

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
1/7/2000	1/7/2015	1/7/2015	5.950	100.628	100.628	100.628	100.612	100.510	100.407	100.305	100.203
12/13/2004	12/15/2014	12/15/2014	3.320	100.138	100.138	100.138	100.132	100.092	100.052	100.011	99.971
9/1/2005	9/1/2015	12/1/2014	4.130	103.155	103.155	103.155	102.887	102.127	101.378	100.640	99.913
9/30/2005	9/30/2015	12/31/2014	4.440	103.749	103.749	103.749	103.440	102.600	101.774	100.961	100.161
10/26/2005	10/26/2015	1/26/2015	4.540	104.161	104.161	104.161	103.810	102.897	102.000	101.119	100.253
1/17/2006	1/19/2016	1/20/2015	4.080	104.703	104.703	104.703	104.167	103.025	101.924	100.940	100.212
4/24/2006	4/25/2016	1/26/2015	4.440	106.314	106.314	106.314	105.446	104.034	102.687	101.470	100.514
5/5/2006	5/5/2016	2/5/2015	4.350	106.307	106.307	106.307	105.400	103.965	102.608	101.397	100.480
5/5/2006	5/5/2016	2/5/2015	4.530	106.568	106.568	106.568	105.660	104.221	102.848	101.607	100.617
5/15/2006	5/16/2016	2/17/2015	4.350	106.440	106.440	106.440	105.489	104.025	102.640	101.409	100.469
5/15/2006	5/16/2016	2/17/2015	4.520	106.692	106.692	106.692	105.739	104.271	102.871	101.608	100.603
5/19/2006	5/19/2016	2/19/2015	4.510	106.715	106.715	106.715	105.750	104.274	102.868	101.600	100.594
6/12/2006	6/13/2016	12/12/2014	4.620	107.199	107.199	107.199	106.128	104.582	103.113	101.787	100.717
6/26/2006	6/27/2016	12/26/2014	4.730	107.554	107.554	107.554	106.419	104.832	103.319	101.947	100.816
7/24/2006	7/25/2016	1/26/2015	4.660	107.805	107.805	107.805	106.547	104.890	103.320	101.914	100.775
7/28/2006	7/28/2016	1/28/2015	4.490	107.558	107.558	107.558	106.289	104.630	103.071	101.692	100.611
8/25/2006	8/25/2016	2/25/2015	4.350	107.660	107.660	107.660	106.266	104.544	102.943	101.556	100.514
11/24/2006	11/25/2016	2/24/2015	4.190	108.449	108.449	108.449	106.623	104.691	102.937	101.473	100.423
12/1/2006	12/1/2016	3/2/2015	4.090	108.316	108.316	108.316	106.468	104.537	102.800	101.376	100.372
12/4/2006	12/5/2016	3/4/2015	4.080	108.341	108.341	108.341	106.475	104.533	102.790	101.363	100.360
12/5/2006	12/5/2016	12/5/2014	4.260	108.709	108.709	108.709	106.835	104.874	103.093	101.599	100.515
12/8/2006	12/8/2016	12/8/2014	3.990	108.190	108.190	108.190	106.314	104.376	102.648	101.243	100.277
12/12/2006	12/12/2016	12/12/2014	3.990	108.234	108.234	108.234	106.339	104.390	102.653	101.240	100.270
12/12/2006	12/12/2016	12/12/2014	4.050	108.358	108.358	108.358	106.460	104.504	102.751	101.319	100.321
12/19/2006	12/19/2016	12/19/2014	4.190	108.729	108.729	108.729	106.791	104.801	103.002	101.506	100.434
12/28/2006	12/28/2016	12/29/2014	4.250	108.960	108.960	108.960	106.977	104.957	103.125	101.590	100.477
12/28/2006	12/28/2016	12/29/2014	4.400	109.276	109.276	109.276	107.287	105.250	103.391	101.804	100.621
1/12/2007	1/12/2017	1/12/2015	4.420	109.502	109.502	109.502	107.438	105.367	103.480	101.874	100.673
1/16/2007	1/17/2017	1/16/2015	4.790	110.364	110.364	110.364	108.260	106.143	104.179	102.458	101.091
2/2/2007	2/2/2017	2/2/2015	4.690	110.357	110.357	110.354	108.154	105.939	103.781	101.678	99.628
2/20/2007	2/21/2017	2/20/2015	4.390	109.926	109.926	109.891	107.644	105.479	103.522	101.872	100.658
2/20/2007	2/21/2017	2/20/2015	4.850	110.966	110.966	110.931	108.648	106.376	104.164	102.009	99.910
2/23/2007	2/23/2017	2/23/2015	4.250	109.633	109.633	109.595	107.348	105.194	103.264	101.663	100.522
2/23/2007	2/23/2017	2/23/2015	4.350	109.859	109.859	109.822	107.568	105.403	103.450	101.810	100.615
3/16/2007	3/16/2017	12/16/2014	4.090	109.509	109.509	109.426	107.128	104.952	103.026	101.469	100.387
3/21/2007	3/21/2017	12/22/2014	4.220	109.870	109.870	109.775	107.454	105.245	103.277	101.652	100.497
3/23/2007	3/23/2017	12/23/2014	4.290	110.057	110.057	109.958	107.626	105.402	103.412	101.757	100.565
3/23/2007	3/23/2017	12/23/2014	4.290	110.057	110.057	109.958	107.626	105.402	103.412	101.757	100.565
4/9/2007	4/10/2017	1/9/2015	4.150	109.936	109.936	109.788	107.421	105.182	103.199	101.588	100.476
4/12/2007	4/12/2017	1/12/2015	4.250	110.199	110.199	110.045	107.664	105.404	103.394	101.734	100.559
4/13/2007	4/13/2017	1/13/2015	4.450	110.692	110.692	110.534	108.136	105.845	103.782	102.047	100.756
4/27/2007	4/27/2017	1/27/2015	4.250	110.376	110.376	110.177	107.753	105.457	103.415	101.734	100.548
5/18/2007	5/18/2017	2/18/2015	4.190	110.474	110.474	110.213	107.738	105.407	103.351	101.677	100.514
5/22/2007	5/22/2017	2/23/2015	4.750	111.927	111.927	111.651	109.126	106.704	104.497	102.608	101.134
5/29/2007	5/30/2017	3/2/2015	4.250	110.766	110.766	110.468	107.956	105.585	103.486	101.771	100.574
6/7/2007	6/7/2017	12/8/2014	4.820	112.317	112.317	111.990	109.418	106.953	104.707	102.776	101.265
6/8/2007	6/8/2017	12/8/2014	4.490	111.486	111.486	111.157	108.605	106.183	104.013	102.198	100.844
6/11/2007	6/12/2017	12/11/2014	4.490	111.536	111.536	111.193	108.630	106.198	104.020	102.199	100.840
6/18/2007	6/19/2017	12/18/2014	4.500	111.649	111.649	111.283	108.699	106.248	104.052	102.217	100.842
6/19/2007	6/19/2017	12/19/2014	4.650	112.038	112.038	111.670	109.075	106.602	104.367	102.472	101.027
6/22/2007	6/22/2017	12/22/2014	4.500	111.687	111.687	111.310	108.717	106.260	104.057	102.216	100.836
6/28/2007	6/28/2017	12/29/2014	4.500	111.762	111.762	111.365	108.755	106.282	104.068	102.217	100.827
7/13/2007	7/13/2017	1/13/2015	4.290	111.392	111.392	110.947	108.320	105.854	103.681	101.901	100.633
7/20/2007	7/20/2017	1/20/2015	4.290	111.475	111.475	111.008	108.361	105.878	103.691	101.901	100.628
7/27/2007	7/27/2017	1/27/2015	4.250	111.451	111.451	110.962	108.300	105.806	103.618	101.835	100.585
7/30/2007	1/30/2019	1/30/2015	3.990	116.868	116.868	114.152	110.231	106.804	103.994	101.871	100.505
7/31/2007	7/31/2017	2/2/2015	3.990	110.794	110.794	110.298	107.656	105.219	103.115	101.460	100.375
7/31/2007	7/31/2017	2/2/2015	3.990	110.794	110.794	110.298	107.656	105.219	103.115	101.460	100.375

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/31/2007	7/31/2017	2/2/2015	4.060	110.984	110.984	110.486	107.837	105.381	103.254	101.564	100.441
8/2/2007	8/2/2017	2/2/2015	4.150	111.250	111.250	110.745	108.083	105.605	103.447	101.716	100.542
8/2/2007	8/2/2017	2/2/2015	4.050	110.979	110.979	110.475	107.825	105.370	103.246	101.565	100.449
8/9/2007	8/9/2017	2/9/2015	3.990	110.894	110.894	110.366	107.703	105.248	103.132	101.472	100.376
8/16/2007	8/16/2017	2/17/2015	3.990	110.972	110.972	110.419	107.737	105.265	103.136	101.467	100.360
8/17/2007	8/17/2017	2/17/2015	4.000	111.010	111.010	110.454	107.768	105.291	103.157	101.482	100.369
9/4/2007	9/5/2017	3/4/2015	3.890	110.913	110.913	110.294	107.580	105.096	102.983	101.354	100.289
9/10/2007	9/11/2017	12/10/2014	3.690	110.413	110.413	109.778	107.080	104.640	102.601	101.067	100.175
9/11/2007	9/11/2017	12/11/2014	3.590	110.131	110.131	109.498	106.820	104.408	102.409	100.929	100.131
9/13/2007	9/13/2017	12/15/2014	3.990	111.282	111.282	110.631	107.881	105.355	103.186	101.494	100.361
9/27/2007	9/27/2017	12/29/2014	3.650	110.463	110.463	109.770	107.039	104.574	102.523	100.989	100.134
10/11/2007	10/11/2017	1/12/2015	3.990	111.592	111.592	110.842	108.026	105.444	103.238	101.516	100.394
10/15/2007	10/16/2017	1/15/2015	3.990	111.648	111.648	110.880	108.050	105.457	103.243	101.516	100.391
10/26/2007	10/26/2017	1/26/2015	3.390	109.990	109.990	109.214	106.471	104.045	102.080	100.684	99.995
11/5/2007	11/6/2017	2/5/2015	4.390	113.072	113.072	112.222	109.284	106.555	104.165	102.219	100.816
11/6/2007	11/6/2017	2/6/2015	3.480	110.362	110.362	109.546	106.763	104.295	102.285	100.833	100.050
11/19/2007	11/20/2017	2/19/2015	4.290	112.941	112.941	112.018	108.947	105.947	103.046	100.242	97.529
11/20/2007	11/20/2017	2/20/2015	3.740	111.282	111.282	110.401	107.526	104.939	102.784	101.162	100.163
11/23/2007	11/24/2017	2/23/2015	3.990	112.080	112.080	111.143	108.072	105.074	102.176	99.375	96.666
11/23/2007	11/24/2017	2/24/2015	3.990	112.080	112.080	111.143	108.072	105.074	102.176	99.375	96.666
11/29/2007	11/29/2017	3/2/2015	2.950	108.972	108.972	108.111	105.416	103.120	101.377	100.271	99.997
11/30/2007	11/30/2017	3/2/2015	3.190	109.711	109.711	108.826	106.056	103.653	101.766	100.512	99.998
12/10/2007	12/11/2017	12/10/2014	3.450	110.608	110.608	109.669	106.816	104.299	102.262	100.804	100.084
12/24/2007	12/26/2017	12/24/2014	3.990	112.435	112.435	111.379	108.217	105.134	102.156	99.279	96.500
1/3/2008	1/5/2015	1/5/2015	3.650	100.365	100.365	100.365	100.350	100.253	100.156	100.060	99.963
1/4/2008	1/4/2018	1/5/2015	3.360	110.555	110.555	109.541	106.663	104.146	102.132	100.720	100.033
1/7/2008	1/7/2015	1/7/2015	3.490	100.368	100.368	100.368	100.353	100.250	100.148	100.046	99.944
1/7/2008	1/8/2018	1/7/2015	2.590	108.165	108.165	107.217	104.606	102.453	100.904	100.079	99.853
1/8/2008	1/8/2018	1/8/2015	2.570	108.102	108.102	107.156	104.554	102.410	100.876	100.070	99.847
1/8/2008	1/8/2018	1/8/2015	2.640	108.323	108.323	107.367	104.734	102.553	100.968	100.097	99.856
1/11/2008	1/11/2018	1/12/2015	2.720	108.597	108.597	107.622	104.946	102.718	101.079	100.135	99.852
1/14/2008	1/16/2018	1/14/2015	3.240	110.286	110.286	109.237	106.365	103.874	101.912	100.579	99.970
1/16/2008	1/16/2018	1/16/2015	2.380	107.556	107.556	106.614	104.082	102.040	100.633	99.983	99.787
1/17/2008	1/17/2018	1/20/2015	2.250	107.149	107.149	106.227	103.764	101.799	100.499	99.928	99.750
1/18/2008	1/20/2015	1/20/2015	2.350	100.333	100.333	100.333	100.311	100.174	100.037	99.901	99.765
1/18/2008	1/18/2018	1/20/2015	2.290	107.283	107.283	106.350	103.862	101.870	100.536	99.941	99.756
2/14/2008	2/14/2018	2/14/2015	3.190	110.384	110.384	109.127	105.856	102.678	99.613	96.656	93.803
2/25/2008	2/26/2018	2/25/2015	2.420	107.958	107.958	106.875	104.249	102.136	100.678	99.926	99.588
3/7/2008	3/9/2015	12/8/2014	2.890	100.795	100.795	100.795	100.742	100.467	100.194	99.997	99.975
3/7/2008	3/7/2018	12/8/2014	3.550	111.763	111.763	110.500	107.432	104.740	102.560	100.978	100.140
3/14/2008	3/14/2018	12/15/2014	2.400	107.999	107.999	106.872	104.241	102.132	100.681	100.021	99.933
3/17/2008	3/19/2018	12/17/2014	3.300	111.045	111.045	109.763	106.740	104.130	102.072	100.659	100.015
4/14/2008	4/14/2015	1/14/2015	2.750	101.031	101.031	101.031	100.942	100.570	100.200	99.833	99.469
4/28/2008	4/28/2015	1/28/2015	3.250	101.345	101.345	101.345	101.238	100.827	100.420	100.075	99.876
4/28/2008	4/30/2018	1/28/2015	2.150	107.446	107.446	106.236	103.668	101.678	100.411	99.876	99.695
4/30/2008	4/30/2018	1/30/2015	3.740	112.954	112.954	111.380	107.867	104.461	101.181	98.023	94.982
5/2/2008	5/4/2015	2/2/2015	3.990	101.718	101.718	101.718	101.603	101.174	100.749	100.341	100.032
5/5/2008	5/5/2015	2/5/2015	3.170	101.374	101.374	101.374	101.258	100.827	100.408	100.065	99.840
5/19/2008	5/19/2015	2/21/2015	4.700	102.219	102.219	102.219	102.086	101.615	101.149	100.687	100.230
5/23/2008	5/23/2018	2/23/2015	3.270	111.535	111.535	110.010	106.862	104.170	102.066	100.639	99.901
6/24/2008	6/24/2015	12/24/2014	3.830	102.191	102.191	102.191	102.012	101.444	100.883	100.361	100.022
6/30/2008	7/2/2018	12/30/2014	3.690	113.427	113.427	111.568	107.880	104.311	100.881	97.584	94.414
7/11/2008	7/11/2018	1/11/2015	3.750	113.739	113.739	111.839	108.123	104.526	101.071	97.750	94.558
7/14/2008	7/14/2015	1/14/2015	4.900	103.076	103.076	103.076	102.871	102.246	101.628	101.018	100.415
7/14/2008	7/16/2018	1/14/2015	2.500	109.193	109.193	107.624	104.749	102.450	100.848	100.046	99.814
7/14/2008	7/16/2018	1/14/2015	3.250	111.952	111.952	110.216	106.978	104.226	102.088	100.644	99.985
7/17/2008	7/17/2018	1/17/2015	3.750	113.801	113.801	111.874	108.141	104.530	101.060	97.726	94.521
8/15/2008	8/15/2018	2/17/2015	3.830	114.404	114.404	112.461	108.960	105.883	103.360	101.484	100.310

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
5/11/2010	5/11/2015	5/11/2015	3.700	101.665	101.665	101.665	101.542	101.094	100.640	100.093	99.400
5/24/2010	5/26/2015	2/26/2015	2.250	101.106	101.106	101.106	100.963	100.474	99.990	99.510	99.034
6/15/2010	6/15/2015	2/15/2015	2.280	101.248	101.248	101.248	101.080	100.536	99.999	99.467	98.941
10/8/2010	10/8/2015	10/9/2012	2.250	101.950	101.950	101.950	101.630	100.777	99.938	99.113	98.301
12/27/2011	12/27/2021	12/29/2014	3.550	125.479	122.498	115.087	107.989	101.370	90.322	78.941	68.353
4/27/2012	4/27/2016	4/27/2013	1.430	102.041	102.041	102.041	101.178	99.782	98.411	97.066	95.746
4/30/2012	5/2/2016	4/30/2013	1.380	101.989	101.989	101.989	101.106	99.697	98.315	96.958	95.626
5/15/2012	5/15/2017	5/15/2014	1.950	104.858	104.858	104.603	102.133	99.719	97.374	95.096	92.883
5/15/2012	5/15/2017	2/17/2015	2.510	106.253	106.253	105.998	103.515	101.084	98.722	96.428	94.198
6/20/2012	6/20/2017	6/22/2015	1.630	104.224	104.224	103.851	101.291	97.397	93.094	88.927	84.893
7/16/2012	7/17/2017	7/16/2014	1.720	104.586	104.586	104.124	101.489	98.920	96.430	94.014	91.671
7/18/2012	7/18/2018	7/20/2015	-0.219	108.089	108.089	106.172	102.815	100.701	99.760	99.397	99.244
7/19/2012	7/19/2017	7/21/2014	1.690	104.515	104.515	104.047	101.407	98.835	96.340	93.921	91.575
10/1/2012	10/1/2019	4/1/2015	-0.127	110.223	110.223	106.128	101.943	100.128	99.782	99.677	99.593
10/5/2012	10/5/2017	10/6/2014	1.630	104.708	104.708	103.962	101.114	98.347	95.669	93.078	90.569
3/8/2013	3/8/2018	3/9/2015	-0.037	105.360	105.360	104.020	101.141	100.046	99.899	99.868	99.843
5/7/2014	5/7/2018	5/7/2015	0.012	105.306	105.306	103.721	100.985	99.884	99.530	99.335	99.150
10/16/2014	10/16/2018	10/17/2016	0.009	104.641	104.641	102.460	100.645	99.713	99.212	98.923	98.756
10/24/2014	10/24/2018	10/26/2015	0.003	105.108	105.108	102.773	100.585	99.802	99.535	99.392	99.278
10/24/2014	10/24/2018	10/26/2015	0.004	105.108	105.108	102.773	100.586	99.802	99.535	99.392	99.278