

## **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	Date	Date									
2/27/1997	2/27/2012	11/27/2009	6.580	116.632	116.632	114.691	112.140	109.740	107.561	105.632	103.974	102.805	
4/8/1998	4/8/2013	10/8/2009	5.490	120.068	118.671	115.134	111.855	108.974	106.510	104.458	102.805	102.963	
8/19/1998	8/19/2013	11/19/2009	5.490	122.096	119.891	116.049	112.537	109.476	106.870	104.708	102.963	102.963	
8/19/1998	8/19/2013	11/19/2009	5.490	122.096	119.891	116.049	112.537	109.476	106.870	104.708	102.963	102.963	
8/25/1998	8/19/2013	10/26/2009	5.490	122.096	119.887	116.045	112.532	109.468	106.861	104.694	102.948	102.948	
8/27/1998	8/19/2013	10/27/2009	5.490	122.096	119.886	116.044	112.529	109.465	106.856	104.689	102.942	102.942	
9/30/1998	9/30/2013	9/30/2009	5.220	121.619	119.150	115.276	111.769	108.740	106.192	104.102	102.448	102.448	
12/14/1998	12/16/2013	9/14/2009	4.890	121.298	118.347	114.406	110.898	107.915	105.452	103.467	101.951	101.951	
12/14/1998	12/16/2013	9/14/2009	5.390	123.475	120.472	116.406	112.740	109.576	106.903	104.698	102.937	102.937	
12/14/1998	12/16/2013	9/16/2009	5.390	123.475	120.472	116.406	112.740	109.576	106.903	104.698	102.937	102.937	
12/15/1998	12/16/2013	9/15/2009	4.880	121.254	118.304	114.365	110.859	107.880	105.421	103.440	101.928	101.928	
9/8/1999	9/8/2009	9/8/2009	5.620	100.125	100.125	100.125	100.120	100.098	100.076	100.053	100.031	100.031	
10/8/1999	10/8/2009	10/8/2009	5.580	100.589	100.589	100.589	100.566	100.460	100.354	100.249	100.143	100.143	
11/1/1999	11/2/2009	11/2/2009	5.540	100.969	100.969	100.969	100.929	100.754	100.578	100.404	100.230	100.230	
11/8/1999	11/9/2009	11/9/2009	5.960	101.159	101.159	101.159	101.113	100.917	100.722	100.528	100.335	100.335	
11/9/1999	11/9/2009	11/9/2009	5.570	101.083	101.083	101.083	101.037	100.841	100.647	100.453	100.260	100.260	
12/10/1999	12/10/2009	9/10/2009	5.710	101.602	101.602	101.602	101.525	101.242	100.962	100.683	100.405	100.405	
12/17/1999	12/17/2009	9/17/2009	5.910	101.773	101.773	101.773	101.687	101.385	101.084	100.786	100.489	100.489	
12/20/1999	12/21/2009	9/21/2009	5.810	101.807	101.807	101.807	101.716	101.403	101.092	100.782	100.475	100.475	
12/22/1999	12/22/2009	9/22/2009	5.840	101.833	101.833	101.833	101.740	101.424	101.110	100.798	100.488	100.488	
1/7/2000	1/7/2015	10/7/2009	5.950	131.259	126.154	121.229	116.830	113.028	109.796	107.090	104.868	104.868	
1/13/2000	1/13/2010	10/13/2009	5.910	102.216	102.216	102.216	102.089	101.711	101.336	100.964	100.596	100.596	
1/25/2000	1/25/2010	10/26/2009	5.970	102.438	102.438	102.438	102.289	101.877	101.469	101.064	100.666	100.666	
1/27/2000	1/27/2010	10/27/2009	6.080	102.516	102.516	102.516	102.364	101.947	101.533	101.123	100.718	100.718	
1/27/2000	1/27/2010	10/27/2009	6.210	102.570	102.570	102.570	102.418	102.000	101.586	101.176	100.771	100.771	
2/7/2000	2/8/2010	11/9/2009	5.950	102.661	102.661	102.661	102.483	102.032	101.586	101.143	100.714	100.714	
2/16/2000	2/8/2010	11/2/2009	5.950	102.661	102.661	102.661	102.483	102.032	101.586	101.143	100.715	100.715	
2/16/2000	2/16/2010	11/16/2009	6.470	103.037	103.037	103.037	102.841	102.367	101.898	101.432	100.976	100.976	
2/16/2000	2/16/2010	11/16/2009	6.690	103.140	103.140	103.140	102.944	102.470	102.000	101.535	101.075	101.075	
3/6/2000	3/8/2010	12/7/2009	6.390	103.355	103.355	103.355	103.112	102.582	102.057	101.539	101.038	101.038	
3/13/2000	3/15/2010	9/14/2009	6.090	103.316	103.316	103.316	103.056	102.507	101.964	101.428	100.916	100.916	
3/14/2000	3/15/2010	11/16/2009	6.090	103.316	103.316	103.316	103.056	102.507	101.964	101.429	100.917	100.917	
3/15/2000	3/15/2010	9/15/2009	5.950	103.239	103.239	103.239	102.980	102.431	101.888	101.353	100.844	100.844	
3/21/2000	3/22/2010	9/21/2009	6.120	103.451	103.451	103.451	103.175	102.606	102.044	101.489	100.959	100.959	
3/22/2000	3/22/2010	9/22/2009	5.960	103.361	103.361	103.361	103.085	102.516	101.954	101.400	100.873	100.873	
4/5/2000	4/5/2010	10/5/2009	5.950	103.586	103.586	103.586	103.277	102.669	102.068	101.480	100.925	100.925	
4/11/2000	4/12/2010	10/13/2009	5.950	103.702	103.702	103.702	103.375	102.747	102.128	101.521	100.948	100.948	
4/11/2000	4/12/2010	10/13/2009	6.050	103.764	103.764	103.764	103.437	102.809	102.189	101.582	101.006	101.006	
4/11/2000	4/12/2010	10/13/2009	6.470	104.026	104.026	104.026	103.698	103.069	102.448	101.838	101.252	101.252	
4/11/2000	4/12/2010	10/13/2009	6.560	104.082	104.082	104.082	103.754	103.125	102.504	101.892	101.304	101.304	
4/11/2000	4/12/2010	10/13/2009	6.750	104.200	104.200	104.200	103.872	103.242	102.621	102.008	101.415	101.415	
4/12/2000	4/12/2010	10/13/2009	5.990	103.727	103.727	103.727	103.399	102.772	102.152	101.545	100.971	100.971	
4/13/2000	4/13/2010	10/13/2009	6.560	104.100	104.100	104.100	103.769	103.138	102.514	101.900	101.309	101.309	
4/24/2000	4/26/2010	10/26/2009	6.450	104.264	104.264	104.264	103.901	103.233	102.574	101.926	101.305	101.305	
5/3/2000	5/3/2010	11/3/2009	6.240	104.247	104.247	104.247	103.866	103.179	102.501	101.839	101.213	101.213	
5/3/2000	5/3/2010	11/3/2009	6.360	104.328	104.328	104.328	103.947	103.260	102.582	101.918	101.288	101.288	
5/15/2000	5/17/2010	11/16/2009	6.990	105.029	105.029	105.029	104.611	103.882	103.164	102.458	101.774	101.774	
5/30/2000	6/1/2010	11/30/2009	6.490	104.939	104.939	104.939	104.483	103.714	102.957	102.217	101.515	101.515	
8/8/2000	8/9/2010	11/9/2009	5.990	105.707	105.707	105.707	105.065	104.104	103.163	102.265	101.448	101.448	
8/18/2000	8/18/2010	11/18/2009	6.090	105.954	105.954	105.954	105.287	104.300	103.334	102.409	101.563	101.563	
10/5/2000	10/5/2010	10/5/2009	5.710	106.344	106.344	106.325	105.461	104.344	103.262	102.256	101.376	101.376	
10/10/2000	10/12/2010	10/13/2009	5.840	106.602	106.602	106.579	105.684	104.546	103.444	102.416	101.507	101.507	
10/13/2000	10/13/2010	10/13/2009	5.750	106.516	106.516	106.493	105.593	104.454	103.351	102.326	101.425	101.425	
10/23/2000	10/25/2010	10/23/2009	5.640	106.580	106.580	106.549	105.597	104.427	103.299	102.254	101.343	101.343	
12/5/2000	12/6/2010	12/7/2009	5.410	106.943	106.943	106.889	105.746	104.470	103.258	102.158	101.237	101.237	
12/11/2000	12/13/2010	9/11/2009	5.170	106.735	106.735	106.678	105.505	104.215	102.995	101.909	101.013	101.013	
12/12/2000	12/13/2010	9/14/2009	5.110	106.657	106.657	106.599	105.427	104.138	102.922	101.844	100.958	100.958	
12/15/2000	12/15/2010	9/15/2009	5.120	106.698	106.698	106.640	105.458	104.164	102.943	101.858	100.966	100.966	
12/20/2000	12/20/2010	9/21/2009	4.950	106.545	106.545	106.483	105.281	103.976	102.756	101.682	100.817	100.817	
12/21/2000	12/21/2010	9/21/2009	4.860	106.439	106.439	106.377	105.171	103.866	102.650	101.588	100.745	100.745	
1/11/2001	1/11/2011	10/13/2009	5.370	107.428	107.428	107.355	106.051	104.684	103.401	102.257	101.309	101.309	
1/12/2001	1/12/2011	10/13/2009	5.300	107.346	107.346	107.272	105.964	104.597	103.316	102.176	101.239	101.239	
2/5/2001	2/7/2011	11/5/2009	4.820	107.029	107.029	106.940	105.517	104.096	102.789	101.672	100.796	100.796	
2/7/2001	2/7/2011	11/9/2009	4.820	107.029	107.029	106.940	105.517	104.095	102.788	101.670	100.790	100.790	
2/26/2001	2/28/2011	11/27/2009	4.790	107.265	107.265	107.163	105.637	104.160	102.811	101.661	100.763	100.763	
2/26/2001	2/28/2011	11/27/2009	5.060	107.674	107.674	107.573	106.044	104.556	103.179	101.976	101.009	101.009	
2/26/2001	2/28/2011	11/27/2009	5.450	108.266	108.266	108.164	106.631	105.130	103.727	102.473	101.429	101.429	
2/27/2001	2/28/2011	11/27/2009	4.760	107.219	107.219	107.118	105.592	104.115	102.772	101.635	100.747	100.747	
2/27/2001	2/28/2011	11/27/2009	5.020	107.613	107.613	107.512	105.983	104.497	103.124	101.937	100.984	100.984	
3/1/2001	3/1/2011	12/1/2009	5.270	108.007	108.007	107.902	106.368	104.875	103.488	102.266	101.272	101.272	
3/14/2001	3/14/2011	9/14/2009	4.860	107.560	107.560	107.401	105.837	104.327	102.953	101.780	100.856	100.856	
4/23/2001	4/25/2011	4/24/2006	5.350	108.946	108.946	108.611	106.917	105.242	103.603	101.997	100.425	100.425	
6/1/2001	6/1/2011	12/1/2009	4.990	108.857	108.857	108.369	106.595	104.917	103.402	102.118	101.107		

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
12/17/2004	12/17/2009	9/17/2009	3.710	101.113	101.113	101.113	101.027	100.726	100.427	100.146	99.984
5/5/2005	5/5/2010	5/5/2006	4.190	102.875	102.875	102.875	102.491	101.804	101.140	100.557	100.142
5/17/2005	5/17/2010	11/17/2009	4.070	102.928	102.928	102.928	102.514	101.794	101.101	100.504	100.070
6/6/2005	6/7/2010	12/7/2009	3.890	103.025	103.025	103.025	102.557	101.781	101.046	100.438	99.994
7/18/2005	7/19/2010	10/19/2009	4.160	103.721	103.721	103.721	103.141	102.247	101.399	100.674	100.172
9/1/2005	9/1/2015	12/1/2009	4.130	122.735	117.818	113.353	109.598	106.570	104.181	102.380	101.095
9/19/2005	9/19/2012	9/21/2009	3.820	111.831	111.531	108.674	106.094	103.954	102.260	101.020	100.256
9/26/2005	9/26/2012	9/28/2009	3.890	112.123	111.786	108.902	106.292	104.116	102.385	101.104	100.289
9/30/2005	9/30/2015	9/30/2009	4.440	124.711	119.585	114.903	110.933	107.671	105.066	103.035	101.551
10/26/2005	10/26/2015	10/26/2009	4.540	125.457	120.248	115.489	111.440	108.107	105.430	103.335	101.782
10/28/2005	10/28/2015	10/28/2009	4.140	123.028	118.014	113.465	109.644	106.555	104.119	102.279	100.976
10/28/2005	10/28/2015	10/28/2009	4.310	124.051	118.951	114.303	110.376	107.180	104.635	102.679	101.247
11/4/2005	11/4/2010	11/4/2009	4.520	105.399	105.399	105.363	104.371	103.192	102.100	101.164	100.471
11/21/2005	11/21/2012	11/23/2009	4.290	114.037	113.419	110.359	107.570	105.205	103.280	101.797	100.740
1/6/2006	1/6/2016	10/6/2009	4.020	122.638	117.607	113.076	109.296	106.260	103.891	102.123	100.896
1/17/2006	1/19/2016	10/19/2009	4.080	123.063	117.975	113.388	109.554	106.466	104.043	102.223	100.945
3/20/2006	3/21/2011	9/20/2009	4.760	107.497	107.497	107.309	105.722	104.152	102.613	101.106	99.628
4/11/2006	4/11/2011	10/13/2009	4.980	108.134	108.134	107.858	106.217	104.643	103.210	101.982	101.004
4/19/2006	4/19/2013	10/19/2009	4.630	117.066	115.630	112.207	109.112	106.474	104.304	102.578	101.275
4/24/2006	4/25/2016	10/26/2009	4.440	125.810	120.379	115.473	111.331	107.944	105.240	103.135	101.574
4/28/2006	4/28/2011	10/28/2009	5.090	108.554	108.554	108.206	106.506	104.827	103.183	101.573	99.997
5/5/2006	5/6/2013	11/5/2009	4.780	117.845	116.305	112.824	109.671	106.971	104.738	102.939	101.579
5/5/2006	5/5/2016	11/5/2009	4.350	125.302	119.914	115.062	110.981	107.660	105.019	102.983	101.492
5/5/2006	5/5/2016	11/5/2009	4.530	126.459	120.972	116.013	111.817	108.374	105.616	103.457	101.859
5/5/2006	5/5/2016	11/5/2009	4.980	129.366	123.650	118.432	113.965	110.244	107.199	104.762	102.873
5/9/2006	5/9/2011	11/9/2009	5.050	108.641	108.641	108.247	106.531	104.894	103.409	102.135	101.124
5/15/2006	5/16/2016	11/16/2009	4.350	125.361	119.944	115.074	110.980	107.650	104.997	102.953	101.450
5/15/2006	5/16/2016	11/16/2009	4.520	126.457	120.947	115.973	111.771	108.322	105.562	103.399	101.795
5/19/2006	5/19/2016	11/19/2009	4.510	126.411	120.897	115.921	111.721	108.275	105.517	103.360	101.759
6/12/2006	6/13/2016	9/14/2009	4.620	127.268	121.662	116.599	112.312	108.784	105.943	103.709	102.037
6/26/2006	6/27/2016	9/28/2009	4.730	128.051	122.360	117.211	112.834	109.219	106.293	103.979	102.224
6/28/2006	6/28/2013	9/28/2009	4.950	119.208	117.340	113.710	110.419	107.591	105.231	103.317	101.838
6/28/2006	6/28/2013	9/28/2009	4.950	119.208	117.340	113.710	110.419	107.591	105.231	103.317	101.838
6/30/2006	7/1/2013	9/30/2009	4.890	119.016	117.137	113.514	110.237	107.424	105.083	103.192	101.735
7/14/2006	7/15/2013	10/14/2009	4.890	119.206	117.242	113.594	110.300	107.481	105.139	103.251	101.800
7/19/2006	7/19/2011	10/19/2009	5.250	110.018	110.018	109.327	107.414	105.604	103.976	102.577	101.444
7/20/2006	7/20/2011	10/20/2009	5.300	110.128	110.128	109.432	107.493	105.583	103.717	101.894	100.112
7/24/2006	7/25/2016	10/26/2009	4.660	127.754	122.060	116.922	112.568	108.983	106.089	103.814	102.092
7/28/2006	7/28/2016	10/28/2009	4.490	126.646	121.038	116.000	111.750	108.272	105.493	103.321	101.708
8/1/2006	8/1/2016	11/2/2009	4.890	129.340	123.525	118.254	113.764	110.041	107.009	104.593	102.737
8/11/2006	8/11/2011	11/12/2009	4.790	109.447	109.447	108.662	106.707	104.895	103.296	101.975	100.961
8/21/2006	8/21/2013	11/23/2009	4.750	119.144	116.981	113.292	109.993	107.187	104.879	103.037	101.648
8/25/2006	8/25/2016	11/25/2009	4.350	125.887	120.310	115.327	111.153	107.761	105.061	102.982	101.451
8/28/2006	8/29/2011	11/30/2009	4.890	109.888	109.888	109.029	107.025	105.167	103.531	102.162	101.101
9/22/2006	9/22/2011	9/22/2009	4.790	110.005	110.005	109.010	106.951	105.053	103.397	102.030	100.976
9/29/2006	9/29/2011	9/29/2009	4.590	109.677	109.677	108.642	106.579	104.693	103.068	101.749	100.762
10/10/2006	10/10/2013	10/13/2009	4.250	117.719	115.280	111.632	108.436	105.788	103.664	102.042	100.879
10/12/2006	10/15/2013	10/13/2009	4.500	118.824	116.323	112.595	109.302	106.540	104.296	102.537	101.231
10/20/2006	10/20/2009	10/20/2009	4.930	100.685	100.685	100.685	100.654	100.514	100.375	100.237	100.098
10/30/2006	10/31/2011	10/30/2009	4.850	110.656	110.656	109.429	107.206	105.027	102.904	100.836	98.820
11/3/2006	11/3/2011	11/3/2009	4.690	110.344	110.344	109.099	106.871	104.688	102.561	100.489	98.470
11/6/2006	11/6/2013	11/6/2009	4.290	118.208	115.596	111.893	108.654	105.968	103.809	102.152	100.971
11/10/2006	11/13/2012	11/10/2009	4.390	114.267	113.684	110.631	107.836	105.455	103.500	101.979	100.883
11/17/2006	11/18/2013	11/17/2009	4.350	118.607	115.909	112.161	108.880	106.153	103.951	102.251	101.023
11/24/2006	11/25/2016	11/24/2009	4.190	125.282	119.670	114.704	110.571	107.245	104.620	102.627	101.198
11/30/2006	12/2/2013	11/30/2009	4.350	118.777	116.005	112.250	108.970	106.249	104.055	102.363	101.132
12/1/2006	12/1/2016	12/1/2009	4.090	124.651	119.113	114.225	110.172	106.925	104.383	102.477	101.132
12/4/2006	12/5/2016	12/4/2009	4.080	124.597	119.062	114.175	110.124	106.879	104.341	102.439	101.101
12/5/2006	12/5/2016	12/7/2009	4.260	125.822	120.167	115.150	110.970	107.598	104.924	102.887	101.405
12/6/2006	12/6/2013	12/7/2009	4.400	119.041	116.229	112.438	109.123	106.364	104.130	102.401	101.137
12/8/2006	12/8/2016	12/8/2009	3.990	123.991	118.514	113.685	109.701	106.521	104.054	102.218	100.940
12/11/2006	12/11/2009	9/11/2009	4.690	101.329	101.329	101.329	101.250	100.966	100.683	100.403	100.144
12/12/2006	12/12/2016	9/14/2009	3.990	124.002	118.521	113.686	109.697	106.513	104.042	102.201	100.919
12/12/2006	12/12/2016	9/14/2009	4.050	124.411	118.887	114.010	109.975	106.744	104.226	102.342	101.016
12/13/2006	12/14/2009	9/14/2009	4.830	101.409	101.409	101.409	101.326	101.033	100.742	100.453	100.165
12/19/2006	12/19/2011	9/21/2009	4.490	110.476	110.476	108.988	106.762	104.765	103.078	101.733	100.743
12/19/2006	12/19/2016	9/21/2009	4.190	125.389	119.759	114.773	110.625	107.284	104.655	102.660	101.223
12/20/2006	12/20/2013	9/21/2009	4.500	119.649	116.723	112.876	109.498	106.674	104.378	102.581	101.245
12/21/2006	12/21/2011	9/21/2009	4.530	110.595	110.595	109.094	106.859	104.853	103.152	101.792	100.784
12/27/2006	12/27/2013	9/28/2009	4.500	119.737	116.761	112.900	109.510	106.675	104.372	102.567	101.224
12/28/2006	12/28/2016	9/28/2009	4.250	125.835	120.148	115.105	110.902	107.509	104.831	102.784	101.296
12/28/2006	12/28/2016	9/28/2009	4.400	126.870	121.083	115.935	111.625	108.126	105.337	103.182	101.583
1/8/2007	1/9/2012	10/8/2009	4.750	111.360	111.360	109.751	107.461	105.407	103.646	102.209	101.124
1/12/2007	1/12/2017	10/13/2009	4.420	127.100	121.289	116.123	111.796	108.279	105.479	103.310	101.707
1/16/2007	1/17/2017	1/17/2012	4.790	129.712	123.658	118.214	113.533	109.511	106.004	102.886	100.056
1/23/2007	1/23/2014	10/23/2009	4.490	120.029	116.880	112.982	109.564	106.712	104.398	102.587	101.240
1/23/2007	1/23/2017	10/23/2009	4.460	127.433	121.571	116.360	111.988	108.428	105.590	103.382	101.746
1/29/2007	1/29/2014	10/29/2009	4.790	121.448	118.228	114.232	110.704	107.719	105.270	103.315	101.831
2/2/2007	2/2/2017	11/2/2009	4.690	129.156	123.145	117.784	113.268	109.564	106.581	104.236	102.460

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
2/20/2007	2/21/2017	11/20/2009	4.390	127.113	121.245	116.047	111.709	108.185	105.385	103.219	101.626
2/20/2007	2/21/2017	2/21/2012	4.850	128.815	121.952	116.448	111.740	107.851	104.546	101.622	98.949
2/23/2007	2/23/2017	11/23/2009	4.250	126.142	120.361	115.259	111.020	107.603	104.900	102.838	101.339
2/23/2007	2/23/2017	11/23/2009	4.350	126.844	120.994	115.820	111.508	108.014	105.241	103.104	101.532
2/28/2007	3/1/2010	11/28/2009	4.890	102.472	102.472	102.472	102.247	101.739	101.236	100.738	100.245
3/2/2007	3/2/2012	12/2/2009	4.490	111.399	111.397	109.491	107.114	105.019	103.258	101.869	100.847
3/9/2007	3/10/2014	12/9/2009	4.450	120.408	116.976	113.018	109.571	106.708	104.389	102.588	101.261
3/16/2007	3/16/2017	9/16/2009	4.090	125.121	119.436	114.438	110.305	106.995	104.411	102.470	101.097
3/20/2007	3/20/2012	9/21/2009	4.550	111.779	111.758	109.750	107.331	105.205	103.410	101.977	100.920
3/21/2007	3/21/2017	9/21/2009	4.220	126.051	120.267	115.163	110.925	107.515	104.827	102.780	101.300
3/23/2007	3/23/2017	9/23/2009	4.290	126.554	120.716	115.556	111.264	107.801	105.057	102.957	101.422
3/23/2007	3/23/2017	9/23/2009	4.290	126.554	120.716	115.556	111.264	107.801	105.057	102.957	101.422
3/30/2007	3/30/2012	9/30/2009	4.670	112.219	112.188	110.061	107.417	104.839	102.338	99.910	97.554
4/2/2007	4/2/2012	10/2/2009	4.590	112.048	112.014	109.929	107.480	105.321	103.502	102.055	100.972
4/9/2007	4/10/2017	10/9/2009	4.150	125.662	119.910	114.847	110.653	107.289	104.651	102.658	101.228
4/12/2007	4/12/2017	10/13/2009	4.250	126.379	120.549	115.407	111.135	107.691	104.980	102.909	101.400
4/13/2007	4/13/2017	10/13/2009	4.450	127.810	121.836	116.548	112.125	108.533	105.672	103.450	101.809
4/23/2007	4/23/2012	10/23/2009	4.650	112.477	112.419	110.215	107.721	105.525	103.671	102.177	101.060
4/23/2007	4/23/2014	4/23/2010	4.620	121.702	117.962	113.879	110.307	107.318	104.886	102.951	101.437
4/27/2007	4/27/2012	10/27/2009	4.550	112.259	112.197	109.969	107.474	105.283	103.441	101.975	100.881
4/27/2007	4/27/2017	10/27/2009	4.250	126.449	120.583	115.415	111.124	107.669	104.943	102.862	101.343
5/2/2007	5/2/2014	5/3/2010	4.590	121.665	117.886	113.811	110.254	107.283	104.872	102.952	101.441
5/4/2007	5/5/2014	11/4/2009	4.550	121.510	117.722	113.654	110.108	107.154	104.760	102.878	101.479
5/14/2007	5/16/2011	11/16/2009	4.500	107.787	107.787	107.366	105.646	104.030	102.615	101.455	100.604
5/18/2007	5/18/2017	11/18/2009	4.190	126.149	120.292	115.149	110.892	107.478	104.787	102.748	101.278
5/22/2007	5/22/2012	11/23/2009	4.690	112.962	112.874	110.500	107.939	105.689	103.782	102.246	101.084
5/22/2007	5/22/2012	11/23/2009	4.690	112.962	112.874	110.500	107.939	105.689	103.782	102.246	101.084
5/22/2007	5/22/2012	11/23/2009	4.710	113.017	112.929	110.554	107.990	105.736	103.822	102.279	101.110
5/22/2007	5/22/2017	5/22/2012	4.750	130.216	123.956	118.339	113.479	109.257	105.533	102.187	99.124
5/25/2007	5/25/2012	11/25/2009	4.650	112.890	112.799	110.411	107.849	105.603	103.703	102.178	101.027
5/29/2007	5/30/2017	11/30/2009	4.250	126.648	120.718	115.506	111.189	107.717	104.977	102.900	101.391
6/1/2007	6/1/2010	12/1/2009	4.990	103.798	103.798	103.798	103.344	102.579	101.831	101.131	100.542
6/1/2007	6/2/2014	12/1/2009	4.500	121.591	117.655	113.562	110.008	107.061	104.672	102.807	101.423
6/7/2007	6/7/2012	12/7/2009	4.940	113.873	113.767	111.290	108.672	106.346	104.366	102.741	101.484
6/7/2007	6/7/2017	12/7/2009	4.820	130.843	124.518	118.905	114.174	110.284	107.140	104.645	102.736
6/8/2007	6/9/2014	12/8/2009	4.730	122.784	118.747	114.560	110.899	107.827	105.321	103.324	101.819
6/8/2007	6/8/2017	12/8/2009	4.490	128.443	122.341	116.958	112.465	108.808	105.896	103.629	101.950
6/11/2007	6/12/2017	9/11/2009	4.490	128.460	122.353	116.963	112.465	108.803	105.887	103.616	101.933
6/18/2007	6/19/2017	9/18/2009	4.500	128.561	122.433	117.025	112.510	108.833	105.903	103.620	101.925
6/18/2007	6/19/2017	9/18/2009	4.840	131.049	124.688	119.040	114.277	110.356	107.184	104.665	102.734
6/19/2007	6/19/2017	9/21/2009	4.650	129.655	123.421	117.906	113.278	109.493	106.452	104.064	102.269
6/20/2007	6/20/2012	9/21/2009	4.890	113.909	113.789	111.236	108.592	106.256	104.264	102.639	101.385
6/20/2007	6/20/2012	9/21/2009	4.960	114.108	113.988	111.431	108.778	106.425	104.415	102.768	101.487
6/22/2007	6/22/2017	9/22/2009	4.500	128.572	122.436	117.023	112.503	108.824	105.891	103.607	101.909
6/26/2007	6/26/2012	9/28/2009	5.130	114.677	114.550	111.947	109.257	106.853	104.792	103.081	101.730
6/28/2007	6/28/2017	9/28/2009	4.500	128.597	122.449	117.026	112.498	108.813	105.875	103.585	101.883
7/13/2007	7/13/2012	10/13/2009	4.690	113.639	113.495	110.829	108.176	105.853	103.905	102.337	101.150
7/13/2007	7/13/2017	10/13/2009	4.290	127.154	121.150	115.879	111.504	107.979	105.197	103.064	101.508
7/13/2007	7/13/2017	7/13/2011	4.900	131.643	125.211	119.494	114.649	110.587	107.151	104.199	101.615
7/18/2007	7/18/2017	7/19/2010	4.780	130.784	124.417	118.776	114.030	110.133	106.980	104.458	102.443
7/19/2007	7/19/2012	10/19/2009	4.890	114.303	114.152	111.435	108.737	106.355	104.340	102.692	101.419
7/20/2007	7/20/2017	10/20/2009	4.290	127.188	121.166	115.882	111.499	107.966	105.179	103.042	101.478
7/24/2007	7/24/2012	10/26/2009	4.820	114.165	114.009	111.268	108.570	106.194	104.193	102.562	101.305
7/27/2007	7/27/2012	10/27/2009	4.590	113.527	113.368	110.630	107.962	105.641	103.700	102.157	101.001
7/27/2007	7/28/2014	10/27/2009	4.350	121.480	117.230	113.101	109.544	106.612	104.256	102.443	101.118
7/27/2007	7/27/2017	10/27/2009	4.180	126.414	120.460	115.249	110.944	107.494	104.783	102.729	101.245
7/27/2007	7/27/2017	10/27/2009	4.250	126.927	120.919	115.654	111.293	107.786	105.023	102.914	101.374
7/30/2007	1/30/2019	10/30/2009	3.990	127.761	121.094	115.467	110.916	107.334	104.578	102.533	101.091
7/31/2007	7/31/2017	11/2/2009	3.990	125.060	119.246	114.183	110.033	106.738	104.190	102.298	101.002
7/31/2007	7/31/2017	11/2/2009	3.990	125.060	119.246	114.183	110.033	106.738	104.190	102.298	101.002
7/31/2007	7/31/2017	11/2/2009	4.060	125.568	119.701	114.579	110.373	107.020	104.416	102.470	101.111
8/2/2007	8/4/2014	11/2/2009	4.490	122.256	117.941	113.760	110.143	107.146	104.729	102.839	101.441
8/2/2007	8/2/2017	11/2/2009	4.050	125.520	119.676	114.577	110.385	107.043	104.442	102.494	101.133
8/2/2007	8/2/2017	11/2/2009	4.150	126.250	120.327	115.147	110.874	107.458	104.777	102.752	101.303
8/6/2007	8/6/2012	11/6/2009	4.490	113.357	113.187	110.409	107.750	105.454	103.546	102.044	100.941
8/6/2007	8/6/2012	11/6/2009	4.490	113.357	113.187	110.409	107.750	105.454	103.546	102.044	100.941
8/9/2007	8/11/2014	8/9/2011	4.860	124.191	119.732	115.400	111.580	108.286	105.409	102.851	100.529
8/9/2007	8/9/2017	11/9/2009	3.990	125.115	119.297	114.238	110.085	106.785	104.225	102.322	101.008
8/9/2007	8/9/2017	11/9/2009	3.990	125.115	119.297	114.238	110.085	106.785	104.225	102.322	101.008
8/13/2007	8/13/2012	11/13/2009	4.590	113.744	113.566	110.738	108.045	105.710	103.758	102.206	101.049
8/16/2007	8/16/2017	11/16/2009	3.990	125.147	119.310	114.239	110.077	106.770	104.204	102.298	100.980
8/17/2007	8/17/2012	11/17/2009	4.150	112.472	112.291	109.493	106.881	104.659	102.865	101.492	100.555
8/17/2007	8/17/2012	11/17/2009	4.350	113.074	112.892	110.068	107.411	105.134	103.262	101.809	100.767
8/17/2007	8/17/2017	11/17/2009	4.000	125.224	119.378	114.296	110.125	106.809	104.234	102.319	100.992
8/20/2007	8/20/2010	11/20/2009	4.590	104.513	104.513	104.513	103.844	102.860	101.914	101.067	100.416
8/20/2007	8/20/2014	8/20/2010	4.250	121.227	116.808	112.624	109.044	106.097	103.754	101.922	100.458
8/20/2007	8/20/2014	8/20/2010	4.250	121.227	116.808	112.624	109.044	106.097	103.754	101.922	100.458
8/24/2007	8/24/2010	11/24/2009	4.460	104.435	104.435	104.435	103.755	102.761	101.808	100.964	100.331
8/24/2007	8/24/2012	11/24/2009	4.050	112.251	112.062	109.238	106.638	104.433	102.670	101.328	100.432
8/28/2007	8/28/2014	11/30/2009	4.350	121.819							

Start Date	Maturity		Coupon	Next Call									
	Date	Date		-300	-200	-100	Base	+100	+200	+300	+400		
9/4/2007	9/4/2012	12/4/2009	4.190	112.802	112.584	109.704	107.060	104.809	102.992	101.600	100.633		
9/4/2007	9/4/2012	12/4/2009	4.220	112.894	112.675	109.791	107.140	104.880	103.051	101.648	100.666		
9/4/2007	9/5/2017	12/4/2009	3.890	124.528	118.752	113.748	109.662	106.430	103.947	102.118	100.867		
9/6/2007	9/7/2010	12/7/2009	4.160	104.298	104.298	104.295	103.564	102.535	101.567	100.756	100.195		
9/7/2007	9/7/2012	12/7/2009	4.090	112.531	112.296	109.424	106.800	104.577	102.795	101.440	100.515		
9/10/2007	9/11/2017	9/10/2009	3.690	123.084	117.470	112.632	108.711	105.640	103.311	101.634	100.537		
9/11/2007	9/13/2010	9/11/2009	4.430	104.651	104.651	104.644	103.885	102.837	101.844	100.985	100.336		
9/11/2007	9/11/2017	9/11/2009	3.590	122.355	116.832	112.081	108.247	105.261	103.015	101.415	100.411		
9/12/2007	9/12/2014	9/14/2009	3.690	118.544	114.347	110.461	107.206	104.624	102.642	101.219	100.333		
9/13/2007	9/15/2014	9/14/2009	3.990	120.088	115.769	111.735	108.317	105.549	103.389	101.779	100.676		
9/13/2007	9/13/2017	9/13/2010	3.990	125.276	119.411	114.311	110.131	106.807	104.194	102.130	100.456		
9/13/2007	9/13/2017	9/13/2010	3.990	125.276	119.411	114.311	110.131	106.807	104.194	102.130	100.456		
9/14/2007	9/14/2011	9/14/2009	4.090	108.452	108.452	107.511	105.518	103.740	102.246	101.101	100.315		
9/14/2007	9/14/2012	9/14/2010	4.390	113.535	113.262	110.333	107.624	105.301	103.362	101.748	100.363		
9/17/2007	9/17/2012	9/17/2009	4.220	113.046	112.757	109.843	107.168	104.890	103.045	101.627	100.631		
9/27/2007	9/27/2010	9/28/2009	4.250	104.628	104.628	104.612	103.790	102.708	101.694	100.832	100.224		
9/27/2007	9/29/2014	9/27/2010	4.490	122.713	117.456	112.390	108.318	105.256	103.080	101.467	100.139		
9/27/2007	9/27/2017	9/28/2009	3.650	122.827	117.224	112.401	108.497	105.447	103.142	101.485	100.423		
9/28/2007	9/28/2010	9/28/2009	4.290	104.683	104.683	104.667	103.840	102.755	101.737	100.867	100.241		
9/28/2007	9/28/2012	9/28/2009	3.850	112.020	111.672	108.791	106.189	104.024	102.310	101.047	100.262		
10/3/2007	10/3/2012	10/5/2009	3.830	112.011	111.637	108.761	106.168	104.016	102.322	101.077	100.300		
10/9/2007	10/9/2012	10/9/2009	4.400	113.872	113.462	110.276	107.111	104.056	101.558	100.387	100.043		
10/11/2007	10/14/2014	10/13/2009	4.180	121.212	116.786	112.636	109.099	106.212	103.922	102.188	100.951		
10/11/2007	10/11/2017	10/13/2009	3.990	125.400	119.503	114.377	110.181	106.847	104.264	102.343	101.004		
10/15/2007	10/16/2017	10/15/2009	3.990	125.423	119.514	114.381	110.178	106.839	104.254	102.330	100.991		
10/22/2007	10/22/2012	10/22/2009	3.990	112.723	112.253	109.308	106.638	104.403	102.622	101.282	100.408		
10/25/2007	10/27/2014	10/25/2011	4.360	122.229	117.708	113.444	109.716	106.488	103.641	101.079	98.734		
10/26/2007	10/26/2017	10/26/2009	3.390	121.046	115.650	111.042	107.355	104.530	102.435	100.997	100.150		
10/29/2007	10/29/2009	10/29/2009	4.250	100.696	100.696	100.696	100.659	100.495	100.331	100.168	100.005		
10/29/2007	10/29/2012	10/29/2009	3.990	112.801	112.296	109.335	106.654	104.407	102.620	101.272	100.393		
11/2/2007	11/3/2014	11/2/2009	3.990	120.346	115.957	111.878	108.427	105.639	103.462	101.843	100.748		
11/2/2007	11/3/2014	11/2/2010	4.190	121.391	116.926	112.753	109.197	106.283	103.913	101.963	100.310		
11/5/2007	11/5/2014	11/5/2009	3.990	120.357	115.963	111.880	108.425	105.635	103.455	101.835	100.738		
11/5/2007	11/6/2017	11/5/2012	4.390	128.558	122.278	116.611	111.677	107.331	103.435	99.880	96.607		
11/6/2007	11/6/2017	11/6/2009	3.480	121.769	116.284	111.593	107.825	104.915	102.747	101.230	100.305		
11/8/2007	11/9/2009	11/9/2009	4.100	100.797	100.797	100.797	100.751	100.556	100.362	100.168	99.976		
11/9/2007	11/10/2014	11/9/2011	4.330	122.169	117.637	113.372	109.640	106.399	103.535	100.950	98.576		
11/13/2007	11/14/2011	11/13/2009	3.760	108.407	108.407	107.135	105.061	103.271	101.819	100.766	100.112		
11/13/2007	11/13/2012	11/13/2009	3.680	111.959	111.388	108.461	105.858	103.728	102.065	100.879	100.147		
11/13/2007	11/13/2014	11/13/2009	3.350	117.052	112.928	109.170	106.083	103.687	101.912	100.726	100.042		
11/19/2007	11/19/2014	11/19/2009	3.750	119.182	114.853	110.863	107.526	104.861	102.820	101.334	100.386		
11/19/2007	11/19/2014	11/21/2011	4.270	121.916	117.378	113.117	109.394	106.156	103.289	100.695	98.309		
11/19/2007	11/20/2017	11/19/2012	4.290	125.992	119.929	114.347	109.580	105.460	101.797	98.451	95.334		
11/20/2007	11/20/2017	11/22/2010	3.740	123.743	117.979	113.027	109.010	105.837	103.327	101.303	99.608		
11/23/2007	11/24/2017	11/23/2011	3.990	123.251	116.427	111.659	107.633	104.450	101.728	99.333	97.110		
11/23/2007	11/24/2017	11/23/2011	3.990	123.251	116.427	111.659	107.633	104.450	101.728	99.333	97.110		
11/29/2007	11/29/2017	11/30/2009	2.950	118.004	113.008	108.817	105.537	103.101	101.409	100.362	99.796		
11/30/2007	11/30/2017	11/30/2009	3.190	119.741	114.497	110.047	106.527	103.866	101.959	100.702	99.965		
12/6/2007	12/6/2017	12/7/2009	3.250	120.199	114.908	110.408	106.838	104.124	102.152	100.840	100.043		
12/7/2007	12/7/2012	12/7/2009	3.450	111.442	110.768	107.853	105.300	103.244	101.692	100.639	99.990		
12/10/2007	12/10/2010	12/10/2009	3.870	105.009	105.009	104.953	103.805	102.564	101.470	100.624	100.053		
12/10/2007	12/11/2017	12/10/2010	3.450	121.689	116.179	111.479	107.711	104.772	102.441	100.541	98.922		
12/11/2007	12/11/2012	12/11/2009	3.760	112.512	111.807	108.807	106.145	103.961	102.245	101.007	100.201		
12/14/2007	12/14/2010	9/14/2009	3.690	104.817	104.817	104.759	103.595	102.355	101.281	100.479	100.060		
12/20/2007	12/20/2012	12/21/2009	3.600	112.069	111.321	108.341	105.716	103.582	101.939	100.786	100.045		
12/20/2007	12/20/2012	12/21/2009	3.750	112.572	111.775	108.400	105.092	102.370	100.890	100.235	99.853		
12/24/2007	12/26/2017	12/24/2012	3.990	123.824	118.140	112.675	108.093	104.063	100.430	97.106	94.013		
12/26/2007	12/26/2012	9/28/2009	3.460	111.658	110.882	107.929	105.342	103.258	101.683	100.605	100.065		
12/26/2007	12/26/2012	12/27/2010	3.960	113.342	112.553	109.480	106.727	104.405	102.447	100.757	99.250		
1/2/2008	1/2/2013	1/4/2010	3.490	111.827	111.016	108.054	105.459	103.369	101.784	100.690	99.969		
1/3/2008	1/5/2015	1/3/2011	3.650	118.861	114.526	110.557	107.245	104.580	102.401	100.568	98.966		
1/4/2008	1/4/2018	1/4/2011	3.360	121.098	115.663	111.041	107.344	104.453	102.158	100.254	98.610		
1/7/2008	1/7/2013	10/7/2009	2.990	110.174	109.360	106.543	104.143	102.288	100.974	100.203	99.896		
1/7/2008	1/7/2013	1/7/2011	3.590	112.215	111.376	108.376	105.733	103.534	101.681	100.064	98.596		
1/7/2008	1/7/2015	1/7/2011	3.490	118.011	113.751	109.867	106.652	104.075	101.979	100.203	98.630		
1/7/2008	1/8/2018	10/7/2009	2.590	115.507	110.938	107.140	104.223	102.135	100.774	100.078	99.844		
1/8/2008	1/8/2013	1/8/2010	3.150	110.727	109.901	107.026	104.556	102.621	101.216	100.288	99.702		
1/8/2008	1/8/2018	10/8/2009	2.570	115.364	110.820	107.045	104.149	102.079	100.739	100.065	99.836		
1/8/2008	1/8/2018	10/8/2009	2.640	115.864	111.230	107.372	104.401	102.264	100.851	100.101	99.846		
1/10/2008	1/10/2011	10/13/2009	3.100	104.279	104.279	104.207	102.936	101.693	100.714	100.116	99.874		
1/11/2008	1/11/2018	10/13/2009	2.720	116.441	111.703	107.752	104.694	102.478	100.983	100.159	99.839		
1/14/2008	1/16/2018	1/14/2011	3.240	120.239	114.910	110.391	106.799	104.002	101.772	99.915	98.295		
1/16/2008	1/16/2013	10/16/2009	2.550	108.740	107.913	105.264	103.069	101.453	100.421	99.963	99.790		
1/16/2008	1/16/2013	10/16/2009	2.690	109.220	108.382	105.668	103.398	101.704	100.574	100.019	99.811		
1/16/2008	1/16/2015	10/16/2009	2.640	113.493	109.741	106.434	103.817	101.915	100.663	100.038	99.807		
1/16/2008	1/16/2018	10/16/2009	2.380	114.043	109.724	106.175	103.480	101.597	100.447	99.951	99.770		
1/17/2008	1/17/2018	10/19/2009	2.250	113.141	108.999	105.611	103.057	101.311	100.291	99.892	99.734		
1/18/2008	1/18/2013	10/19/2009	2.550	108.754	107.919	105.266	103.070	101.452	100.420	99.958	99.776		
1/18/2008	1/20/2015	10/19/2009	2.350	111.957	108.430	105.366	102.984	101.315	100.315	99.909	99.748		
1/18/2008</													

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
1/25/2008	1/25/2013	1/25/2011	2.650	109.149	108.164	105.196	102.985	101.226	99.703	98.298	96.954
1/28/2008	1/28/2010	1/28/2009	2.630	101.096	101.096	101.096	100.943	100.526	100.113	99.704	99.297
1/28/2008	1/28/2013	1/28/2011	2.990	110.348	109.346	106.218	103.796	101.875	100.263	98.798	97.426
1/30/2008	1/30/2013	2/1/2010	2.670	109.255	108.359	105.633	103.366	101.674	100.550	99.838	99.329
2/7/2008	2/7/2013	2/8/2010	2.490	108.687	107.776	105.131	102.959	101.375	100.347	99.689	99.193
2/13/2008	2/13/2013	2/14/2011	2.920	110.235	109.259	106.408	103.980	101.984	100.262	98.705	97.249
2/14/2008	2/14/2018	2/14/2012	3.190	117.130	111.912	108.047	104.676	101.781	99.179	96.761	94.480
2/15/2008	2/16/2010	2/17/2009	2.350	101.103	101.103	101.103	100.908	100.440	99.976	99.516	99.060
2/19/2008	2/19/2013	2/19/2010	2.590	109.122	107.993	104.498	101.889	100.721	100.111	99.622	99.155
2/22/2008	2/22/2011	2/23/2009	2.500	103.750	103.750	103.653	102.173	100.703	99.263	97.850	96.464
2/25/2008	2/25/2013	2/25/2011	3.090	110.934	109.769	106.611	104.102	102.077	100.368	98.817	97.361
2/25/2008	2/26/2018	11/25/2009	2.420	114.424	110.004	106.376	103.623	101.688	100.493	99.896	99.583
3/7/2008	3/9/2015	3/7/2011	2.890	115.009	111.021	107.482	104.618	102.327	100.400	98.694	97.122
3/7/2008	3/7/2018	3/7/2013	3.550	122.774	116.963	111.661	106.997	102.826	99.029	95.514	92.227
3/10/2008	3/11/2013	3/10/2010	2.390	108.550	107.516	104.881	102.745	101.217	100.205	99.523	98.959
3/11/2008	3/11/2011	9/11/2009	2.090	103.233	103.233	103.088	101.676	100.596	100.049	99.966	99.935
3/12/2008	3/12/2013	9/14/2009	2.010	107.196	106.217	103.825	101.928	100.660	100.053	99.953	99.915
3/14/2008	3/14/2018	3/15/2010	2.400	114.305	109.914	106.315	103.580	101.663	100.416	99.589	98.961
3/17/2008	3/18/2013	3/17/2011	2.690	109.676	108.562	105.772	103.403	101.429	99.700	98.109	96.607
3/17/2008	3/17/2015	3/17/2011	2.620	113.082	107.897	105.170	102.876	101.044	99.425	97.908	96.444
3/17/2008	3/19/2018	3/18/2013	3.300	120.910	115.321	110.176	105.638	101.566	97.844	94.389	91.147
3/25/2008	3/27/2023	3/25/2013	3.150	120.749	114.360	108.595	103.987	100.020	96.465	93.180	90.085
3/26/2008	3/26/2018	3/26/2012	2.980	115.602	110.921	107.212	103.875	100.981	98.351	95.884	93.532
3/28/2008	3/28/2013	3/28/2011	2.800	110.149	108.792	105.788	103.392	101.448	99.736	98.150	96.636
3/28/2008	3/28/2013	3/28/2011	2.820	110.222	108.864	105.849	103.441	101.490	99.773	98.184	96.668
3/28/2008	3/28/2018	9/28/2009	2.020	111.650	107.795	104.687	102.377	100.857	100.097	99.907	99.830
3/28/2008	3/28/2018	3/28/2011	2.770	116.982	112.096	108.037	104.841	102.334	100.258	98.446	96.794
3/31/2008	3/31/2011	9/30/2009	1.990	103.189	103.189	102.962	101.542	100.490	100.001	99.898	99.815
4/14/2008	4/14/2015	4/14/2011	2.750	113.795	108.558	105.661	103.233	101.268	99.543	97.934	96.390
4/28/2008	4/28/2015	4/28/2011	3.250	117.117	112.840	109.004	105.841	103.255	101.065	99.134	97.377
4/28/2008	4/30/2018	10/28/2009	2.150	112.610	108.532	105.226	102.762	101.108	100.182	99.837	99.669
4/30/2008	4/30/2018	4/30/2013	3.740	122.556	116.950	111.510	106.771	102.569	98.754	95.221	91.905
5/2/2008	5/4/2015	5/2/2011	3.990	121.289	116.609	112.326	108.648	105.245	101.884	98.660	95.788
5/5/2008	5/5/2015	5/5/2011	3.170	116.703	112.479	108.707	105.593	103.041	100.867	98.943	97.181
5/8/2008	5/8/2015	5/10/2010	2.960	115.545	111.455	107.833	104.931	102.748	101.171	100.025	99.127
5/19/2008	5/19/2015	5/21/2012	4.700	125.051	119.608	114.620	110.011	105.402	100.688	96.071	91.933
5/19/2008	5/21/2018	5/20/2013	3.890	123.911	118.081	112.430	107.552	103.224	99.299	95.672	92.296
5/23/2008	5/23/2013	5/23/2011	4.040	115.273	113.677	110.308	107.248	104.259	101.147	98.097	95.336
5/23/2008	5/23/2018	5/23/2011	3.270	120.926	115.383	110.723	106.986	103.987	101.499	99.351	97.427
5/27/2008	5/27/2010	5/27/2009	2.790	102.085	102.085	102.085	101.647	100.903	100.170	99.448	98.736
5/27/2008	5/27/2011	5/27/2010	3.220	105.670	105.670	105.205	103.461	101.926	100.774	99.871	99.089
5/27/2008	5/28/2013	5/27/2011	3.490	113.242	111.489	108.139	105.323	102.979	100.942	99.094	97.358
5/29/2008	5/29/2018	5/31/2011	3.460	119.302	112.229	108.265	105.080	102.675	100.681	98.884	97.189
6/6/2008	6/6/2013	6/6/2011	3.990	115.239	113.417	109.884	106.813	104.000	101.268	98.589	95.852
6/10/2008	6/11/2012	6/10/2010	3.940	111.108	110.998	108.423	105.647	103.194	101.211	99.536	97.813
6/16/2008	6/17/2013	6/16/2011	4.070	115.669	113.780	110.209	107.135	104.514	102.260	100.250	98.387
6/24/2008	6/24/2015	6/24/2011	3.830	120.616	115.941	111.693	108.110	105.119	102.567	100.317	98.282
6/30/2008	7/1/2013	9/30/2009	2.920	111.355	109.680	106.658	104.145	102.235	100.899	100.156	99.893
6/30/2008	7/1/2013	6/30/2010	3.450	113.416	111.663	108.423	105.653	103.446	101.751	100.436	99.370
6/30/2008	6/30/2015	6/30/2010	3.370	118.010	113.595	109.636	106.397	103.884	101.987	100.545	99.403
6/30/2008	7/2/2018	6/30/2011	3.690	121.383	113.949	109.505	106.023	103.359	101.161	99.210	97.400
7/1/2008	7/1/2015	7/1/2011	4.600	124.657	118.667	113.793	109.699	106.064	102.548	99.072	95.842
7/7/2008	7/8/2013	7/7/2011	4.590	117.938	115.900	112.178	108.817	105.654	102.438	99.155	95.971
7/8/2008	7/8/2013	7/8/2011	4.250	116.610	114.576	110.934	107.731	104.780	101.883	98.983	96.129
7/10/2008	7/10/2014	7/10/2012	4.800	123.499	118.990	114.383	110.022	105.707	101.319	96.873	92.513
7/11/2008	7/11/2018	7/11/2012	3.750	122.331	116.436	111.324	107.087	103.480	100.289	97.373	94.647
7/14/2008	7/14/2015	7/15/2013	4.900	126.548	121.181	115.317	109.767	104.268	98.737	93.214	87.925
7/14/2008	7/16/2018	10/14/2009	2.500	115.272	110.646	106.854	103.973	101.935	100.638	100.021	99.799
7/14/2008	7/16/2018	7/14/2011	3.250	120.946	115.381	110.706	106.931	103.865	101.285	99.032	96.996
7/17/2008	7/17/2018	7/17/2013	3.750	123.163	117.322	111.697	106.761	102.369	98.375	94.676	91.208
7/21/2008	7/22/2013	10/21/2009	3.000	111.841	109.738	105.792	102.093	100.396	100.110	99.969	99.828
8/15/2008	8/15/2018	8/15/2011	3.830	125.650	119.420	114.114	109.777	106.223	103.233	100.640	98.340
8/19/2008	8/19/2013	8/19/2010	3.440	113.845	111.559	107.629	104.660	102.614	101.152	99.998	98.981
9/8/2008	9/9/2013	12/8/2009	2.890	111.800	109.789	106.701	104.165	102.255	100.921	100.179	99.971
5/13/2009	5/13/2014	5/13/2013	4.000	123.118	119.001	113.865	108.892	103.845	98.700	93.510	88.504