

Results are obtained with r average yield over the calibration period, MLE P parameters obtained with average yield r over 10 years

MULTIPLE OPHIONS CALIBRATION EXERCISE OVER 6 MONTHS, IN-SAMPLE RESULTS										
values	ω	α	β	γ^*	h_0^Q	persistency	OptLL	normOptLL	MSE	IVRMSE
2010										
h0 P	$1.3107e-10$	$1.8477e-06$	0.8964	224.0688	$5.1436e-05$	0.9892	-111.7920	497.0633	10.4961	0.1758
h0 RV	$1.6045e-06$	$1.5279e-06$	0.7467	389.6831	$1.9879e-05$	0.9788	-111.3672	497.9130	15.9692	0.1958
h0 Q	$1.4846e-06$	$1.3036e-06$	0.7356	434.1771	$4.8752e-05$	0.9814	-108.2250	504.1974	14.6212	0.1825
h0 est	$1.0184e-06$	$1.4995e-06$	0.8105	338.3800	$8.5194e-05$	0.9822	-103.6973	513.2529	15.5319	0.1679
2011										
h0 P	$4.3396e-06$	$3.2489e-06$	0.4402	387.0260	$2.2560e-05$	0.9268	-110.8472	536.7957	8.6857	0.1710
h0 RV	$1.1139e-06$	$4.0545e-06$	0.7885	198.4506	$1.9261e-05$	0.9482	-115.8216	526.8468	10.7324	0.1525
h0 Q	$4.3905e-06$	$3.2434e-06$	0.4338	389.7212	$1.9800e-05$	0.9264	-110.9881	536.5140	8.7239	0.1718
h0 est	$2.0063e-06$	$3.3951e-06$	0.7092	264.5301	$7.2065e-05$	0.9467	-110.4979	537.4944	9.1511	0.1473
2012										
h0 P	$1.6035e-06$	$3.2882e-06$	0.7521	250.6961	$1.3242e-04$	0.9587	-133.9575	580.6363	14.6406	0.1683
h0 RV	$1.7393e-06$	$6.1945e-06$	0.6929	196.2217	$3.8907e-05$	0.9314	-139.3836	569.7840	19.3445	0.1934
h0 Q	$2.0801e-06$	$2.7981e-06$	0.7258	288.3582	$1.2247e-04$	0.9584	-134.6386	579.2741	15.2334	0.1713
h0 est	$2.4820e-12$	$5.2872e-06$	0.7855	179.7324	$1.7858e-04$	0.9562	-132.5618	583.4277	13.5011	0.1652
2013										
h0 P	$1.7447e-06$	$1.8871e-06$	0.6703	378.9155	$8.8611e-05$	0.9413	-180.4617	842.3020	9.5569	0.1701
h0 RV	$8.7162e-07$	$1.7606e-05$	0.0856	184.3745	$3.9988e-04$	0.6841	-190.6531	821.9192	11.5182	0.1563
h0 Q	$1.7848e-06$	$1.9134e-06$	0.6669	377.8211	$8.9485e-05$	0.9401	-180.5879	842.0495	9.6038	0.1701
h0 est	$1.2734e-07$	$6.9909e-07$	0.8956	370.4979	$4.2545e-05$	0.9916	-170.0543	863.1168	6.2169	0.1432
2014										
h0 P	$6.4540e-07$	$3.2685e-07$	0.4631	1263.9790	$4.1489e-05$	0.9853	-170.8408	859.3657	5.4637	0.1485
h0 RV	$1.8559e-08$	$1.1841e-06$	0.8332	355.0675	$2.5493e-05$	0.9825	-165.1049	870.8374	4.7635	0.1252
h0 Q	$5.3961e-07$	$2.1705e-06$	0.8121	254.2198	$4.1199e-05$	0.9524	-170.2426	860.5621	6.3807	0.1211
h0 est	$1.8316e-07$	$1.2559e-06$	0.8251	348.9503	$3.6316e-09$	0.9781	-167.3305	866.3862	6.4678	0.1336
2015										
h0 P	$2.9401e-09$	$1.3399e-05$	0.1339	220.3272	$1.4647e-04$	0.7843	-207.0442	926.5722	21.4524	0.1664
h0 RV	$5.8465e-10$	$1.6951e-06$	0.7342	378.0135	$8.1791e-05$	0.9764	-211.1789	918.3029	14.0161	0.1606
h0 Q	$5.6557e-10$	$1.3459e-05$	0.1357	219.3407	$1.3851e-04$	0.7832	-207.2782	926.1042	21.6669	0.1669
h0 est	$2.7915e-12$	$1.0566e-05$	0.2689	231.6695	$2.2888e-06$	0.8360	-202.6032	935.4542	18.3288	0.1635
2016										
h0 P	$1.5549e-11$	$3.0541e-06$	0.7251	279.1761	$1.6505e-04$	0.9632	-333.6664	1263.4316	21.4299	0.1788
h0 RV	$1.3121e-06$	$1.4413e-06$	0.6069	497.0641	$1.9865e-04$	0.9630	-334.3704	1262.0236	20.4654	0.1889
h0 Q	$1.9024e-06$	$5.6880e-07$	0.0075	1299.9857	$1.5375e-04$	0.9688	-318.7534	1293.2577	14.9511	0.1952
h0 est	$1.6042e-06$	$5.5719e-07$	0.0333	1299.8583	$1.1583e-04$	0.9747	-307.9187	1314.9271	12.2101	0.1906
2017										
h0 P	$2.8919e-06$	$7.5056e-06$	0.2846	238.6580	$5.6872e-05$	0.7121	-349.3465	1400.3430	23.7498	0.1594
h0 RV	$2.4548e-07$	$1.0617e-05$	0.3220	190.4987	$1.3258e-05$	0.7073	-349.5683	1399.8994	23.1877	0.1577
h0 Q	$2.7686e-07$	$1.0592e-05$	0.3142	191.8591	$5.3498e-05$	0.7041	-349.3235	1400.3888	23.5426	0.1571
h0 est	$2.1232e-07$	$1.0541e-05$	0.3252	190.9135	$3.4111e-05$	0.7094	-349.1022	1400.8315	23.2441	0.1585
2018										
h0 P	$2.7974e-12$	$5.2394e-08$	0.9998	-65.9903	$2.3546e-05$	1.0000	-592.2194	1482.9577	124.7977	0.2705
h0 RV	$1.2501e-09$	$2.4692e-06$	0.7959	247.9239	$5.7185e-06$	0.9477	-473.0977	1721.2012	43.3007	0.1460
h0 Q	$3.5895e-09$	$2.6218e-06$	0.7933	240.7530	$2.7826e-05$	0.9453	-482.9912	1701.4141	43.9383	0.1488
h0 est	$1.0443e-09$	$2.4502e-06$	0.7937	251.0607	$4.0172e-06$	0.9481	-472.5281	1722.3404	43.1993	0.1450