

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
9/1/2005	9/1/2015	3/1/2015	4.130	102.443	102.443	102.443	102.248	101.659	101.077	100.502	99.934
9/30/2005	9/30/2015	3/31/2015	4.440	102.984	102.984	102.984	102.747	102.079	101.420	100.770	100.127
10/26/2005	10/26/2015	4/26/2015	4.540	103.380	103.380	103.380	103.102	102.361	101.631	100.911	100.202
1/17/2006	1/19/2016	4/17/2015	4.080	104.000	104.000	104.000	103.569	102.601	101.671	100.836	100.196
4/24/2006	4/25/2016	4/24/2015	4.440	105.550	105.550	105.550	104.858	103.616	102.430	101.363	100.510
5/5/2006	5/5/2016	2/5/2015	4.350	105.558	105.558	105.558	104.835	103.570	102.373	101.309	100.472
5/5/2006	5/5/2016	2/5/2015	4.530	105.788	105.788	105.788	105.064	103.795	102.583	101.492	100.610
5/15/2006	5/16/2016	2/17/2015	4.350	105.691	105.691	105.691	104.932	103.637	102.411	101.321	100.465
5/15/2006	5/16/2016	2/17/2015	4.520	105.913	105.913	105.913	105.154	103.854	102.614	101.499	100.598
5/19/2006	5/19/2016	2/19/2015	4.510	105.938	105.938	105.938	105.168	103.861	102.614	101.493	100.588
6/12/2006	6/13/2016	3/12/2015	4.620	106.403	106.403	106.403	105.546	104.170	102.859	101.677	100.711
6/26/2006	6/27/2016	3/26/2015	4.730	106.740	106.740	106.740	105.829	104.412	103.060	101.831	100.807
7/24/2006	7/25/2016	4/24/2015	4.660	107.003	107.003	107.003	105.988	104.501	103.091	101.823	100.792
7/28/2006	7/28/2016	4/28/2015	4.490	106.785	106.785	106.785	105.761	104.271	102.871	101.629	100.643
8/25/2006	8/25/2016	2/25/2015	4.350	106.911	106.911	106.911	105.779	104.226	102.779	101.520	100.542
11/24/2006	11/25/2016	2/24/2015	4.190	107.728	107.728	107.728	106.219	104.453	102.845	101.490	100.480
12/1/2006	12/1/2016	3/2/2015	4.090	107.611	107.611	107.611	106.085	104.319	102.728	101.404	100.454
12/4/2006	12/5/2016	3/4/2015	4.080	107.638	107.638	107.638	106.095	104.320	102.722	101.394	100.444
12/5/2006	12/5/2016	3/5/2015	4.260	107.975	107.975	107.975	106.425	104.632	103.000	101.619	100.584
12/8/2006	12/8/2016	3/9/2015	3.990	107.503	107.503	107.503	105.951	104.177	102.590	101.283	100.369
12/12/2006	12/12/2016	3/12/2015	3.990	107.547	107.547	107.547	105.979	104.194	102.597	101.282	100.363
12/12/2006	12/12/2016	3/12/2015	4.050	107.661	107.661	107.661	106.090	104.299	102.690	101.357	100.411
12/19/2006	12/19/2016	3/19/2015	4.190	108.007	108.007	108.007	106.401	104.578	102.927	101.537	100.520
12/28/2006	12/28/2016	3/30/2015	4.250	108.228	108.228	108.228	106.582	104.731	103.048	101.621	100.566
12/28/2006	12/28/2016	3/30/2015	4.400	108.518	108.518	108.518	106.868	105.001	103.293	101.826	100.695
1/12/2007	1/12/2017	4/13/2015	4.420	108.741	108.741	108.741	107.029	105.129	103.394	101.906	100.763
1/16/2007	1/17/2017	4/16/2015	4.790	109.540	109.540	109.540	107.794	105.851	104.048	102.459	101.174
2/2/2007	2/2/2017	2/2/2015	4.690	109.549	109.549	109.549	107.720	105.679	103.688	101.745	99.849
2/20/2007	2/21/2017	2/21/2012	4.850	110.131	110.131	110.131	108.216	106.114	104.063	102.064	100.112
2/20/2007	2/21/2017	2/20/2015	4.390	109.170	109.170	109.170	107.289	105.290	103.477	101.932	100.757
2/23/2007	2/23/2017	2/23/2015	4.250	108.901	108.901	108.901	107.018	105.029	103.237	101.734	100.612
2/23/2007	2/23/2017	2/23/2015	4.350	109.110	109.110	109.110	107.223	105.222	103.411	101.873	100.712
3/16/2007	3/16/2017	3/16/2015	4.090	108.804	108.804	108.804	106.844	104.828	103.034	101.556	100.506
3/21/2007	3/21/2017	3/23/2015	4.220	109.143	109.143	109.143	107.153	105.106	103.271	101.742	100.615
3/23/2007	3/23/2017	3/23/2015	4.290	109.318	109.318	109.318	107.316	105.255	103.401	101.844	100.677
3/23/2007	3/23/2017	3/23/2015	4.290	109.318	109.318	109.318	107.316	105.255	103.401	101.844	100.677
4/9/2007	4/10/2017	4/9/2015	4.150	109.222	109.222	109.222	107.152	105.072	103.222	101.696	100.598
4/12/2007	4/12/2017	4/13/2015	4.250	109.467	109.467	109.467	107.382	105.283	103.404	101.838	100.687
4/13/2007	4/13/2017	4/13/2015	4.450	109.925	109.925	109.925	107.824	105.697	103.775	102.138	100.886
4/27/2007	4/27/2017	4/27/2015	4.250	109.645	109.645	109.645	107.489	105.351	103.439	101.846	100.673
5/18/2007	5/18/2017	2/18/2015	4.190	109.753	109.753	109.753	107.511	105.336	103.403	101.807	100.638
5/22/2007	5/22/2017	2/23/2015	4.750	111.109	111.109	111.109	108.815	106.558	104.495	102.706	101.284
5/29/2007	5/30/2017	3/2/2015	4.250	110.034	110.034	110.034	107.734	105.518	103.543	101.898	100.690
6/7/2007	6/7/2017	3/9/2015	4.820	111.487	111.487	111.482	109.117	106.817	104.715	102.889	101.430
6/8/2007	6/8/2017	3/9/2015	4.490	110.713	110.713	110.707	108.358	106.094	104.058	102.329	100.999
6/11/2007	6/12/2017	3/11/2015	4.490	110.763	110.763	110.754	108.389	106.114	104.069	102.332	100.995
6/18/2007	6/19/2017	3/18/2015	4.500	110.874	110.874	110.861	108.465	106.171	104.107	102.353	101.000
6/19/2007	6/19/2017	3/19/2015	4.650	111.237	111.237	111.223	108.818	106.505	104.407	102.607	101.188
6/22/2007	6/22/2017	3/23/2015	4.500	110.912	110.912	110.896	108.488	106.186	104.115	102.355	100.996
6/28/2007	6/28/2017	3/30/2015	4.500	110.987	110.987	110.967	108.533	106.216	104.130	102.358	100.989
7/13/2007	7/13/2017	4/13/2015	4.290	110.653	110.653	110.607	108.149	105.833	103.777	102.069	100.802
7/20/2007	7/20/2017	4/20/2015	4.290	110.736	110.736	110.677	108.199	105.865	103.794	102.072	100.796
7/27/2007	7/27/2017	4/27/2015	4.250	110.719	110.719	110.646	108.152	105.807	103.730	102.010	100.749
7/30/2007	1/30/2019	4/30/2015	3.990	116.181	116.181	114.698	110.869	107.488	104.650	102.421	100.860
7/31/2007	7/31/2017	4/30/2015	3.990	110.107	110.107	110.027	107.552	105.253	103.251	101.642	100.500
7/31/2007	7/31/2017	4/30/2015	3.990	110.107	110.107	110.027	107.552	105.253	103.251	101.642	100.500
7/31/2007	7/31/2017	4/30/2015	4.060	110.285	110.285	110.205	107.722	105.409	103.388	101.748	100.571
8/2/2007	8/2/2017	5/4/2015	4.150	110.536	110.536	110.452	107.958	105.625	103.577	101.907	100.700

As of: 1/31/2015 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	5/4/2015	4.050	110.282	110.282	110.198	107.714	105.400	103.383	101.756	100.597
8/9/2007	8/9/2017	2/9/2015	3.990	110.207	110.207	110.108	107.611	105.291	103.276	101.661	100.519
8/16/2007	8/16/2017	2/17/2015	3.990	110.285	110.285	110.171	107.654	105.316	103.285	101.656	100.503
8/17/2007	8/17/2017	2/17/2015	4.000	110.322	110.322	110.206	107.685	105.343	103.306	101.672	100.513
9/4/2007	9/5/2017	3/4/2015	3.890	110.243	110.243	110.090	107.536	105.182	103.158	101.552	100.467
9/10/2007	9/11/2017	3/10/2015	3.690	109.778	109.778	109.612	107.068	104.748	102.780	101.257	100.282
9/11/2007	9/11/2017	3/11/2015	3.590	109.513	109.513	109.348	106.819	104.524	102.593	101.117	100.200
9/13/2007	9/13/2017	3/13/2015	3.990	110.595	110.595	110.423	107.834	105.437	103.363	101.697	100.544
9/27/2007	9/27/2017	3/27/2015	3.650	109.834	109.834	109.635	107.050	104.702	102.715	101.181	100.211
10/11/2007	10/11/2017	4/13/2015	3.990	110.905	110.905	110.674	108.013	105.559	103.442	101.748	100.571
10/15/2007	10/16/2017	4/15/2015	3.990	110.961	110.961	110.719	108.044	105.577	103.450	101.749	100.568
10/26/2007	10/26/2017	4/27/2015	3.390	109.407	109.407	109.150	106.544	104.213	102.293	100.873	100.027
11/5/2007	11/6/2017	2/5/2015	4.390	112.316	112.316	112.025	109.251	106.661	104.374	102.476	101.046
11/6/2007	11/6/2017	2/6/2015	3.480	109.763	109.763	109.481	106.840	104.473	102.509	101.040	100.198
11/19/2007	11/20/2017	11/19/2012	4.290	112.202	112.202	111.871	108.970	106.127	103.374	100.707	98.123
11/20/2007	11/20/2017	2/20/2015	3.740	110.637	110.637	110.321	107.593	105.117	103.020	101.394	100.319
11/23/2007	11/24/2017	11/23/2011	3.990	111.393	111.393	111.052	108.149	105.307	102.555	99.890	97.308
11/23/2007	11/24/2017	11/23/2011	3.990	111.393	111.393	111.052	108.149	105.307	102.555	99.890	97.308
11/29/2007	11/29/2017	3/2/2015	2.950	108.464	108.464	108.145	105.561	103.327	101.579	100.431	99.935
11/30/2007	11/30/2017	3/2/2015	3.190	109.162	109.162	108.834	106.188	103.858	101.995	100.682	100.025
12/10/2007	12/11/2017	3/10/2015	3.450	110.014	110.014	109.658	106.936	104.511	102.511	101.021	100.139
12/24/2007	12/26/2017	12/24/2012	3.990	111.748	111.748	111.333	108.338	105.409	102.576	99.834	97.181
1/4/2008	1/4/2018	4/6/2015	3.360	109.977	109.977	109.573	106.818	104.383	102.395	100.942	100.091
1/7/2008	1/8/2018	4/7/2015	2.590	107.719	107.719	107.336	104.801	102.682	101.111	100.162	99.740
1/8/2008	1/8/2018	4/8/2015	2.570	107.659	107.659	107.276	104.749	102.639	101.080	100.144	99.730
1/8/2008	1/8/2018	4/8/2015	2.640	107.868	107.868	107.482	104.927	102.783	101.181	100.198	99.748
1/11/2008	1/11/2018	4/13/2015	2.720	108.129	108.129	107.733	105.142	102.954	101.299	100.253	99.753
1/14/2008	1/16/2018	4/14/2015	3.240	109.728	109.728	109.299	106.543	104.124	102.175	100.788	100.004
1/16/2008	1/16/2018	4/16/2015	2.380	107.146	107.146	106.755	104.287	102.256	100.813	100.013	99.643
1/17/2008	1/17/2018	4/17/2015	2.250	106.762	106.762	106.378	103.967	102.007	100.662	99.940	99.603
1/18/2008	1/18/2018	4/20/2015	2.290	106.888	106.888	106.499	104.068	102.084	100.704	99.954	99.598
2/14/2008	2/14/2018	2/14/2012	3.190	109.835	109.835	109.300	106.189	103.160	100.233	97.406	94.674
2/25/2008	2/26/2018	2/25/2015	2.420	107.542	107.542	107.067	104.498	102.386	100.873	100.087	99.861
3/7/2008	3/9/2015	3/9/2015	2.890	100.297	100.297	100.297	100.282	100.175	100.067	99.960	99.853
3/7/2008	3/7/2018	3/9/2015	3.550	111.152	111.152	110.603	107.657	105.043	102.882	101.253	100.250
3/14/2008	3/14/2018	3/16/2015	2.400	107.586	107.586	107.086	104.502	102.389	100.881	100.058	99.780
3/17/2008	3/19/2018	3/17/2015	3.300	110.477	110.477	109.910	106.993	104.440	102.382	100.894	100.062
4/14/2008	4/14/2015	4/14/2015	2.750	100.558	100.558	100.558	100.525	100.319	100.114	99.910	99.707
4/28/2008	4/28/2015	4/28/2015	3.250	100.785	100.785	100.785	100.744	100.499	100.255	100.013	99.771
4/28/2008	4/30/2018	4/28/2015	2.150	107.076	107.076	106.497	103.952	101.932	100.581	99.863	99.517
4/30/2008	4/30/2018	4/30/2013	3.740	112.310	112.310	111.577	108.224	104.963	101.818	98.785	95.859
5/2/2008	5/4/2015	2/2/2015	3.990	101.031	101.031	101.031	100.984	100.723	100.463	100.204	100.015
5/5/2008	5/5/2015	2/5/2015	3.170	100.828	100.828	100.828	100.781	100.517	100.254	100.036	99.983
5/19/2008	5/19/2015	2/21/2015	4.700	101.410	101.410	101.410	101.350	101.047	100.747	100.448	100.151
5/23/2008	5/23/2018	2/23/2015	3.270	110.972	110.972	110.247	107.193	104.542	102.417	100.891	100.094
6/24/2008	6/24/2015	3/24/2015	3.830	101.532	101.532	101.532	101.430	101.029	100.631	100.252	99.973
6/30/2008	7/2/2018	6/30/2011	3.690	112.791	112.791	111.879	108.346	104.918	101.619	98.442	95.383
7/11/2008	7/11/2018	7/11/2012	3.750	113.093	113.093	112.154	108.593	105.138	101.813	98.613	95.531
7/14/2008	7/14/2015	4/14/2015	4.900	102.232	102.232	102.232	102.103	101.646	101.193	100.744	100.299
7/14/2008	7/16/2018	4/14/2015	2.500	108.763	108.763	107.978	105.124	102.803	101.119	100.125	99.691
7/14/2008	7/16/2018	4/14/2015	3.250	111.392	111.392	110.532	107.373	104.651	102.478	100.928	100.047
7/17/2008	7/17/2018	7/17/2013	3.750	113.155	113.155	112.200	108.621	105.151	101.811	98.597	95.503
8/15/2008	8/15/2018	2/17/2015	3.830	113.744	113.744	112.765	109.375	106.360	103.842	101.893	100.565
5/11/2010	5/11/2015	5/11/2015	3.700	101.028	101.028	101.028	100.975	100.695	100.416	100.134	99.509
5/24/2010	5/26/2015	2/26/2015	2.250	100.719	100.719	100.719	100.652	100.333	100.016	99.700	99.387
6/15/2010	6/15/2015	2/15/2015	2.280	100.855	100.855	100.855	100.765	100.392	100.021	99.653	99.288
10/8/2010	10/8/2015	10/9/2012	2.250	101.562	101.562	101.562	101.314	100.630	99.955	99.289	98.632
12/27/2011	12/27/2021	3/29/2015	3.550	124.868	124.868	117.949	110.837	104.195	98.008	92.242	86.866

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
4/27/2012	4/27/2016	4/27/2013	1.430	101.795	101.795	101.795	101.107	99.875	98.663	97.471	96.298
4/30/2012	5/2/2016	4/30/2013	1.380	101.752	101.752	101.752	101.048	99.802	98.578	97.373	96.189
5/15/2012	5/15/2017	5/15/2014	1.950	104.522	104.522	104.522	102.284	100.026	97.828	95.689	93.607
5/15/2012	5/15/2017	11/17/2014	2.510	105.821	105.821	105.821	103.572	101.299	99.086	96.933	94.837
6/20/2012	6/20/2017	6/22/2015	1.630	103.943	103.943	103.929	101.546	98.256	94.086	90.040	86.114
7/16/2012	7/17/2017	7/16/2014	1.720	104.290	104.290	104.236	101.763	99.347	97.001	94.722	92.507
7/18/2012	7/18/2018	7/20/2015	-0.193	108.214	108.214	107.261	103.880	101.373	99.936	99.329	99.053
7/19/2012	7/19/2017	7/21/2014	1.690	104.224	104.224	104.167	101.689	99.269	96.919	94.636	92.418
10/1/2012	10/1/2019	4/1/2015	-0.105	110.322	110.322	107.959	103.371	100.526	99.733	99.517	99.350
10/5/2012	10/5/2017	10/6/2014	1.630	104.427	104.427	104.202	101.513	98.894	96.355	93.894	91.508
3/8/2013	3/8/2018	3/9/2015	-0.035	105.452	105.452	104.867	101.784	100.132	99.809	99.703	99.596
5/7/2014	5/7/2018	5/7/2015	0.012	105.303	105.303	104.559	101.547	100.236	99.929	99.891	99.870
10/16/2014	10/16/2018	10/17/2016	0.034	104.700	104.700	103.497	101.449	100.248	99.491	98.993	98.657
10/24/2014	10/24/2018	10/26/2015	0.026	105.169	105.169	103.925	101.243	100.005	99.505	99.229	99.020
10/24/2014	10/24/2018	10/26/2015	0.026	105.169	105.169	103.925	101.243	100.005	99.505	99.229	99.020