

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
9/1/2005	9/1/2015	6/1/2015	4.130	101.067	101.067	101.067	101.019	100.765	100.513	100.262	100.012
9/30/2005	9/30/2015	6/30/2015	4.440	101.505	101.505	101.505	101.427	101.095	100.765	100.437	100.111
10/26/2005	10/26/2015	7/26/2015	4.540	101.866	101.866	101.866	101.753	101.348	100.947	100.548	100.153
1/17/2006	1/19/2016	7/17/2015	4.080	102.641	102.641	102.641	102.394	101.757	101.131	100.540	100.088
4/24/2006	4/25/2016	7/24/2015	4.440	104.070	104.070	104.070	103.628	102.721	101.838	101.012	100.338
5/5/2006	5/5/2016	8/5/2015	4.350	104.108	104.108	104.108	103.642	102.710	101.806	100.971	100.317
5/5/2006	5/5/2016	8/5/2015	4.530	104.278	104.278	104.278	103.812	102.878	101.970	101.121	100.422
5/15/2006	5/16/2016	8/17/2015	4.350	104.241	104.241	104.241	103.749	102.786	101.854	100.993	100.314
5/15/2006	5/16/2016	8/17/2015	4.520	104.407	104.407	104.407	103.914	102.951	102.014	101.138	100.419
5/19/2006	5/19/2016	8/19/2015	4.510	104.435	104.435	104.435	103.935	102.963	102.019	101.137	100.413
6/12/2006	6/13/2016	6/12/2015	4.620	104.864	104.864	104.864	104.296	103.253	102.239	101.293	100.508
6/26/2006	6/27/2016	6/26/2015	4.730	105.163	105.163	105.163	104.555	103.469	102.411	101.418	100.581
7/24/2006	7/25/2016	7/24/2015	4.660	105.449	105.449	105.449	104.753	103.591	102.464	101.420	100.563
7/28/2006	7/28/2016	7/28/2015	4.490	105.288	105.288	105.288	104.583	103.415	102.287	101.260	100.442
8/25/2006	8/25/2016	8/25/2015	4.350	105.461	105.461	105.461	104.657	103.417	102.232	101.176	100.369
11/24/2006	11/25/2016	8/24/2015	4.190	106.331	106.331	106.331	105.144	103.673	102.308	101.143	100.306
12/1/2006	12/1/2016	9/1/2015	4.090	106.248	106.248	106.248	105.036	103.559	102.202	101.066	100.265
12/4/2006	12/5/2016	6/4/2015	4.080	106.278	106.278	106.278	105.048	103.561	102.196	101.056	100.253
12/5/2006	12/5/2016	6/5/2015	4.260	106.555	106.555	106.555	105.323	103.826	102.437	101.249	100.379
12/8/2006	12/8/2016	6/8/2015	3.990	106.173	106.173	106.173	104.931	103.442	102.084	100.960	100.203
12/12/2006	12/12/2016	6/12/2015	3.990	106.217	106.217	106.217	104.957	103.458	102.089	100.957	100.198
12/12/2006	12/12/2016	6/12/2015	4.050	106.311	106.311	106.311	105.050	103.546	102.169	101.022	100.225
12/19/2006	12/19/2016	6/19/2015	4.190	106.610	106.610	106.610	105.316	103.786	102.373	101.177	100.305
12/28/2006	12/28/2016	6/29/2015	4.250	106.811	106.811	106.811	105.475	103.918	102.477	101.250	100.345
12/28/2006	12/28/2016	6/29/2015	4.400	107.052	107.052	107.052	105.713	104.148	102.687	101.421	100.471
1/12/2007	1/12/2017	7/13/2015	4.420	107.268	107.268	107.268	105.859	104.258	102.769	101.482	100.518
1/16/2007	1/17/2017	7/16/2015	4.790	107.943	107.943	107.943	106.504	104.872	103.332	101.955	100.851
2/2/2007	2/2/2017	8/2/2015	4.690	107.986	107.986	107.986	106.464	104.768	103.107	101.481	99.888
2/20/2007	2/21/2017	8/20/2015	4.390	107.706	107.706	107.706	106.099	104.398	102.831	101.498	100.514
2/20/2007	2/21/2017	8/20/2015	4.850	108.514	108.514	108.514	106.892	105.136	103.418	101.736	100.089
2/23/2007	2/23/2017	8/24/2015	4.250	107.484	107.484	107.484	105.870	104.174	102.623	101.326	100.395
2/23/2007	2/23/2017	8/24/2015	4.350	107.660	107.660	107.660	106.043	104.339	102.774	101.449	100.476
3/16/2007	3/16/2017	6/16/2015	4.090	107.441	107.441	107.441	105.734	104.002	102.445	101.168	100.276
3/21/2007	3/21/2017	6/22/2015	4.220	107.736	107.736	107.736	106.001	104.244	102.651	101.323	100.375
3/23/2007	3/23/2017	6/23/2015	4.290	107.888	107.888	107.888	106.142	104.373	102.762	101.410	100.433
3/23/2007	3/23/2017	6/23/2015	4.290	107.888	107.888	107.888	106.142	104.373	102.762	101.410	100.433
4/9/2007	4/10/2017	7/9/2015	4.150	107.838	107.838	107.838	106.011	104.216	102.602	101.278	100.359
4/12/2007	4/12/2017	7/13/2015	4.250	108.051	108.051	108.051	106.209	104.400	102.762	101.401	100.434
4/13/2007	4/13/2017	7/13/2015	4.450	108.442	108.442	108.442	106.589	104.758	103.082	101.659	100.600
4/27/2007	4/27/2017	7/27/2015	4.250	108.228	108.228	108.228	106.310	104.462	102.792	101.406	100.424
5/18/2007	5/18/2017	8/18/2015	4.190	108.356	108.356	108.322	106.341	104.450	102.754	101.368	100.399
5/22/2007	5/22/2017	8/24/2015	4.750	109.526	109.526	109.484	107.471	105.517	103.714	102.145	100.916
5/29/2007	5/30/2017	8/31/2015	4.250	108.618	108.618	108.560	106.542	104.614	102.877	101.450	100.434
6/7/2007	6/7/2017	6/8/2015	4.820	109.880	109.880	109.806	107.745	105.749	103.905	102.298	101.035
6/8/2007	6/8/2017	6/8/2015	4.490	109.216	109.216	109.139	107.088	105.117	103.326	101.811	100.691
6/11/2007	6/12/2017	6/11/2015	4.490	109.266	109.266	109.180	107.117	105.136	103.336	101.813	100.686
6/18/2007	6/19/2017	6/18/2015	4.500	109.374	109.374	109.272	107.189	105.188	103.369	101.830	100.687
6/19/2007	6/19/2017	6/19/2015	4.650	109.687	109.687	109.585	107.496	105.480	103.634	102.050	100.835
6/22/2007	6/22/2017	6/22/2015	4.500	109.412	109.412	109.303	107.211	105.202	103.377	101.831	100.683
6/28/2007	6/28/2017	6/29/2015	4.500	109.487	109.487	109.364	107.255	105.230	103.391	101.834	100.676
7/13/2007	7/13/2017	7/13/2015	4.290	109.223	109.223	109.068	106.929	104.895	103.075	101.579	100.516
7/20/2007	7/20/2017	7/20/2015	4.290	109.306	109.306	109.136	106.977	104.925	103.089	101.581	100.512
7/27/2007	7/27/2017	7/27/2015	4.250	109.302	109.302	109.117	106.940	104.876	103.034	101.528	100.473
7/30/2007	1/30/2019	7/30/2015	3.990	114.851	114.851	112.879	109.354	106.242	103.675	101.731	100.471
7/31/2007	7/31/2017	7/31/2015	3.990	108.777	108.777	108.585	106.415	104.382	102.611	101.209	100.284
7/31/2007	7/31/2017	7/31/2015	3.990	108.777	108.777	108.585	106.415	104.382	102.611	101.209	100.284
7/31/2007	7/31/2017	7/31/2015	4.060	108.931	108.931	108.739	106.563	104.520	102.729	101.302	100.340
8/2/2007	8/2/2017	8/3/2015	4.150	109.152	109.152	108.954	106.770	104.713	102.896	101.433	100.434

As of: 5/31/2015 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
8/2/2007	8/2/2017	8/3/2015	4.050	108.932	108.932	108.734	106.557	104.514	102.724	101.301	100.353
8/9/2007	8/9/2017	8/10/2015	3.990	108.877	108.877	108.662	106.470	104.418	102.630	101.218	100.292
8/16/2007	8/16/2017	8/17/2015	3.990	108.955	108.955	108.722	106.510	104.441	102.639	101.214	100.279
8/17/2007	8/17/2017	8/17/2015	4.000	108.988	108.988	108.753	106.538	104.465	102.657	101.227	100.286
9/4/2007	9/5/2017	6/4/2015	3.890	108.946	108.946	108.664	106.410	104.321	102.521	101.124	100.236
9/10/2007	9/11/2017	6/10/2015	3.690	108.548	108.548	108.251	106.001	103.935	102.189	100.877	100.141
9/11/2007	9/11/2017	6/11/2015	3.590	108.316	108.316	108.020	105.781	103.738	102.026	100.763	100.098
9/13/2007	9/13/2017	6/15/2015	3.990	109.265	109.265	108.960	106.676	104.548	102.700	101.247	100.277
9/27/2007	9/27/2017	6/29/2015	3.650	108.617	108.617	108.277	105.988	103.894	102.131	100.812	100.096
10/11/2007	10/11/2017	7/13/2015	3.990	109.575	109.575	109.197	106.840	104.654	102.761	101.279	100.314
10/15/2007	10/16/2017	7/15/2015	3.990	109.631	109.631	109.239	106.869	104.670	102.767	101.279	100.310
10/26/2007	10/26/2017	7/27/2015	3.390	108.277	108.277	107.868	105.542	103.458	101.757	100.564	99.967
11/5/2007	11/6/2017	8/5/2015	4.390	110.852	110.852	110.403	107.944	105.632	103.583	101.901	100.698
11/6/2007	11/6/2017	8/6/2015	3.480	108.603	108.603	108.164	105.804	103.682	101.940	100.692	100.021
11/19/2007	11/20/2017	11/19/2012	4.290	110.772	110.772	110.275	107.731	105.237	102.814	100.460	98.172
11/20/2007	11/20/2017	8/20/2015	3.740	109.391	109.391	108.907	106.472	104.252	102.383	100.972	100.122
11/23/2007	11/24/2017	11/23/2011	3.990	110.063	110.063	109.555	107.007	104.511	102.087	99.732	97.443
11/23/2007	11/24/2017	11/23/2011	3.990	110.063	110.063	109.555	107.007	104.511	102.087	99.732	97.443
11/29/2007	11/29/2017	8/31/2015	2.950	107.481	107.481	106.990	104.670	102.668	101.140	100.183	99.737
11/30/2007	11/30/2017	8/31/2015	3.190	108.098	108.098	107.597	105.221	103.137	101.486	100.385	99.997
12/10/2007	12/11/2017	6/10/2015	3.450	108.864	108.864	108.327	105.888	103.709	101.931	100.675	100.059
12/24/2007	12/26/2017	12/24/2012	3.990	110.418	110.418	109.818	107.179	104.597	102.090	99.658	97.296
1/4/2008	1/4/2018	7/6/2015	3.360	108.857	108.857	108.256	105.780	103.589	101.826	100.600	100.008
1/7/2008	1/8/2018	7/7/2015	2.590	106.856	106.856	106.278	103.990	102.097	100.746	100.049	99.847
1/8/2008	1/8/2018	7/8/2015	2.570	106.803	106.803	106.226	103.943	102.059	100.721	100.040	99.840
1/8/2008	1/8/2018	7/8/2015	2.640	106.988	106.988	106.407	104.101	102.185	100.800	100.065	99.849
1/11/2008	1/11/2018	7/13/2015	2.720	107.222	107.222	106.629	104.292	102.331	100.896	100.088	99.841
1/14/2008	1/16/2018	7/14/2015	3.240	108.648	108.648	108.016	105.533	103.358	101.634	100.478	99.950
1/16/2008	1/16/2018	7/16/2015	2.380	106.353	106.353	105.771	103.536	101.733	100.510	99.958	99.782
1/17/2008	1/17/2018	7/17/2015	2.250	106.012	106.012	105.438	103.255	101.521	100.390	99.915	99.760
1/18/2008	1/18/2018	7/20/2015	2.290	106.125	106.125	105.545	103.342	101.585	100.427	99.921	99.751
2/14/2008	2/14/2018	2/14/2012	3.190	108.772	108.772	108.016	105.258	102.568	99.961	97.433	94.983
2/25/2008	2/26/2018	8/25/2015	2.420	106.735	106.735	106.040	103.707	101.832	100.560	99.911	99.608
3/7/2008	3/7/2018	6/8/2015	3.550	109.969	109.969	109.178	106.518	104.155	102.228	100.838	100.117
3/14/2008	3/14/2018	6/15/2015	2.400	106.786	106.786	106.051	103.710	101.830	100.560	99.996	99.928
3/17/2008	3/19/2018	6/17/2015	3.300	109.377	109.377	108.562	105.923	103.619	101.795	100.552	99.995
4/28/2008	4/30/2018	7/28/2015	2.150	106.360	106.360	105.540	103.223	101.436	100.320	99.863	99.690
4/30/2008	4/30/2018	4/30/2013	3.740	111.063	111.063	110.065	107.072	104.158	101.339	98.611	95.972
5/23/2008	5/23/2018	8/24/2015	3.270	109.882	109.882	108.874	106.095	103.694	101.808	100.547	99.896
6/24/2008	6/24/2015	6/24/2015	3.830	100.255	100.255	100.255	100.247	100.180	100.113	100.046	99.980
6/30/2008	7/2/2018	6/30/2011	3.690	111.561	111.561	110.347	107.176	104.096	101.122	98.249	95.474
7/11/2008	7/11/2018	7/11/2012	3.750	111.843	111.843	110.597	107.398	104.292	101.293	98.396	95.599
7/14/2008	7/14/2015	7/14/2015	4.900	100.599	100.599	100.599	100.581	100.460	100.339	100.218	100.097
7/14/2008	7/16/2018	7/14/2015	2.500	107.930	107.930	106.839	104.236	102.156	100.723	100.021	99.808
7/14/2008	7/16/2018	7/14/2015	3.250	110.309	110.309	109.130	106.245	103.773	101.847	100.560	99.968
7/17/2008	7/17/2018	7/17/2013	3.750	111.905	111.905	110.638	107.423	104.301	101.287	98.376	95.566
8/15/2008	8/15/2018	8/17/2015	3.830	112.468	112.468	111.147	108.049	105.296	103.020	101.321	100.269
6/15/2010	6/15/2015	6/15/2015	2.280	100.095	100.095	100.095	100.090	100.049	100.009	99.969	99.929
10/8/2010	10/8/2015	7/8/2015	2.250	100.812	100.812	100.812	100.724	100.372	100.021	99.673	99.328
12/27/2011	12/27/2021	6/29/2015	3.550	123.685	122.639	115.737	109.063	102.814	96.975	91.517	86.412
4/27/2012	4/27/2016	4/27/2013	1.430	101.319	101.319	101.319	100.877	99.978	99.095	98.228	97.376
4/30/2012	5/2/2016	4/30/2013	1.380	101.292	101.292	101.292	100.838	99.927	99.031	98.152	97.288
5/15/2012	5/15/2017	5/15/2014	2.510	104.985	104.985	104.956	102.984	101.042	99.147	97.297	95.491
5/15/2012	5/15/2017	11/17/2014	1.950	103.872	103.872	103.844	101.879	99.949	98.065	96.226	94.429
6/20/2012	6/20/2017	6/22/2015	1.630	103.400	103.400	103.295	101.237	98.410	94.529	90.747	87.058
7/16/2012	7/17/2017	7/16/2014	1.720	103.717	103.717	103.553	101.418	99.327	97.290	95.305	93.369
7/18/2012	7/18/2018	7/20/2015	-0.175	108.330	108.330	107.067	103.895	101.092	99.810	99.635	99.499
7/19/2012	7/19/2017	7/21/2014	1.690	103.661	103.661	103.493	101.353	99.258	97.217	95.227	93.288

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
10/1/2012	10/1/2019	4/1/2015	2.250	109.899	109.899	106.801	102.469	98.329	94.379	90.611	87.014
10/5/2012	10/5/2017	10/6/2014	1.630	103.884	103.884	103.518	101.168	98.874	96.642	94.472	92.361
3/8/2013	3/8/2018	3/9/2015	1.780	105.003	105.003	104.183	101.407	98.711	96.100	93.570	91.119
5/7/2014	5/7/2018	5/7/2015	1.760	105.240	105.240	104.229	101.293	98.446	95.693	93.031	90.457
10/16/2014	10/16/2018	10/17/2016	0.056	104.757	104.757	103.177	101.215	100.171	99.574	99.278	99.096
10/24/2014	10/24/2018	10/26/2015	0.048	105.236	105.236	103.612	100.913	99.911	99.634	99.484	99.339
10/24/2014	10/24/2018	10/26/2015	0.048	105.236	105.236	103.612	100.913	99.911	99.634	99.484	99.339
2/20/2015	2/20/2019	2/22/2016	0.016	105.320	105.320	103.212	100.798	99.818	99.400	99.160	98.945
3/26/2015	3/26/2019	3/29/2016	0.009	104.689	104.689	102.475	100.502	99.849	99.671	99.592	99.534
3/26/2015	3/26/2020	3/29/2016	0.009	106.244	106.244	102.502	100.426	99.829	99.658	99.591	99.534