

Parallel-Shift Sensitivity Analysis for HLB-Option and Knockout Advances

The Federal Home Loan Bank of Boston (Bank) is providing estimated valuations of the specific HLB-Option and Knockout advances set forth below for members' information and convenience only. The estimated valuations are generated by models obtained from external sources which are used for the Bank's own asset/liability management purposes. The models include the use of specific assumptions, for example, market volatility and discount curve adjusted for the Bank's spread, to estimate the value of the advance. The valuations represent theoretical market values only and should not be construed as a liquidation price for the HLB-Option or Knockout advance.

It is expressly understood that in providing this valuation information to members, the Bank is not performing any advisory service. The valuations are being provided without representation or warranty and the member shall be solely responsible for any decision it makes or actions it takes based on the valuations provided. It is recommended that institutions maintain independent capabilities to value their asset/liability positions, including HLB-Option and Knockout advances.

The table depicts valuation estimates resulting from immediate parallel interest-rate movements of plus/minus 400 basis points in 100 basis point increments. In order to rule out negative interest rates, our model applies an effective floor of plus ten basis points to the yield curve for all down-rate scenarios. As a result, large down-rate shocks will reflect valuation at the floor rate of ten basis points in place of any negative interest rates that would otherwise be produced by the indicated basis point shocks. Please note that the valuation estimates are from the Federal Home Loan Bank of Boston's perspective. Since the advance is held by the member as a liability, positive price changes in the table correspond to the advance having a negative impact on the member's estimated market value of portfolio equity (and vice versa). The theoretical argument follows that as interest rates rise, the value of the advance to the Bank falls. In the case of an HLB-Option advance, the Bank would be likely to exercise its option to cancel the advance as the value falls below 100. In the case of a Knockout advance, the Bank would automatically terminate the advance on any specified cancellation date if LIBOR is equal to or greater than a predetermined "strike rate" four London Business days prior to the scheduled cancellation date. In either case, the member's cost to prepay the advance increases as interest rates fall.

To identify your advance, locate the appropriate maturity date and then verify the coupon rate. The report is sorted in ascending order by start date, followed by coupon. Once the appropriate structure is determined, read across to view the sensitivity analysis that has been performed on the advance.

If you have any questions or would like further explanation of this analysis, contact the Money Desk at 1-800-357-3452.

Start Date	Maturity		Next Call		Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date	Date	Date									
2/27/1997	2/27/2012	5/27/2008	6.58	125.546	121.216	116.992	113.008	109.365	106.170	103.525	101.519		
3/13/1998	3/13/2008	3/13/2008	5.53	100.200	100.172	100.136	100.100	100.064	100.028	99.992	99.956		
3/18/1998	3/18/2008	3/18/2008	5.68	100.284	100.246	100.196	100.146	100.096	100.046	99.996	99.946		
3/24/1998	3/24/2008	3/24/2008	5.68	100.379	100.328	100.261	100.194	100.128	100.061	99.995	99.929		
3/26/1998	3/26/2008	3/26/2008	5.49	100.396	100.342	100.269	100.197	100.125	100.053	99.981	99.909		
4/8/1998	4/8/2013	4/8/2008	5.49	125.060	119.583	114.502	110.024	106.281	103.336	101.255	100.178		
5/6/1998	5/6/2008	5/6/2008	5.79	101.078	100.957	100.770	100.584	100.400	100.216	100.033	99.851		
5/8/1998	5/8/2008	5/8/2008	5.52	101.058	100.933	100.741	100.550	100.359	100.170	99.982	99.795		
6/1/1998	6/4/2008	6/2/2008	5.52	101.472	101.312	101.048	100.785	100.524	100.265	100.063	99.886		
6/16/1998	6/16/2008	3/17/2008	5.47	101.641	101.455	101.157	100.861	100.567	100.275	100.047	99.943		
6/16/1998	6/16/2008	3/17/2008	5.70	101.710	101.524	101.226	100.930	100.635	100.343	100.086	99.953		
6/24/1998	6/24/2008	3/24/2008	5.45	101.756	101.554	101.233	100.914	100.598	100.284	100.037	99.913		
7/31/1998	7/30/2008	4/30/2008	5.39	102.276	102.022	101.598	101.177	100.760	100.347	100.012	99.799		
7/31/1998	7/30/2008	4/30/2008	5.61	102.369	102.115	101.690	101.270	100.852	100.439	100.077	99.840		
8/19/1998	8/19/2013	5/19/2008	5.49	126.286	120.438	115.069	110.385	106.504	103.459	101.303	100.096		
8/19/1998	8/19/2013	5/19/2008	5.49	126.286	120.438	115.069	110.385	106.504	103.459	101.303	100.096		
8/25/1998	8/19/2013	4/25/2008	5.49	126.285	120.436	115.065	110.378	106.491	103.444	101.289	100.153		
8/27/1998	8/19/2013	4/28/2008	5.49	126.285	120.436	115.065	110.378	106.491	103.444	101.289	100.153		
9/30/1998	9/30/2013	3/31/2008	5.22	125.187	119.286	113.918	109.304	105.548	102.684	100.758	99.970		
10/30/1998	10/30/2008	10/30/2003	4.99	103.382	103.021	102.339	101.667	101.004	100.350	99.704	99.066		
11/25/1998	11/25/2008	11/25/2003	5.20	103.900	103.515	102.763	102.022	101.292	100.573	99.865	99.166		
12/14/1998	12/16/2013	3/14/2008	4.89	123.710	117.711	112.380	107.921	104.404	101.847	100.396	99.917		
12/14/1998	12/16/2013	12/15/2008	5.39	126.609	120.473	114.922	110.147	106.238	103.218	101.066	99.634		
12/15/1998	12/16/2013	3/17/2008	4.88	123.652	117.656	112.330	107.878	104.369	101.822	100.386	99.917		
1/15/1999	1/15/2009	1/15/2004	5.16	104.601	104.174	103.276	102.395	101.529	100.679	99.844	99.023		
1/19/1999	1/20/2009	1/21/2003	4.98	104.510	104.072	103.161	102.266	101.388	100.525	99.677	98.844		
1/19/1999	1/20/2009	1/21/2003	4.98	104.510	104.072	103.161	102.266	101.388	100.525	99.677	98.844		
1/29/1999	1/29/2009	1/29/2003	4.98	104.634	104.177	103.240	102.320	101.417	100.530	99.658	98.802		
2/18/1999	2/18/2009	5/19/2008	5.08	105.009	104.552	103.567	102.600	101.653	100.741	100.046	99.790		
2/18/1999	2/18/2009	5/19/2008	5.43	105.355	104.896	103.909	102.941	101.992	101.066	100.263	99.871		
4/23/1999	4/27/2009	4/23/2008	5.19	106.098	105.508	104.329	103.171	102.037	100.952	100.153	99.790		
4/23/1999	4/27/2009	4/23/2008	5.50	106.462	105.872	104.689	103.530	102.393	101.291	100.354	99.871		
4/26/1999	4/27/2009	4/28/2008	5.19	106.098	105.508	104.329	103.171	102.037	100.952	100.153	99.790		
4/26/1999	4/27/2009	4/28/2008	5.50	106.462	105.872	104.689	103.530	102.393	101.291	100.354	99.871		
5/6/1999	5/6/2009	5/6/2008	5.31	106.372	105.771	104.565	103.382	102.223	101.122	100.259	99.800		
6/7/1999	6/8/2009	3/7/2008	5.70	107.363	106.700	105.401	104.127	102.878	101.668	100.621	100.090		
6/7/1999	6/8/2009	3/7/2008	6.04	107.802	107.137	105.836	104.559	103.306	102.085	100.966	100.248		
7/1/1999	7/1/2009	4/1/2008	6.11	108.282	107.575	106.207	104.864	103.547	102.266	101.095	100.290		
7/23/1999	7/23/2009	4/23/2008	5.40	107.650	106.897	105.471	104.073	102.704	101.401	100.363	99.860		
9/8/1999	9/8/2009	3/10/2008	5.62	108.695	107.856	106.299	104.773	103.279	101.853	100.663	100.089		
10/8/1999	10/8/2009	4/8/2008	5.58	109.098	108.198	106.552	104.940	103.365	101.873	100.654	100.022		
11/1/1999	11/2/2009	5/1/2008	5.54	109.418	108.470	106.756	105.078	103.441	101.902	100.664	99.966		
11/8/1999	11/9/2009	5/8/2008	5.96	110.248	109.281	107.540	105.836	104.170	102.573	101.175	100.228		
11/9/1999	11/9/2009	5/9/2008	5.57	109.577	108.613	106.878	105.180	103.523	101.961	100.693	99.958		
12/10/1999	12/10/2009	3/10/2008	5.71	110.310	109.280	107.450	105.660	103.915	102.264	100.886	100.157		
12/17/1999	12/17/2009	3/17/2008	5.91	110.786	109.738	107.884	106.071	104.302	102.614	101.148	100.260		
12/20/1999	12/21/2009	3/20/2008	5.81	110.668	109.612	107.747	105.925	104.147	102.457	101.011	100.184		
12/22/1999	12/22/2009	3/24/2008	5.84	110.739	109.680	107.813	105.987	104.206	102.510	101.051	100.201		
1/7/2000	1/7/2015	4/7/2008	5.95	132.850	125.608	119.163	113.625	109.029	105.365	102.619	100.829		
1/13/2000	1/13/2010	4/14/2008	5.91	111.229	110.127	108.194	106.306	104.465	102.713	101.200	100.248		
1/25/2000	1/25/2010	4/25/2008	5.97	111.542	110.411	108.442	106.519	104.643	102.854	101.293	100.270		
1/27/2000	1/27/2010	4/28/2008	6.08	111.788	110.652	108.675	106.744	104.860	103.056	101.463	100.357		
1/27/2000	1/27/2010	4/28/2008	6.21	112.041	110.903	108.923	106.989	105.103	103.289	101.665	100.467		
2/7/2000	2/8/2010	5/7/2008	5.95	111.735	110.586	108.584	106.631	104.726	102.914	101.349	100.291		
2/16/2000	2/8/2010	5/1/2008	5.95	111.735	110.586	108.584	106.631	104.726	102.914	101.349	100.291		
2/16/2000	2/16/2010	5/16/2008	6.47	112.904	111.731	109.695	107.708	105.770	103.899	102.188	100.834		
2/16/2000	2/16/2010	5/16/2008	6.69	113.343	112.167	110.127	108.136	106.193	104.310	102.564	101.110		
3/6/2000	3/8/2010	3/6/2008	6.39	113.099	111.808	109.709	107.661	105.667	103.759	102.046	100.728		
3/13/2000	3/15/2010	3/13/2008	6.09	112.603	111.299	109.185	107.123	105.118	103.218	101.565	100.436		
3/14/2000	3/15/2010	5/14/2008	6.09	112.603	111.299	109.185	107.125	105.128	103.236	101.587	100.404		
3/15/2000	3/15/2010	3/17/2008	5.95	112.313	111.011	108.900	106.841	104.841	102.956	101.344	100.336		
3/21/2000	3/22/2010	3/21/2008	6.12	112.784	111.463	109.328	107.245	105.220	103.298	101.618	100.445		
3/22/2000	3/22/2010	3/24/2008	5.96	112.450	111.131	108.999	106.920	104.900	102.995	101.363	100.327		
4/5/2000	4/5/2010	4/7/2008	5.95	112.660	111.247	109.079	106.966	104.919	103.003	101.375	100.342		
4/11/2000	4/12/2010	4/11/2008	5.95	112.776	111.347	109.157	107.024	104.958	103.023	101.377	100.326		
4/11/2000	4/12/2010	4/11/2008	6.05	112.991	111.560	109.368	107.233	105.163	103.215	101.540	100.410		
4/11/2000	4/12/2010	4/11/2008	6.47	113.892	112.457	110.255	108.110	106.025	104.036	102.246	100.860		
4/11/2000	4/12/2010	4/11/2008	6.56	114.086	112.649	110.445	108.298	106.210	104.213	102.407	100.978		
4/11/2000	4/12/2010	4/11/2008	6.75	114.494	113.054	110.846	108.694	106.601	104.592	102.751	101.230		
4/12/2000	4/12/2010	4/14/2008	5.99	112.862	111.432	109.242	107.108	105.040	103.099	101.442	100.359		
4/13/2000	4/13/2010	4/14/2008	6.56	114.104	112.664	110.458	108.307	106.217	104.218	102.409	100.977		
4/24/2000	4/26/2010	4/24/2008	6.45	114.100	112.632	110.388	108.203	106.079	104.055	102.234	100.820		
5/3/2000	5/3/2010	5/5/2008	6.24	113.763	112.212	109.953	107.754	105.633	103.639	101.895	100.614		
5/3/2000	5/3/2010	5/5/2008	6.36	114.027	112.475	110.213	108.011	105.884	103.878	102.103	100.767		
5/15/2000	5/17/2010	5/15/2008	6.99	115.689	114.094	111.774	109.515	107.324	105.226	103.290	101.654		
5/30/2000	6/1/2010	5/30/2008	6.49	114.837	113.152	110.804	108.520	106.310	104.224	102.373	100.940		
8/8/2000	8/9/2010	5/8/2008	5.99	114.842	112.866	110.327	107.866	105.520	103.378	101.597	100.390		
8/18/2000	8/18/2010	5/19/2008	6.09	115.242	113.243	110.673	108.183	105.804	103.618	101.772	100.470		
10/5/2000	10/5/2010	4/7/2008	5.71	115.052	112.745	110.051	107.455	105.016	102.857	101.155	100.200		
10/10/2000	10/12/2010	4/10/2008	5.84	115.508	113.182	110.462	107.838	105.365	103.152	101.366</			

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
12/11/2000	12/13/2010	3/11/2008	5.17	114.620	111.960	109.091	106.364	103.890	101.829	100.456	99.943
12/12/2000	12/13/2010	3/12/2008	5.11	114.450	111.792	108.926	106.204	103.744	101.713	100.407	99.941
12/15/2000	12/15/2010	3/17/2008	5.12	114.507	111.843	108.971	106.243	103.775	101.733	100.411	99.932
12/20/2000	12/20/2010	3/20/2008	4.95	114.094	111.423	108.545	105.823	103.384	101.418	100.264	99.900
12/21/2000	12/21/2010	3/21/2008	4.86	113.851	111.180	108.304	105.591	103.174	101.252	100.190	99.890
1/11/2001	1/11/2011	4/11/2008	5.37	115.618	112.780	109.821	107.009	104.453	102.293	100.746	100.004
1/12/2001	1/12/2011	4/14/2008	5.30	115.429	112.591	109.633	106.825	104.282	102.150	100.651	99.965
2/5/2001	2/7/2011	5/5/2008	4.82	114.380	111.407	108.409	105.606	103.155	101.240	100.123	99.688
2/7/2001	2/7/2011	5/7/2008	4.82	114.380	111.407	108.409	105.606	103.155	101.240	100.123	99.688
2/26/2001	2/28/2011	5/27/2008	4.79	114.570	111.543	108.479	105.619	103.117	101.161	100.018	99.688
2/26/2001	2/28/2011	5/27/2008	5.06	115.391	112.356	109.274	106.373	103.782	101.673	100.296	99.688
2/26/2001	2/28/2011	5/27/2008	5.45	116.577	113.529	110.426	107.476	104.789	102.502	100.813	100.044
2/27/2001	2/28/2011	5/27/2008	4.76	114.478	111.453	108.390	105.534	103.037	101.100	100.000	99.688
2/27/2001	2/28/2011	5/27/2008	5.02	115.269	112.235	109.156	106.258	103.677	101.589	100.250	99.688
3/1/2001	3/1/2011	6/2/2008	5.27	115.972	112.893	109.802	106.885	104.266	102.103	100.595	100.044
3/14/2001	3/14/2011	3/14/2008	4.86	114.900	111.803	108.699	105.807	103.281	101.305	100.223	99.926
4/23/2001	4/25/2011	4/24/2006	5.35	116.963	113.717	110.457	107.310	104.273	101.339	98.507	95.771
6/1/2001	6/1/2011	6/2/2008	4.99	116.182	112.793	109.468	106.384	103.708	101.611	100.376	99.995
12/13/2001	12/13/2011	3/13/2008	4.92	118.015	114.016	110.179	106.713	103.799	101.584	100.325	99.934
6/3/2002	6/4/2012	6/3/2008	4.49	117.751	113.277	109.128	105.582	102.788	100.865	99.899	99.489
6/4/2002	6/4/2012	6/4/2008	4.49	117.751	113.277	109.128	105.582	102.788	100.865	99.899	99.489
12/5/2002	12/5/2012	3/5/2008	3.79	115.723	110.893	106.713	103.449	101.173	100.121	99.973	99.959
3/4/2003	3/4/2008	3/4/2008	2.81	100.031	100.023	100.012	100.001	99.887	99.722	99.566	99.411
3/6/2003	3/6/2013	3/6/2008	2.99	112.158	107.453	103.791	101.272	100.085	99.971	99.954	99.937
1/27/2004	1/27/2009	4/28/2008	2.89	102.673	102.226	101.304	100.408	99.887	99.722	99.566	99.411
2/5/2004	12/18/2008	12/19/2005	5.15	104.192	103.789	102.970	102.164	101.372	100.593	99.826	99.071
2/5/2004	4/26/2010	4/24/2008	6.20	113.554	112.088	109.851	107.673	105.565	103.573	101.824	100.551
2/5/2004	12/14/2010	3/14/2008	5.82	116.474	113.794	110.894	108.109	105.509	103.213	101.383	100.327
2/9/2004	2/9/2009	5/9/2008	3.11	102.989	102.556	101.606	100.677	99.967	99.707	99.517	99.327
2/17/2004	2/17/2009	5/19/2008	2.91	102.861	102.412	101.441	100.493	99.867	99.628	99.416	99.205
3/4/2004	3/4/2009	6/4/2008	2.97	103.044	102.567	101.549	100.566	99.890	99.590	99.334	99.079
3/12/2004	3/12/2009	3/12/2008	2.69	102.817	102.323	101.284	100.305	99.964	99.931	99.898	99.865
4/1/2004	4/1/2009	4/1/2008	2.77	103.055	102.530	101.441	100.409	99.936	99.846	99.761	99.676
5/24/2004	5/26/2009	5/27/2008	3.58	104.495	103.857	102.608	101.386	100.311	99.761	99.506	99.270
5/28/2004	5/28/2009	5/28/2008	3.70	104.666	104.023	102.767	101.538	100.423	99.799	99.524	99.282
6/11/2004	6/11/2009	3/11/2008	3.75	104.875	104.214	102.924	101.661	100.513	99.986	99.939	99.908
6/18/2004	6/20/2011	3/18/2008	4.12	113.529	110.133	106.851	103.970	101.681	100.289	99.909	99.854
7/2/2004	7/2/2014	4/2/2008	3.99	119.146	113.160	108.216	104.433	101.762	100.298	99.875	99.776
8/5/2004	8/5/2009	5/5/2008	3.47	105.041	104.281	102.842	101.442	100.288	99.805	99.611	99.433
12/13/2004	12/15/2014	3/13/2008	3.32	115.460	109.747	105.343	102.241	100.375	99.940	99.899	99.857
12/17/2004	12/17/2009	3/17/2008	3.71	106.771	105.742	103.926	102.163	100.648	99.981	99.904	99.857
5/5/2005	5/5/2010	5/5/2006	4.19	109.265	107.737	105.526	103.415	101.546	100.303	99.815	99.670
5/17/2005	5/17/2010	5/19/2008	4.07	109.135	107.582	105.340	103.208	101.342	100.142	99.678	99.453
6/6/2005	6/7/2010	3/6/2008	3.89	108.958	107.298	105.008	102.858	101.051	100.109	99.964	99.944
7/18/2005	7/19/2010	4/18/2008	4.16	110.065	108.237	105.817	103.534	101.556	100.255	99.815	99.670
9/1/2005	9/1/2015	6/2/2008	4.13	121.739	114.924	109.421	105.239	102.271	100.477	99.722	99.409
9/19/2005	9/19/2012	3/19/2008	3.82	115.550	110.890	106.772	103.504	101.186	100.086	99.898	99.846
9/26/2005	9/26/2012	3/26/2008	3.89	115.948	111.258	107.086	103.744	101.339	100.118	99.866	99.794
9/30/2005	9/30/2015	9/30/2008	4.44	124.315	117.195	111.302	106.686	103.274	100.979	99.657	98.878
10/26/2005	10/26/2015	10/27/2008	4.54	125.158	117.912	111.900	107.169	103.641	101.220	99.753	98.863
10/28/2005	10/28/2015	4/28/2008	4.14	122.248	115.294	109.659	105.364	102.293	100.447	99.789	99.603
10/28/2005	10/28/2015	10/28/2008	4.31	123.488	116.400	110.594	106.101	102.827	100.680	99.441	98.658
11/4/2005	11/4/2010	5/5/2008	4.52	112.292	109.844	107.120	104.571	102.356	100.716	99.915	99.632
11/21/2005	11/21/2012	5/21/2008	4.29	118.129	113.227	108.800	105.133	102.350	100.542	99.915	99.632
12/22/2005	12/22/2008	3/22/2008	4.75	103.919	103.508	102.679	101.864	101.062	100.273	99.915	99.632
1/6/2006	1/6/2016	4/7/2008	4.02	121.535	114.560	109.012	104.860	101.963	100.351	99.862	99.749
1/17/2006	1/19/2016	4/17/2008	4.08	122.126	115.066	109.414	105.151	102.142	100.398	99.814	99.659
3/20/2006	3/21/2011	3/20/2008	4.76	114.684	111.574	108.440	105.412	102.488	100.434	99.942	99.884
4/11/2006	4/11/2011	4/11/2008	4.98	115.587	112.388	109.201	106.226	103.620	101.552	100.304	99.843
4/19/2006	4/19/2013	4/21/2008	4.63	120.778	115.428	110.600	106.553	103.392	101.169	100.074	99.735
4/24/2006	4/25/2016	4/24/2008	4.44	125.373	117.811	111.644	106.866	103.355	101.037	99.983	99.671
4/28/2006	4/28/2011	4/28/2008	5.09	116.175	112.931	109.675	106.532	103.499	100.976	99.959	99.758
5/5/2006	5/6/2013	5/5/2008	4.78	121.582	116.158	111.263	107.131	103.871	101.529	100.211	99.699
5/5/2006	5/5/2016	5/5/2008	4.35	124.579	117.089	111.040	106.406	103.045	100.895	99.922	99.597
5/5/2006	5/5/2016	5/5/2008	4.53	125.979	118.336	112.100	107.250	103.675	101.268	100.065	99.640
5/5/2006	5/5/2016	5/5/2009	4.98	129.503	121.521	114.855	109.515	105.416	102.416	100.293	98.751
5/9/2006	5/9/2011	5/9/2008	5.05	116.128	112.823	109.554	106.513	103.848	101.722	100.362	99.754
5/15/2006	5/16/2016	5/15/2008	4.35	124.712	117.195	111.113	106.449	103.059	100.881	100.405	99.860
5/15/2006	5/16/2016	5/15/2008	4.52	126.039	118.377	112.119	107.250	103.658	101.237	100.018	99.660
5/19/2006	5/19/2016	5/19/2008	4.51	125.998	118.338	112.080	107.215	103.627	101.212	100.018	99.660
6/12/2006	6/13/2016	3/12/2008	4.62	126.955	119.153	112.758	107.752	104.026	101.476	100.237	99.923
6/26/2006	6/27/2016	3/26/2008	4.73	128.010	120.084	113.538	108.372	104.479	101.758	100.309	99.849
6/28/2006	6/28/2013	12/28/2006	4.95	123.003	117.406	112.319	107.981	104.503	101.927	100.405	99.860
6/28/2006	6/28/2013	3/28/2008	4.95	123.003	117.406	112.319	107.981	104.503	101.927	100.405	99.860
6/30/2006	7/1/2013	3/31/2008	4.89	122.522	116.927	111.888	107.629	104.248	101.787	100.414	99.995
7/14/2006	7/15/2013	4/14/2008	4.89	122.713	117.083	112.002	107.703	104.285	101.788	100.349	99.818
7/19/2006	7/19/2011	7/21/2008	5.25	117.667	114.115	110.630	107.380	104.518	102.194	100.573	99.670
7/20/2006	7/20/2011	7/21/2008	5.30	117.854	114.296	110.791	107.415	104.172	101.506	100.117	99.541
7/24/2006	7/25/2016	4/24/2008	4.66	127.589	119.661	113.150	108.041	104.222	101.578	100.189	99.720
7/28/2006	7/28/2016	4/28/2008	4.49	126.269	118.476	112.131	107.211	103.586	101.165	100.019	99.660
8/1/2006	8/1/2016	8/3/2009	4.89	129.305	121.194	114.484	109.160	105.111	102.141	99.965	98.273

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
8/25/2006	8/25/2016	5/27/2008	4.35	125.271	117.552	111.330	106.573	103.118	100.890	100.405	99.860
8/28/2006	8/29/2011	5/28/2008	4.89	116.915	113.246	109.681	106.419	103.632	101.485	100.184	99.605
9/22/2006	9/22/2011	9/22/2008	4.79	116.769	113.031	109.416	106.132	103.367	101.271	99.940	99.156
9/29/2006	9/29/2011	9/29/2008	4.59	116.135	112.392	108.782	105.539	102.853	100.894	99.705	98.978
10/10/2006	10/10/2013	4/10/2008	4.25	119.656	114.010	109.132	105.232	102.350	100.534	99.886	99.745
10/12/2006	10/15/2013	4/14/2008	4.50	121.120	115.378	110.341	106.225	103.090	100.968	100.007	99.742
10/20/2006	10/20/2009	4/20/2008	4.93	108.203	107.280	105.608	103.971	102.369	100.799	99.682	98.973
10/30/2006	10/31/2011	10/30/2008	4.85	117.395	113.538	109.768	106.150	102.892	100.765	99.682	98.973
11/3/2006	11/3/2011	11/3/2008	4.69	116.727	112.855	109.094	105.493	102.403	100.549	99.596	98.919
11/6/2006	11/6/2013	5/6/2008	4.29	119.988	114.277	109.348	105.409	102.487	100.624	99.830	99.576
11/10/2006	11/13/2012	5/12/2008	4.39	118.508	113.609	109.164	105.459	102.611	100.717	99.853	99.550
11/17/2006	11/18/2013	5/19/2008	4.35	120.473	114.711	109.709	105.687	102.676	100.712	99.682	98.973
11/24/2006	11/25/2016	5/27/2008	4.19	124.390	116.657	110.524	105.904	102.625	100.592	99.596	98.919
11/30/2006	12/2/2013	5/30/2008	4.35	120.423	114.641	109.657	105.662	102.680	100.756	99.903	99.615
12/1/2006	12/1/2016	6/2/2008	4.09	123.417	115.797	109.825	105.378	102.284	100.496	99.995	99.993
12/4/2006	12/5/2016	6/4/2008	4.08	123.381	115.762	109.792	105.347	102.256	100.477	99.977	99.963
12/5/2006	12/5/2016	12/7/2009	4.26	124.852	117.046	110.848	106.169	102.762	100.258	98.264	96.527
12/6/2006	12/6/2013	12/7/2009	4.40	120.755	114.941	109.906	105.847	102.746	100.384	98.451	96.738
12/8/2006	12/8/2016	3/10/2008	3.99	122.685	115.157	109.295	104.969	101.986	100.370	99.961	99.939
12/11/2006	12/11/2009	3/11/2008	4.69	108.481	107.458	105.642	103.867	102.169	100.745	100.067	99.937
12/12/2006	12/12/2016	3/12/2008	3.99	122.729	115.192	109.318	104.982	101.988	100.361	99.941	99.908
12/12/2006	12/12/2016	3/12/2008	4.05	123.216	115.613	109.661	105.238	102.169	100.428	99.943	99.910
12/13/2006	12/15/2008	3/13/2008	4.89	103.939	103.544	102.734	101.938	101.155	100.415	100.010	99.922
12/13/2006	12/14/2009	12/15/2008	4.83	108.774	107.743	105.916	104.130	102.410	100.897	99.748	98.872
12/19/2006	12/19/2011	3/19/2008	4.49	116.440	112.454	108.667	105.337	102.648	100.773	100.000	99.881
12/19/2006	12/19/2016	12/19/2008	4.19	124.442	116.672	110.521	105.895	102.613	100.502	99.225	98.335
12/20/2006	12/20/2013	12/22/2008	4.50	121.505	115.621	110.486	106.307	103.129	100.930	99.540	98.594
12/21/2006	12/21/2011	3/21/2008	4.53	116.619	112.626	108.826	105.475	102.757	100.839	100.017	99.871
12/27/2006	12/27/2013	12/29/2008	4.50	121.592	115.691	110.536	106.338	103.141	100.924	99.517	98.552
12/28/2006	12/28/2016	3/28/2008	4.25	125.041	117.189	110.936	106.209	102.824	100.691	99.905	99.806
12/28/2006	12/28/2016	12/29/2008	4.40	126.283	118.282	111.854	106.931	103.346	100.949	99.469	98.475
1/8/2007	1/9/2012	4/8/2008	4.75	117.603	113.532	109.657	106.212	103.377	101.291	100.174	99.818
1/12/2007	1/12/2017	1/12/2009	4.42	126.398	118.360	111.919	106.990	103.409	101.008	99.500	98.470
1/16/2007	1/17/2017	1/17/2012	4.79	129.563	121.170	114.238	108.555	103.782	99.635	95.913	92.484
1/23/2007	1/23/2014	4/23/2008	4.49	121.647	115.691	110.512	106.307	103.117	100.962	99.977	99.691
1/23/2007	1/23/2017	4/23/2008	4.46	126.867	118.763	112.243	107.232	103.573	101.150	100.026	99.687
1/29/2007	1/29/2014	1/29/2009	4.79	123.492	117.423	112.063	107.619	104.142	101.618	99.922	98.749
2/2/2007	2/2/2017	5/2/2008	4.69	128.713	120.395	113.643	108.390	104.478	101.792	100.313	99.723
2/9/2007	2/9/2012	5/9/2008	4.75	117.902	113.742	109.790	106.281	103.406	101.288	100.109	99.664
2/9/2007	2/9/2012	5/9/2008	4.75	117.902	113.742	109.790	106.281	103.406	101.288	100.109	99.664
2/9/2007	2/9/2012	5/11/2008	4.75	117.902	113.742	109.790	106.281	103.406	101.288	100.109	99.664
2/9/2007	2/9/2017	5/9/2008	4.47	126.944	118.807	112.279	107.272	103.626	101.207	100.022	99.599
2/12/2007	2/13/2012	2/12/2009	4.88	118.476	114.297	110.311	106.745	103.783	101.535	99.966	98.835
2/15/2007	2/15/2012	2/17/2009	4.99	118.945	114.753	110.745	107.142	104.120	101.788	100.139	98.962
2/20/2007	2/21/2017	5/20/2008	4.39	126.420	118.333	111.862	106.926	103.350	101.019	100.139	98.962
2/20/2007	2/21/2017	2/21/2012	4.85	130.052	121.183	114.012	108.288	103.576	99.476	95.788	92.366
2/23/2007	2/23/2017	5/23/2008	4.25	125.269	117.320	111.012	106.258	102.858	100.728	99.919	99.853
2/23/2007	2/23/2017	5/23/2008	4.35	126.108	118.057	111.627	106.740	103.207	100.934	99.131	97.978
2/28/2007	3/1/2010	5/28/2008	4.89	109.929	108.671	106.624	104.627	102.679	100.777	99.131	97.978
3/2/2007	3/2/2012	6/2/2008	4.49	116.996	112.785	108.837	105.413	102.688	100.815	100.066	99.987
3/9/2007	3/10/2014	3/9/2009	4.45	121.536	115.510	110.321	106.143	102.997	100.807	99.329	98.219
3/16/2007	3/16/2017	3/17/2008	4.09	123.947	116.141	110.034	105.492	102.327	100.478	99.926	99.882
3/20/2007	3/20/2012	3/20/2008	4.55	117.467	113.210	109.200	105.710	102.911	100.931	100.059	99.878
3/21/2007	3/21/2017	3/21/2008	4.22	125.095	117.137	110.844	106.117	102.754	100.658	99.919	99.853
3/23/2007	3/23/2017	3/23/2009	4.29	125.709	117.671	111.288	106.460	102.990	100.670	99.131	97.978
3/23/2007	3/23/2017	3/23/2009	4.29	125.709	117.671	111.288	106.460	102.990	100.670	99.131	97.978
3/23/2007	3/23/2017	6/23/2009	4.29	125.709	117.671	111.288	106.460	102.990	100.670	99.131	97.978
3/30/2007	3/30/2012	3/31/2008	4.67	118.090	113.788	109.612	105.617	101.795	99.993	99.910	99.827
4/2/2007	4/2/2012	4/2/2009	4.59	117.660	113.353	109.313	105.798	102.979	100.903	99.423	98.270
4/9/2007	4/9/2009	4/9/2008	4.75	105.344	104.795	103.670	102.566	101.486	100.507	99.974	99.807
4/9/2007	4/10/2017	4/9/2008	4.15	124.507	116.598	110.396	105.773	102.523	100.568	99.878	99.733
4/12/2007	4/12/2017	4/14/2008	4.25	125.375	117.353	111.017	106.252	102.858	100.744	99.915	99.731
4/13/2007	4/13/2017	4/13/2009	4.45	127.085	118.852	112.269	107.231	103.567	101.049	99.353	98.096
4/18/2007	4/20/2009	4/18/2008	4.94	105.708	105.135	103.977	102.841	101.728	100.684	100.027	99.773
4/23/2007	4/23/2012	4/23/2008	4.65	118.179	113.819	109.710	106.118	103.220	101.128	100.058	99.719
4/23/2007	4/23/2014	4/23/2010	4.62	122.877	116.690	111.315	106.925	103.481	100.745	98.444	96.380
4/27/2007	4/27/2012	4/27/2009	4.55	117.810	113.447	109.342	105.776	102.918	100.807	99.286	98.078
4/27/2007	4/27/2017	4/28/2008	4.25	125.552	117.493	111.113	106.307	102.874	100.721	99.852	99.628
5/2/2007	5/2/2014	5/3/2010	4.59	122.570	116.393	111.066	106.729	103.322	100.598	98.289	96.209
5/4/2007	5/5/2014	5/4/2009	4.55	122.364	116.196	110.888	106.595	103.341	101.008	99.354	98.072
5/14/2007	5/16/2011	5/14/2008	4.50	114.436	111.136	107.895	104.957	102.501	100.739	99.876	99.555
5/18/2007	5/18/2017	5/19/2008	4.19	125.059	117.042	110.737	106.024	102.689	100.635	99.767	99.474
5/22/2007	5/22/2012	5/22/2009	4.69	118.583	114.132	109.947	106.293	103.339	101.101	99.450	98.136
5/22/2007	5/22/2012	5/22/2009	4.69	118.583	114.132	109.947	106.293	103.339	101.101	99.450	98.136
5/22/2007	5/22/2012	5/22/2009	4.71	118.669	114.216	110.026	106.363	103.396	101.145	99.484	98.163
5/22/2007	5/22/2017	5/22/2012	4.75	129.931	121.322	114.217	108.350	103.371	99.001	95.052	91.404
5/25/2007	5/25/2012	5/27/2008	4.65	118.451	113.996	109.811	106.168	103.236	101.113	99.985	99.541
5/29/2007	5/30/2017	5/29/2008	4.25	125.711	117.597	111.178	106.345	102.890	100.718	100.306	99.648
6/1/2007	6/1/2010	6/2/2008	4.99	111.408	109.745	107.437	105.203	103.112	101.349	100.298	99.995
6/1/2007	6/2/2014	6/2/2008	4.50	122.168	115.965	110.659	106.394	103.183	101.029	100.126	99.987
6/7/2007	6/7/2012	6/9/2008	4.94	119.734	115.205	110.938	107.166	104.057	101.727		

Start Date	Maturity	Next Call	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
	Date	Date									
6/8/2007	6/8/2017	3/10/2008	4.49	127.650	119.281	112.596	107.474	103.749	101.276	100.178	99.950
6/11/2007	6/12/2017	3/11/2008	4.49	127.700	119.321	112.624	107.491	103.756	101.272	100.164	99.925
6/18/2007	6/19/2017	3/18/2008	4.50	127.874	119.467	112.737	107.573	103.806	101.290	100.148	99.881
6/18/2007	6/19/2017	6/18/2009	4.84	130.843	122.108	114.986	109.398	105.183	102.143	99.990	98.379
6/19/2007	6/19/2017	6/19/2008	4.65	129.181	120.626	113.714	108.364	104.395	101.673	100.155	99.493
6/20/2007	6/20/2012	6/20/2008	4.89	119.694	115.139	110.843	107.054	103.941	101.619	100.216	99.559
6/20/2007	6/20/2012	6/20/2008	4.96	119.999	115.438	111.127	107.311	104.156	101.776	100.301	99.594
6/22/2007	6/22/2017	3/24/2008	4.50	127.912	119.497	112.758	107.585	103.811	101.287	100.137	99.863
6/26/2007	6/26/2012	6/26/2009	5.13	120.826	116.234	111.872	107.974	104.708	102.137	100.185	98.652
6/28/2007	6/28/2017	6/30/2008	4.50	127.987	119.557	112.800	107.611	103.821	101.282	99.946	99.360
7/13/2007	7/13/2012	7/14/2008	4.69	118.979	114.372	110.074	106.348	103.358	101.203	99.968	99.367
7/13/2007	7/13/2017	4/14/2008	4.29	126.110	117.890	111.408	106.524	103.037	100.841	99.944	99.729
7/13/2007	7/13/2017	7/13/2011	4.90	131.449	122.615	115.384	109.569	104.841	100.865	97.386	94.239
7/18/2007	7/18/2017	7/19/2010	4.78	130.458	121.723	114.631	109.074	104.797	101.447	98.700	96.293
7/19/2007	7/19/2012	7/20/2009	4.89	119.945	115.303	110.939	107.106	103.964	101.540	99.689	98.181
7/20/2007	7/20/2017	4/21/2008	4.29	126.193	117.956	111.453	106.550	103.045	100.831	99.916	99.682
7/24/2007	7/24/2012	7/24/2009	4.82	119.701	115.054	110.691	106.874	103.764	101.372	99.545	98.049
7/27/2007	7/27/2012	7/28/2008	4.59	118.716	114.086	109.773	106.058	103.101	101.004	99.831	99.235
7/27/2007	7/28/2014	7/28/2008	4.35	121.682	115.432	110.121	105.900	102.766	100.710	99.655	99.123
7/27/2007	7/27/2017	7/28/2008	4.18	125.322	117.191	110.810	106.044	102.674	100.579	99.562	99.058
7/27/2007	7/27/2017	7/28/2008	4.25	125.929	117.719	111.247	106.381	102.913	100.721	99.629	99.091
7/30/2007	1/30/2019	4/30/2008	3.99	125.766	117.015	110.371	105.555	102.256	100.389	99.751	99.564
7/31/2007	7/31/2017	4/30/2008	3.99	123.724	115.808	109.680	105.173	102.065	100.314	99.729	99.545
7/31/2007	7/31/2017	4/30/2008	3.99	123.724	115.808	109.680	105.173	102.065	100.314	99.729	99.545
7/31/2007	7/31/2017	7/31/2008	4.06	124.327	116.326	110.099	105.491	102.284	100.361	99.459	98.974
8/2/2007	8/4/2014	8/3/2009	4.49	122.410	116.097	110.722	106.421	103.177	100.810	99.025	97.542
8/2/2007	8/2/2017	8/4/2008	4.05	124.038	116.073	109.919	105.389	102.262	100.399	99.503	99.007
8/2/2007	8/2/2017	8/4/2008	4.15	124.901	116.819	110.522	105.851	102.582	100.571	99.577	99.056
8/6/2007	8/6/2012	8/6/2008	4.49	118.251	113.597	109.309	105.670	102.818	100.855	99.771	99.183
8/6/2007	8/6/2012	8/6/2008	4.49	118.251	113.597	109.309	105.670	102.818	100.855	99.771	99.183
8/9/2007	8/11/2014	8/9/2011	4.86	124.843	118.342	112.676	107.859	103.733	100.096	96.800	93.736
8/9/2007	8/9/2017	8/11/2008	3.99	123.599	115.693	109.602	105.141	102.081	100.288	99.427	98.927
8/9/2007	8/9/2017	8/11/2008	3.99	123.599	115.693	109.602	105.141	102.081	100.288	99.427	98.927
8/13/2007	8/13/2012	8/13/2009	4.59	118.789	114.106	109.767	106.054	103.099	100.848	99.099	97.617
8/16/2007	8/16/2017	5/16/2008	3.99	123.676	115.754	109.642	105.162	102.084	100.335	99.427	98.927
8/17/2007	8/17/2012	5/19/2008	4.15	116.853	112.219	108.014	104.552	101.947	100.338	99.427	98.927
8/17/2007	8/17/2012	8/18/2008	4.35	117.756	113.094	108.820	105.227	102.458	100.606	99.604	99.042
8/17/2007	8/17/2017	5/19/2008	4.00	123.774	115.835	109.708	105.210	102.115	100.347	99.427	98.927
8/20/2007	8/20/2010	8/20/2009	4.59	111.513	109.537	107.012	104.604	102.425	100.563	98.974	97.543
8/20/2007	8/20/2014	8/20/2009	4.25	121.062	114.797	109.526	105.368	102.310	100.143	98.492	97.061
8/20/2007	8/20/2014	8/20/2009	4.25	121.062	114.797	109.526	105.368	102.310	100.143	98.492	97.061
8/24/2007	8/24/2010	8/25/2008	4.46	111.237	109.254	106.722	104.315	102.178	100.567	99.619	99.048
8/24/2007	8/24/2012	5/27/2008	4.05	116.481	111.845	107.660	104.246	101.708	100.213	98.688	97.209
8/28/2007	8/28/2014	8/28/2009	4.35	121.819	115.514	110.172	105.932	102.755	100.447	98.680	97.179
8/30/2007	8/30/2012	8/31/2009	4.39	118.095	113.396	109.068	105.410	102.545	100.389	98.688	97.209
8/30/2007	9/2/2014	5/30/2008	3.89	118.719	112.697	107.788	104.071	101.498	100.132	98.492	97.061
8/31/2007	8/31/2012	8/31/2009	4.37	118.016	113.317	108.992	105.341	102.487	100.342	98.647	97.172
9/4/2007	9/4/2012	9/4/2008	4.19	117.078	112.389	108.151	104.657	102.032	100.355	99.462	98.898
9/4/2007	9/4/2012	9/4/2008	4.22	117.215	112.521	108.272	104.757	102.109	100.398	99.485	98.914
9/4/2007	9/5/2017	9/4/2008	3.89	122.800	114.985	109.021	104.698	101.780	100.113	99.279	98.735
9/6/2007	9/7/2010	3/6/2008	4.16	110.643	108.537	105.984	103.596	101.565	100.291	99.969	99.950
9/7/2007	9/7/2012	9/8/2008	4.09	116.656	111.976	107.770	104.335	101.788	100.209	99.374	98.823
9/10/2007	9/11/2017	3/10/2008	3.69	121.155	113.593	107.908	103.872	101.244	100.104	99.937	99.907
9/11/2007	9/13/2010	9/11/2009	4.43	111.407	109.283	106.700	104.257	102.084	100.244	98.657	97.201
9/11/2007	9/11/2017	3/11/2008	3.59	120.305	112.885	107.360	103.482	101.002	100.031	99.934	99.903
9/12/2007	9/12/2014	6/12/2008	3.69	117.569	111.658	106.908	103.391	101.037	99.902	99.484	99.202
9/13/2007	9/15/2014	9/14/2009	3.99	119.489	113.373	108.333	104.474	101.680	99.644	98.006	96.538
9/13/2007	9/13/2017	9/13/2010	3.99	123.750	115.788	109.644	105.043	101.542	98.682	96.182	93.870
9/14/2007	9/14/2011	9/15/2008	4.09	114.149	110.469	106.983	103.970	101.632	100.144	99.331	98.772
9/14/2007	9/14/2012	9/14/2010	4.39	118.113	113.370	109.026	105.311	102.198	99.511	97.074	94.783
9/17/2007	9/17/2012	9/17/2009	4.22	117.368	112.643	108.355	104.804	102.079	100.021	98.357	96.871
9/27/2007	9/27/2010	9/29/2008	4.25	111.109	108.956	106.341	103.883	101.763	100.258	99.380	98.772
9/27/2007	9/29/2014	9/27/2010	4.49	122.686	115.872	110.111	105.780	102.464	99.709	97.249	94.930
9/27/2007	9/27/2017	3/27/2008	3.65	120.977	113.434	107.765	103.749	101.139	100.025	99.843	99.768
9/28/2007	9/28/2010	9/29/2008	4.29	111.225	109.069	106.450	103.983	101.846	100.308	99.406	98.789
9/28/2007	9/28/2012	3/28/2008	3.85	115.784	111.097	106.938	103.621	101.252	100.084	99.852	99.775
10/3/2007	10/3/2012	4/3/2008	3.83	115.576	110.880	106.761	103.508	101.209	100.090	99.844	99.754
10/9/2007	10/9/2012	10/9/2009	4.40	118.292	113.428	108.814	104.919	102.118	100.135	98.504	96.996
10/11/2007	10/14/2014	4/13/2009	4.18	120.776	114.506	109.283	105.217	102.261	100.255	98.859	97.730
10/11/2007	10/11/2017	10/14/2008	3.99	123.827	115.827	109.673	105.170	102.082	100.231	99.225	98.556
10/15/2007	10/16/2017	10/15/2008	3.99	123.882	115.870	109.702	105.185	102.084	100.220	99.202	98.519
10/22/2007	10/22/2012	10/22/2008	3.99	116.529	111.755	107.503	104.074	101.567	100.013	99.123	98.468
10/25/2007	10/27/2014	10/25/2011	4.36	122.091	115.683	110.202	105.570	101.559	97.959	94.636	91.511
10/26/2007	10/26/2017	4/28/2008	3.39	118.841	111.650	106.387	102.777	100.582	99.828	99.653	99.500
10/29/2007	10/29/2009	10/29/2008	4.25	107.178	106.239	104.551	102.900	101.339	100.102	99.256	98.587
10/29/2007	10/29/2012	10/29/2009	3.99	116.606	111.817	107.544	104.093	101.484	99.477	97.785	96.228
11/2/2007	11/3/2014	11/2/2009	3.99	119.540	113.373	108.323	104.477	101.668	99.563	97.823	96.239
11/2/2007	11/3/2014	11/2/2010	4.19	120.826	114.534	109.293	105.102	101.722	98.853	96.279	93.872
11/5/2007	11/5/2014	11/5/2009	3.99	119.562	113.391	108.335	104.484	101.668	99.559	97.814	96.225
11/5/2007	11/6/2012	11/5/2012	4.39	127.422	118.856	111.856	106.016	100.969	96.457	92.328	88.490
11/6/2007	11/6/2017	5/6/2008	3.48	119.491	112.178	106.805	103.095	100.795			

Start Date	Maturity Date	Next Call Date	Coupon	-300	-200	-100	Base	+100	+200	+300	+400
11/13/2007	11/14/2011	11/13/2008	3.76	113.375	109.545	106.013	103.110	100.989	99.701	98.887	98.203
11/13/2007	11/13/2012	11/13/2008	3.68	115.138	110.383	106.278	103.111	100.914	99.638	98.835	98.155
11/13/2007	11/13/2014	5/13/2008	3.35	115.584	109.879	105.462	102.338	100.429	99.762	99.537	99.336
11/19/2007	11/19/2014	11/19/2009	3.75	118.175	112.138	107.269	103.642	101.026	99.026	97.313	95.720
11/19/2007	11/19/2014	11/19/2009	3.75	118.175	112.138	107.269	103.642	101.026	99.026	97.313	95.720
11/19/2007	11/19/2014	11/21/2011	4.27	121.532	115.146	109.711	105.112	101.109	97.499	94.155	91.004
11/19/2007	11/20/2017	11/19/2012	4.29	126.335	117.647	110.724	105.045	100.152	95.755	91.704	87.910
11/20/2007	11/20/2017	11/22/2010	3.74	121.858	114.130	108.266	103.894	100.485	97.621	95.041	92.626
11/23/2007	11/24/2017	11/23/2011	3.99	123.443	114.971	108.733	103.950	99.975	96.419	93.125	90.009
11/23/2007	11/24/2017	11/23/2011	3.99	123.443	114.971	108.733	103.950	99.975	96.419	93.125	90.009
11/29/2007	11/29/2017	5/29/2008	2.95	115.318	108.830	104.318	101.402	99.970	99.578	99.332	99.089
11/30/2007	11/30/2017	11/30/2009	3.19	117.284	110.374	105.425	102.078	99.760	97.923	96.261	94.672
12/6/2007	12/6/2017	12/7/2009	3.25	117.625	110.643	105.640	102.254	99.897	98.029	96.347	94.742
12/7/2007	12/7/2012	12/7/2009	3.45	114.111	109.369	105.393	102.400	100.179	98.348	96.676	95.071
12/10/2007	12/10/2010	12/10/2009	3.87	110.911	108.293	105.520	103.026	100.910	99.073	97.383	95.762
12/10/2007	12/11/2017	12/10/2010	3.45	119.352	112.034	106.611	102.583	99.377	96.599	94.042	91.620
12/11/2007	12/11/2012	12/11/2009	3.76	115.641	110.800	106.612	103.339	100.888	98.932	97.204	95.571
12/14/2007	12/14/2010	12/15/2008	3.69	110.445	107.823	105.059	102.618	100.743	99.541	98.699	97.950
12/20/2007	12/20/2012	12/21/2009	3.60	114.961	110.144	106.027	102.867	100.507	98.594	96.869	95.224
12/20/2007	12/20/2012	12/21/2009	3.75	115.676	110.681	106.202	102.933	100.654	98.815	97.118	95.480
12/24/2007	12/26/2017	12/24/2012	3.99	123.799	115.447	108.799	103.315	98.525	94.163	90.115	86.316
12/26/2007	12/26/2012	12/26/2008	3.46	114.342	109.553	105.516	102.483	100.474	99.290	98.442	97.666
12/26/2007	12/26/2012	12/27/2010	3.96	116.770	111.845	107.472	103.800	100.675	97.889	95.299	92.831
1/2/2008	1/2/2013	1/4/2010	3.49	114.387	109.577	105.548	102.514	100.240	98.349	96.614	94.948
1/3/2008	1/5/2015	1/3/2011	3.65	117.527	111.524	106.703	102.896	99.741	96.945	94.346	91.875
1/4/2008	1/4/2018	1/4/2011	3.36	118.597	111.402	106.108	102.154	98.966	96.171	93.583	91.122
1/7/2008	1/7/2013	1/7/2009	2.99	112.004	107.389	103.768	101.259	99.774	98.835	98.019	97.226
1/7/2008	1/7/2013	1/7/2011	3.59	114.923	110.068	105.889	102.424	99.437	96.717	94.152	91.692
1/7/2008	1/7/2015	1/7/2011	3.49	116.520	110.644	105.974	102.297	99.224	96.471	93.895	91.433
1/7/2008	1/8/2018	4/7/2008	2.59	112.423	106.629	102.834	100.574	99.898	99.788	99.684	99.580
1/8/2008	1/8/2013	1/8/2010	3.15	112.789	108.096	104.322	101.585	99.499	97.680	95.961	94.294
1/8/2008	1/8/2018	4/8/2008	2.57	112.271	106.519	102.761	100.538	99.894	99.786	99.682	99.578
1/8/2008	1/8/2018	7/8/2008	2.64	112.803	106.907	103.018	100.669	99.715	99.326	98.978	98.633
1/10/2008	1/10/2011	1/12/2009	3.10	109.007	106.245	103.531	101.329	99.870	98.916	98.091	97.290
1/11/2008	1/11/2018	1/12/2009	2.72	113.442	107.381	103.330	100.828	99.478	98.577	97.757	96.956
1/14/2008	1/16/2018	1/14/2011	3.24	117.695	110.669	105.531	101.689	98.555	95.773	93.179	90.704
1/16/2008	1/16/2013	7/16/2008	2.55	109.951	105.587	102.409	100.412	99.629	99.246	98.876	98.510
1/16/2008	1/16/2013	1/16/2009	2.69	110.624	106.162	102.827	100.637	99.404	98.520	97.691	96.877
1/16/2008	1/16/2015	1/16/2009	2.64	111.328	106.312	102.797	100.579	99.357	98.476	97.647	96.834
1/16/2008	1/16/2018	4/16/2008	2.38	110.923	105.550	102.139	100.232	99.839	99.713	99.587	99.461
1/17/2008	1/17/2018	4/17/2008	2.25	110.003	104.913	101.745	100.095	99.818	99.689	99.560	99.432
1/18/2008	1/18/2013	1/20/2009	2.55	109.965	105.597	102.414	100.386	99.254	98.385	97.552	96.734
1/18/2008	1/20/2015	7/18/2008	2.35	109.663	105.023	101.923	100.141	99.529	99.144	98.764	98.386
1/18/2008	1/18/2018	4/18/2008	2.29	110.291	105.111	101.863	100.134	99.819	99.687	99.556	99.425
1/24/2008	1/24/2012	7/24/2009	2.44	108.671	104.919	102.045	100.080	98.623	97.294	96.000	94.730
1/24/2008	1/24/2013	1/25/2010	2.50	109.766	105.423	102.279	100.055	98.175	96.394	94.663	92.973
1/25/2008	1/25/2013	1/26/2009	2.25	108.448	103.568	100.830	99.819	98.937	98.073	97.224	96.389
1/25/2008	1/25/2013	1/25/2011	2.65	110.438	105.883	102.346	99.382	96.642	94.020	91.488	89.039
1/28/2008	1/28/2010	1/28/2009	2.63	105.107	104.003	102.089	100.382	99.283	98.398	97.539	96.695
1/28/2008	1/28/2013	1/28/2011	2.99	112.142	107.372	103.538	100.416	97.606	94.949	92.393	89.924
1/28/2008	1/29/2018	4/28/2008	1.89	107.692	103.395	100.838	99.875	99.708	99.547	99.385	99.224
1/30/2008	1/30/2013	2/1/2010	2.67	110.632	106.153	102.807	100.417	98.421	96.548	94.734	92.964
2/1/2008	2/1/2018	5/1/2008	1.95	107.942	103.561	100.982	99.902	99.714	99.545	99.376	99.209
2/7/2008	2/7/2013	2/8/2010	2.49	109.674	105.336	102.245	100.044	98.148	96.344	94.589	92.875
2/7/2008	2/7/2018	5/7/2008	1.97	108.101	103.660	101.031	99.895	99.687	99.502	99.317	99.134
2/8/2008	2/8/2011	5/8/2008	1.99	105.942	103.181	100.972	99.894	99.686	99.498	99.311	99.124
2/8/2008	2/8/2013	8/8/2008	1.99	107.305	103.477	101.015	99.803	99.333	98.901	98.474	98.051
2/13/2008	2/13/2013	2/14/2011	2.92	111.818	107.159	103.356	100.186	97.335	94.646	92.065	89.574
2/14/2008	2/14/2018	2/14/2012	3.19	116.537	109.532	104.389	100.192	96.438	92.928	89.601	86.423
2/15/2008	2/16/2010	2/17/2009	2.35	104.687	103.558	101.609	100.032	99.021	98.108	97.215	96.339
2/19/2008	2/19/2013	2/19/2010	2.59	110.160	105.437	102.330	100.196	98.296	96.465	94.680	92.937
2/22/2008	2/22/2011	2/23/2009	2.50	107.563	104.628	101.802	100.144	99.143	98.215	97.306	96.414
2/25/2008	2/25/2013	2/25/2011	3.09	112.726	107.862	103.919	100.688	97.797	95.073	92.460	89.937
2/25/2008	2/26/2018	2/25/2009	2.42	111.321	105.825	102.312	100.235	99.066	98.113	97.194	96.292