

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 purchase 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	4/7/2014	5.950	105.636	105.636	105.636	105.291	104.341	103.410	102.500	101.627
7/2/2004	7/2/2014	4/2/2014	3.990	101.685	101.685	101.685	101.581	101.157	100.737	100.320	99.907
12/13/2004	12/15/2014	3/13/2014	3.320	102.932	102.932	102.932	102.625	101.755	100.941	100.282	99.927
9/1/2005	9/1/2015	3/1/2014	4.130	106.631	106.631	106.631	105.760	104.151	102.575	101.030	99.516
9/30/2005	9/30/2015	3/30/2014	4.440	107.486	107.486	107.486	106.529	104.833	103.173	101.546	99.953
10/26/2005	10/26/2015	4/26/2014	4.540	107.982	107.982	107.982	106.945	105.176	103.444	101.749	100.090
1/17/2006	1/19/2016	4/17/2014	4.080	108.137	108.137	108.137	106.834	104.892	103.119	101.620	100.536
4/24/2006	4/25/2016	4/24/2014	4.440	110.051	110.051	110.051	108.373	106.157	104.123	102.365	100.992
5/5/2006	5/5/2016	5/5/2014	4.350	109.968	109.968	109.968	108.252	106.025	103.995	102.259	100.928
5/5/2006	5/5/2016	5/5/2014	4.530	110.381	110.381	110.381	108.659	106.414	104.352	102.566	101.160
5/15/2006	5/16/2016	2/18/2014	4.350	110.101	110.101	110.101	108.336	106.080	104.023	102.263	100.915
5/15/2006	5/16/2016	2/18/2014	4.520	110.496	110.496	110.496	108.725	106.452	104.365	102.555	101.134
5/19/2006	5/19/2016	2/19/2014	4.510	110.510	110.510	110.510	108.726	106.446	104.354	102.540	101.118
6/12/2006	6/13/2016	3/12/2014	4.620	111.087	111.087	111.087	109.187	106.837	104.679	102.800	101.313
6/26/2006	6/27/2016	3/26/2014	4.730	111.535	111.535	111.535	109.565	107.168	104.957	103.018	101.463
7/24/2006	7/25/2016	4/24/2014	4.660	111.727	111.727	111.727	109.625	107.167	104.915	102.960	101.407
7/28/2006	7/28/2016	4/28/2014	4.490	111.337	111.337	111.337	109.227	106.782	104.555	102.646	101.155
8/25/2006	8/25/2016	2/25/2014	4.350	111.321	111.321	111.321	109.080	106.588	104.340	102.441	100.989
11/24/2006	11/25/2016	2/24/2014	4.190	111.976	111.976	111.976	109.270	106.603	104.245	102.295	100.856
12/1/2006	12/1/2016	3/3/2014	4.090	111.758	111.758	111.758	109.037	106.386	104.061	102.163	100.794
12/4/2006	12/5/2016	3/4/2014	4.080	111.775	111.775	111.775	109.032	106.374	104.044	102.145	100.778
12/5/2006	12/5/2016	3/5/2014	4.260	112.294	112.294	112.294	109.532	106.836	104.452	102.474	100.998
12/8/2006	12/8/2016	3/10/2014	3.990	111.548	111.548	111.548	108.800	106.152	103.846	101.983	100.669
12/12/2006	12/12/2016	3/12/2014	3.990	111.592	111.592	111.592	108.821	106.164	103.849	101.980	100.664
12/12/2006	12/12/2016	3/12/2014	4.050	111.767	111.767	111.767	108.988	106.319	103.984	102.085	100.728
12/19/2006	12/19/2016	3/19/2014	4.190	112.255	112.255	112.255	109.420	106.706	104.312	102.339	100.884
12/28/2006	12/28/2016	3/28/2014	4.250	112.537	112.537	112.537	109.644	106.897	104.467	102.452	100.944
12/28/2006	12/28/2016	3/28/2014	4.400	112.979	112.979	112.979	110.072	107.295	104.822	102.748	101.159
1/12/2007	1/12/2017	4/14/2014	4.420	113.222	113.222	113.187	110.232	107.426	104.931	102.842	101.245
1/16/2007	1/17/2017	4/16/2014	4.790	114.396	114.396	114.346	111.340	108.460	105.857	103.616	101.831
2/2/2007	2/2/2017	2/2/2014	4.690	114.304	114.304	114.206	111.088	108.009	105.034	102.158	99.657
2/20/2007	2/21/2017	2/20/2014	4.850	115.048	115.048	114.892	111.707	108.563	105.526	102.592	99.756
2/20/2007	2/21/2017	2/20/2014	4.390	113.620	113.620	113.465	110.404	107.516	104.961	102.827	101.214
2/23/2007	2/23/2017	2/24/2014	4.250	113.210	113.210	113.048	110.001	107.136	104.619	102.544	100.999
2/23/2007	2/23/2017	2/24/2014	4.350	113.520	113.520	113.359	110.298	107.412	104.863	102.744	101.144
3/16/2007	3/16/2017	3/17/2014	4.090	112.951	112.951	112.720	109.644	106.779	104.290	102.274	100.821
3/21/2007	3/21/2017	3/21/2014	4.220	113.421	113.421	113.174	110.064	107.155	104.611	102.523	100.977
3/23/2007	3/23/2017	3/24/2014	4.290	113.668	113.668	113.413	110.287	107.358	104.787	102.666	101.077
3/23/2007	3/23/2017	3/24/2014	4.290	113.668	113.668	113.413	110.287	107.358	104.787	102.666	101.077
4/9/2007	4/10/2017	4/9/2014	4.150	113.429	113.429	113.114	109.965	107.041	104.501	102.435	100.933
4/12/2007	4/12/2017	4/14/2014	4.250	113.776	113.776	113.452	110.283	107.330	104.749	102.631	101.062
4/13/2007	4/13/2017	4/14/2014	4.450	114.437	114.437	114.107	110.907	107.906	105.256	103.049	101.371
4/23/2007	4/23/2014	4/23/2014	4.620	101.052	101.052	101.052	101.016	100.785	100.554	100.325	100.096
4/27/2007	4/27/2017	4/28/2014	4.250	113.953	113.953	113.572	110.362	107.375	104.767	102.626	101.038
5/2/2007	5/2/2014	2/3/2014	4.590	101.160	101.160	101.160	101.118	100.862	100.607	100.353	100.100
5/4/2007	5/5/2014	5/5/2014	4.550	101.188	101.188	101.188	101.143	100.879	100.616	100.354	100.093
5/18/2007	5/18/2017	2/18/2014	4.190	114.001	114.001	113.534	110.291	107.283	104.670	102.545	100.984
5/22/2007	5/22/2017	2/24/2014	4.750	115.925	115.925	115.434	112.096	108.949	106.142	103.757	101.879
5/29/2007	5/30/2017	2/28/2014	4.250	114.343	114.343	113.826	110.542	107.493	104.842	102.678	101.063
6/1/2007	6/2/2014	3/3/2014	4.500	101.525	101.525	101.525	101.455	101.115	100.777	100.441	100.131
6/7/2007	6/7/2017	3/7/2014	4.820	116.374	116.374	115.815	112.432	109.242	106.397	103.975	102.054
6/8/2007	6/8/2017	3/10/2014	4.490	115.265	115.265	114.706	111.368	108.251	105.508	103.225	101.485
6/11/2007	6/12/2017	3/11/2014	4.490	115.315	115.315	114.739	111.390	108.263	105.513	103.225	101.481
6/18/2007	6/19/2017	3/18/2014	4.500	115.437	115.437	114.832	111.460	108.316	105.549	103.245	101.486
6/19/2007	6/19/2017	3/19/2014	4.650	115.951	115.951	115.344	111.950	108.769	105.952	103.581	101.736
6/22/2007	6/22/2017	3/24/2014	4.500	115.474	115.474	114.858	111.477	108.325	105.552	103.242	101.479
6/28/2007	6/28/2017	3/28/2014	4.500	115.549	115.549	114.909	111.510	108.344	105.560	103.239	101.468
7/13/2007	7/13/2017	4/14/2014	4.290	115.002	115.002	114.304	110.910	107.776	105.055	102.835	101.181

As of: 1/31/2014 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
7/20/2007	7/20/2017	4/21/2014	4.290	115.086	115.086	114.355	110.943	107.794	105.061	102.830	101.169
7/27/2007	7/27/2017	4/28/2014	4.250	115.028	115.028	114.265	110.844	107.692	104.962	102.739	101.095
7/30/2007	1/30/2019	4/30/2014	3.990	120.226	120.226	116.494	112.076	108.242	105.088	102.638	100.932
7/31/2007	7/31/2017	4/30/2014	3.990	114.152	114.152	113.383	110.014	106.937	104.319	102.223	100.753
7/31/2007	7/31/2017	4/30/2014	3.990	114.152	114.152	113.383	110.014	106.937	104.319	102.223	100.753
7/31/2007	7/31/2017	4/30/2014	4.060	114.401	114.401	113.628	110.243	107.145	104.498	102.365	100.840
8/2/2007	8/4/2014	5/2/2014	4.490	102.307	102.307	102.307	102.164	101.650	101.142	100.650	100.211
8/2/2007	8/2/2017	5/2/2014	4.050	114.388	114.388	113.608	110.224	107.132	104.491	102.379	100.885
8/2/2007	8/2/2017	5/2/2014	4.150	114.743	114.743	113.959	110.553	107.431	104.750	102.585	101.014
8/9/2007	8/9/2017	2/10/2014	3.990	114.252	114.252	113.441	110.055	106.967	104.338	102.252	100.792
8/16/2007	8/16/2017	2/18/2014	3.990	114.330	114.330	113.485	110.082	106.980	104.339	102.243	100.774
8/17/2007	8/17/2017	2/18/2014	4.000	114.377	114.377	113.527	110.119	107.011	104.365	102.262	100.784
8/20/2007	8/20/2014	2/20/2014	4.250	102.373	102.373	102.373	102.211	101.654	101.104	100.559	100.021
8/28/2007	8/28/2014	2/28/2014	4.350	102.525	102.525	102.525	102.354	101.776	101.205	100.653	100.167
8/30/2007	9/2/2014	2/28/2014	3.890	102.312	102.312	102.312	102.135	101.544	100.962	100.418	100.041
9/4/2007	9/5/2017	3/4/2014	3.890	114.187	114.187	113.259	109.841	106.747	104.136	102.094	100.693
9/10/2007	9/11/2017	3/10/2014	3.690	113.519	113.519	112.578	109.198	106.164	103.640	101.712	100.465
9/11/2007	9/11/2017	3/11/2014	3.590	113.152	113.152	112.218	108.867	105.872	103.400	101.531	100.361
9/12/2007	9/12/2014	3/12/2014	3.690	102.296	102.296	102.296	102.107	101.489	100.885	100.339	99.988
9/13/2007	9/15/2014	3/13/2014	3.990	102.516	102.516	102.516	102.324	101.696	101.080	100.502	100.065
9/13/2007	9/13/2017	3/13/2014	3.990	114.640	114.640	113.670	110.206	107.061	104.391	102.274	100.789
9/27/2007	9/29/2014	9/27/2010	4.490	103.006	103.006	103.006	102.797	102.129	101.469	100.819	100.176
9/27/2007	9/27/2017	3/27/2014	3.650	113.534	113.534	112.528	109.115	106.065	103.536	101.611	100.382
10/11/2007	10/14/2014	4/11/2014	4.180	102.972	102.972	102.972	102.745	102.038	101.344	100.693	100.168
10/11/2007	10/11/2017	4/11/2014	3.990	114.950	114.950	113.855	110.328	107.140	104.441	102.304	100.816
10/15/2007	10/16/2017	4/15/2014	3.990	115.006	115.006	113.885	110.346	107.149	104.444	102.301	100.809
10/25/2007	10/27/2014	4/25/2014	4.360	103.258	103.258	103.258	103.015	102.271	101.541	100.848	100.265
10/26/2007	10/26/2017	4/28/2014	3.390	112.843	112.843	111.730	108.347	105.370	102.958	101.186	100.111
11/2/2007	11/3/2014	5/2/2014	3.990	103.059	103.059	103.059	102.807	102.046	101.306	100.625	100.131
11/2/2007	11/3/2014	5/2/2014	4.190	103.212	103.212	103.212	102.961	102.198	101.454	100.761	100.194
11/5/2007	11/5/2014	5/5/2014	3.990	103.081	103.081	103.081	102.827	102.060	101.314	100.629	100.131
11/5/2007	11/6/2017	5/5/2014	4.390	116.766	116.766	115.514	111.843	108.484	105.583	103.214	101.439
11/6/2007	11/6/2017	5/6/2014	3.480	113.291	113.291	112.119	108.698	105.676	103.215	101.394	100.292
11/9/2007	11/10/2014	2/10/2014	4.330	103.404	103.404	103.404	103.143	102.361	101.595	100.876	100.274
11/13/2007	11/13/2014	2/13/2014	3.350	102.661	102.661	102.661	102.397	101.612	100.872	100.252	99.962
11/19/2007	11/19/2014	2/19/2014	3.750	103.041	103.041	103.041	102.769	101.965	101.186	100.495	100.056
11/19/2007	11/19/2014	2/19/2014	4.270	103.463	103.463	103.463	103.191	102.383	101.595	100.856	100.239
11/19/2007	11/20/2017	2/19/2014	4.290	116.551	116.551	115.137	111.175	107.321	103.624	100.077	96.673
11/20/2007	11/20/2017	2/20/2014	3.740	114.429	114.429	113.159	109.623	106.465	103.844	101.832	100.489
11/23/2007	11/24/2017	2/19/2014	3.990	115.438	115.438	114.004	110.049	106.205	102.519	98.984	95.591
11/23/2007	11/24/2017	2/24/2014	3.990	115.438	115.438	114.004	110.049	106.205	102.519	98.984	95.591
11/29/2007	11/29/2017	2/28/2014	2.950	111.455	111.455	110.249	106.987	104.191	102.031	100.580	99.941
11/30/2007	11/30/2017	2/28/2014	3.190	112.396	112.396	111.147	107.783	104.865	102.555	100.912	100.071
12/10/2007	12/11/2017	3/10/2014	3.450	113.511	113.511	112.180	108.706	105.652	103.174	101.349	100.247
12/24/2007	12/26/2017	3/24/2014	3.990	115.793	115.793	114.180	110.134	106.207	102.445	98.839	95.382
1/3/2008	1/5/2015	4/3/2014	3.650	103.437	103.437	103.437	103.098	102.169	101.285	100.525	100.026
1/4/2008	1/4/2018	4/4/2014	3.360	113.383	113.383	111.967	108.477	105.437	102.997	101.224	100.172
1/7/2008	1/7/2015	4/7/2014	3.490	103.306	103.306	103.306	102.964	102.032	101.153	100.426	99.961
1/7/2008	1/8/2018	4/7/2014	2.590	110.345	110.345	109.068	105.930	103.318	101.406	100.251	99.747
1/8/2008	1/8/2018	4/8/2014	2.570	110.265	110.265	108.993	105.865	103.266	101.368	100.228	99.737
1/8/2008	1/8/2018	4/8/2014	2.640	110.544	110.544	109.255	106.088	103.442	101.491	100.297	99.762
1/11/2008	1/11/2018	4/11/2014	2.720	110.887	110.887	109.564	106.349	103.648	101.634	100.375	99.784
1/14/2008	1/16/2018	4/14/2014	3.240	113.013	113.013	111.555	108.092	105.095	102.715	101.015	100.059
1/16/2008	1/16/2018	4/16/2014	2.380	109.559	109.559	108.299	105.272	102.789	101.029	100.054	99.649
1/17/2008	1/17/2018	4/17/2014	2.250	109.043	109.043	107.818	104.874	102.479	100.826	99.973	99.609
1/18/2008	1/20/2015	4/18/2014	2.350	102.311	102.311	102.311	101.952	101.030	100.298	99.861	99.609
1/18/2008	1/18/2018	4/18/2014	2.290	109.210	109.210	107.969	104.996	102.571	100.882	99.993	99.614
2/14/2008	2/14/2018	2/14/2014	3.190	113.069	113.069	111.183	107.047	103.053	99.231	95.575	92.074

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
2/25/2008	2/26/2018	2/25/2014	2.420	109.995	109.995	108.553	105.455	102.906	101.086	100.122	99.863
3/7/2008	3/9/2015	3/7/2014	2.890	103.227	103.227	103.227	102.783	101.704	100.761	100.117	99.868
3/7/2008	3/7/2018	3/7/2014	3.550	114.751	114.751	113.004	109.338	106.128	103.520	101.576	100.372
3/14/2008	3/14/2018	3/14/2014	2.400	110.019	110.019	108.533	105.430	102.888	101.081	100.088	99.791
3/17/2008	3/19/2018	3/17/2014	3.300	113.822	113.822	112.066	108.473	105.369	102.900	101.124	100.114
4/14/2008	4/14/2015	4/14/2014	2.750	103.346	103.346	103.346	102.828	101.619	100.429	99.259	98.107
4/28/2008	4/28/2015	4/28/2014	3.250	104.080	104.080	104.080	103.533	102.308	101.203	100.353	99.840
4/28/2008	4/30/2018	4/28/2014	2.150	109.256	109.256	107.677	104.691	102.297	100.695	99.886	99.521
4/30/2008	4/30/2018	4/30/2014	3.740	116.102	116.102	113.768	109.379	105.144	101.099	97.235	93.543
5/2/2008	5/4/2015	5/2/2014	3.990	105.076	105.076	105.076	104.512	103.248	102.057	101.021	100.252
5/5/2008	5/5/2015	5/5/2014	3.170	104.041	104.041	104.041	103.480	102.245	101.151	100.323	99.983
5/19/2008	5/19/2015	2/21/2014	4.700	106.175	106.175	106.175	105.574	104.251	102.951	101.674	100.418
5/23/2008	5/23/2018	2/24/2014	3.270	114.287	114.287	112.217	108.535	105.374	102.871	101.085	100.136
6/24/2008	6/24/2015	3/24/2014	3.830	105.415	105.415	105.415	104.731	103.335	102.035	100.928	100.166
6/30/2008	7/2/2018	3/30/2014	3.690	116.532	116.532	113.799	109.238	104.848	100.662	96.670	92.862
7/10/2008	7/10/2014	4/10/2014	4.800	102.133	102.133	102.133	102.020	101.573	101.131	100.693	100.258
7/11/2008	7/11/2018	4/11/2014	3.750	116.895	116.895	114.100	109.510	105.091	100.879	96.864	93.034
7/14/2008	7/14/2015	4/15/2014	4.900	107.200	107.200	107.200	106.459	104.977	103.523	102.096	100.695
7/14/2008	7/16/2018	4/14/2014	2.500	111.297	111.297	109.263	105.946	103.244	101.309	100.169	99.694
7/14/2008	7/16/2018	4/14/2014	3.250	114.687	114.687	112.365	108.607	105.407	102.892	101.103	100.083
7/17/2008	7/17/2018	4/17/2014	3.750	116.957	116.957	114.123	109.516	105.082	100.857	96.829	92.988
8/15/2008	8/15/2018	2/18/2014	3.830	117.627	117.627	114.973	110.905	107.355	104.437	102.203	100.697
5/13/2009	5/13/2014	2/13/2014	4.000	101.133	101.133	101.133	101.082	100.796	100.511	100.229	100.014
5/11/2010	5/11/2015	5/11/2015	3.700	104.779	104.779	104.779	104.198	102.865	101.401	99.612	97.253
5/24/2010	5/26/2015	2/26/2014	2.250	103.000	103.000	103.000	102.391	101.071	99.775	98.501	97.249
6/15/2010	6/15/2015	2/15/2014	2.280	103.166	103.166	103.166	102.510	101.135	99.786	98.460	97.158
10/8/2010	10/8/2015	10/9/2012	2.250	103.843	103.843	103.843	102.876	101.191	99.541	97.925	96.344
12/27/2011	12/27/2021	12/29/2014	3.550	128.467	120.828	112.694	104.988	93.696	81.432	70.165	59.811
4/27/2012	4/27/2016	4/27/2013	1.430	103.245	103.245	103.245	101.586	99.376	97.225	95.130	93.090
4/30/2012	5/2/2016	4/30/2013	1.380	103.150	103.150	103.150	101.471	99.249	97.087	94.982	92.932
5/15/2012	5/15/2017	5/15/2014	-0.010	105.804	105.804	105.332	102.163	100.354	99.908	99.878	99.876
5/15/2012	5/15/2017	11/17/2014	-0.010	105.991	105.991	105.518	102.548	100.859	99.994	99.711	99.637
6/20/2012	6/20/2017	6/22/2015	1.630	105.595	105.595	104.966	101.517	96.318	91.341	86.575	82.011
7/16/2012	7/17/2017	7/16/2014	-0.024	105.033	105.033	104.278	101.241	100.047	99.823	99.796	99.795
7/18/2012	7/18/2018	7/20/2015	-0.024	107.623	107.623	104.808	101.726	100.329	99.607	99.321	99.223
7/19/2012	7/19/2017	7/21/2014	0.000	105.149	105.149	104.385	101.298	100.033	99.812	99.779	99.774
10/1/2012	10/1/2019	4/1/2015	0.066	109.921	109.203	103.635	100.870	99.710	99.267	99.028	98.855
10/5/2012	10/5/2017	10/6/2014	0.076	104.820	104.820	103.666	100.932	99.866	99.455	99.241	99.059
3/8/2013	3/8/2018	3/9/2015	0.180	105.162	105.162	103.172	100.747	99.870	99.492	99.331	99.219