

Results are obtained with h_0^P estimated

CALIBRATED PARAMETERS ON WEDNESDAYS, $h_0^Q = ht^P$, FROZEN									
θ	2010	2011	2012	2013	2014	2015	2016	2017	2018
ω	$2.9372e-07$	$8.3428e-06$	$1.9798e-09$	$1.4603e-06$	$1.9936e-06$	$4.7130e-07$	$6.9594e-07$	$3.5609e-07$	$2.8350e-07$
std	$(1.5899e-06)$	$(2.7177e-05)$	$(4.0482e-09)$	$(4.9823e-06)$	$(6.7868e-06)$	$(2.5577e-06)$	$(3.0411e-06)$	$(2.0030e-06)$	$(1.8911e-06)$
median	$4.2959e-10$	$2.1679e-09$	$1.1009e-09$	$1.4234e-09$	$1.3082e-09$	$1.3856e-09$	$7.3148e-10$	$2.9299e-10$	$4.3848e-10$
α	$2.6179e-05$	$2.2651e-05$	$2.0039e-05$	$1.5773e-05$	$1.3702e-05$	$1.3916e-05$	$1.4253e-05$	$9.1931e-06$	$1.4938e-05$
std	$(2.1706e-05)$	$(2.2461e-05)$	$(1.7805e-05)$	$(1.2289e-05)$	$(9.1911e-06)$	$(7.4013e-06)$	$(8.6749e-06)$	$(5.0026e-06)$	$(1.2109e-05)$
median	$2.1958e-05$	$1.9805e-05$	$1.4954e-05$	$1.5487e-05$	$1.3321e-05$	$1.2722e-05$	$1.3097e-05$	$9.1517e-06$	$1.5464e-05$
β	0.4597	0.3159	0.4507	0.3427	0.1703	0.1908	0.2213	0.1635	0.2141
std	(0.3333)	(0.3216)	(0.3648)	(0.3819)	(0.2815)	(0.2349)	(0.3006)	(0.3075)	(0.3211)
median	0.5280	0.3131	0.6081	0.0023	0.0002	0.0090	0.0006	0.0001	0.0001
γ^*	152.9585	257.3214	173.7617	247.3587	220.0693	223.2081	256.9357	271.4808	173.2928
std	(151.4998)	(289.2871)	(124.0874)	(267.6364)	(206.2198)	(50.0536)	(247.3525)	(186.4748)	(126.4052)
median	112.7097	148.3374	137.7486	166.2098	189.4759	226.1581	201.7685	233.7905	155.2827
h_0^Q	$1.2801e-04$	$1.5636e-04$	$8.7217e-05$	$6.0637e-05$	$6.3261e-05$	0.0001	$1.0037e-04$	$4.1069e-05$	$8.9542e-05$
std	$(8.8249e-05)$	$(1.0402e-04)$	$(4.4206e-05)$	$(3.1147e-05)$	$(3.9811e-05)$	$(6.6153e-05)$	$(7.2105e-05)$	$(2.3358e-05)$	$(8.1160e-05)$
median	$1.1288e-04$	$1.2644e-04$	$8.4289e-05$	$4.8973e-05$	$5.4695e-05$	$9.0858e-05$	$8.2538e-05$	$3.3382e-05$	$5.4201e-05$
persistence	0.8128	0.8243	0.7739	0.7081	0.6449	0.7931	0.7524	0.6538	0.5870
std	(0.1873)	(0.1406)	(0.2400)	(0.2390)	(0.2471)	(0.1014)	(0.1541)	(0.2214)	(0.3019)
median	0.8790	0.8230	0.8744	0.7076	0.6817	0.7949	0.7223	0.6810	0.6351
MSE	13.2947	28.6564	11.4011	10.2438	21.2304	21.3190	25.4105	28.6432	47.3356
median MSE	4.3699	6.8225	5.3297	6.1938	9.9733	11.3385	17.2733	25.5157	21.9448
IVRMSE	0.1870	0.2316	0.1562	0.1421	0.1646	0.1853	0.2046	0.1556	0.1809
MAPE	0.2234	0.2721	0.2458	0.2476	0.3149	0.3771	0.3977	0.3412	0.3078
OptLL	158.1966	159.2829	199.0834	277.2253	269.4976	340.0760	393.7201	495.2178	463.5793

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h_0^Q IS UNC UNDER P, UPDATED UNDER Q 1 YEAR, THEN FROZEN									
θ	2010	2011	2012	2013	2014	2015	2016	2017	2018
ω	$8.5020e-08$	$9.2713e-06$	$1.9239e-07$	$2.2129e-06$	$1.9389e-06$	$4.1610e-07$	$5.9988e-07$	$3.5296e-07$	$5.5717e-07$
std	$(4.4877e-07)$	$(2.7968e-05)$	$(1.0856e-06)$	$(6.4184e-06)$	$(6.6239e-06)$	$(2.4952e-06)$	$(2.9189e-06)$	$(2.0142e-06)$	$(2.7148e-06)$
median	$4.8556e-10$	$1.1201e-09$	$8.3045e-10$	$1.6349e-09$	$1.4218e-09$	$1.6699e-09$	$8.8906e-10$	$3.3972e-10$	$4.7252e-10$
α	$2.5053e-05$	$2.0773e-05$	$1.8857e-05$	$1.3866e-05$	$1.3094e-05$	$1.3613e-05$	$1.3838e-05$	$8.6221e-06$	$1.4345e-05$
std	$(2.2286e-05)$	$(2.0915e-05)$	$(1.6575e-05)$	$(1.1518e-05)$	$(8.8443e-06)$	$(5.8573e-06)$	$(8.0132e-06)$	$(5.2512e-06)$	$(1.0681e-05)$
median	$1.6946e-05$	$1.8770e-05$	$1.2068e-05$	$1.2723e-05$	$1.2664e-05$	$1.2849e-05$	$1.3228e-05$	$8.5732e-06$	$1.3804e-05$
β	0.4924	0.3370	0.4751	0.3745	0.1724	0.1755	0.2466	0.1768	0.1836
std	(0.3262)	(0.3216)	(0.3449)	(0.3822)	(0.2854)	(0.2334)	(0.3159)	(0.3270)	(0.2983)
median	0.5759	0.3823	0.5676	0.3025	0.0002	0.0008	0.0018	0.0001	0.0003
γ^*	150.2212	214.4353	173.9764	268.9184	247.7121	222.3940	210.4781	296.4724	185.4170
std	(138.1818)	(168.3789)	(143.1116)	(295.6025)	(244.5211)	(41.1800)	(73.6564)	(189.9753)	(149.9507)
median	110.8449	155.9251	143.9621	170.7408	196.1680	228.8470	208.6253	252.7287	154.5740
h_0^Q	$1.2468e-04$	$1.5814e-04$	$8.6791e-05$	$6.4327e-05$	$6.2555e-05$	0.0001	$9.5618e-05$	$4.2789e-05$	$9.6085e-05$
std	$(8.4854e-05)$	$(1.0317e-04)$	$(4.2726e-05)$	$(3.0386e-05)$	$(3.9619e-05)$	$(5.4010e-05)$	$(6.6049e-05)$	$(2.5624e-05)$	$(8.6926e-05)$
median	$1.0398e-04$	$1.3624e-04$	$7.8012e-05$	$5.3266e-05$	$5.2105e-05$	$8.5698e-05$	$7.4335e-05$	$3.6616e-05$	$5.7654e-05$
persistence	0.8233	0.8361	0.7863	0.7230	0.6557	0.7936	0.7599	0.6817	0.5976
std	(0.1875)	(0.1268)	(0.2318)	(0.2418)	(0.2553)	(0.0951)	(0.1551)	(0.2158)	(0.2878)
median	0.8873	0.8444	0.8856	0.7596	0.7135	0.7919	0.7344	0.6894	0.6653
MSE	13.1341	29.7013	11.0076	10.4282	20.1567	21.2395	26.0305	26.8897	47.4491
median MSE	4.0691	6.5356	5.3875	6.5788	9.0235	11.1964	17.4622	23.3996	23.1610
IVRMSE	0.1878	0.2385	0.1550	0.1445	0.1657	0.1849	0.2030	0.1592	0.1844
MAPE	0.2247	0.2822	0.2447	0.2502	0.3132	0.3755	0.3917	0.3454	0.3111
OptLL	157.8028	158.6809	200.4516	278.2008	271.7112	341.9052	395.4835	495.1797	461.7832

Results are obtained with h_0^P estimated

CALIBRATED PARAMETERS AND h_0^Q ON WEDNESDAYS, PRICING WITHOUT 1 WEEK UPDATE									
θ	2010	2011	2012	2013	2014	2015	2016	2017	2018
ω	$4.2678e-09$	$3.2988e-07$	$3.3650e-08$	$3.8487e-07$	$1.2739e-07$	$4.4942e-08$	$2.5305e-08$	$3.9319e-08$	$3.5718e-08$
std	$(1.6793e-08)$	$(1.5604e-06)$	$(1.6574e-07)$	$(1.3052e-06)$	$(4.5656e-07)$	$(2.0855e-07)$	$(1.4769e-07)$	$(1.7009e-07)$	$(2.2435e-07)$
median	$5.6987e-10$	$1.0301e-09$	$8.8539e-10$	$1.3676e-09$	$7.4251e-10$	$1.4987e-09$	$1.0172e-09$	$4.0373e-10$	$5.6810e-10$
α	$1.8159e-05$	$1.5399e-05$	$9.8980e-06$	$6.3241e-06$	$7.2627e-06$	$7.5611e-06$	$5.1463e-06$	$2.3495e-06$	$1.0951e-05$
std	$(1.9473e-05)$	$(2.0907e-05)$	$(1.4306e-05)$	$(8.1191e-06)$	$(9.5274e-06)$	$(7.5089e-06)$	$(5.8282e-06)$	$(3.0574e-06)$	$(1.4936e-05)$
median	$1.0250e-05$	$7.6580e-06$	$4.5292e-06$	$3.1281e-06$	$2.9569e-06$	$4.5726e-06$	$2.9817e-06$	$1.4483e-06$	$2.3151e-06$
β	0.6274	0.5663	0.7006	0.7210	0.6181	0.5382	0.6249	0.7420	0.4653
std	(0.2834)	(0.2866)	(0.2549)	(0.2507)	(0.3079)	(0.2570)	(0.2245)	(0.2376)	(0.3986)
median	0.7368	0.6567	0.8002	0.8149	0.7524	0.6542	0.6945	0.8117	0.5674
γ^*	132.4933	192.2414	181.4591	253.9687	268.8038	279.7662	299.2539	328.2238	217.0968
std	(51.3976)	(92.7353)	(81.0421)	(194.9650)	(238.0990)	(176.0622)	(156.8154)	(113.5621)	(140.3093)
median	127.9434	175.8916	174.2587	184.1932	222.8042	257.4585	297.1472	325.0299	197.6437
h_0^Q	$1.3031e-04$	$2.2023e-04$	$8.4651e-05$	$5.0816e-05$	$4.5214e-05$	0.0001	$7.5865e-05$	$1.9451e-05$	$1.0468e-04$
std	$(1.3981e-04)$	$(2.3304e-04)$	$(6.2196e-05)$	$(4.8220e-05)$	$(5.6824e-05)$	$(1.1327e-04)$	$(1.0277e-04)$	$(1.9077e-05)$	$(1.6207e-04)$
median	$9.1311e-05$	$1.1029e-04$	$5.8419e-05$	$3.3426e-05$	$2.4448e-05$	$5.5238e-05$	$4.0532e-05$	$1.3988e-05$	$2.8814e-05$
persistence	0.8700	0.9176	0.8950	0.9092	0.8577	0.9149	0.9375	0.9539	0.7282
std	(0.1807)	(0.0833)	(0.1822)	(0.1130)	(0.2142)	(0.0784)	(0.0690)	(0.0698)	(0.3308)
median	0.9423	0.9529	0.9625	0.9574	0.9408	0.9449	0.9650	0.9764	0.8877
MSE	12.7466	27.2788	9.6810	7.4448	13.3644	16.4519	17.5702	7.9150	36.6240
median MSE	3.6431	5.3185	4.3783	2.6149	2.4831	5.3808	7.9102	4.1066	13.7350
IVRMSE	0.1855	0.2364	0.1539	0.1415	0.1545	0.1877	0.2016	0.1375	0.1810
MAPE	0.2236	0.2808	0.2448	0.2426	0.2938	0.3798	0.3724	0.2900	0.3093
OptLL	160.2480	162.9533	204.9338	289.0908	294.3466	353.5773	419.6810	552.9026	475.8638