

## **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	Next Call	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date									
2/27/1997	2/27/2012	8/29/2011	6.580	104.423	104.423	104.423	104.188	103.518	102.857	102.204	101.564
4/8/1998	4/8/2013	7/8/2011	5.490	109.882	109.882	109.882	108.457	106.646	104.913	103.329	101.971
8/19/1998	8/19/2013	8/19/2011	5.490	111.910	111.910	111.910	109.856	107.682	105.635	103.801	102.258
8/19/1998	8/19/2013	8/19/2011	5.490	111.910	111.910	111.910	109.856	107.682	105.635	103.801	102.258
8/25/1998	8/19/2013	7/25/2011	5.490	111.910	111.910	111.910	109.857	107.681	105.635	103.798	102.255
8/27/1998	8/19/2013	7/27/2011	5.490	111.910	111.910	111.910	109.856	107.682	105.635	103.801	102.258
9/30/1998	9/30/2013	9/30/2011	5.220	111.933	111.933	111.933	109.655	107.383	105.278	103.432	101.919
12/14/1998	12/16/2013	9/14/2011	5.390	113.474	113.474	113.272	110.725	108.251	105.973	103.978	102.333
12/14/1998	12/16/2013	9/14/2011	4.890	112.224	112.224	112.022	109.490	107.054	104.854	102.987	101.535
12/15/1998	12/16/2013	9/15/2011	4.880	112.199	112.199	111.997	109.466	107.030	104.831	102.966	101.518
1/7/2000	1/7/2015	7/7/2011	5.950	121.270	121.270	119.190	115.540	112.136	109.090	106.449	104.246
12/13/2001	12/13/2011	9/13/2011	4.920	102.269	102.269	102.269	102.142	101.687	101.237	100.791	100.367
6/3/2002	6/4/2012	9/3/2011	4.490	104.240	104.240	104.240	103.837	102.904	101.987	101.087	100.203
6/4/2002	6/4/2012	9/6/2011	4.490	104.240	104.240	104.240	103.837	102.904	101.987	101.087	100.203
12/5/2002	12/5/2012	9/6/2011	3.790	105.516	105.516	105.516	104.597	103.155	101.740	100.350	98.987
3/6/2003	3/6/2013	9/6/2011	2.990	105.107	105.107	105.107	103.846	102.234	100.932	100.142	99.820
7/2/2004	7/2/2014	7/3/2011	3.990	112.169	112.169	111.156	108.064	105.045	102.128	99.309	96.583
12/13/2004	12/15/2014	9/13/2011	3.320	111.656	111.656	109.822	106.642	103.987	101.972	100.635	99.976
9/1/2005	9/1/2015	9/1/2011	4.130	117.483	117.483	113.744	109.448	105.315	101.365	97.587	96.615
9/19/2005	9/19/2012	9/19/2011	3.820	104.743	104.743	104.743	104.075	102.847	101.678	100.703	100.076
9/26/2005	9/26/2012	9/26/2011	3.890	104.905	104.905	104.905	104.217	102.969	101.778	100.774	100.103
9/30/2005	9/30/2015	9/30/2011	4.440	119.152	119.152	115.180	110.777	106.542	102.498	98.633	96.816
10/26/2005	10/26/2015	7/26/2011	4.540	119.912	119.912	115.726	111.243	106.935	102.823	98.895	96.982
10/28/2005	10/28/2015	7/28/2011	4.310	118.927	118.927	114.958	110.985	107.570	104.780	102.616	101.078
10/28/2005	10/28/2015	7/28/2011	4.140	118.180	118.180	114.242	110.323	106.983	104.281	102.228	100.819
11/21/2005	11/21/2012	8/22/2011	4.290	106.077	106.077	106.077	105.205	103.799	102.457	101.285	100.430
1/6/2006	1/6/2016	7/6/2011	4.020	118.435	118.315	114.030	110.060	106.717	104.050	102.057	100.735
1/17/2006	1/19/2016	7/18/2011	4.080	118.857	118.665	114.339	110.325	106.936	104.220	102.176	100.793
4/19/2006	4/19/2013	7/19/2011	4.630	108.475	108.475	108.475	107.010	105.191	103.493	102.024	100.884
4/24/2006	4/25/2016	7/25/2011	4.440	121.718	120.993	116.371	112.080	108.422	105.433	103.104	101.416
5/5/2006	5/6/2013	8/5/2011	4.780	108.975	108.975	108.975	107.434	105.566	103.820	102.299	101.105
5/5/2006	5/5/2016	8/5/2011	4.980	124.497	123.702	118.944	114.458	110.559	107.288	104.639	102.598
5/5/2006	5/5/2016	8/5/2011	4.350	121.398	120.617	116.005	111.743	108.127	105.190	102.922	101.304
5/5/2006	5/5/2016	8/5/2011	4.530	122.284	121.498	116.841	112.509	108.807	105.770	103.388	101.644
5/15/2006	5/16/2016	8/15/2011	4.350	121.531	120.685	116.046	111.765	108.132	105.186	102.907	101.282
5/15/2006	5/16/2016	8/15/2011	4.520	122.373	121.521	116.840	112.492	108.778	105.734	103.349	101.604
5/19/2006	5/19/2016	8/19/2011	4.510	122.361	121.492	116.805	112.456	108.743	105.700	103.316	101.573
6/12/2006	6/13/2016	9/12/2011	4.620	123.227	122.209	117.440	113.018	109.230	106.112	103.651	101.832
6/26/2006	6/27/2016	9/26/2011	4.730	123.964	122.858	118.025	113.535	109.678	106.481	103.940	102.032
6/28/2006	6/28/2013	9/28/2011	4.950	110.023	110.023	110.023	108.238	106.221	104.338	102.687	101.371
6/30/2006	7/1/2013	9/30/2011	4.890	109.942	109.942	109.942	108.144	106.123	104.244	102.606	101.307
7/14/2006	7/15/2013	7/14/2011	4.890	110.133	110.133	110.133	108.266	106.208	104.299	102.638	101.330
7/19/2006	7/19/2011	7/19/2011	5.250	100.277	100.277	100.277	100.271	100.220	100.168	100.117	100.066
7/20/2006	7/20/2011	7/20/2011	5.300	100.294	100.294	100.294	100.288	100.234	100.180	100.126	100.073
7/24/2006	7/25/2016	7/25/2011	4.660	123.972	122.685	117.819	113.318	109.464	106.289	103.776	101.907
7/28/2006	7/28/2016	7/28/2011	4.490	123.135	121.836	117.011	112.571	108.797	105.715	103.303	101.545
8/1/2006	8/1/2016	8/1/2011	4.890	125.250	123.909	118.979	114.390	110.434	107.140	104.494	102.477
8/11/2006	8/11/2011	8/11/2011	4.790	100.559	100.559	100.559	100.544	100.430	100.317	100.205	100.092
8/21/2006	8/21/2013	8/1/2011	4.750	110.331	110.331	110.331	108.278	106.098	103.974	101.903	99.885
8/25/2006	8/25/2016	8/25/2011	4.350	122.751	121.284	116.447	112.031	108.305	105.290	102.960	101.296
8/28/2006	8/29/2011	8/29/2011	4.890	100.815	100.815	100.815	100.792	100.630	100.468	100.307	100.147
9/22/2006	9/22/2011	9/22/2011	4.790	101.118	101.118	101.118	101.080	100.851	100.623	100.397	100.171
9/29/2006	9/29/2011	9/29/2011	4.590	101.160	101.160	101.160	101.118	100.870	100.623	100.377	100.132
10/10/2006	10/10/2013	7/11/2011	4.250	109.833	109.833	109.817	107.520	105.293	103.329	101.746	100.636
10/12/2006	10/15/2013	7/12/2011	4.500	110.474	110.474	110.450	108.126	105.865	103.842	102.168	100.923
10/30/2006	10/31/2011	7/30/2011	4.850	101.657	101.657	101.657	101.585	101.250	100.917	100.586	100.258
11/3/2006	11/3/2011	8/3/2011	4.690	101.641	101.641	101.641	101.566	101.223	100.881	100.543	100.206
11/6/2006	11/6/2013	8/8/2011	4.290	110.248	110.248	110.178	107.777	105.482	103.447	101.780	100.554
11/10/2006	11/13/2012	8/10/2011	4.390	106.121	106.121	106.121	105.276	103.891	102.564	101.392	100.507
11/17/2006	11/18/2013	8/17/2011	4.350	110.536	110.536	110.428	107.992	105.668	103.619	101.955	100.756
11/24/2006	11/25/2016	8/24/2011	4.190	122.985	120.924	115.985	111.539	107.831	104.864	102.615	101.039
11/30/2006	12/2/2013	8/28/2011	4.350	110.705	110.705	110.552	108.064	105.609	103.224	100.905	99.122
12/1/2006	12/1/2016	9/1/2011	4.090	122.505	120.424	115.522	111.128	107.484	104.592	102.423	100.948
12/4/2006	12/5/2016	9/6/2011	4.080	122.495	120.387	115.482	111.089	107.447	104.560	102.395	100.925
12/5/2006	12/5/2016	9/6/2011	4.260	123.488	121.356	116.379	111.896	108.149	105.142	102.850	101.232
12/6/2006	12/6/2013	9/6/2011	4.400	110.877	110.877	110.710	108.223	105.858	103.775	102.083	100.853
12/8/2006	12/8/2016	9/8/2011	3.990	122.032	119.916	115.041	110.689	107.099	104.269	102.171	100.786
12/12/2006	12/12/2016	9/12/2011	3.990	122.076	119.932	115.049	110.692	107.099	104.267	102.166	100.777
12/12/2006	12/12/2016	9/12/2011	4.050	122.408	120.256	115.348	110.960	107.328	104.456	102.307	100.862

Start Date	Maturity	Next Call	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date									
12/19/2006	12/19/2011	9/19/2011	4.490	102.145	102.145	102.145	102.010	101.540	101.074	100.615	100.207
12/19/2006	12/19/2016	9/19/2011	4.190	123.265	121.044	116.066	111.596	107.874	104.899	102.643	101.069
12/20/2006	12/20/2013	9/20/2011	4.500	111.299	111.299	111.083	108.553	106.146	104.013	102.265	100.967
12/21/2006	12/21/2011	9/21/2011	4.530	102.189	102.189	102.189	102.052	101.576	101.105	100.640	100.224
12/27/2006	12/27/2013	9/27/2011	4.500	111.387	111.387	111.146	108.597	106.173	104.027	102.268	100.960
12/28/2006	12/28/2016	9/28/2011	4.250	123.704	121.413	116.392	111.879	108.111	105.087	102.783	101.155
12/28/2006	12/28/2016	9/28/2011	4.400	124.541	122.230	117.152	112.566	108.711	105.593	103.180	101.445
1/8/2007	1/9/2012	7/8/2011	4.750	102.546	102.546	102.546	102.383	101.855	101.333	100.817	100.305
1/12/2007	1/12/2017	7/12/2011	4.420	124.836	122.415	117.316	112.710	108.839	105.708	103.282	101.536
1/16/2007	1/17/2017	1/17/2012	4.790	126.982	124.475	119.238	114.455	110.379	107.015	104.338	102.309
1/23/2007	1/23/2014	7/25/2011	4.490	111.698	111.698	111.357	108.737	106.258	104.077	102.291	100.973
1/23/2007	1/23/2017	7/25/2011	4.460	125.197	122.685	117.552	112.912	109.006	105.839	103.374	101.587
1/29/2007	1/29/2014	7/29/2011	4.790	112.560	112.560	112.196	109.530	106.904	104.356	101.882	99.781
2/2/2007	2/2/2017	8/2/2011	4.690	126.627	123.744	117.873	112.119	106.667	103.416	100.983	99.544
2/9/2007	2/9/2012	8/9/2011	4.750	102.955	102.955	102.955	102.748	102.135	101.529	100.935	100.400
2/9/2007	2/9/2017	8/9/2011	4.470	125.465	122.833	117.674	113.014	109.095	105.916	103.446	101.653
2/12/2007	2/13/2012	8/12/2011	4.880	103.091	103.091	103.091	102.877	102.252	101.635	101.029	100.472
2/15/2007	2/15/2012	8/15/2011	4.990	103.188	103.188	103.188	102.972	102.340	101.717	101.101	100.493
2/20/2007	2/21/2017	8/22/2011	4.390	125.156	122.451	117.297	112.659	108.770	105.631	103.209	101.466
2/20/2007	2/21/2017	2/21/2012	4.850	127.792	124.750	118.801	112.984	107.807	104.103	101.880	100.664
2/23/2007	2/23/2017	8/23/2011	4.250	124.377	121.683	116.579	112.007	108.199	105.150	102.826	101.182
2/23/2007	2/23/2017	8/23/2011	4.350	124.950	122.239	117.094	112.472	108.603	105.489	103.092	101.378
3/2/2007	3/2/2012	9/2/2011	4.490	103.068	103.068	103.068	102.828	102.153	101.486	100.843	100.311
3/9/2007	3/10/2014	9/9/2011	4.450	112.163	112.163	111.648	108.902	106.335	104.102	102.300	100.980
3/16/2007	3/16/2017	9/16/2011	4.090	123.698	120.890	115.823	111.320	107.600	104.654	102.443	100.936
3/20/2007	3/20/2012	9/30/2011	4.550	103.336	103.336	103.336	103.069	102.344	101.629	100.925	100.230
3/21/2007	3/21/2017	9/21/2011	4.220	124.510	121.640	116.505	111.924	108.119	105.078	102.769	101.148
3/23/2007	3/23/2017	9/23/2011	4.290	124.940	122.043	116.874	112.254	108.403	105.313	102.951	101.274
3/23/2007	3/23/2017	9/23/2011	4.290	124.940	122.043	116.874	112.254	108.403	105.313	102.951	101.274
3/30/2007	3/30/2012	9/30/2011	4.670	103.554	103.554	103.554	103.270	102.518	101.777	101.047	100.327
4/2/2007	4/2/2012	7/5/2011	4.590	103.532	103.532	103.532	103.243	102.483	101.734	101.014	100.406
4/9/2007	4/10/2017	7/11/2011	4.150	124.334	121.336	116.209	111.653	107.883	104.888	102.626	101.063
4/12/2007	4/12/2017	7/12/2011	4.250	124.944	121.909	116.734	112.120	108.285	105.217	102.883	101.237
4/13/2007	4/13/2017	7/13/2011	4.450	126.130	123.048	117.788	113.067	109.109	105.908	103.426	101.633
4/23/2007	4/23/2012	7/25/2011	4.650	103.849	103.849	103.849	103.524	102.705	101.899	101.105	100.324
4/23/2007	4/23/2014	7/25/2011	4.620	113.192	113.192	112.492	109.619	106.938	104.593	102.675	101.235
4/27/2007	4/27/2012	7/27/2011	4.550	103.817	103.817	103.817	103.485	102.655	101.840	101.058	100.399
4/27/2007	4/27/2017	7/27/2011	4.250	125.121	121.969	116.770	112.135	108.283	105.203	102.851	101.194
5/2/2007	5/2/2014	8/2/2011	4.590	113.221	113.221	112.484	109.591	106.901	104.562	102.657	101.241
5/4/2007	5/5/2014	8/4/2011	4.550	113.144	113.144	112.393	109.495	106.806	104.473	102.579	101.178
5/18/2007	5/18/2017	8/18/2011	4.190	125.010	121.721	116.523	111.905	108.080	105.034	102.727	101.111
5/22/2007	5/22/2012	8/22/2011	4.690	104.260	104.260	104.260	103.882	102.983	102.101	101.255	100.529
5/22/2007	5/22/2012	8/22/2011	4.690	104.260	104.260	104.260	103.882	102.983	102.101	101.255	100.529
5/22/2007	5/22/2012	8/22/2011	4.710	104.278	104.278	104.278	103.900	103.001	102.119	101.272	100.543
5/22/2007	5/22/2017	5/22/2012	4.750	128.406	124.967	119.524	114.607	110.440	107.020	104.299	102.194
5/25/2007	5/25/2012	8/25/2011	4.650	104.262	104.262	104.262	103.878	102.972	102.082	101.230	100.503
5/29/2007	5/30/2017	8/29/2011	4.250	125.510	122.119	116.872	112.207	108.331	105.234	102.871	101.199
6/1/2007	6/1/2012	9/1/2011	5.230	104.896	104.896	104.896	104.497	103.569	102.657	101.762	100.882
6/1/2007	6/2/2014	9/1/2011	4.500	113.349	113.349	112.475	109.511	106.778	104.422	102.526	101.135
6/7/2007	6/7/2017	9/7/2011	4.820	129.039	125.470	119.977	115.013	110.801	107.336	104.578	102.494
6/8/2007	6/8/2012	9/8/2011	5.300	105.064	105.064	105.064	104.651	103.703	102.772	101.858	100.960
6/8/2007	6/9/2014	9/8/2011	4.730	114.124	114.124	113.216	110.215	107.426	104.993	102.994	101.485
6/8/2007	6/8/2017	9/8/2011	4.490	127.063	123.556	118.194	113.397	109.374	106.120	103.590	101.755
6/11/2007	6/12/2017	9/12/2011	4.490	127.113	123.574	118.205	113.403	109.376	106.119	103.588	101.749
6/15/2007	6/16/2014	9/15/2011	5.550	116.680	116.680	115.735	112.631	109.587	106.643	103.796	101.041
6/18/2007	6/19/2017	9/19/2011	4.500	127.261	123.666	118.277	113.459	109.419	106.148	103.604	101.752
6/18/2007	6/19/2017	9/19/2011	4.840	129.321	125.651	120.125	115.133	110.895	107.406	104.625	102.516
6/19/2007	6/19/2017	9/19/2011	4.650	128.170	124.541	119.089	114.191	110.063	106.691	104.043	102.074
6/20/2007	6/20/2012	9/20/2011	4.890	104.835	104.835	104.835	104.398	103.418	102.458	101.539	100.734
6/22/2007	6/22/2017	9/22/2011	4.500	127.298	123.680	118.284	113.462	109.417	106.142	103.595	101.741
6/26/2007	6/26/2012	9/26/2011	5.130	105.158	105.158	105.158	104.707	103.710	102.732	101.790	100.944
6/28/2007	6/28/2017	9/28/2011	4.500	127.373	123.709	118.300	113.469	109.417	106.136	103.585	101.727
7/13/2007	7/13/2012	7/13/2011	4.690	104.937	104.937	104.937	104.448	103.403	102.381	101.418	100.611
7/13/2007	7/13/2017	7/13/2011	4.900	130.011	126.141	120.554	115.507	111.217	107.679	104.849	102.692
7/13/2007	7/13/2017	7/13/2011	4.290	126.275	122.550	117.225	112.499	108.577	105.438	103.043	101.343
7/18/2007	7/18/2017	7/18/2011	4.780	129.342	125.456	119.907	114.912	110.686	107.216	104.464	102.392
7/19/2007	7/19/2012	7/19/2011	4.890	105.229	105.229	105.229	104.725	103.662	102.619	101.628	100.775
7/20/2007	7/20/2017	7/20/2011	4.290	126.358	122.576	117.240	112.506	108.576	105.430	103.028	101.323
7/23/2007	7/23/2012	7/25/2011	5.050	105.457	105.457	105.457	104.943	103.867	102.810	101.800	100.919

## 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
7/27/2007	7/27/2012	7/27/2011	4.590	105.010	105.010	105.010	104.488	103.403	102.341	101.347	100.537
7/27/2007	7/28/2014	7/27/2011	4.350	113.581	113.581	112.450	109.357	106.544	104.156	102.261	100.902
7/27/2007	7/27/2017	7/27/2011	4.250	126.195	122.366	117.039	112.318	108.407	105.284	102.903	101.224
7/30/2007	1/30/2019	8/1/2011	3.990	129.010	122.784	116.934	111.937	107.906	104.766	102.444	100.894
7/31/2007	7/31/2017	8/1/2011	3.990	124.637	120.863	115.664	111.095	107.352	104.413	102.234	100.788
7/31/2007	7/31/2017	8/1/2011	3.990	124.637	120.863	115.664	111.095	107.352	104.413	102.234	100.788
7/31/2007	7/31/2017	8/1/2011	4.060	125.069	121.273	116.038	111.427	107.636	104.644	102.406	100.893
8/2/2007	8/4/2014	8/2/2011	4.490	114.105	114.105	112.938	109.818	106.972	104.540	102.592	101.167
8/2/2007	8/2/2017	8/2/2011	4.150	125.648	121.812	116.537	111.879	108.039	104.998	102.705	101.117
8/2/2007	8/2/2017	8/2/2011	4.050	125.030	121.225	116.001	111.403	107.632	104.661	102.447	100.949
8/6/2007	8/6/2012	8/8/2011	4.490	105.026	105.026	105.026	104.479	103.366	102.280	101.281	100.490
8/9/2007	8/11/2014	8/9/2011	4.860	115.362	115.362	114.155	110.982	108.050	105.492	103.381	101.758
8/9/2007	8/9/2017	8/9/2011	3.990	124.736	120.897	115.691	111.122	107.383	104.452	102.281	100.833
8/13/2007	8/13/2012	8/15/2011	4.590	105.227	105.227	105.227	104.661	103.529	102.422	101.397	100.565
8/16/2007	8/16/2017	8/16/2011	3.990	124.814	120.921	115.703	111.125	107.379	104.442	102.264	100.812
8/17/2007	8/17/2012	8/17/2011	4.350	105.002	105.002	105.002	104.426	103.284	102.173	101.162	100.397
8/17/2007	8/17/2012	8/17/2011	4.150	104.772	104.772	104.772	104.196	103.056	101.951	100.970	100.264
8/17/2007	8/17/2017	8/17/2011	4.000	124.887	120.983	115.758	111.173	107.419	104.474	102.287	100.824
8/20/2007	8/20/2014	8/22/2011	4.250	113.540	113.540	112.285	109.122	106.245	103.823	101.897	100.543
8/24/2007	8/24/2012	8/24/2011	4.050	104.736	104.736	104.736	104.142	102.983	101.864	100.884	100.197
8/28/2007	8/28/2014	8/29/2011	4.350	113.955	113.955	112.668	109.504	106.639	104.212	102.295	100.912
8/30/2007	8/30/2012	8/30/2011	4.390	105.207	105.207	105.207	104.596	103.418	102.272	101.225	100.428
8/30/2007	9/2/2014	8/30/2011	3.890	112.534	112.534	111.231	108.116	105.365	103.116	101.437	100.378
8/31/2007	8/31/2012	8/31/2011	4.370	105.195	105.195	105.195	104.581	103.401	102.253	101.207	100.415
9/4/2007	9/4/2012	9/6/2011	4.220	105.064	105.064	105.064	104.439	103.249	102.099	101.080	100.342
9/4/2007	9/5/2017	9/6/2011	3.890	124.408	120.414	115.228	110.701	107.022	104.157	102.065	100.714
9/7/2007	9/7/2012	9/7/2011	4.090	104.942	104.942	104.942	104.308	103.111	101.959	100.957	100.252
9/10/2007	9/11/2017	9/12/2011	3.690	123.215	119.253	114.172	109.772	106.234	103.525	101.603	100.430
9/11/2007	9/11/2017	9/12/2011	3.590	122.585	118.666	113.646	109.313	105.850	103.225	101.393	100.302
9/12/2007	9/12/2014	9/12/2011	3.690	111.992	111.992	110.643	107.544	104.847	102.689	101.143	100.212
9/13/2007	9/15/2014	9/13/2011	3.990	113.000	113.000	111.627	108.473	105.679	103.383	101.649	100.524
9/13/2007	9/13/2017	9/13/2011	3.990	125.124	121.032	115.775	111.176	107.416	104.470	102.286	100.837
9/14/2007	9/14/2011	9/14/2011	4.090	100.863	100.863	100.863	100.831	100.624	100.419	100.214	100.011
9/14/2007	9/14/2012	9/14/2011	4.390	105.390	105.390	105.390	104.735	103.515	102.333	101.264	100.460
9/17/2007	9/17/2012	9/19/2011	4.220	105.216	105.216	105.216	104.553	103.326	102.143	101.096	100.332
9/27/2007	9/29/2014	9/27/2010	4.490	114.804	114.804	113.332	109.964	106.684	103.521	100.469	97.525
9/27/2007	9/27/2017	9/27/2011	3.650	123.125	119.065	113.979	109.587	106.065	103.380	101.485	100.331
9/28/2007	9/28/2012	9/28/2011	3.850	104.876	104.876	104.876	104.182	102.929	101.736	100.736	100.078
10/3/2007	10/3/2012	7/5/2011	3.830	104.904	104.904	104.904	104.195	102.928	101.731	100.743	100.132
10/9/2007	10/9/2012	10/9/2009	4.400	105.707	105.707	105.707	104.977	103.687	102.418	101.171	99.944
10/11/2007	10/14/2014	7/11/2011	4.180	113.956	113.956	112.423	109.179	106.292	103.889	102.035	100.757
10/11/2007	10/11/2017	7/11/2011	3.990	125.434	121.137	115.846	111.224	107.451	104.493	102.305	100.847
10/15/2007	10/16/2017	7/15/2011	3.990	125.490	121.152	115.855	111.228	107.450	104.489	102.296	100.833
10/22/2007	10/22/2012	7/22/2011	3.990	105.320	105.320	105.320	104.549	103.229	101.974	100.911	100.190
10/25/2007	10/27/2014	10/25/2011	4.360	114.714	114.714	113.104	109.803	106.844	104.353	102.386	100.977
10/26/2007	10/26/2017	7/26/2011	3.390	121.751	117.600	112.667	108.446	105.117	102.643	100.973	100.129
10/29/2007	10/29/2012	7/29/2011	3.990	105.397	105.397	105.397	104.605	103.266	101.993	100.917	100.189
11/2/2007	11/3/2014	8/2/2011	3.990	113.543	113.543	111.906	108.655	105.798	103.464	101.707	100.559
11/2/2007	11/3/2014	8/2/2011	4.190	114.222	114.222	112.579	109.294	106.378	103.957	102.089	100.799
11/5/2007	11/5/2014	8/5/2011	3.990	113.565	113.565	111.917	108.661	105.801	103.464	101.702	100.552
11/5/2007	11/6/2017	11/5/2012	4.390	128.301	123.656	118.128	113.238	109.176	105.896	103.274	101.146
11/6/2007	11/6/2017	8/8/2011	3.480	122.435	118.168	113.174	108.887	105.488	102.941	101.195	100.211
11/9/2007	11/10/2014	11/9/2011	4.330	114.781	114.781	113.093	109.771	106.803	104.316	102.365	100.968
11/13/2007	11/14/2011	8/15/2011	3.760	101.431	101.431	101.431	101.342	100.968	100.598	100.233	99.986
11/13/2007	11/13/2012	8/15/2011	3.680	105.131	105.131	105.131	104.289	102.916	101.643	100.630	100.052
11/13/2007	11/13/2014	8/15/2011	3.350	111.464	111.464	109.803	106.665	104.028	102.011	100.662	100.018
11/19/2007	11/19/2014	8/19/2011	3.750	112.895	112.895	111.179	107.936	105.133	102.892	101.262	100.276
11/19/2007	11/19/2014	8/19/2011	3.750	112.895	112.895	111.179	107.936	105.133	102.892	101.262	100.276
11/19/2007	11/19/2014	11/21/2011	4.270	114.683	114.683	112.945	109.610	106.643	104.164	102.234	100.859
11/19/2007	11/20/2017	11/19/2012	4.290	127.824	122.257	115.678	110.200	106.226	103.538	101.561	99.945
11/20/2007	11/20/2017	8/22/2011	3.740	124.256	119.762	114.574	110.085	106.470	103.696	101.708	100.479
11/23/2007	11/24/2017	11/23/2011	3.990	125.922	120.331	113.698	107.404	102.866	101.035	100.371	99.945
11/23/2007	11/24/2017	11/23/2011	3.990	125.922	120.331	113.698	107.404	102.866	101.035	100.371	99.945
11/29/2007	11/29/2017	8/29/2011	2.950	119.206	115.098	110.466	106.578	103.617	101.542	100.331	99.850
11/30/2007	11/30/2017	8/30/2011	3.190	120.778	116.510	111.690	107.606	104.431	102.128	100.642	99.965
12/7/2007	12/7/2012	9/7/2011	3.450	105.040	105.040	105.040	104.116	102.686	101.402	100.453	99.961
12/10/2007	12/11/2017	9/12/2011	3.450	122.577	118.093	113.072	108.784	105.394	102.860	101.134	100.157
12/11/2007	12/11/2012	9/12/2011	3.760	105.535	105.535	105.535	104.595	103.146	101.809	100.741	100.084
12/20/2007	12/20/2012	12/21/2009	3.750	105.614	105.614	105.614	104.641	103.159	101.705	100.278	98.878

## Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances

Start Date	Maturity	Next Call	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date									
12/20/2007	12/20/2012	9/20/2011	3.600	105.390	105.390	105.390	104.417	102.949	101.616	100.582	99.999
12/24/2007	12/26/2012	12/24/2012	3.990	126.277	120.371	113.854	108.792	105.290	102.823	100.940	99.348
12/26/2007	12/26/2012	9/26/2011	3.960	105.995	105.995	105.995	104.999	103.505	102.113	100.965	100.190
12/26/2007	12/26/2012	9/26/2011	3.460	105.238	105.238	105.238	104.245	102.765	101.440	100.457	99.921
1/2/2008	1/2/2013	7/5/2011	3.490	105.351	105.351	105.351	104.332	102.836	101.502	100.510	100.040
1/3/2008	1/5/2015	7/5/2011	3.650	113.028	113.028	111.049	107.754	104.943	102.728	101.156	100.234
1/4/2008	1/4/2018	7/5/2011	3.360	122.212	117.619	112.640	108.409	105.086	102.629	100.986	100.161
1/7/2008	1/7/2013	7/7/2011	2.990	104.626	104.626	104.626	103.591	102.110	100.881	100.130	99.981
1/7/2008	1/7/2013	7/7/2011	3.590	105.554	105.554	105.554	104.515	103.003	101.641	100.599	100.070
1/7/2008	1/7/2015	7/7/2011	3.490	112.476	112.476	110.498	107.239	104.490	102.360	100.891	100.138
1/7/2008	1/8/2018	7/7/2011	2.590	117.150	113.080	108.753	105.175	102.558	100.860	100.082	99.973
1/8/2008	1/8/2013	7/8/2011	3.150	104.882	104.882	104.882	103.842	102.349	101.072	100.222	99.981
1/8/2008	1/8/2018	7/8/2011	2.570	117.017	112.963	108.656	105.097	102.500	100.823	100.069	99.969
1/8/2008	1/8/2018	7/8/2011	2.640	117.481	113.368	108.992	105.369	102.702	100.949	100.106	99.970
1/11/2008	1/11/2018	7/11/2011	2.720	118.033	113.835	109.380	105.682	102.934	101.098	100.148	99.961
1/14/2008	1/16/2018	7/14/2011	3.240	121.526	116.917	112.018	107.872	104.643	102.290	100.757	100.069
1/16/2008	1/16/2013	7/18/2011	2.690	104.229	104.229	104.229	103.163	101.691	100.549	100.013	99.935
1/16/2008	1/16/2013	7/18/2011	2.550	104.009	104.009	104.009	102.944	101.489	100.412	99.977	99.928
1/16/2008	1/16/2015	7/18/2011	2.640	109.503	109.503	107.579	104.597	102.291	100.752	100.048	99.933
1/16/2008	1/16/2018	7/18/2011	2.380	115.812	111.872	107.762	104.384	101.977	100.510	99.968	99.920
1/17/2008	1/17/2018	7/18/2011	2.250	114.954	111.136	107.169	103.920	101.654	100.340	99.962	99.913
1/18/2008	1/18/2013	7/18/2011	2.550	104.023	104.023	104.023	102.951	101.492	100.412	99.977	99.928
1/18/2008	1/20/2015	7/18/2011	2.350	108.485	108.485	106.602	103.753	101.649	100.373	99.967	99.918
1/18/2008	1/18/2018	7/18/2011	2.290	115.227	111.364	107.348	104.059	101.749	100.389	99.964	99.915
1/24/2008	1/24/2012	7/25/2011	2.440	101.410	101.410	101.410	101.226	100.662	100.148	99.960	99.893
1/24/2008	1/24/2013	7/25/2011	2.500	103.986	103.986	103.986	102.892	101.428	100.365	99.964	99.897
1/25/2008	1/25/2013	1/26/2009	2.250	103.593	103.593	103.593	102.494	100.933	99.404	97.905	96.436
1/25/2008	1/25/2013	7/25/2011	2.650	104.232	104.232	104.232	103.130	101.564	100.030	98.526	97.052
1/28/2008	1/28/2013	7/28/2011	2.990	104.800	104.800	104.800	103.685	102.106	100.560	99.044	97.558
1/30/2008	1/30/2013	8/1/2011	2.670	104.301	104.301	104.301	103.182	101.681	100.529	100.005	99.883
2/7/2008	2/7/2013	8/8/2011	2.490	104.067	104.067	104.067	102.920	101.435	100.372	99.953	99.838
2/13/2008	2/13/2013	8/15/2011	2.920	104.818	104.818	104.818	103.641	102.083	100.827	100.091	99.866
2/14/2008	2/14/2018	2/14/2012	3.190	121.451	115.106	108.422	103.598	101.537	100.614	99.971	99.364
2/19/2008	2/19/2013	2/19/2010	2.590	104.316	104.316	104.316	103.116	101.479	99.876	98.305	96.767
2/25/2008	2/25/2013	2/25/2011	3.090	105.201	105.201	105.201	103.973	102.311	100.684	99.090	97.529
2/25/2008	2/26/2018	8/25/2011	2.420	116.353	112.152	107.966	104.533	102.076	100.554	99.944	99.755
3/7/2008	3/9/2015	9/7/2011	2.890	110.820	110.820	108.576	105.430	102.940	101.185	100.197	99.807
3/7/2008	3/7/2018	3/7/2013	3.550	124.079	118.938	113.763	109.342	105.807	103.000	100.693	98.715
3/10/2008	3/11/2013	9/12/2011	2.390	104.116	104.116	104.116	102.845	101.322	100.294	99.875	99.664
3/12/2008	3/12/2013	9/12/2011	2.010	103.467	103.467	103.467	102.207	100.797	100.041	99.785	99.586
3/14/2008	3/14/2018	9/14/2011	2.400	116.325	112.066	107.890	104.476	102.040	100.545	99.914	99.658
3/17/2008	3/18/2013	9/19/2011	2.690	104.685	104.685	104.685	103.379	101.782	100.579	99.972	99.698
3/17/2008	3/17/2015	9/17/2011	2.620	109.868	109.868	107.367	103.629	100.026	96.568	93.248	90.061
3/17/2008	3/19/2018	3/18/2013	3.300	122.493	117.428	112.423	108.191	104.847	102.192	100.007	98.099
3/25/2008	3/27/2023	3/25/2013	3.150	123.493	112.799	107.559	104.764	102.627	100.807	99.109	97.471
3/26/2008	3/26/2018	3/26/2012	2.980	120.370	113.653	107.045	103.076	101.403	100.525	99.786	99.078
3/28/2008	3/28/2013	9/28/2011	2.820	104.989	104.989	104.989	103.636	101.894	100.190	98.522	96.890
3/28/2008	3/28/2013	9/28/2011	2.800	104.954	104.954	104.954	103.601	101.859	100.155	98.488	96.856
3/28/2008	3/28/2018	9/28/2011	2.770	118.950	114.248	109.682	105.904	103.084	101.180	100.131	99.702
3/28/2008	3/28/2018	9/28/2011	2.020	113.818	109.920	106.177	103.156	101.135	100.094	99.738	99.493
4/14/2008	4/14/2015	7/14/2011	2.750	110.571	110.571	107.878	104.058	100.377	96.847	93.462	90.213
4/28/2008	4/28/2015	7/28/2011	3.250	112.620	112.620	110.021	106.669	103.931	101.884	100.556	99.985
4/28/2008	4/30/2018	7/28/2011	2.150	114.821	110.652	106.762	103.592	101.419	100.209	99.933	99.858
4/30/2008	4/30/2018	4/30/2013	3.740	125.845	118.820	112.550	108.062	104.809	102.349	100.281	98.418
5/2/2008	5/4/2015	8/2/2011	3.990	115.560	115.560	112.829	109.246	106.171	103.691	101.838	100.620
5/5/2008	5/5/2015	8/5/2011	3.170	112.371	112.371	109.749	106.427	103.735	101.751	100.496	99.978
5/8/2008	5/8/2015	8/8/2011	2.960	111.576	111.576	108.979	105.738	103.164	101.333	100.273	99.898
5/19/2008	5/19/2015	5/21/2012	4.700	118.525	118.525	115.547	111.505	107.706	104.414	101.625	99.214
5/19/2008	5/21/2018	5/20/2013	3.890	126.967	119.865	113.503	108.840	105.371	102.780	100.601	98.651
5/23/2008	5/23/2013	8/23/2011	4.040	107.777	107.777	107.777	106.168	104.287	102.599	101.240	100.341
5/23/2008	5/23/2018	8/23/2011	3.270	122.646	117.386	112.351	108.106	104.804	102.389	100.803	100.029
5/27/2008	5/28/2013	5/27/2011	3.490	106.766	106.766	106.766	105.140	103.221	101.347	99.516	97.726
5/29/2008	5/29/2018	5/31/2011	3.460	123.982	116.884	109.839	103.153	96.917	91.111	85.702	80.660
6/6/2008	6/6/2013	9/6/2011	3.990	107.835	107.835	107.835	106.163	104.209	102.302	100.439	98.619
6/10/2008	6/11/2012	6/10/2010	3.940	103.797	103.797	103.797	103.380	102.430	101.498	100.582	99.683
6/16/2008	6/17/2013	9/16/2011	4.070	108.117	108.117	108.117	106.393	104.407	102.469	100.577	98.729
6/24/2008	6/24/2015	9/26/2011	3.830	115.479	115.479	112.439	108.811	105.740	103.304	101.518	100.399
6/30/2008	7/1/2013	9/30/2011	2.920	105.937	105.937	105.937	104.176	102.339	100.927	100.086	99.722
6/30/2008	7/1/2013	9/30/2011	3.450	107.014	107.014	107.014	105.239	103.320	101.711	100.554	99.940

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
6/30/2008	6/30/2015	9/30/2011	3.370	113.676	113.676	110.674	107.197	104.350	102.202	100.746	99.979
6/30/2008	7/2/2018	9/30/2011	3.690	125.716	118.492	111.315	104.502	98.153	92.245	86.744	81.622
7/1/2008	7/1/2015	7/1/2011	4.600	118.680	118.680	115.395	111.233	107.219	103.376	100.633	100.002
7/7/2008	7/8/2013	7/7/2011	4.590	109.422	109.422	109.422	107.592	105.538	103.533	101.577	100.269
7/8/2008	7/8/2013	7/8/2011	4.250	108.724	108.724	108.724	106.899	104.852	102.854	100.905	100.006
7/10/2008	7/10/2014	7/10/2012	4.800	114.746	114.746	113.691	110.546	107.514	104.751	102.261	99.868
7/11/2008	7/11/2018	7/11/2012	3.750	126.173	118.916	111.858	106.647	103.500	101.761	100.511	99.452
7/14/2008	7/14/2015	7/15/2013	4.900	120.075	120.075	116.693	112.627	108.998	105.632	102.123	98.361
7/14/2008	7/16/2018	7/14/2011	2.500	117.416	112.786	108.448	104.899	102.335	100.710	100.027	99.942
7/14/2008	7/16/2018	7/14/2011	3.250	122.730	117.392	112.327	108.076	104.777	102.372	100.799	100.083
7/17/2008	7/17/2018	7/17/2013	3.750	126.194	118.942	112.848	108.380	105.077	102.435	100.172	98.117
7/21/2008	7/22/2013	7/21/2011	3.000	106.274	106.274	106.274	104.399	102.341	100.463	99.999	99.943
8/15/2008	8/15/2018	8/15/2011	3.830	126.990	121.183	115.638	110.892	107.080	104.140	102.015	100.654
8/19/2008	8/19/2013	8/19/2010	3.440	107.462	107.462	107.462	105.440	103.297	101.208	99.172	97.187
9/8/2008	9/9/2013	9/8/2011	2.890	106.438	106.438	106.438	104.344	102.394	100.938	100.113	99.794
5/13/2009	5/13/2014	5/13/2013	4.000	111.644	111.644	110.861	107.986	105.213	102.013	98.295	94.778
9/28/2009	9/30/2013	9/28/2012	2.920	106.675	106.675	106.675	104.369	101.567	98.869	96.691	95.039
5/11/2010	5/11/2015	5/11/2015	3.700	114.501	114.501	111.422	106.911	102.199	97.169	91.764	86.359
5/24/2010	5/26/2015	8/24/2011	2.250	108.911	108.911	105.937	102.041	98.297	94.710	94.673	93.848
6/15/2010	6/15/2015	6/15/2011	2.280	109.157	109.157	106.042	102.091	98.621	98.297	96.049	95.946