

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	3/1/2015	4.130	102.122	102.122	102.122	101.963	101.449	100.940	100.436	99.937
9/30/2005	9/30/2015	3/31/2015	4.440	102.639	102.639	102.639	102.436	101.843	101.257	100.677	100.104
10/26/2005	10/26/2015	4/26/2015	4.540	103.026	103.026	103.026	102.781	102.115	101.458	100.809	100.168
1/17/2006	1/19/2016	4/17/2015	4.080	103.683	103.683	103.683	103.277	102.391	101.533	100.752	100.171
4/24/2006	4/25/2016	4/24/2015	4.440	105.204	105.204	105.204	104.530	103.369	102.251	101.244	100.445
5/5/2006	5/5/2016	5/5/2015	4.350	105.220	105.220	105.220	104.511	103.325	102.193	101.187	100.415
5/5/2006	5/5/2016	5/5/2015	4.530	105.436	105.436	105.436	104.726	103.538	102.395	101.365	100.541
5/15/2006	5/16/2016	5/15/2015	4.350	105.353	105.353	105.353	104.604	103.389	102.230	101.200	100.410
5/15/2006	5/16/2016	5/15/2015	4.520	105.562	105.562	105.562	104.813	103.594	102.424	101.371	100.533
5/19/2006	5/19/2016	5/19/2015	4.510	105.587	105.587	105.587	104.827	103.601	102.424	101.366	100.525
6/12/2006	6/13/2016	3/12/2015	4.620	106.044	106.044	106.044	105.185	103.891	102.651	101.534	100.633
6/26/2006	6/27/2016	3/26/2015	4.730	106.372	106.372	106.372	105.453	104.118	102.838	101.674	100.717
7/24/2006	7/25/2016	4/24/2015	4.660	106.640	106.640	106.640	105.602	104.195	102.858	101.658	100.694
7/28/2006	7/28/2016	4/28/2015	4.490	106.435	106.435	106.435	105.386	103.976	102.645	101.469	100.551
8/25/2006	8/25/2016	5/26/2015	4.350	106.573	106.573	106.573	105.396	103.922	102.546	101.359	100.467
11/24/2006	11/25/2016	5/26/2015	4.190	107.402	107.402	107.402	105.771	104.086	102.562	101.295	100.392
12/1/2006	12/1/2016	6/1/2015	4.090	107.293	107.293	107.293	105.637	103.952	102.445	101.211	100.347
12/4/2006	12/5/2016	3/4/2015	4.080	107.321	107.321	107.321	105.644	103.950	102.437	101.200	100.333
12/5/2006	12/5/2016	3/5/2015	4.260	107.644	107.644	107.644	105.961	104.251	102.702	101.412	100.477
12/8/2006	12/8/2016	3/9/2015	3.990	107.193	107.193	107.193	105.505	103.812	102.308	101.095	100.258
12/12/2006	12/12/2016	3/12/2015	3.990	107.237	107.237	107.237	105.529	103.825	102.312	101.092	100.254
12/12/2006	12/12/2016	3/12/2015	4.050	107.346	107.346	107.346	105.635	103.925	102.402	101.162	100.292
12/19/2006	12/19/2016	3/19/2015	4.190	107.681	107.681	107.681	105.930	104.190	102.624	101.327	100.398
12/28/2006	12/28/2016	3/30/2015	4.250	107.897	107.897	107.897	106.098	104.331	102.734	101.403	100.438
12/28/2006	12/28/2016	3/30/2015	4.400	108.176	108.176	108.176	106.372	104.591	102.967	101.596	100.571
1/12/2007	1/12/2017	4/13/2015	4.420	108.398	108.398	108.382	106.517	104.703	103.053	101.662	100.624
1/16/2007	1/17/2017	4/16/2015	4.790	109.167	109.167	109.144	107.249	105.392	103.677	102.182	100.995
2/2/2007	2/2/2017	5/2/2015	4.690	109.184	109.184	109.138	107.167	105.207	103.293	101.423	99.595
2/20/2007	2/21/2017	2/21/2012	4.850	109.753	109.753	109.656	107.627	105.617	103.656	101.741	99.872
2/20/2007	2/21/2017	5/20/2015	4.390	108.828	108.828	108.731	106.734	104.826	103.107	101.673	100.621
2/23/2007	2/23/2017	5/26/2015	4.250	108.570	108.570	108.468	106.472	104.573	102.877	101.488	100.490
2/23/2007	2/23/2017	5/26/2015	4.350	108.772	108.772	108.670	106.668	104.759	103.044	101.619	100.581
3/16/2007	3/16/2017	3/16/2015	4.090	108.486	108.486	108.340	106.296	104.370	102.677	101.313	100.364
3/21/2007	3/21/2017	3/23/2015	4.220	108.815	108.815	108.659	106.592	104.636	102.900	101.483	100.471
3/23/2007	3/23/2017	3/23/2015	4.290	108.985	108.985	108.825	106.749	104.779	103.022	101.578	100.533
3/23/2007	3/23/2017	3/23/2015	4.290	108.985	108.985	108.825	106.749	104.779	103.022	101.578	100.533
4/9/2007	4/10/2017	4/9/2015	4.150	108.899	108.899	108.698	106.583	104.593	102.843	101.432	100.453
4/12/2007	4/12/2017	4/13/2015	4.250	109.137	109.137	108.930	106.803	104.796	103.017	101.565	100.534
4/13/2007	4/13/2017	4/13/2015	4.450	109.579	109.579	109.369	107.228	105.193	103.368	101.846	100.717
4/27/2007	4/27/2017	4/27/2015	4.250	109.314	109.314	109.067	106.897	104.853	103.043	101.569	100.523
5/18/2007	5/18/2017	5/18/2015	4.190	109.427	109.427	109.125	106.904	104.823	102.995	101.525	100.496
5/22/2007	5/22/2017	5/22/2015	4.750	110.740	110.740	110.426	108.161	105.996	104.037	102.362	101.066
5/29/2007	5/30/2017	5/29/2015	4.250	109.704	109.704	109.370	107.111	104.992	103.121	101.609	100.537
6/7/2007	6/7/2017	3/9/2015	4.820	111.112	111.112	110.753	108.443	106.236	104.236	102.527	101.197
6/8/2007	6/8/2017	3/9/2015	4.490	110.364	110.364	110.003	107.709	105.539	103.606	101.999	100.811
6/11/2007	6/12/2017	3/11/2015	4.490	110.414	110.414	110.041	107.735	105.556	103.614	102.000	100.807
6/18/2007	6/19/2017	3/18/2015	4.500	110.524	110.524	110.131	107.804	105.606	103.647	102.017	100.809
6/19/2007	6/19/2017	3/19/2015	4.650	110.875	110.875	110.481	108.145	105.927	103.934	102.256	100.972
6/22/2007	6/22/2017	3/23/2015	4.500	110.562	110.562	110.159	107.823	105.618	103.653	102.018	100.803
6/28/2007	6/28/2017	3/30/2015	4.500	110.637	110.637	110.216	107.863	105.643	103.665	102.019	100.795
7/13/2007	7/13/2017	4/13/2015	4.290	110.319	110.319	109.857	107.483	105.264	103.319	101.744	100.620
7/20/2007	7/20/2017	4/20/2015	4.290	110.403	110.403	109.920	107.526	105.291	103.331	101.744	100.615
7/27/2007	7/27/2017	4/27/2015	4.250	110.388	110.388	109.886	107.476	105.231	103.268	101.686	100.572
7/30/2007	1/30/2019	4/30/2015	3.990	115.870	115.870	113.390	109.698	106.487	103.866	101.886	100.580
7/31/2007	7/31/2017	4/30/2015	3.990	109.797	109.797	109.287	106.893	104.695	102.814	101.344	100.356
7/31/2007	7/31/2017	4/30/2015	3.990	109.797	109.797	109.287	106.893	104.695	102.814	101.344	100.356
7/31/2007	7/31/2017	4/30/2015	4.060	109.969	109.969	109.458	107.057	104.845	102.940	101.442	100.416
8/2/2007	8/2/2017	5/4/2015	4.150	110.213	110.213	109.695	107.283	105.052	103.120	101.586	100.532

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	109.967	109.967	109.450	107.048	104.836	102.934	101.445	100.440
8/9/2007	8/9/2017	5/11/2015	3.990	109.897	109.897	109.358	106.944	104.727	102.832	101.357	100.376
8/16/2007	8/16/2017	5/18/2015	3.990	109.974	109.974	109.414	106.980	104.747	102.838	101.352	100.363
8/17/2007	8/17/2017	5/18/2015	4.000	110.010	110.010	109.446	107.009	104.771	102.857	101.366	100.372
9/4/2007	9/5/2017	3/4/2015	3.890	109.940	109.940	109.318	106.849	104.604	102.707	101.253	100.296
9/10/2007	9/11/2017	3/10/2015	3.690	109.491	109.491	108.853	106.397	104.185	102.351	100.983	100.186
9/11/2007	9/11/2017	3/11/2015	3.590	109.234	109.234	108.598	106.157	103.973	102.178	100.861	100.142
9/13/2007	9/13/2017	3/13/2015	3.990	110.285	110.285	109.634	107.131	104.845	102.896	101.382	100.363
9/27/2007	9/27/2017	3/27/2015	3.650	109.550	109.550	108.861	106.367	104.131	102.285	100.912	100.144
10/11/2007	10/11/2017	4/13/2015	3.990	110.595	110.595	109.855	107.283	104.943	102.954	101.414	100.397
10/15/2007	10/16/2017	4/15/2015	3.990	110.650	110.650	109.895	107.309	104.957	102.959	101.413	100.394
10/26/2007	10/26/2017	4/27/2015	3.390	109.143	109.143	108.375	105.859	103.654	101.882	100.638	99.995
11/5/2007	11/6/2017	5/5/2015	4.390	111.974	111.974	111.143	108.460	105.979	103.823	102.075	100.816
11/6/2007	11/6/2017	5/6/2015	3.480	109.492	109.492	108.687	106.136	103.890	102.076	100.780	100.060
11/19/2007	11/20/2017	11/19/2012	4.290	111.868	111.868	110.972	108.167	105.425	102.767	100.190	97.692
11/20/2007	11/20/2017	5/20/2015	3.740	110.347	110.347	109.482	106.848	104.491	102.543	101.086	100.184
11/23/2007	11/24/2017	11/23/2011	3.990	111.083	111.083	110.173	107.366	104.624	101.967	99.392	96.895
11/23/2007	11/24/2017	11/23/2011	3.990	111.083	111.083	110.173	107.366	104.624	101.967	99.392	96.895
11/29/2007	11/29/2017	5/29/2015	2.950	108.235	108.235	107.379	104.898	102.801	101.222	100.243	99.994
11/30/2007	11/30/2017	6/1/2015	3.190	108.914	108.914	108.038	105.490	103.300	101.594	100.468	100.002
12/10/2007	12/11/2017	3/10/2015	3.450	109.746	109.746	108.826	106.203	103.906	102.062	100.759	100.098
12/24/2007	12/26/2017	12/24/2012	3.990	111.437	111.437	110.419	107.521	104.694	101.956	99.305	96.737
1/4/2008	1/4/2018	4/6/2015	3.360	109.715	109.715	108.728	106.073	103.771	101.947	100.677	100.041
1/7/2008	1/8/2018	4/7/2015	2.590	107.517	107.517	106.585	104.156	102.193	100.800	100.070	99.853
1/8/2008	1/8/2018	4/8/2015	2.570	107.459	107.459	106.529	104.107	102.154	100.775	100.061	99.847
1/8/2008	1/8/2018	4/8/2015	2.640	107.663	107.663	106.724	104.275	102.285	100.860	100.087	99.856
1/11/2008	1/11/2018	4/13/2015	2.720	107.917	107.917	106.960	104.477	102.437	100.961	100.121	99.846
1/14/2008	1/16/2018	4/14/2015	3.240	109.476	109.476	108.456	105.799	103.524	101.743	100.546	99.977
1/16/2008	1/16/2018	4/16/2015	2.380	106.961	106.961	106.030	103.671	101.806	100.549	99.974	99.784
1/17/2008	1/17/2018	4/17/2015	2.250	106.587	106.587	105.673	103.374	101.582	100.425	99.926	99.761
1/18/2008	1/18/2018	4/20/2015	2.290	106.710	106.710	105.787	103.466	101.650	100.462	99.933	99.751
2/14/2008	2/14/2018	2/14/2012	3.190	109.587	109.587	108.390	105.378	102.451	99.621	96.884	94.237
2/25/2008	2/26/2018	5/26/2015	2.420	107.353	107.353	106.283	103.838	101.907	100.601	99.931	99.611
3/7/2008	3/9/2015	3/9/2015	2.890	100.072	100.072	100.072	100.069	100.045	100.021	99.996	99.972
3/7/2008	3/7/2018	3/9/2015	3.550	110.876	110.876	109.664	106.827	104.353	102.366	100.935	100.160
3/14/2008	3/14/2018	3/16/2015	2.400	107.399	107.399	106.295	103.837	101.901	100.601	100.015	99.929
3/17/2008	3/19/2018	3/17/2015	3.300	110.220	110.220	108.990	106.185	103.784	101.907	100.629	100.033
4/14/2008	4/14/2015	4/14/2015	2.750	100.344	100.344	100.344	100.327	100.204	100.082	99.960	99.839
4/28/2008	4/28/2015	4/28/2015	3.250	100.533	100.533	100.533	100.509	100.348	100.187	100.027	99.867
4/28/2008	4/30/2018	4/28/2015	2.150	106.909	106.909	105.725	103.315	101.485	100.346	99.870	99.687
4/30/2008	4/30/2018	4/30/2013	3.740	112.019	112.019	110.550	107.301	104.146	101.102	98.164	95.328
5/2/2008	5/4/2015	5/4/2015	3.990	100.720	100.720	100.720	100.694	100.516	100.339	100.162	99.986
5/5/2008	5/5/2015	5/5/2015	3.170	100.581	100.581	100.581	100.554	100.374	100.194	100.015	99.836
5/19/2008	5/19/2015	5/19/2015	4.700	101.044	101.044	101.044	101.010	100.791	100.573	100.356	100.141
5/23/2008	5/23/2018	5/26/2015	3.270	110.717	110.717	109.274	106.339	103.850	101.917	100.620	99.928
6/24/2008	6/24/2015	3/24/2015	3.830	101.234	101.234	101.234	101.169	100.851	100.536	100.222	100.001
6/30/2008	7/2/2018	6/30/2011	3.690	112.504	112.504	110.791	107.366	104.048	100.851	97.770	94.801
7/11/2008	7/11/2018	7/11/2012	3.750	112.801	112.801	111.053	107.599	104.254	101.033	97.929	94.938
7/14/2008	7/14/2015	4/14/2015	4.900	101.851	101.851	101.851	101.762	101.389	101.019	100.651	100.286
7/14/2008	7/16/2018	4/14/2015	2.500	108.569	108.569	107.075	104.361	102.232	100.771	100.041	99.812
7/14/2008	7/16/2018	4/14/2015	3.250	111.139	111.139	109.513	106.479	103.924	101.956	100.633	100.000
7/17/2008	7/17/2018	7/17/2013	3.750	112.864	112.864	111.092	107.622	104.261	101.025	97.908	94.905
8/15/2008	8/15/2018	5/15/2015	3.830	113.447	113.447	111.647	108.374	105.516	103.184	101.452	100.360
5/11/2010	5/11/2015	5/11/2015	3.700	100.740	100.740	100.740	100.710	100.513	100.317	100.122	99.927
5/24/2010	5/26/2015	5/26/2015	2.250	100.544	100.544	100.544	100.504	100.259	100.015	99.772	99.530
6/15/2010	6/15/2015	5/15/2015	2.280	100.678	100.678	100.678	100.621	100.321	100.024	99.728	99.433
10/8/2010	10/8/2015	10/9/2012	2.250	101.387	101.387	101.387	101.172	100.562	99.958	99.362	98.773
12/27/2011	12/27/2021	3/29/2015	3.550	124.592	122.871	115.694	108.791	102.338	96.322	90.710	85.474

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	101.684	101.684	101.684	101.012	99.862	98.731	97.618	96.522
4/30/2012	5/2/2016	4/30/2013	1.380	101.644	101.644	101.644	100.955	99.793	98.649	97.523	96.415
5/15/2012	5/15/2017	5/15/2014	1.950	104.371	104.371	104.075	101.859	99.690	97.577	95.520	93.515
5/15/2012	5/15/2017	11/17/2014	2.510	105.626	105.626	105.330	103.103	100.920	98.794	96.722	94.705
6/20/2012	6/20/2017	6/22/2015	1.630	103.816	103.816	103.422	101.111	97.562	93.467	89.489	85.623
7/16/2012	7/17/2017	7/16/2014	1.720	104.156	104.156	103.680	101.297	98.971	96.710	94.512	92.374
7/18/2012	7/18/2018	7/20/2015	-0.193	108.200	108.200	106.438	103.144	100.845	99.842	99.543	99.396
7/19/2012	7/19/2017	7/21/2014	1.690	104.093	104.093	103.611	101.223	98.894	96.629	94.427	92.285
10/1/2012	10/1/2019	4/1/2015	-0.105	110.317	110.317	106.692	102.211	100.094	99.860	99.775	99.689
10/5/2012	10/5/2017	10/6/2014	1.630	104.301	104.301	103.569	100.973	98.447	95.996	93.619	91.312
3/8/2013	3/8/2018	3/9/2015	-0.035	105.428	105.428	104.161	101.143	99.987	99.963	99.939	99.915
5/7/2014	5/7/2018	5/7/2015	0.036	105.364	105.364	103.888	101.035	99.866	99.611	99.426	99.243
10/16/2014	10/16/2018	10/17/2016	0.034	104.699	104.699	102.696	100.956	100.018	99.486	99.196	99.014
10/24/2014	10/24/2018	10/26/2015	0.026	105.167	105.167	103.032	100.668	99.899	99.629	99.498	99.383
10/24/2014	10/24/2018	10/26/2015	0.026	105.167	105.167	103.032	100.668	99.899	99.629	99.498	99.383
2/20/2015	2/20/2019	2/22/2016	0.001	105.250	105.250	102.675	100.637	99.750	99.357	99.107	98.895