

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
12/14/1998	12/16/2013	9/16/2013	5.390	101.602	101.602	101.602	101.552	101.257	100.964	100.673	100.383
12/14/1998	12/16/2013	9/16/2013	4.890	101.453	101.453	101.453	101.404	101.109	100.816	100.525	100.235
12/15/1998	12/16/2013	9/16/2013	4.880	101.450	101.450	101.450	101.401	101.106	100.813	100.522	100.232
1/7/2000	1/7/2015	10/7/2013	5.950	108.164	108.164	108.164	107.472	106.085	104.724	103.400	102.160
7/2/2004	7/2/2014	10/2/2013	3.990	103.380	103.380	103.380	103.092	102.250	101.421	100.606	99.804
12/13/2004	12/15/2014	9/13/2013	3.320	104.343	104.343	104.343	103.722	102.427	101.220	100.309	99.971
9/1/2005	9/1/2015	9/1/2013	4.130	108.386	108.386	108.386	106.888	104.856	102.873	100.937	99.048
9/30/2005	9/30/2015	9/30/2013	4.440	109.373	109.373	109.373	107.752	105.631	103.562	101.544	99.576
10/26/2005	10/26/2015	10/26/2013	4.540	109.912	109.912	109.912	108.174	105.978	103.838	101.753	99.719
1/17/2006	1/19/2016	10/17/2013	4.080	109.871	109.871	109.871	107.724	105.367	103.256	101.552	100.416
4/24/2006	4/25/2016	10/24/2013	4.440	111.938	111.938	111.938	109.237	106.615	104.256	102.298	100.857
5/5/2006	5/5/2016	11/5/2013	4.350	111.817	111.817	111.801	109.060	106.431	104.083	102.160	100.781
5/5/2006	5/5/2016	11/5/2013	4.530	112.306	112.306	112.290	109.542	106.891	104.501	102.506	101.026
5/15/2006	5/16/2016	11/15/2013	4.350	111.950	111.950	111.898	109.126	106.470	104.101	102.162	100.762
5/15/2006	5/16/2016	11/15/2013	4.520	112.417	112.417	112.365	109.586	106.909	104.499	102.490	100.998
5/19/2006	5/19/2016	11/19/2013	4.510	112.427	112.427	112.366	109.578	106.895	104.482	102.471	100.981
6/12/2006	6/13/2016	9/12/2013	4.620	113.051	113.051	112.907	110.044	107.291	104.813	102.734	101.172
6/26/2006	6/27/2016	9/26/2013	4.730	113.545	113.545	113.355	110.446	107.646	105.113	102.968	101.328
7/24/2006	7/25/2016	10/24/2013	4.660	113.707	113.707	113.417	110.434	107.579	105.017	102.869	101.248
7/28/2006	7/28/2016	10/28/2013	4.490	113.245	113.245	112.944	109.962	107.123	104.597	102.517	100.984
8/25/2006	8/25/2016	11/25/2013	4.350	113.170	113.170	112.767	109.718	106.842	104.317	102.272	100.801
10/10/2006	10/10/2013	10/10/2013	4.250	100.472	100.472	100.472	100.458	100.347	100.237	100.127	100.017
10/12/2006	10/15/2013	10/15/2013	4.500	100.562	100.562	100.562	100.546	100.422	100.299	100.175	100.052
11/6/2006	11/6/2013	11/6/2013	4.290	100.798	100.798	100.798	100.773	100.589	100.406	100.224	100.042
11/17/2006	11/18/2013	11/18/2013	4.350	100.955	100.955	100.955	100.924	100.706	100.490	100.274	100.059
11/24/2006	11/25/2016	11/25/2013	4.190	113.756	113.756	112.972	109.698	106.676	104.082	102.041	100.640
11/30/2006	12/2/2013	12/2/2013	4.350	101.124	101.124	101.124	101.086	100.829	100.574	100.320	100.068
12/1/2006	12/1/2016	12/2/2013	4.090	113.496	113.496	112.686	109.413	106.411	103.860	101.879	100.571
12/4/2006	12/5/2016	12/4/2013	4.080	113.508	113.508	112.679	109.398	106.390	103.838	101.859	100.556
12/5/2006	12/5/2016	12/5/2013	4.260	114.104	114.104	113.273	109.970	106.917	104.294	102.218	100.764
12/6/2006	12/6/2013	9/6/2013	4.400	101.185	101.185	101.185	101.144	100.877	100.611	100.347	100.083
12/8/2006	12/8/2016	9/9/2013	3.990	113.244	113.244	112.401	109.123	106.132	103.614	101.682	100.445
12/12/2006	12/12/2016	9/12/2013	3.990	113.288	113.288	112.426	109.138	106.139	103.615	101.679	100.438
12/12/2006	12/12/2016	9/12/2013	4.050	113.488	113.488	112.625	109.330	106.315	103.766	101.794	100.506
12/19/2006	12/19/2016	9/19/2013	4.190	114.036	114.036	113.137	109.807	106.744	104.124	102.064	100.660
12/20/2006	12/20/2013	9/20/2013	4.500	101.387	101.387	101.387	101.334	101.029	100.726	100.424	100.125
12/28/2006	12/28/2016	9/30/2013	4.250	114.343	114.343	113.399	110.039	106.944	104.286	102.182	100.719
12/28/2006	12/28/2016	9/30/2013	4.400	114.849	114.849	113.904	110.526	107.395	104.683	102.499	100.929
1/12/2007	1/12/2017	10/15/2013	4.420	115.101	115.101	114.079	110.666	107.507	104.776	102.579	100.999
1/16/2007	1/17/2017	10/16/2013	4.790	116.431	116.431	115.378	111.913	108.667	105.804	103.421	101.609
1/23/2007	1/23/2014	10/23/2013	4.490	101.808	101.808	101.808	101.720	101.323	100.929	100.538	100.170
1/29/2007	1/29/2014	10/29/2013	4.790	102.009	102.009	102.009	101.914	101.500	101.090	100.683	100.279
2/2/2007	2/2/2017	11/2/2013	4.690	116.297	116.297	115.152	111.583	108.096	104.739	101.506	99.795
2/20/2007	2/21/2017	11/20/2013	4.850	117.109	117.109	115.864	112.226	108.674	105.256	101.967	98.801
2/20/2007	2/21/2017	11/20/2013	4.390	115.486	115.486	114.260	110.750	107.527	104.756	102.542	100.958
2/23/2007	2/23/2017	11/25/2013	4.250	115.016	115.016	113.784	110.286	107.094	104.379	102.240	100.746
2/23/2007	2/23/2017	11/25/2013	4.350	115.369	115.369	114.134	110.624	107.406	104.648	102.454	100.891
3/16/2007	3/16/2017	9/16/2013	4.090	114.689	114.689	113.349	109.831	106.655	103.990	101.933	100.572
3/21/2007	3/21/2017	9/23/2013	4.220	115.214	115.214	113.843	110.291	107.068	104.336	102.195	100.723
3/23/2007	3/23/2017	9/23/2013	4.290	115.491	115.491	114.106	110.539	107.291	104.528	102.346	100.813
3/23/2007	3/23/2017	9/23/2013	4.290	115.491	115.491	114.106	110.539	107.291	104.528	102.346	100.813
4/9/2007	4/10/2017	10/9/2013	4.150	115.193	115.193	113.714	110.133	106.903	104.188	102.084	100.666
4/12/2007	4/12/2017	10/15/2013	4.250	115.582	115.582	114.089	110.485	107.222	104.458	102.290	100.789
4/13/2007	4/13/2017	10/15/2013	4.450	116.328	116.328	114.822	111.184	107.861	105.013	102.731	101.090
4/23/2007	4/23/2014	10/23/2013	4.620	103.016	103.016	103.016	102.820	102.168	101.525	100.894	100.325
4/27/2007	4/27/2017	10/28/2013	4.250	115.759	115.759	114.182	110.542	107.251	104.466	102.283	100.770
5/2/2007	5/2/2014	11/4/2013	4.590	103.111	103.111	103.111	102.904	102.228	101.560	100.908	100.335
5/4/2007	5/5/2014	11/4/2013	4.550	103.122	103.122	103.122	102.911	102.227	101.551	100.892	100.320
5/18/2007	5/18/2017	11/18/2013	4.190	115.781	115.781	114.086	110.414	107.110	104.339	102.183	100.709
5/22/2007	5/22/2017	11/22/2013	4.750	117.943	117.943	116.202	112.428	108.958	105.943	103.470	101.607
5/29/2007	5/30/2017	11/29/2013	4.250	116.149	116.149	114.381	110.670	107.327	104.516	102.315	100.778
6/1/2007	6/2/2014	12/2/2013	4.500	103.437	103.437	103.437	103.191	102.430	101.681	100.953	100.330
6/7/2007	6/7/2017	9/9/2013	4.820	118.422	118.422	116.585	112.765	109.253	106.199	103.684	101.776
6/8/2007	6/8/2017	9/9/2013	4.490	117.173	117.173	115.343	111.573	108.149	105.225	102.884	101.193
6/11/2007	6/12/2017	9/11/2013	4.490	117.223	117.223	115.369	111.589	108.158	105.228	102.883	101.189
6/18/2007	6/19/2017	9/18/2013	4.500	117.349	117.349	115.453	111.654	108.207	105.262	102.903	101.193
6/19/2007	6/19/2017	9/19/2013	4.650	117.927	117.927	116.025	112.200	108.709	105.702	103.259	101.453
6/22/2007	6/22/2017	9/23/2013	4.500	117.386	117.386	115.472	111.666	108.214	105.264	102.900	101.185

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
6/28/2007	6/28/2017	9/30/2013	4.500	117.461	117.461	115.512	111.690	108.227	105.268	102.897	101.175
7/13/2007	7/13/2017	10/15/2013	4.290	116.825	116.825	114.799	110.988	107.572	104.699	102.449	100.876
7/20/2007	7/20/2017	10/21/2013	4.290	116.909	116.909	114.840	111.013	107.585	104.703	102.444	100.865
7/27/2007	7/27/2017	10/28/2013	4.250	116.834	116.834	114.725	110.891	107.465	104.592	102.352	100.801
7/30/2007	1/30/2019	10/30/2013	3.990	121.921	120.987	116.003	111.362	107.466	104.363	102.058	100.582
7/31/2007	7/31/2017	10/31/2013	3.990	115.848	115.848	113.737	109.957	106.627	103.884	101.811	100.477
7/31/2007	7/31/2017	10/31/2013	3.990	115.848	115.848	113.737	109.957	106.627	103.884	101.811	100.477
7/31/2007	7/31/2017	10/31/2013	4.060	116.126	116.126	114.010	110.213	106.855	104.077	101.954	100.558
8/2/2007	8/4/2014	11/4/2013	4.490	104.215	104.215	104.215	103.876	102.942	102.025	101.147	100.411
8/2/2007	8/2/2017	11/4/2013	4.150	116.507	116.507	114.373	110.554	107.161	104.344	102.176	100.716
8/2/2007	8/2/2017	11/4/2013	4.050	116.109	116.109	113.983	110.187	106.833	104.065	101.962	100.595
8/9/2007	8/9/2017	11/12/2013	3.990	115.948	115.948	113.785	109.987	106.647	103.902	101.833	100.512
8/16/2007	8/16/2017	11/18/2013	3.990	116.025	116.025	113.820	110.007	106.655	103.902	101.825	100.499
8/17/2007	8/17/2017	11/18/2013	4.000	116.077	116.077	113.864	110.047	106.689	103.930	101.845	100.510
8/20/2007	8/20/2014	11/20/2013	4.250	104.179	104.179	104.179	103.812	102.836	101.878	100.938	100.016
8/28/2007	8/28/2014	11/29/2013	4.350	104.374	104.374	104.374	103.993	102.995	102.017	101.085	100.327
8/30/2007	9/2/2014	12/2/2013	3.890	103.965	103.965	103.965	103.576	102.566	101.580	100.686	100.064
9/4/2007	9/5/2017	12/4/2013	3.890	115.840	115.840	113.527	109.706	106.372	103.665	101.654	100.408
9/10/2007	9/11/2017	9/10/2013	3.690	115.087	115.087	112.761	108.986	105.733	103.138	101.279	100.208
9/11/2007	9/11/2017	9/11/2013	3.590	114.678	114.678	112.366	108.622	105.415	102.883	101.102	100.148
9/12/2007	9/12/2014	9/12/2013	3.690	103.864	103.864	103.864	103.456	102.417	101.409	100.526	100.034
9/13/2007	9/15/2014	9/13/2013	3.990	104.211	104.211	104.211	103.797	102.748	101.723	100.788	100.129
9/13/2007	9/13/2017	9/13/2013	3.990	116.336	116.336	113.964	110.098	106.710	103.935	101.844	100.506
9/27/2007	9/29/2014	9/27/2010	4.490	104.914	104.914	104.914	104.471	103.377	102.299	101.239	100.194
9/27/2007	9/27/2017	9/27/2013	3.650	115.086	115.086	112.670	108.875	105.616	103.027	101.182	100.156
10/11/2007	10/14/2014	10/11/2013	4.180	104.749	104.749	104.749	104.274	103.140	102.031	101.011	100.255
10/11/2007	10/11/2017	10/11/2013	3.990	116.646	116.646	114.106	110.188	106.763	103.967	101.862	100.517
10/15/2007	10/16/2017	10/15/2013	3.990	116.701	116.701	114.130	110.202	106.769	103.968	101.860	100.513
10/25/2007	10/27/2014	10/25/2013	4.360	105.111	105.111	105.111	104.607	103.436	102.290	101.218	100.377
10/26/2007	10/26/2017	10/28/2013	3.390	114.284	114.284	111.742	107.990	104.839	102.408	100.764	99.988
11/2/2007	11/3/2014	11/4/2013	3.990	104.754	104.754	104.754	104.236	103.048	101.896	100.870	100.159
11/2/2007	11/3/2014	11/4/2013	4.190	104.993	104.993	104.993	104.473	103.285	102.125	101.065	100.289
11/5/2007	11/5/2014	11/5/2013	3.990	104.777	104.777	104.777	104.253	103.060	101.902	100.872	100.157
11/5/2007	11/6/2017	11/5/2013	4.390	118.632	118.632	115.891	111.816	108.198	105.167	102.788	101.105
11/6/2007	11/6/2017	11/6/2013	3.480	114.770	114.770	112.151	108.353	105.147	102.656	100.945	100.058
11/9/2007	11/10/2014	11/12/2013	4.330	105.244	105.244	105.244	104.707	103.497	102.315	101.222	100.384
11/13/2007	11/13/2014	11/13/2013	3.350	104.085	104.085	104.085	103.543	102.335	101.197	100.319	99.874
11/19/2007	11/19/2014	11/19/2013	4.270	105.278	105.278	105.278	104.720	103.485	102.280	101.172	100.338
11/19/2007	11/19/2014	11/19/2013	3.750	104.635	104.635	104.635	104.078	102.848	101.664	100.648	100.022
11/19/2007	11/19/2014	11/19/2013	3.750	104.635	104.635	104.635	104.078	102.848	101.664	100.648	100.022
11/19/2007	11/20/2017	11/19/2013	4.290	118.374	118.374	115.442	111.054	106.821	102.776	98.910	95.215
11/20/2007	11/20/2017	11/20/2013	3.740	116.019	116.019	113.269	109.352	105.994	103.315	101.379	100.232
11/23/2007	11/24/2017	11/23/2013	3.990	117.134	117.134	114.181	109.805	105.587	101.558	97.709	94.029
11/23/2007	11/24/2017	11/24/2013	3.990	117.134	117.134	114.181	109.805	105.587	101.558	97.709	94.029
11/29/2007	11/29/2017	11/29/2013	2.950	112.708	112.708	110.076	106.469	103.562	101.460	100.231	99.738
11/30/2007	11/30/2017	12/2/2013	3.190	113.751	113.751	111.049	107.329	104.268	101.979	100.527	99.841
12/10/2007	12/11/2017	9/10/2013	3.450	114.978	114.978	112.156	108.316	105.092	102.600	100.900	100.087
12/24/2007	12/26/2017	9/24/2013	3.990	117.488	117.488	114.313	109.848	105.550	101.448	97.531	93.790
1/3/2008	1/5/2015	10/3/2013	3.650	104.988	104.988	104.988	104.310	102.953	101.668	100.611	100.030
1/4/2008	1/4/2018	10/4/2013	3.360	114.811	114.811	111.866	108.031	104.839	102.401	100.772	100.024
1/7/2008	1/7/2015	10/7/2013	3.490	104.789	104.789	104.789	104.105	102.746	101.473	100.468	99.978
1/7/2008	1/8/2018	10/7/2013	2.590	111.445	111.445	108.724	105.285	102.621	100.840	100.023	99.845
1/8/2008	1/8/2018	10/8/2013	2.570	111.357	111.357	108.643	105.217	102.568	100.807	100.014	99.839
1/8/2008	1/8/2018	10/8/2013	2.640	111.666	111.666	108.923	105.453	102.750	100.921	100.042	99.847
1/11/2008	1/11/2018	10/11/2013	2.720	112.042	112.042	109.251	105.730	102.959	101.053	100.074	99.847
1/14/2008	1/16/2018	10/15/2013	3.240	114.390	114.390	111.401	107.600	104.468	102.115	100.593	99.953
1/16/2008	1/16/2018	10/16/2013	2.380	110.570	110.570	107.902	104.590	102.092	100.520	99.929	99.784
1/17/2008	1/17/2018	10/17/2013	2.250	109.999	109.999	107.394	104.173	101.789	100.358	99.897	99.762
1/18/2008	1/20/2015	10/18/2013	2.350	103.309	103.309	103.309	102.594	101.260	100.262	99.905	99.771
1/18/2008	1/18/2018	10/18/2013	2.290	110.183	110.183	107.551	104.301	101.877	100.401	99.901	99.763
2/14/2008	2/14/2018	11/14/2013	3.190	114.425	114.425	110.913	106.379	102.031	97.888	93.939	90.174
2/25/2008	2/26/2018	11/25/2013	2.420	111.023	111.023	108.127	104.747	102.193	100.563	99.875	99.606
3/7/2008	3/9/2015	9/9/2013	2.890	104.455	104.455	104.455	103.595	102.099	100.830	100.087	99.969
3/7/2008	3/7/2018	9/9/2013	3.550	116.260	116.260	112.889	108.879	105.518	102.907	101.097	100.146
3/14/2008	3/14/2018	9/16/2013	2.400	111.039	111.039	108.070	104.700	102.160	100.550	99.968	99.923
3/17/2008	3/19/2018	9/17/2013	3.300	115.225	115.225	111.844	107.930	104.710	102.278	100.679	100.003
4/14/2008	4/14/2015	10/14/2013	2.750	104.514	104.514	104.514	103.538	101.913	100.320	98.761	97.233
4/28/2008	4/28/2015	10/28/2013	3.250	105.461	105.461	105.461	104.436	102.792	101.337	100.313	99.881

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
4/28/2008	4/30/2018	10/28/2013	2.150	110.169	110.169	107.128	103.910	101.580	100.252	99.855	99.694
4/30/2008	4/30/2018	10/30/2013	3.740	117.691	117.691	113.595	108.805	104.215	99.849	95.695	91.741
5/2/2008	5/4/2015	11/4/2013	3.990	106.771	106.771	106.771	105.721	104.031	102.448	101.121	100.245
5/5/2008	5/5/2015	11/5/2013	3.170	105.389	105.389	105.389	104.341	102.686	101.246	100.275	99.855
5/19/2008	5/19/2015	11/21/2013	4.700	108.172	108.172	108.172	107.064	105.313	103.599	101.922	100.279
5/23/2008	5/23/2018	11/25/2013	3.270	115.677	115.677	111.897	107.915	104.665	102.227	100.635	99.898
6/24/2008	6/24/2015	9/24/2013	3.830	107.042	107.042	107.042	105.811	103.991	102.315	100.962	100.135
6/30/2008	7/2/2018	9/30/2013	3.690	118.100	118.100	113.492	108.537	103.800	99.301	95.028	90.967
7/10/2008	7/10/2014	10/10/2013	4.800	104.173	104.173	104.173	103.872	103.005	102.152	101.313	100.488
7/11/2008	7/11/2018	10/11/2013	3.750	118.488	118.488	113.800	108.815	104.050	99.526	95.229	91.146
7/14/2008	7/14/2015	10/15/2013	4.900	109.282	109.282	109.282	107.967	106.054	104.185	102.359	100.573
7/14/2008	7/16/2018	10/15/2013	2.500	112.360	112.360	108.658	105.126	102.451	100.715	99.979	99.803
7/14/2008	7/16/2018	10/15/2013	3.250	116.068	116.068	111.949	107.922	104.653	102.216	100.638	99.964
7/17/2008	7/17/2018	10/17/2013	3.750	118.551	118.551	113.811	108.810	104.031	99.494	95.185	91.093
8/15/2008	8/15/2018	11/15/2013	3.830	119.255	119.255	114.705	110.344	106.676	103.775	101.664	100.387
9/8/2008	9/9/2013	9/9/2013	2.890	100.072	100.072	100.072	100.069	100.044	100.019	99.994	99.969
5/13/2009	5/13/2014	11/13/2013	4.000	102.833	102.833	102.833	102.613	101.908	101.214	100.555	100.061
9/28/2009	9/30/2013	9/30/2013	2.920	100.243	100.243	100.243	100.233	100.149	100.066	99.984	99.907
5/11/2010	5/11/2015	5/11/2015	3.700	106.351	106.351	106.351	105.278	103.551	101.633	99.040	95.934
5/24/2010	5/26/2015	11/26/2013	2.250	103.956	103.956	103.956	102.840	101.108	99.414	97.756	96.133
6/15/2010	6/15/2015	9/15/2013	2.280	104.135	104.135	104.135	102.948	101.162	99.415	97.706	96.034
10/8/2010	10/8/2015	10/9/2012	2.250	104.799	104.799	104.799	103.170	101.077	99.036	97.047	95.107
12/27/2011	12/27/2021	12/29/2014	3.550	127.908	119.251	110.796	101.642	88.393	76.300	65.262	55.187
4/27/2012	4/27/2016	4/27/2013	1.430	103.852	103.852	103.852	101.200	98.601	96.082	93.639	91.269
4/30/2012	5/2/2016	4/30/2013	1.380	103.737	103.737	103.730	101.057	98.447	95.917	93.464	91.086
5/15/2012	5/15/2017	5/15/2014	-0.196	105.949	105.949	104.248	101.048	99.844	99.508	99.298	99.099
5/15/2012	5/15/2017	11/17/2014	-0.196	106.371	106.371	104.665	101.555	100.072	99.453	99.142	98.920
6/20/2012	6/20/2017	6/22/2015	1.630	106.288	106.288	104.375	99.393	93.894	88.656	83.667	78.915
7/16/2012	7/17/2017	7/16/2014	-0.182	105.240	105.240	103.161	100.528	99.974	99.942	99.932	99.926
7/18/2012	7/18/2018	7/20/2015	-0.184	108.287	108.287	103.696	100.543	99.470	99.138	99.037	99.015
7/19/2012	7/19/2017	7/21/2014	-0.184	105.149	105.149	103.058	100.492	99.967	99.923	99.920	99.919
10/1/2012	10/1/2019	4/1/2015	0.078	110.280	107.239	102.081	100.072	99.501	99.328	99.236	99.164
10/5/2012	10/5/2017	10/6/2014	0.088	104.988	104.988	102.426	100.332	99.877	99.728	99.621	99.520
3/8/2013	3/8/2018	3/9/2015	0.004	105.413	105.413	101.945	100.086	99.701	99.621	99.598	99.586