

## **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
4/8/1998	4/8/2013	1/8/2013	5.490	101.494	101.494	101.494	101.441	101.167	100.895	100.624	100.354
8/19/1998	8/19/2013	2/19/2013	5.490	103.523	103.523	103.523	103.300	102.660	102.027	101.404	100.806
8/19/1998	8/19/2013	2/19/2013	5.490	103.523	103.523	103.523	103.300	102.660	102.027	101.404	100.806
12/14/1998	12/16/2013	3/14/2013	5.390	105.240	105.240	105.240	104.845	103.875	102.923	101.998	101.145
12/14/1998	12/16/2013	3/14/2013	4.890	104.754	104.754	104.754	104.360	103.392	102.444	101.535	100.728
12/15/1998	12/16/2013	3/15/2013	4.880	104.744	104.744	104.744	104.350	103.382	102.434	101.525	100.718
1/7/2000	1/7/2015	1/7/2013	5.950	112.180	112.180	112.180	111.028	108.935	106.909	104.998	103.279
3/6/2003	3/6/2013	3/6/2013	2.990	100.540	100.540	100.540	100.511	100.328	100.146	99.964	99.783
7/2/2004	7/2/2014	1/3/2013	3.990	106.073	106.073	106.073	105.333	103.808	102.313	100.847	99.410
12/13/2004	12/15/2014	3/13/2013	3.320	106.584	106.584	106.584	105.508	103.569	101.861	100.605	99.950
9/1/2005	9/1/2015	3/1/2013	4.130	111.173	111.173	111.173	109.470	106.738	104.089	101.521	99.029
9/30/2005	9/30/2015	3/30/2013	4.440	112.370	112.370	112.370	110.581	107.754	105.014	102.359	99.785
10/26/2005	10/26/2015	1/26/2013	4.540	112.976	112.976	112.976	111.112	108.207	105.394	102.670	100.031
1/17/2006	1/19/2016	1/17/2013	4.080	112.625	112.625	112.625	110.524	107.480	104.766	102.543	100.949
4/19/2006	4/19/2013	1/22/2013	4.630	101.402	101.402	101.402	101.337	101.033	100.731	100.430	100.132
4/24/2006	4/25/2016	1/24/2013	4.440	114.935	114.935	114.935	112.497	109.159	106.153	103.630	101.704
5/5/2006	5/5/2016	2/5/2013	4.350	114.753	114.753	114.753	112.284	108.937	105.943	103.458	101.588
5/5/2006	5/5/2016	2/5/2013	4.530	115.363	115.363	115.363	112.887	109.516	106.477	103.914	101.942
5/15/2006	5/16/2016	2/15/2013	4.350	114.886	114.886	114.886	112.376	109.000	105.979	103.470	101.578
5/15/2006	5/16/2016	2/15/2013	4.520	115.468	115.468	115.468	112.951	109.551	106.487	103.904	101.916
5/19/2006	5/19/2016	2/19/2013	4.510	115.471	115.471	115.471	112.943	109.537	106.468	103.882	101.892
6/12/2006	6/13/2016	3/12/2013	4.620	116.169	116.169	116.169	113.544	110.061	106.919	104.253	102.180
6/26/2006	6/27/2016	3/26/2013	4.730	116.738	116.738	116.738	114.054	110.519	107.317	104.573	102.406
6/28/2006	6/28/2013	3/28/2013	4.950	102.461	102.461	102.461	102.308	101.810	101.317	100.830	100.371
6/30/2006	7/1/2013	4/1/2013	4.890	102.472	102.472	102.472	102.314	101.809	101.308	100.814	100.360
7/14/2006	7/15/2013	1/14/2013	4.890	102.662	102.662	102.662	102.486	101.942	101.404	100.874	100.383
7/24/2006	7/25/2016	1/24/2013	4.660	116.853	116.853	116.853	114.064	110.467	107.226	104.469	102.314
7/28/2006	7/28/2016	1/28/2013	4.490	116.275	116.275	116.275	113.484	109.903	106.699	104.009	101.948
8/21/2006	8/21/2013	1/2/2013	4.750	103.074	103.074	103.074	102.849	102.205	101.569	100.941	100.321
8/25/2006	8/25/2016	2/25/2013	4.350	116.106	116.106	116.106	113.212	109.585	106.368	103.709	101.701
10/10/2006	10/10/2013	1/10/2013	4.250	103.341	103.341	103.341	103.047	102.267	101.500	100.781	100.196
10/12/2006	10/15/2013	1/14/2013	4.500	103.600	103.600	103.600	103.299	102.504	101.722	100.974	100.348
11/6/2006	11/6/2013	2/6/2013	4.290	103.694	103.694	103.694	103.362	102.507	101.670	100.884	100.251
11/17/2006	11/18/2013	2/19/2013	4.350	103.891	103.891	103.891	103.540	102.652	101.782	100.965	100.310
11/24/2006	11/25/2016	2/25/2013	4.190	116.584	116.584	116.584	113.323	109.512	106.184	103.485	101.494
11/30/2006	12/2/2013	2/28/2013	4.350	104.060	104.060	104.060	103.689	102.761	101.851	100.956	100.078
12/1/2006	12/1/2016	3/1/2013	4.090	116.257	116.257	116.257	112.982	109.186	105.901	103.267	101.371
12/4/2006	12/5/2016	3/4/2013	4.080	116.262	116.262	116.262	112.971	109.167	105.878	103.244	101.352
12/5/2006	12/5/2016	3/5/2013	4.260	116.980	116.980	116.980	113.672	109.828	106.468	103.737	101.712
12/6/2006	12/6/2013	3/6/2013	4.400	104.155	104.155	104.155	103.778	102.840	101.923	101.063	100.376
12/8/2006	12/8/2016	3/8/2013	3.990	115.937	115.937	115.937	112.641	108.851	105.592	102.999	101.171
12/12/2006	12/12/2016	3/12/2013	3.990	115.981	115.981	115.981	112.667	108.867	105.600	103.000	101.166
12/12/2006	12/12/2016	3/12/2013	4.050	116.221	116.221	116.221	112.902	109.088	105.795	103.161	101.281
12/19/2006	12/19/2016	3/19/2013	4.190	116.864	116.864	116.864	113.500	109.636	106.272	103.548	101.544
12/20/2006	12/20/2013	3/20/2013	4.500	104.425	104.425	104.425	104.025	103.049	102.094	101.190	100.448
12/28/2006	12/28/2016	3/28/2013	4.250	117.211	117.211	117.211	113.803	109.903	106.495	103.720	101.657
12/28/2006	12/28/2016	3/28/2013	4.400	117.819	117.819	117.819	114.397	110.465	107.005	104.148	101.987
1/12/2007	1/12/2017	1/14/2013	4.420	118.084	118.084	118.084	114.595	110.630	107.145	104.268	102.095
1/16/2007	1/17/2017	1/16/2013	4.790	119.664	119.664	119.664	116.121	112.071	108.457	105.388	102.957
1/23/2007	1/23/2014	1/23/2013	4.490	104.839	104.839	104.839	104.385	103.311	102.261	101.276	100.471
1/29/2007	1/29/2014	1/29/2013	4.790	105.242	105.242	105.242	104.777	103.684	102.608	101.549	100.506
2/2/2007	2/2/2017	2/2/2013	4.690	119.462	119.462	119.462	115.811	111.556	107.486	103.592	99.864
2/20/2007	2/21/2017	2/20/2013	4.850	120.382	120.382	120.382	116.628	112.301	108.163	104.205	100.419
2/20/2007	2/21/2017	2/20/2013	4.390	118.449	118.449	118.449	114.780	110.726	107.176	104.260	102.061
2/23/2007	2/23/2017	2/25/2013	4.250	117.884	117.884	117.884	114.221	110.193	106.691	103.849	101.739
2/23/2007	2/23/2017	2/25/2013	4.350	118.305	118.305	118.305	114.631	110.580	107.040	104.141	101.963
3/16/2007	3/16/2017	3/18/2013	4.090	117.450	117.450	117.450	113.708	109.677	106.214	103.446	101.445
3/21/2007	3/21/2017	3/21/2013	4.220	118.063	118.063	118.063	114.282	110.205	106.674	103.821	101.713
3/23/2007	3/23/2017	3/25/2013	4.290	118.386	118.386	118.386	114.587	110.488	106.926	104.028	101.869
3/23/2007	3/23/2017	3/25/2013	4.290	118.386	118.386	118.386	114.587	110.488	106.926	104.028	101.869
4/9/2007	4/10/2017	1/9/2013	4.150	117.994	117.994	117.994	114.128	110.031	106.506	103.682	101.621
4/12/2007	4/12/2017	1/14/2013	4.250	118.451	118.451	118.451	114.563	110.434	106.862	103.972	101.834
4/13/2007	4/13/2017	1/14/2013	4.450	119.332	119.332	119.332	115.415	111.234	107.582	104.571	102.292
4/23/2007	4/23/2014	1/23/2013	4.620	106.134	106.134	106.134	105.522	104.188	102.891	101.691	100.702
4/27/2007	4/27/2017	1/28/2013	4.250	118.628	118.628	118.628	114.665	110.500	106.896	103.977	101.808
5/2/2007	5/2/2014	2/4/2013	4.590	106.209	106.209	106.209	105.581	104.222	102.904	101.697	100.714
5/4/2007	5/5/2014	2/4/2013	4.550	106.193	106.193	106.193	105.559	104.192	102.868	101.658	100.678
5/18/2007	5/18/2017	2/19/2013	4.190	118.609	118.609	118.609	114.552	110.361	106.756	103.856	101.723

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
5/22/2007	5/22/2017	2/22/2013	4.750	121.149	121.149	121.149	117.001	112.661	108.830	105.602	103.062
5/29/2007	5/30/2017	2/28/2013	4.250	119.018	119.018	119.018	114.890	110.657	107.004	104.047	101.853
6/1/2007	6/2/2014	3/1/2013	4.500	106.475	106.475	106.475	105.789	104.345	102.952	101.690	100.686
6/7/2007	6/7/2017	3/7/2013	4.820	121.675	121.675	121.675	117.438	113.051	109.175	105.905	103.312
6/8/2007	6/9/2014	3/8/2013	4.730	106.898	106.898	106.898	106.198	104.731	103.310	101.999	100.922
6/8/2007	6/8/2017	3/8/2013	4.490	120.204	120.204	120.204	116.002	111.691	107.935	104.836	102.479
6/11/2007	6/12/2017	3/11/2013	4.490	120.254	120.254	120.254	116.031	111.710	107.946	104.841	102.479
6/18/2007	6/19/2017	3/18/2013	4.500	120.386	120.386	120.386	116.125	111.784	108.001	104.877	102.495
6/19/2007	6/19/2017	3/19/2013	4.650	121.066	121.066	121.066	116.785	112.407	108.565	105.355	102.862
6/22/2007	6/22/2017	3/22/2013	4.500	120.424	120.424	120.424	116.146	111.798	108.008	104.877	102.487
6/28/2007	6/28/2017	3/28/2013	4.500	120.499	120.499	120.499	116.190	111.827	108.022	104.880	102.480
7/13/2007	7/13/2017	1/14/2013	4.290	119.721	119.721	119.721	115.366	111.034	107.303	104.283	102.037
7/20/2007	7/20/2017	1/22/2013	4.290	119.804	119.804	119.804	115.411	111.063	107.318	104.284	102.025
7/27/2007	7/27/2017	1/28/2013	4.250	119.702	119.702	119.702	115.278	110.925	107.183	104.161	101.920
7/30/2007	1/30/2019	1/30/2013	3.990	124.614	124.614	122.862	116.978	111.799	107.526	104.197	101.808
7/31/2007	7/31/2017	1/31/2013	3.990	118.541	118.541	118.541	114.143	109.870	106.248	103.387	101.336
7/31/2007	7/31/2017	1/31/2013	3.990	118.541	118.541	118.541	114.143	109.870	106.248	103.387	101.336
7/31/2007	7/31/2017	1/31/2013	4.060	118.866	118.866	118.866	114.456	110.159	106.502	103.597	101.487
8/2/2007	8/4/2014	2/4/2013	4.490	107.246	107.246	107.246	106.438	104.818	103.265	101.872	100.773
8/2/2007	8/2/2017	2/4/2013	4.150	119.308	119.308	119.308	114.873	110.549	106.859	103.915	101.769
8/2/2007	8/2/2017	2/4/2013	4.050	118.842	118.842	118.842	114.425	110.134	106.492	103.614	101.544
8/9/2007	8/9/2017	2/11/2013	3.990	118.641	118.641	118.641	114.197	109.909	106.284	103.430	101.400
8/16/2007	8/16/2017	2/19/2013	3.990	118.718	118.718	118.718	114.236	109.932	106.293	103.426	101.385
8/17/2007	8/17/2017	2/19/2013	4.000	118.777	118.777	118.777	114.287	109.977	106.331	103.455	101.403
8/20/2007	8/20/2014	8/20/2013	4.250	107.047	107.047	107.047	106.208	104.545	102.934	101.495	100.367
8/28/2007	8/28/2014	2/28/2013	4.350	107.310	107.310	107.310	106.454	104.770	103.160	101.731	100.629
8/30/2007	9/2/2014	2/28/2013	3.890	106.591	106.591	106.591	105.728	104.041	102.461	101.134	100.243
9/4/2007	9/5/2017	3/4/2013	3.890	118.465	118.465	118.465	113.901	109.601	105.998	103.191	101.244
9/10/2007	9/11/2017	3/11/2013	3.690	117.577	117.577	117.577	113.024	108.786	105.287	102.625	100.880
9/11/2007	9/11/2017	3/11/2013	3.590	117.101	117.101	117.101	112.571	108.373	104.933	102.357	100.722
9/12/2007	9/12/2014	3/12/2013	3.690	106.355	106.355	106.355	105.472	103.765	102.188	100.919	100.112
9/13/2007	9/15/2014	3/13/2013	3.990	106.904	106.904	106.904	106.014	104.288	102.669	101.300	100.356
9/13/2007	9/13/2017	3/13/2013	3.990	119.029	119.029	119.029	114.401	110.045	106.371	103.480	101.428
9/27/2007	9/29/2014	9/27/2010	4.490	107.944	107.944	107.944	107.021	105.240	103.497	101.791	100.121
9/27/2007	9/27/2017	3/27/2013	3.650	117.549	117.549	117.549	112.919	108.662	105.154	102.498	100.774
10/11/2007	10/14/2014	1/11/2013	4.180	107.570	107.570	107.570	106.618	104.807	103.100	101.627	100.552
10/11/2007	10/11/2017	1/11/2013	3.990	119.339	119.339	119.329	114.562	110.156	106.446	103.531	101.457
10/15/2007	10/16/2017	1/15/2013	3.990	119.395	119.395	119.380	114.589	110.173	106.454	103.532	101.450
10/25/2007	10/27/2014	1/25/2013	4.360	108.053	108.053	108.053	107.073	105.221	103.464	101.916	100.724
10/26/2007	10/26/2017	1/28/2013	3.390	116.572	116.572	116.549	111.863	107.675	104.303	101.868	100.384
11/2/2007	11/3/2014	2/4/2013	3.990	107.448	107.448	107.448	106.455	104.596	102.865	101.417	100.421
11/2/2007	11/3/2014	2/4/2013	4.190	107.821	107.821	107.821	106.827	104.962	103.209	101.701	100.599
11/5/2007	11/5/2014	2/5/2013	3.990	107.470	107.470	107.470	106.473	104.609	102.872	101.418	100.419
11/5/2007	11/6/2017	2/5/2013	4.390	121.595	121.595	121.549	116.595	112.006	108.063	104.856	102.450
11/6/2007	11/6/2017	2/6/2013	3.480	117.118	117.118	117.072	112.333	108.096	104.665	102.153	100.604
11/9/2007	11/10/2014	2/11/2013	4.330	108.166	108.166	108.166	107.156	105.267	103.482	101.923	100.737
11/13/2007	11/13/2014	2/13/2013	3.350	106.346	106.346	106.346	105.338	103.480	101.830	100.602	99.996
11/19/2007	11/19/2014	2/19/2013	4.270	108.160	108.160	108.160	107.131	105.218	103.414	101.847	100.668
11/19/2007	11/19/2014	2/19/2013	3.750	107.166	107.166	107.166	106.141	104.247	102.507	101.097	100.199
11/19/2007	11/19/2014	2/19/2013	3.750	107.166	107.166	107.166	106.141	104.247	102.507	101.097	100.199
11/19/2007	11/20/2017	2/19/2013	4.290	121.270	121.270	121.179	116.010	110.966	106.177	101.629	97.308
11/20/2007	11/20/2017	2/20/2013	3.740	118.543	118.543	118.452	113.608	109.226	105.605	102.827	100.967
11/23/2007	11/24/2017	2/23/2013	3.990	119.827	119.827	119.723	114.569	109.549	104.784	100.259	95.962
11/23/2007	11/24/2017	2/23/2013	3.990	119.827	119.827	119.723	114.569	109.549	104.784	100.259	95.962
11/29/2007	11/29/2017	2/28/2013	2.950	114.700	114.700	114.583	109.972	105.977	102.924	100.896	99.958
11/30/2007	11/30/2017	2/28/2013	3.190	115.904	115.904	115.784	111.082	106.950	103.704	101.426	100.154
12/10/2007	12/11/2017	3/11/2013	3.450	117.306	117.306	117.151	112.347	108.068	104.617	102.103	100.556
12/24/2007	12/26/2017	3/24/2013	3.990	120.181	120.181	119.971	114.720	109.613	104.770	100.175	95.815
1/2/2008	1/2/2013	1/2/2013	3.490	100.019	100.019	100.019	100.019	100.013	100.008	100.003	99.997
1/3/2008	1/5/2015	1/3/2013	3.650	107.452	107.452	107.452	106.327	104.315	102.496	101.067	100.203
1/4/2008	1/4/2018	1/4/2013	3.360	117.079	117.079	116.854	112.027	107.761	104.354	101.915	100.432
1/7/2008	1/7/2013	1/7/2013	2.990	100.058	100.058	100.058	100.056	100.037	100.018	99.999	99.980
1/7/2008	1/7/2013	1/7/2013	3.590	100.070	100.070	100.070	100.067	100.048	100.030	100.011	99.992
1/7/2008	1/7/2015	1/7/2013	3.490	107.144	107.144	107.144	106.017	104.009	102.218	100.846	100.121
1/7/2008	1/8/2018	1/7/2013	2.590	113.193	113.193	112.971	108.454	104.667	101.948	100.373	99.973
1/8/2008	1/8/2013	1/8/2013	3.150	100.070	100.070	100.070	100.067	100.046	100.024	100.003	99.981
1/8/2008	1/8/2018	1/8/2013	2.570	113.091	113.091	112.870	108.362	104.591	101.893	100.346	99.968
1/8/2008	1/8/2018	1/8/2013	2.640	113.448	113.448	113.224	108.681	104.857	102.082	100.450	99.970

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
1/11/2008	1/11/2018	1/11/2013	2.720	113.878	113.878	113.644	109.055	105.166	102.303	100.570	99.961
1/14/2008	1/16/2018	1/14/2013	3.240	116.577	116.577	116.318	111.501	107.279	103.947	101.604	100.294
1/16/2008	1/16/2013	1/16/2013	2.550	100.113	100.113	100.113	100.108	100.065	100.022	99.979	99.936
1/16/2008	1/16/2018	1/16/2013	2.380	112.176	112.176	111.937	107.518	103.886	101.402	100.160	99.928
1/17/2008	1/17/2018	1/17/2013	2.250	111.517	111.517	111.281	106.939	103.420	101.090	100.071	99.918
1/18/2008	1/18/2013	1/18/2013	2.550	100.127	100.127	100.127	100.121	100.073	100.024	99.976	99.928
1/18/2008	1/20/2015	1/18/2013	2.350	104.895	104.895	104.895	103.759	101.863	100.498	99.966	99.918
1/18/2008	1/18/2018	1/18/2013	2.290	111.729	111.729	111.488	107.119	103.562	101.181	100.095	99.915
1/24/2008	1/24/2013	1/24/2013	2.500	100.167	100.167	100.167	100.158	100.094	100.029	99.965	99.900
1/25/2008	1/25/2013	1/25/2013	2.650	100.184	100.184	100.184	100.175	100.108	100.041	99.974	99.907
1/25/2008	1/25/2013	1/25/2013	2.250	100.156	100.156	100.156	100.147	100.080	100.013	99.946	99.879
1/28/2008	1/28/2013	1/28/2013	2.990	100.233	100.233	100.233	100.223	100.147	100.072	99.997	99.922
1/30/2008	1/30/2013	1/30/2013	2.670	100.222	100.222	100.222	100.212	100.131	100.051	99.970	99.890
2/7/2008	2/7/2013	2/7/2013	2.490	100.263	100.263	100.263	100.249	100.144	100.040	99.936	99.833
2/13/2008	2/13/2013	2/13/2013	2.920	100.357	100.357	100.357	100.340	100.217	100.095	99.974	99.853
2/14/2008	2/14/2018	2/14/2013	3.190	116.578	116.578	116.194	110.868	105.727	100.858	96.245	91.875
2/19/2008	2/19/2013	2/19/2010	2.590	100.360	100.360	100.360	100.339	100.199	100.060	99.921	99.782
2/25/2008	2/25/2013	2/25/2013	3.090	100.481	100.481	100.481	100.457	100.299	100.142	99.985	99.828
2/25/2008	2/26/2018	2/25/2013	2.420	112.657	112.657	112.297	107.788	104.074	101.506	100.134	99.736
3/7/2008	3/9/2015	3/7/2013	2.890	106.406	106.406	106.406	105.154	103.048	101.328	100.256	99.792
3/7/2008	3/7/2018	3/7/2013	3.550	118.656	118.656	118.231	113.206	108.747	105.136	102.456	100.765
3/10/2008	3/11/2013	3/11/2013	2.390	100.465	100.465	100.465	100.433	100.236	100.041	99.846	99.652
3/12/2008	3/12/2013	3/12/2013	2.010	100.396	100.396	100.396	100.364	100.165	99.967	99.769	99.573
3/14/2008	3/14/2018	3/14/2013	2.400	112.659	112.659	112.253	107.738	104.034	101.489	100.133	99.670
3/17/2008	3/19/2018	3/18/2013	3.300	117.452	117.452	116.993	112.028	107.682	104.240	101.796	100.346
3/28/2008	3/28/2013	3/28/2013	2.820	100.681	100.681	100.681	100.638	100.396	100.155	99.915	99.676
4/14/2008	4/14/2015	1/14/2013	2.750	106.370	106.370	106.370	105.033	102.735	100.498	98.320	96.201
4/28/2008	4/28/2015	1/28/2013	3.250	107.655	107.655	107.655	106.283	104.003	102.044	100.635	100.000
4/28/2008	4/30/2018	1/28/2013	2.150	111.621	111.621	111.108	106.677	103.161	100.892	99.986	99.857
4/30/2008	4/30/2018	4/30/2013	3.740	120.215	120.215	119.547	113.938	108.523	103.704	100.962	99.950
5/2/2008	5/4/2015	2/4/2013	3.990	109.465	109.465	109.465	108.066	105.711	103.568	101.807	100.595
5/5/2008	5/5/2015	2/5/2013	3.170	107.528	107.528	107.528	106.142	103.859	101.928	100.585	99.991
5/8/2008	5/8/2015	2/8/2013	2.960	107.054	107.054	107.054	105.665	103.405	101.549	100.364	99.904
5/19/2008	5/19/2015	2/21/2013	4.700	111.345	111.345	111.345	109.898	107.447	105.063	102.745	100.490
5/23/2008	5/23/2013	2/25/2013	4.040	101.605	101.605	101.605	101.500	101.103	100.709	100.322	100.013
5/23/2008	5/23/2018	2/25/2013	3.270	117.884	117.884	117.204	112.120	107.701	104.216	101.754	100.315
5/27/2008	5/28/2013	5/27/2011	3.490	101.435	101.435	101.435	101.323	100.914	100.507	100.104	99.705
6/6/2008	6/6/2013	3/6/2013	3.990	101.740	101.740	101.740	101.616	101.182	100.750	100.323	99.899
6/16/2008	6/17/2013	3/16/2013	4.070	101.899	101.899	101.899	101.761	101.295	100.834	100.376	99.923
6/24/2008	6/24/2015	3/25/2013	3.830	109.628	109.628	109.628	108.109	105.627	103.397	101.612	100.422
6/30/2008	6/30/2015	4/1/2013	3.370	108.527	108.527	108.527	107.003	104.552	102.439	100.888	100.028
6/30/2008	7/2/2018	3/30/2013	3.690	120.591	120.591	119.660	113.868	108.291	103.028	98.060	93.368
7/1/2008	7/1/2015	1/2/2013	4.600	111.653	111.653	111.653	110.102	107.529	105.031	102.605	100.248
7/7/2008	7/8/2013	1/7/2013	4.590	102.410	102.410	102.410	102.243	101.719	101.200	100.686	100.177
7/8/2008	7/8/2013	1/8/2013	4.250	102.231	102.231	102.231	102.065	101.541	101.022	100.509	100.001
7/10/2008	7/10/2014	1/10/2013	4.800	107.413	107.413	107.413	106.652	105.096	103.570	102.073	100.606
7/11/2008	7/11/2018	1/11/2013	3.750	121.019	121.019	120.048	114.223	108.614	103.321	98.325	93.609
7/14/2008	7/14/2015	7/15/2013	4.900	112.590	112.590	112.590	111.000	108.381	105.833	103.387	101.199
7/14/2008	7/16/2018	1/14/2013	2.500	114.047	114.047	113.252	108.480	104.575	101.831	100.305	99.942
7/14/2008	7/16/2018	1/14/2013	3.250	118.262	118.262	117.394	112.215	107.746	104.240	101.773	100.350
7/17/2008	7/17/2018	7/17/2013	3.750	121.082	121.082	120.084	114.241	108.663	104.016	101.331	99.981
7/21/2008	7/22/2013	1/22/2013	3.000	101.692	101.692	101.692	101.507	100.948	100.395	100.008	99.939
8/15/2008	8/15/2018	2/15/2013	3.830	121.840	121.840	120.815	115.345	110.500	106.521	103.459	101.340
9/8/2008	9/9/2013	3/8/2013	2.890	102.023	102.023	102.023	101.774	101.083	100.435	100.000	99.762
5/13/2009	5/13/2014	5/13/2013	4.000	105.533	105.533	105.533	104.887	103.505	102.139	100.727	99.548
9/28/2009	9/30/2013	3/28/2013	2.920	102.214	102.214	102.214	101.936	101.187	100.483	99.995	99.704
5/11/2010	5/11/2015	5/11/2015	3.700	108.849	108.849	108.849	107.433	104.953	102.126	98.603	94.695
5/24/2010	5/26/2015	5/11/2015	2.250	105.474	105.474	105.474	104.047	101.648	99.317	97.051	94.847
6/15/2010	6/15/2015	3/15/2013	2.280	105.674	105.674	105.674	104.199	101.745	99.361	99.109	97.045
4/27/2012	4/27/2016	4/29/2013	-0.147	104.361	104.361	104.361	102.043	100.136	99.930	99.916	99.906
4/30/2012	5/2/2016	4/30/2013	-0.147	104.208	104.208	104.208	101.885	100.086	99.939	99.938	99.937
5/15/2012	5/15/2017	5/15/2014	-0.150	105.936	105.936	105.936	102.573	100.604	99.894	99.689	99.638
5/15/2012	5/15/2017	11/17/2014	-0.150	106.358	106.358	106.358	102.914	100.789	99.806	99.372	99.203
7/16/2012	7/17/2017	7/16/2014	-0.116	105.240	105.240	105.240	101.850	100.238	99.728	99.587	99.566
7/18/2012	7/18/2018	7/20/2015	-0.125	108.287	108.287	107.289	102.807	100.627	99.609	99.151	98.933
7/19/2012	7/19/2017	7/21/2014	-0.129	105.149	105.149	105.149	101.772	100.190	99.699	99.562	99.536
10/1/2012	10/1/2019	4/1/2015	0.000	110.273	110.273	107.009	102.267	100.224	99.448	99.135	99.033
10/5/2012	10/5/2017	10/6/2014	0.003	104.979	104.979	104.975	101.383	99.964	99.528	99.396	99.356

As of: 12/31/2012

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
10/5/2012	10/5/2017	10/6/2014	0.003	104.979	104.979	104.975	101.383	99.964	99.528	99.396	99.356