

## **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		Coupon	Next Call							
	Date	Date		-300	-200	-100	Base	+100	+200	+300	+400
2/27/1997	2/27/2012	5/27/2009	6.5800	119.996	118.661	115.497	112.453	109.660	107.183	105.066	103.319
4/8/1998	4/8/2013	4/8/2009	5.4900	122.842	119.050	114.891	111.174	108.037	105.447	103.409	101.900
8/19/1998	8/19/2013	5/19/2009	5.4900	124.801	120.212	115.796	111.875	108.563	105.837	103.684	102.082
8/19/1998	8/19/2013	5/19/2009	5.4900	124.801	120.212	115.796	111.875	108.563	105.837	103.684	102.082
8/25/1998	8/19/2013	4/27/2009	5.4900	124.801	120.208	115.790	111.869	108.555	105.825	103.674	102.067
8/27/1998	8/19/2013	4/27/2009	5.4900	124.801	120.208	115.790	111.869	108.555	105.825	103.674	102.067
9/30/1998	9/30/2013	3/30/2009	5.2200	124.020	119.390	114.976	111.097	107.828	105.183	103.128	101.628
12/14/1998	12/16/2013	3/16/2009	4.8900	123.043	118.250	113.777	109.928	106.781	104.300	102.440	101.154
12/14/1998	12/16/2013	3/16/2009	5.3900	125.469	120.588	115.967	111.917	108.532	105.762	103.598	102.001
12/15/1998	12/16/2013	3/16/2009	4.8800	122.995	118.203	113.734	109.888	106.747	104.273	102.417	101.139
4/23/1999	4/27/2009	4/23/2009	5.1900	100.836	100.836	100.836	100.774	100.615	100.457	100.299	100.141
4/23/1999	4/27/2009	4/23/2009	5.5000	100.886	100.886	100.886	100.824	100.665	100.506	100.348	100.191
4/26/1999	4/27/2009	4/27/2009	5.1900	100.836	100.836	100.836	100.774	100.615	100.457	100.299	100.141
4/26/1999	4/27/2009	4/27/2009	5.5000	100.886	100.886	100.886	100.824	100.665	100.506	100.348	100.191
5/6/1999	5/6/2009	5/6/2009	5.3100	100.988	100.988	100.988	100.894	100.708	100.522	100.337	100.154
6/7/1999	6/8/2009	3/9/2009	5.7000	101.583	101.583	101.583	101.413	101.137	100.863	100.591	100.321
6/7/1999	6/8/2009	3/9/2009	6.0400	101.678	101.678	101.678	101.507	101.231	100.957	100.685	100.414
7/1/1999	7/1/2009	4/1/2009	6.1100	102.088	102.088	102.088	101.829	101.487	101.147	100.810	100.485
7/23/1999	7/23/2009	4/23/2009	5.4000	102.175	102.175	102.175	101.897	101.493	101.092	100.695	100.339
9/8/1999	9/8/2009	3/9/2009	5.6200	102.997	102.997	102.997	102.508	101.977	101.452	100.940	100.490
10/8/1999	10/8/2009	4/8/2009	5.5800	103.441	103.441	103.441	102.824	102.207	101.600	101.017	100.519
11/1/1999	11/2/2009	5/1/2009	5.5400	103.801	103.801	103.796	103.051	102.369	101.699	101.066	100.534
11/8/1999	11/9/2009	5/8/2009	5.9600	104.205	104.205	104.200	103.448	102.744	102.053	101.385	100.792
11/9/1999	11/9/2009	5/11/2009	5.5700	103.930	103.930	103.925	103.173	102.471	101.782	101.127	100.572
12/10/1999	12/10/2009	3/10/2009	5.7100	104.520	104.520	104.448	103.608	102.818	102.045	101.322	100.704
12/17/1999	12/17/2009	3/17/2009	5.9100	104.794	104.794	104.722	103.874	103.063	102.269	101.516	100.862
12/20/1999	12/21/2009	3/20/2009	5.8100	104.777	104.777	104.705	103.854	103.032	102.228	101.469	100.812
12/22/1999	12/22/2009	3/23/2009	5.8400	104.818	104.818	104.746	103.894	103.069	102.262	101.499	100.837
1/7/2000	1/7/2010	4/7/2009	5.9500	131.632	125.815	120.426	115.725	111.759	108.454	105.770	103.663
1/13/2000	1/13/2010	4/13/2009	5.9100	105.237	105.237	105.084	104.152	103.268	102.407	101.599	100.905
1/25/2000	1/25/2010	4/27/2009	5.9700	105.489	105.489	105.336	104.393	103.474	102.578	101.734	101.000
1/27/2000	1/27/2010	4/27/2009	6.0800	105.624	105.624	105.471	104.525	103.601	102.698	101.842	101.090
1/27/2000	1/27/2010	4/27/2009	6.2100	105.744	105.744	105.591	104.645	103.720	102.816	101.954	101.185
2/7/2000	2/8/2010	5/7/2009	5.9500	105.702	105.702	105.456	104.450	103.504	102.586	101.729	100.996
2/16/2000	2/8/2010	5/1/2009	5.9500	105.702	105.702	105.456	104.450	103.504	102.586	101.729	100.996
2/16/2000	2/16/2010	5/18/2009	6.4700	106.344	106.344	106.098	105.082	104.110	103.163	102.258	101.441
2/16/2000	2/16/2010	5/18/2009	6.6900	106.560	106.560	106.314	105.296	104.324	103.374	102.463	101.627
3/6/2000	3/8/2010	3/6/2009	6.3900	106.621	106.621	106.249	105.155	104.123	103.123	102.188	101.371
3/13/2000	3/15/2010	3/13/2009	6.0900	106.428	106.428	106.057	104.958	103.908	102.896	101.960	101.159
3/14/2000	3/15/2010	5/14/2009	6.0900	106.428	106.428	106.057	104.958	103.911	102.904	101.971	101.171
3/15/2000	3/15/2010	3/16/2009	5.9500	106.281	106.281	105.909	104.811	103.762	102.755	101.827	101.049
3/21/2000	3/22/2010	3/23/2009	6.1200	106.579	106.579	106.208	105.101	104.032	102.999	102.042	101.218
3/22/2000	3/22/2010	3/23/2009	5.9600	106.407	106.407	106.036	104.930	103.862	102.834	101.887	101.088
4/5/2000	4/5/2010	4/6/2009	5.9500	106.628	106.628	106.135	104.962	103.862	102.811	101.853	101.057
4/11/2000	4/12/2010	4/13/2009	5.9500	106.743	106.743	106.250	105.071	103.951	102.880	101.903	101.088
4/11/2000	4/12/2010	4/13/2009	6.0500	106.857	106.857	106.364	105.183	104.062	102.988	102.002	101.170
4/11/2000	4/12/2010	4/13/2009	6.4700	107.333	107.333	106.839	105.656	104.531	103.442	102.429	101.538
4/11/2000	4/12/2010	4/13/2009	6.5600	107.435	107.435	106.941	105.757	104.631	103.540	102.521	101.619
4/11/2000	4/12/2010	4/13/2009	6.7500	107.650	107.650	107.156	105.971	104.843	103.749	102.717	101.793
4/12/2000	4/12/2010	4/13/2009	5.9900	106.789	106.789	106.296	105.116	103.995	102.924	101.942	101.120
4/13/2000	4/13/2010	4/13/2009	6.5600	107.453	107.453	106.959	105.775	104.646	103.552	102.530	101.625
4/24/2000	4/26/2010	4/24/2009	6.4500	107.561	107.561	107.067	105.871	104.706	103.578	102.527	101.601
5/3/2000	5/3/2010	5/4/2009	6.2400	107.436	107.436	106.816	105.557	104.378	103.256	102.226	101.349
5/3/2000	5/3/2010	5/4/2009	6.3600	107.579	107.579	106.959	105.699	104.519	103.392	102.354	101.458
5/15/2000	5/17/2010	5/15/2009	6.9900	108.602	108.602	107.981	106.702	105.474	104.285	103.169	102.164
5/30/2000	6/1/2010	6/1/2009	6.4900	108.257	108.257	107.514	106.170	104.911	103.703	102.593	101.639
8/8/2000	8/9/2010	5/8/2009	5.9900	108.769	108.769	107.772	106.252	104.816	103.479	102.290	101.327
8/18/2000	8/18/2010	5/18/2009	6.0900	109.067	109.067	108.070	106.540	105.076	103.706	102.481	101.468
10/5/2000	10/5/2010	4/6/2009	5.7100	109.263	109.230	107.882	106.204	104.654	103.245	102.042	101.106
10/10/2000	10/12/2010	4/10/2009	5.8400	109.587	109.555	108.205	106.518	104.940	103.498	102.248	101.260
10/13/2000	10/13/2010	4/13/2009	5.7500	109.456	109.423	108.074	106.388	104.812	103.376	102.143	101.175
10/23/2000	10/25/2010	4/23/2009	5.6400	109.463	109.430	108.082	106.387	104.783	103.324	102.081	101.108
12/5/2000	12/6/2010	3/5/2009	5.4100	109.708	109.643	107.944	106.116	104.454	102.991	101.788	100.887
12/11/2000	12/13/2010	3/11/2009	5.1700	109.378	109.313	107.616	105.793	104.137	102.694	101.535	100.699
12/12/2000	12/13/2010	3/12/2009	5.1100	109.269	109.204	107.508	105.687	104.039	102.606	101.465	100.648
12/15/2000	12/15/2010	3/16/2009	5.1200	109.316	109.250	107.555	105.731	104.076	102.636	101.487	100.661
12/20/2000	12/20/2010	3/20/2009	4.9500	109.075	109.010	107.316	105.496	103.845	102.426	101.316	100.530
12/21/2000	12/21/2010	3/23/2009	4.8600	108.923	108.858	107.166	105.349	103.707	102.306	101.217	100.480
1/11/2001	1/11/2011	4/13/2009	5.3700	110.173	110.091	108.214	106.307	104.583	103.070	101.843	100.937
1/12/2001	1/12/2011	4/13/2009	5.3000	110.055	109.973	108.097	106.193	104.473	102.972	101.762	100.874
2/5/2001	2/7/2011	5/5/2009	4.8200	109.493	109.396	107.364	105.419	103.713	102.282	101.187	100.464
2/7/2001	2/7/2011	5/7/2009	4.8200	109.493	109.396	107.364	105.419	103.713	102.282	101.187	100.464
2/26/2001	2/28/2011	5/26/2009	4.7900	109.713	109.616	107.587	105.624	103.860	102.372	101.231	100.461
2/26/2001	2/28/2011	5/26/2009	5.0600	110.261	110.164	108.128	106.148	104.338	102.794	101.556	100.687
2/26/2001	2/28/2011	5/26/2009	5.4500	111.051	110.954	108.912	106.907	105.053	103.417	102.069	101.054
2/27/2001	2/28/2011	5/27/2009	4.7600	109.652	109.555	107.526	105.566	103.806	102.325	101.193	100.436
2/27/2001	2/28/2011	5/27/2009	5.0200	110.179	110.082	108.048	106.070	104.266	102.724	101.505	100.651
3/1/2001	3/1/2011	6/1/2009	5.2700	110.701	110.519	108.388	106.341	104.525	102.967	101.724	100.825
3/14/2001	3/14/2011	3/16/2009	4.8600	110.044	109.862	107.741	105.710	103.922	102.425		

Start Date	Maturity		Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date										
3/6/2003	3/6/2013	3/6/2009	2.9900	112.167	108.890	105.538	103.020	101.367	100.412	100.051	99.978	
2/5/2004	4/26/2010	4/24/2009	6.2000	107.268	107.268	106.775	105.580	104.419	103.306	102.279	101.397	
2/5/2004	12/14/2010	3/16/2009	5.8200	110.573	110.508	108.804	106.954	105.238	103.686	102.368	101.327	
3/4/2004	3/4/2009	3/4/2009	2.9700	100.033	100.033	100.033	100.029	100.018	100.007	99.958	99.821	
3/12/2004	3/12/2009	3/12/2009	2.6900	100.090	100.090	100.090	100.079	100.046	100.012	99.958	99.821	
4/1/2004	4/1/2009	4/1/2009	2.7700	100.246	100.246	100.246	100.207	100.121	100.036	99.958	99.821	
5/24/2004	5/26/2009	5/26/2009	3.5800	100.865	100.865	100.865	100.753	100.511	100.271	100.071	99.958	
5/28/2004	5/28/2009	5/28/2009	3.7000	100.915	100.915	100.915	100.801	100.554	100.307	100.091	99.958	
6/11/2004	6/11/2009	3/11/2009	3.7500	101.073	101.073	101.073	100.901	100.617	100.337	100.106	99.993	
6/18/2004	6/20/2011	3/18/2009	4.1200	109.636	109.203	106.849	104.691	102.902	101.549	100.638	100.171	
7/2/2004	7/2/2014	4/2/2009	3.9900	119.602	114.685	110.331	106.802	104.137	102.220	100.973	100.304	
8/5/2004	8/5/2009	5/5/2009	3.4700	101.523	101.523	101.523	101.150	100.714	100.317	100.028	99.819	
12/13/2004	12/15/2014	3/13/2009	3.3200	116.613	111.846	107.776	104.643	102.435	101.007	100.286	99.958	
12/17/2004	12/17/2009	3/17/2009	3.7100	103.009	103.009	102.937	102.096	101.306	100.627	100.184	99.988	
5/5/2005	5/5/2010	5/5/2006	4.1900	105.016	105.016	104.400	103.162	102.054	101.119	100.461	100.131	
5/17/2005	5/17/2010	5/18/2009	4.0700	105.008	105.008	104.392	103.146	102.014	101.067	100.406	99.994	
6/6/2005	6/7/2010	3/6/2009	3.8900	105.014	105.014	104.277	102.965	101.816	100.900	100.311	100.055	
7/18/2005	7/19/2010	4/20/2009	4.1600	105.847	105.847	104.984	103.571	102.296	101.246	100.508	100.093	
9/1/2005	9/1/2015	6/1/2009	4.1300	122.074	116.634	111.875	108.017	105.063	102.879	101.388	100.448	
9/19/2005	9/19/2012	3/19/2009	3.8200	113.784	111.400	108.002	105.159	102.978	101.453	100.499	100.084	
9/26/2005	9/26/2012	3/26/2009	3.8900	114.112	111.724	108.310	105.427	103.190	101.595	100.573	100.110	
9/30/2005	9/30/2015	3/30/2009	4.4400	124.330	118.730	113.800	109.697	106.429	103.912	102.097	100.899	
10/26/2005	10/26/2015	4/27/2009	4.5400	125.022	119.347	114.341	110.163	106.819	104.231	102.333	101.061	
10/28/2005	10/28/2015	4/28/2009	4.1400	122.513	117.046	112.259	108.344	105.280	103.003	101.424	100.493	
10/28/2005	10/28/2015	4/28/2009	4.3100	123.573	118.016	113.129	109.093	105.905	103.484	101.762	100.699	
11/4/2005	11/4/2010	5/4/2009	4.5200	107.709	107.661	106.151	104.445	102.948	101.712	100.801	100.231	
11/21/2005	11/21/2012	5/21/2009	4.2900	116.230	113.461	109.850	106.737	104.250	102.375	101.086	100.303	
1/6/2006	1/6/2016	4/6/2009	4.0200	121.826	116.347	111.583	107.736	104.794	102.649	101.206	100.408	
1/17/2006	1/19/2016	4/17/2009	4.0800	122.351	116.839	112.034	108.130	105.099	102.867	101.335	100.457	
3/20/2006	3/21/2011	3/21/2009	4.7600	109.930	109.748	107.619	105.512	103.475	101.488	100.801	100.231	
4/11/2006	4/11/2011	4/13/2009	4.9800	110.679	110.414	108.202	106.086	104.220	102.661	101.451	100.628	
4/19/2006	4/19/2013	4/20/2009	4.6300	119.400	115.684	111.705	108.256	105.459	103.285	101.708	100.710	
4/24/2006	4/25/2016	4/24/2009	4.4400	125.196	119.367	114.257	110.018	106.642	104.042	102.159	100.936	
4/28/2006	4/28/2011	4/28/2009	5.0900	111.156	110.890	108.669	106.464	104.319	102.230	100.193	100.093	
5/5/2006	5/6/2013	5/5/2009	4.7800	120.238	116.319	112.253	108.722	105.865	103.621	101.973	100.883	
5/5/2006	5/5/2016	5/5/2009	4.3500	124.553	118.719	113.632	109.455	106.183	103.701	101.933	100.810	
5/5/2006	5/5/2016	5/5/2009	4.5300	125.744	119.803	114.611	110.301	106.897	104.261	102.347	101.072	
5/5/2006	5/5/2016	5/5/2009	4.9800	128.753	122.576	117.104	112.503	108.768	105.788	103.510	101.884	
5/9/2006	5/9/2011	5/11/2009	5.0500	111.222	110.871	108.568	106.374	104.445	102.837	101.577	100.706	
5/15/2006	5/16/2016	5/15/2009	4.3500	124.686	118.852	113.765	109.577	106.273	103.760	101.962	100.809	
5/15/2006	5/16/2016	5/15/2009	4.5200	125.816	119.881	114.695	110.381	106.952	104.293	102.358	101.062	
5/19/2006	5/19/2016	5/19/2009	4.5100	125.787	119.858	114.678	110.368	106.938	104.279	102.344	101.048	
6/12/2006	6/13/2016	3/12/2009	4.6200	126.631	120.596	115.306	110.903	107.380	104.638	102.610	101.220	
6/26/2006	6/27/2016	3/26/2009	4.7300	127.559	121.462	116.105	111.614	107.963	105.097	102.942	101.423	
6/28/2006	6/28/2013	12/28/2006	4.9500	121.671	117.538	113.368	109.713	106.672	104.252	102.419	101.139	
6/28/2006	6/28/2013	3/30/2009	4.9500	121.671	117.538	113.368	109.713	106.672	104.252	102.419	101.139	
6/30/2006	7/1/2013	3/30/2009	4.8900	121.432	117.110	112.896	109.249	106.288	103.954	102.216	101.034	
7/14/2006	7/15/2013	4/14/2009	4.8900	121.622	117.301	113.087	109.428	106.423	104.049	102.273	101.056	
7/19/2006	7/19/2011	4/20/2009	5.2500	112.702	112.180	109.693	107.312	105.199	103.403	101.981	100.960	
7/20/2006	7/20/2011	4/20/2009	5.3000	112.838	112.316	109.819	107.359	104.987	102.681	100.438	99.994	
7/24/2006	7/25/2016	4/24/2009	4.6600	127.249	121.142	115.788	111.320	107.706	104.884	102.773	101.317	
7/28/2006	7/28/2016	4/28/2009	4.4900	126.122	120.111	114.870	110.513	107.029	104.329	102.355	101.046	
8/1/2006	8/1/2016	8/3/2009	4.8900	128.741	122.451	116.915	112.280	108.544	105.587	103.338	101.701	
8/11/2006	8/11/2011	5/11/2009	4.7900	111.895	111.287	108.725	106.330	104.269	102.613	101.365	100.545	
8/21/2006	8/21/2013	5/21/2009	4.7500	121.471	116.982	112.757	109.116	106.147	103.821	102.108	100.950	
8/25/2006	8/25/2016	5/26/2009	4.3500	125.332	119.349	114.164	109.885	106.498	103.911	102.052	100.846	
8/28/2006	8/29/2011	5/28/2009	4.8900	112.388	111.780	109.216	106.790	104.670	102.926	101.599	100.682	
9/22/2006	9/22/2011	3/23/2009	4.7900	112.454	111.729	109.084	106.607	104.463	102.734	101.437	100.569	
9/29/2006	9/29/2011	3/30/2009	4.5900	112.023	111.299	108.664	106.209	104.105	102.426	101.199	100.440	
10/10/2006	10/10/2013	4/10/2009	4.2500	119.461	114.937	110.769	107.292	104.575	102.565	101.186	100.409	
10/12/2006	10/15/2013	4/13/2009	4.5000	120.692	116.115	111.860	108.254	105.378	103.178	101.610	100.649	
10/20/2006	10/20/2009	4/20/2009	4.9300	103.205	103.205	103.205	102.578	101.928	101.288	100.656	100.032	
10/30/2006	10/31/2011	4/30/2009	4.8500	113.135	112.289	109.532	106.820	104.188	101.637	100.652	100.235	
11/3/2006	11/3/2011	5/3/2009	4.6900	112.741	111.778	108.938	106.176	103.552	101.008	100.652	100.235	
11/6/2006	11/6/2013	5/6/2009	4.2900	119.827	115.222	110.996	107.473	104.719	102.678	101.265	100.419	
11/10/2006	11/13/2012	5/11/2009	4.3900	116.511	113.736	110.101	106.960	104.442	102.539	101.203	100.391	
11/17/2006	11/18/2013	5/18/2009	4.3500	120.256	115.638	111.390	107.824	104.999	102.880	101.398	100.477	
11/24/2006	11/25/2016	5/26/2009	4.1900	124.739	118.721	113.544	109.316	105.999	103.498	101.749	100.646	
11/30/2006	12/2/2013	6/1/2009	4.3500	120.267	115.591	111.308	107.734	104.950	102.860	101.412	100.489	
12/1/2006	12/1/2016	6/1/2009	4.0900	123.904	117.917	112.783	108.633	105.454	103.104	101.494	100.600	
12/4/2006	12/5/2016	6/4/2009	4.0800	123.879	117.899	112.773	108.627	105.445	103.094	101.483	100.586	
12/5/2006	12/5/2016	12/7/2009	4.2600	125.145	119.044	113.780	109.490	106.155	103.609	101.720	100.290	
12/6/2006	12/6/2013	12/7/2009	4.4000	120.545	115.856	111.547	107.938	105.095	102.931	101.313	100.072	
12/8/2006	12/8/2016	3/9/2009	3.9900	123.280	117.366	112.309	108.237	105.120	102.851	101.311	100.494	
12/11/2006	12/11/2009	3/11/2009	4.6900	103.726	103.726	103.654	102.815	102.028	101.282	100.652	100.235	
12/12/2006	12/12/2016	3/12/2009	3.9900	123.324	117.410	112.353	108.277	105.149	102.869	101.318	100.490	
12/12/2006	12/12/2016	3/12/2009	4.0500	123.747	117.789	112.685	108.558	105.380	103.040	101.437	100.549	
12/13/2006	12/14/2009	3/13/2009	4.8300	103.877	103.877	103.805	102.964	102.166	101.400	100.739	100.279	
12/19/2006	12/19/2011	3/19/2009	4.4900	112.772	111.690	108.816	106.					

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
1/8/2007	1/9/2012	4/8/2009	4.7500	113.788	112.584	109.610	106.893	104.628	102.819	101.491	100.627
1/12/2007	1/12/2017	4/13/2009	4.4200	126.544	120.294	114.880	110.427	106.917	104.222	102.276	101.015
1/16/2007	1/17/2017	1/17/2012	4.7900	129.291	122.792	117.086	112.182	107.941	104.187	100.802	97.703
1/23/2007	1/23/2014	4/23/2009	4.4900	121.412	116.637	112.251	108.543	105.579	103.310	101.686	100.679
1/23/2007	1/23/2017	4/23/2009	4.4600	126.968	120.692	115.249	110.754	107.177	104.419	102.406	101.077
1/29/2007	1/29/2014	4/29/2009	4.7900	122.989	118.144	113.662	109.819	106.673	104.207	102.365	101.108
2/2/2007	2/2/2017	5/4/2009	4.6900	128.614	122.129	116.493	111.824	108.105	105.204	103.040	101.546
2/9/2007	2/9/2012	5/11/2009	4.7500	114.197	112.878	109.820	107.034	104.704	102.858	101.494	100.607
2/9/2007	2/9/2017	5/11/2009	4.4700	127.080	120.737	115.251	110.730	107.169	104.422	102.431	101.105
2/12/2007	2/13/2012	5/12/2009	4.8800	114.640	113.320	110.253	107.434	105.060	103.138	101.699	100.738
2/15/2007	2/15/2012	5/15/2009	4.9900	114.998	113.676	110.604	107.775	105.366	103.405	101.919	100.891
2/20/2007	2/21/2017	5/20/2009	4.3900	126.648	120.358	114.931	110.462	106.932	104.222	102.270	100.982
2/20/2007	2/21/2017	2/21/2012	4.8500	128.359	121.573	115.703	110.869	106.762	103.132	99.901	96.912
2/23/2007	2/23/2017	5/26/2009	4.2500	125.659	119.462	114.136	109.786	106.362	103.774	101.936	100.765
2/23/2007	2/23/2017	5/26/2009	4.3500	126.383	120.119	114.721	110.283	106.778	104.100	102.177	100.920
2/28/2007	3/1/2010	3/1/2009	4.8900	104.972	104.972	104.601	103.521	102.517	101.532	100.566	100.235
3/2/2007	3/2/2012	6/2/2009	4.4900	113.694	112.223	109.116	106.343	104.086	102.352	101.130	100.426
3/9/2007	3/10/2014	3/9/2009	4.4500	121.427	116.551	112.105	108.378	105.437	103.199	101.621	100.653
3/16/2007	3/16/2017	3/16/2009	4.0900	124.547	118.432	113.198	108.965	105.688	103.251	101.571	100.613
3/20/2007	3/20/2012	3/20/2009	4.5500	114.105	112.634	109.526	106.729	104.408	102.606	101.309	100.499
3/21/2007	3/21/2017	3/23/2009	4.2200	125.547	119.342	114.007	109.658	106.252	103.681	101.872	100.760
3/23/2007	3/23/2017	3/23/2009	4.2900	126.081	119.827	114.441	110.029	106.558	103.916	102.041	100.846
3/23/2007	3/23/2017	3/23/2009	4.2900	126.081	119.827	114.441	110.029	106.558	103.916	102.041	100.846
3/23/2007	3/23/2017	6/23/2009	4.2900	126.081	119.827	114.441	110.029	106.558	103.916	102.041	100.846
3/30/2007	3/30/2012	3/30/2009	4.6700	114.607	113.128	109.934	106.814	103.801	100.891	100.157	100.050
4/2/2007	4/2/2012	4/2/2009	4.5900	114.395	112.771	109.578	106.725	104.390	102.583	101.285	100.502
4/9/2007	4/9/2009	4/9/2009	4.7500	100.528	100.528	100.528	100.482	100.373	100.265	100.157	100.050
4/9/2007	4/10/2017	4/9/2009	4.1500	125.073	118.876	113.561	109.256	105.923	103.432	101.704	100.676
4/12/2007	4/12/2017	4/13/2009	4.2500	125.829	119.559	114.166	109.772	106.348	103.761	101.934	100.808
4/13/2007	4/13/2017	4/13/2009	4.4500	127.318	120.902	115.359	110.800	107.199	104.431	102.420	101.096
4/18/2007	4/20/2009	4/20/2009	4.9400	100.700	100.700	100.700	100.644	100.504	100.366	100.227	100.089
4/23/2007	4/23/2012	4/23/2009	4.6500	114.854	113.231	110.038	107.156	104.758	102.865	101.486	100.599
4/23/2007	4/23/2014	4/23/2010	4.6200	122.641	117.670	113.122	109.266	106.151	103.669	101.688	100.061
4/27/2007	4/27/2012	4/27/2009	4.5500	114.585	112.962	109.774	106.907	104.515	102.657	101.313	100.484
4/27/2007	4/27/2017	4/27/2009	4.2500	126.006	119.736	114.343	109.935	106.466	103.838	101.970	100.804
5/2/2007	5/2/2014	5/3/2010	4.5900	122.410	117.389	112.820	108.975	105.911	103.464	101.496	99.864
5/4/2007	5/5/2014	5/4/2009	4.5500	122.242	117.232	112.679	108.852	105.828	103.511	101.849	100.782
5/14/2007	5/16/2011	5/14/2009	4.5000	110.087	109.737	107.451	105.306	103.480	102.006	100.948	100.283
5/18/2007	5/18/2017	5/18/2009	4.1900	125.642	119.359	113.981	109.614	106.201	103.637	101.840	100.708
5/22/2007	5/22/2012	5/22/2009	4.6900	115.360	113.581	110.306	107.357	104.897	102.959	101.536	100.605
5/22/2007	5/22/2012	5/22/2009	4.6900	115.360	113.581	110.306	107.357	104.897	102.959	101.536	100.605
5/22/2007	5/22/2012	5/22/2009	4.7100	115.425	113.646	110.369	107.415	104.948	103.000	101.566	100.624
5/22/2007	5/22/2017	5/22/2012	4.7500	129.884	123.191	117.314	112.223	107.767	103.788	100.163	96.830
5/25/2007	5/25/2012	5/26/2009	4.6500	115.267	113.489	110.219	107.278	104.822	102.897	101.488	100.569
5/29/2007	5/30/2017	5/29/2009	4.2500	126.221	119.897	114.472	110.038	106.538	103.878	102.001	100.811
6/1/2007	6/1/2010	6/1/2009	4.9900	106.348	106.348	105.609	104.279	103.057	101.956	101.058	100.426
6/1/2007	6/2/2014	6/1/2009	4.5000	122.111	117.072	112.501	108.679	105.679	103.382	101.759	100.735
6/7/2007	6/7/2012	3/9/2009	4.9400	116.398	114.460	111.082	108.030	105.483	103.433	101.899	100.852
6/7/2007	6/7/2017	6/8/2009	4.8200	130.414	123.630	117.738	112.843	108.912	105.811	103.463	101.803
6/8/2007	6/9/2014	3/9/2009	4.7300	123.411	118.303	113.640	109.693	106.526	104.059	102.247	101.020
6/8/2007	6/8/2017	3/9/2009	4.4900	127.930	121.380	115.735	111.096	107.433	104.616	102.560	101.169
6/11/2007	6/12/2017	3/11/2009	4.4900	127.980	121.429	115.785	111.142	107.467	104.639	102.572	101.170
6/18/2007	6/19/2017	3/18/2009	4.5000	128.143	121.585	115.933	111.275	107.571	104.714	102.618	101.190
6/18/2007	6/19/2017	6/18/2009	4.8400	130.726	123.930	118.023	113.101	109.119	105.965	103.568	101.861
6/19/2007	6/19/2017	3/19/2009	4.6500	129.281	122.611	116.849	112.074	108.237	105.255	103.021	101.463
6/20/2007	6/20/2012	3/20/2009	4.8900	116.409	114.472	111.099	108.045	105.478	103.414	101.871	100.815
6/20/2007	6/20/2012	3/20/2009	4.9600	116.643	114.705	111.325	108.256	105.664	103.569	101.989	100.897
6/22/2007	6/22/2017	3/23/2009	4.5000	128.180	121.622	115.970	111.310	107.596	104.732	102.627	101.191
6/26/2007	6/26/2012	6/26/2009	5.1300	117.299	115.358	111.960	108.851	106.182	104.002	102.318	101.115
6/28/2007	6/28/2017	3/30/2009	4.5000	128.255	121.697	116.045	111.379	107.648	104.766	102.646	101.193
7/13/2007	7/13/2012	4/13/2009	4.6900	116.037	113.950	110.526	107.473	104.960	102.985	101.544	100.635
7/13/2007	7/13/2017	4/13/2009	4.2900	126.652	120.208	114.682	110.176	106.656	103.986	102.090	100.895
7/13/2007	7/13/2017	7/13/2011	4.9000	131.304	124.420	118.421	113.361	109.102	105.435	102.215	99.334
7/18/2007	7/18/2017	7/19/2010	4.7800	130.451	123.644	117.743	112.835	108.853	105.622	102.982	100.796
7/19/2007	7/19/2012	7/20/2009	4.8900	116.803	114.710	111.262	108.154	105.549	103.459	101.897	100.798
7/20/2007	7/20/2017	4/20/2009	4.2900	126.735	120.291	114.766	110.252	106.712	104.023	102.107	100.894
7/24/2007	7/24/2012	7/24/2009	4.8200	116.629	114.538	111.098	108.001	105.409	103.336	101.798	100.719
7/27/2007	7/27/2012	4/27/2009	4.5900	115.874	113.789	110.379	107.341	104.824	102.864	101.444	100.556
7/27/2007	7/28/2014	4/27/2009	4.3500	121.795	116.757	112.219	108.436	105.434	103.163	101.564	100.591
7/27/2007	7/27/2017	4/27/2009	4.1800	125.982	119.627	114.188	109.765	106.302	103.695	101.859	100.733
7/27/2007	7/27/2017	4/27/2009	4.2500	126.514	120.102	114.608	110.123	106.596	103.926	102.026	100.834
7/30/2007	1/30/2019	4/30/2009	3.9900	127.244	120.239	114.417	109.764	106.165	103.503	101.682	100.604
7/31/2007	7/31/2017	4/30/2009	3.9900	124.598	118.386	113.103	108.852	105.547	103.114	101.445	100.475
7/31/2007	7/31/2017	4/30/2009	3.9900	124.598	118.386	113.103	108.852	105.547	103.114	101.445	100.475
7/31/2007	7/31/2017	4/30/2009	4.0600	125.121	118.858	113.518	109.202	105.833	103.323	101.583	100.560
8/2/2007	8/4/2014	8/3/2009	4.4900	122.443	117.303	112.669	108.802	105.762	103.448	101.775	100.616
8/2/2007	8/2/2017	5/4/2009	4.0500	124.905	118.593	113.228	108.925	105.633	103.200	101.541	100.548
8/2/2007	8/2/2017	5/4/2009	4.1500	125.657	119.265	113.818	109.427	106.040	103.514	101.766	100.688
8/6/2007	8/6/2012	5/6/2009	4.4900	115.653	113.416	109.949	106.913	104.462	102.591	101.265	100.445
8/6/2007	8/6/2012	5/6/2009									

Start Date	Maturity		Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Next Call Date									
8/17/2007	8/17/2012	5/18/2009	4.1500	114.594	112.371	108.966	106.028	103.712	101.990	100.843	100.182
8/17/2007	8/17/2012	5/18/2009	4.3500	115.297	113.066	109.625	106.623	104.207	102.373	101.099	100.326
8/17/2007	8/17/2012	5/18/2009	4.0000	124.697	118.426	113.102	108.829	105.540	103.120	101.468	100.471
8/20/2007	8/20/2010	8/20/2009	4.5900	106.859	106.859	105.868	104.360	102.968	101.770	100.827	100.110
8/20/2007	8/20/2014	8/20/2009	4.2500	121.290	116.182	111.618	107.835	104.863	102.636	101.112	100.116
8/20/2007	8/20/2014	8/20/2009	4.2500	121.290	116.182	111.618	107.835	104.863	102.636	101.112	100.116
8/24/2007	8/24/2010	5/26/2009	4.4600	106.715	106.715	105.724	104.215	102.822	101.641	100.750	100.184
8/24/2007	8/24/2012	5/26/2009	4.0500	114.321	112.103	108.715	105.804	103.522	101.843	100.743	100.107
8/28/2007	8/28/2014	8/28/2009	4.3500	121.979	116.887	112.316	108.511	105.486	103.196	101.560	100.417
8/30/2007	8/30/2012	8/31/2009	4.3900	115.597	113.364	109.914	106.885	104.408	102.519	101.152	100.199
8/30/2007	9/2/2014	6/1/2009	3.8900	119.325	114.361	110.000	106.486	103.867	101.994	100.806	100.262
8/31/2007	8/31/2012	8/31/2009	4.3700	115.538	113.305	109.858	106.834	104.362	102.479	101.122	100.176
9/4/2007	9/4/2012	6/4/2009	4.1900	114.944	112.540	109.064	106.082	103.750	102.024	100.874	100.298
9/4/2007	9/4/2012	6/4/2009	4.2200	115.051	112.645	109.164	106.171	103.824	102.081	100.910	100.316
9/4/2007	9/5/2017	6/4/2009	3.8900	123.872	117.652	112.392	108.211	105.048	102.762	101.238	100.462
9/6/2007	9/7/2010	3/6/2009	4.1600	106.425	106.409	105.248	103.692	102.331	101.236	100.479	100.128
9/7/2007	9/7/2012	3/9/2009	4.0900	114.622	112.222	108.765	105.817	103.533	101.856	100.763	100.239
9/10/2007	9/11/2017	3/10/2009	3.6900	122.435	116.381	111.306	107.305	104.336	102.236	100.898	100.278
9/11/2007	9/13/2010	9/11/2009	4.4300	106.916	106.900	105.737	104.165	102.753	101.567	100.649	99.929
9/11/2007	9/11/2017	3/11/2009	3.5900	121.688	115.727	110.742	106.841	103.973	101.981	100.743	100.198
9/12/2007	9/12/2014	3/12/2009	3.6900	118.331	113.467	109.214	105.837	103.341	101.620	100.572	100.120
9/13/2007	9/15/2014	9/14/2009	3.9900	119.993	114.999	110.583	106.991	104.256	102.267	100.889	99.919
9/13/2007	9/13/2017	9/13/2010	3.9900	124.713	118.414	113.068	108.763	105.360	102.630	100.369	98.430
9/13/2007	9/13/2017	9/13/2010	3.9900	124.713	118.414	113.068	108.763	105.360	102.630	100.369	98.430
9/14/2007	9/14/2011	3/16/2009	4.0900	110.543	109.821	107.215	104.867	102.962	101.543	100.605	100.159
9/14/2007	9/14/2012	9/14/2010	4.3900	115.780	113.365	109.852	106.778	104.214	102.066	100.196	98.515
9/17/2007	9/17/2012	9/17/2009	4.2200	115.204	112.798	109.316	106.311	103.927	102.142	100.878	99.970
9/27/2007	9/27/2010	3/27/2009	4.2500	106.800	106.784	105.622	104.044	102.614	101.439	100.598	100.156
9/27/2007	9/29/2014	9/27/2010	4.4900	122.553	116.743	111.662	107.657	104.676	102.324	100.364	98.629
9/27/2007	9/27/2017	3/27/2009	3.6500	122.298	116.280	111.242	107.263	104.290	102.190	100.847	100.214
9/28/2007	9/28/2010	3/30/2009	4.2900	106.876	106.860	105.698	104.117	102.679	101.490	100.634	100.173
9/28/2007	9/28/2012	3/30/2009	3.8500	113.988	111.602	108.198	105.332	103.110	101.538	100.535	100.087
10/3/2007	10/3/2012	4/3/2009	3.8300	113.969	111.407	107.954	105.084	102.926	101.416	100.512	100.066
10/9/2007	10/9/2012	10/9/2009	4.4000	116.121	113.477	109.684	106.167	103.455	101.709	100.585	99.793
10/11/2007	10/14/2014	4/13/2009	4.1800	121.138	116.039	111.499	107.772	104.876	102.742	101.279	100.445
10/11/2007	10/11/2017	4/13/2009	3.9900	124.833	118.494	113.117	108.813	105.516	103.096	101.454	100.523
10/15/2007	10/16/2017	4/15/2009	3.9900	124.888	118.549	113.173	108.864	105.553	103.118	101.462	100.518
10/22/2007	10/22/2012	4/22/2009	3.9900	114.763	112.189	108.700	105.738	103.438	101.766	100.689	100.131
10/25/2007	10/27/2014	10/25/2011	4.3600	122.289	117.121	112.459	108.427	104.912	101.773	98.910	96.249
10/26/2007	10/26/2017	4/27/2009	3.3900	120.451	114.649	109.832	106.111	103.394	101.559	100.509	99.962
10/29/2007	10/29/2009	4/29/2009	4.2500	102.869	102.869	102.869	102.235	101.562	100.915	100.379	100.048
10/29/2007	10/29/2012	10/29/2009	3.9900	114.841	112.267	108.778	105.809	103.489	101.780	100.549	99.624
11/2/2007	11/3/2014	11/2/2009	3.9900	120.121	115.044	110.586	106.970	104.245	102.241	100.809	99.739
11/2/2007	11/3/2014	11/2/2010	4.1900	121.225	116.072	111.498	107.716	104.659	102.141	99.979	98.055
11/5/2007	11/5/2014	11/5/2009	3.9900	120.144	115.066	110.608	106.991	104.259	102.250	100.813	99.737
11/5/2007	11/6/2017	11/5/2012	4.3900	128.064	121.277	115.321	110.121	105.538	101.395	97.587	94.040
11/6/2007	11/6/2017	5/6/2009	3.4800	121.080	115.137	110.204	106.391	103.620	101.731	100.615	99.737
11/8/2007	11/9/2009	5/8/2009	4.1000	102.893	102.893	102.888	102.140	101.443	100.789	100.293	99.964
11/9/2007	11/10/2014	11/9/2011	4.3300	122.084	116.881	112.195	108.150	104.647	101.507	98.636	95.963
11/13/2007	11/14/2011	5/13/2009	3.7600	110.329	109.374	106.648	104.278	102.445	101.137	100.358	99.915
11/13/2007	11/13/2012	5/13/2009	3.6800	113.841	111.121	107.661	104.822	102.705	101.250	100.390	99.915
11/13/2007	11/13/2014	5/13/2009	3.3500	116.703	111.929	107.859	104.711	102.493	101.045	100.251	99.830
11/19/2007	11/19/2014	11/19/2009	3.7500	118.964	113.999	109.667	106.206	103.619	101.763	100.429	99.420
11/19/2007	11/19/2014	11/19/2009	3.7500	118.964	113.999	109.667	106.206	103.619	101.763	100.429	99.420
11/19/2007	11/19/2014	11/21/2011	4.2700	121.857	116.675	112.018	107.993	104.485	101.340	98.462	95.781
11/19/2007	11/20/2017	11/19/2012	4.2900	125.949	119.396	113.529	108.482	104.070	100.994	96.425	92.990
11/20/2007	11/20/2017	11/22/2010	3.7400	123.193	117.004	111.817	107.659	104.365	101.672	99.388	97.382
11/23/2007	11/24/2017	11/23/2011	3.9900	122.783	116.352	110.994	106.800	103.265	100.154	97.323	94.728
11/23/2007	11/24/2017	11/23/2011	3.9900	122.783	116.352	110.994	106.800	103.265	100.154	97.323	94.728
11/29/2007	11/29/2017	5/29/2009	2.9500	117.360	111.945	107.567	104.325	102.096	100.749	100.130	99.890
11/30/2007	11/30/2017	11/30/2009	3.1900	119.134	113.479	108.841	105.314	102.795	101.052	99.816	98.867
12/6/2007	12/6/2017	12/7/2009	3.2500	119.445	113.710	108.987	105.404	102.862	101.096	99.824	98.837
12/7/2007	12/7/2012	12/7/2009	3.4500	113.206	110.336	106.900	104.154	102.179	100.772	99.724	98.860
12/10/2007	12/10/2010	12/10/2009	3.8700	106.988	106.923	105.250	103.524	102.079	100.925	99.976	99.148
12/10/2007	12/11/2017	12/10/2010	3.4500	120.999	115.057	110.117	106.203	103.111	100.561	98.376	96.429
12/11/2007	12/11/2012	12/11/2009	3.7600	114.434	111.528	107.991	105.081	102.883	101.298	100.114	99.165
12/14/2007	12/14/2010	3/16/2009	3.6900	106.704	106.639	104.972	103.263	101.865	100.840	100.249	99.989
12/20/2007	12/20/2012	12/21/2009	3.6000	113.910	111.022	107.538	104.695	102.580	101.058	99.913	98.981
12/20/2007	12/20/2012	12/21/2009	3.7500	114.490	111.477	107.599	104.377	102.246	100.868	99.867	99.025
12/24/2007	12/26/2017	12/24/2012	3.9900	123.867	117.537	111.870	106.976	102.619	98.645	94.975	91.563
12/26/2007	12/26/2012	3/26/2009	3.4600	113.427	110.556	107.117	104.347	102.325	100.981	100.271	99.938
12/26/2007	12/26/2012	12/27/2010	3.9600	115.367	112.442	108.841	105.740	103.137	100.880	98.868	97.019
1/2/2008	1/2/2013	1/4/2010	3.4900	113.611	110.561	107.063	104.269	102.251	100.784	99.669	98.736
1/3/2008	1/5/2015	1/3/2011	3.6500	118.442	113.477	109.152	105.636	102.800	100.399	98.288	96.368
1/4/2008	1/4/2018	1/4/2011	3.3600	120.365	114.479	109.597	105.735	102.675	100.134	97.935	95.959
1/7/2008	1/7/2013	4/7/2009	2.9900	111.702	108.737	105.448	102.977	101.343	100.407	100.010	99.862
1/7/2008	1/7/2013	1/7/2011	3.5900	114.051	110.988	107.435	104.446	101.969	99.815	97.863	96.044
1/7/2008	1/7/2015	1/7/2011	3.4900	117.568	112.686	108.459	105.046	102.292	99.966	97.902	96.007
1/7/2008	1/8/2018	4/7/2009	2.5900	114.727	109.699	105.706	102.910	101.185			

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
1/16/2008	1/16/2013	4/16/2009	2.5500	110.044	107.184	104.144	102.019	100.730	100.125	99.901	99.772
1/16/2008	1/16/2013	4/16/2009	2.6900	110.596	107.697	104.569	102.322	100.914	100.203	99.926	99.790
1/16/2008	1/16/2015	4/16/2009	2.6400	112.943	108.603	105.057	102.562	101.020	100.235	99.925	99.784
1/16/2008	1/16/2018	4/16/2009	2.3800	113.304	108.531	104.817	102.308	100.815	100.133	99.882	99.750
1/17/2008	1/17/2018	4/17/2009	2.2500	112.408	107.812	104.276	101.941	100.619	100.056	99.856	99.727
1/18/2008	1/18/2013	4/20/2009	2.5500	110.058	107.198	104.159	102.031	100.737	100.126	99.896	99.762
1/18/2008	1/20/2015	4/20/2009	2.3500	111.401	107.297	104.037	101.860	100.610	100.064	99.862	99.724
1/18/2008	1/18/2018	4/20/2009	2.2900	112.692	108.039	104.449	102.058	100.678	100.077	99.859	99.727
1/24/2008	1/24/2012	7/24/2009	2.4400	107.184	106.023	103.480	101.662	100.560	99.949	99.514	99.117
1/24/2008	1/24/2013	1/25/2010	2.5000	109.903	107.057	104.052	101.953	100.558	99.498	98.580	97.713
1/25/2008	1/25/2013	4/25/2009	2.2500	108.919	105.753	101.845	101.662	100.560	99.949	99.514	99.117
1/25/2008	1/25/2013	1/25/2011	2.6500	110.504	107.419	104.214	101.708	99.610	97.695	95.885	94.140
1/28/2008	1/28/2010	4/28/2009	2.6300	102.440	102.440	102.288	101.355	100.443	99.949	99.514	99.117
1/28/2008	1/28/2013	1/28/2011	2.9900	111.877	108.747	105.343	102.641	100.393	98.404	96.546	94.771
1/30/2008	1/30/2013	2/1/2010	2.6700	110.621	107.728	104.610	102.362	100.794	99.606	98.574	97.614
2/7/2008	2/7/2013	2/8/2010	2.4900	109.960	106.977	103.953	101.845	100.458	99.385	98.443	97.554
2/13/2008	2/13/2013	2/14/2011	2.9200	111.729	108.627	105.279	102.528	100.231	98.176	96.266	94.450
2/14/2008	2/14/2018	2/14/2012	3.1900	116.746	111.654	107.122	103.355	100.075	97.086	94.290	91.643
2/15/2008	2/16/2010	5/16/2009	2.3500	102.304	102.304	102.060	101.063	100.112	99.098	98.075	97.100
2/19/2008	2/19/2013	2/19/2010	2.5900	110.446	107.099	103.711	101.709	100.451	99.435	98.496	97.587
2/22/2008	2/22/2011	5/22/2009	2.5000	105.028	104.931	102.919	100.942	100.224	99.993	99.962	99.932
2/25/2008	2/25/2013	2/25/2011	3.0900	112.514	109.221	105.716	102.908	100.574	98.492	96.562	94.722
2/25/2008	2/26/2018	5/26/2009	2.4200	113.749	108.883	105.094	102.510	100.929	100.145	99.993	99.962
3/7/2008	3/9/2015	3/7/2011	2.8900	114.373	109.814	105.961	102.881	100.347	98.124	96.084	94.162
3/7/2008	3/7/2018	3/7/2013	3.5500	122.083	115.744	110.149	105.200	100.775	96.715	92.939	89.397
3/10/2008	3/11/2013	3/10/2010	2.3900	109.756	106.666	103.689	101.635	100.230	99.098	98.075	97.100
3/11/2008	3/11/2011	3/11/2009	2.0900	104.302	104.121	102.283	100.951	100.224	99.993	99.962	99.932
3/12/2008	3/12/2013	3/12/2009	2.0100	108.207	105.295	102.649	101.023	100.219	99.990	99.956	99.923
3/14/2008	3/14/2018	3/15/2010	2.4000	113.548	108.707	104.935	102.340	100.584	99.260	98.143	97.124
3/17/2008	3/18/2013	3/17/2011	2.6900	111.035	107.840	104.560	101.869	99.570	97.483	95.521	93.641
3/17/2008	3/17/2015	3/17/2011	2.6200	111.512	107.213	103.988	101.459	99.277	97.264	95.344	93.487
3/17/2008	3/19/2018	3/18/2013	3.3000	120.261	114.153	108.732	103.921	99.574	95.566	91.833	88.330
3/25/2008	3/27/2023	3/25/2013	3.1500	122.472	114.475	108.054	102.873	98.409	94.410	90.737	87.305
3/26/2008	3/26/2018	3/26/2012	2.9800	115.378	110.612	106.227	102.503	99.218	96.202	93.364	90.659
3/28/2008	3/28/2013	3/28/2011	2.8000	111.564	108.139	104.758	102.061	99.773	97.681	95.706	93.809
3/28/2008	3/28/2013	3/28/2011	2.8200	111.647	108.217	104.823	102.119	99.821	97.725	95.748	93.850
3/28/2008	3/28/2018	3/30/2009	2.0200	110.992	106.690	103.466	101.440	100.366	99.978	99.899	99.822
3/28/2008	3/28/2018	3/28/2011	2.7700	116.333	111.026	106.711	103.309	100.522	98.124	95.956	93.941
3/31/2008	3/31/2011	3/31/2009	1.9900	104.207	104.026	102.221	100.927	100.206	99.971	99.886	99.800
4/14/2008	4/14/2015	4/14/2011	2.7500	112.212	107.817	104.438	101.788	99.501	97.395	95.395	93.467
4/28/2008	4/28/2015	4/28/2011	3.2500	116.639	111.824	107.693	104.315	101.490	99.014	96.770	94.677
4/28/2008	4/30/2018	4/28/2009	2.1500	111.944	107.432	103.999	101.770	100.525	99.999	99.792	99.624
4/30/2008	4/30/2018	4/30/2013	3.7400	122.774	116.343	110.617	105.576	101.053	96.910	93.055	89.438
5/2/2008	5/4/2015	5/2/2011	3.9900	121.598	116.833	112.435	108.312	104.153	100.210	96.650	93.407
5/5/2008	5/5/2015	5/5/2011	3.1700	116.075	111.269	107.170	103.827	101.046	98.595	96.359	94.267
5/8/2008	5/8/2015	5/10/2010	2.9600	114.901	110.245	106.369	103.491	101.407	99.806	98.455	97.240
5/19/2008	5/19/2015	5/21/2012	4.7000	124.753	119.727	114.368	109.149	103.843	98.677	93.955	89.629
5/19/2008	5/21/2018	5/20/2013	3.8900	124.078	117.363	111.468	106.276	101.635	97.388	93.444	89.778
5/23/2008	5/23/2013	5/23/2011	4.0400	117.291	113.837	110.137	106.528	102.799	99.123	95.758	92.683
5/23/2008	5/23/2018	5/23/2011	3.2700	120.299	114.352	109.449	105.493	102.239	99.452	96.971	94.696
5/27/2008	5/27/2010	5/27/2009	2.7900	103.511	103.511	102.897	101.641	100.606	100.107	99.840	99.599
5/27/2008	5/27/2011	5/27/2010	3.2200	107.317	106.967	104.728	102.770	101.192	99.836	98.595	97.412
5/27/2008	5/28/2013	5/27/2011	3.4900	114.976	111.078	107.283	104.145	101.467	99.076	96.858	94.757
5/29/2008	5/29/2018	5/31/2011	3.4600	118.617	112.414	107.780	104.289	101.486	99.031	96.787	94.689
6/6/2008	6/6/2013	6/6/2011	3.9900	117.224	113.452	109.709	106.214	102.783	99.437	96.097	92.840
6/10/2008	6/11/2012	6/10/2010	3.9400	113.122	111.281	108.110	105.166	102.447	99.912	97.388	95.238
6/16/2008	6/17/2013	6/16/2011	4.0700	117.683	113.527	109.477	106.023	103.115	100.525	98.155	95.935
6/24/2008	6/24/2015	6/24/2011	3.8300	120.175	114.972	110.429	106.626	103.408	100.592	98.056	95.718
6/30/2008	7/1/2013	6/30/2009	2.9200	112.764	108.874	105.436	102.902	101.275	100.359	99.886	99.589
6/30/2008	7/1/2013	6/30/2010	3.4500	115.096	111.040	107.319	104.374	102.168	100.432	98.967	97.660
6/30/2008	6/30/2015	6/30/2010	3.3700	117.514	112.575	108.374	105.092	102.594	100.638	99.007	97.563
6/30/2008	7/2/2018	6/30/2011	3.6900	120.534	113.884	108.833	105.043	102.054	99.503	97.200	95.047
7/1/2008	7/1/2015	7/1/2011	4.6000	123.967	118.586	113.748	109.312	104.948	100.675	96.737	93.197
7/7/2008	7/8/2013	7/7/2011	4.5900	120.212	116.162	112.157	108.338	104.420	100.450	96.685	93.289
7/8/2008	7/8/2013	7/8/2011	4.2500	118.710	114.719	110.846	107.214	103.601	100.020	96.520	93.297
7/10/2008	7/10/2014	7/10/2012	4.8000	123.989	119.235	114.211	109.284	104.299	99.263	94.478	90.039
7/11/2008	7/11/2018	7/11/2012	3.7500	122.067	115.819	110.397	105.824	101.885	98.345	95.077	92.012
7/14/2008	7/14/2015	7/15/2013	4.9000	127.039	121.107	114.983	108.943	102.870	96.802	91.164	85.835
7/14/2008	7/16/2018	7/14/2009	2.5000	114.523	109.463	105.493	102.750	101.073	100.147	99.598	99.187
7/14/2008	7/16/2018	7/14/2011	3.2500	120.263	114.282	109.338	105.328	102.007	99.124	96.540	94.155
7/17/2008	7/17/2018	7/17/2013	3.7500	123.378	116.560	110.605	105.352	100.654	96.348	92.344	88.589
7/21/2008	7/22/2013	7/21/2009	3.0000	113.291	108.903	104.542	101.749	100.629	100.138	99.738	99.348
8/15/2008	8/15/2018	8/15/2011	3.8300	125.063	118.428	112.877	108.310	104.519	101.244	98.350	95.720
8/19/2008	8/19/2013	8/19/2010	3.4400	115.503	110.906	106.911	103.944	101.797	100.042	98.496	97.058
9/8/2008	9/9/2013	9/8/2009	2.8900	113.013	108.957	105.482	102.930	101.278	100.255	99.560	98.998