

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.

As of: **6/30/2014** **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
1/7/2000	1/7/2015	7/7/2014	5.950	103.157	103.157	103.157	103.009	102.485	101.967	101.453	100.947
7/2/2004	7/2/2014	7/2/2014	3.990	100.022	100.022	100.022	100.021	100.016	100.011	100.005	100.000
12/13/2004	12/15/2014	9/15/2014	3.320	101.549	101.549	101.549	101.429	100.971	100.520	100.123	99.853
9/1/2005	9/1/2015	9/1/2014	4.130	104.910	104.910	104.910	104.395	103.212	102.048	100.903	99.775
9/30/2005	9/30/2015	9/30/2014	4.440	105.636	105.636	105.636	105.041	103.774	102.527	101.302	100.096
10/26/2005	10/26/2015	7/26/2014	4.540	106.091	106.091	106.091	105.417	104.077	102.760	101.466	100.195
1/17/2006	1/19/2016	7/17/2014	4.080	106.437	106.437	106.437	105.470	103.919	102.470	101.230	100.329
4/24/2006	4/25/2016	7/24/2014	4.440	108.201	108.201	108.201	106.843	105.022	103.325	101.845	100.705
5/5/2006	5/5/2016	8/5/2014	4.350	108.156	108.156	108.156	106.757	104.918	103.216	101.752	100.654
5/5/2006	5/5/2016	8/5/2014	4.530	108.493	108.493	108.493	107.092	105.243	103.519	102.012	100.835
5/15/2006	5/16/2016	8/15/2014	4.350	108.289	108.289	108.289	106.842	104.974	103.245	101.759	100.641
5/15/2006	5/16/2016	8/15/2014	4.520	108.613	108.613	108.613	107.164	105.286	103.536	102.010	100.813
5/19/2006	5/19/2016	8/19/2014	4.510	108.631	108.631	108.631	107.170	105.284	103.528	101.999	100.801
6/12/2006	6/13/2016	9/12/2014	4.620	109.162	109.162	109.162	107.592	105.636	103.814	102.224	100.967
6/26/2006	6/27/2016	9/26/2014	4.730	109.565	109.565	109.565	107.931	105.930	104.060	102.416	101.099
7/24/2006	7/25/2016	7/24/2014	4.660	109.785	109.785	109.785	108.027	105.959	104.038	102.365	101.042
7/28/2006	7/28/2016	7/28/2014	4.490	109.466	109.466	109.466	107.697	105.633	103.731	102.093	100.835
8/25/2006	8/25/2016	8/25/2014	4.350	109.509	109.509	109.509	107.611	105.489	103.556	101.920	100.702
11/24/2006	11/25/2016	8/25/2014	4.190	110.230	110.230	110.230	107.858	105.542	103.483	101.792	100.594
12/1/2006	12/1/2016	9/2/2014	4.090	110.054	110.054	110.052	107.658	105.349	103.319	101.676	100.550
12/4/2006	12/5/2016	9/4/2014	4.080	110.075	110.075	110.066	107.657	105.340	103.304	101.661	100.538
12/5/2006	12/5/2016	9/5/2014	4.260	110.519	110.519	110.511	108.090	105.747	103.662	101.943	100.709
12/8/2006	12/8/2016	9/8/2014	3.990	109.886	109.886	109.872	107.457	105.147	103.129	101.519	100.446
12/12/2006	12/12/2016	9/12/2014	3.990	109.930	109.930	109.910	107.479	105.159	103.132	101.517	100.438
12/12/2006	12/12/2016	9/12/2014	4.050	110.079	110.079	110.060	107.624	105.293	103.252	101.609	100.496
12/19/2006	12/19/2016	9/19/2014	4.190	110.509	110.509	110.478	108.003	105.636	103.543	101.829	100.622
12/28/2006	12/28/2016	9/29/2014	4.250	110.766	110.766	110.720	108.204	105.807	103.680	101.928	100.671
12/28/2006	12/28/2016	9/29/2014	4.400	111.146	111.146	111.100	108.575	106.158	103.991	102.186	100.840
1/12/2007	1/12/2017	7/14/2014	4.420	111.381	111.381	111.290	108.723	106.274	104.084	102.261	100.903
1/16/2007	1/17/2017	7/16/2014	4.790	112.400	112.400	112.293	109.691	107.184	104.901	102.941	101.407
2/2/2007	2/2/2017	8/2/2014	4.690	112.350	112.350	112.190	109.518	106.878	104.316	101.830	99.707
2/20/2007	2/21/2017	8/20/2014	4.850	113.027	113.027	112.807	110.070	107.367	104.746	102.202	99.735
2/20/2007	2/21/2017	8/20/2014	4.390	111.791	111.791	111.573	108.897	106.361	104.110	102.249	100.869
2/23/2007	2/23/2017	8/25/2014	4.250	111.439	111.439	111.215	108.544	106.025	103.807	101.999	100.698
2/23/2007	2/23/2017	8/25/2014	4.350	111.708	111.708	111.484	108.805	106.269	104.024	102.176	100.815
3/16/2007	3/16/2017	9/16/2014	4.090	111.247	111.247	110.953	108.242	105.712	103.518	101.764	100.566
3/21/2007	3/21/2017	9/22/2014	4.220	111.663	111.663	111.351	108.614	106.048	103.802	101.979	100.690
3/23/2007	3/23/2017	9/23/2014	4.290	111.880	111.880	111.561	108.812	106.228	103.957	102.104	100.765
3/23/2007	3/23/2017	9/23/2014	4.290	111.880	111.880	111.561	108.812	106.228	103.957	102.104	100.765
4/9/2007	4/10/2017	7/9/2014	4.150	111.700	111.700	111.318	108.538	105.950	103.703	101.901	100.649
4/12/2007	4/12/2017	7/14/2014	4.250	112.006	112.006	111.616	108.820	106.207	103.923	102.071	100.750
4/13/2007	4/13/2017	7/14/2014	4.450	112.583	112.583	112.187	109.372	106.719	104.373	102.438	100.997
4/27/2007	4/27/2017	7/28/2014	4.250	112.183	112.183	111.738	108.902	106.254	103.942	102.067	100.730
5/18/2007	5/18/2017	8/18/2014	4.190	112.255	112.255	111.733	108.853	106.177	103.857	101.996	100.683
5/22/2007	5/22/2017	8/22/2014	4.750	113.946	113.946	113.404	110.457	107.668	105.174	103.068	101.443
5/29/2007	5/30/2017	8/29/2014	4.250	112.572	112.572	112.006	109.085	106.369	104.008	102.111	100.760
6/7/2007	6/7/2017	9/8/2014	4.820	114.365	114.365	113.763	110.770	107.938	105.404	103.261	101.599
6/8/2007	6/8/2017	9/8/2014	4.490	113.394	113.394	112.792	109.826	107.050	104.608	102.599	101.100
6/11/2007	6/12/2017	9/11/2014	4.490	113.444	113.444	112.827	109.850	107.063	104.614	102.599	101.097
6/18/2007	6/19/2017	9/18/2014	4.500	113.562	113.562	112.918	109.920	107.115	104.649	102.619	101.103
6/19/2007	6/19/2017	9/19/2014	4.650	114.014	114.014	113.368	110.355	107.522	105.009	102.915	101.324
6/22/2007	6/22/2017	9/22/2014	4.500	113.599	113.599	112.944	109.937	107.125	104.653	102.618	101.097
6/28/2007	6/28/2017	9/29/2014	4.500	113.674	113.674	112.996	109.973	107.146	104.662	102.617	101.089
7/13/2007	7/13/2017	7/14/2014	4.290	113.215	113.215	112.481	109.447	106.640	104.210	102.251	100.842
7/20/2007	7/20/2017	7/21/2014	4.290	113.298	113.298	112.536	109.484	106.660	104.217	102.247	100.832
7/27/2007	7/27/2017	7/28/2014	4.250	113.257	113.257	112.467	109.401	106.572	104.129	102.167	100.774
7/30/2007	1/30/2019	7/30/2014	3.990	118.563	118.563	114.968	110.787	107.195	104.284	102.091	100.636
7/31/2007	7/31/2017	7/31/2014	3.990	112.490	112.490	111.691	108.656	105.892	103.549	101.724	100.484
7/31/2007	7/31/2017	7/31/2014	3.990	112.490	112.490	111.691	108.656	105.892	103.549	101.724	100.484

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/31/2007	7/31/2017	7/31/2014	4.060	112.709	112.709	111.908	108.862	106.081	103.708	101.849	100.564
8/2/2007	8/4/2014	8/4/2014	4.490	100.437	100.437	100.437	100.423	100.329	100.235	100.141	100.047
8/2/2007	8/2/2017	8/4/2014	4.150	113.014	113.014	112.203	109.142	106.337	103.934	102.031	100.707
8/2/2007	8/2/2017	8/4/2014	4.050	112.700	112.700	111.892	108.846	106.066	103.702	101.851	100.598
8/9/2007	8/9/2017	8/11/2014	3.990	112.590	112.590	111.753	108.699	105.918	103.567	101.742	100.526
8/16/2007	8/16/2017	8/18/2014	3.990	112.667	112.667	111.801	108.729	105.933	103.571	101.735	100.515
8/17/2007	8/17/2017	8/18/2014	4.000	112.710	112.710	111.839	108.763	105.962	103.594	101.752	100.525
8/20/2007	8/20/2014	8/20/2014	4.250	100.602	100.602	100.602	100.581	100.444	100.307	100.170	100.034
8/28/2007	8/28/2014	8/28/2014	4.350	100.713	100.713	100.713	100.688	100.529	100.371	100.213	100.055
8/30/2007	9/2/2014	9/2/2014	3.890	100.692	100.692	100.692	100.665	100.492	100.320	100.148	99.977
9/4/2007	9/5/2017	9/4/2014	3.890	112.566	112.566	111.622	108.522	105.727	103.389	101.601	100.453
9/10/2007	9/11/2017	9/10/2014	3.690	111.981	111.981	111.021	107.945	105.202	102.947	101.274	100.244
9/11/2007	9/11/2017	9/11/2014	3.590	111.657	111.657	110.701	107.645	104.938	102.730	101.117	100.158
9/12/2007	9/12/2014	9/12/2014	3.690	100.758	100.758	100.758	100.725	100.525	100.325	100.126	99.928
9/13/2007	9/15/2014	9/15/2014	3.990	100.853	100.853	100.853	100.819	100.610	100.401	100.194	99.988
9/13/2007	9/13/2017	9/15/2014	3.990	112.978	112.978	111.995	108.856	106.014	103.620	101.762	100.533
9/27/2007	9/29/2014	9/29/2014	4.490	101.135	101.135	101.135	101.092	100.843	100.596	100.351	100.106
9/27/2007	9/27/2017	9/29/2014	3.650	112.014	112.014	110.987	107.877	105.118	102.857	101.188	100.164
10/11/2007	10/14/2014	7/11/2014	4.180	101.231	101.231	101.231	101.175	100.886	100.599	100.314	100.061
10/11/2007	10/11/2017	7/11/2014	3.990	113.288	113.288	112.183	108.981	106.092	103.665	101.788	100.536
10/15/2007	10/16/2017	7/15/2014	3.990	113.343	113.343	112.214	109.000	106.102	103.667	101.786	100.532
10/25/2007	10/27/2014	7/25/2014	4.360	101.441	101.441	101.441	101.374	101.050	100.728	100.408	100.108
10/26/2007	10/26/2017	7/28/2014	3.390	111.431	111.431	110.291	107.190	104.491	102.340	100.823	100.070
11/2/2007	11/3/2014	8/4/2014	3.990	101.396	101.396	101.396	101.323	100.980	100.639	100.302	100.032
11/2/2007	11/3/2014	8/4/2014	4.190	101.466	101.466	101.466	101.393	101.050	100.709	100.371	100.074
11/5/2007	11/5/2014	8/5/2014	3.990	101.419	101.419	101.419	101.343	100.994	100.648	100.306	100.032
11/5/2007	11/6/2017	8/5/2014	4.390	114.937	114.937	113.693	110.365	107.319	104.696	102.588	101.054
11/6/2007	11/6/2017	8/6/2014	3.480	111.841	111.841	110.647	107.510	104.765	102.565	100.989	100.115
11/9/2007	11/10/2014	8/11/2014	4.330	101.600	101.600	101.600	101.518	101.156	100.795	100.438	100.117
11/13/2007	11/13/2014	8/13/2014	3.350	101.265	101.265	101.265	101.181	100.811	100.443	100.110	99.922
11/19/2007	11/19/2014	8/19/2014	4.270	101.684	101.684	101.684	101.593	101.205	100.820	100.440	100.103
11/19/2007	11/19/2014	8/19/2014	3.750	101.479	101.479	101.479	101.388	101.001	100.616	100.243	99.983
11/19/2007	11/20/2017	8/19/2014	4.290	114.764	114.764	113.415	109.903	106.482	103.188	100.015	96.958
11/20/2007	11/20/2017	8/20/2014	3.740	112.871	112.871	111.594	108.355	105.484	103.127	101.372	100.288
11/23/2007	11/24/2017	8/19/2014	3.990	113.776	113.776	112.408	108.900	105.486	102.198	99.032	95.983
11/23/2007	11/24/2017	8/24/2014	3.990	113.776	113.776	112.408	108.900	105.486	102.198	99.032	95.983
11/29/2007	11/29/2017	8/29/2014	2.950	110.226	110.226	108.987	105.962	103.425	101.529	100.348	99.853
11/30/2007	11/30/2017	9/2/2014	3.190	111.067	111.067	109.794	106.683	104.028	101.977	100.622	99.965
12/10/2007	12/11/2017	9/10/2014	3.450	112.074	112.074	110.728	107.525	104.744	102.530	100.955	100.081
12/24/2007	12/26/2017	9/24/2014	3.990	114.130	114.130	112.596	108.997	105.500	102.135	98.898	95.782
1/3/2008	1/5/2015	10/3/2014	3.650	101.916	101.916	101.916	101.772	101.257	100.749	100.284	100.007
1/4/2008	1/4/2018	7/7/2014	3.360	111.983	111.983	110.536	107.319	104.551	102.372	100.849	100.106
1/7/2008	1/7/2015	7/7/2014	3.490	101.852	101.852	101.852	101.705	101.185	100.673	100.215	99.990
1/7/2008	1/8/2018	7/7/2014	2.590	109.266	109.266	107.920	105.004	102.643	100.982	100.126	99.973
1/8/2008	1/8/2018	7/8/2014	2.570	109.194	109.194	107.852	104.944	102.596	100.950	100.115	99.968
1/8/2008	1/8/2018	7/8/2014	2.640	109.444	109.444	108.089	105.146	102.756	101.057	100.147	99.970
1/11/2008	1/11/2018	7/11/2014	2.720	109.753	109.753	108.368	105.383	102.940	101.179	100.182	99.961
1/14/2008	1/16/2018	7/14/2014	3.240	111.663	111.663	110.171	106.969	104.238	102.119	100.683	100.034
1/16/2008	1/16/2018	7/16/2014	2.380	108.567	108.567	107.232	104.412	102.180	100.671	100.015	99.928
1/17/2008	1/17/2018	7/17/2014	2.250	108.105	108.105	106.797	104.054	101.908	100.517	99.963	99.917
1/18/2008	1/20/2015	7/18/2014	2.350	101.332	101.332	101.332	101.171	100.621	100.132	99.966	99.918
1/18/2008	1/18/2018	7/18/2014	2.290	108.256	108.256	106.933	104.164	101.988	100.561	99.970	99.915
2/14/2008	2/14/2018	8/14/2014	3.190	111.740	111.740	109.946	106.249	102.670	99.232	95.928	92.754
2/25/2008	2/26/2018	8/25/2014	2.420	108.987	108.987	107.480	104.576	102.280	100.717	99.988	99.755
3/7/2008	3/9/2015	9/8/2014	2.890	102.023	102.023	102.023	101.808	101.119	100.477	100.031	99.783
3/7/2008	3/7/2018	9/8/2014	3.550	113.272	113.272	111.511	108.114	105.178	102.832	101.148	100.164
3/14/2008	3/14/2018	9/15/2014	2.400	109.019	109.019	107.459	104.551	102.261	100.717	99.965	99.655
3/17/2008	3/19/2018	9/17/2014	3.300	112.447	112.447	110.660	107.322	104.488	102.283	100.769	99.988
4/14/2008	4/14/2015	7/14/2014	2.750	102.200	102.200	102.200	101.942	101.153	100.377	99.613	98.861

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
4/28/2008	4/28/2015	7/28/2014	3.250	102.726	102.726	102.726	102.449	101.622	100.836	100.190	99.942
4/28/2008	4/30/2018	7/28/2014	2.150	108.360	108.360	106.684	103.885	101.747	100.400	99.931	99.856
4/30/2008	4/30/2018	7/30/2014	3.740	114.543	114.543	112.328	108.385	104.573	100.917	97.411	94.048
5/2/2008	5/4/2015	8/4/2014	3.990	103.413	103.413	103.413	103.128	102.280	101.455	100.698	100.144
5/5/2008	5/5/2015	8/5/2014	3.170	102.721	102.721	102.721	102.434	101.589	100.798	100.187	99.922
5/19/2008	5/19/2015	8/21/2014	4.700	104.217	104.217	104.217	103.908	103.017	102.140	101.279	100.433
5/23/2008	5/23/2018	8/25/2014	3.270	112.925	112.925	110.828	107.389	104.490	102.255	100.733	99.995
6/24/2008	6/24/2015	9/24/2014	3.830	103.819	103.819	103.819	103.454	102.468	101.516	100.666	100.065
6/30/2008	7/2/2018	9/30/2014	3.690	114.995	114.995	112.419	108.303	104.334	100.534	96.897	93.413
7/10/2008	7/10/2014	7/10/2014	4.800	100.133	100.133	100.133	100.130	100.103	100.076	100.049	100.022
7/11/2008	7/11/2018	7/11/2014	3.750	115.332	115.332	112.703	108.558	104.561	100.736	97.074	93.569
7/14/2008	7/14/2015	7/15/2014	4.900	105.158	105.158	105.158	104.753	103.703	102.671	101.657	100.660
7/14/2008	7/16/2018	7/14/2014	2.500	110.256	110.256	108.137	105.020	102.569	100.891	100.084	99.942
7/14/2008	7/16/2018	7/14/2014	3.250	113.333	113.333	110.980	107.463	104.522	102.267	100.746	100.052
7/17/2008	7/17/2018	7/17/2014	3.750	115.395	115.395	112.731	108.569	104.557	100.718	97.043	93.526
8/15/2008	8/15/2018	8/15/2014	3.830	116.032	116.032	113.404	109.605	106.319	103.663	101.690	100.448
5/11/2010	5/11/2015	5/11/2015	3.700	103.237	103.237	103.237	102.942	102.071	101.161	99.973	98.451
5/24/2010	5/26/2015	8/26/2014	2.250	102.062	102.062	102.062	101.747	100.847	99.963	99.095	98.242
6/15/2010	6/15/2015	8/15/2014	2.280	102.216	102.216	102.216	101.869	100.914	99.978	99.059	98.157
10/8/2010	10/8/2015	10/9/2012	2.250	102.906	102.906	102.906	102.294	101.023	99.774	98.546	97.338
12/27/2011	12/27/2021	12/29/2014	3.550	126.988	122.203	114.391	106.971	99.012	86.732	75.381	64.885
4/27/2012	4/27/2016	4/27/2013	1.430	102.649	102.649	102.649	101.305	99.502	97.740	96.017	94.332
4/30/2012	5/2/2016	4/30/2013	1.380	102.576	102.576	102.576	101.211	99.396	97.622	95.888	94.192
5/15/2012	5/15/2017	8/15/2014	1.950	105.687	105.687	105.169	102.280	99.467	96.745	94.112	91.563
5/15/2012	5/15/2017	11/17/2014	-0.236	106.243	106.243	105.725	102.894	100.748	99.768	99.512	99.380
6/20/2012	6/20/2017	6/22/2015	1.630	104.916	104.916	104.263	101.287	96.506	91.867	87.396	83.087
7/16/2012	7/17/2017	7/16/2014	-0.221	105.242	105.242	104.481	101.429	99.952	99.909	99.867	99.824
7/18/2012	7/18/2018	7/20/2015	-0.222	107.834	107.834	105.185	101.911	100.321	99.604	99.379	99.287
7/19/2012	7/19/2017	7/21/2014	-0.222	105.150	105.150	104.382	101.326	99.951	99.895	99.839	99.783
10/1/2012	10/1/2019	4/1/2015	-0.127	110.000	109.837	104.534	101.046	99.962	99.737	99.725	99.715
10/5/2012	10/5/2017	10/6/2014	-0.120	104.891	104.891	103.781	100.903	100.002	99.921	99.911	99.902
3/8/2013	3/8/2018	3/9/2015	-0.039	105.333	105.333	103.438	100.772	99.817	99.479	99.275	99.089
5/7/2014	5/7/2018	5/7/2015	0.003	105.193	105.193	102.971	100.566	99.816	99.595	99.484	99.394