

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	101.422	101.422	101.422	101.347	101.010	100.675	100.342	100.011
9/30/2005	9/30/2015	6/30/2015	4.440	101.887	101.887	101.887	101.774	101.355	100.940	100.528	100.120
10/26/2005	10/26/2015	7/26/2015	4.540	102.257	102.257	102.257	102.106	101.617	101.132	100.653	100.177
1/17/2006	1/19/2016	7/17/2015	4.080	102.992	102.992	102.992	102.699	101.978	101.274	100.621	100.115
4/24/2006	4/25/2016	7/24/2015	4.440	104.452	104.452	104.452	103.946	102.957	101.999	101.113	100.399
5/5/2006	5/5/2016	5/5/2015	4.350	104.483	104.483	104.483	103.951	102.935	101.956	101.067	100.364
5/5/2006	5/5/2016	5/5/2015	4.530	104.668	104.668	104.668	104.136	103.118	102.133	101.224	100.483
5/15/2006	5/16/2016	5/15/2015	4.350	104.616	104.616	104.616	104.053	103.005	101.995	101.078	100.352
5/15/2006	5/16/2016	5/15/2015	4.520	104.796	104.796	104.796	104.233	103.183	102.167	101.229	100.469
5/19/2006	5/19/2016	5/19/2015	4.510	104.823	104.823	104.823	104.251	103.193	102.168	101.224	100.461
6/12/2006	6/13/2016	6/12/2015	4.620	105.261	105.261	105.261	104.615	103.485	102.391	101.384	100.564
6/26/2006	6/27/2016	6/26/2015	4.730	105.571	105.571	105.571	104.880	103.709	102.575	101.523	100.651
7/24/2006	7/25/2016	7/24/2015	4.660	105.851	105.851	105.851	105.063	103.818	102.619	101.526	100.633
7/28/2006	7/28/2016	7/28/2015	4.490	105.675	105.675	105.675	104.877	103.627	102.429	101.355	100.505
8/25/2006	8/25/2016	5/26/2015	4.350	105.836	105.836	105.836	104.933	103.613	102.364	101.260	100.416
11/24/2006	11/25/2016	5/26/2015	4.190	106.692	106.692	106.692	105.406	103.860	102.435	101.231	100.350
12/1/2006	12/1/2016	6/1/2015	4.090	106.600	106.600	106.600	105.291	103.740	102.325	101.152	100.332
12/4/2006	12/5/2016	6/4/2015	4.080	106.630	106.630	106.630	105.302	103.741	102.318	101.141	100.322
12/5/2006	12/5/2016	6/5/2015	4.260	106.922	106.922	106.922	105.591	104.019	102.571	101.343	100.448
12/8/2006	12/8/2016	6/8/2015	3.990	106.517	106.517	106.517	105.178	103.616	102.202	101.039	100.257
12/12/2006	12/12/2016	6/12/2015	3.990	106.561	106.561	106.561	105.204	103.632	102.209	101.037	100.250
12/12/2006	12/12/2016	6/12/2015	4.050	106.660	106.660	106.660	105.301	103.724	102.290	101.106	100.291
12/19/2006	12/19/2016	6/19/2015	4.190	106.971	106.971	106.971	105.578	103.973	102.502	101.269	100.383
12/28/2006	12/28/2016	6/29/2015	4.250	107.177	107.177	107.177	105.741	104.110	102.611	101.346	100.426
12/28/2006	12/28/2016	6/29/2015	4.400	107.431	107.431	107.431	105.992	104.351	102.832	101.526	100.547
1/12/2007	1/12/2017	7/13/2015	4.420	107.649	107.649	107.649	106.140	104.464	102.919	101.593	100.601
1/16/2007	1/17/2017	7/16/2015	4.790	108.355	108.355	108.355	106.816	105.107	103.505	102.085	100.947
2/2/2007	2/2/2017	5/2/2015	4.690	108.389	108.389	108.389	106.770	104.988	103.245	101.539	99.869
2/20/2007	2/21/2017	5/20/2015	4.390	108.084	108.084	108.084	106.390	104.613	102.987	101.610	100.583
2/20/2007	2/21/2017	5/20/2015	4.850	108.932	108.932	108.932	107.219	105.377	103.576	101.814	100.091
2/23/2007	2/23/2017	5/26/2015	4.250	107.850	107.850	107.850	106.150	104.379	102.771	101.430	100.456
2/23/2007	2/23/2017	5/26/2015	4.350	108.035	108.035	108.035	106.332	104.552	102.928	101.559	100.544
3/16/2007	3/16/2017	6/16/2015	4.090	107.793	107.793	107.793	106.001	104.197	102.584	101.269	100.361
3/21/2007	3/21/2017	6/22/2015	4.220	108.100	108.100	108.100	106.278	104.449	102.799	101.433	100.460
3/23/2007	3/23/2017	6/23/2015	4.290	108.258	108.258	108.258	106.424	104.584	102.915	101.524	100.517
3/23/2007	3/23/2017	6/23/2015	4.290	108.258	108.258	108.258	106.424	104.584	102.915	101.524	100.517
4/9/2007	4/10/2017	7/9/2015	4.150	108.196	108.196	108.196	106.285	104.418	102.750	101.388	100.435
4/12/2007	4/12/2017	7/13/2015	4.250	108.417	108.417	108.417	106.492	104.611	102.917	101.517	100.517
4/13/2007	4/13/2017	7/13/2015	4.450	108.825	108.825	108.825	106.889	104.984	103.251	101.786	100.694
4/27/2007	4/27/2017	7/27/2015	4.250	108.594	108.594	108.594	106.598	104.677	102.950	101.524	100.503
5/18/2007	5/18/2017	5/18/2015	4.190	108.717	108.717	108.685	106.625	104.662	102.911	101.482	100.466
5/22/2007	5/22/2017	5/22/2015	4.750	109.935	109.935	109.896	107.800	105.771	103.907	102.294	101.027
5/29/2007	5/30/2017	5/29/2015	4.250	108.983	108.983	108.931	106.830	104.830	103.038	101.564	100.504
6/7/2007	6/7/2017	6/8/2015	4.820	110.296	110.296	110.226	108.081	106.009	104.105	102.456	101.153
6/8/2007	6/8/2017	6/8/2015	4.490	109.603	109.603	109.532	107.397	105.353	103.507	101.947	100.782
6/11/2007	6/12/2017	6/11/2015	4.490	109.653	109.653	109.573	107.427	105.372	103.516	101.949	100.779
6/18/2007	6/19/2017	6/18/2015	4.500	109.762	109.762	109.667	107.500	105.425	103.552	101.968	100.782
6/19/2007	6/19/2017	6/19/2015	4.650	110.087	110.087	109.992	107.819	105.729	103.826	102.198	100.940
6/22/2007	6/22/2017	6/22/2015	4.500	109.799	109.799	109.698	107.522	105.440	103.559	101.970	100.778
6/28/2007	6/28/2017	6/29/2015	4.500	109.874	109.874	109.760	107.567	105.469	103.574	101.974	100.772
7/13/2007	7/13/2017	7/13/2015	4.290	109.592	109.592	109.443	107.222	105.119	103.246	101.709	100.613
7/20/2007	7/20/2017	7/20/2015	4.290	109.676	109.676	109.510	107.269	105.148	103.261	101.712	100.606
7/27/2007	7/27/2017	7/27/2015	4.250	109.668	109.668	109.486	107.228	105.095	103.202	101.657	100.560
7/30/2007	1/30/2019	7/30/2015	3.990	115.194	115.194	113.266	109.674	106.513	103.904	101.914	100.590
7/31/2007	7/31/2017	7/31/2015	3.990	109.121	109.121	108.931	106.681	104.584	102.764	101.322	100.345
7/31/2007	7/31/2017	7/31/2015	3.990	109.121	109.121	108.931	106.681	104.584	102.764	101.322	100.345
7/31/2007	7/31/2017	7/31/2015	4.060	109.281	109.281	109.091	106.836	104.727	102.886	101.418	100.406
8/2/2007	8/2/2017	5/4/2015	4.150	109.510	109.510	109.315	107.050	104.926	103.058	101.559	100.510

As of: **4/30/2015** 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	5/4/2015	4.050	109.281	109.281	109.086	106.829	104.719	102.881	101.420	100.419
8/9/2007	8/9/2017	5/11/2015	3.990	109.221	109.221	109.008	106.737	104.620	102.784	101.334	100.350
8/16/2007	8/16/2017	5/18/2015	3.990	109.298	109.298	109.068	106.777	104.644	102.792	101.330	100.336
8/17/2007	8/17/2017	5/18/2015	4.000	109.333	109.333	109.100	106.806	104.668	102.811	101.343	100.344
9/4/2007	9/5/2017	6/4/2015	3.890	109.281	109.281	109.002	106.671	104.518	102.668	101.233	100.310
9/10/2007	9/11/2017	6/10/2015	3.690	108.866	108.866	108.572	106.246	104.119	102.326	100.971	100.162
9/11/2007	9/11/2017	6/11/2015	3.590	108.625	108.625	108.333	106.018	103.913	102.155	100.851	100.097
9/13/2007	9/13/2017	6/15/2015	3.990	109.609	109.609	109.308	106.945	104.754	102.857	101.365	100.373
9/27/2007	9/27/2017	6/29/2015	3.650	108.932	108.932	108.598	106.232	104.076	102.266	100.905	100.099
10/11/2007	10/11/2017	7/13/2015	3.990	109.919	109.919	109.545	107.111	104.861	102.921	101.402	100.391
10/15/2007	10/16/2017	7/15/2015	3.990	109.974	109.974	109.587	107.139	104.877	102.927	101.402	100.387
10/26/2007	10/26/2017	7/27/2015	3.390	108.569	108.569	108.162	105.763	103.621	101.877	100.646	99.959
11/5/2007	11/6/2017	5/5/2015	4.390	111.230	111.230	110.783	108.245	105.868	103.773	102.054	100.807
11/6/2007	11/6/2017	5/6/2015	3.480	108.902	108.902	108.466	106.033	103.854	102.068	100.780	100.114
11/19/2007	11/20/2017	11/19/2012	4.290	111.141	111.141	110.648	108.015	105.435	102.930	100.499	98.137
11/20/2007	11/20/2017	5/20/2015	3.740	109.713	109.713	109.234	106.724	104.445	102.527	101.079	100.208
11/23/2007	11/24/2017	11/23/2011	3.990	110.407	110.407	109.902	107.266	104.685	102.179	99.747	97.386
11/23/2007	11/24/2017	11/23/2011	3.990	110.407	110.407	109.902	107.266	104.685	102.179	99.747	97.386
11/29/2007	11/29/2017	5/29/2015	2.950	107.735	107.735	107.251	104.859	102.804	101.232	100.244	99.916
11/30/2007	11/30/2017	6/1/2015	3.190	108.373	108.373	107.879	105.432	103.290	101.594	100.465	99.977
12/10/2007	12/11/2017	6/10/2015	3.450	109.161	109.161	108.629	106.118	103.880	102.061	100.759	100.061
12/24/2007	12/26/2017	12/24/2012	3.990	110.761	110.761	110.161	107.434	104.766	102.179	99.669	97.235
1/4/2008	1/4/2018	7/6/2015	3.360	109.146	109.146	108.548	106.002	103.756	101.951	100.688	100.011
1/7/2008	1/8/2018	7/7/2015	2.590	107.079	107.079	106.505	104.152	102.207	100.818	100.060	99.736
1/8/2008	1/8/2018	7/8/2015	2.570	107.024	107.024	106.452	104.104	102.168	100.791	100.047	99.727
1/8/2008	1/8/2018	7/8/2015	2.640	107.215	107.215	106.639	104.267	102.298	100.877	100.082	99.744
1/11/2008	1/11/2018	7/13/2015	2.720	107.457	107.457	106.867	104.463	102.452	100.977	100.115	99.745
1/14/2008	1/16/2018	7/14/2015	3.240	108.927	108.927	108.299	105.746	103.517	101.751	100.557	99.932
1/16/2008	1/16/2018	7/16/2015	2.380	106.558	106.558	105.980	103.678	101.828	100.572	99.935	99.645
1/17/2008	1/17/2018	7/17/2015	2.250	106.206	106.206	105.637	103.388	101.606	100.440	99.873	99.609
1/18/2008	1/18/2018	7/20/2015	2.290	106.322	106.322	105.747	103.479	101.674	100.478	99.883	99.604
2/14/2008	2/14/2018	2/14/2012	3.190	109.046	109.046	108.297	105.452	102.678	99.992	97.390	94.869
2/25/2008	2/26/2018	5/26/2015	2.420	106.943	106.943	106.262	103.863	101.935	100.615	100.006	99.886
3/7/2008	3/7/2018	6/8/2015	3.550	110.275	110.275	109.498	106.766	104.347	102.374	100.938	100.124
3/14/2008	3/14/2018	6/15/2015	2.400	106.993	106.993	106.270	103.862	101.933	100.615	99.992	99.792
3/17/2008	3/19/2018	6/17/2015	3.300	109.661	109.661	108.857	106.149	103.791	101.923	100.633	100.000
4/28/2008	4/30/2018	7/28/2015	2.150	106.545	106.545	105.737	103.355	101.521	100.361	99.805	99.530
4/30/2008	4/30/2018	4/30/2013	3.740	111.385	111.385	110.399	107.317	104.318	101.420	98.618	95.910
5/2/2008	5/4/2015	5/4/2015	3.990	100.044	100.044	100.044	100.043	100.032	100.021	100.011	100.000
5/5/2008	5/5/2015	5/5/2015	3.170	100.044	100.044	100.044	100.042	100.029	100.015	100.002	99.988
5/19/2008	5/19/2015	5/19/2015	4.700	100.248	100.248	100.248	100.241	100.190	100.139	100.088	100.037
5/23/2008	5/23/2018	5/26/2015	3.270	110.163	110.163	109.169	106.323	103.869	101.941	100.625	100.014
6/24/2008	6/24/2015	6/24/2015	3.830	100.585	100.585	100.585	100.563	100.412	100.263	100.113	99.964
6/30/2008	7/2/2018	6/30/2011	3.690	111.879	111.879	110.679	107.420	104.255	101.201	98.253	95.407
7/11/2008	7/11/2018	7/11/2012	3.750	112.166	112.166	110.933	107.646	104.454	101.375	98.403	95.536
7/14/2008	7/14/2015	7/14/2015	4.900	101.021	101.021	101.021	100.987	100.782	100.578	100.374	100.171
7/14/2008	7/16/2018	7/14/2015	2.500	108.145	108.145	107.072	104.405	102.273	100.799	100.023	99.688
7/14/2008	7/16/2018	7/14/2015	3.250	110.589	110.589	109.428	106.477	103.953	101.985	100.656	99.960
7/17/2008	7/17/2018	7/17/2013	3.750	112.228	112.228	110.974	107.670	104.462	101.368	98.383	95.503
8/15/2008	8/15/2018	5/15/2015	3.830	112.798	112.798	111.495	108.329	105.525	103.209	101.466	100.342
5/11/2010	5/11/2015	5/11/2015	3.700	100.113	100.113	100.113	100.109	100.079	100.050	100.020	99.991
5/24/2010	5/26/2015	5/26/2015	2.250	100.162	100.162	100.162	100.153	100.083	100.013	99.944	99.874
6/15/2010	6/15/2015	6/15/2015	2.280	100.291	100.291	100.291	100.273	100.148	100.023	99.899	99.775
10/8/2010	10/8/2015	7/8/2015	2.250	101.006	101.006	101.006	100.882	100.444	100.010	99.580	99.153
12/27/2011	12/27/2021	6/29/2015	3.550	123.990	122.967	115.982	109.216	102.887	96.977	91.456	86.297
4/27/2012	4/27/2016	4/27/2013	1.430	101.442	101.442	101.442	100.937	99.957	98.996	98.054	97.129
4/30/2012	5/2/2016	4/30/2013	1.380	101.410	101.410	101.410	100.893	99.900	98.926	97.970	97.032
5/15/2012	5/15/2017	5/15/2014	1.950	104.040	104.040	104.014	101.968	99.957	97.995	96.081	94.213

