

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	10/7/2014	5.950	101.636	101.636	101.636	101.591	101.320	101.050	100.783	100.516
12/13/2004	12/15/2014	12/15/2014	3.320	100.701	100.701	100.701	100.669	100.462	100.255	100.050	99.845
9/1/2005	9/1/2015	12/1/2014	4.130	103.854	103.854	103.854	103.516	102.592	101.684	100.792	99.917
9/30/2005	9/30/2015	12/31/2014	4.440	104.501	104.501	104.501	104.105	103.099	102.112	101.144	100.194
10/26/2005	10/26/2015	10/26/2014	4.540	104.931	104.931	104.931	104.472	103.389	102.324	101.275	100.242
1/17/2006	1/19/2016	10/17/2014	4.080	105.394	105.394	105.394	104.653	103.346	102.106	101.023	100.231
4/24/2006	4/25/2016	10/24/2014	4.440	107.067	107.067	107.067	105.884	104.313	102.841	101.547	100.555
5/5/2006	5/5/2016	11/5/2014	4.350	107.044	107.044	107.044	105.814	104.225	102.743	101.465	100.507
5/5/2006	5/5/2016	11/5/2014	4.530	107.336	107.336	107.336	106.103	104.505	103.007	101.689	100.662
5/15/2006	5/16/2016	11/17/2014	4.350	107.177	107.177	107.177	105.890	104.273	102.768	101.470	100.497
5/15/2006	5/16/2016	11/17/2014	4.520	107.458	107.458	107.458	106.168	104.542	103.020	101.683	100.642
5/19/2006	5/19/2016	11/19/2014	4.510	107.479	107.479	107.479	106.174	104.540	103.012	101.672	100.632
6/12/2006	6/13/2016	12/12/2014	4.620	107.982	107.982	107.982	106.546	104.845	103.256	101.861	100.765
6/26/2006	6/27/2016	12/26/2014	4.730	108.356	108.356	108.356	106.844	105.100	103.468	102.027	100.875
7/24/2006	7/25/2016	10/24/2014	4.660	108.595	108.595	108.595	106.933	105.123	103.443	101.974	100.819
7/28/2006	7/28/2016	10/28/2014	4.490	108.318	108.318	108.318	106.644	104.837	103.173	101.740	100.649
8/25/2006	8/25/2016	11/25/2014	4.350	108.397	108.397	108.397	106.576	104.712	103.016	101.586	100.536
11/24/2006	11/25/2016	11/24/2014	4.190	109.159	109.159	109.006	106.837	104.776	102.954	101.470	100.440
12/1/2006	12/1/2016	12/1/2014	4.090	109.009	109.009	108.837	106.661	104.606	102.808	101.369	100.397
12/4/2006	12/5/2016	12/4/2014	4.080	109.032	109.032	108.847	106.660	104.598	102.795	101.356	100.385
12/5/2006	12/5/2016	12/5/2014	4.260	109.431	109.431	109.245	107.047	104.960	103.111	101.597	100.538
12/8/2006	12/8/2016	12/8/2014	3.990	108.866	108.866	108.670	106.481	104.426	102.641	101.235	100.305
12/12/2006	12/12/2016	12/12/2014	3.990	108.910	108.910	108.701	106.501	104.436	102.643	101.232	100.298
12/12/2006	12/12/2016	12/12/2014	4.050	109.044	109.044	108.835	106.631	104.557	102.747	101.312	100.347
12/19/2006	12/19/2016	12/19/2014	4.190	109.439	109.439	109.205	106.973	104.861	103.004	101.502	100.459
12/28/2006	12/28/2016	12/29/2014	4.250	109.680	109.680	109.417	107.156	105.014	103.125	101.587	100.504
12/28/2006	12/28/2016	12/29/2014	4.400	110.022	110.022	109.758	107.488	105.328	103.402	101.806	100.646
1/12/2007	1/12/2017	10/14/2014	4.420	110.251	110.251	109.933	107.624	105.432	103.484	101.870	100.696
1/16/2007	1/17/2017	10/16/2014	4.790	111.176	111.176	110.838	108.497	106.249	104.206	102.470	101.122
2/2/2007	2/2/2017	11/2/2014	4.690	111.151	111.151	110.752	108.346	105.972	103.662	101.414	99.555
2/20/2007	2/21/2017	11/20/2014	4.850	111.788	111.788	111.318	108.849	106.413	104.045	101.743	99.503
2/20/2007	2/21/2017	11/20/2014	4.390	110.670	110.670	110.204	107.788	105.510	103.501	101.856	100.661
2/23/2007	2/23/2017	11/24/2014	4.250	110.353	110.353	109.881	107.469	105.210	103.233	101.640	100.526
2/23/2007	2/23/2017	11/24/2014	4.350	110.596	110.596	110.124	107.705	105.428	103.426	101.793	100.615
3/16/2007	3/16/2017	12/16/2014	4.090	110.202	110.202	109.647	107.197	104.927	102.973	101.438	100.403
3/21/2007	3/21/2017	12/22/2014	4.220	110.585	110.585	110.009	107.533	105.228	103.225	101.623	100.517
3/23/2007	3/23/2017	12/23/2014	4.290	110.784	110.784	110.199	107.712	105.389	103.364	101.727	100.583
3/23/2007	3/23/2017	12/23/2014	4.290	110.784	110.784	110.199	107.712	105.389	103.364	101.727	100.583
4/9/2007	4/10/2017	10/9/2014	4.150	110.639	110.639	109.982	107.465	105.137	103.133	101.553	100.470
4/12/2007	4/12/2017	10/14/2014	4.250	110.919	110.919	110.253	107.720	105.368	103.330	101.700	100.563
4/13/2007	4/13/2017	10/14/2014	4.450	111.446	111.446	110.772	108.220	105.830	103.731	102.016	100.765
4/27/2007	4/27/2017	10/27/2014	4.250	111.097	111.097	110.366	107.794	105.407	103.343	101.693	100.540
5/18/2007	5/18/2017	11/18/2014	4.190	111.184	111.184	110.363	107.746	105.336	103.264	101.626	100.507
5/22/2007	5/22/2017	11/24/2014	4.750	112.732	112.732	111.885	109.206	106.682	104.437	102.567	101.137
5/29/2007	5/30/2017	12/1/2014	4.250	111.486	111.486	110.610	107.956	105.506	103.395	101.720	100.578
6/7/2007	6/7/2017	12/8/2014	4.820	113.134	113.134	112.214	109.490	106.925	104.642	102.734	101.273
6/8/2007	6/8/2017	12/8/2014	4.490	112.247	112.247	111.328	108.630	106.120	103.931	102.148	100.840
6/11/2007	6/12/2017	12/11/2014	4.490	112.297	112.297	111.359	108.651	106.132	103.935	102.148	100.838
6/18/2007	6/19/2017	12/18/2014	4.500	112.412	112.412	111.443	108.714	106.177	103.965	102.163	100.842
6/19/2007	6/19/2017	12/19/2014	4.650	112.826	112.826	111.854	109.110	106.545	104.285	102.425	101.031
6/22/2007	6/22/2017	12/22/2014	4.500	112.449	112.449	111.467	108.730	106.186	103.968	102.162	100.838
6/28/2007	6/28/2017	12/29/2014	4.500	112.524	112.524	111.515	108.762	106.203	103.975	102.161	100.832
7/13/2007	7/13/2017	10/14/2014	4.290	112.119	112.119	111.046	108.281	105.745	103.571	101.839	100.636
7/20/2007	7/20/2017	10/20/2014	4.290	112.202	112.202	111.097	108.313	105.762	103.576	101.836	100.625
7/27/2007	7/27/2017	10/27/2014	4.250	112.171	112.171	111.034	108.238	105.681	103.497	101.768	100.570
7/30/2007	1/30/2019	10/30/2014	3.990	117.544	117.544	113.527	109.609	106.286	103.640	101.693	100.439
7/31/2007	7/31/2017	10/31/2014	3.990	111.470	111.470	110.326	107.561	105.071	102.985	101.390	100.332
7/31/2007	7/31/2017	10/31/2014	3.990	111.470	111.470	110.326	107.561	105.071	102.985	101.390	100.332

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/31/2007	7/31/2017	10/31/2014	4.060	111.672	111.672	110.524	107.749	105.238	103.125	101.495	100.401
8/2/2007	8/2/2017	11/3/2014	4.050	111.665	111.665	110.511	107.735	105.225	103.118	101.495	100.431
8/2/2007	8/2/2017	11/3/2014	4.150	111.954	111.954	110.795	108.004	105.468	103.322	101.650	100.519
8/9/2007	8/9/2017	11/10/2014	3.990	111.570	111.570	110.385	107.600	105.095	102.999	101.400	100.366
8/16/2007	8/16/2017	11/17/2014	3.990	111.648	111.648	110.429	107.627	105.107	103.000	101.394	100.353
8/17/2007	8/17/2017	11/17/2014	4.000	111.688	111.688	110.464	107.658	105.133	103.021	101.409	100.362
9/4/2007	9/5/2017	12/4/2014	3.890	111.572	111.572	110.268	107.441	104.920	102.839	101.280	100.296
9/10/2007	9/11/2017	12/10/2014	3.690	111.038	111.038	109.717	106.916	104.449	102.453	100.994	100.129
9/11/2007	9/11/2017	12/11/2014	3.590	110.739	110.739	109.425	106.645	104.213	102.263	100.861	100.072
9/13/2007	9/13/2017	12/15/2014	3.990	111.958	111.958	110.612	107.747	105.179	103.042	101.419	100.363
9/27/2007	9/27/2017	12/29/2014	3.650	111.081	111.081	109.692	106.857	104.373	102.373	100.920	100.072
10/11/2007	10/14/2014	10/14/2014	4.180	100.163	100.163	100.163	100.158	100.120	100.082	100.045	100.007
10/11/2007	10/11/2017	10/14/2014	3.990	112.268	112.268	110.795	107.866	105.250	103.081	101.440	100.365
10/15/2007	10/16/2017	10/15/2014	3.990	112.324	112.324	110.826	107.884	105.259	103.082	101.437	100.360
10/25/2007	10/27/2014	10/27/2014	4.360	100.327	100.327	100.327	100.318	100.245	100.172	100.100	100.027
10/26/2007	10/26/2017	10/27/2014	3.390	110.565	110.565	109.067	106.238	103.815	101.919	100.621	100.012
11/2/2007	11/3/2014	11/3/2014	3.990	100.377	100.377	100.377	100.365	100.273	100.181	100.090	99.998
11/2/2007	11/3/2014	11/3/2014	4.190	100.396	100.396	100.396	100.384	100.292	100.200	100.108	100.017
11/5/2007	11/5/2014	11/5/2014	3.990	100.399	100.399	100.399	100.386	100.289	100.191	100.094	99.997
11/5/2007	11/6/2017	11/5/2014	4.390	113.815	113.815	112.198	109.140	106.364	104.001	102.128	100.800
11/6/2007	11/6/2017	11/6/2014	3.480	110.952	110.952	109.397	106.529	104.062	102.117	100.755	100.055
11/9/2007	11/10/2014	11/10/2014	4.330	100.493	100.493	100.493	100.478	100.367	100.255	100.144	100.034
11/13/2007	11/13/2014	11/13/2014	3.350	100.409	100.409	100.409	100.393	100.273	100.154	100.035	99.916
11/19/2007	11/19/2014	11/19/2014	3.750	100.521	100.521	100.521	100.502	100.365	100.229	100.094	99.958
11/19/2007	11/19/2014	11/19/2014	4.270	100.593	100.593	100.593	100.574	100.438	100.301	100.166	100.030
11/19/2007	11/20/2017	11/19/2014	4.290	113.668	113.668	111.942	108.707	105.556	102.515	99.579	96.744
11/20/2007	11/20/2017	11/20/2014	3.740	111.915	111.915	110.269	107.301	104.704	102.606	101.075	100.161
11/23/2007	11/24/2017	11/19/2014	3.990	112.756	112.756	111.013	107.779	104.633	101.596	98.665	95.834
11/23/2007	11/24/2017	11/24/2014	3.990	112.756	112.756	111.013	107.779	104.633	101.596	98.665	95.834
11/29/2007	11/29/2017	12/1/2014	2.950	109.472	109.472	107.876	105.131	102.874	101.222	100.234	99.832
11/30/2007	11/30/2017	12/1/2014	3.190	110.251	110.251	108.617	105.781	103.403	101.601	100.451	99.911
12/10/2007	12/11/2017	12/10/2014	3.450	111.192	111.192	109.477	106.548	104.043	102.085	100.725	100.013
12/24/2007	12/26/2017	12/24/2014	3.990	113.111	113.111	111.199	107.876	104.646	101.531	98.527	95.628
1/3/2008	1/5/2015	10/3/2014	3.650	100.983	100.983	100.983	100.939	100.675	100.412	100.151	99.997
1/4/2008	1/4/2018	10/6/2014	3.360	111.124	111.124	109.310	106.363	103.873	101.946	100.644	100.045
1/7/2008	1/7/2015	10/7/2014	3.490	100.960	100.960	100.960	100.914	100.645	100.377	100.110	99.990
1/7/2008	1/8/2018	10/7/2014	2.590	108.604	108.604	106.919	104.277	102.196	100.760	100.069	99.973
1/8/2008	1/8/2018	10/8/2014	2.570	108.537	108.537	106.857	104.224	102.156	100.734	100.060	99.968
1/8/2008	1/8/2018	10/8/2014	2.640	108.770	108.770	107.071	104.405	102.292	100.820	100.088	99.970
1/11/2008	1/11/2018	10/14/2014	2.720	109.058	109.058	107.326	104.616	102.451	100.923	100.116	99.950
1/14/2008	1/16/2018	10/14/2014	3.240	110.835	110.835	108.978	106.047	103.595	101.726	100.501	99.981
1/16/2008	1/16/2018	10/16/2014	2.380	107.959	107.959	106.296	103.750	101.789	100.509	99.973	99.928
1/17/2008	1/17/2018	10/17/2014	2.250	107.530	107.530	105.905	103.435	101.562	100.375	99.963	99.918
1/18/2008	1/20/2015	10/20/2014	2.350	100.731	100.731	100.731	100.676	100.372	100.077	99.962	99.909
1/18/2008	1/18/2018	10/20/2014	2.290	107.671	107.671	106.028	103.532	101.630	100.413	99.959	99.905
2/14/2008	2/14/2018	11/14/2014	3.190	110.925	110.925	108.753	105.328	102.011	98.818	95.742	92.778
2/25/2008	2/26/2018	11/25/2014	2.420	108.368	108.368	106.515	103.897	101.879	100.542	99.946	99.746
3/7/2008	3/9/2015	12/8/2014	2.890	101.284	101.284	101.284	101.183	100.742	100.312	99.991	99.777
3/7/2008	3/7/2018	12/8/2014	3.550	112.365	112.365	110.220	107.096	104.435	102.351	100.882	100.074
3/14/2008	3/14/2018	12/15/2014	2.400	108.406	108.406	106.498	103.876	101.863	100.542	99.919	99.653
3/17/2008	3/19/2018	12/17/2014	3.300	111.604	111.604	109.438	106.372	103.817	101.867	100.577	99.927
4/14/2008	4/14/2015	10/14/2014	2.750	101.497	101.497	101.497	101.356	100.817	100.283	99.756	99.233
4/28/2008	4/28/2015	10/28/2014	3.250	101.896	101.896	101.896	101.738	101.159	100.596	100.124	99.942
4/28/2008	4/30/2018	10/28/2014	2.150	107.811	107.811	105.808	103.289	101.420	100.275	99.932	99.857
4/30/2008	4/30/2018	10/30/2014	3.740	113.588	113.588	110.983	107.319	103.775	100.369	97.095	93.947
5/2/2008	5/4/2015	11/3/2014	3.990	102.394	102.394	102.394	102.229	101.632	101.044	100.486	100.073
5/5/2008	5/5/2015	11/5/2014	3.170	101.911	101.911	101.911	101.745	101.147	100.572	100.112	99.918
5/19/2008	5/19/2015	11/21/2014	4.700	103.016	103.016	103.016	102.832	102.193	101.562	100.939	100.324

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
5/23/2008	5/23/2018	11/24/2014	3.270	112.089	112.089	109.602	106.436	103.819	101.842	100.541	99.943
6/24/2008	6/24/2015	12/24/2014	3.830	102.840	102.840	102.840	102.611	101.875	101.154	100.487	100.016
6/30/2008	7/2/2018	12/30/2014	3.690	114.052	114.052	111.075	107.240	103.538	99.987	96.577	93.305
7/11/2008	7/11/2018	10/11/2014	3.750	114.374	114.374	111.342	107.478	103.750	100.173	96.741	93.446
7/14/2008	7/14/2015	10/15/2014	4.900	103.906	103.906	103.906	103.647	102.853	102.070	101.300	100.542
7/14/2008	7/16/2018	10/14/2014	2.500	109.617	109.617	107.135	104.295	102.128	100.682	100.031	99.942
7/14/2008	7/16/2018	10/14/2014	3.250	112.502	112.502	109.751	106.507	103.847	101.850	100.552	99.994
7/17/2008	7/17/2018	10/17/2014	3.750	114.436	114.436	111.368	107.488	103.745	100.154	96.709	93.403
8/15/2008	8/15/2018	11/17/2014	3.830	115.053	115.053	112.009	108.479	105.468	103.076	101.345	100.285
5/11/2010	5/11/2015	5/11/2015	3.700	102.292	102.292	102.292	102.118	101.503	100.873	100.056	98.943
5/24/2010	5/26/2015	11/26/2014	2.250	101.487	101.487	101.487	101.297	100.645	100.001	99.366	98.738
6/15/2010	6/15/2015	11/15/2014	2.280	101.634	101.634	101.634	101.417	100.711	100.014	99.326	98.649
10/8/2010	10/8/2015	10/9/2012	2.250	102.331	102.331	102.331	101.920	100.902	99.903	98.923	97.960
12/27/2011	12/27/2021	12/29/2014	3.550	126.081	120.866	113.331	106.208	98.576	86.508	75.311	64.919
4/27/2012	4/27/2016	4/27/2013	1.430	102.284	102.284	102.284	101.108	99.551	98.025	96.530	95.065
4/30/2012	5/2/2016	4/30/2013	1.380	102.223	102.223	102.223	101.023	99.453	97.916	96.409	94.932
5/15/2012	5/15/2017	5/15/2014	1.950	105.188	105.188	104.372	101.742	99.179	96.694	94.282	91.943
5/15/2012	5/15/2017	11/17/2014	-0.226	106.384	106.384	105.567	102.921	100.592	99.779	99.632	99.503
6/20/2012	6/20/2017	6/22/2015	1.630	104.500	104.500	103.523	100.643	96.077	91.665	87.401	83.280
7/16/2012	7/17/2017	7/16/2014	1.720	104.877	104.877	103.776	100.984	98.271	95.644	93.101	90.637
7/18/2012	7/18/2018	7/20/2015	-0.216	107.958	107.958	104.910	101.778	100.279	99.713	99.560	99.501
7/19/2012	7/19/2017	7/21/2014	1.690	104.802	104.802	103.691	100.895	98.178	95.548	93.001	90.534
10/1/2012	10/1/2019	4/1/2015	-0.125	110.093	109.384	104.323	100.869	99.946	99.834	99.833	99.828
10/5/2012	10/5/2017	10/6/2014	-0.118	104.981	104.981	103.504	100.606	100.005	99.989	99.973	99.957
3/8/2013	3/8/2018	3/9/2015	-0.037	105.425	105.425	103.156	100.600	99.834	99.592	99.398	99.209
5/7/2014	5/7/2018	5/7/2015	0.017	105.250	105.250	102.650	100.446	99.838	99.672	99.570	99.475