

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	10/9/2012	5.490	103.355	103.355	103.355	103.133	102.522	101.918	101.327	100.767
8/19/1998	8/19/2013	11/19/2012	5.490	105.383	105.383	105.383	104.972	103.993	103.034	102.108	101.260
8/19/1998	8/19/2013	11/19/2012	5.490	105.383	105.383	105.383	104.972	103.993	103.034	102.108	101.260
12/14/1998	12/16/2013	9/14/2012	5.390	107.067	107.067	107.067	106.479	105.159	103.869	102.646	101.562
12/14/1998	12/16/2013	9/14/2012	4.890	106.411	106.411	106.411	105.825	104.510	103.232	102.043	101.036
12/15/1998	12/16/2013	9/17/2012	4.880	106.398	106.398	106.398	105.812	104.497	103.220	102.030	101.023
1/7/2000	1/7/2015	10/9/2012	5.950	114.197	114.197	114.197	112.953	110.502	108.156	105.982	104.055
12/5/2002	12/5/2012	9/5/2012	3.790	101.011	101.011	101.011	100.950	100.686	100.423	100.162	99.902
3/6/2003	3/6/2013	12/6/2012	2.990	101.553	101.553	101.553	101.377	100.860	100.369	100.044	99.980
7/2/2004	7/2/2014	10/3/2012	3.990	107.425	107.425	107.425	106.536	104.667	102.840	101.053	99.307
12/13/2004	12/15/2014	9/13/2012	3.320	107.709	107.709	107.709	106.543	104.297	102.360	100.905	100.145
9/1/2005	9/1/2015	9/1/2012	4.130	112.573	112.573	112.573	110.845	107.757	104.774	101.890	99.101
9/19/2005	9/19/2012	9/19/2012	3.820	100.202	100.202	100.202	100.191	100.138	100.085	100.033	99.980
9/26/2005	9/26/2012	9/26/2012	3.890	100.281	100.281	100.281	100.266	100.194	100.122	100.050	99.978
9/30/2005	9/30/2015	9/30/2012	4.440	113.874	113.874	113.874	112.059	108.872	105.794	102.821	99.948
10/26/2005	10/26/2015	10/26/2012	4.540	114.515	114.515	114.515	112.618	109.352	106.199	103.155	100.217
11/21/2005	11/21/2012	11/21/2012	4.290	100.977	100.977	100.977	100.928	100.702	100.477	100.254	100.031
1/17/2006	1/19/2016	10/17/2012	4.080	114.007	114.007	114.007	111.858	108.530	105.606	103.209	101.425
4/19/2006	4/19/2013	10/19/2012	4.630	102.971	102.971	102.971	102.734	102.094	101.463	100.858	100.338
4/24/2006	4/25/2016	10/24/2012	4.440	116.439	116.439	116.439	113.911	110.296	107.088	104.405	102.320
5/5/2006	5/5/2016	11/5/2012	4.350	116.227	116.227	116.227	113.667	110.051	106.860	104.222	102.199
5/5/2006	5/5/2016	11/5/2012	4.530	116.898	116.898	116.898	114.327	110.679	107.440	104.713	102.587
5/15/2006	5/16/2016	11/15/2012	4.350	116.360	116.360	116.360	113.755	110.110	106.895	104.233	102.186
5/15/2006	5/16/2016	11/15/2012	4.520	116.999	116.999	116.999	114.383	110.708	107.446	104.700	102.557
5/19/2006	5/19/2016	11/19/2012	4.510	116.999	116.999	116.999	114.371	110.691	107.423	104.676	102.531
6/12/2006	6/13/2016	9/12/2012	4.620	117.735	117.735	117.735	114.999	111.243	107.905	105.075	102.844
6/26/2006	6/27/2016	9/26/2012	4.730	118.341	118.341	118.341	115.540	111.728	108.328	105.419	103.089
6/28/2006	6/28/2013	9/28/2012	4.950	104.139	104.139	104.139	103.803	102.969	102.150	101.360	100.656
6/30/2006	7/1/2013	10/1/2012	4.890	104.129	104.129	104.129	103.790	102.948	102.122	101.328	100.632
7/14/2006	7/15/2013	10/15/2012	4.890	104.319	104.319	104.319	103.960	103.079	102.217	101.391	100.670
7/24/2006	7/25/2016	10/24/2012	4.660	118.432	118.432	118.432	115.520	111.656	108.225	105.309	102.992
7/28/2006	7/28/2016	10/29/2012	4.490	117.797	117.797	117.797	114.886	111.045	107.656	104.813	102.598
8/1/2006	8/1/2016	11/1/2012	4.890	119.437	119.437	119.437	116.481	112.567	109.072	106.077	103.644
8/21/2006	8/21/2013	11/1/2012	4.750	104.684	104.684	104.684	104.271	103.290	102.328	101.384	100.458
8/25/2006	8/25/2016	11/26/2012	4.350	117.580	117.580	117.580	114.566	110.693	107.299	104.494	102.335
10/10/2006	10/10/2013	10/10/2012	4.250	104.781	104.781	104.781	104.296	103.174	102.090	101.123	100.389
10/12/2006	10/15/2013	10/12/2012	4.500	105.125	105.125	105.125	104.632	103.494	102.389	101.378	100.562
11/6/2006	11/6/2013	11/6/2012	4.290	105.148	105.148	105.148	104.623	103.426	102.271	101.235	100.429
11/10/2006	11/13/2012	11/13/2012	4.390	100.902	100.902	100.902	100.859	100.655	100.453	100.251	100.050
11/17/2006	11/18/2013	11/19/2012	4.350	105.365	105.365	105.365	104.822	103.591	102.402	101.334	100.507
11/24/2006	11/25/2016	11/26/2012	4.190	118.004	118.004	118.004	114.621	110.588	107.100	104.265	102.119
11/30/2006	12/2/2013	11/28/2012	4.350	105.534	105.534	105.534	104.971	103.698	102.447	101.217	100.007
12/1/2006	12/1/2016	12/3/2012	4.090	117.643	117.643	117.643	114.252	110.242	106.802	104.034	101.975
12/4/2006	12/5/2016	12/4/2012	4.080	117.645	117.645	117.645	114.237	110.221	106.778	104.010	101.951
12/5/2006	12/5/2016	12/5/2012	4.260	118.423	118.423	118.423	114.992	110.926	107.408	104.541	102.365
12/6/2006	12/6/2013	12/6/2012	4.400	105.646	105.646	105.646	105.077	103.795	102.560	101.451	100.587
12/8/2006	12/8/2016	12/10/2012	3.990	117.289	117.289	117.289	113.880	109.881	106.471	103.741	101.733
12/12/2006	12/12/2016	9/12/2012	3.990	117.333	117.333	117.333	113.906	109.897	106.479	103.742	101.727
12/12/2006	12/12/2016	9/12/2012	4.050	117.594	117.594	117.594	114.158	110.132	106.687	103.919	101.864
12/19/2006	12/19/2016	9/19/2012	4.190	118.284	118.284	118.284	114.797	110.715	107.194	104.336	102.176
12/20/2006	12/20/2013	9/20/2012	4.500	105.950	105.950	105.950	105.359	104.037	102.760	101.598	100.672
12/28/2006	12/28/2016	9/28/2012	4.250	118.652	118.652	118.652	115.116	110.996	107.430	104.519	102.301
12/28/2006	12/28/2016	9/28/2012	4.400	119.310	119.310	119.310	115.755	111.596	107.975	104.976	102.662
1/12/2007	1/12/2017	10/12/2012	4.420	119.582	119.582	119.582	115.959	111.770	108.128	105.111	102.784
1/16/2007	1/17/2017	10/16/2012	4.790	121.288	121.288	121.288	117.596	113.305	109.525	106.320	103.737
1/23/2007	1/23/2014	10/23/2012	4.490	106.360	106.360	106.360	105.719	104.304	102.941	101.706	100.722
1/29/2007	1/29/2014	10/29/2012	4.790	106.865	106.865	106.865	106.214	104.776	103.365	101.980	100.620
2/2/2007	2/2/2017	11/2/2012	4.690	121.052	121.052	121.052	117.181	112.558	108.149	103.943	99.929
2/20/2007	2/21/2017	11/20/2012	4.390	119.937	119.937	119.937	116.133	111.862	108.163	105.109	102.759
2/20/2007	2/21/2017	11/21/2012	4.850	122.026	122.026	122.026	118.046	113.348	108.870	104.600	100.528
2/23/2007	2/23/2017	11/23/2012	4.250	119.324	119.324	119.324	115.531	111.295	107.645	104.671	102.407
2/23/2007	2/23/2017	11/23/2012	4.350	119.779	119.779	119.779	115.971	111.706	108.017	104.982	102.652
3/16/2007	3/16/2017	9/17/2012	4.090	118.835	118.835	118.835	114.972	110.746	107.139	104.241	102.076
3/21/2007	3/21/2017	9/21/2012	4.220	119.493	119.493	119.493	115.583	111.304	107.628	104.644	102.381
3/23/2007	3/23/2017	9/24/2012	4.290	119.840	119.840	119.840	115.909	111.605	107.897	104.865	102.550
3/23/2007	3/23/2017	9/24/2012	4.290	119.840	119.840	119.840	115.909	111.605	107.897	104.865	102.550
4/9/2007	4/10/2017	10/9/2012	4.150	119.400	119.400	119.400	115.410	111.119	107.454	104.501	102.282
4/12/2007	4/12/2017	10/12/2012	4.250	119.891	119.891	119.891	115.874	111.546	107.831	104.811	102.517

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
4/13/2007	4/13/2017	10/15/2012	4.450	120.840	120.840	120.840	116.785	112.396	108.598	105.449	103.013
4/23/2007	4/23/2014	10/23/2012	4.620	107.700	107.700	107.700	106.919	105.243	103.643	102.199	101.031
4/23/2007	4/23/2014	10/23/2012	4.620	107.700	107.700	107.700	106.919	105.243	103.643	102.199	101.031
4/27/2007	4/27/2017	10/29/2012	4.250	120.068	120.068	120.068	115.975	111.611	107.866	104.816	102.493
5/2/2007	5/2/2014	11/2/2012	4.590	107.764	107.764	107.764	106.970	105.270	103.653	102.206	101.054
5/4/2007	5/5/2014	11/5/2012	4.550	107.735	107.735	107.735	106.935	105.228	103.606	102.157	101.009
5/18/2007	5/18/2017	11/19/2012	4.190	120.029	120.029	120.029	115.847	111.466	107.721	104.693	102.405
5/22/2007	5/22/2017	11/23/2012	4.750	122.759	122.759	122.759	118.460	113.902	109.920	106.566	103.876
5/29/2007	5/30/2017	11/29/2012	4.250	120.458	120.458	120.458	116.202	111.775	107.984	104.896	102.545
6/1/2007	6/2/2014	12/3/2012	4.500	108.000	108.000	108.000	107.156	105.372	103.685	102.190	101.011
6/7/2007	6/7/2017	12/7/2012	4.820	123.309	123.309	123.309	118.919	114.314	110.289	106.896	104.167
6/8/2007	6/9/2014	12/10/2012	4.730	108.500	108.500	108.500	107.643	105.834	104.110	102.562	101.299
6/8/2007	6/8/2017	12/10/2012	4.490	121.725	121.725	121.725	117.386	112.874	108.977	105.742	103.226
6/11/2007	6/12/2017	12/11/2012	4.490	121.775	121.775	121.775	117.414	112.893	108.989	105.748	103.226
6/18/2007	6/19/2017	9/18/2012	4.500	121.911	121.911	121.911	117.510	112.969	109.046	105.785	103.242
6/19/2007	6/19/2017	9/19/2012	4.650	122.642	122.642	122.642	118.214	113.628	109.643	106.304	103.650
6/22/2007	6/22/2017	9/24/2012	4.500	121.949	121.949	121.949	117.532	112.982	109.052	105.783	103.232
6/28/2007	6/28/2017	9/28/2012	4.500	122.024	122.024	122.024	117.574	113.010	109.067	105.786	103.225
7/13/2007	7/13/2017	10/15/2012	4.290	121.175	121.175	121.175	116.693	112.174	108.309	105.157	102.756
7/20/2007	7/20/2017	10/22/2012	4.290	121.258	121.258	121.258	116.738	112.203	108.324	105.159	102.745
7/27/2007	7/27/2017	10/29/2012	4.250	121.142	121.142	121.142	116.593	112.056	108.180	105.029	102.631
7/30/2007	1/30/2019	10/30/2012	3.990	125.966	125.966	124.144	118.213	112.951	108.591	105.147	102.588
7/31/2007	7/31/2017	10/31/2012	3.990	119.893	119.893	119.893	115.388	110.941	107.189	104.198	101.981
7/31/2007	7/31/2017	10/31/2012	3.990	119.893	119.893	119.893	115.388	110.941	107.189	104.198	101.981
7/31/2007	7/31/2017	10/31/2012	4.060	120.242	120.242	120.242	115.720	111.248	107.459	104.423	102.156
8/2/2007	8/4/2014	11/2/2012	4.490	108.767	108.767	108.767	107.818	105.860	104.020	102.402	101.134
8/2/2007	8/2/2017	11/2/2012	4.150	120.714	120.714	120.714	116.164	111.663	107.842	104.774	102.472
8/2/2007	8/2/2017	11/2/2012	4.050	120.215	120.215	120.215	115.688	111.224	107.453	104.449	102.222
8/9/2007	8/9/2017	11/9/2012	3.990	119.993	119.993	119.993	115.442	110.985	107.232	104.252	102.055
8/16/2007	8/16/2017	11/16/2012	3.990	120.071	120.071	120.071	115.481	111.008	107.242	104.247	102.036
8/17/2007	8/17/2017	11/19/2012	4.000	120.132	120.132	120.132	115.534	111.056	107.282	104.280	102.059
8/20/2007	8/20/2014	8/20/2013	4.250	108.488	108.488	108.488	107.512	105.508	103.615	101.938	100.518
8/28/2007	8/28/2014	11/28/2012	4.350	108.784	108.784	108.784	107.794	105.773	103.881	102.230	100.947
8/30/2007	9/2/2014	11/30/2012	3.890	107.909	107.909	107.909	106.915	104.901	103.053	101.531	100.462
9/4/2007	9/4/2012	9/4/2012	4.220	100.047	100.047	100.047	100.045	100.034	100.022	100.011	100.000
9/4/2007	9/5/2017	12/4/2012	3.890	119.784	119.784	119.784	115.122	110.662	106.936	103.998	101.862
9/7/2007	9/7/2012	9/7/2012	4.090	100.080	100.080	100.080	100.076	100.056	100.037	100.017	99.998
9/10/2007	9/11/2017	12/10/2012	3.690	118.828	118.828	118.828	114.190	109.801	106.179	103.360	101.378
9/11/2007	9/11/2017	12/11/2012	3.590	118.318	118.318	118.318	113.710	109.364	105.802	103.055	101.181
9/12/2007	9/12/2014	9/12/2012	3.690	107.605	107.605	107.605	106.596	104.567	102.738	101.278	100.310
9/13/2007	9/15/2014	9/13/2012	3.990	108.257	108.257	108.257	107.239	105.185	103.297	101.732	100.607
9/13/2007	9/13/2017	9/13/2012	3.990	120.381	120.381	120.381	115.647	111.129	107.328	104.311	102.085
9/17/2007	9/17/2012	9/17/2012	4.220	100.199	100.199	100.199	100.190	100.142	100.095	100.048	100.001
9/27/2007	9/29/2014	9/27/2010	4.490	109.466	109.466	109.466	108.418	106.288	104.211	102.184	100.208
9/27/2007	9/27/2017	9/27/2012	3.650	118.786	118.786	118.786	114.073	109.666	106.037	103.214	101.240
9/28/2007	9/28/2012	9/28/2012	3.850	100.299	100.299	100.299	100.284	100.206	100.128	100.050	99.973
10/3/2007	10/3/2012	10/3/2012	3.830	100.351	100.351	100.351	100.333	100.241	100.150	100.058	99.967
10/9/2007	10/9/2012	10/9/2012	4.400	100.477	100.477	100.477	100.455	100.347	100.239	100.132	100.025
10/11/2007	10/14/2014	10/11/2012	4.180	108.986	108.986	108.986	107.917	105.774	103.796	102.112	100.859
10/11/2007	10/11/2017	10/11/2012	3.990	120.691	120.691	120.691	115.810	111.246	107.411	104.371	102.125
10/15/2007	10/16/2017	10/15/2012	3.990	120.747	120.747	120.747	115.837	111.263	107.420	104.371	102.118
10/22/2007	10/22/2012	10/22/2012	3.990	100.576	100.576	100.576	100.547	100.404	100.262	100.120	99.978
10/25/2007	10/27/2014	10/25/2012	4.360	109.531	109.531	109.531	108.436	106.249	104.214	102.448	101.079
10/26/2007	10/26/2017	10/26/2012	3.390	117.721	117.721	117.721	112.950	108.625	105.126	102.520	100.825
10/29/2007	10/29/2012	10/29/2012	3.990	100.654	100.654	100.654	100.621	100.459	100.298	100.137	99.977
11/2/2007	11/3/2014	11/2/2012	3.990	108.800	108.800	108.800	107.697	105.512	103.518	101.872	100.709
11/2/2007	11/3/2014	11/2/2012	4.190	109.241	109.241	109.241	108.136	105.940	103.919	102.201	100.922
11/5/2007	11/5/2014	11/5/2012	3.990	108.822	108.822	108.822	107.716	105.525	103.526	101.874	100.705
11/5/2007	11/6/2017	11/5/2012	4.390	123.083	123.083	123.066	117.954	113.193	109.127	105.790	103.223
11/6/2007	11/6/2017	11/6/2012	3.480	118.298	118.298	118.281	113.447	109.073	105.523	102.832	101.057
11/9/2007	11/10/2014	11/9/2012	4.330	109.634	109.634	109.634	108.515	106.292	104.233	102.458	101.101
11/13/2007	11/13/2012	11/13/2012	3.680	100.756	100.756	100.756	100.713	100.510	100.307	100.106	99.905
11/13/2007	11/13/2014	11/13/2012	3.350	107.481	107.481	107.481	106.370	104.203	102.321	100.901	100.074
11/19/2007	11/19/2014	11/19/2012	4.270	109.607	109.607	109.607	108.473	106.227	104.151	102.367	101.011
11/19/2007	11/19/2014	11/19/2012	3.750	108.437	108.437	108.437	107.310	105.094	103.100	101.506	100.428
11/19/2007	11/19/2014	11/19/2012	3.750	108.437	108.437	108.437	107.310	105.094	103.100	101.506	100.428
11/19/2007	11/20/2017	11/19/2012	4.290	122.724	122.724	122.669	117.153	111.746	106.670	102.658	100.599
11/20/2007	11/20/2017	11/20/2012	3.740	119.810	119.810	119.756	114.788	110.262	106.524	103.602	101.518

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
11/23/2007	11/24/2017	11/23/2012	3.990	121.179	121.179	121.114	115.610	110.231	105.142	100.323	95.761
11/23/2007	11/24/2017	11/23/2012	3.990	121.179	121.179	121.114	115.610	110.231	105.142	100.323	95.761
11/29/2007	11/29/2017	11/29/2012	2.950	115.699	115.699	115.621	110.947	106.830	103.640	101.402	100.118
11/30/2007	11/30/2017	11/30/2012	3.190	116.985	116.985	116.905	112.120	107.862	104.477	102.035	100.501
12/7/2007	12/7/2012	9/7/2012	3.450	100.939	100.939	100.939	100.876	100.607	100.339	100.076	99.985
12/10/2007	12/11/2017	12/10/2012	3.450	118.475	118.475	118.353	113.453	109.043	105.473	102.782	101.003
12/11/2007	12/11/2012	9/11/2012	3.760	101.065	101.065	101.065	100.998	100.718	100.439	100.162	99.986
12/20/2007	12/20/2012	9/20/2012	3.600	101.110	101.110	101.110	101.034	100.729	100.426	100.125	99.967
12/20/2007	12/20/2012	9/20/2012	3.750	101.156	101.156	101.156	101.080	100.775	100.472	100.171	99.872
12/24/2007	12/26/2017	12/24/2012	3.990	121.533	121.533	121.348	115.741	110.278	105.342	101.803	100.261
12/26/2007	12/26/2012	9/26/2012	3.960	101.287	101.287	101.287	101.204	100.883	100.564	100.247	100.016
12/26/2007	12/26/2012	9/26/2012	3.460	101.124	101.124	101.124	101.042	100.721	100.402	100.101	99.947
1/2/2008	1/2/2013	10/2/2012	3.490	101.202	101.202	101.202	101.111	100.772	100.435	100.123	99.941
1/3/2008	1/5/2015	10/3/2012	3.650	108.688	108.688	108.688	107.481	105.153	103.089	101.473	100.422
1/4/2008	1/4/2018	10/4/2012	3.360	118.217	118.217	118.014	113.110	108.719	105.191	102.582	100.894
1/7/2008	1/7/2013	10/9/2012	2.990	101.071	101.071	101.071	100.974	100.621	100.273	100.006	99.873
1/7/2008	1/7/2013	10/9/2012	3.590	101.286	101.286	101.286	101.189	100.836	100.485	100.157	99.949
1/7/2008	1/7/2015	10/9/2012	3.490	108.327	108.327	108.327	107.118	104.799	102.773	101.212	100.253
1/7/2008	1/8/2018	10/9/2012	2.590	114.071	114.071	113.870	109.345	105.439	102.552	100.767	99.979
1/8/2008	1/8/2013	10/9/2012	3.150	101.137	101.137	101.137	101.039	100.683	100.331	100.034	99.891
1/8/2008	1/8/2018	10/9/2012	2.570	113.962	113.962	113.762	109.248	105.358	102.489	100.733	99.967
1/8/2008	1/8/2018	10/9/2012	2.640	114.343	114.343	114.141	109.585	105.640	102.707	100.848	100.007
1/11/2008	1/11/2018	10/11/2012	2.720	114.800	114.800	114.587	109.977	105.971	102.961	100.981	100.045
1/14/2008	1/16/2018	10/15/2012	3.240	117.675	117.675	117.437	112.554	108.210	104.749	102.243	100.671
1/16/2008	1/16/2013	10/16/2012	2.550	100.977	100.977	100.977	100.868	100.492	100.137	99.924	99.796
1/16/2008	1/16/2018	10/16/2012	2.380	112.983	112.983	112.768	108.355	104.606	101.941	100.407	99.827
1/17/2008	1/17/2018	10/17/2012	2.250	112.280	112.280	112.068	107.743	104.101	101.590	100.206	99.770
1/18/2008	1/18/2013	10/18/2012	2.550	100.992	100.992	100.992	100.879	100.498	100.139	99.921	99.788
1/18/2008	1/20/2015	10/18/2012	2.350	105.692	105.692	105.692	104.488	102.326	100.747	100.002	99.766
1/18/2008	1/18/2018	10/18/2012	2.290	112.505	112.505	112.289	107.933	104.254	101.695	100.261	99.774
1/24/2008	1/24/2013	10/24/2012	2.500	101.014	101.014	101.014	100.893	100.496	100.128	99.904	99.755
1/25/2008	1/25/2013	1/26/2009	2.250	100.919	100.919	100.919	100.797	100.397	100.000	99.606	99.215
1/25/2008	1/25/2013	1/25/2011	2.650	101.082	101.082	101.082	100.960	100.560	100.162	99.768	99.377
1/28/2008	1/28/2013	1/28/2011	2.990	101.246	101.246	101.246	101.120	100.711	100.305	99.903	99.504
1/30/2008	1/30/2013	10/30/2012	2.670	101.127	101.127	101.127	100.999	100.585	100.192	99.929	99.758
2/7/2008	2/7/2013	11/7/2012	2.490	101.107	101.107	101.107	100.967	100.530	100.139	99.881	99.690
2/13/2008	2/13/2013	11/13/2012	2.920	101.346	101.346	101.346	101.199	100.743	100.304	99.981	99.752
2/14/2008	2/14/2018	11/14/2012	3.190	117.659	117.659	117.266	111.591	106.106	100.928	96.039	91.421
2/19/2008	2/19/2013	2/19/2010	2.590	101.237	101.237	101.237	101.081	100.608	100.140	99.676	99.216
2/25/2008	2/25/2013	11/25/2012	3.090	101.528	101.528	101.528	101.363	100.872	100.385	99.903	99.426
2/25/2008	2/26/2018	11/26/2012	2.420	113.477	113.477	113.143	108.638	104.810	102.061	100.439	99.697
3/7/2008	3/9/2015	12/7/2012	2.890	107.385	107.385	107.385	106.080	103.689	101.749	100.487	99.986
3/7/2008	3/7/2018	3/7/2013	3.550	119.859	119.859	119.445	114.336	109.759	106.040	103.183	101.181
3/10/2008	3/11/2013	12/10/2012	2.390	101.275	101.275	101.275	101.092	100.565	100.109	99.977	99.950
3/12/2008	3/12/2013	9/12/2012	2.010	101.077	101.077	101.077	100.893	100.373	100.022	99.960	99.927
3/14/2008	3/14/2018	9/14/2012	2.400	113.472	113.472	113.082	108.585	104.768	102.045	100.432	99.930
3/17/2008	3/19/2018	3/18/2013	3.300	118.570	118.570	118.117	113.094	108.636	105.071	102.445	100.643
3/28/2008	3/28/2013	9/28/2012	2.820	101.637	101.637	101.637	101.431	100.856	100.288	99.726	99.170
4/14/2008	4/14/2015	10/14/2012	2.750	107.302	107.302	107.302	105.919	103.279	100.719	98.236	95.826
4/28/2008	4/28/2015	10/29/2012	3.250	108.756	108.756	108.756	107.345	104.767	102.587	100.967	100.063
4/28/2008	4/28/2015	10/29/2012	3.250	108.756	108.756	108.756	107.345	104.767	102.587	100.967	100.063
4/28/2008	4/30/2018	10/29/2012	2.150	112.349	112.349	111.860	107.464	103.822	101.363	100.074	99.691
4/30/2008	4/30/2018	4/30/2013	3.740	121.483	121.483	120.751	114.788	109.146	104.555	101.748	100.138
5/2/2008	5/4/2015	11/2/2012	3.990	110.817	110.817	110.817	109.376	106.702	104.314	102.349	100.946
5/5/2008	5/5/2015	11/5/2012	3.170	108.602	108.602	108.602	107.180	104.606	102.458	100.906	100.068
5/8/2008	5/8/2015	11/8/2012	2.960	108.057	108.057	108.057	106.635	104.090	102.014	100.638	99.936
5/19/2008	5/19/2015	11/21/2012	4.700	112.937	112.937	112.937	111.448	108.638	105.914	103.274	100.714
5/23/2008	5/23/2013	11/23/2012	4.040	102.974	102.974	102.974	102.691	101.959	101.244	100.583	100.086
5/23/2008	5/23/2018	11/23/2012	3.270	118.992	118.992	118.312	113.179	108.657	105.053	102.424	100.739
5/27/2008	5/28/2013	5/27/2011	3.490	102.617	102.617	102.617	102.328	101.585	100.853	100.131	99.420
6/6/2008	6/6/2013	9/6/2012	3.990	103.092	103.092	103.092	102.789	102.020	101.262	100.516	99.780
6/16/2008	6/17/2013	9/16/2012	4.070	103.278	103.278	103.278	102.960	102.160	101.372	100.596	99.832
6/24/2008	6/24/2015	9/24/2012	3.830	110.925	110.925	110.925	109.378	106.585	104.114	102.129	100.743
6/30/2008	6/30/2015	10/1/2012	3.370	109.669	109.669	109.669	108.122	105.376	103.043	101.289	100.257
6/30/2008	7/2/2018	9/30/2012	3.690	121.841	121.841	120.798	114.653	108.727	103.152	97.905	92.965
7/1/2008	7/1/2015	10/1/2012	4.600	113.211	113.211	113.211	111.627	108.696	105.857	103.109	100.447
7/7/2008	7/8/2013	10/7/2012	4.590	103.965	103.965	103.965	103.616	102.756	101.910	101.078	100.260
7/8/2008	7/8/2013	10/8/2012	4.250	103.671	103.671	103.671	103.323	102.464	101.619	100.789	99.972

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/10/2008	7/10/2014	10/10/2012	4.800	109.040	109.040	109.040	108.130	106.224	104.362	102.541	100.761
7/11/2008	7/11/2018	10/11/2012	3.750	122.290	122.290	121.200	115.020	109.061	103.456	98.182	93.217
7/14/2008	7/14/2015	7/15/2013	4.900	114.250	114.250	114.250	112.626	109.605	106.604	103.642	100.882
7/14/2008	7/16/2018	10/15/2012	2.500	114.894	114.894	114.099	109.361	105.355	102.432	100.677	99.921
7/14/2008	7/16/2018	10/15/2012	3.250	119.363	119.363	118.476	113.272	108.707	105.082	102.450	100.778
7/17/2008	7/17/2018	7/17/2013	3.750	122.353	122.353	121.231	115.043	109.357	104.913	102.048	100.218
7/21/2008	7/22/2013	10/22/2012	3.000	102.708	102.708	102.708	102.341	101.450	100.585	100.053	99.839
8/15/2008	8/15/2018	11/15/2012	3.830	123.138	123.138	122.079	116.537	111.591	107.518	104.335	102.026
8/19/2008	8/19/2013	8/19/2010	3.440	103.373	103.373	103.373	102.965	101.997	101.047	100.114	99.199
9/8/2008	9/9/2013	12/10/2012	2.890	103.002	103.002	103.002	102.565	101.550	100.656	100.099	99.964
5/13/2009	5/13/2014	5/13/2013	4.000	106.888	106.888	106.888	106.069	104.237	102.253	100.342	98.770
9/28/2009	9/30/2013	9/28/2012	2.920	103.204	103.204	103.204	102.736	101.659	100.704	100.100	99.901
5/11/2010	5/11/2015	5/11/2015	3.700	110.102	110.102	110.102	108.638	105.705	102.309	98.356	94.251
5/24/2010	5/26/2015	11/24/2012	2.250	106.237	106.237	106.237	104.777	102.040	99.389	96.820	94.330
6/15/2010	6/15/2015	9/15/2012	2.280	106.447	106.447	106.447	104.943	102.150	99.446	98.930	96.828
4/27/2012	4/27/2016	4/29/2013	-0.012	104.359	104.359	104.359	102.273	100.397	99.823	99.609	99.445
4/30/2012	5/2/2016	4/30/2013	-0.013	104.215	104.215	104.215	102.136	100.340	99.811	99.602	99.439
5/15/2012	5/15/2017	5/15/2014	-0.027	105.942	105.942	105.942	102.687	100.626	99.646	99.125	98.810
5/15/2012	5/15/2017	11/17/2014	-0.026	106.050	106.050	106.050	102.746	100.636	99.538	98.894	98.494
7/16/2012	7/17/2017	7/16/2014	0.005	105.241	105.241	105.241	101.993	100.329	99.598	99.269	99.074
7/18/2012	7/18/2018	7/20/2015	0.005	107.925	107.925	106.871	102.653	100.597	99.534	98.949	98.583
7/19/2012	7/19/2017	7/21/2014	0.005	105.289	105.289	105.289	102.021	100.330	99.574	99.227	99.016