

## **Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances**

The Federal Home Loan Bank of Boston (Bank) is providing estimated valuations of the specific HLB-Option and Knockout advances set forth below for members' information and convenience only. The estimated valuations are generated by models obtained from external sources which are used for the Bank's own asset/liability management purposes. The models include the use of specific assumptions, for example, market volatility and discount curve adjusted for the Bank's spread, to estimate the value of the advance. The valuations represent theoretical market values only and should not be construed as a liquidation price for the HLB-Option or Knockout advance.

It is expressly understood that in providing this valuation information to members, the Bank is not performing any advisory service. The valuations are being provided without representation or warranty and the member shall be solely responsible for any decision it makes or actions it takes based on the valuations provided. It is recommended that institutions maintain independent capabilities to value their asset/liability positions, including HLB-Option and Knockout advances.

The table depicts valuation estimates resulting from immediate parallel interest-rate movements of plus/minus 400 basis points in 100 basis point increments. In order to rule out negative interest rates, our model applies an effective floor of plus ten basis points to the yield curve for all down-rate scenarios. As a result, large down-rate shocks will reflect valuation at the floor rate of ten basis points in place of any negative interest rates that would otherwise be produced by the indicated basis point shocks. Please note that the valuation estimates are from the Federal Home Loan Bank of Boston's perspective. Since the advance is held by the member as a liability, positive price changes in the table correspond to the advance having a negative impact on the member's estimated market value of portfolio equity (and vice versa). The theoretical argument follows that as interest rates rise, the value of the advance to the Bank falls. In the case of an HLB-Option advance, the Bank would be likely to exercise its option to cancel the advance as the value falls below 100. In the case of a Knockout advance, the Bank would automatically terminate the advance on any specified cancellation date if LIBOR is equal to or greater than a predetermined "strike rate" four London Business days prior to the scheduled cancellation date. In either case, the member's cost to prepay the advance increases as interest rates fall.

To identify your advance, locate the appropriate maturity date and then verify the coupon rate. The report is sorted in ascending order by start date, followed by coupon. Once the appropriate structure is determined, read across to view the sensitivity analysis that has been performed on the advance.

If you have any questions or would like further explanation of this analysis, contact the Money Desk at 1-800-357-3452.

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
11/24/2006	11/25/2016	11/25/2016	4.190	101.001	101.001	101.001	100.894	100.658	100.422	100.188	99.954
12/1/2006	12/1/2016	9/1/2016	4.090	101.045	101.045	101.045	100.929	100.675	100.423	100.173	99.999
12/4/2006	12/5/2016	9/6/2016	4.080	101.088	101.088	101.088	100.962	100.698	100.436	100.175	99.995
12/5/2006	12/5/2016	9/6/2016	4.260	101.136	101.136	101.136	101.010	100.746	100.484	100.222	100.015
12/8/2006	12/8/2016	9/8/2016	3.990	101.097	101.097	101.097	100.965	100.693	100.422	100.153	99.991
12/12/2006	12/12/2016	9/12/2016	3.990	101.142	101.142	101.142	101.000	100.718	100.436	100.157	99.987
12/19/2006	12/19/2016	9/19/2016	4.190	101.280	101.280	101.280	101.123	100.822	100.522	100.224	100.001
12/28/2006	12/28/2016	9/28/2016	4.250	101.405	101.405	101.405	101.228	100.902	100.578	100.256	100.010
12/28/2006	12/28/2016	9/28/2016	4.400	101.454	101.454	101.454	101.277	100.951	100.627	100.306	100.040
1/12/2007	1/12/2017	10/12/2016	4.420	101.645	101.645	101.645	101.428	101.062	100.698	100.339	100.046
1/16/2007	1/17/2017	10/17/2016	4.790	101.849	101.849	101.849	101.619	101.238	100.861	100.487	100.145
2/2/2007	2/2/2017	11/20/2016	4.690	102.019	102.019	102.019	101.744	101.320	100.900	100.483	100.070
2/20/2007	2/21/2017	11/20/2016	4.850	102.344	102.344	102.344	102.014	101.533	101.057	100.586	100.119
2/20/2007	2/21/2017	11/21/2016	4.390	102.122	102.122	102.122	101.792	101.312	100.837	100.386	100.033
2/23/2007	2/23/2017	11/23/2016	4.250	102.078	102.078	102.078	101.742	101.256	100.776	100.329	99.991
2/23/2007	2/23/2017	11/23/2016	4.350	102.127	102.127	102.127	101.791	101.305	100.825	100.371	100.020
3/16/2007	3/16/2017	9/16/2016	4.090	102.238	102.238	102.238	101.842	101.299	100.768	100.289	99.999
3/23/2007	3/23/2017	9/23/2016	4.290	102.431	102.431	102.431	102.015	101.453	100.900	100.389	100.041
4/9/2007	4/10/2017	10/11/2016	4.150	102.559	102.559	102.559	102.091	101.480	100.886	100.349	100.011
4/12/2007	4/12/2017	10/12/2016	4.250	102.644	102.644	102.644	102.170	101.554	100.952	100.401	100.033
4/13/2007	4/13/2017	10/13/2016	4.450	102.781	102.781	102.781	102.304	101.684	101.076	100.509	100.088
5/18/2007	5/18/2017	11/18/2016	4.190	103.026	103.026	103.026	102.445	101.732	101.037	100.421	100.003
5/22/2007	5/22/2017	11/22/2016	4.750	103.483	103.483	103.483	102.889	102.163	101.450	100.770	100.220
5/29/2007	5/30/2017	11/29/2016	4.250	103.211	103.211	103.211	102.594	101.848	101.121	100.469	100.012
6/7/2007	6/7/2017	9/7/2016	4.820	103.749	103.749	103.749	103.106	102.336	101.581	100.866	100.275
6/8/2007	6/8/2017	9/8/2016	4.490	103.504	103.504	103.504	102.859	102.088	101.335	100.644	100.128
6/18/2007	6/19/2017	9/19/2016	4.500	103.650	103.650	103.650	102.971	102.169	101.387	100.668	100.134
6/19/2007	6/19/2017	9/19/2016	4.650	103.771	103.771	103.771	103.092	102.290	101.505	100.772	100.188
6/22/2007	6/22/2017	9/22/2016	4.500	103.687	103.687	103.687	102.999	102.189	101.400	100.673	100.135
6/28/2007	6/28/2017	9/28/2016	4.500	103.762	103.762	103.762	103.056	102.230	101.424	100.683	100.137
6/28/2007	6/28/2017	9/28/2016	4.500	103.762	103.762	103.762	103.056	102.230	101.424	100.683	100.137
7/13/2007	7/13/2017	10/13/2016	4.290	103.765	103.765	103.765	103.012	102.148	101.313	100.573	100.077
7/20/2007	7/20/2017	10/20/2016	4.290	103.849	103.849	103.849	103.074	102.191	101.338	100.581	100.075
7/27/2007	7/27/2017	10/27/2016	4.250	103.896	103.896	103.896	103.099	102.197	101.328	100.560	100.059
7/27/2007	7/27/2017	10/27/2016	4.250	103.896	103.896	103.896	103.099	102.197	101.328	100.560	100.059
7/30/2007	1/30/2019	10/31/2016	3.990	109.775	109.775	109.500	107.032	104.710	102.651	101.044	100.115
7/31/2007	7/31/2017	10/31/2016	3.990	103.702	103.702	103.702	102.893	101.985	101.122	100.398	99.978
7/31/2007	7/31/2017	10/31/2016	3.990	103.702	103.702	103.702	102.893	101.985	101.122	100.398	99.978
7/31/2007	7/31/2017	10/31/2016	4.060	103.767	103.767	103.767	102.958	102.049	101.181	100.442	99.998
8/2/2007	8/2/2017	11/2/2016	4.050	103.780	103.780	103.780	102.965	102.051	101.183	100.455	100.009
8/9/2007	8/9/2017	11/9/2016	3.990	103.801	103.801	103.801	102.964	102.032	101.150	100.420	99.978
8/16/2007	8/16/2017	11/16/2016	3.990	103.879	103.879	103.879	103.019	102.069	101.169	100.422	99.966
8/17/2007	8/17/2017	11/17/2016	4.000	103.900	103.900	103.900	103.037	102.084	101.180	100.429	99.968
9/4/2007	9/5/2017	9/6/2016	3.890	103.998	103.998	103.998	103.074	102.073	101.138	100.384	100.004
9/10/2007	9/11/2017	9/12/2016	3.690	103.854	103.854	103.854	102.912	101.898	100.968	100.255	99.977
9/11/2007	9/11/2017	9/12/2016	3.590	103.749	103.749	103.749	102.808	101.798	100.881	100.197	99.974
9/13/2007	9/13/2017	9/13/2016	3.990	104.189	104.189	104.189	103.239	102.212	101.245	100.448	100.019
9/27/2007	9/27/2017	9/27/2016	3.650	103.974	103.974	103.974	102.981	101.921	100.953	100.219	99.946
10/11/2007	10/11/2017	10/11/2016	3.990	104.500	104.500	104.500	103.458	102.352	101.317	100.470	100.009
10/15/2007	10/16/2017	10/17/2016	3.990	104.555	104.555	104.555	103.497	102.378	101.329	100.470	100.003
10/26/2007	10/26/2017	10/26/2016	3.390	103.964	103.964	103.964	102.879	101.757	100.774	100.123	99.858
11/5/2007	11/6/2017	11/7/2016	4.390	105.268	105.268	105.268	104.138	102.954	101.824	100.840	100.170
11/6/2007	11/6/2017	11/7/2016	3.480	104.176	104.176	104.176	103.054	101.903	100.888	100.189	99.851
11/19/2007	11/20/2017	11/19/2012	4.290	105.315	105.315	105.315	104.139	102.911	101.703	100.515	99.345
11/20/2007	11/20/2017	11/21/2016	3.740	104.633	104.633	104.633	103.463	102.259	101.162	100.333	99.886
11/23/2007	11/24/2017	11/23/2011	3.990	104.987	104.987	104.987	103.800	102.563	101.347	100.150	98.973
11/23/2007	11/24/2017	11/23/2011	3.990	104.987	104.987	104.987	103.800	102.563	101.347	100.150	98.973
11/29/2007	11/29/2017	11/29/2016	2.950	103.728	103.728	103.728	102.542	101.376	100.452	99.928	99.644

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11/30/2007	11/30/2017	11/30/2016	3.190	104.040	104.040	104.040	102.845	101.651	100.648	100.024	99.703
12/10/2007	12/11/2017	9/12/2016	3.450	104.475	104.475	104.475	103.240	102.001	100.920	100.175	99.969
12/24/2007	12/26/2017	12/24/2012	3.990	105.342	105.342	105.342	104.048	102.724	101.423	100.145	98.888
1/7/2008	1/8/2018	10/7/2016	2.590	103.561	103.561	103.561	102.266	101.084	100.255	99.930	99.819
1/8/2008	1/8/2018	10/11/2016	2.570	103.533	103.533	103.533	102.239	101.062	100.242	99.919	99.798
1/8/2008	1/8/2018	10/11/2016	2.640	103.630	103.630	103.630	102.331	101.138	100.285	99.931	99.806
1/11/2008	1/11/2018	10/11/2016	2.720	103.762	103.762	103.762	102.450	101.233	100.338	99.947	99.815
1/14/2008	1/16/2018	10/14/2016	3.240	104.527	104.527	104.527	103.178	101.870	100.771	100.098	99.868
1/16/2008	1/16/2018	10/17/2016	2.380	103.325	103.325	103.325	102.019	100.870	100.136	99.876	99.745
1/17/2008	1/17/2018	10/17/2016	2.250	103.150	103.150	103.150	101.853	100.741	100.079	99.858	99.728
1/18/2008	1/18/2018	10/18/2016	2.290	103.212	103.212	103.212	101.908	100.781	100.095	99.861	99.728
2/14/2008	2/14/2018	2/14/2012	3.190	104.714	104.714	104.714	103.259	101.805	100.379	98.979	97.606
3/7/2008	3/7/2018	9/7/2016	3.550	105.453	105.453	105.452	103.930	102.469	101.195	100.292	99.984
3/14/2008	3/14/2018	9/14/2016	2.400	103.733	103.733	103.732	102.251	100.987	100.169	99.962	99.923
3/17/2008	3/19/2018	9/19/2016	3.300	105.179	105.179	105.177	103.623	102.157	100.925	100.150	99.944
4/28/2008	4/30/2018	10/28/2016	2.150	103.625	103.625	103.603	102.029	100.761	100.052	99.809	99.651
4/30/2008	4/30/2018	4/30/2013	3.740	106.306	106.306	106.284	104.585	102.916	101.282	99.681	98.113
5/23/2008	5/23/2018	11/23/2016	3.270	105.722	105.722	105.684	103.946	102.330	100.987	100.140	99.755
6/30/2008	7/2/2018	6/30/2011	3.690	106.867	106.867	106.800	104.922	103.081	101.281	99.522	97.801
7/11/2008	7/11/2018	7/11/2012	3.750	107.072	107.072	106.997	105.093	103.227	101.403	99.620	97.877
7/14/2008	7/16/2018	10/14/2016	2.500	104.750	104.750	104.672	102.862	101.328	100.299	99.909	99.776
7/14/2008	7/16/2018	10/14/2016	3.250	106.175	106.175	106.096	104.214	102.481	101.055	100.173	99.872
7/17/2008	7/17/2018	10/14/2016	3.750	107.135	107.135	107.055	105.134	103.252	101.412	99.614	97.857
8/15/2008	8/15/2018	11/15/2016	3.830	107.596	107.596	107.490	105.499	103.610	101.936	100.671	99.985
12/27/2011	12/27/2021	12/29/2014	3.550	119.169	119.169	116.233	110.687	105.439	100.477	95.784	91.344
5/15/2012	5/15/2017	11/17/2014	1.950	101.392	101.392	101.392	100.824	100.125	99.435	98.754	98.083
6/20/2012	6/20/2017	6/22/2015	1.630	101.326	101.326	101.326	100.652	99.857	99.076	98.306	97.548
7/16/2012	7/17/2017	7/16/2014	1.720	101.529	101.529	101.529	100.771	99.905	99.055	98.218	97.396
7/18/2012	7/18/2018	7/20/2015	2.720	105.183	105.183	105.102	103.196	101.329	99.506	97.724	95.982
7/19/2012	7/19/2017	7/21/2014	1.690	101.511	101.511	101.511	100.748	99.877	99.021	98.180	97.354
10/1/2012	10/1/2019	4/1/2015	2.250	107.037	107.037	106.419	103.296	100.277	97.363	94.548	91.830
10/5/2012	10/5/2017	10/6/2014	1.630	101.811	101.811	101.811	100.801	99.717	98.650	97.599	96.564
3/8/2013	3/8/2018	3/9/2015	1.780	102.739	102.739	102.738	101.224	99.725	98.255	96.814	95.400
5/7/2014	5/7/2018	5/7/2015	1.760	103.001	103.001	102.975	101.283	99.624	98.000	96.410	94.853
10/16/2014	10/16/2018	10/17/2016	0.459	105.087	105.087	104.925	102.773	100.798	99.826	99.629	99.501
10/24/2014	10/24/2018	10/26/2015	1.740	103.789	103.789	103.619	101.462	99.357	97.306	95.307	93.359
10/24/2014	10/24/2018	10/26/2015	1.740	103.789	103.789	103.619	101.462	99.357	97.306	95.307	93.359
2/20/2015	2/20/2019	2/22/2016	1.790	104.489	104.489	104.196	101.707	99.288	96.938	94.655	92.437
3/26/2015	3/26/2019	3/29/2016	1.610	104.190	104.190	103.857	101.279	98.776	96.348	93.991	91.703
3/26/2015	3/26/2020	3/29/2016	1.590	105.754	105.754	104.770	101.199	97.765	94.466	91.296	88.248
6/29/2015	7/1/2019	6/29/2017	0.347	105.528	105.528	105.062	102.949	101.300	100.305	99.875	99.719
7/30/2015	7/30/2019	8/1/2016	1.800	105.314	105.314	104.805	101.875	99.039	96.297	93.645	91.078
8/14/2015	8/14/2025	8/14/2020	1.850	116.802	116.756	110.766	104.852	99.845	95.489	91.600	88.047
8/19/2015	8/19/2025	8/21/2017	0.990	109.004	108.956	105.237	101.848	99.735	98.367	97.334	96.412
8/25/2015	8/25/2020	8/25/2017	0.950	103.839	103.839	103.079	100.866	99.349	98.217	97.246	96.330
8/26/2015	8/26/2025	8/26/2020	1.750	115.952	115.881	110.044	104.221	99.281	94.966	91.098	87.553
9/14/2015	9/14/2020	9/14/2017	1.050	104.301	104.301	103.472	101.115	99.462	98.222	97.173	96.192
9/15/2015	9/16/2019	9/15/2016	0.323	105.380	105.380	104.790	101.732	99.996	99.954	99.913	99.871
9/18/2015	9/18/2020	9/18/2017	1.090	104.477	104.477	103.622	101.209	99.514	98.247	97.179	96.184
9/29/2015	9/30/2019	9/29/2016	0.307	104.926	104.926	104.313	101.222	99.914	99.834	99.754	99.674
10/2/2015	10/2/2020	10/2/2017	0.890	103.690	103.690	102.934	100.736	99.158	97.920	96.831	95.798
10/2/2015	10/2/2025	10/2/2020	1.690	115.578	115.463	109.679	103.850	98.878	94.515	90.590	86.985
11/6/2015	11/6/2020	11/6/2017	1.050	104.456	104.456	103.561	101.114	99.331	97.938	96.734	95.607
11/6/2015	11/7/2022	11/6/2018	1.400	108.783	108.783	106.295	102.490	99.438	96.883	94.640	92.579
12/4/2015	12/4/2025	12/4/2018	1.360	112.774	112.585	107.752	103.161	99.647	96.820	94.413	92.248
12/8/2015	12/8/2020	12/8/2016	0.201	105.488	105.488	104.382	101.840	100.444	99.978	99.904	99.885
12/11/2015	12/12/2022	12/11/2017	0.166	109.484	109.484	106.341	103.206	101.123	99.839	99.096	98.658
12/15/2015	12/16/2019	12/15/2016	0.403	104.185	104.185	103.611	101.505	100.353	99.979	99.905	99.868

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
12/15/2015	12/15/2022	12/15/2017	0.153	109.466	109.466	106.310	103.200	101.198	100.071	99.538	99.324
12/18/2015	12/18/2020	12/18/2017	0.397	106.524	106.524	105.107	102.794	101.214	100.271	99.796	99.590
12/24/2015	12/24/2020	12/26/2017	1.250	105.471	105.471	104.395	101.637	99.584	97.978	96.611	95.347
12/24/2015	12/24/2025	12/24/2020	1.990	118.803	118.535	112.008	105.653	100.245	95.527	91.313	87.470
1/8/2016	1/8/2019	1/9/2017	1.120	102.675	102.675	102.491	100.893	99.983	99.503	99.141	98.793
1/12/2016	1/13/2020	1/12/2017	0.067	105.548	105.548	104.851	102.359	100.689	99.856	99.571	99.444
1/19/2016	1/19/2021	1/19/2018	1.150	105.116	105.116	104.057	101.360	99.330	97.705	96.294	94.979
1/19/2016	1/20/2026	1/22/2019	1.350	112.856	112.628	107.709	102.955	99.202	96.090	93.379	90.912
1/22/2016	1/22/2020	1/23/2017	0.102	104.296	104.296	103.653	101.457	100.183	99.657	99.461	99.324
1/29/2016	1/29/2021	1/30/2017	0.152	105.628	105.628	104.406	101.789	100.277	99.641	99.406	99.248
2/2/2016	2/2/2021	2/2/2018	0.159	106.025	106.025	104.519	102.203	100.560	99.527	98.936	98.605
2/17/2016	2/17/2021	2/17/2017	0.204	103.421	103.421	102.506	100.644	99.785	99.428	99.205	98.998
2/26/2016	2/26/2020	2/27/2017	0.225	103.697	103.697	103.056	101.028	99.899	99.391	99.114	98.879
2/26/2016	2/26/2021	2/26/2018	0.890	104.053	104.053	103.108	100.610	98.678	97.056	95.590	94.195
2/26/2016	2/26/2026	2/26/2021	1.490	114.343	114.030	108.304	102.391	97.278	92.732	88.600	84.781
3/8/2016	3/8/2023	3/8/2018	0.990	106.543	106.543	104.394	101.300	99.029	97.232	95.680	94.241
3/18/2016	3/18/2020	3/20/2017	0.047	104.629	104.629	103.870	101.696	100.397	99.823	99.643	99.576
4/5/2016	4/5/2021	4/2/2018	0.990	104.613	104.613	102.686	99.556	98.437	96.906	95.406	93.936
4/8/2016	4/8/2020	4/10/2017	0.061	103.413	103.413	102.731	100.913	99.981	99.596	99.439	99.335
4/12/2016	4/12/2021	4/12/2017	0.067	103.682	103.682	102.623	100.749	99.884	99.549	99.403	99.293
4/28/2016	4/28/2020	4/28/2017	0.143	104.012	104.012	103.236	101.188	100.030	99.495	99.255	99.094
4/28/2016	4/28/2021	4/28/2017	0.143	104.995	104.995	103.692	101.343	100.066	99.499	99.256	99.094
4/28/2016	4/28/2021	4/30/2018	0.143	105.983	105.983	104.066	101.596	100.024	99.154	98.714	98.471
5/2/2016	5/2/2023	5/4/2018	0.159	107.689	107.689	104.504	101.890	100.228	99.264	98.735	98.433
5/2/2016	5/4/2026	5/2/2017	0.159	107.855	107.593	103.967	101.272	99.976	99.446	99.207	99.035
5/5/2016	5/5/2021	5/7/2018	0.890	104.221	104.221	103.203	100.567	98.461	96.652	95.003	93.437
5/5/2016	5/5/2026	5/5/2021	1.490	114.624	114.232	108.354	102.292	97.029	92.338	88.070	84.127
5/6/2016	5/6/2026	5/8/2017	0.188	106.581	106.349	103.188	100.860	99.804	99.369	99.141	98.955
5/10/2016	5/11/2026	5/10/2017	0.490	104.816	104.644	102.437	100.373	99.229	98.452	97.774	97.118
5/12/2016	5/12/2026	5/12/2017	0.490	104.817	104.644	102.434	100.367	99.220	98.439	97.756	97.094
5/13/2016	5/13/2026	5/15/2017	0.217	106.956	106.699	103.393	100.944	99.807	99.329	99.076	98.871
5/17/2016	5/17/2021	5/17/2018	0.204	105.588	105.588	103.662	101.292	99.796	98.961	98.509	98.228
5/20/2016	5/20/2026	5/22/2017	0.590	105.814	105.602	102.999	100.621	99.305	98.454	97.737	97.051
6/3/2016	6/3/2026	6/5/2017	0.031	107.266	106.969	103.469	101.045	100.001	99.661	99.586	99.577
6/6/2016	6/8/2020	6/6/2017	0.030	104.448	104.448	103.558	101.490	100.304	99.767	99.598	99.562
6/6/2016	6/6/2031	6/6/2017	0.590	108.833	107.025	103.641	100.832	99.248	98.229	97.399	96.619
6/8/2016	6/8/2026	6/8/2017	0.590	105.845	105.624	103.026	100.630	99.260	98.350	97.586	96.858
6/14/2016	6/16/2031	6/14/2017	0.490	107.349	105.808	102.920	100.487	99.132	98.226	97.452	96.711
6/16/2016	6/16/2020	6/16/2017	0.005	104.226	104.226	103.053	100.791	99.821	99.536	99.463	99.429
6/16/2016	6/16/2026	6/18/2018	0.690	106.852	106.594	103.599	100.423	98.042	96.070	94.304	92.638
6/16/2016	6/16/2031	6/16/2021	1.210	118.153	114.792	107.901	101.295	95.742	90.891	86.528	82.523
6/24/2016	6/24/2026	6/26/2017	0.590	105.871	105.643	103.009	100.581	99.178	98.229	97.422	96.650
6/27/2016	6/27/2031	6/27/2018	0.690	110.371	108.264	104.327	100.708	98.116	96.047	94.233	92.538
6/27/2016	6/27/2031	6/27/2019	0.910	113.679	111.006	105.935	101.177	97.464	94.352	91.590	89.037
6/30/2016	6/30/2020	6/30/2017	0.031	104.083	104.083	102.881	100.679	99.754	99.464	99.361	99.289
6/30/2016	6/30/2021	6/30/2017	0.590	102.890	102.890	102.082	100.259	99.083	98.189	97.384	96.604
7/8/2016	7/8/2026	7/10/2017	0.450	104.495	104.312	102.235	100.192	98.939	98.008	97.176	96.373
7/14/2016	7/14/2021	7/14/2017	0.023	104.019	104.019	102.727	100.779	99.805	99.376	99.188	99.069
7/22/2016	7/22/2026	7/24/2017	0.550	105.516	105.289	102.787	100.436	99.020	98.012	97.137	96.301
7/22/2016	7/22/2026	7/24/2017	0.550	105.516	105.289	102.787	100.436	99.020	98.012	97.137	96.301
7/28/2016	7/28/2026	7/30/2018	0.043	109.641	109.162	104.144	101.351	99.739	98.862	98.400	98.140
8/1/2016	8/1/2031	8/1/2017	0.490	107.412	105.851	102.952	100.452	98.961	97.912	97.013	96.156
8/11/2016	8/11/2026	8/13/2018	0.810	108.169	107.827	104.368	100.841	98.180	95.993	94.057	92.248
8/12/2016	8/12/2021	8/14/2017	0.018	104.063	104.063	102.695	100.677	99.586	99.048	98.764	98.560
8/19/2016	8/19/2021	8/21/2017	0.011	104.224	104.224	102.810	100.724	99.577	99.000	98.690	98.467
9/2/2016	9/2/2026	9/5/2017	0.690	106.997	105.789	101.000	99.814	98.805	97.831	96.877	95.940