

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 Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
2/27/1997	2/27/2012	3/1/2010	6.580	114.969	114.969	114.298	111.965	109.703	107.595	105.682	104.006
4/8/1998	4/8/2013	1/8/2010	5.490	118.681	118.681	115.787	112.486	109.511	106.929	104.751	102.979
8/19/1998	8/19/2013	2/19/2010	5.490	120.709	120.491	116.920	113.328	110.129	107.372	105.059	103.180
8/19/1998	8/19/2013	2/19/2010	5.490	120.709	120.491	116.920	113.328	110.129	107.372	105.059	103.180
8/25/1998	8/19/2013	1/25/2010	5.490	120.709	120.491	116.918	113.326	110.123	107.363	105.048	103.164
8/27/1998	8/19/2013	1/27/2010	5.490	120.709	120.491	116.918	113.324	110.121	107.359	105.043	103.158
9/30/1998	9/30/2013	12/30/2009	5.220	120.299	119.966	116.245	112.620	109.428	106.705	104.452	102.660
12/14/1998	12/16/2013	12/14/2009	4.890	120.062	119.479	115.515	111.826	108.633	105.963	103.809	102.145
12/14/1998	12/16/2013	12/14/2009	5.390	122.113	121.527	117.491	113.678	110.326	107.467	105.089	103.172
12/15/1998	12/16/2013	12/15/2009	4.880	120.021	119.438	115.474	111.787	108.598	105.932	103.782	102.123
12/10/1999	12/10/2009	12/10/2009	5.710	100.159	100.159	100.159	100.154	100.126	100.098	100.071	100.043
12/17/1999	12/17/2009	12/17/2009	5.910	100.279	100.279	100.279	100.272	100.224	100.177	100.129	100.082
12/20/1999	12/21/2009	12/21/2009	5.810	100.339	100.339	100.339	100.330	100.271	100.213	100.154	100.096
12/22/1999	12/22/2009	12/22/2009	5.840	100.357	100.357	100.357	100.347	100.286	100.224	100.163	100.102
1/7/2000	1/7/2015	1/7/2010	5.950	130.807	127.889	122.835	118.181	114.108	110.620	107.687	105.274
1/13/2000	1/13/2010	1/13/2010	5.910	100.722	100.722	100.722	100.704	100.581	100.459	100.336	100.214
1/25/2000	1/25/2010	1/25/2010	5.970	100.929	100.929	100.929	100.906	100.749	100.594	100.438	100.283
1/27/2000	1/27/2010	1/27/2010	6.080	100.980	100.980	100.980	100.956	100.794	100.633	100.472	100.311
1/27/2000	1/27/2010	1/27/2010	6.210	101.000	101.000	101.000	100.977	100.815	100.653	100.492	100.332
2/7/2000	2/8/2010	2/8/2010	5.950	101.157	101.157	101.157	101.128	100.933	100.738	100.544	100.350
2/16/2000	2/8/2010	2/1/2010	5.950	101.157	101.157	101.157	101.128	100.933	100.738	100.544	100.350
2/16/2000	2/16/2010	2/16/2010	6.470	101.402	101.402	101.402	101.369	101.151	100.934	100.717	100.502
2/16/2000	2/16/2010	2/16/2010	6.690	101.449	101.449	101.449	101.417	101.199	100.981	100.765	100.549
3/6/2000	3/8/2010	12/7/2009	6.390	101.739	101.739	101.739	101.693	101.419	101.146	100.875	100.605
3/13/2000	3/15/2010	12/14/2009	6.090	101.776	101.776	101.776	101.723	101.430	101.137	100.847	100.558
3/14/2000	3/15/2010	2/16/2010	6.090	101.776	101.776	101.776	101.723	101.430	101.137	100.847	100.558
3/15/2000	3/15/2010	12/15/2009	5.950	101.735	101.735	101.735	101.683	101.389	101.097	100.806	100.518
3/21/2000	3/22/2010	12/21/2009	6.120	101.904	101.904	101.904	101.844	101.531	101.219	100.910	100.602
3/22/2000	3/22/2010	12/22/2009	5.960	101.854	101.854	101.854	101.795	101.481	101.170	100.860	100.552
4/5/2000	4/5/2010	1/5/2010	5.950	102.082	102.082	102.082	102.006	101.653	101.303	100.955	100.610
4/11/2000	4/12/2010	1/11/2010	5.950	102.198	102.198	102.198	102.111	101.738	101.369	101.002	100.637
4/11/2000	4/12/2010	1/11/2010	6.050	102.235	102.235	102.235	102.148	101.775	101.405	101.038	100.674
4/11/2000	4/12/2010	1/11/2010	6.470	102.390	102.390	102.390	102.303	101.930	101.560	101.192	100.828
4/11/2000	4/12/2010	1/11/2010	6.560	102.423	102.423	102.423	102.336	101.963	101.593	101.225	100.860
4/11/2000	4/12/2010	1/11/2010	6.750	102.494	102.494	102.494	102.406	102.033	101.663	101.295	100.930
4/12/2000	4/12/2010	1/12/2010	5.990	102.213	102.213	102.213	102.126	101.753	101.383	101.016	100.652
4/13/2000	4/13/2010	1/13/2010	6.560	102.442	102.442	102.442	102.353	101.977	101.604	101.234	100.866
4/24/2000	4/26/2010	1/25/2010	6.450	102.634	102.634	102.634	102.524	102.111	101.703	101.297	100.894
5/3/2000	5/3/2010	2/3/2010	6.240	102.669	102.669	102.669	102.547	102.115	101.687	101.263	100.843
5/3/2000	5/3/2010	2/3/2010	6.360	102.721	102.721	102.721	102.598	102.166	101.738	101.313	100.893
5/15/2000	5/17/2010	2/16/2010	6.990	103.262	103.262	103.262	103.111	102.639	102.171	101.708	101.249
5/30/2000	6/1/2010	3/1/2010	6.490	103.299	103.299	103.299	103.118	102.604	102.096	101.592	101.099
8/8/2000	8/9/2010	2/8/2010	5.990	104.193	104.193	104.193	103.867	103.160	102.463	101.781	101.137
8/18/2000	8/18/2010	2/18/2010	6.090	104.415	104.415	104.415	104.071	103.339	102.617	101.909	101.239
10/5/2000	10/5/2010	1/5/2010	5.710	104.901	104.901	104.901	104.468	103.601	102.750	101.928	101.178
10/10/2000	10/12/2010	1/11/2010	5.840	105.126	105.126	105.126	104.681	103.794	102.922	102.079	101.303
10/13/2000	10/13/2010	1/13/2010	5.750	105.063	105.063	105.063	104.616	103.727	102.853	102.009	101.236
10/23/2000	10/25/2010	1/25/2010	5.640	105.154	105.154	105.154	104.687	103.764	102.858	101.985	101.190
12/5/2000	12/6/2010	12/7/2009	5.410	105.575	105.575	105.575	105.023	103.984	102.968	102.004	101.156
12/11/2000	12/13/2010	12/11/2009	5.170	105.428	105.428	105.428	104.849	103.792	102.761	101.790	100.953
12/12/2000	12/13/2010	12/14/2009	5.110	105.365	105.365	105.365	104.786	103.730	102.700	101.730	100.900
12/15/2000	12/15/2010	12/15/2009	5.120	105.404	105.404	105.404	104.817	103.755	102.720	101.745	100.910
12/20/2000	12/20/2010	12/21/2009	4.950	105.294	105.294	105.294	104.687	103.612	102.567	101.591	100.771
12/21/2000	12/21/2010	12/21/2009	4.860	105.211	105.211	105.211	104.600	103.524	102.477	101.507	100.707
1/11/2001	1/11/2011	1/11/2010	5.370	106.071	106.071	106.071	105.374	104.239	103.137	102.110	101.224
1/12/2001	1/12/2011	1/12/2010	5.300	106.006	106.006	106.006	105.306	104.169	103.066	102.041	101.163
2/5/2001	2/7/2011	2/5/2010	4.820	105.811	105.811	105.811	105.004	103.799	102.646	101.600	100.762
2/7/2001	2/7/2011	2/8/2010	4.820	105.811	105.811	105.811	105.004	103.799	102.646	101.599	100.759
2/26/2001	2/28/2011	2/26/2010	4.790	106.054	106.054	106.054	105.154	103.890	102.686	101.604	100.733
2/26/2001	2/28/2011	2/26/2010	5.060	106.395	106.395	106.395	105.494	104.226	103.013	101.901	100.969
2/26/2001	2/28/2011	2/26/2010	5.450	106.888	106.888	106.888	105.986	104.713	103.486	102.349	101.365
2/27/2001	2/28/2011	3/1/2010	4.760	106.016	106.016	106.016	105.116	103.854	102.650	101.576	100.731
2/27/2001	2/28/2011	3/1/2010	5.020	106.344	106.344	106.344	105.444	104.176	102.965	101.857	100.943
3/1/2001	3/1/2011	3/1/2010	5.270	106.675	106.675	106.675	105.769	104.497	103.278	102.161	101.216
3/14/2001	3/14/2011	12/14/2009	4.860	106.331	106.331	106.331	105.375	104.074	102.837	101.725	100.827
6/1/2001	6/1/2011	3/1/2010	4.990	107.596	107.596	107.594	106.312	104.800	103.384	102.129	101.112
12/13/2001	12/13/2011	12/14/2009	4.920	110.154	110.154	109.817	107.742	105.765	103.996	102.489	101.298
6/3/2002	6/4/2012	3/3/2010	4.490	111.436	111.436	110.351	107.863	105.613	103.699	102.154	101.008
6/4/2002	6/4/2012	3/4/2010	4.490	111.436	111.436	110.351	107.863	105.613	103.699	102.154	101.008
12/5/2002	12/5/2012	12/7/2009	3.790	111.590	111.590	109.567	106.810	104.472	102.609	101.250	100.390
3/6/2003	3/6/2013	12/7/2009	2.990	109.900	109.900	107.462	104.795	102.696	101.192	100.253	99.977
2/5/2004	12/14/2010	12/14/2009	5.820	106.127	106.127	106.127	105.542	104.478	103.438	102.439	101.534
6/18/2004	6/20/2011	12/18/2009	4.120	106.489	106.489	106.458	105.104	103.582	102.216	101.122	100.366
7/2/2004	7/2/2014	1/4/2010	3.990	118.564	116.987	112.836	109.182	106.183	103.825	102.055	100.854
12/13/2004	12/15/2014	12/14/2009	3.320	116.977	114.558	110.425	106.941	104.216	102.194	100.832	100.140
12/17/2004	12/17/2009	12/17/2009	3.710	100.175	100.175	100.175	100.168	100.120	100.073	100.026	99.979
5/5/2005	5/5/2010	5/5/2006	4.190	101.816	101.816	101.816	101.690	101.255	100.824	100.415	100.093
5/17/2005	5/17/2010	2/17/2010	4.070	101.899	101.899	101.899	101.749	101.281	100.818	100.386	100.040
6/6/2005	6/7/2010	12/7/2009	3.890	102.042	102.042	102.042	101.849	101.323	100.806	100.346	100.049

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/18/2005	7/19/2010	1/19/2010	4.160	102.669	102.669	102.669	102.387	101.744	101.115	100.544	100.126
9/1/2005	9/1/2015	3/1/2010	4.130	124.102	119.798	114.966	110.803	107.409	104.731	102.694	101.253
9/19/2005	9/19/2012	12/21/2009	3.820	110.865	110.865	109.235	106.601	104.335	102.513	101.151	100.284
9/26/2005	9/26/2012	12/28/2009	3.890	111.140	111.140	109.468	106.807	104.508	102.647	101.247	100.323
9/30/2005	9/30/2015	12/30/2009	4.440	126.269	121.638	116.608	112.232	108.614	105.701	103.441	101.774
10/26/2005	10/26/2015	1/26/2010	4.540	127.188	122.338	117.227	112.774	109.079	106.089	103.755	102.012
10/28/2005	10/28/2015	1/28/2010	4.140	124.816	120.071	115.139	110.893	107.435	104.697	102.612	101.131
10/28/2005	10/28/2015	1/28/2010	4.310	125.835	121.029	116.012	111.670	108.103	105.253	103.050	101.442
11/4/2005	11/4/2010	2/4/2010	4.520	104.256	104.256	104.256	103.774	102.828	101.907	101.074	100.426
11/21/2005	11/21/2012	2/22/2010	4.290	112.953	112.953	110.970	108.132	105.647	103.587	101.967	100.815
1/6/2006	1/6/2016	1/6/2010	4.020	124.653	119.686	114.743	110.526	107.113	104.438	102.432	101.037
1/17/2006	1/19/2016	1/19/2010	4.080	125.101	120.074	115.080	110.808	107.343	104.613	102.549	101.096
3/20/2006	3/21/2011	12/20/2009	4.760	106.294	106.294	106.294	105.309	103.983	102.683	101.407	100.155
4/11/2006	4/11/2011	1/11/2010	4.980	106.875	106.875	106.875	105.803	104.425	103.118	101.947	100.986
4/19/2006	4/19/2013	1/19/2010	4.630	115.896	115.896	112.989	109.803	107.018	104.689	102.821	101.412
4/24/2006	4/25/2016	1/25/2010	4.440	128.010	122.591	117.288	112.710	108.941	105.918	103.564	101.818
4/28/2006	4/28/2011	1/28/2010	5.090	107.267	107.267	107.267	106.123	104.689	103.283	101.903	100.550
5/5/2006	5/6/2013	2/5/2010	4.780	116.636	116.636	113.617	110.372	107.528	105.135	103.202	101.726
5/5/2006	5/5/2016	2/5/2010	4.350	127.503	122.110	116.851	112.330	108.624	105.666	103.383	101.714
5/5/2006	5/5/2016	2/5/2010	4.530	128.668	123.196	117.840	113.212	109.388	106.308	103.900	102.105
5/5/2006	5/5/2016	2/5/2010	4.980	131.583	125.925	120.351	115.466	111.370	108.001	105.296	103.192
5/9/2006	5/9/2011	2/9/2010	5.050	107.364	107.364	107.364	106.176	104.722	103.348	102.123	101.119
5/15/2006	5/16/2016	2/16/2010	4.350	127.585	122.152	116.871	112.337	108.619	105.652	103.359	101.677
5/15/2006	5/16/2016	2/16/2010	4.520	128.691	123.181	117.810	113.171	109.342	106.256	103.848	102.050
5/19/2006	5/19/2016	2/19/2010	4.510	128.650	123.133	117.761	113.122	109.294	106.211	103.806	102.014
6/12/2006	6/13/2016	12/14/2009	4.620	129.539	123.925	118.467	113.746	109.835	106.667	104.182	102.307
6/26/2006	6/27/2016	12/28/2009	4.730	130.343	124.654	119.114	114.308	110.307	107.054	104.479	102.516
6/28/2006	6/28/2013	12/28/2009	4.950	117.957	117.879	114.571	111.181	108.202	105.679	103.622	102.019
6/30/2006	7/1/2013	12/30/2009	4.890	117.780	117.694	114.383	111.002	108.035	105.530	103.492	101.912
7/14/2006	7/15/2013	1/14/2010	4.890	117.970	117.846	114.478	111.073	108.093	105.583	103.545	101.968
7/19/2006	7/19/2011	1/19/2010	5.250	108.691	108.691	108.616	107.129	105.487	103.950	102.582	101.450
7/20/2006	7/20/2011	1/20/2010	5.300	108.789	108.789	108.712	107.219	105.553	103.922	102.324	100.759
7/24/2006	7/25/2016	1/25/2010	4.660	130.061	124.356	118.820	114.028	110.055	106.836	104.299	102.376
7/28/2006	7/28/2016	1/28/2010	4.490	128.948	123.314	117.862	113.169	109.302	106.197	103.771	101.964
8/1/2006	8/1/2016	2/1/2010	4.890	131.652	125.843	120.192	115.270	111.162	107.801	105.117	103.044
8/11/2006	8/11/2011	2/11/2010	4.790	108.236	108.236	108.126	106.550	104.871	103.338	102.012	100.974
8/21/2006	8/21/2013	2/22/2010	4.750	117.944	117.722	114.225	110.789	107.807	105.316	103.319	101.799
8/25/2006	8/25/2016	2/25/2010	4.350	128.207	122.573	117.167	112.540	108.753	105.734	103.399	101.685
8/28/2006	8/29/2011	3/1/2010	4.890	108.652	108.652	108.515	106.865	105.141	103.565	102.209	101.135
9/22/2006	9/22/2011	12/22/2009	4.790	108.795	108.795	108.620	106.869	105.089	103.476	102.089	101.003
9/29/2006	9/29/2011	12/29/2009	4.590	108.517	108.517	108.331	106.555	104.771	103.164	101.815	100.794
10/10/2006	10/10/2013	1/11/2010	4.250	116.645	116.287	112.665	109.268	106.398	104.070	102.273	100.989
10/12/2006	10/15/2013	1/12/2010	4.500	117.687	117.315	113.630	110.154	107.180	104.736	102.808	101.374
10/30/2006	10/31/2011	1/30/2010	4.850	109.430	109.430	109.196	107.274	105.330	103.433	101.580	99.770
11/3/2006	11/3/2011	2/8/2010	4.690	109.158	109.158	108.919	106.986	105.038	103.135	101.277	99.462
11/6/2006	11/6/2013	2/8/2010	4.290	117.123	116.693	112.963	109.512	106.596	104.232	102.397	101.081
11/10/2006	11/13/2012	2/10/2010	4.390	113.157	113.157	111.213	108.380	105.888	103.808	102.158	100.959
11/17/2006	11/18/2013	2/17/2010	4.350	117.508	117.044	113.253	109.758	106.800	104.393	102.510	101.145
11/24/2006	11/25/2016	2/24/2010	4.190	127.637	121.933	116.522	111.930	108.200	105.259	103.003	101.385
11/30/2006	12/2/2013	3/1/2010	4.350	117.677	117.171	113.343	109.844	106.888	104.487	102.619	101.265
12/1/2006	12/1/2016	3/1/2010	4.090	126.991	121.346	116.007	111.488	107.843	104.987	102.820	101.288
12/4/2006	12/5/2016	3/4/2010	4.080	126.937	121.295	115.956	111.439	107.798	104.944	102.783	101.257
12/5/2006	12/5/2016	12/7/2009	4.260	128.184	122.436	116.980	112.341	108.566	105.576	103.277	101.613
12/6/2006	12/6/2013	12/7/2009	4.400	117.929	117.401	113.548	110.014	107.021	104.584	102.668	101.265
12/8/2006	12/8/2016	12/8/2009	3.990	126.323	120.732	115.444	110.989	107.413	104.625	102.538	101.092
12/11/2006	12/11/2009	12/11/2009	4.690	100.143	100.143	100.143	100.138	100.108	100.077	100.047	100.016
12/12/2006	12/12/2016	12/14/2009	3.990	126.336	120.741	115.448	110.988	107.408	104.614	102.524	101.075
12/12/2006	12/12/2016	12/14/2009	4.050	126.753	121.121	115.789	111.284	107.658	104.819	102.679	101.176
12/13/2006	12/14/2009	12/14/2009	4.830	100.188	100.188	100.188	100.182	100.143	100.104	100.065	100.026
12/19/2006	12/19/2011	12/21/2009	4.490	109.341	109.341	108.979	106.903	104.953	103.235	101.828	100.788
12/19/2006	12/19/2016	12/21/2009	4.190	127.757	122.028	116.595	111.984	108.244	105.293	103.033	101.408
12/20/2006	12/20/2013	12/21/2009	4.500	118.512	117.910	114.004	110.412	107.357	104.852	102.869	101.399
12/21/2006	12/21/2011	12/21/2009	4.530	109.450	109.450	109.079	106.996	105.037	103.310	101.887	100.827
12/27/2006	12/27/2013	12/28/2009	4.500	118.599	117.962	114.038	110.432	107.365	104.850	102.860	101.381
12/28/2006	12/28/2016	12/28/2009	4.250	128.219	122.438	116.949	112.285	108.492	105.487	103.178	101.503
12/28/2006	12/28/2016	12/28/2009	4.400	129.271	123.402	117.819	113.050	109.148	106.037	103.620	101.836
1/8/2007	1/9/2012	1/8/2010	4.750	110.159	110.159	109.709	107.573	105.566	103.791	102.313	101.178
1/12/2007	1/12/2017	1/12/2010	4.420	129.499	123.610	118.006	113.220	109.303	106.178	103.749	101.956
1/16/2007	1/17/2017	1/17/2012	4.790	132.139	126.044	120.209	115.157	110.889	107.258	104.116	101.350
1/23/2007	1/23/2014	1/25/2010	4.490	118.895	118.121	114.144	110.502	107.410	104.878	102.882	101.400
1/23/2007	1/23/2017	1/25/2010	4.460	129.844	123.907	118.260	113.433	109.473	106.306	103.836	102.004
1/29/2007	1/29/2014	1/29/2010	4.790	120.237	119.435	115.390	111.656	108.449	105.781	103.643	102.011
2/2/2007	2/2/2017	2/2/2010	4.690	131.578	125.504	119.723	114.753	110.650	107.334	104.718	102.735
2/9/2007	2/9/2012	2/9/2010	4.750	110.568	110.568	109.984	107.765	105.689	103.859	102.336	101.158
2/9/2007	2/9/2017	2/9/2010	4.470	130.030	124.060	118.391	113.552	109.583	106.405	103.934	102.100
2/12/2007	2/13/2012	2/12/2010	4.880	110.912	110.912	110.309	108.074	105.976	104.114	102.552	101.331
2/15/2007	2/15/2012	2/16/2010	4.990	111.185	111.185	110.574	108.332	106.224	104.346	102.768	101.524
2/20/2007	2/21/2017	2/22/2010	4.390	129.536	123.576	117.937	113.135	109.211	106.082	103.660	101.876
2/20/2007	2/21/2017	2/21/2012	4.850	132.229	124.697	118.423	113.145	109.001	105.591	102.675	100.135

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
2/23/2007	2/23/2017	2/23/2010	4.250	128.553	122.665	117.115	112.408	108.585	105.559	103.236	101.551
2/23/2007	2/23/2017	2/23/2010	4.350	129.265	123.319	117.702	112.924	109.027	105.929	103.534	101.775
2/28/2007	3/1/2010	2/28/2010	4.890	101.236	101.236	101.236	101.197	100.943	100.690	100.439	100.188
3/2/2007	3/2/2012	3/2/2010	4.490	110.264	110.264	109.584	107.325	105.239	103.443	101.969	100.888
3/9/2007	3/10/2014	12/9/2009	4.450	119.295	118.286	114.221	110.530	107.415	104.876	102.881	101.410
3/16/2007	3/16/2017	12/16/2009	4.090	127.519	121.709	116.248	111.642	107.933	105.025	102.823	101.261
3/20/2007	3/20/2012	12/21/2009	4.550	110.629	110.629	109.872	107.564	105.438	103.603	102.101	100.975
3/21/2007	3/21/2017	12/21/2009	4.220	128.472	122.568	117.011	112.307	108.492	105.479	103.169	101.501
3/23/2007	3/23/2017	12/23/2009	4.290	128.984	123.034	117.427	112.667	108.798	105.729	103.365	101.644
3/23/2007	3/23/2017	12/23/2009	4.290	128.984	123.034	117.427	112.667	108.798	105.729	103.365	101.644
3/30/2007	3/30/2012	12/21/2009	4.670	111.039	111.039	110.234	107.838	105.484	103.195	100.968	98.801
4/2/2007	4/2/2012	1/4/2010	4.590	110.888	110.888	110.075	107.731	105.571	103.705	102.175	101.025
4/9/2007	4/10/2017	1/11/2010	4.150	128.067	122.196	116.673	112.008	108.242	105.277	103.022	101.409
4/12/2007	4/12/2017	1/12/2010	4.250	128.801	122.858	117.262	112.523	108.677	105.636	103.305	101.614
4/13/2007	4/13/2017	1/13/2010	4.450	130.254	124.187	118.456	113.572	109.576	106.385	103.903	102.065
4/23/2007	4/23/2012	1/25/2010	4.650	111.302	111.302	110.397	107.996	105.793	103.883	102.320	101.135
4/23/2007	4/23/2014	4/23/2010	4.620	120.597	119.354	115.152	111.331	108.086	105.421	103.303	101.705
4/27/2007	4/27/2012	1/27/2010	4.550	111.109	111.109	110.186	107.779	105.571	103.669	102.113	100.949
4/27/2007	4/27/2017	1/27/2010	4.250	128.880	122.903	117.281	112.521	108.658	105.604	103.261	101.557
5/2/2007	5/2/2014	5/3/2010	4.590	120.578	119.293	115.086	111.271	108.041	105.395	103.303	101.721
5/4/2007	5/5/2014	2/4/2010	4.550	120.436	119.137	114.933	111.126	107.907	105.276	103.205	101.660
5/14/2007	5/16/2011	2/16/2010	4.500	106.650	106.650	106.650	105.437	103.978	102.626	101.474	100.609
5/18/2007	5/18/2017	2/18/2010	4.190	128.579	122.597	116.997	112.270	108.446	105.433	103.130	101.474
5/22/2007	5/22/2012	2/22/2010	4.690	111.777	111.777	110.747	108.266	105.993	104.026	102.406	101.162
5/22/2007	5/22/2012	2/22/2010	4.690	111.777	111.777	110.747	108.266	105.993	104.026	102.406	101.162
5/22/2007	5/22/2012	2/22/2010	4.710	111.827	111.827	110.797	108.314	106.039	104.066	102.441	101.191
5/22/2007	5/22/2017	5/22/2012	4.750	132.708	126.374	120.390	115.205	110.789	106.981	103.632	100.635
5/25/2007	5/25/2012	2/25/2010	4.650	111.715	111.715	110.673	108.187	105.912	103.951	102.336	101.106
5/29/2007	5/30/2017	3/1/2010	4.250	129.097	123.039	117.378	112.590	108.708	105.639	103.291	101.605
6/1/2007	6/1/2010	3/1/2010	4.990	102.536	102.536	102.536	102.356	101.844	101.338	100.843	100.401
6/1/2007	6/2/2014	3/1/2010	4.500	120.562	119.127	114.875	111.044	107.820	105.194	103.129	101.604
6/7/2007	6/7/2012	12/7/2009	4.940	112.624	112.624	111.516	108.981	106.649	104.606	102.911	101.584
6/7/2007	6/7/2017	12/7/2009	4.820	133.340	126.945	120.909	115.721	111.428	107.944	105.174	103.051
6/8/2007	6/9/2014	12/8/2009	4.730	121.704	120.214	115.890	111.965	108.628	105.877	103.690	102.028
6/8/2007	6/8/2017	12/8/2009	4.490	130.910	124.707	118.880	113.925	109.867	106.617	104.093	102.215
6/11/2007	6/12/2017	12/11/2009	4.490	130.930	124.720	118.888	113.927	109.864	106.610	104.081	102.200
6/18/2007	6/19/2017	12/18/2009	4.500	131.037	124.807	118.957	113.979	109.900	106.633	104.090	102.196
6/18/2007	6/19/2017	12/18/2009	4.840	133.556	127.127	121.056	115.838	111.515	108.001	105.205	103.059
6/19/2007	6/19/2017	12/21/2009	4.650	132.144	125.827	119.875	114.793	110.604	107.223	104.566	102.558
6/20/2007	6/20/2012	12/21/2009	4.890	112.673	112.673	111.493	108.928	106.574	104.521	102.816	101.488
6/20/2007	6/20/2012	12/21/2009	4.960	112.854	112.854	111.674	109.103	106.740	104.671	102.947	101.594
6/22/2007	6/22/2017	12/22/2009	4.500	131.051	124.815	118.959	113.975	109.892	106.623	104.079	102.182
6/26/2007	6/26/2012	12/28/2009	5.130	113.380	113.380	112.165	109.567	107.166	105.047	103.267	101.847
6/28/2007	6/28/2017	12/28/2009	4.500	131.081	124.833	118.967	113.974	109.884	106.611	104.060	102.158
7/13/2007	7/13/2012	1/13/2010	4.690	112.454	112.454	111.154	108.554	106.192	104.165	102.505	101.238
7/13/2007	7/13/2017	1/13/2010	4.290	129.613	123.486	117.758	112.913	108.982	105.870	103.478	101.735
7/13/2007	7/13/2017	7/13/2011	4.900	134.162	127.664	121.527	116.247	111.849	108.209	105.169	102.577
7/18/2007	7/18/2017	7/19/2010	4.780	133.296	126.854	120.784	115.581	111.280	107.792	105.026	102.879
7/19/2007	7/19/2012	1/19/2010	4.890	113.067	113.067	111.731	109.099	106.692	104.604	102.870	101.524
7/20/2007	7/20/2017	1/20/2010	4.290	129.650	123.508	117.766	112.912	108.974	105.854	103.458	101.709
7/24/2007	7/24/2012	1/25/2010	4.820	112.946	112.946	111.585	108.947	106.541	104.460	102.742	101.412
7/27/2007	7/27/2012	1/27/2010	4.590	112.367	112.367	110.994	108.370	105.999	103.971	102.323	101.077
7/27/2007	7/28/2014	1/27/2010	4.350	120.553	118.788	114.464	110.604	107.380	104.777	102.751	101.266
7/27/2007	7/27/2017	1/27/2010	4.180	128.869	122.784	117.109	112.328	108.469	105.430	103.110	101.437
7/27/2007	7/27/2017	1/27/2010	4.250	129.391	123.258	117.533	112.699	108.784	105.690	103.318	101.593
7/30/2007	1/30/2019	2/1/2010	3.990	130.237	123.397	117.281	112.245	108.256	105.177	102.866	101.262
7/31/2007	7/31/2017	2/1/2010	3.990	127.486	121.528	115.985	111.352	107.650	104.773	102.621	101.134
7/31/2007	7/31/2017	2/1/2010	3.990	127.486	121.528	115.985	111.352	107.650	104.773	102.621	101.134
7/31/2007	7/31/2017	2/1/2010	4.060	128.008	121.999	116.404	111.715	107.953	105.022	102.809	101.252
8/2/2007	8/4/2014	2/2/2010	4.490	121.302	119.490	115.124	111.213	107.931	105.262	103.172	101.624
8/2/2007	8/2/2017	2/2/2010	4.050	127.946	121.957	116.385	111.716	107.970	105.044	102.839	101.291
8/2/2007	8/2/2017	2/2/2010	4.150	128.691	122.632	116.986	112.238	108.412	105.405	103.119	101.486
8/6/2007	8/6/2012	2/8/2010	4.490	112.222	112.222	110.800	108.169	105.809	103.811	102.200	101.015
8/9/2007	8/11/2014	8/9/2011	4.860	123.151	121.274	116.794	112.732	109.244	106.272	103.714	101.470
8/9/2007	8/9/2017	2/9/2010	3.990	127.537	121.569	116.032	111.401	107.697	104.813	102.657	101.151
8/13/2007	8/13/2012	2/16/2010	4.590	112.584	112.584	111.123	108.463	106.071	104.031	102.376	101.130
8/16/2007	8/16/2017	2/16/2010	3.990	127.576	121.587	116.038	111.397	107.685	104.798	102.636	101.127
8/17/2007	8/17/2012	2/17/2010	4.150	111.423	111.423	109.953	107.339	105.031	103.115	101.637	100.615
8/17/2007	8/17/2012	2/17/2010	4.350	111.974	111.974	110.497	107.856	105.503	103.529	101.959	100.829
8/17/2007	8/17/2017	2/17/2010	4.000	127.656	121.657	116.099	111.449	107.727	104.831	102.660	101.141
8/20/2007	8/20/2010	2/22/2010	4.590	103.353	103.353	103.353	103.007	102.273	101.553	100.878	100.329
8/20/2007	8/20/2014	8/20/2010	4.250	120.352	118.412	114.029	110.141	106.871	104.236	102.243	100.756
8/24/2007	8/24/2010	2/24/2010	4.460	103.308	103.308	103.308	102.954	102.209	101.479	100.801	100.261
8/24/2007	8/24/2012	2/24/2010	4.050	111.227	111.227	109.724	107.108	104.813	102.919	101.478	100.498
8/28/2007	8/28/2014	3/1/2010	4.350	120.927	118.989	114.606	110.703	107.451	104.826	102.782	101.303
8/30/2007	8/30/2012	3/1/2010	4.390	112.243	112.243	110.697	108.021	105.634	103.630	102.035	100.898
8/30/2007	9/2/2014	3/1/2010	3.890	118.768	116.844	112.605	108.903	105.888	103.523	101.799	100.656
8/31/2007	8/31/2012	3/1/2010	4.370	112.199	112.199	110.649	107.973	105.589	103.590	102.002	100.875
9/4/2007	9/4/2012	3/4/2010	4.190	111.743	111.743	110.179	107.527	105.189	103.246	101.747	100.696

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
9/4/2007	9/4/2012	3/4/2010	4.220	111.827	111.827	110.262	107.606	105.260	103.307	101.795	100.728
9/4/2007	9/5/2017	3/4/2010	3.890	126.945	121.001	115.513	110.943	107.310	104.500	102.424	101.011
9/6/2007	9/7/2010	12/7/2009	4.160	103.247	103.247	103.247	102.867	102.084	101.323	100.643	100.152
9/7/2007	9/7/2012	12/7/2009	4.090	111.497	111.497	109.921	107.275	104.959	103.044	101.588	100.582
9/10/2007	9/11/2017	12/10/2009	3.690	125.463	119.667	114.332	109.930	106.461	103.813	101.915	100.664
9/11/2007	9/13/2010	12/11/2009	4.430	103.532	103.532	103.532	103.140	102.340	101.558	100.843	100.275
9/11/2007	9/11/2017	12/11/2009	3.590	124.715	118.998	113.749	109.428	106.047	103.494	101.675	100.505
9/12/2007	9/12/2014	12/14/2009	3.690	117.906	115.948	111.779	108.173	105.272	103.042	101.431	100.393
9/13/2007	9/15/2014	12/14/2009	3.990	119.395	117.384	113.095	109.342	106.268	103.839	102.032	100.791
9/13/2007	9/13/2017	9/13/2010	3.990	127.721	121.689	116.111	111.451	107.726	104.824	102.613	100.934
9/14/2007	9/14/2011	12/14/2009	4.090	107.418	107.418	107.257	105.555	103.847	102.359	101.173	100.346
9/14/2007	9/14/2012	9/14/2010	4.390	112.426	112.426	110.799	108.095	105.690	103.671	102.029	100.713
9/17/2007	9/17/2012	12/17/2009	4.220	111.980	111.980	110.343	107.655	105.285	103.314	101.785	100.703
9/27/2007	9/27/2010	12/28/2009	4.250	103.553	103.553	103.553	103.137	102.298	101.481	100.739	100.187
9/27/2007	9/29/2014	9/27/2010	4.490	122.000	119.674	114.631	109.877	106.019	103.362	101.610	100.359
9/27/2007	9/27/2017	12/28/2009	3.650	125.206	119.420	114.098	109.709	106.260	103.644	101.762	100.528
9/28/2007	9/28/2010	12/28/2009	4.290	103.599	103.599	103.599	103.180	102.339	101.518	100.772	100.203
9/28/2007	9/28/2012	12/28/2009	3.850	111.047	111.047	109.366	106.707	104.417	102.570	101.185	100.294
10/3/2007	10/3/2012	1/4/2010	3.830	111.043	111.043	109.339	106.683	104.402	102.571	101.208	100.347
10/9/2007	10/9/2012	10/9/2009	4.400	112.759	112.759	110.964	108.026	105.163	102.393	99.711	97.115
10/11/2007	10/14/2014	1/11/2010	4.180	120.655	118.453	114.052	110.176	106.976	104.424	102.473	101.089
10/11/2007	10/11/2017	1/11/2010	3.990	127.843	121.783	116.179	111.501	107.763	104.854	102.679	101.160
10/15/2007	10/16/2017	1/15/2010	3.990	127.865	121.797	116.185	111.501	107.757	104.844	102.666	101.146
10/22/2007	10/22/2012	1/22/2010	3.990	111.714	111.714	109.903	107.177	104.814	102.894	101.435	100.469
10/25/2007	10/27/2014	10/25/2011	4.360	121.702	119.404	114.912	110.921	107.532	104.645	102.125	99.869
10/26/2007	10/26/2017	1/26/2010	3.390	123.368	117.769	112.650	108.475	105.252	102.859	101.191	100.218
10/29/2007	10/29/2012	1/29/2010	3.990	111.792	111.792	109.944	107.202	104.827	102.896	101.430	100.457
11/2/2007	11/3/2014	2/2/2010	3.990	119.938	117.647	113.285	109.479	106.369	103.924	102.098	100.856
11/2/2007	11/3/2014	11/2/2010	4.190	120.937	118.623	114.187	110.286	107.069	104.494	102.470	100.865
11/5/2007	11/5/2014	2/5/2010	3.990	119.960	117.658	113.291	109.481	106.366	103.918	102.090	100.847
11/5/2007	11/6/2017	11/5/2012	4.390	131.051	124.659	118.691	113.518	109.051	105.131	101.622	98.421
11/6/2007	11/6/2017	2/8/2010	3.480	124.105	118.420	113.222	108.968	105.664	103.195	101.461	100.398
11/9/2007	11/10/2014	11/9/2011	4.330	121.721	119.348	114.848	110.858	107.468	104.569	102.031	99.752
11/13/2007	11/14/2011	2/16/2010	3.760	107.457	107.457	107.201	105.267	103.473	101.975	100.838	100.135
11/13/2007	11/13/2012	2/16/2010	3.680	111.029	111.029	109.124	106.417	104.129	102.322	101.001	100.192
11/13/2007	11/13/2014	2/16/2010	3.350	116.833	114.586	110.481	107.001	104.274	102.247	100.865	100.077
11/19/2007	11/19/2014	2/19/2010	3.750	118.905	116.557	112.253	108.544	105.554	103.244	101.571	100.488
11/19/2007	11/19/2014	11/21/2011	4.270	121.527	119.107	114.607	110.622	107.243	104.346	101.808	99.524
11/19/2007	11/20/2017	11/19/2012	4.290	129.197	121.834	116.123	111.132	106.968	103.339	100.079	97.098
11/20/2007	11/20/2017	11/22/2010	3.740	126.146	120.201	114.753	110.256	106.707	103.970	101.882	100.252
11/23/2007	11/24/2017	11/23/2011	3.990	126.788	118.765	113.058	108.630	105.305	102.636	100.352	98.290
11/23/2007	11/24/2017	11/23/2011	3.990	126.788	118.765	113.058	108.630	105.305	102.636	100.352	98.290
11/29/2007	11/29/2017	3/1/2010	2.950	120.210	114.972	110.249	106.485	103.673	101.704	100.503	99.861
11/30/2007	11/30/2017	3/1/2010	3.190	122.022	116.548	111.583	107.572	104.524	102.311	100.871	100.054
12/6/2007	12/6/2017	12/7/2009	3.250	122.499	116.967	111.956	107.898	104.798	102.531	101.001	100.206
12/7/2007	12/7/2012	12/7/2009	3.450	110.570	110.570	108.558	105.870	103.641	101.915	100.731	100.126
12/10/2007	12/10/2010	12/10/2009	3.870	104.031	104.031	104.031	103.467	102.427	101.439	100.614	100.120
12/10/2007	12/11/2017	12/10/2010	3.450	124.030	118.308	113.104	108.854	105.560	103.067	101.165	99.659
12/11/2007	12/11/2012	12/11/2009	3.760	111.561	111.561	109.501	106.727	104.380	102.518	101.143	100.284
12/14/2007	12/14/2010	12/14/2009	3.690	103.885	103.885	103.885	103.305	102.256	101.267	100.487	100.058
12/20/2007	12/20/2012	12/21/2009	3.600	111.159	111.159	109.057	106.304	103.999	102.194	100.894	100.174
12/20/2007	12/20/2012	12/21/2009	3.750	111.624	111.624	109.421	106.308	103.286	100.804	100.034	99.976
12/24/2007	12/26/2017	12/24/2012	3.990	126.916	119.848	114.445	109.678	105.623	102.073	98.861	95.882
12/26/2007	12/26/2012	12/28/2009	3.460	110.783	110.783	108.658	105.931	103.670	101.919	100.713	100.090
12/26/2007	12/26/2012	12/27/2010	3.960	112.341	112.341	110.176	107.331	104.892	102.893	101.264	99.894
1/2/2008	1/2/2013	1/4/2010	3.490	110.944	110.944	108.782	106.045	103.775	102.020	100.800	100.113
1/3/2008	1/5/2015	1/3/2011	3.650	118.877	116.261	111.952	108.259	105.307	103.003	101.186	99.699
1/4/2008	1/4/2018	1/4/2011	3.360	123.415	117.764	112.629	108.453	105.233	102.791	100.906	99.390
1/7/2008	1/7/2013	1/7/2010	2.990	109.418	109.418	107.289	104.693	102.635	101.152	100.256	99.904
1/7/2008	1/7/2013	1/7/2011	3.590	111.308	111.308	109.106	106.333	104.013	102.145	100.616	99.311
1/7/2008	1/7/2015	1/7/2011	3.490	118.069	115.472	111.234	107.628	104.776	102.568	100.824	99.390
1/7/2008	1/8/2018	1/7/2010	2.590	117.587	112.750	108.409	105.021	102.576	100.959	100.119	99.846
1/8/2008	1/8/2013	1/8/2010	3.150	109.931	109.931	107.774	105.123	102.988	101.412	100.407	99.959
1/8/2008	1/8/2018	1/8/2010	2.570	117.436	112.623	108.306	104.939	102.515	100.919	100.099	99.839
1/8/2008	1/8/2018	1/8/2010	2.640	117.960	113.064	108.667	105.220	102.723	101.057	100.161	99.849
1/10/2008	1/10/2011	1/11/2010	3.100	103.496	103.496	103.496	102.810	101.706	100.750	100.131	99.884
1/11/2008	1/11/2018	1/11/2010	2.720	118.570	113.572	109.083	105.548	102.967	101.218	100.227	99.858
1/14/2008	1/16/2018	1/14/2011	3.240	122.531	116.980	111.942	107.870	104.755	102.397	100.573	99.095
1/16/2008	1/16/2013	1/19/2010	2.550	108.096	108.096	105.998	103.568	101.733	100.534	99.981	99.782
1/16/2008	1/16/2013	1/19/2010	2.690	108.540	108.540	106.414	103.921	102.006	100.703	100.039	99.805
1/16/2008	1/16/2015	1/19/2010	2.640	113.734	111.315	107.571	104.542	102.317	100.832	100.066	99.801
1/16/2008	1/16/2018	1/19/2010	2.380	116.033	111.442	107.349	104.191	101.969	100.588	99.974	99.760
1/17/2008	1/17/2018	1/19/2010	2.250	115.077	110.651	106.720	103.711	101.637	100.402	99.911	99.739
1/18/2008	1/18/2013	1/19/2010	2.550	108.110	108.110	106.001	103.570	101.733	100.531	99.980	99.782
1/18/2008	1/20/2015	1/19/2010	2.350	112.252	109.920	106.400	103.607	101.634	100.425	99.929	99.753
1/18/2008	1/18/2018	1/19/2010	2.290	115.374	110.892	106.910	103.854	101.734	100.453	99.929	99.745
1/24/2008	1/24/2012	1/25/2010	2.440	105.320	105.320	104.817	102.869	101.326	100.324	99.910	99.737
1/24/2008	1/24/2013	1/25/2010	2.500	107.992	107.992	105.866	103.448	101.637	100.464	99.948	99.748
1/25/2008	1/25/2013	1/26/2009	2.250	107.199	107.199	104.792	101.650	98.611	95.679	92.850	90.120

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	108.479	108.479	106.079	103.457	101.618	100.214	99.010	97.885
1/28/2008	1/28/2010	1/28/2009	2.630	100.431	100.431	100.431	100.407	100.243	100.080	99.917	99.754
1/28/2008	1/28/2013	1/28/2011	2.990	109.592	109.592	107.160	104.367	102.284	100.742	99.451	98.283
1/30/2008	1/30/2013	2/1/2010	2.670	108.580	108.580	106.384	103.887	101.978	100.680	100.039	99.759
2/7/2008	2/7/2013	2/8/2010	2.490	108.057	108.057	105.870	103.450	101.645	100.484	99.942	99.687
2/13/2008	2/13/2013	2/14/2011	2.920	109.497	109.497	107.182	104.565	102.477	100.811	99.402	98.140
2/14/2008	2/14/2018	2/14/2012	3.190	120.450	113.245	109.107	105.561	102.711	100.268	98.044	95.947
2/15/2008	2/16/2010	2/17/2009	2.350	100.509	100.509	100.509	100.477	100.260	100.044	99.829	99.615
2/19/2008	2/19/2013	2/19/2010	2.590	108.467	108.467	105.885	102.683	100.633	100.106	99.876	99.654
2/22/2008	2/22/2011	2/23/2009	2.500	103.118	103.118	103.118	102.254	101.021	99.812	98.625	97.461
2/25/2008	2/25/2013	2/25/2011	3.090	110.153	110.153	107.531	104.683	102.508	100.867	99.478	98.217
2/25/2008	2/26/2018	2/25/2010	2.420	116.451	111.740	107.566	104.350	102.079	100.637	99.943	99.603
3/7/2008	3/9/2015	3/7/2011	2.890	115.452	112.671	108.713	105.463	102.975	101.041	99.450	98.059
3/7/2008	3/7/2018	3/7/2013	3.550	125.149	119.219	113.704	108.903	104.701	100.941	97.507	94.323
3/10/2008	3/11/2013	3/10/2010	2.390	107.946	107.946	105.629	103.228	101.470	100.383	99.835	99.519
3/11/2008	3/11/2011	12/11/2009	2.090	102.705	102.705	102.705	101.792	100.690	100.066	99.967	99.937
3/12/2008	3/12/2013	12/14/2009	2.010	106.688	106.688	104.508	102.333	100.835	100.086	99.955	99.917
3/14/2008	3/14/2018	3/15/2010	2.400	116.320	111.638	107.493	104.296	102.044	100.635	99.912	99.514
3/17/2008	3/18/2013	3/17/2011	2.690	108.996	108.996	106.555	103.996	101.973	100.334	98.912	97.606
3/17/2008	3/17/2015	3/17/2011	2.620	114.067	110.479	105.986	103.346	101.489	100.023	98.705	97.455
3/17/2008	3/19/2018	3/18/2013	3.300	123.231	117.523	112.197	107.548	103.472	99.803	96.432	93.290
3/25/2008	3/27/2023	3/25/2013	3.150	122.409	115.367	109.972	105.500	101.698	98.312	95.186	92.236
3/26/2008	3/26/2018	3/26/2012	2.980	118.746	111.933	108.223	104.821	102.042	99.574	97.287	95.116
3/28/2008	3/28/2013	3/28/2011	2.800	109.442	109.442	106.654	103.940	101.937	100.324	98.931	97.635
3/28/2008	3/28/2018	3/28/2011	2.820	109.509	109.509	106.720	103.994	101.979	100.360	98.961	97.663
3/28/2008	3/28/2018	12/28/2009	2.020	113.486	109.329	105.674	102.934	101.107	100.144	99.912	99.834
3/28/2008	3/28/2018	3/28/2011	2.770	119.141	113.995	109.398	105.768	103.052	100.966	99.270	97.801
3/31/2008	3/31/2011	12/31/2009	1.990	102.686	102.686	102.686	101.699	100.590	100.021	99.900	99.814
4/14/2008	4/14/2015	4/14/2011	2.750	114.979	111.162	106.613	103.803	101.765	100.185	98.771	97.442
4/28/2008	4/28/2015	4/28/2011	3.250	117.829	114.620	110.375	106.831	104.037	101.820	99.979	98.370
4/28/2008	4/30/2018	1/28/2010	2.150	114.507	110.135	106.288	103.375	101.394	100.268	99.851	99.676
4/30/2008	4/30/2018	4/30/2013	3.740	125.260	118.803	113.320	108.509	104.354	100.629	97.208	94.026
5/2/2008	5/4/2015	5/2/2011	3.990	121.955	118.495	113.864	109.858	106.410	103.213	100.167	97.403
5/5/2008	5/5/2015	5/5/2011	3.170	117.451	114.240	110.049	106.564	103.823	101.642	99.815	98.207
5/8/2008	5/8/2015	5/10/2010	2.960	116.320	113.170	109.109	105.778	103.260	101.480	100.324	99.581
5/19/2008	5/19/2015	5/21/2012	4.700	126.058	121.889	116.729	112.031	107.625	103.164	98.714	94.523
5/19/2008	5/21/2018	5/20/2013	3.890	126.596	120.017	114.316	109.309	105.020	101.183	97.682	94.432
5/23/2008	5/23/2013	5/23/2011	4.040	114.251	114.251	111.193	108.052	105.198	102.383	99.584	96.979
5/23/2008	5/23/2018	5/23/2011	3.270	123.238	117.464	112.293	108.118	104.882	102.335	100.254	98.464
5/27/2008	5/27/2010	5/27/2009	2.790	101.379	101.379	101.379	101.210	100.715	100.226	99.741	99.261
5/27/2008	5/27/2011	5/27/2010	3.220	104.857	104.857	104.857	103.607	102.132	100.904	100.077	99.497
5/27/2008	5/28/2013	5/27/2011	3.490	112.360	112.360	109.165	106.080	103.615	101.602	99.895	98.359
5/29/2008	5/29/2018	5/31/2011	3.460	122.855	114.446	108.976	105.505	103.121	101.269	99.668	98.186
6/6/2008	6/6/2013	6/6/2011	3.990	114.230	114.214	110.935	107.669	104.851	102.316	99.861	97.378
6/10/2008	6/11/2012	6/10/2010	3.940	110.112	110.112	108.976	106.359	103.777	101.670	100.219	98.827
6/16/2008	6/17/2013	6/16/2011	4.070	114.640	114.593	111.271	107.972	105.191	102.943	101.013	99.290
6/24/2008	6/24/2015	6/24/2011	3.830	121.617	117.859	113.235	109.281	106.059	103.428	101.220	99.303
6/30/2008	7/1/2013	12/30/2009	2.920	110.617	110.531	107.554	104.775	102.619	101.090	100.193	99.897
6/30/2008	7/1/2013	6/30/2010	3.450	112.544	112.458	109.350	106.357	103.924	102.057	100.718	99.762
6/30/2008	6/30/2015	6/30/2010	3.370	119.077	115.437	111.063	107.398	104.534	102.392	100.875	99.815
6/30/2008	7/2/2018	6/30/2011	3.690	124.899	116.306	110.403	106.502	103.768	101.712	99.961	98.374
7/1/2008	7/1/2015	7/1/2011	4.600	126.053	121.467	115.831	111.122	107.302	103.885	100.607	97.495
7/7/2008	7/8/2013	7/7/2011	4.590	116.778	116.673	113.219	109.731	106.619	103.632	100.618	97.637
7/8/2008	7/8/2013	7/8/2011	4.250	115.535	115.430	111.997	108.607	105.648	102.930	100.269	97.670
7/10/2008	7/10/2014	7/10/2012	4.800	122.439	120.650	116.092	111.811	107.716	103.580	99.367	95.125
7/11/2008	7/11/2018	7/11/2012	3.750	125.463	117.830	112.700	108.228	104.661	101.582	98.814	96.266
7/14/2008	7/14/2015	7/15/2013	4.900	127.929	123.492	117.890	112.492	107.221	101.896	96.543	91.219
7/14/2008	7/16/2018	1/14/2010	2.500	117.322	112.421	108.088	104.737	102.350	100.806	100.052	99.803
7/14/2008	7/16/2018	7/14/2011	3.250	123.246	117.456	112.269	108.083	104.809	102.194	100.015	98.110
7/17/2008	7/17/2018	7/17/2013	3.750	125.623	119.314	113.593	108.629	104.289	100.382	96.788	93.437
7/21/2008	7/22/2013	1/21/2010	3.000	111.083	110.941	107.464	103.809	100.852	100.146	99.979	99.836
8/15/2008	8/15/2018	8/15/2011	3.830	128.093	121.667	115.882	111.116	107.295	104.204	101.632	99.419
8/19/2008	8/19/2013	8/19/2010	3.440	112.976	112.758	109.141	105.543	102.883	101.210	100.161	99.362
9/8/2008	9/9/2013	12/8/2009	2.890	111.070	110.804	107.636	104.805	102.634	101.115	100.216	99.972
5/13/2009	5/13/2014	5/13/2013	4.000	118.055	116.736	111.964	107.156	102.127	96.810	91.667	87.006
9/28/2009	9/30/2013	9/28/2012	2.920	111.355	111.030	107.224	102.897	98.130	93.687	89.898	86.697