

Results are obtained with  $h_0^P$  estimated

$h_0^Q = h_t^P$ , THEN FROZEN									
$\theta$	2010	2011	2012	2013	2014	2015	2016	2017	2018
$\omega$	$2.9372e-07$	$8.3428e-06$	$1.9798e-09$	$1.4603e-06$	$1.9936e-06$	$4.7130e-07$	$6.9594e-07$	$3.5609e-07$	$2.8352e-07$
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	$4.2959e-10$	$2.1679e-09$	$1.1009e-09$	$1.4234e-09$	$1.3127e-09$	$1.3856e-09$	$7.3148e-10$	$2.9299e-10$	$4.7562e-10$
$\alpha$	$2.6179e-05$	$2.2651e-05$	$2.0039e-05$	$1.5773e-05$	$1.4467e-05$	$1.3916e-05$	$1.4253e-05$	$9.1931e-06$	$1.5873e-05$
std	$(2.1706e-05)$	$(2.2461e-05)$	$(1.7805e-05)$	$(1.2289e-05)$	$(8.8350e-06)$	$(7.4013e-06)$	$(8.6749e-06)$	$(5.0026e-06)$	$(1.1427e-05)$
median	$2.1958e-05$	$1.9805e-05$	$1.4954e-05$	$1.5487e-05$	$1.4270e-05$	$1.2722e-05$	$1.3097e-05$	$9.1517e-06$	$1.5918e-05$
$\beta$	0.4597	0.3159	0.4507	0.3427	0.1760	0.1908	0.2213	0.1635	0.2507
std	(0.3333)	(0.3216)	(0.3648)	(0.3819)	(0.2810)	(0.2349)	(0.3006)	(0.3075)	(0.3307)
median	0.5280	0.3131	0.6081	0.0023	0.0002	0.0090	0.0006	0.0001	0.0003
$\gamma^*$	152.9585	257.3214	173.7617	247.3587	226.0042	223.2081	256.9357	271.4808	189.0697
std	(151.4998)	(289.2871)	(124.0874)	(267.6364)	(201.9174)	(50.0536)	(247.3525)	(186.4748)	(118.2861)
median	112.7097	148.3374	137.7486	166.2098	189.4759	226.1581	201.7685	233.7905	156.7186
$h_0^Q$	$1.2801e-04$	$1.5636e-04$	$8.7217e-05$	$6.0637e-05$	$6.5304e-05$	0.0001	$1.0037e-04$	$4.1069e-05$	$1.0044e-04$
std	$(8.8249e-05)$	$(1.0402e-04)$	$(4.4206e-05)$	$(3.1147e-05)$	$(3.7862e-05)$	$(6.6153e-05)$	$(7.2105e-05)$	$(2.3358e-05)$	$(8.2938e-05)$
median	$1.1288e-04$	$1.2644e-04$	$8.4289e-05$	$4.8973e-05$	$5.5260e-05$	$9.0858e-05$	$8.2538e-05$	$3.3382e-05$	$6.5660e-05$
persistence	0.8128	0.8243	0.7739	0.7081	0.6691	0.7931	0.7524	0.6538	0.6532
std	(0.1873)	(0.1406)	(0.2400)	(0.2390)	(0.2103)	(0.1014)	(0.1541)	(0.2214)	(0.2535)
median	0.8790	0.8230	0.8744	0.7076	0.6817	0.7949	0.7223	0.6810	0.6687
MSE	13.2947	28.6564	11.4011	10.2438	21.5305	21.3190	25.4105	28.6432	50.4499
median MSE	4.3699	6.8225	5.3297	6.1938	10.1128	11.3385	17.2733	25.5157	24.8218
IVRMSE	0.1870	0.2316	0.1562	0.1421	0.1683	0.1853	0.2046	0.1556	0.1987
MAPE	0.2234	0.2721	0.2458	0.2476	0.3223	0.3771	0.3977	0.3412	0.3301
OptLL Norm	-1.9372	-2.2137	-1.9321	-1.9273	-2.1823	-2.1135	-2.3879	-2.2150	-2.6858
OptLL	-106.5921	-133.3105	-131.6808	-180.8957	-219.2291	-258.7072	-363.7374	-370.1816	-506.0755
AIC	116.6821	141.3105	142.3144	188.8957	227.2291	266.7072	371.7374	378.1816	535.1620
AICc	117.4862	142.0792	142.9490	189.3697	227.6792	267.0705	372.0245	378.4424	535.3807
BIC	233.4714	282.9099	285.5740	379.8430	456.7516	536.5035	747.4371	760.7219	1075.3381