3.65
Oct.	4.03	3.72	3.55	3.49	3.49	3.52	3.55	3.59	3.61	3.64
Nov.	3.84	3.49	3.29	3.20	3.16	3.17	3.19	3.22	3.26	3.30
Dec.	3.53	3.01	2.79	2.71	2.71	2.73	2.76	2.80	2.83	2.86
2024 Jan.	3.62	3.15	2.96	2.90	2.91	2.93	2.96	3.00	3.02	3.05
Feb.	3.90	3.55	3.35	3.24	3.20	3.18	3.19	3.21	3.23	3.26
Mar.	3.81	3.43	3.21	3.08	3.01	2.99	2.99	3.01	3.04	3.07
Apr.	3.85	3.58	3.40	3.29	3.23	3.21	3.21	3.22	3.25	3.28
May	3.86	3.63	3.47	3.37	3.32	3.29	3.29	3.30	3.32	3.34
June	3.72	3.42	3.28	3.22	3.20	3.19	3.20	3.22	3.23	3.25
July	3.50	3.15	2.99	2.93	2.92	2.94	2.98	3.02	3.06	3.10
Aug.	3.20	2.91	2.81	2.78	2.79	2.83	2.87	2.91	2.96	2.99
Sep.	2.93	2.61	2.54	2.56	2.61	2.67	2.73	2.79	2.85	2.90
Oct.	2.81	2.68	2.67	2.69	2.74	2.79	2.84	2.89	2.93	2.97
2024 Oct. 7	2.99	2.75	2.70	2.70	2.73	2.78	2.83	2.87	2.92	2.96
8	2.99	2.75	2.70	2.71	2.74	2.79	2.84	2.89	2.93	2.97
9	2.98	2.74	2.68	2.69	2.72	2.77	2.82	2.87	2.91	2.96
10	3.01	2.78	2.73	2.74	2.77	2.82	2.86	2.91	2.95	2.99
11	3.00	2.76	2.71	2.72	2.76	2.81	2.86	2.90	2.95	2.99
14	2.98	2.73	2.69	2.70	2.74	2.79	2.84	2.89	2.93	2.97
15	2.95	2.71	2.66	2.67	2.71	2.75	2.80	2.85	2.90	2.94
16	2.92	2.67	2.62	2.63	2.67	2.72	2.77	2.82	2.87	2.92
17	2.91	2.66	2.61	2.63	2.67	2.72	2.77	2.83	2.87	2.92
18	2.83	2.59	2.56	2.59	2.63	2.69	2.75	2.81	2.86	2.91
21	2.81	2.60	2.56	2.59	2.64	2.70	2.77	2.82	2.88	2.92
22	2.85	2.64	2.62	2.64	2.70	2.75	2.81	2.87	2.92	2.97
23	2.79	2.59	2.58	2.62	2.68	2.74	2.80	2.86	2.91	2.96
24	2.75	2.56	2.55	2.59	2.65	2.72	2.78	2.84	2.90	2.95
25	2.76	2.57	2.56	2.59	2.65	2.71	2.78	2.83	2.89	2.93
28	2.75	2.57	2.56	2.59	2.65	2.71	2.78	2.84	2.89	2.94
29	2.74	2.57	2.56	2.59	2.65	2.71	2.77	2.83	2.89	2.93
30	2.76	2.59	2.57	2.60	2.64	2.70	2.76	2.82	2.87	2.91
31	2.81	2.68	2.67	2.69	2.74	2.79	2.84	2.89	2.93	2.97
Nov. 1	2.82	2.68	2.67	2.69	2.73	2.78	2.83	2.87	2.92	2.95
4	2.82	2.70	2.68	2.70	2.73	2.78	2.83	2.87	2.91	2.95
5	2.83	2.71	2.70	2.72	2.76	2.81	2.85	2.90	2.94	2.97
Memo item: yields, derived from the term of structure of interest rates, on Pfandbriefe with annual coupon payments										
2024 Oct. 31	2.81	2.69	2.67	2.69	2.73	2.78	2.83	2.87	2.91	2.95
Parameters for calculating the term structure of interest rates										
	Beta0	Beta1	Beta2	Beta3	Tau1	Tau2				
2024 Oct. 30	3.41081	0.97300	– 3.07825	– 2.82281	1.84720	0.43595				
31	3.37467	1.26291	– 2.93554	– 3.31564	1.71760	0.38677				
Nov. 1	3.36233	1.12320	– 2.78090	– 3.02382	1.79205	0.41020				
4	3.33089	1.22772	– 2.75912	– 3.15946	1.74850	0.39692				
5	3.30995	1.38740	– 2.76896	– 3.37727	1.61098	0.36905				

* Interest rates on (theoretical) zero coupon bonds, estimated according to the procedure outlined in the explanatory notes. The estimates are based on the prices of Pfandbriefe (mortgage Pfandbriefe and public Pfandbriefe) with a residual maturity of

at least three months. The interest rates are estimated using a non-linear, parametric approach.

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% per annum

Interest rate at a residual maturity of ... years										
End of year or month or trading day	11	12	13	14	15	16	17	18	19	20
2013	.	.	.	.	.	.	.	.	.	.
2014	.	.	.	.	.	.	.	.	.	.
2015	.	.	.	.	.	.	.	.	.	.
2016	.	.	.	.	.	.	.	.	.	.
2017	1.05	1.15	1.24	1.32	1.39	1.46	1.52	1.57	1.62	1.67
2018	1.07	1.17	1.25	1.32	1.38	1.44	1.49	1.54	1.58	1.62
2019	0.36	0.41	0.47	0.52	0.57	0.62	0.66	0.71	0.76	0.81
2020	–	0.09	–	0.01	0.04	0.08	0.13	0.17	0.22	0.27
2021	0.41	0.46	0.52	0.58	0.63	0.69	0.74	0.79	0.84	0.89
2022	3.28	3.27	3.26	3.25	3.23	3.21	3.19	3.17	3.15	3.13
2023	2.88	2.90	2.92	2.94	2.96	2.97	2.98	2.99	3.00	3.01
2023 May	3.19	3.19	3.20	3.20	3.20	3.21	3.21	3.21	3.21	3.21
June	3.25	3.24	3.24	3.23	3.23	3.22	3.22	3.22	3.21	3.21
July	3.33	3.33	3.33	3.33	3.34	3.34	3.34	3.34	3.34	3.34
Aug.	3.34	3.35	3.35	3.36	3.36	3.37	3.37	3.37	3.38	3.38
Sep.	3.66	3.67	3.68	3.69	3.69	3.70	3.70	3.71	3.71	3.72
Oct.	3.66	3.68	3.69	3.71	3.72	3.73	3.74	3.75	3.75	3.76
Nov.	3.33	3.36	3.39	3.41	3.43	3.44	3.45	3.45	3.46	3.46
Dec.	2.88	2.90	2.92	2.94	2.96	2.97	2.98	2.99	3.00	3.01
2024 Jan.	3.07	3.09	3.11	3.12	3.13	3.14	3.15	3.16	3.17	3.18
Feb.	3.28	3.31	3.32	3.34	3.35	3.36	3.37	3.37	3.37	3.37
Mar.	3.11	3.14	3.17	3.19	3.22	3.23	3.25	3.26	3.26	3.27
Apr.	3.31	3.34	3.37	3.39	3.42	3.43	3.44	3.45	3.46	3.46
May	3.37	3.39	3.42	3.44	3.46	3.48	3.49	3.50	3.51	3.51
June	3.27	3.29	3.31	3.32	3.34	3.35	3.36	3.37	3.38	3.39
July	3.13	3.17	3.20	3.23	3.25	3.27	3.29	3.31	3.32	3.33
Aug.	3.03	3.06	3.09	3.11	3.13	3.15	3.17	3.18	3.20	3.21
Sep.	2.94	2.98	3.02	3.05	3.08	3.10	3.12	3.14	3.16	3.18
Oct.	3.00	3.03	3.06	3.08	3.10	3.12	3.13	3.14	3.16	3.17
2024 Oct. 7	3.00	3.03	3.06	3.08	3.11	3.13	3.15	3.16	3.18	3.19
8	3.01	3.05	3.07	3.10	3.12	3.14	3.16	3.18	3.19	3.21
9	2.99	3.03	3.06	3.09	3.11	3.13	3.15	3.17	3.18	3.20
10	3.03	3.06	3.09	3.11	3.14	3.16	3.18	3.19	3.21	3.22
11	3.03	3.06	3.09	3.12	3.14	3.16	3.18	3.19	3.21	3.22
14	3.01	3.04	3.07	3.10	3.12	3.15	3.16	3.18	3.20	3.21
15	2.98	3.01	3.05	3.07	3.10	3.12	3.14	3.15	3.17	3.18
16	2.96	2.99	3.02	3.05	3.08	3.10	3.12	3.13	3.15	3.16
17	2.96	2.99	3.02	3.05	3.07	3.09	3.11	3.13	3.14	3.15
18	2.95	2.99	3.02	3.05	3.07	3.10	3.11	3.13	3.15	3.16
21	2.96	3.00	3.03	3.06	3.08	3.10	3.12	3.14	3.15	3.16
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23	3.00	3.03	3.06	3.09	3.12	3.14	3.16	3.17	3.19	3.20
24	2.99	3.03	3.06	3.09	3.11	3.13	3.15	3.17	3.19	3.20
25	2.98	3.01	3.04	3.07	3.09	3.11	3.13	3.15	3.16	3.18
28	2.98	3.01	3.04	3.07	3.09	3.12	3.13	3.15	3.17	3.18
29	2.97	3.01	3.04	3.06	3.09	3.11	3.13	3.14	3.16	3.17
30	2.95	2.99	3.02	3.05	3.07	3.09	3.11	3.13	3.14	3.16
31	3.00	3.03	3.06	3.08	3.10	3.12	3.13	3.14	3.16	3.17
Nov. 1	2.99	3.02	3.04	3.06	3.08	3.10	3.12	3.13	3.14	3.15
4	2.98	3.01	3.03	3.05	3.07	3.09	3.10	3.11	3.12	3.13
5	3.00	3.02	3.04	3.06	3.08	3.09	3.11	3.12	3.13	3.14
Memo item: yields, derived from the term of structure of interest rates, on Pfandbriefe with annual coupon payments										
2024 Oct. 31	2.98 |	3.00 |	3.03 |	3.05 |	3.06 |	3.08 |	3.09 |	3.10 |	3.11 |	3.12
Parameters for calculating the term structure of interest rates										
	Beta0	Beta1	Beta2	Beta3	Tau1	Tau2				
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