

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	102.425	102.425	102.425	102.279	101.837	101.399	100.965	100.545
8/19/1998	8/19/2013	11/19/2012	5.490	104.453	104.453	104.453	104.125	103.315	102.519	101.740	101.012
8/19/1998	8/19/2013	11/19/2012	5.490	104.453	104.453	104.453	104.125	103.315	102.519	101.740	101.012
12/14/1998	12/16/2013	12/14/2012	5.390	106.153	106.153	106.153	105.632	104.485	103.360	102.278	101.303
12/14/1998	12/16/2013	12/14/2012	4.890	105.582	105.582	105.582	105.062	103.919	102.801	101.746	100.838
12/14/1998	12/16/2013	12/14/2012	4.890	105.582	105.582	105.582	105.062	103.919	102.801	101.746	100.838
12/15/1998	12/16/2013	12/17/2012	4.880	105.571	105.571	105.571	105.051	103.908	102.790	101.735	100.827
1/7/2000	1/7/2015	1/7/2013	5.950	113.189	113.189	113.189	111.795	109.528	107.351	105.322	103.520
12/5/2002	12/5/2012	12/5/2012	3.790	100.368	100.368	100.368	100.348	100.251	100.154	100.057	99.961
3/6/2003	3/6/2013	12/6/2012	2.990	101.046	101.046	101.046	100.948	100.599	100.253	99.999	99.881
7/2/2004	7/2/2014	1/3/2013	3.990	106.749	106.749	106.749	105.820	104.126	102.466	100.841	99.250
12/13/2004	12/15/2014	12/13/2012	3.320	107.147	107.147	107.147	105.844	103.770	101.982	100.675	100.018
9/1/2005	9/1/2015	12/1/2012	4.130	111.873	111.873	111.873	109.890	106.988	104.179	101.459	98.825
9/30/2005	9/30/2015	12/30/2012	4.440	113.122	113.122	113.122	111.047	108.048	105.147	102.341	99.625
10/26/2005	10/26/2015	1/26/2013	4.540	113.745	113.745	113.745	111.588	108.512	105.538	102.663	99.883
11/21/2005	11/21/2012	11/21/2012	4.290	100.250	100.250	100.250	100.238	100.179	100.121	100.063	100.004
1/17/2006	1/19/2016	1/17/2013	4.080	113.316	113.316	113.316	110.914	107.744	104.959	102.699	101.071
4/19/2006	4/19/2013	1/22/2013	4.630	102.186	102.186	102.186	102.025	101.554	101.086	100.628	100.224
4/24/2006	4/25/2016	1/24/2013	4.440	115.687	115.687	115.687	112.933	109.468	106.386	103.822	101.864
5/5/2006	5/5/2016	11/5/2012	4.350	115.490	115.490	115.490	112.706	109.236	106.172	103.648	101.748
5/5/2006	5/5/2016	11/5/2012	4.530	116.131	116.131	116.131	113.337	109.838	106.720	104.118	102.116
5/15/2006	5/16/2016	11/15/2012	4.350	115.623	115.623	115.623	112.798	109.297	106.206	103.656	101.734
5/15/2006	5/16/2016	11/15/2012	4.520	116.233	116.233	116.233	113.398	109.871	106.728	104.105	102.085
5/19/2006	5/19/2016	11/19/2012	4.510	116.235	116.235	116.235	113.389	109.855	106.708	104.082	102.059
6/12/2006	6/13/2016	12/12/2012	4.620	116.952	116.952	116.952	114.006	110.394	107.170	104.464	102.356
6/26/2006	6/27/2016	12/26/2012	4.730	117.539	117.539	117.539	114.532	110.864	107.578	104.790	102.589
6/28/2006	6/28/2013	12/28/2012	4.950	103.300	103.300	103.300	103.044	102.378	101.721	101.078	100.489
6/30/2006	7/1/2013	12/31/2012	4.890	103.301	103.301	103.301	103.041	102.367	101.702	101.055	100.468
7/14/2006	7/15/2013	1/14/2013	4.890	103.491	103.491	103.491	103.212	102.500	101.798	101.115	100.506
7/24/2006	7/25/2016	1/24/2013	4.660	117.642	117.642	117.642	114.529	110.804	107.483	104.688	102.499
7/28/2006	7/28/2016	1/28/2013	4.490	117.036	117.036	117.036	113.922	110.218	106.939	104.214	102.121
8/1/2006	8/1/2016	2/1/2013	4.890	118.608	118.608	118.608	115.453	111.681	108.298	105.406	103.100
8/21/2006	8/21/2013	11/1/2012	4.750	103.879	103.879	103.879	103.549	102.737	101.938	101.151	100.376
8/25/2006	8/25/2016	11/26/2012	4.350	116.843	116.843	116.843	113.628	109.885	106.601	103.904	101.863
10/10/2006	10/10/2013	1/10/2013	4.250	104.061	104.061	104.061	103.657	102.709	101.785	100.941	100.291
10/12/2006	10/15/2013	1/14/2013	4.500	104.362	104.362	104.362	103.950	102.987	102.047	101.165	100.453
11/6/2006	11/6/2013	11/6/2012	4.290	104.421	104.421	104.421	103.973	102.950	101.955	101.043	100.314
11/10/2006	11/13/2012	11/13/2012	4.390	100.159	100.159	100.159	100.151	100.115	100.078	100.042	100.006
11/17/2006	11/18/2013	11/19/2012	4.350	104.628	104.628	104.628	104.159	103.100	102.068	101.122	100.369
11/24/2006	11/25/2016	11/26/2012	4.190	117.294	117.294	117.294	113.711	109.795	106.412	103.678	101.654
11/30/2006	12/2/2013	11/28/2012	4.350	104.797	104.797	104.797	104.304	103.203	102.119	101.051	100.000
12/1/2006	12/1/2016	12/3/2012	4.090	116.950	116.950	116.950	113.355	109.459	106.125	103.457	101.522
12/4/2006	12/5/2016	12/4/2012	4.080	116.954	116.954	116.954	113.341	109.439	106.101	103.433	101.501
12/5/2006	12/5/2016	12/5/2012	4.260	117.702	117.702	117.702	114.069	110.121	106.705	103.941	101.882
12/6/2006	12/6/2013	12/6/2012	4.400	104.901	104.901	104.901	104.400	103.289	102.207	101.218	100.441
12/8/2006	12/8/2016	12/10/2012	3.990	116.613	116.613	116.613	112.998	109.111	105.804	103.180	101.315
12/12/2006	12/12/2016	12/12/2012	3.990	116.657	116.657	116.657	113.023	109.127	105.812	103.181	101.309
12/12/2006	12/12/2016	12/12/2012	4.050	116.908	116.908	116.908	113.267	109.354	106.013	103.346	101.425
12/19/2006	12/19/2016	12/19/2012	4.190	117.574	117.574	117.574	113.884	109.918	106.500	103.743	101.705
12/20/2006	12/20/2013	12/20/2012	4.500	105.187	105.187	105.187	104.661	103.510	102.388	101.351	100.518
12/28/2006	12/28/2016	12/28/2012	4.250	117.932	117.932	117.932	114.194	110.190	106.727	103.918	101.821
12/28/2006	12/28/2016	12/28/2012	4.400	118.564	118.564	118.564	114.810	110.770	107.246	104.359	102.164
1/12/2007	1/12/2017	1/14/2013	4.420	118.833	118.833	118.833	115.009	110.937	107.390	104.487	102.282
1/16/2007	1/17/2017	1/16/2013	4.790	120.476	120.476	120.476	116.588	112.421	108.739	105.628	103.174
1/23/2007	1/23/2014	1/23/2013	4.490	105.600	105.600	105.600	105.009	103.764	102.556	101.447	100.568
1/29/2007	1/29/2014	1/29/2013	4.790	106.054	106.054	106.054	105.451	104.186	102.942	101.719	100.516
2/2/2007	2/2/2017	11/2/2012	4.690	120.257	120.257	120.257	116.232	111.807	107.579	103.539	99.678
2/20/2007	2/21/2017	11/20/2012	4.850	121.204	121.204	121.204	117.069	112.569	108.273	104.171	100.251
2/20/2007	2/21/2017	11/20/2012	4.390	119.193	119.193	119.193	115.181	111.026	107.420	104.478	102.249
2/23/2007	2/23/2017	11/23/2012	4.250	118.604	118.604	118.604	114.600	110.477	106.924	104.054	101.912
2/23/2007	2/23/2017	11/23/2012	4.350	119.042	119.042	119.042	115.025	110.875	107.280	104.354	102.144
3/16/2007	3/16/2017	12/17/2012	4.090	118.142	118.142	118.142	114.061	109.943	106.438	103.640	101.602
3/21/2007	3/21/2017	12/21/2012	4.220	118.778	118.778	118.778	114.652	110.484	106.907	104.025	101.885
3/23/2007	3/23/2017	12/24/2012	4.290	119.113	119.113	119.113	114.967	110.775	107.162	104.239	102.045
3/23/2007	3/23/2017	12/24/2012	4.290	119.113	119.113	119.113	114.967	110.775	107.162	104.239	102.045
4/9/2007	4/10/2017	1/9/2013	4.150	118.697	118.697	118.697	114.485	110.303	106.737	103.885	101.795
4/12/2007	4/12/2017	1/14/2013	4.250	119.171	119.171	119.171	114.933	110.716	107.098	104.184	102.017
4/13/2007	4/13/2017	1/14/2013	4.450	120.086	120.086	120.086	115.813	111.538	107.833	104.799	102.489

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
4/23/2007	4/23/2014	1/23/2013	4.620	106.917	106.917	106.917	106.140	104.637	103.191	101.883	100.817
4/27/2007	4/27/2017	1/28/2013	4.250	119.348	119.348	119.348	115.032	110.779	107.130	104.187	101.992
5/2/2007	5/2/2014	11/2/2012	4.590	106.987	106.987	106.987	106.190	104.663	103.200	101.887	100.830
5/4/2007	5/5/2014	11/5/2012	4.550	106.964	106.964	106.964	106.161	104.626	103.158	101.843	100.789
5/18/2007	5/18/2017	11/19/2012	4.190	119.319	119.319	119.319	114.907	110.635	106.988	104.064	101.901
5/22/2007	5/22/2017	11/23/2012	4.750	121.954	121.954	121.954	117.435	112.994	109.107	105.847	103.281
5/29/2007	5/30/2017	11/29/2012	4.250	119.738	119.738	119.738	115.252	110.935	107.237	104.258	102.032
6/1/2007	6/2/2014	12/3/2012	4.500	107.237	107.237	107.237	106.373	104.762	103.227	101.863	100.784
6/7/2007	6/7/2017	12/7/2012	4.820	122.492	122.492	122.492	117.879	113.392	109.461	106.158	103.539
6/8/2007	6/9/2014	12/10/2012	4.730	107.699	107.699	107.699	106.817	105.182	103.615	102.197	101.044
6/8/2007	6/8/2017	12/10/2012	4.490	120.965	120.965	120.965	116.397	111.996	108.190	105.070	102.684
6/11/2007	6/12/2017	12/11/2012	4.490	121.014	121.014	121.014	116.424	112.014	108.200	105.074	102.683
6/18/2007	6/19/2017	12/18/2012	4.500	121.149	121.149	121.149	116.518	112.088	108.255	105.109	102.697
6/19/2007	6/19/2017	12/19/2012	4.650	121.854	121.854	121.854	117.199	112.727	108.834	105.595	103.075
6/22/2007	6/22/2017	12/24/2012	4.500	121.186	121.186	121.186	116.539	112.101	108.261	105.108	102.689
6/28/2007	6/28/2017	12/28/2012	4.500	121.261	121.261	121.261	116.581	112.128	108.275	105.110	102.681
7/13/2007	7/13/2017	1/14/2013	4.290	120.448	120.448	120.448	115.727	111.316	107.543	104.503	102.231
7/20/2007	7/20/2017	1/22/2013	4.290	120.531	120.531	120.531	115.772	111.344	107.557	104.504	102.219
7/27/2007	7/27/2017	1/28/2013	4.250	120.422	120.422	120.422	115.632	111.201	107.419	104.378	102.110
7/30/2007	1/30/2019	1/30/2013	3.990	125.290	125.290	123.343	117.353	112.122	107.821	104.464	102.036
7/31/2007	7/31/2017	1/31/2013	3.990	119.217	119.217	119.217	114.463	110.119	106.467	103.581	101.508
7/31/2007	7/31/2017	1/31/2013	3.990	119.217	119.217	119.217	114.463	110.119	106.467	103.581	101.508
7/31/2007	7/31/2017	1/31/2013	4.060	119.554	119.554	119.554	114.785	110.416	106.727	103.798	101.662
8/2/2007	8/4/2014	11/2/2012	4.490	108.007	108.007	108.007	106.999	105.214	103.527	102.045	100.882
8/2/2007	8/2/2017	11/2/2012	4.150	120.011	120.011	120.005	115.215	110.818	107.093	104.130	101.957
8/2/2007	8/2/2017	11/2/2012	4.050	119.529	119.529	119.523	114.754	110.392	106.721	103.820	101.724
8/9/2007	8/9/2017	11/9/2012	3.990	119.317	119.317	119.292	114.516	110.160	106.507	103.630	101.570
8/16/2007	8/16/2017	11/16/2012	3.990	119.395	119.395	119.350	114.555	110.183	106.515	103.624	101.550
8/17/2007	8/17/2017	11/19/2012	4.000	119.454	119.454	119.407	114.607	110.229	106.554	103.655	101.570
8/20/2007	8/20/2014	8/20/2013	4.250	107.768	107.768	107.768	106.724	104.893	103.152	101.612	100.386
8/28/2007	8/28/2014	11/28/2012	4.350	108.047	108.047	108.047	106.985	105.137	103.397	101.882	100.716
8/30/2007	9/2/2014	11/30/2012	3.890	107.250	107.250	107.250	106.180	104.336	102.641	101.242	100.283
9/4/2007	9/5/2017	12/4/2012	3.890	119.125	119.125	119.024	114.207	109.844	106.216	103.386	101.401
9/10/2007	9/11/2017	12/10/2012	3.690	118.203	118.203	118.084	113.304	109.010	105.486	102.806	101.003
9/11/2007	9/11/2017	12/11/2012	3.590	117.709	117.709	117.591	112.839	108.588	105.124	102.530	100.845
9/12/2007	9/12/2014	12/12/2012	3.690	106.980	106.980	106.980	105.889	104.029	102.348	101.012	100.176
9/13/2007	9/15/2014	12/13/2012	3.990	107.581	107.581	107.581	106.480	104.597	102.862	101.421	100.428
9/13/2007	9/13/2017	12/13/2012	3.990	119.705	119.705	119.580	114.718	110.297	106.595	103.682	101.591
9/27/2007	9/29/2014	9/27/2010	4.490	108.705	108.705	108.705	107.566	105.614	103.707	101.844	100.023
9/27/2007	9/27/2017	12/27/2012	3.650	118.168	118.168	118.003	113.193	108.880	105.348	102.674	100.902
10/11/2007	10/14/2014	1/11/2013	4.180	108.278	108.278	108.278	107.108	105.139	103.314	101.766	100.649
10/11/2007	10/11/2017	1/11/2013	3.990	120.015	120.015	119.809	114.879	110.411	106.674	103.736	101.632
10/15/2007	10/16/2017	1/15/2013	3.990	120.071	120.071	119.850	114.906	110.427	106.683	103.737	101.625
10/25/2007	10/27/2014	1/25/2013	4.360	108.792	108.792	108.792	107.589	105.577	103.697	102.074	100.826
10/26/2007	10/26/2017	1/28/2013	3.390	117.146	117.146	116.907	112.106	107.875	104.487	102.030	100.503
11/2/2007	11/3/2014	11/2/2012	3.990	108.124	108.124	108.124	106.909	104.897	103.059	101.545	100.491
11/2/2007	11/3/2014	11/2/2012	4.190	108.531	108.531	108.531	107.314	105.292	103.423	101.844	100.696
11/5/2007	11/5/2014	11/5/2012	3.990	108.146	108.146	108.146	106.926	104.909	103.065	101.546	100.488
11/5/2007	11/6/2017	11/5/2012	4.390	122.339	122.339	122.055	116.963	112.301	108.321	105.099	102.668
11/6/2007	11/6/2017	11/6/2012	3.480	117.708	117.708	117.437	112.588	108.306	104.857	102.329	100.712
11/9/2007	11/10/2014	11/9/2012	4.330	108.900	108.900	108.900	107.665	105.616	103.711	102.077	100.835
11/13/2007	11/13/2012	11/13/2012	3.680	100.133	100.133	100.133	100.125	100.089	100.053	100.017	99.981
11/13/2007	11/13/2014	11/13/2012	3.350	106.913	106.913	106.913	105.684	103.688	101.955	100.676	100.062
11/19/2007	11/19/2014	11/19/2012	4.270	108.883	108.883	108.883	107.628	105.556	103.634	101.993	100.762
11/19/2007	11/19/2014	11/19/2012	3.750	107.802	107.802	107.802	106.552	104.509	102.669	101.203	100.257
11/19/2007	11/19/2014	11/19/2012	3.750	107.802	107.802	107.802	106.552	104.509	102.669	101.203	100.257
11/19/2007	11/20/2017	11/19/2012	4.290	121.997	121.997	121.650	116.284	111.076	106.138	101.717	100.004
11/20/2007	11/20/2017	11/20/2012	3.740	119.177	119.177	118.856	113.894	109.457	105.814	103.019	101.107
11/23/2007	11/24/2017	11/23/2012	3.990	120.503	120.503	120.143	114.795	109.613	104.702	100.046	95.630
11/23/2007	11/24/2017	11/23/2012	3.990	120.503	120.503	120.143	114.795	109.613	104.702	100.046	95.630
11/29/2007	11/29/2017	11/29/2012	2.950	115.199	115.199	114.867	110.166	106.139	103.075	101.012	100.066
11/30/2007	11/30/2017	11/30/2012	3.190	116.445	116.445	116.104	111.304	107.137	103.875	101.569	100.267
12/7/2007	12/7/2012	12/7/2012	3.450	100.355	100.355	100.355	100.333	100.230	100.128	100.026	99.925
12/10/2007	12/11/2017	12/10/2012	3.450	117.891	117.891	117.507	112.600	108.278	104.808	102.275	100.683
12/11/2007	12/11/2012	12/11/2012	3.760	100.428	100.428	100.428	100.404	100.291	100.178	100.065	99.953
12/20/2007	12/20/2012	12/20/2012	3.600	100.500	100.500	100.500	100.470	100.333	100.196	100.059	99.923
12/20/2007	12/20/2012	12/20/2012	3.750	100.521	100.521	100.521	100.491	100.354	100.217	100.080	99.944
12/24/2007	12/26/2017	12/24/2012	3.990	120.857	120.857	120.386	114.941	109.672	104.723	101.010	100.030

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
12/26/2007	12/26/2012	12/26/2012	3.960	100.616	100.616	100.616	100.583	100.429	100.276	100.123	99.971
12/26/2007	12/26/2012	12/26/2012	3.460	100.538	100.538	100.538	100.505	100.351	100.198	100.046	99.894
1/2/2008	1/2/2013	1/2/2013	3.490	100.611	100.611	100.611	100.573	100.400	100.229	100.057	99.887
1/3/2008	1/5/2015	1/3/2013	3.650	108.070	108.070	108.070	106.713	104.557	102.649	101.167	100.240
1/4/2008	1/4/2018	1/4/2013	3.360	117.648	117.648	117.192	112.270	107.966	104.544	102.083	100.576
1/7/2008	1/7/2013	1/7/2013	2.990	100.565	100.565	100.565	100.523	100.338	100.152	99.968	99.784
1/7/2008	1/7/2013	1/7/2013	3.590	100.678	100.678	100.678	100.637	100.451	100.265	100.081	99.897
1/7/2008	1/7/2015	1/7/2013	3.490	107.736	107.736	107.736	106.377	104.229	102.354	100.938	100.101
1/7/2008	1/8/2018	1/7/2013	2.590	113.632	113.632	113.196	108.613	104.812	102.081	100.488	99.805
1/8/2008	1/8/2013	1/8/2013	3.150	100.604	100.604	100.604	100.562	100.373	100.185	99.998	99.812
1/8/2008	1/8/2018	1/8/2013	2.570	113.527	113.527	113.093	108.519	104.733	102.025	100.455	99.789
1/8/2008	1/8/2018	1/8/2013	2.640	113.895	113.895	113.457	108.846	105.005	102.220	100.566	99.833
1/11/2008	1/11/2018	1/11/2013	2.720	114.339	114.339	113.888	109.229	105.320	102.447	100.687	99.875
1/14/2008	1/16/2018	1/14/2013	3.240	117.126	117.126	116.638	111.732	107.474	104.130	101.762	100.360
1/16/2008	1/16/2013	1/16/2013	2.550	100.545	100.545	100.545	100.497	100.288	100.079	99.871	99.663
1/16/2008	1/16/2018	1/16/2013	2.380	112.580	112.580	112.138	107.657	104.012	101.517	100.161	99.665
1/17/2008	1/17/2018	1/17/2013	2.250	111.899	111.899	111.462	107.065	103.540	101.195	100.037	99.619
1/18/2008	1/18/2013	1/18/2013	2.550	100.560	100.560	100.560	100.510	100.295	100.081	99.867	99.655
1/18/2008	1/20/2015	1/18/2013	2.350	105.293	105.293	105.293	103.937	101.952	100.548	99.898	99.614
1/18/2008	1/18/2018	1/18/2013	2.290	112.117	112.117	111.675	107.249	103.682	101.288	100.065	99.627
1/24/2008	1/24/2013	1/24/2013	2.500	100.590	100.590	100.590	100.536	100.305	100.075	99.846	99.618
1/25/2008	1/25/2013	1/25/2013	2.650	100.633	100.633	100.633	100.579	100.344	100.111	99.880	99.649
1/25/2008	1/25/2013	1/25/2013	2.250	100.537	100.537	100.537	100.483	100.249	100.016	99.784	99.554
1/28/2008	1/28/2013	1/28/2013	2.990	100.739	100.739	100.739	100.682	100.440	100.199	99.959	99.720
1/30/2008	1/30/2013	1/30/2013	2.670	100.675	100.675	100.675	100.617	100.369	100.123	99.878	99.634
2/7/2008	2/7/2013	11/7/2012	2.490	100.685	100.685	100.685	100.618	100.347	100.078	99.986	99.967
2/13/2008	2/13/2013	11/13/2012	2.920	100.852	100.852	100.852	100.778	100.489	100.202	99.992	99.953
2/14/2008	2/14/2018	11/14/2012	3.190	117.118	117.118	116.468	110.959	105.662	100.654	95.917	91.435
2/19/2008	2/19/2013	2/19/2010	2.590	100.799	100.799	100.799	100.719	100.412	100.107	99.804	99.503
2/25/2008	2/25/2013	11/25/2012	3.090	101.004	101.004	101.004	100.918	100.593	100.270	99.950	99.631
2/25/2008	2/26/2018	11/26/2012	2.420	113.067	113.067	112.509	107.933	104.206	101.626	100.228	99.871
3/7/2008	3/9/2015	12/7/2012	2.890	106.895	106.895	106.895	105.408	103.191	101.419	100.312	99.889
3/7/2008	3/7/2018	3/7/2013	3.550	119.257	119.257	118.602	113.476	108.974	105.344	102.645	100.870
3/10/2008	3/11/2013	12/10/2012	2.390	100.870	100.870	100.870	100.765	100.402	100.070	99.912	99.802
3/12/2008	3/12/2013	12/12/2012	2.010	100.737	100.737	100.737	100.631	100.266	99.990	99.864	99.749
3/14/2008	3/14/2018	12/14/2012	2.400	113.065	113.065	112.457	107.884	104.167	101.610	100.222	99.799
3/17/2008	3/19/2018	3/18/2013	3.300	118.011	118.011	117.324	112.269	107.889	104.433	101.960	100.392
3/28/2008	3/28/2013	12/28/2012	2.820	101.159	101.159	101.159	101.031	100.622	100.216	99.814	99.415
4/14/2008	4/14/2015	1/14/2013	2.750	106.836	106.836	106.836	105.251	102.788	100.395	98.071	95.811
4/28/2008	4/28/2015	1/28/2013	3.250	108.206	108.206	108.206	106.587	104.184	102.161	100.716	99.947
4/28/2008	4/30/2018	1/28/2013	2.150	111.985	111.985	111.287	106.802	103.281	100.996	99.937	99.531
4/30/2008	4/30/2018	4/30/2013	3.740	120.849	120.849	119.910	114.111	108.581	103.938	101.267	99.974
5/2/2008	5/4/2015	11/2/2012	3.990	110.141	110.141	110.141	108.488	105.991	103.756	101.944	100.687
5/5/2008	5/5/2015	11/5/2012	3.170	108.065	108.065	108.065	106.433	104.033	102.044	100.667	100.055
5/8/2008	5/8/2015	11/8/2012	2.960	107.556	107.556	107.556	105.923	103.554	101.648	100.414	99.972
5/19/2008	5/19/2015	11/21/2012	4.700	112.141	112.141	112.141	110.433	107.810	105.263	102.790	100.388
5/23/2008	5/23/2013	11/23/2012	4.040	102.289	102.289	102.289	102.082	101.518	100.962	100.431	100.065
5/23/2008	5/23/2018	11/23/2012	3.270	118.438	118.438	117.540	112.364	107.913	104.415	101.923	100.413
5/27/2008	5/28/2013	5/27/2011	3.490	102.026	102.026	102.026	101.812	101.236	100.666	100.103	99.546
6/6/2008	6/6/2013	12/6/2012	3.990	102.416	102.416	102.416	102.190	101.588	100.993	100.405	99.824
6/16/2008	6/17/2013	12/16/2012	4.070	102.589	102.589	102.589	102.348	101.715	101.090	100.473	99.863
6/24/2008	6/24/2015	12/24/2012	3.830	110.276	110.276	110.276	108.497	105.878	103.566	101.733	100.510
6/30/2008	6/30/2015	12/31/2012	3.370	109.098	109.098	109.098	107.317	104.742	102.567	100.974	100.070
6/30/2008	7/2/2018	12/30/2012	3.690	121.216	121.216	120.015	114.034	108.299	102.895	97.801	92.997
7/1/2008	7/1/2015	1/2/2013	4.600	112.432	112.432	112.432	110.612	107.867	105.205	102.623	100.119
7/7/2008	7/8/2013	1/7/2013	4.590	103.187	103.187	103.187	102.918	102.226	101.543	100.870	100.205
7/8/2008	7/8/2013	1/8/2013	4.250	102.951	102.951	102.951	102.682	101.991	101.309	100.637	99.973
7/10/2008	7/10/2014	1/10/2013	4.800	108.226	108.226	108.226	107.274	105.545	103.852	102.195	100.572
7/11/2008	7/11/2018	1/11/2013	3.750	121.655	121.655	120.413	114.399	108.631	103.197	98.075	93.247
7/14/2008	7/14/2015	7/15/2013	4.900	113.420	113.420	113.420	111.558	108.757	106.011	103.373	101.000
7/14/2008	7/16/2018	1/14/2013	2.500	114.471	114.471	113.479	108.651	104.731	101.972	100.392	99.734
7/14/2008	7/16/2018	1/14/2013	3.250	118.812	118.812	117.725	112.466	107.965	104.445	101.950	100.451
7/17/2008	7/17/2018	7/17/2013	3.750	121.717	121.717	120.450	114.419	108.794	104.326	101.600	100.033
7/21/2008	7/22/2013	1/22/2013	3.000	102.200	102.200	102.200	101.913	101.188	100.492	100.022	99.745
8/15/2008	8/15/2018	11/15/2012	3.830	122.489	122.489	121.242	115.667	110.774	106.775	103.688	101.527
8/19/2008	8/19/2013	8/19/2010	3.440	102.790	102.790	102.790	102.464	101.662	100.873	100.096	99.331
9/8/2008	9/9/2013	12/10/2012	2.890	102.512	102.512	102.512	102.158	101.304	100.526	100.033	99.860
5/13/2009	5/13/2014	5/13/2013	4.000	106.211	106.211	106.211	105.393	103.832	102.242	100.490	98.761

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
9/28/2009	9/30/2013	12/28/2012	2.920	102.709	102.709	102.709	102.323	101.411	100.577	100.034	99.807
5/11/2010	5/11/2015	5/11/2015	3.700	109.475	109.475	109.475	107.802	105.116	102.027	98.340	94.049
5/24/2010	5/26/2015	11/24/2012	2.250	105.856	105.856	105.856	104.175	101.614	99.129	96.717	94.377
6/15/2010	6/15/2015	12/15/2012	2.280	106.060	106.060	106.060	104.328	101.712	99.174	98.753	96.712
4/27/2012	4/27/2016	4/29/2013	-0.147	104.353	104.353	104.353	101.814	99.928	99.437	99.180	98.938
4/30/2012	5/2/2016	4/30/2013	-0.147	104.209	104.209	104.209	101.674	99.862	99.415	99.159	98.914
5/15/2012	5/15/2017	5/15/2014	-0.026	105.937	105.937	105.937	102.342	100.443	99.712	99.439	99.335
5/15/2012	5/15/2017	11/17/2014	-0.026	106.289	106.289	106.289	102.583	100.528	99.568	99.102	98.887
7/16/2012	7/17/2017	7/16/2014	-0.116	105.243	105.243	105.243	101.665	99.927	99.195	98.822	98.576
7/18/2012	7/18/2018	7/20/2015	-0.125	107.927	107.927	106.667	102.346	100.131	98.989	98.341	97.919
7/19/2012	7/19/2017	7/21/2014	-0.129	105.155	105.155	105.155	101.594	99.874	99.153	98.775	98.523
10/1/2012	10/1/2019	4/1/2015	0.000	110.273	110.273	106.865	102.218	100.063	99.073	98.557	98.251
10/5/2012	10/5/2017	10/6/2014	0.003	104.980	104.980	104.786	101.179	99.652	99.038	98.714	98.497
10/5/2012	10/5/2017	10/6/2014	0.003	104.980	104.980	104.786	101.179	99.652	99.038	98.714	98.497