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.

As of: 1/31/2008 **Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances**

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
2/27/1997	2/27/2012	2/27/2008	6.58	125.663	121.203	116.902	112.825	109.066	105.767	103.070	101.108
2/11/1998	2/11/2008	2/11/2008	5.59	100.171	100.146	100.115	100.084	100.054	100.023	99.993	99.962
3/13/1998	3/13/2008	3/13/2008	5.53	100.645	100.547	100.425	100.302	100.181	100.059	99.939	99.818
3/18/1998	3/18/2008	3/18/2008	5.68	100.742	100.632	100.495	100.359	100.224	100.089	99.954	99.820
3/24/1998	3/24/2008	3/24/2008	5.68	100.836	100.713	100.559	100.407	100.255	100.103	99.952	99.801
3/26/1998	3/26/2008	3/26/2008	5.49	100.839	100.710	100.552	100.394	100.236	100.079	99.922	99.766
4/8/1998	4/8/2013	4/8/2008	5.49	125.371	119.751	114.515	109.842	105.922	102.889	100.865	99.915
5/6/1998	5/6/2008	2/6/2008	5.79	101.544	101.326	101.054	100.783	100.514	100.246	100.048	99.983
5/8/1998	5/8/2008	2/8/2008	5.52	101.503	101.280	101.002	100.726	100.452	100.179	100.009	99.971
6/1/1998	6/4/2008	3/3/2008	5.52	101.917	101.632	101.281	100.934	100.589	100.247	99.987	99.850
6/16/1998	6/16/2008	3/17/2008	5.47	102.082	101.769	101.385	101.003	100.626	100.251	99.965	99.800
6/16/1998	6/16/2008	3/17/2008	5.70	102.169	101.856	101.472	101.090	100.712	100.337	100.020	99.830
6/24/1998	6/24/2008	3/24/2008	5.45	102.195	101.863	101.457	101.054	100.654	100.258	99.952	99.768
7/31/1998	7/30/2008	4/30/2008	5.39	102.710	102.290	101.783	101.281	100.784	100.302	100.004	99.830
7/31/1998	7/30/2008	4/30/2008	5.61	102.821	102.400	101.893	101.391	100.894	100.404	100.004	99.830
8/19/1998	8/19/2013	2/19/2008	5.49	126.679	120.667	115.115	110.214	106.139	102.998	100.893	100.034
8/19/1998	8/19/2013	2/19/2008	5.49	126.679	120.667	115.115	110.214	106.139	102.998	100.893	100.034
8/25/1998	8/19/2013	4/25/2008	5.49	126.679	120.668	115.115	110.212	106.134	102.993	100.892	100.034
8/27/1998	8/19/2013	4/28/2008	5.49	126.679	120.668	115.115	110.212	106.134	102.993	100.892	100.034
9/30/1998	9/30/2013	3/31/2008	5.22	125.593	119.518	113.952	109.115	105.183	102.253	100.474	99.777
10/30/1998	10/30/2008	10/30/2003	4.99	103.784	103.196	102.434	101.683	100.942	100.213	99.494	98.786
11/25/1998	11/25/2008	11/25/2003	5.20	104.319	103.692	102.856	102.034	101.225	100.429	99.646	98.876
12/14/1998	12/16/2013	3/14/2008	4.89	124.184	117.968	112.388	107.674	103.992	101.410	100.107	99.731
12/14/1998	12/16/2013	12/15/2008	5.39	127.128	120.795	115.019	109.992	105.879	102.762	100.620	99.226
12/15/1998	12/16/2013	3/17/2008	4.88	124.125	117.911	112.336	107.629	103.956	101.385	100.100	99.728
1/15/1999	1/15/2009	1/15/2004	5.16	105.017	104.324	103.343	102.381	101.438	100.514	99.607	98.717
1/19/1999	1/20/2009	1/21/2003	4.98	104.911	104.207	103.213	102.238	101.282	100.345	99.426	98.524
1/19/1999	1/20/2009	1/21/2003	4.98	104.911	104.207	103.213	102.238	101.282	100.345	99.426	98.524
1/29/1999	1/29/2009	1/29/2003	4.98	105.035	104.309	103.290	102.290	101.310	100.349	99.406	98.480
2/18/1999	2/18/2009	2/19/2008	5.08	105.419	104.650	103.584	102.539	101.513	100.542	100.014	99.913
2/18/1999	2/18/2009	2/19/2008	5.43	105.792	105.022	103.954	102.906	101.878	100.883	100.170	99.930
4/23/1999	4/27/2009	4/23/2008	5.19	106.516	105.576	104.316	103.080	101.869	100.734	100.170	99.930
4/23/1999	4/27/2009	4/23/2008	5.50	106.906	105.963	104.701	103.462	102.248	101.081	100.177	99.930
4/26/1999	4/27/2009	4/28/2008	5.19	106.516	105.576	104.316	103.080	101.869	100.734	100.170	99.930
4/26/1999	4/27/2009	4/28/2008	5.50	106.906	105.963	104.701	103.462	102.248	101.081	100.177	99.975
5/6/1999	5/6/2009	2/6/2008	5.31	106.800	105.833	104.547	103.285	102.050	100.895	100.163	99.975
6/7/1999	6/8/2009	3/7/2008	5.70	107.822	106.773	105.394	104.041	102.715	101.440	100.393	99.898
6/7/1999	6/8/2009	3/7/2008	6.04	108.288	107.237	105.855	104.498	103.168	101.876	100.729	100.046
7/1/1999	7/1/2009	4/1/2008	6.11	108.775	107.663	106.214	104.792	103.397	102.046	100.844	100.074
7/23/1999	7/23/2009	4/23/2008	5.40	108.085	106.925	105.419	103.943	102.499	101.144	100.164	100.000
9/8/1999	9/8/2009	3/10/2008	5.62	109.148	107.864	106.226	104.621	103.052	101.571	100.404	99.885
10/8/1999	10/8/2009	4/8/2008	5.58	109.548	108.184	106.458	104.768	103.120	101.578	100.393	99.815
11/1/1999	11/2/2009	5/1/2008	5.54	109.864	108.437	106.643	104.888	103.178	101.590	100.409	99.993
11/8/1999	11/9/2009	2/8/2008	5.96	110.728	109.278	107.456	105.674	103.935	102.276	100.865	100.135
11/9/1999	11/9/2009	2/11/2008	5.57	110.026	108.581	106.765	104.990	103.260	101.650	100.425	99.968
12/10/1999	12/10/2009	3/10/2008	5.71	110.770	109.239	107.329	105.463	103.646	101.944	100.595	99.942
12/17/1999	12/17/2009	3/17/2008	5.91	111.262	109.710	107.777	105.887	104.046	102.299	100.843	100.026
12/20/1999	12/21/2009	3/20/2008	5.81	111.136	109.576	107.632	105.733	103.883	102.138	100.715	99.961
12/22/1999	12/22/2009	3/24/2008	5.84	111.210	109.647	107.699	105.797	103.943	102.192	100.753	99.975
1/7/2000	1/7/2015	4/7/2008	5.95	133.848	126.308	119.544	113.679	108.800	104.953	102.155	100.489
1/13/2000	1/13/2010	4/14/2008	5.91	111.705	110.082	108.070	106.106	104.193	102.385	100.883	100.005
1/25/2000	1/25/2010	4/25/2008	5.97	112.023	110.368	108.320	106.320	104.373	102.527	100.966	100.016
1/27/2000	1/27/2010	4/28/2008	6.08	112.278	110.617	108.560	106.552	104.596	102.734	101.128	100.100
1/27/2000	1/27/2010	4/28/2008	6.21	112.541	110.877	108.818	106.807	104.848	102.974	101.331	100.217
2/7/2000	2/8/2010	2/7/2008	5.95	112.214	110.474	108.395	106.366	104.393	102.535	100.978	100.168
2/16/2000	2/8/2010	5/1/2008	5.95	112.214	110.474	108.395	106.366	104.393	102.535	100.978	100.168
2/16/2000	2/16/2010	2/19/2008	6.47	113.425	111.656	109.542	107.479	105.469	103.540	101.803	100.522
2/16/2000	2/16/2010	2/19/2008	6.69	113.882	112.109	109.990	107.923	105.908	103.963	102.186	100.774
3/6/2000	3/8/2010	3/6/2008	6.39	113.614	111.726	109.548	107.425	105.362	103.400	101.674	100.447
3/13/2000	3/15/2010	3/13/2008	6.09	113.094	111.193	109.001	106.865	104.793	102.845	101.195	100.183
3/14/2000	3/15/2010	2/14/2008	6.09	113.094	111.193	109.001	106.866	104.799	102.858	101.212	100.252
3/15/2000	3/15/2010	3/17/2008	5.95	112.793	110.894	108.706	106.573	104.507	102.579	100.986	100.077
3/21/2000	3/22/2010	3/21/2008	6.12	113.277	111.358	109.144	106.988	104.896	102.925	101.246	100.194
3/22/2000	3/22/2010	3/24/2008	5.96	112.930	111.014	108.804	106.651	104.566	102.618	101.001	100.066
4/5/2000	4/5/2010	4/7/2008	5.95	113.140	111.129	108.883	106.697	104.586	102.627	101.019	100.075
4/11/2000	4/12/2010	4/11/2008	5.95	113.255	111.227	108.960	106.754	104.623	102.646	101.020	100.058
4/11/2000	4/12/2010	4/11/2008	6.05	113.478	111.448	109.179	106.970	104.834	102.841	101.172	100.139
4/11/2000	4/12/2010	4/11/2008	6.47	114.414	112.375	110.096	107.876	105.722	103.678	101.869	100.538
4/11/2000	4/12/2010	4/11/2008	6.56	114.614	112.574	110.292	108.070	105.913	103.860	102.029	100.646
4/11/2000	4/12/2010	4/11/2008	6.75	115.038	112.993	110.707	108.480	106.316	104.247	102.373	100.896
4/12/2000	4/12/2010	4/14/2008	5.99	113.344	111.315	109.048	106.840	104.707	102.724	101.080	100.086
4/13/2000	4/13/2010	4/14/2008	6.56	114.632	112.589	110.305	108.080	105.920	103.865	102.031	100.646
4/24/2000	4/26/2010	4/24/2008	6.45	114.620	112.545	110.225	107.965	105.773	103.694	101.854	100.501
5/3/2000	5/3/2010	5/5/2008	6.24	114.265	112.112	109.775	107.502	105.309	103.258	101.514	100.402
5/3/2000	5/3/2010	5/5/2008	6.36	114.540	112.383	110.044	107.768	105.567	103.502	101.712	100.488
5/15/2000	5/17/2010	2/15/2008	6.99	116.252	114.046	111.647	109.313	107.048	104.883	102.901	101.263
5/30/2000	6/1/2010	2/29/2008	6.49	115.360	113.066	110.641	108.283	106.002	103.855	101.978	100.607
8/8/2000	8/9/2010	2/8/2008	5.99	115.270	112.709	110.095	107.562	105.148	102.961	101.193	100.239
8/18/2000	8/18/2010	2/19/2008	6.09	115.678	113.091	110.446	107.883	105.436	103.204	101.370	100.294
10/5/2000	10/5/2010	4/7/2008	5.71	115.350	112.580	109.813	107.143	104.640	102.445	100.805	99.958
10/10/2000	10/12/2010	4/10/2008	5.84	115.817	113.025	110.231	107.535	104.995	102.742	100.996	100.021

As of: 1/31/2008 **Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances**

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
10/13/2000	10/13/2010	4/14/2008	5.75	115.587	112.795	110.002	107.307	104.776	102.548	100.861	99.959
10/23/2000	10/25/2010	4/23/2008	5.64	115.474	112.654	109.829	107.107	104.559	102.337	100.693	99.959
12/5/2000	12/6/2010	3/5/2008	5.41	115.359	112.369	109.437	106.628	104.052	101.891	100.441	99.865
12/11/2000	12/13/2010	3/11/2008	5.17	114.766	111.767	108.825	106.019	103.481	101.424	100.203	99.788
12/12/2000	12/13/2010	3/12/2008	5.11	114.592	111.595	108.655	105.856	103.334	101.311	100.148	99.776
12/15/2000	12/15/2010	3/17/2008	5.12	114.649	111.647	108.701	105.895	103.364	101.331	100.153	99.769
12/20/2000	12/20/2010	3/20/2008	4.95	114.223	111.214	108.261	105.461	102.967	101.020	100.017	99.715
12/21/2000	12/21/2010	3/21/2008	4.86	113.973	110.965	108.014	105.222	102.754	100.873	99.959	99.698
1/11/2001	1/11/2011	4/11/2008	5.37	115.725	112.608	109.575	106.682	104.049	101.870	100.412	99.768
1/12/2001	1/12/2011	4/14/2008	5.30	115.531	112.414	109.381	106.492	103.874	101.725	100.337	99.740
2/5/2001	2/7/2011	2/5/2008	4.82	114.371	111.200	108.127	105.238	102.726	100.846	100.052	99.961
2/7/2001	2/7/2011	2/7/2008	4.82	114.371	111.200	108.127	105.238	102.726	100.846	100.052	99.961
2/26/2001	2/28/2011	2/26/2008	4.79	114.558	111.334	108.200	105.260	102.707	100.805	99.979	99.837
2/26/2001	2/28/2011	2/26/2008	5.06	115.401	112.165	109.015	106.035	103.382	101.292	100.157	99.859
2/26/2001	2/28/2011	2/26/2008	5.45	116.618	113.366	110.195	107.169	104.406	102.099	100.501	99.890
2/27/2001	2/28/2011	2/27/2008	4.76	114.465	111.242	108.110	105.173	102.629	100.755	99.961	99.834
2/27/2001	2/28/2011	2/27/2008	5.02	115.276	112.042	108.894	105.919	103.277	101.212	100.126	99.855
3/1/2001	3/1/2011	3/3/2008	5.27	115.990	112.724	109.559	106.556	103.862	101.687	100.340	99.862
3/14/2001	3/14/2011	3/14/2008	4.86	114.885	111.604	108.424	105.444	102.858	100.918	99.988	99.735
4/23/2001	4/25/2011	4/24/2006	5.35	116.979	113.555	110.225	107.012	103.913	100.922	98.037	95.252
6/1/2001	6/1/2011	3/3/2008	4.99	116.153	112.624	109.221	106.043	103.292	101.203	100.114	99.817
12/13/2001	12/13/2011	3/13/2008	4.92	117.999	113.888	109.960	106.377	103.375	101.168	100.062	99.748
6/3/2002	6/4/2012	3/3/2008	4.49	117.783	113.194	108.914	105.213	102.344	100.529	99.879	99.756
6/4/2002	6/4/2012	3/4/2008	4.49	117.783	113.194	108.914	105.213	102.344	100.529	99.879	99.756
12/5/2002	12/5/2012	3/5/2008	3.79	115.823	110.826	106.440	103.027	100.777	99.925	99.782	99.684
2/25/2003	2/25/2008	2/25/2008	2.85	100.198	100.140	100.071	100.002	100.036	99.981	99.925	99.598
3/4/2003	3/4/2008	3/4/2008	2.81	100.258	100.180	100.083	100.003	100.036	99.981	99.925	99.598
3/6/2003	3/6/2013	3/6/2008	2.99	112.223	107.278	103.402	100.869	99.920	99.800	99.699	99.598
1/27/2004	1/27/2009	4/28/2008	2.89	102.906	102.194	101.191	100.238	99.778	99.536	99.297	99.059
2/5/2004	2/20/2008	2/20/2008	5.48	100.304	100.258	100.203	100.147	100.091	100.036	99.981	99.925
2/5/2004	12/18/2008	12/19/2005	5.15	104.606	103.950	103.047	102.161	101.291	100.436	99.596	98.771
2/5/2004	4/26/2010	4/24/2008	6.20	114.053	111.984	109.669	107.416	105.238	103.193	101.447	100.268
2/5/2004	12/14/2010	3/14/2008	5.82	116.672	113.647	110.673	107.811	105.136	102.796	101.005	100.058
2/9/2004	2/9/2009	2/11/2008	3.11	103.240	102.501	101.473	100.473	99.982	99.957	99.932	99.907
2/17/2004	2/17/2009	2/19/2008	2.91	103.096	102.340	101.290	100.288	99.957	99.910	99.863	99.816
3/4/2004	3/4/2009	3/4/2008	2.97	103.284	102.483	101.387	100.351	99.908	99.809	99.713	99.617
3/12/2004	3/12/2009	3/12/2008	2.69	103.034	102.216	101.100	100.119	99.854	99.736	99.618	99.501
4/1/2004	4/1/2009	4/1/2008	2.77	103.278	102.414	101.247	100.197	99.824	99.654	99.486	99.319
5/24/2004	5/26/2009	2/25/2008	3.58	104.783	103.780	102.453	101.159	100.149	99.910	99.838	99.767
5/28/2004	5/28/2009	2/28/2008	3.70	104.964	103.956	102.621	101.318	100.219	99.913	99.835	99.758
6/11/2004	6/11/2009	3/11/2008	3.75	105.177	104.135	102.767	101.430	100.291	99.865	99.744	99.629
6/18/2004	6/20/2011	3/18/2008	4.12	113.432	109.900	106.528	103.552	101.261	100.050	99.742	99.603
7/2/2004	7/2/2014	4/2/2008	3.99	119.678	113.349	108.069	104.047	101.335	100.038	99.689	99.516
8/5/2004	8/5/2009	2/5/2008	3.47	105.321	104.142	102.624	101.159	100.138	99.981	99.967	99.953
12/13/2004	12/15/2014	3/13/2008	3.32	115.947	109.792	105.046	101.810	100.141	99.795	99.669	99.543
12/17/2004	12/17/2009	3/17/2008	3.71	107.070	105.549	103.656	101.829	100.369	99.845	99.704	99.573
5/5/2005	5/5/2010	2/5/2008	4.19	109.602	107.486	105.200	103.024	101.150	100.132	100.062	99.748
5/17/2005	5/17/2010	2/19/2008	4.07	109.463	107.320	105.004	102.808	100.958	100.044	99.917	99.870
6/6/2005	6/7/2010	3/6/2008	3.89	109.271	107.022	104.658	102.449	100.683	99.926	99.781	99.677
7/18/2005	7/19/2010	4/18/2008	4.16	110.400	107.975	105.482	103.132	101.154	100.013	99.640	99.421
9/1/2005	9/1/2015	3/3/2008	4.13	122.575	115.295	109.368	104.889	101.825	100.245	99.838	99.745
9/19/2005	9/19/2012	3/19/2008	3.82	115.575	110.775	106.484	103.081	100.794	99.878	99.707	99.571
9/26/2005	9/26/2012	3/26/2008	3.89	115.979	111.149	106.807	103.325	100.929	99.904	99.679	99.524
9/30/2005	9/30/2015	9/30/2008	4.44	125.221	117.656	111.348	106.413	102.847	100.584	99.336	98.566
10/26/2005	10/26/2015	10/27/2008	4.54	126.093	118.403	111.966	106.899	103.195	100.779	99.380	98.495
10/28/2005	10/28/2015	4/28/2008	4.14	123.101	115.672	109.612	105.020	101.853	100.158	99.091	98.292
10/28/2005	10/28/2015	10/28/2008	4.31	124.380	116.829	110.596	105.787	102.382	100.273	99.091	98.292
11/4/2005	11/4/2010	5/5/2008	4.52	112.442	109.601	106.803	104.177	101.927	100.402	99.985	99.974
11/21/2005	11/21/2012	2/21/2008	4.29	118.243	113.197	108.593	104.753	101.907	100.301	99.911	99.853
12/22/2005	12/22/2008	3/22/2008	4.75	104.301	103.636	102.725	101.829	100.949	100.085	99.675	99.490
1/6/2006	1/6/2016	4/7/2008	4.02	122.385	114.917	108.937	104.494	101.530	100.075	99.675	99.490
1/17/2006	1/19/2016	4/17/2008	4.08	122.992	115.440	109.353	104.795	101.703	100.108	100.000	100.000
3/20/2006	3/21/2011	3/20/2008	4.76	114.662	111.367	108.163	105.071	102.085	100.208	99.826	99.684
4/11/2006	4/11/2011	4/11/2008	4.98	115.573	112.203	108.941	105.879	103.203	101.151	100.038	99.644
4/19/2006	4/19/2013	4/21/2008	4.63	121.022	115.511	110.491	106.239	102.962	100.794	99.836	99.580
4/24/2006	4/25/2016	4/24/2008	4.44	126.337	118.301	111.691	106.575	102.905	100.647	99.836	99.580
4/28/2006	4/28/2011	4/28/2008	5.09	116.170	112.751	109.425	106.217	103.127	100.714	99.836	99.580
5/5/2006	5/6/2013	2/5/2008	4.78	121.862	116.276	111.183	106.835	103.438	101.101	100.107	99.966
5/5/2006	5/5/2016	2/5/2008	4.35	125.527	117.553	111.060	106.089	102.584	100.538	99.979	99.966
5/5/2006	5/5/2016	2/5/2008	4.53	126.966	118.854	112.169	106.972	103.219	100.859	100.013	99.968
5/5/2006	5/5/2016	5/5/2009	4.98	130.579	122.164	115.059	109.346	105.004	101.909	99.787	98.238
5/9/2006	5/9/2011	5/9/2008	5.05	116.111	112.650	109.304	106.167	103.426	101.313	100.063	99.532
5/15/2006	5/16/2016	2/15/2008	4.35	125.660	117.656	111.130	106.130	102.597	100.523	99.934	99.890
5/15/2006	5/16/2016	2/15/2008	4.52	127.024	118.890	112.182	106.968	103.200	100.827	99.966	99.898
5/19/2006	5/19/2016	2/19/2008	4.51	126.982	118.846	112.140	106.931	103.167	100.803	99.948	99.878
6/12/2006	6/13/2016	3/12/2008	4.62	127.972	119.702	112.860	107.499	103.581	101.054	99.974	99.713
6/26/2006	6/27/2016	3/26/2008	4.73	129.048	120.662	113.671	108.141	104.041	101.302	100.020	99.645
6/28/2006	6/28/2013	12/28/2006	4.95	123.321	117.558	112.275	107.718	104.087	101.489	100.115	99.680
6/28/2006	6/28/2013	3/28/2008	4.95	123.321	117.558	112.275	107.718	104.087	101.489	100.115	99.680
6/30/2006	7/1/2013	3/31/2008	4.89	122.862	117.096	111.851	107.365	103.834	101.355	100.133	99.809
7/14/2006	7/15/2013	4/14/2008	4.89	123.052	117.249	111.963	107.440	103.872	101.358	100.058	99.607

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
7/19/2006	7/19/2011	7/21/2008	5.25	117.649	113.965	110.404	107.061	104.113	101.770	100.222	99.368
7/20/2006	7/20/2011	7/21/2008	5.30	117.839	114.150	110.576	107.135	103.839	101.223	99.907	99.309
7/24/2006	7/25/2016	4/24/2008	4.66	128.622	120.223	113.264	107.796	103.777	101.145	99.907	99.309
7/28/2006	7/28/2016	4/28/2008	4.49	127.265	118.987	112.189	106.927	103.134	100.765	99.934	99.890
8/1/2006	8/1/2016	8/3/2009	4.89	130.378	121.818	114.662	108.966	104.676	101.610	99.422	97.720
8/11/2006	8/11/2011	2/11/2008	4.79	116.240	112.510	108.926	105.636	102.874	100.875	100.042	99.938
8/21/2006	8/21/2013	2/21/2008	4.75	122.580	116.709	111.406	106.929	103.455	101.085	100.068	99.879
8/25/2006	8/25/2016	2/25/2008	4.35	126.231	118.015	111.343	106.247	102.647	100.522	99.898	99.829
8/28/2006	8/29/2011	2/28/2008	4.89	116.841	113.059	109.414	106.052	103.195	101.075	100.067	99.845
9/22/2006	9/22/2011	9/22/2008	4.79	116.701	112.852	109.155	105.768	102.930	100.863	99.606	98.827
9/29/2006	9/29/2011	9/29/2008	4.59	116.052	112.198	108.502	105.155	102.417	100.501	99.375	98.643
10/10/2006	10/10/2013	4/10/2008	4.25	120.006	114.135	108.998	104.880	101.917	100.256	99.710	99.503
10/12/2006	10/15/2013	4/14/2008	4.50	121.494	115.540	110.255	105.906	102.655	100.599	99.781	99.520
10/20/2006	10/20/2009	4/20/2008	4.93	108.600	107.214	105.463	103.749	102.073	100.432	99.781	99.520
10/30/2006	10/31/2011	10/30/2008	4.85	117.346	113.382	109.550	105.876	102.602	100.505	99.445	98.699
11/3/2006	11/3/2011	11/3/2008	4.69	116.680	112.703	108.875	105.214	102.097	100.301	99.332	98.591
11/6/2006	11/6/2013	2/6/2008	4.29	120.370	114.422	109.227	105.054	102.046	100.365	99.974	99.958
11/10/2006	11/13/2012	2/11/2008	4.39	118.630	113.591	108.976	105.090	102.167	100.412	99.948	99.912
11/17/2006	11/18/2013	2/19/2008	4.35	120.861	114.864	109.599	105.339	102.231	100.410	99.926	99.876
11/24/2006	11/25/2016	2/25/2008	4.19	125.333	117.078	110.485	105.544	102.151	100.336	99.887	99.818
11/30/2006	12/2/2013	2/29/2008	4.35	120.840	114.815	109.555	105.319	102.238	100.446	99.992	99.986
12/1/2006	12/1/2016	3/3/2008	4.09	124.343	116.194	109.762	105.013	101.824	100.217	99.829	99.742
12/4/2006	12/5/2016	3/4/2008	4.08	124.304	116.155	109.724	104.979	101.796	100.197	99.809	99.711
12/5/2006	12/5/2016	12/7/2009	4.26	125.819	117.497	110.839	105.827	102.264	99.710	97.697	95.927
12/6/2006	12/6/2013	12/7/2009	4.40	121.180	115.125	109.819	105.516	102.285	99.869	97.908	96.156
12/8/2006	12/8/2016	3/10/2008	3.99	123.583	115.516	109.195	104.578	101.538	100.100	99.785	99.679
12/11/2006	12/11/2009	3/11/2008	4.69	108.859	107.340	105.446	103.597	101.843	100.471	99.878	99.733
12/12/2006	12/12/2016	3/12/2008	3.99	123.627	115.550	109.217	104.589	101.539	100.091	99.765	99.648
12/12/2006	12/12/2016	3/12/2008	4.05	124.131	115.993	109.582	104.861	101.712	100.147	99.772	99.654
12/13/2006	12/15/2008	3/13/2008	4.89	104.333	103.684	102.792	101.915	101.054	100.271	99.874	99.733
12/13/2006	12/14/2009	12/15/2008	4.83	109.164	107.635	105.730	103.869	102.087	100.564	99.425	98.530
12/19/2006	12/19/2011	3/19/2008	4.49	116.391	112.296	108.408	104.958	102.214	100.435	99.818	99.659
12/19/2006	12/19/2016	12/19/2008	4.19	125.392	117.097	110.486	105.541	102.143	100.076	98.849	97.946
12/20/2006	12/20/2013	12/22/2008	4.50	121.940	115.818	110.416	105.991	102.691	100.508	99.170	98.218
12/21/2006	12/21/2011	3/21/2008	4.53	116.574	112.470	108.570	105.098	102.322	100.489	99.820	99.652
12/27/2006	12/27/2013	12/29/2008	4.50	122.027	115.887	110.465	106.020	102.702	100.501	99.145	98.176
12/28/2006	12/28/2016	3/28/2008	4.25	126.006	117.631	110.919	105.863	102.353	100.376	99.743	99.564
12/28/2006	12/28/2016	12/29/2008	4.40	127.285	118.772	111.879	106.612	102.876	100.498	99.077	98.086
1/8/2007	1/9/2012	4/8/2008	4.75	117.588	113.407	109.432	105.860	102.941	100.892	99.931	99.608
1/12/2007	1/12/2017	1/12/2009	4.42	127.414	118.865	111.956	106.683	102.944	100.556	99.103	98.074
1/16/2007	1/17/2017	1/17/2012	4.79	130.659	121.787	114.421	108.422	103.463	99.217	95.442	91.979
1/23/2007	1/23/2014	4/23/2008	4.49	122.112	115.908	110.451	105.996	102.683	100.591	100.042	99.948
1/23/2007	1/23/2017	4/23/2008	4.46	127.893	119.278	112.291	106.933	103.108	100.746	100.042	99.948
1/29/2007	1/29/2014	1/29/2009	4.79	123.986	117.682	112.057	107.352	103.714	101.166	99.513	98.361
2/2/2007	2/2/2017	5/2/2008	4.69	129.783	120.976	113.759	108.134	104.017	101.319	99.979	99.471
2/9/2007	2/9/2012	2/11/2008	4.75	117.882	113.613	109.560	105.925	102.964	100.885	100.042	99.948
2/9/2007	2/9/2012	2/11/2008	4.75	117.882	113.613	109.560	105.925	102.964	100.885	100.042	99.948
2/9/2007	2/9/2017	2/11/2008	4.47	127.968	119.321	112.325	106.965	103.148	100.787	99.972	99.941
2/12/2007	2/13/2012	2/12/2009	4.88	118.465	114.176	110.093	106.401	103.345	101.089	99.547	98.419
2/15/2007	2/15/2012	2/17/2009	4.99	118.942	114.639	110.537	106.809	103.688	101.341	99.721	98.541
2/20/2007	2/21/2017	2/20/2008	4.39	127.424	118.819	111.878	106.601	102.868	100.609	99.916	99.858
2/20/2007	2/21/2017	2/21/2012	4.85	131.274	121.944	114.244	108.179	103.269	99.081	95.347	91.891
2/23/2007	2/23/2017	2/25/2008	4.25	126.237	117.761	110.990	105.902	102.383	100.421	99.900	99.836
2/23/2007	2/23/2017	2/25/2008	4.35	127.102	118.530	111.633	106.405	102.726	100.550	99.906	99.842
2/28/2007	3/1/2010	2/28/2008	4.89	110.323	108.479	106.356	104.286	102.268	100.532	99.997	99.995
3/2/2007	3/2/2012	3/3/2008	4.49	116.974	112.656	108.595	105.039	102.254	100.472	99.882	99.769
3/9/2007	3/10/2014	3/9/2009	4.45	122.033	115.742	110.261	105.825	102.555	100.364	98.902	97.767
3/16/2007	3/16/2017	3/17/2008	4.09	124.879	116.534	109.964	105.120	101.858	100.194	99.758	99.629
3/20/2007	3/20/2012	3/20/2008	4.55	117.450	113.080	108.959	105.334	102.464	100.582	99.840	99.661
3/21/2007	3/21/2017	3/21/2008	4.22	126.060	117.570	110.814	105.760	102.280	100.357	99.766	99.609
3/23/2007	3/23/2017	3/23/2009	4.29	126.692	118.127	111.276	106.113	102.509	100.192	98.680	97.511
3/23/2007	3/23/2017	3/23/2009	4.29	126.692	118.127	111.276	106.113	102.509	100.192	98.680	97.511
3/23/2007	3/23/2017	6/23/2009	4.29	126.692	118.127	111.276	106.113	102.509	100.192	98.680	97.511
3/30/2007	3/30/2012	3/31/2008	4.67	118.081	113.673	109.435	105.382	101.617	100.027	99.801	99.637
4/2/2007	4/2/2012	4/2/2009	4.59	117.663	113.247	109.093	105.440	102.542	100.467	98.997	97.815
4/9/2007	4/9/2009	4/9/2008	4.75	105.726	104.832	103.627	102.445	101.291	100.301	99.819	99.605
4/9/2007	4/10/2017	4/9/2008	4.15	125.458	117.014	110.349	105.410	102.055	100.265	99.692	99.484
4/12/2007	4/12/2017	4/14/2008	4.25	126.352	117.801	110.998	105.902	102.386	100.405	99.720	99.489
4/13/2007	4/13/2017	4/13/2009	4.45	128.114	119.365	112.311	106.925	103.090	100.559	98.886	97.611
4/18/2007	4/20/2009	4/18/2008	4.94	106.106	105.184	103.947	102.732	101.545	100.476	98.886	97.611
4/23/2007	4/23/2012	4/23/2008	4.65	118.187	113.711	109.488	105.758	102.775	100.749	99.831	99.505
4/23/2007	4/23/2014	4/23/2010	4.62	123.424	116.968	111.301	106.642	103.017	100.191	97.842	95.735
4/27/2007	4/27/2012	4/27/2009	4.55	117.810	113.333	109.114	105.410	102.476	100.368	98.855	97.619
4/27/2007	4/27/2017	4/28/2008	4.25	126.529	117.937	111.090	105.954	102.400	100.380	99.656	99.384
5/2/2007	5/2/2014	5/3/2010	4.59	123.138	116.682	111.051	106.441	102.857	100.043	97.687	95.566
5/4/2007	5/5/2014	5/4/2009	4.55	122.927	116.477	110.862	106.299	102.891	100.536	98.892	97.587
5/14/2007	5/16/2011	2/14/2008	4.50	114.376	110.924	107.600	104.566	102.065	100.414	99.941	99.897
5/18/2007	5/18/2017	5/19/2008	4.19	126.020	117.464	110.693	105.653	102.208	100.285	99.545	99.210
5/22/2007	5/22/2012	5/22/2009	4.69	118.612	114.044	109.740	105.940	102.887	100.638	98.997	97.660
5/22/2007	5/22/2012	5/22/2009	4.69	118.612	114.044	109.740	105.940	102.887	100.638	98.997	97.660
5/22/2007	5/22/2012	5/22/2009	4.71	118.700	114.129	109.821	106.012	102.946	100.681	99.030	97.687

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
5/22/2007	5/22/2017	5/22/2012	4.75	131.026	121.927	114.398	108.238	103.086	98.627	94.627	90.951
5/25/2007	5/25/2012	5/27/2008	4.65	118.477	113.905	109.600	105.810	102.788	100.730	99.732	99.309
5/29/2007	5/30/2017	2/29/2008	4.25	126.688	118.039	111.154	105.993	102.419	100.422	99.874	99.794
6/1/2007	6/1/2010	3/3/2008	4.99	111.810	109.550	107.167	104.862	102.721	100.973	100.062	99.817
6/1/2007	6/2/2014	3/3/2008	4.50	122.755	116.258	110.634	106.095	102.749	100.658	99.897	99.770
6/7/2007	6/7/2012	6/9/2008	4.94	119.800	115.156	110.774	106.853	103.637	101.301	99.984	99.385
6/7/2007	6/7/2017	6/8/2009	4.82	131.625	122.445	114.907	108.995	104.611	101.552	99.450	97.880
6/8/2007	6/9/2014	3/10/2008	4.73	124.297	117.697	111.912	107.151	103.531	101.104	100.020	99.749
6/8/2007	6/8/2017	3/10/2008	4.49	128.694	119.807	112.648	107.176	103.270	100.856	99.916	99.730
6/11/2007	6/12/2017	3/11/2008	4.49	128.744	119.846	112.675	107.192	103.276	100.852	99.901	99.704
6/18/2007	6/19/2017	3/18/2008	4.50	128.920	119.993	112.790	107.274	103.325	100.867	99.883	99.661
6/18/2007	6/19/2017	6/18/2009	4.84	131.965	122.734	115.139	109.168	104.726	101.612	99.461	97.851
6/19/2007	6/19/2017	6/19/2008	4.65	130.261	121.197	113.814	108.093	103.925	101.210	99.826	99.209
6/20/2007	6/20/2012	6/20/2008	4.89	119.756	115.083	110.671	106.734	103.516	101.196	99.903	99.294
6/20/2007	6/20/2012	6/20/2008	4.96	120.067	115.387	110.962	106.997	103.734	101.347	99.972	99.330
6/22/2007	6/22/2017	3/24/2008	4.50	128.958	120.022	112.810	107.286	103.330	100.864	99.872	99.642
6/26/2007	6/26/2012	6/26/2009	5.13	120.906	116.194	111.724	107.681	104.290	101.670	99.712	98.164
6/28/2007	6/28/2017	6/30/2008	4.50	129.033	120.081	112.851	107.311	103.339	100.844	99.636	99.084
7/13/2007	7/13/2012	7/14/2008	4.69	119.045	114.320	109.893	106.014	102.927	100.809	99.667	99.073
7/13/2007	7/13/2017	4/14/2008	4.29	127.107	118.351	111.393	106.176	102.558	100.476	99.734	99.490
7/13/2007	7/13/2017	7/13/2011	4.90	132.588	123.262	115.570	109.402	104.457	100.368	96.832	93.657
7/18/2007	7/18/2017	7/19/2010	4.78	131.571	122.335	114.768	108.835	104.322	100.862	98.059	95.631
7/19/2007	7/19/2012	7/20/2009	4.89	120.025	115.263	110.779	106.792	103.537	101.067	99.205	97.681
7/20/2007	7/20/2017	4/21/2008	4.29	127.191	118.416	111.437	106.201	102.565	100.466	99.529	98.938
7/24/2007	7/24/2012	7/24/2009	4.82	119.777	115.009	110.523	106.553	103.331	100.901	99.065	97.546
7/27/2007	7/27/2012	7/28/2008	4.59	118.774	114.023	109.577	105.707	102.667	100.617	99.529	98.938
7/27/2007	7/28/2014	7/28/2008	4.35	122.276	115.705	110.064	105.577	102.327	100.331	99.362	98.809
7/27/2007	7/27/2017	7/28/2008	4.18	126.289	117.612	110.763	105.675	102.196	100.199	99.270	98.733
7/27/2007	7/27/2017	7/28/2008	4.25	126.915	118.164	111.218	106.023	102.433	100.319	99.324	98.768
7/30/2007	1/30/2019	4/30/2008	3.99	126.714	117.356	110.232	105.117	101.762	100.081	99.193	98.680
7/31/2007	7/31/2017	4/30/2008	3.99	124.641	116.168	109.578	104.782	101.613	100.043	99.184	98.655
7/31/2007	7/31/2017	4/30/2008	3.99	124.641	116.168	109.578	104.782	101.613	100.043	99.184	98.655
7/31/2007	7/31/2017	7/31/2008	4.06	125.264	116.711	110.023	105.112	101.824	100.014	99.193	98.680
8/2/2007	8/4/2014	8/3/2009	4.49	123.033	116.404	110.699	106.118	102.718	100.310	98.515	97.009
8/2/2007	8/2/2017	8/4/2008	4.05	124.965	116.447	109.826	104.990	101.777	100.017	99.184	98.655
8/2/2007	8/2/2017	8/4/2008	4.15	125.854	117.227	110.463	105.469	102.095	100.179	99.261	98.708
8/6/2007	8/6/2012	8/6/2008	4.49	118.302	113.527	109.101	105.299	102.369	100.462	99.447	98.856
8/6/2007	8/6/2012	8/6/2008	4.49	118.302	113.527	109.101	105.299	102.369	100.462	99.447	98.856
8/9/2007	8/11/2014	8/9/2011	4.86	125.517	118.724	112.752	107.677	103.379	99.646	96.291	93.185
8/9/2007	8/9/2017	8/11/2008	3.99	124.510	116.045	109.486	104.732	101.603	99.909	99.109	98.571
8/9/2007	8/9/2017	8/11/2008	3.99	124.510	116.045	109.486	104.732	101.603	99.909	99.109	98.571
8/13/2007	8/13/2012	8/13/2009	4.59	118.847	114.043	109.569	105.694	102.637	100.362	98.604	97.094
8/16/2007	8/16/2017	2/19/2008	3.99	124.588	116.104	109.525	104.752	101.608	100.157	99.919	99.874
8/17/2007	8/17/2012	2/19/2008	4.15	116.878	112.117	107.760	104.143	101.502	100.167	99.921	99.874
8/17/2007	8/17/2012	8/18/2008	4.35	117.796	113.010	108.590	104.842	102.014	100.226	99.299	98.708
8/17/2007	8/17/2017	2/19/2008	4.00	124.688	116.189	109.593	104.801	101.638	100.164	99.914	99.867
8/20/2007	8/20/2010	8/20/2009	4.59	111.829	109.278	106.679	104.204	101.985	100.109	98.501	97.031
8/20/2007	8/20/2014	8/20/2009	4.25	121.661	115.066	109.451	105.027	101.861	99.677	98.003	96.524
8/20/2007	8/20/2014	8/20/2009	4.25	121.661	115.066	109.451	105.027	101.861	99.677	98.003	96.524
8/24/2007	8/24/2010	8/25/2008	4.46	111.542	108.984	106.380	103.907	101.752	100.205	99.323	98.722
8/24/2007	8/24/2012	2/25/2008	4.05	116.498	111.733	107.391	103.827	101.280	100.074	99.882	99.816
8/27/2007	8/27/2009	2/27/2008	4.63	107.382	106.139	104.545	102.982	101.482	100.298	99.911	99.836
8/28/2007	8/28/2014	8/28/2009	4.35	122.421	115.787	110.110	105.599	102.293	99.951	98.173	96.640
8/30/2007	8/30/2012	8/31/2009	4.39	118.138	113.316	108.848	105.039	102.096	99.921	98.209	96.696
8/30/2007	9/2/2014	2/29/2008	3.89	119.272	112.881	107.622	103.676	101.081	100.054	99.989	99.984
8/31/2007	8/31/2012	8/31/2009	4.37	118.058	113.237	108.774	104.976	102.047	99.889	98.185	96.676
9/4/2007	9/4/2012	9/4/2008	4.19	117.132	112.315	107.919	104.266	101.599	100.000	99.148	98.547
9/4/2007	9/4/2012	9/4/2008	4.22	117.271	112.450	108.044	104.371	101.673	100.041	99.171	98.565
9/4/2007	9/5/2017	9/4/2008	3.89	123.687	115.306	108.876	104.276	101.316	99.754	98.955	98.362
9/6/2007	9/7/2010	3/6/2008	4.16	110.871	108.256	105.632	103.185	101.164	100.062	99.807	99.704
9/7/2007	9/7/2012	9/8/2008	4.09	116.703	111.892	107.522	103.935	101.362	99.864	99.064	98.465
9/10/2007	9/11/2017	3/10/2008	3.69	121.976	113.838	107.709	103.434	100.833	99.885	99.737	99.622
9/11/2007	9/13/2010	9/11/2009	4.43	111.657	109.019	106.365	103.856	101.646	99.794	98.176	96.670
9/11/2007	9/11/2017	3/11/2008	3.59	121.096	113.094	107.128	103.030	100.621	99.861	99.726	99.611
9/12/2007	9/12/2014	6/12/2008	3.69	118.084	111.788	106.694	102.976	100.659	99.660	99.236	98.878
9/13/2007	9/15/2014	9/14/2009	3.99	120.063	113.582	108.194	104.091	101.208	99.153	97.490	95.975
9/13/2007	9/13/2017	9/13/2010	3.99	124.668	116.143	109.534	104.631	100.986	98.070	95.529	93.185
9/14/2007	9/14/2011	9/15/2008	4.09	114.027	110.244	106.662	103.555	101.215	99.810	99.026	98.414
9/14/2007	9/14/2012	9/14/2010	4.39	118.182	113.313	108.818	104.941	101.713	98.955	96.469	94.134
9/17/2007	9/17/2012	9/17/2009	4.22	117.424	112.569	108.125	104.415	101.614	99.539	97.851	96.323
9/27/2007	9/27/2010	9/29/2008	4.25	111.345	108.677	105.991	103.472	101.351	99.924	99.076	98.424
9/27/2007	9/29/2014	9/27/2010	4.49	123.452	116.431	110.286	105.545	102.028	99.178	96.657	94.289
9/27/2007	9/27/2017	3/27/2008	3.65	121.786	113.659	107.550	103.303	100.738	99.824	99.637	99.479
9/28/2007	9/28/2010	9/29/2008	4.29	111.464	108.793	106.102	103.573	101.432	99.971	99.102	98.443
9/28/2007	9/28/2012	3/28/2008	3.85	115.812	110.984	106.653	103.200	100.849	99.873	99.663	99.501
10/3/2007	10/3/2012	4/3/2008	3.83	115.629	110.788	106.486	103.094	100.821	99.882	99.653	99.480
10/9/2007	10/9/2012	10/9/2009	4.40	118.390	113.425	108.721	104.672	101.752	99.706	98.018	96.457
10/11/2007	10/14/2014	4/13/2009	4.18	121.414	114.779	109.204	104.873	101.815	99.819	98.422	97.252
10/11/2007	10/11/2017	10/14/2008	3.99	124.749	116.184	109.564	104.767	101.613	99.838	98.879	98.177
10/15/2007	10/16/2017	10/15/2008	3.99	124.804	116.226	109.592	104.782	101.614	99.826	98.855	98.139
10/22/2007	10/22/2012	10/22/2008	3.99	116.594	111.677	107.248	103.671	101.147	99.672	98.799	98.091

As of: 1/31/2008 **Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances**

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
10/25/2007	10/27/2014	10/25/2011	4.36	122.760	116.001	110.195	105.331	101.184	97.509	94.138	90.977
10/26/2007	10/26/2017	4/28/2008	3.39	119.561	111.781	106.103	102.321	100.270	99.824	99.637	99.479
10/29/2007	10/29/2009	10/29/2008	4.25	107.520	106.120	104.354	102.628	101.027	99.807	98.954	98.230
10/29/2007	10/29/2012	10/29/2009	3.99	116.672	111.737	107.288	103.686	101.011	98.987	97.261	95.654
11/2/2007	11/3/2014	11/2/2009	3.99	120.164	113.609	108.194	104.090	101.182	99.052	97.279	95.652
11/2/2007	11/3/2014	11/2/2010	4.19	121.490	114.821	109.223	104.767	101.240	98.296	95.673	93.229
11/5/2007	11/5/2014	11/5/2009	3.99	120.186	113.626	108.205	104.095	101.183	99.047	97.269	95.638
11/5/2007	11/6/2017	11/5/2012	4.39	128.457	119.380	111.994	105.921	100.748	96.173	92.007	88.143
11/6/2007	11/6/2017	5/6/2008	3.48	120.244	112.342	106.535	102.629	100.418	99.664	99.371	99.109
11/8/2007	11/9/2009	5/8/2008	4.10	107.380	105.953	104.162	102.416	100.845	99.903	99.523	99.250
11/9/2007	11/10/2014	11/9/2011	4.33	122.504	115.743	109.964	105.123	100.982	97.300	93.915	90.738
11/13/2007	11/14/2011	11/13/2008	3.76	113.257	109.321	105.672	102.670	100.589	99.374	98.549	97.805
11/13/2007	11/13/2012	11/13/2008	3.68	115.203	110.285	105.980	102.672	100.518	99.309	98.491	97.751
11/13/2007	11/13/2014	5/13/2008	3.35	116.057	109.921	105.162	101.897	100.138	99.579	99.290	99.008
11/19/2007	11/19/2014	11/19/2009	3.75	118.747	112.300	107.073	103.220	100.531	98.509	96.762	95.120
11/19/2007	11/19/2014	11/19/2009	3.75	118.747	112.300	107.073	103.220	100.531	98.509	96.762	95.120
11/19/2007	11/19/2014	11/21/2011	4.27	122.211	115.455	109.693	104.870	100.741	97.059	93.670	90.483
11/19/2007	11/20/2017	11/19/2012	4.29	127.420	118.159	110.828	104.919	99.934	95.489	91.402	87.580
11/20/2007	11/20/2017	11/22/2010	3.74	122.700	114.389	108.080	103.447	99.930	97.017	94.404	91.952
11/23/2007	11/24/2017	11/23/2011	3.99	124.550	115.420	108.655	103.638	99.560	95.957	92.629	89.477
11/23/2007	11/24/2017	11/23/2011	3.99	124.550	115.420	108.655	103.638	99.560	95.957	92.629	89.477
11/29/2007	11/29/2017	5/29/2008	2.95	115.859	108.781	103.921	100.971	99.759	99.378	99.051	98.727
11/30/2007	11/30/2017	11/30/2009	3.19	117.928	110.426	105.090	101.602	99.275	97.417	95.714	94.074
12/6/2007	12/6/2017	12/7/2009	3.25	118.295	110.718	105.316	101.766	99.384	97.488	95.761	94.101
12/7/2007	12/7/2012	12/7/2009	3.45	114.181	109.256	105.068	101.952	99.695	97.830	96.107	94.444
12/10/2007	12/10/2010	12/10/2009	3.87	110.954	108.010	105.159	102.600	100.451	98.581	96.840	95.163
12/10/2007	12/11/2017	12/10/2010	3.45	120.099	112.190	106.351	102.111	98.820	96.001	93.410	90.949
12/11/2007	12/11/2012	12/11/2009	3.76	115.739	110.731	106.336	102.911	100.407	98.421	96.648	94.962
12/14/2007	12/14/2010	12/15/2008	3.69	110.473	107.526	104.683	102.192	100.366	99.221	98.352	97.540
12/20/2007	12/20/2012	12/21/2009	3.60	115.045	110.049	105.724	102.426	100.020	98.077	96.305	94.606
12/20/2007	12/20/2012	12/21/2009	3.75	115.782	110.685	106.042	102.594	100.224	98.327	96.571	94.874
12/24/2007	12/26/2017	12/24/2012	3.99	124.798	115.857	108.863	103.191	98.316	93.911	89.837	86.009
12/26/2007	12/26/2012	12/26/2008	3.46	114.413	109.437	105.189	102.050	100.102	98.965	98.078	97.237
12/26/2007	12/26/2012	12/27/2010	3.96	116.884	111.798	107.235	103.404	100.184	97.340	94.703	92.193
1/2/2008	1/2/2013	1/4/2010	3.49	114.487	109.487	105.242	102.072	99.752	97.821	96.034	94.312
1/3/2008	1/5/2015	1/3/2011	3.65	118.128	111.690	106.511	102.492	99.236	96.385	93.744	91.230
1/4/2008	1/4/2018	1/4/2011	3.36	119.313	111.527	105.829	101.682	98.420	95.583	92.957	90.458
1/7/2008	1/7/2013	1/7/2009	2.99	112.053	107.212	103.384	100.856	99.454	98.499	97.619	96.760
1/7/2008	1/7/2013	1/7/2011	3.59	115.032	109.994	105.611	102.001	98.936	96.164	93.552	91.048
1/7/2008	1/7/2015	1/7/2011	3.49	117.078	110.760	105.743	101.873	98.712	95.907	93.285	90.781
1/7/2008	1/8/2018	4/7/2008	2.59	112.804	106.454	102.408	100.260	99.770	99.581	99.394	99.207
1/8/2008	1/8/2013	1/8/2010	3.15	112.855	107.948	103.961	101.126	99.003	97.138	95.362	93.637
1/8/2008	1/8/2018	4/8/2008	2.57	112.642	106.336	102.334	100.233	99.766	99.577	99.390	99.203
1/8/2008	1/8/2018	7/8/2008	2.64	113.210	106.750	102.595	100.314	99.490	99.046	98.619	98.196
1/10/2008	1/10/2011	1/12/2009	3.10	108.934	105.912	103.123	100.928	99.553	98.587	97.699	96.832
1/11/2008	1/11/2018	1/12/2009	2.72	113.886	107.251	102.911	100.433	99.159	98.224	97.337	96.469
1/14/2008	1/16/2018	1/14/2011	3.24	118.367	110.743	105.223	101.205	98.003	95.182	92.550	90.035
1/16/2008	1/16/2013	7/16/2008	2.55	109.942	105.317	101.986	100.099	99.413	98.957	98.509	98.065
1/16/2008	1/16/2013	1/16/2009	2.69	110.636	105.923	102.413	100.271	99.097	98.166	97.268	96.387
1/16/2008	1/16/2015	1/16/2009	2.64	111.610	106.140	102.391	100.215	99.049	98.119	97.221	96.340
1/16/2008	1/16/2018	4/16/2008	2.38	111.200	105.300	101.703	100.014	99.698	99.488	99.279	99.071
1/17/2008	1/17/2018	4/17/2008	2.25	110.214	104.619	101.312	99.917	99.666	99.453	99.242	99.031
1/18/2008	1/18/2013	1/20/2009	2.55	109.956	105.326	101.990	100.040	98.948	98.021	97.118	96.233
1/18/2008	1/20/2015	7/18/2008	2.35	109.831	104.756	101.502	99.876	99.303	98.839	98.380	97.926
1/18/2008	1/18/2018	4/18/2008	2.29	110.521	104.829	101.428	99.943	99.671	99.455	99.240	99.027
1/24/2008	1/24/2012	7/24/2009	2.44	108.479	104.575	101.613	99.675	98.192	96.797	95.434	94.097
1/24/2008	1/24/2013	1/25/2010	2.50	109.751	105.142	101.847	99.583	97.654	95.813	94.021	92.272
1/25/2008	1/25/2013	1/26/2009	2.25	108.473	103.497	100.657	99.578	98.622	97.686	96.767	95.866
1/25/2008	1/25/2013	1/25/2011	2.65	110.485	105.673	101.937	98.889	96.093	93.418	90.838	88.343
1/28/2008	1/28/2010	1/28/2009	2.63	105.318	103.709	101.724	100.065	98.989	98.039	97.110	96.200
1/28/2008	1/28/2013	1/28/2011	2.99	112.218	107.237	103.185	99.947	97.074	94.366	91.762	89.247
1/28/2008	1/29/2018	4/28/2008	1.89	107.713	103.007	100.456	99.773	99.526	99.280	99.036	98.793
1/30/2008	1/30/2013	2/1/2010	2.67	110.641	105.906	102.370	99.904	97.857	95.928	94.057	92.233