

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
4/24/2006	4/25/2016	4/25/2016	4.440	100.308	100.308	100.308	100.289	100.220	100.150	100.081	100.011
5/5/2006	5/5/2016	5/5/2016	4.350	100.423	100.423	100.423	100.394	100.297	100.200	100.104	100.007
5/5/2006	5/5/2016	5/5/2016	4.530	100.440	100.440	100.440	100.412	100.315	100.218	100.121	100.025
5/15/2006	5/16/2016	5/16/2016	4.350	100.556	100.556	100.556	100.515	100.388	100.262	100.136	100.010
5/15/2006	5/16/2016	5/16/2016	4.520	100.578	100.578	100.578	100.537	100.410	100.283	100.157	100.032
5/19/2006	5/19/2016	5/19/2016	4.510	100.614	100.614	100.614	100.569	100.435	100.300	100.166	100.033
6/12/2006	6/13/2016	6/13/2016	4.620	100.950	100.950	100.950	100.873	100.669	100.467	100.265	100.064
6/26/2006	6/27/2016	6/27/2016	4.730	101.156	101.156	101.156	101.059	100.816	100.575	100.335	100.096
7/24/2006	7/25/2016	4/25/2016	4.660	101.501	101.501	101.501	101.352	101.033	100.717	100.403	100.115
7/28/2006	7/28/2016	4/28/2016	4.490	101.484	101.484	101.484	101.329	101.002	100.678	100.356	100.085
8/25/2006	8/25/2016	5/25/2016	4.350	101.776	101.776	101.776	101.557	101.155	100.757	100.366	100.064
11/24/2006	11/25/2016	5/24/2016	4.190	102.782	102.782	102.782	102.307	101.655	101.023	100.452	100.064
12/1/2006	12/1/2016	6/1/2016	4.090	102.783	102.783	102.783	102.290	101.623	100.983	100.432	100.049
12/4/2006	12/5/2016	6/6/2016	4.080	102.822	102.822	102.822	102.316	101.638	100.988	100.429	100.038
12/5/2006	12/5/2016	6/6/2016	4.260	102.946	102.946	102.946	102.440	101.761	101.106	100.524	100.100
12/8/2006	12/8/2016	6/8/2016	3.990	102.793	102.793	102.793	102.277	101.593	100.938	100.386	100.007
12/12/2006	12/12/2016	6/13/2016	3.990	102.837	102.837	102.837	102.309	101.613	100.949	100.387	99.998
12/19/2006	12/19/2016	6/20/2016	4.190	103.061	103.061	103.061	102.509	101.794	101.105	100.501	100.059
12/28/2006	12/28/2016	6/28/2016	4.250	103.211	103.211	103.211	102.630	101.891	101.177	100.545	100.074
12/28/2006	12/28/2016	6/28/2016	4.400	103.324	103.324	103.324	102.743	102.003	101.285	100.636	100.138
1/12/2007	1/12/2017	4/12/2016	4.420	103.524	103.524	103.524	102.894	102.114	101.362	100.689	100.176
1/16/2007	1/17/2017	4/18/2016	4.790	103.885	103.885	103.885	103.238	102.442	101.668	100.950	100.353
2/2/2007	2/2/2017	5/20/2016	4.690	104.012	104.012	104.012	103.313	102.473	101.648	100.836	100.036
2/20/2007	2/21/2017	5/20/2016	4.390	103.987	103.987	103.987	103.227	102.337	101.488	100.738	100.193
2/20/2007	2/21/2017	5/20/2016	4.850	104.405	104.405	104.405	103.643	102.747	101.867	101.002	100.151
2/23/2007	2/23/2017	5/23/2016	4.250	103.884	103.884	103.884	103.117	102.223	101.376	100.640	100.133
2/23/2007	2/23/2017	5/23/2016	4.350	103.975	103.975	103.975	103.209	102.313	101.461	100.711	100.175
3/16/2007	3/16/2017	6/16/2016	4.090	103.976	103.976	103.976	103.145	102.199	101.315	100.577	100.071
3/23/2007	3/23/2017	6/23/2016	4.290	104.254	104.254	104.254	103.400	102.432	101.517	100.727	100.155
4/9/2007	4/10/2017	4/11/2016	4.150	104.323	104.323	104.323	103.416	102.401	101.455	100.661	100.140
4/12/2007	4/12/2017	4/12/2016	4.250	104.450	104.450	104.450	103.537	102.514	101.554	100.738	100.173
4/13/2007	4/13/2017	4/13/2016	4.450	104.672	104.672	104.672	103.755	102.725	101.749	100.897	100.250
5/18/2007	5/18/2017	5/18/2016	4.190	104.807	104.807	104.807	103.789	102.666	101.619	100.740	100.157
5/22/2007	5/22/2017	5/23/2016	4.750	105.502	105.502	105.502	104.470	103.324	102.226	101.243	100.478
5/29/2007	5/30/2017	5/31/2016	4.250	105.017	105.017	105.017	103.965	102.807	101.723	100.804	100.181
6/7/2007	6/7/2017	6/7/2016	4.820	105.797	105.797	105.797	104.719	103.529	102.392	101.370	100.573
6/8/2007	6/8/2017	6/8/2016	4.490	105.413	105.413	105.413	104.334	103.148	102.028	101.060	100.350
6/18/2007	6/19/2017	6/20/2016	4.500	105.562	105.562	105.562	104.453	103.235	102.085	101.086	100.348
6/19/2007	6/19/2017	6/20/2016	4.650	105.748	105.748	105.748	104.637	103.416	102.255	101.231	100.450
6/22/2007	6/22/2017	6/22/2016	4.500	105.600	105.600	105.600	104.482	103.256	102.097	101.091	100.347
6/28/2007	6/28/2017	6/28/2016	4.500	105.675	105.675	105.675	104.540	103.297	102.122	101.101	100.344
7/13/2007	7/13/2017	4/13/2016	4.290	105.589	105.589	105.589	104.415	103.139	101.951	100.951	100.242
7/20/2007	7/20/2017	4/20/2016	4.290	105.672	105.672	105.672	104.479	103.183	101.977	100.959	100.242
7/27/2007	7/27/2017	4/27/2016	4.250	105.702	105.702	105.702	104.490	103.176	101.955	100.929	100.225
7/30/2007	1/30/2019	5/2/2016	3.990	111.471	111.471	111.236	108.371	105.736	103.456	101.665	100.502
7/31/2007	7/31/2017	5/2/2016	3.990	105.397	105.397	105.397	104.177	102.864	101.670	100.713	100.130
7/31/2007	7/31/2017	5/2/2016	3.990	105.397	105.397	105.397	104.177	102.864	101.670	100.713	100.130
7/31/2007	7/31/2017	5/2/2016	4.060	105.492	105.492	105.492	104.271	102.955	101.751	100.775	100.161
8/2/2007	8/2/2017	5/2/2016	4.150	105.637	105.637	105.637	104.410	103.088	101.874	100.874	100.214
8/2/2007	8/2/2017	5/2/2016	4.050	105.501	105.501	105.501	104.275	102.957	101.757	100.783	100.165
8/9/2007	8/9/2017	5/9/2016	3.990	105.497	105.497	105.497	104.253	102.918	101.707	100.732	100.130
8/16/2007	8/16/2017	5/16/2016	3.990	105.575	105.575	105.575	104.311	102.957	101.727	100.735	100.123
8/17/2007	8/17/2017	5/17/2016	4.000	105.600	105.600	105.600	104.333	102.976	101.742	100.744	100.127
9/4/2007	9/5/2017	6/6/2016	3.890	105.651	105.651	105.651	104.335	102.937	101.683	100.701	100.092
9/10/2007	9/11/2017	6/10/2016	3.690	105.422	105.422	105.422	104.093	102.692	101.456	100.533	99.991
9/11/2007	9/11/2017	6/13/2016	3.590	105.275	105.275	105.275	103.948	102.555	101.340	100.452	99.943
9/13/2007	9/13/2017	6/13/2016	3.990	105.885	105.885	105.885	104.545	103.119	101.827	100.795	100.130
9/27/2007	9/27/2017	6/27/2016	3.650	105.525	105.525	105.525	104.153	102.711	101.442	100.495	99.932

As of: **3/31/2016** Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
10/11/2007	10/11/2017	4/11/2016	3.990	106.195	106.195	106.195	104.779	103.281	101.928	100.846	100.177
10/15/2007	10/16/2017	4/15/2016	3.990	106.251	106.251	106.251	104.821	103.308	101.941	100.848	100.173
10/26/2007	10/26/2017	4/26/2016	3.390	105.405	105.405	105.405	103.960	102.470	101.205	100.305	99.936
11/5/2007	11/6/2017	5/5/2016	4.390	107.133	107.133	107.133	105.639	104.052	102.583	101.340	100.453
11/6/2007	11/6/2017	5/6/2016	3.480	105.655	105.655	105.655	104.179	102.659	101.359	100.434	99.985
11/19/2007	11/20/2017	11/19/2012	4.290	107.138	107.138	107.138	105.602	103.950	102.332	100.747	99.194
11/20/2007	11/20/2017	5/20/2016	3.740	106.223	106.223	106.223	104.700	103.114	101.717	100.652	100.050
11/23/2007	11/24/2017	11/23/2011	3.990	106.683	106.683	106.683	105.139	103.480	101.855	100.264	98.705
11/23/2007	11/24/2017	11/23/2011	3.990	106.683	106.683	106.683	105.139	103.480	101.855	100.264	98.705
11/29/2007	11/29/2017	5/31/2016	2.950	104.982	104.982	104.982	103.460	101.952	100.766	100.080	99.787
11/30/2007	11/30/2017	5/31/2016	3.190	105.396	105.396	105.396	103.861	102.310	101.036	100.215	99.844
12/10/2007	12/11/2017	6/10/2016	3.450	105.941	105.941	105.941	104.369	102.765	101.403	100.443	99.923
12/24/2007	12/26/2017	12/24/2012	3.990	107.037	107.037	107.037	105.400	103.653	101.944	100.271	98.633
1/7/2008	1/8/2018	4/7/2016	2.590	104.662	104.662	104.662	103.060	101.566	100.495	100.015	99.967
1/8/2008	1/8/2018	4/8/2016	2.570	104.626	104.626	104.626	103.025	101.536	100.474	100.006	99.962
1/8/2008	1/8/2018	4/8/2016	2.640	104.752	104.752	104.752	103.145	101.635	100.539	100.029	99.964
1/11/2008	1/11/2018	4/11/2016	2.720	104.918	104.918	104.918	103.297	101.758	100.618	100.054	99.952
1/14/2008	1/16/2018	4/14/2016	3.240	105.904	105.904	105.904	104.235	102.576	101.211	100.285	99.960
1/16/2008	1/16/2018	4/18/2016	2.380	104.336	104.336	104.336	102.732	101.282	100.299	99.955	99.905
1/17/2008	1/17/2018	4/18/2016	2.250	104.106	104.106	104.106	102.515	101.111	100.218	99.949	99.899
1/18/2008	1/18/2018	4/18/2016	2.290	104.185	104.185	104.185	102.586	101.164	100.238	99.951	99.901
2/14/2008	2/14/2018	2/14/2012	3.190	106.069	106.069	106.069	104.291	102.419	100.589	98.801	97.053
2/25/2008	2/26/2018	5/25/2016	2.420	104.685	104.685	104.685	102.961	101.412	100.368	99.907	99.720
3/7/2008	3/7/2018	6/7/2016	3.550	106.961	106.961	106.961	105.131	103.310	101.758	100.636	100.005
3/14/2008	3/14/2018	6/14/2016	2.400	104.753	104.753	104.753	102.990	101.429	100.381	99.867	99.609
3/17/2008	3/19/2018	6/17/2016	3.300	106.581	106.581	106.581	104.724	102.911	101.412	100.395	99.861
4/28/2008	4/30/2018	4/28/2016	2.150	104.538	104.538	104.538	102.678	101.130	100.199	99.913	99.835
4/30/2008	4/30/2018	4/30/2013	3.740	107.895	107.895	107.895	105.856	103.764	101.724	99.735	97.794
5/23/2008	5/23/2018	5/23/2016	3.270	107.112	107.112	107.112	105.043	103.092	101.491	100.416	99.916
6/30/2008	7/2/2018	6/30/2011	3.690	108.435	108.435	108.435	106.166	103.901	101.697	99.550	97.459
7/11/2008	7/11/2018	7/11/2012	3.750	108.666	108.666	108.666	106.360	104.070	101.841	99.670	97.557
7/14/2008	7/16/2018	4/14/2016	2.500	105.812	105.812	105.812	103.659	101.840	100.571	100.010	99.931
7/14/2008	7/16/2018	4/14/2016	3.250	107.556	107.556	107.556	105.305	103.249	101.580	100.441	99.973
7/17/2008	7/17/2018	4/14/2016	3.750	108.729	108.729	108.729	106.400	104.093	101.848	99.663	97.536
8/15/2008	8/15/2018	5/16/2016	3.830	109.223	109.223	109.214	106.817	104.584	102.649	101.159	100.245
12/27/2011	12/27/2021	12/29/2014	3.550	120.677	120.677	116.548	110.587	104.966	99.673	94.686	89.987
4/27/2012	4/27/2016	4/27/2013	1.430	100.107	100.107	100.107	100.087	100.012	99.937	99.862	99.787
4/30/2012	5/2/2016	4/30/2013	1.380	100.123	100.123	100.123	100.097	100.009	99.920	99.832	99.744
5/15/2012	5/15/2017	5/15/2014	2.510	102.858	102.858	102.858	101.858	100.741	99.641	98.558	97.492
5/15/2012	5/15/2017	5/15/2014	1.950	102.221	102.221	102.221	101.223	100.109	99.014	97.935	96.872
5/15/2012	5/15/2017	11/17/2014	1.950	102.221	102.221	102.221	101.223	100.109	99.014	97.935	96.872
6/20/2012	6/20/2017	6/22/2015	1.630	102.019	102.019	102.019	100.924	99.716	98.528	97.360	96.210
7/16/2012	7/17/2017	7/16/2014	1.720	102.260	102.260	102.260	101.092	99.811	98.553	97.315	96.099
7/18/2012	7/18/2018	7/20/2015	2.720	106.339	106.339	106.339	104.031	101.750	99.529	97.369	95.265
7/19/2012	7/19/2017	7/21/2014	1.690	102.230	102.230	102.230	101.057	99.771	98.508	97.266	96.045
10/1/2012	10/1/2019	4/1/2015	2.250	107.993	107.993	107.197	103.647	100.228	96.940	93.778	90.737
10/5/2012	10/5/2017	10/6/2014	1.630	102.503	102.503	102.503	101.124	99.632	98.169	96.735	95.329
3/8/2013	3/8/2018	3/9/2015	1.780	103.495	103.495	103.495	101.670	99.763	97.900	96.081	94.304
5/7/2014	5/7/2018	5/7/2015	1.760	103.749	103.749	103.749	101.725	99.659	97.644	95.681	93.766
10/16/2014	10/16/2018	10/17/2016	0.400	104.934	104.934	104.858	102.646	101.050	100.183	99.858	99.756
10/24/2014	10/24/2018	10/26/2015	1.740	104.528	104.528	104.441	101.860	99.351	96.916	94.553	92.259
10/24/2014	10/24/2018	10/26/2015	1.740	104.528	104.528	104.441	101.860	99.351	96.916	94.553	92.259
2/20/2015	2/20/2019	2/22/2016	1.790	105.250	105.250	104.980	102.067	99.244	96.514	93.872	91.315
3/26/2015	3/26/2019	3/29/2016	0.370	104.564	104.564	104.234	101.234	98.332	95.527	92.817	90.197
3/26/2015	3/26/2020	3/29/2016	0.370	106.125	106.125	104.786	100.802	96.986	93.335	89.840	86.494
6/29/2015	7/1/2019	6/29/2017	0.350	105.481	105.481	104.937	102.656	101.057	100.015	99.392	99.016
7/30/2015	7/30/2019	8/1/2016	0.326	105.420	105.420	104.802	101.840	100.296	99.846	99.720	99.639
8/14/2015	8/14/2025	8/14/2020	1.850	117.588	115.701	110.169	104.392	99.324	94.777	90.622	86.776

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
8/19/2015	8/19/2025	8/21/2017	0.990	109.425	108.263	105.101	101.868	99.531	97.738	96.231	94.866
8/25/2015	8/25/2020	8/25/2017	0.950	104.242	104.242	103.390	100.968	99.073	97.496	96.082	94.749
8/26/2015	8/26/2025	8/26/2020	1.750	116.695	114.861	109.445	103.737	98.718	94.200	90.064	86.226
9/14/2015	9/14/2020	9/14/2017	1.050	104.747	104.747	103.806	101.258	99.249	97.579	96.091	94.698
9/15/2015	9/16/2019	9/15/2016	0.304	105.347	105.347	104.596	101.633	100.116	99.570	99.321	99.120
9/18/2015	9/18/2020	9/18/2017	1.090	104.940	104.940	103.966	101.370	99.325	97.630	96.124	94.718
9/29/2015	9/30/2019	9/29/2016	0.310	104.897	104.897	104.106	101.236	99.895	99.412	99.144	98.906
10/2/2015	10/2/2020	10/2/2017	0.890	104.068	104.068	103.216	100.811	98.867	97.211	95.706	94.283
10/2/2015	10/2/2025	10/2/2020	1.690	116.297	114.400	109.052	103.321	98.262	93.696	89.508	85.619
11/6/2015	11/6/2020	11/6/2017	1.050	104.902	104.902	103.890	101.257	99.133	97.332	95.710	94.187
11/6/2015	11/7/2022	11/6/2018	1.400	109.378	109.378	106.449	102.593	99.331	96.463	93.855	91.424
12/4/2015	12/4/2025	12/4/2018	1.360	113.352	111.645	107.481	103.091	99.490	96.401	93.641	91.101
12/8/2015	12/8/2020	12/8/2016	0.174	105.399	105.399	104.115	101.650	100.252	99.536	99.180	98.960
12/11/2015	12/12/2022	12/11/2017	0.145	109.381	109.381	105.579	102.645	100.724	99.417	98.510	97.849
12/15/2015	12/16/2019	12/15/2016	0.384	104.185	104.185	103.533	101.406	100.200	99.574	99.241	99.014
12/15/2015	12/15/2022	12/15/2017	0.134	109.360	109.360	105.543	102.644	100.813	99.652	98.925	98.462
12/18/2015	12/18/2020	12/18/2017	0.389	106.524	106.524	104.806	102.459	100.929	99.916	99.257	98.817
12/24/2015	12/24/2020	12/26/2017	1.250	106.002	106.002	104.759	101.853	99.494	97.497	95.711	94.048
12/24/2015	12/24/2025	12/24/2020	1.990	119.649	117.285	111.244	105.064	99.629	94.748	90.294	86.179
1/8/2016	1/8/2019	1/9/2017	1.120	103.151	103.151	103.016	101.116	99.793	98.832	98.033	97.291
1/12/2016	1/13/2020	1/12/2017	0.021	105.235	105.235	104.410	102.052	100.645	99.890	99.558	99.437
1/19/2016	1/19/2021	1/19/2018	1.150	105.605	105.605	104.389	101.535	99.190	97.177	95.356	93.648
1/19/2016	1/20/2026	1/22/2019	1.350	113.430	111.634	107.386	102.800	98.948	95.580	92.534	89.713
1/22/2016	1/22/2020	1/23/2017	0.021	103.977	103.977	103.240	101.177	100.092	99.575	99.367	99.281
1/29/2016	1/29/2021	1/30/2017	0.018	105.299	105.299	103.878	101.487	100.206	99.581	99.316	99.199
2/2/2016	2/2/2021	2/2/2018	0.013	105.693	105.693	103.867	101.679	100.344	99.502	98.992	98.690
2/17/2016	2/17/2021	2/17/2017	0.018	103.073	103.073	102.042	100.338	99.580	99.234	99.057	98.934
2/26/2016	2/26/2020	2/27/2017	0.036	103.342	103.342	102.614	100.718	99.736	99.239	98.980	98.812
2/26/2016	2/26/2021	2/26/2018	0.890	104.431	104.431	103.363	100.683	98.412	96.400	94.537	92.764
2/26/2016	2/26/2026	2/26/2021	1.490	114.976	112.953	107.522	101.658	96.427	91.669	87.282	83.198
3/8/2016	3/8/2023	3/8/2018	0.990	106.964	106.964	104.484	101.362	98.825	96.657	94.702	92.873
3/18/2016	3/18/2020	3/20/2017	0.039	104.479	104.479	103.587	101.369	100.032	99.258	98.819	98.539