

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
1/7/2000	1/7/2015	1/7/2015	5.950	100.116	100.116	100.116	100.113	100.094	100.075	100.056	100.038
9/1/2005	9/1/2015	3/1/2015	4.130	102.799	102.799	102.799	102.528	101.856	101.193	100.538	99.892
9/30/2005	9/30/2015	3/31/2015	4.440	103.367	103.367	103.367	103.046	102.292	101.549	100.818	100.096
10/26/2005	10/26/2015	1/26/2015	4.540	103.771	103.771	103.771	103.400	102.576	101.765	100.967	100.181
1/17/2006	1/19/2016	1/20/2015	4.080	104.352	104.352	104.352	103.780	102.727	101.716	100.817	100.172
4/24/2006	4/25/2016	1/26/2015	4.440	105.932	105.932	105.932	105.000	103.677	102.423	101.299	100.429
5/5/2006	5/5/2016	2/5/2015	4.350	105.933	105.933	105.933	104.958	103.614	102.348	101.236	100.401
5/5/2006	5/5/2016	2/5/2015	4.530	106.178	106.178	106.178	105.202	103.852	102.572	101.424	100.526
5/15/2006	5/16/2016	2/17/2015	4.350	106.065	106.065	106.065	105.039	103.667	102.375	101.243	100.393
5/15/2006	5/16/2016	2/17/2015	4.520	106.303	106.303	106.303	105.275	103.896	102.591	101.424	100.512
5/19/2006	5/19/2016	2/19/2015	4.510	106.326	106.326	106.326	105.285	103.898	102.587	101.417	100.505
6/12/2006	6/13/2016	3/12/2015	4.620	106.801	106.801	106.801	105.639	104.186	102.814	101.589	100.619
6/26/2006	6/27/2016	3/26/2015	4.730	107.147	107.147	107.147	105.915	104.420	103.007	101.737	100.713
7/24/2006	7/25/2016	1/26/2015	4.660	107.404	107.404	107.404	106.028	104.467	102.999	101.699	100.667
7/28/2006	7/28/2016	1/28/2015	4.490	107.171	107.171	107.171	105.782	104.222	102.766	101.495	100.520
8/25/2006	8/25/2016	2/25/2015	4.350	107.286	107.286	107.286	105.752	104.132	102.641	101.371	100.431
11/24/2006	11/25/2016	2/24/2015	4.190	108.089	108.089	107.971	106.064	104.246	102.618	101.283	100.347
12/1/2006	12/1/2016	3/2/2015	4.090	107.964	107.964	107.830	105.916	104.103	102.497	101.195	100.314
12/4/2006	12/5/2016	3/4/2015	4.080	107.989	107.989	107.845	105.920	104.098	102.488	101.183	100.302
12/5/2006	12/5/2016	3/5/2015	4.260	108.342	108.342	108.198	106.262	104.417	102.763	101.403	100.437
12/8/2006	12/8/2016	3/9/2015	3.990	107.846	107.846	107.694	105.767	103.949	102.353	101.076	100.228
12/12/2006	12/12/2016	3/12/2015	3.990	107.891	107.891	107.727	105.789	103.961	102.357	101.074	100.222
12/12/2006	12/12/2016	3/12/2015	4.050	108.009	108.009	107.846	105.904	104.068	102.450	101.143	100.265
12/19/2006	12/19/2016	3/19/2015	4.190	108.368	108.368	108.185	106.214	104.343	102.678	101.315	100.365
12/28/2006	12/28/2016	3/30/2015	4.250	108.594	108.594	108.387	106.387	104.486	102.790	101.394	100.402
12/28/2006	12/28/2016	3/30/2015	4.400	108.897	108.897	108.690	106.682	104.764	103.034	101.591	100.533
1/12/2007	1/12/2017	1/12/2015	4.420	109.122	109.122	108.873	106.825	104.874	103.117	101.655	100.577
1/16/2007	1/17/2017	1/16/2015	4.790	109.952	109.952	109.688	107.608	105.605	103.769	102.184	100.943
2/2/2007	2/2/2017	2/2/2015	4.690	109.953	109.953	109.642	107.497	105.381	103.318	101.306	99.343
2/20/2007	2/21/2017	2/20/2015	4.390	109.548	109.548	109.186	107.028	104.984	103.159	101.648	100.559
2/20/2007	2/21/2017	2/20/2015	4.850	110.548	110.548	110.183	107.976	105.800	103.678	101.610	99.594
2/23/2007	2/23/2017	2/23/2015	4.250	109.267	109.267	108.901	106.746	104.716	102.922	101.461	100.434
2/23/2007	2/23/2017	2/23/2015	4.350	109.485	109.485	109.118	106.956	104.913	103.094	101.594	100.520
3/16/2007	3/16/2017	3/16/2015	4.090	109.156	109.156	108.726	106.531	104.483	102.702	101.280	100.324
3/21/2007	3/21/2017	3/23/2015	4.220	109.506	109.506	109.058	106.838	104.758	102.927	101.453	100.423
3/23/2007	3/23/2017	3/23/2015	4.290	109.688	109.688	109.233	107.001	104.905	103.053	101.548	100.483
3/23/2007	3/23/2017	3/23/2015	4.290	109.688	109.688	109.233	107.001	104.905	103.053	101.548	100.483
4/9/2007	4/10/2017	1/9/2015	4.150	109.579	109.579	109.067	106.803	104.696	102.860	101.392	100.384
4/12/2007	4/12/2017	1/12/2015	4.250	109.833	109.833	109.314	107.035	104.906	103.036	101.528	100.467
4/13/2007	4/13/2017	1/13/2015	4.450	110.309	110.309	109.783	107.486	105.322	103.400	101.812	100.654
4/27/2007	4/27/2017	1/27/2015	4.250	110.010	110.010	109.440	107.119	104.955	103.055	101.521	100.445
5/18/2007	5/18/2017	2/18/2015	4.190	110.114	110.114	109.469	107.103	104.907	102.998	101.473	100.428
5/22/2007	5/22/2017	2/23/2015	4.750	111.518	111.518	110.852	108.428	106.132	104.065	102.319	100.982
5/29/2007	5/30/2017	3/2/2015	4.250	110.400	110.400	109.711	107.307	105.072	103.121	101.555	100.485
6/7/2007	6/7/2017	3/9/2015	4.820	111.902	111.902	111.177	108.707	106.370	104.263	102.482	101.108
6/8/2007	6/8/2017	3/9/2015	4.490	111.100	111.100	110.375	107.929	105.638	103.614	101.946	100.731
6/11/2007	6/12/2017	3/11/2015	4.490	111.150	111.150	110.410	107.953	105.652	103.620	101.946	100.727
6/18/2007	6/19/2017	3/18/2015	4.500	111.262	111.262	110.496	108.018	105.700	103.651	101.961	100.730
6/19/2007	6/19/2017	3/19/2015	4.650	111.637	111.637	110.870	108.379	106.035	103.947	102.202	100.891
6/22/2007	6/22/2017	3/23/2015	4.500	111.299	111.299	110.523	108.037	105.710	103.655	101.960	100.726
6/28/2007	6/28/2017	3/30/2015	4.500	111.374	111.374	110.576	108.073	105.732	103.665	101.961	100.721
7/13/2007	7/13/2017	1/13/2015	4.290	111.022	111.022	110.171	107.654	105.327	103.302	101.682	100.541
7/20/2007	7/20/2017	1/20/2015	4.290	111.106	111.106	110.227	107.691	105.348	103.310	101.679	100.530
7/27/2007	7/27/2017	1/27/2015	4.250	111.085	111.085	110.180	107.629	105.279	103.241	101.615	100.481
7/30/2007	1/30/2019	1/30/2015	3.990	116.524	116.524	113.264	109.506	106.265	103.638	101.678	100.405
7/31/2007	7/31/2017	2/2/2015	3.990	110.451	110.451	109.540	107.019	104.724	102.780	101.271	100.298
7/31/2007	7/31/2017	2/2/2015	3.990	110.451	110.451	109.540	107.019	104.724	102.780	101.271	100.298
7/31/2007	7/31/2017	2/2/2015	4.060	110.634	110.634	109.721	107.190	104.879	102.910	101.367	100.355

As of: 12/31/2014 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
8/2/2007	8/2/2017	2/2/2015	4.150	110.893	110.893	109.970	107.423	105.093	103.089	101.511	100.453
8/2/2007	8/2/2017	2/2/2015	4.050	110.631	110.631	109.711	107.179	104.869	102.903	101.373	100.368
8/9/2007	8/9/2017	2/9/2015	3.990	110.551	110.551	109.605	107.063	104.752	102.794	101.285	100.308
8/16/2007	8/16/2017	2/17/2015	3.990	110.628	110.628	109.655	107.094	104.767	102.796	101.278	100.295
8/17/2007	8/17/2017	2/17/2015	4.000	110.666	110.666	109.688	107.123	104.792	102.815	101.292	100.303
9/4/2007	9/5/2017	3/4/2015	3.890	110.578	110.578	109.532	106.944	104.611	102.662	101.177	100.242
9/10/2007	9/11/2017	3/10/2015	3.690	110.096	110.096	109.035	106.468	104.182	102.302	100.913	100.098
9/11/2007	9/11/2017	3/11/2015	3.590	109.822	109.822	108.767	106.219	103.967	102.129	100.798	100.047
9/13/2007	9/13/2017	3/13/2015	3.990	110.939	110.939	109.856	107.230	104.853	102.848	101.303	100.304
9/27/2007	9/27/2017	3/27/2015	3.650	110.148	110.148	109.029	106.427	104.121	102.232	100.847	100.045
10/11/2007	10/11/2017	1/12/2015	3.990	111.249	111.249	110.059	107.366	104.939	102.898	101.331	100.300
10/15/2007	10/16/2017	1/15/2015	3.990	111.304	111.304	110.094	107.388	104.949	102.901	101.329	100.297
10/26/2007	10/26/2017	1/26/2015	3.390	109.698	109.698	108.488	105.882	103.623	101.825	100.575	99.999
11/5/2007	11/6/2017	2/5/2015	4.390	112.694	112.694	111.381	108.565	105.987	103.760	101.973	100.706
11/6/2007	11/6/2017	2/6/2015	3.480	110.062	110.062	108.805	106.162	103.859	102.013	100.709	100.047
11/19/2007	11/20/2017	2/19/2015	4.290	112.571	112.571	111.169	108.193	105.293	102.487	99.771	97.143
11/20/2007	11/20/2017	2/20/2015	3.740	110.960	110.960	109.625	106.887	104.461	102.474	101.000	100.130
11/23/2007	11/24/2017	2/23/2015	3.990	111.736	111.736	110.319	107.344	104.446	101.642	98.929	96.303
11/23/2007	11/24/2017	2/24/2015	3.990	111.736	111.736	110.319	107.344	104.446	101.642	98.929	96.303
11/29/2007	11/29/2017	3/2/2015	2.950	108.718	108.718	107.428	104.888	102.762	101.177	100.216	99.814
11/30/2007	11/30/2017	3/2/2015	3.190	109.436	109.436	108.113	105.491	103.258	101.541	100.425	99.893
12/10/2007	12/11/2017	3/10/2015	3.450	110.311	110.311	108.921	106.211	103.865	101.994	100.690	99.993
12/24/2007	12/26/2017	3/24/2015	3.990	112.091	112.091	110.538	107.472	104.491	101.608	98.822	96.127
1/3/2008	1/5/2015	1/5/2015	3.650	100.051	100.051	100.051	100.049	100.035	100.022	100.008	99.995
1/4/2008	1/4/2018	1/5/2015	3.360	110.266	110.266	108.798	106.064	103.720	101.877	100.618	100.039
1/7/2008	1/7/2015	1/7/2015	3.490	100.068	100.068	100.068	100.065	100.046	100.028	100.009	99.990
1/7/2008	1/8/2018	1/7/2015	2.590	107.942	107.942	106.582	104.126	102.154	100.765	100.083	99.972
1/8/2008	1/8/2018	1/8/2015	2.570	107.881	107.881	106.525	104.078	102.115	100.741	100.074	99.968
1/8/2008	1/8/2018	1/8/2015	2.640	108.095	108.095	106.725	104.244	102.244	100.823	100.102	99.970
1/11/2008	1/11/2018	1/12/2015	2.720	108.363	108.363	106.966	104.444	102.394	100.916	100.130	99.957
1/14/2008	1/16/2018	1/14/2015	3.240	110.007	110.007	108.505	105.781	103.467	101.677	100.480	99.974
1/16/2008	1/16/2018	1/16/2015	2.380	107.351	107.351	106.010	103.638	101.772	100.525	99.983	99.928
1/17/2008	1/17/2018	1/20/2015	2.250	106.955	106.955	105.645	103.341	101.556	100.394	99.956	99.903
1/18/2008	1/20/2015	1/20/2015	2.350	100.131	100.131	100.131	100.123	100.069	100.015	99.962	99.908
1/18/2008	1/18/2018	1/20/2015	2.290	107.085	107.085	105.760	103.434	101.621	100.430	99.958	99.905
2/14/2008	2/14/2018	2/14/2015	3.190	110.110	110.110	108.352	105.178	102.100	99.130	96.261	93.492
2/25/2008	2/26/2018	2/25/2015	2.420	107.750	107.750	106.257	103.800	101.866	100.564	99.947	99.725
3/7/2008	3/9/2015	3/9/2015	2.890	100.546	100.546	100.546	100.514	100.323	100.133	99.943	99.754
3/7/2008	3/7/2018	3/9/2015	3.550	111.458	111.458	109.726	106.807	104.285	102.274	100.846	100.056
3/14/2008	3/14/2018	3/16/2015	2.400	107.793	107.793	106.256	103.793	101.859	100.573	99.923	99.633
3/17/2008	3/19/2018	3/17/2015	3.300	110.761	110.761	109.013	106.142	103.710	101.823	100.564	99.912
4/14/2008	4/14/2015	1/14/2015	2.750	100.794	100.794	100.794	100.733	100.444	100.156	99.870	99.586
4/28/2008	4/28/2015	1/28/2015	3.250	101.065	101.065	101.065	100.989	100.660	100.334	100.063	99.941
4/28/2008	4/30/2018	1/28/2015	2.150	107.261	107.261	105.647	103.256	101.446	100.295	99.931	99.856
4/30/2008	4/30/2018	1/30/2015	3.740	112.632	112.632	110.531	107.119	103.815	100.631	97.564	94.607
5/2/2008	5/4/2015	2/2/2015	3.990	101.374	101.374	101.374	101.290	100.944	100.601	100.263	100.021
5/5/2008	5/5/2015	2/5/2015	3.170	101.101	101.101	101.101	101.015	100.667	100.324	100.042	99.911
5/19/2008	5/19/2015	2/21/2015	4.700	101.815	101.815	101.815	101.708	101.322	100.938	100.558	100.180
5/23/2008	5/23/2018	2/23/2015	3.270	111.253	111.253	109.246	106.258	103.749	101.817	100.539	99.932
6/24/2008	6/24/2015	3/24/2015	3.830	101.862	101.862	101.862	101.700	101.215	100.736	100.292	99.948
6/30/2008	7/2/2018	3/30/2015	3.690	113.109	113.109	110.708	107.123	103.659	100.328	97.123	94.039
7/11/2008	7/11/2018	1/11/2015	3.750	113.416	113.416	110.970	107.356	103.866	100.509	97.281	94.175
7/14/2008	7/14/2015	1/14/2015	4.900	102.654	102.654	102.654	102.460	101.920	101.384	100.855	100.331
7/14/2008	7/16/2018	1/14/2015	2.500	108.978	108.978	106.972	104.266	102.156	100.721	100.050	99.941
7/14/2008	7/16/2018	1/14/2015	3.250	111.672	111.672	109.450	106.373	103.807	101.846	100.549	99.992
7/17/2008	7/17/2018	1/17/2015	3.750	113.478	113.478	111.003	107.373	103.867	100.496	97.254	94.136
8/15/2008	8/15/2018	2/17/2015	3.830	114.074	114.074	111.613	108.266	105.368	103.024	101.306	100.259
5/11/2010	5/11/2015	5/11/2015	3.700	101.346	101.346	101.346	101.252	100.888	100.526	100.063	99.424

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
5/24/2010	5/26/2015	2/26/2015	2.250	100.912	100.912	100.912	100.796	100.393	99.994	99.597	99.204
6/15/2010	6/15/2015	2/15/2015	2.280	101.051	101.051	101.051	100.904	100.446	99.993	99.543	99.098
10/8/2010	10/8/2015	10/9/2012	2.250	101.756	101.756	101.756	101.422	100.654	99.898	99.153	98.419
12/27/2011	12/27/2021	3/29/2015	3.550	125.173	122.015	114.670	107.691	101.186	95.130	89.491	84.236
4/27/2012	4/27/2016	4/27/2013	1.430	101.918	101.918	101.918	100.991	99.679	98.390	97.123	95.878
4/30/2012	5/2/2016	4/30/2013	1.380	101.870	101.870	101.870	100.921	99.596	98.295	97.016	95.760
5/15/2012	5/15/2017	5/15/2014	1.950	104.690	104.690	104.050	101.670	99.347	97.088	94.891	92.755
5/15/2012	5/15/2017	11/17/2014	2.510	106.037	106.037	105.396	103.003	100.663	98.389	96.177	94.025
6/20/2012	6/20/2017	6/22/2015	1.630	104.083	104.083	103.312	100.843	96.726	92.520	88.444	84.493
7/16/2012	7/17/2017	7/16/2014	1.720	104.438	104.438	103.563	101.019	98.543	96.139	93.807	91.542
7/18/2012	7/18/2018	7/20/2015	-0.219	108.070	108.070	105.611	102.442	100.589	99.852	99.634	99.573
7/19/2012	7/19/2017	7/21/2014	1.690	104.370	104.370	103.487	100.939	98.458	96.051	93.715	91.447
10/1/2012	10/1/2019	4/1/2015	-0.127	110.185	110.185	105.569	101.604	100.110	99.928	99.918	99.917
10/5/2012	10/5/2017	10/6/2014	1.630	104.568	104.568	103.374	100.620	97.946	95.356	92.847	90.416
3/8/2013	3/8/2018	3/9/2015	-0.035	105.485	105.485	103.650	100.916	99.911	99.660	99.470	99.282
5/7/2014	5/7/2018	5/7/2015	0.012	105.306	105.306	103.204	100.710	99.931	99.722	99.616	99.513
10/16/2014	10/16/2018	10/17/2016	0.009	104.639	104.639	102.103	100.597	99.826	99.436	99.244	99.163
10/24/2014	10/24/2018	10/26/2015	0.003	105.106	105.106	102.290	100.455	99.861	99.712	99.659	99.629
10/24/2014	10/24/2018	10/26/2015	0.004	105.106	105.106	102.291	100.455	99.861	99.712	99.660	99.629
