Results are obtained with h_0^P estimated

| $h_0^Q=h_t^P, {	t THEN} {	t FROZEN}$ | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| θ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| $\omega \ 	ext{std}$ | 3.1517e - 11 $(1.9072e - 11)$ | 3.7095e - 11 $(2.2054e - 11)$ | 4.0950e - 11 $(2.3431e - 11)$ | 4.3822e - 11 $(2.7462e - 11)$ | 5.2859e - 11 $(3.5492e - 11)$ | 6.9038e - 11 $(6.0541e - 11)$ | 5.2049e - 08 $(6.9060e - 08)$ | 1.3934e - 08 $(4.4314e - 08)$ | 1.9352e - 08 $(4.7494e - 08)$ |
| median | 3.1328e - 11 | 4.2502e - 11 | 4.8422e - 11 | 4.0982e - 11 | 5.2506e - 11 | 4.8389e - 11 | 6.9183e - 10 | 1.7058e - 10 | 7.8970e - 11 |
| $lpha \ {f std} \ {f median}$ | 2.8088e - 06 $(4.2913e - 07)$ $2.9358e - 06$ | 3.0292e - 06 $(1.7175e - 07)$ $3.0228e - 06$ | 3.2623e - 06 $(4.7242e - 07)$ $3.3313e - 06$ | 3.4389e - 06 $(7.6499e - 08)$ $3.4452e - 06$ | 3.2299e - 06 $(9.0338e - 08)$ $3.2036e - 06$ | 3.8208e - 06 $(4.1726e - 07)$ $3.5964e - 06$ | 5.0341e - 06 $(1.8378e - 07)$ $5.0491e - 06$ | 4.8039e - 06 $(4.9792e - 07)$ $4.8641e - 06$ | 4.0791e - 06 $(1.0416e - 06)$ $4.3865e - 06$ |
| $egin{array}{c} eta \ \mathbf{std} \ \mathbf{median} \end{array}$ | 0.7411 (0.1052) 0.7582 | 0.7813 (0.0093) 0.7817 | 0.7629 (0.1090) 0.7792 | 0.7765 (0.0031) 0.7767 | 0.7523 (0.0077) 0.7513 | 0.7367 (0.0063) 0.7388 | 0.7177 (0.0056) 0.7197 | 0.7197 (0.0042) 0.7189 | 0.7032 (0.1455) 0.7258 |
| $\gamma^* \ 	ext{std} \ 	ext{median}$ | 275.6090 (41.4136) 274.4756 | 256.6436 (10.1480) 255.3254 | 240.7929 (34.5735) 245.0618 | 241.2280 (2.9041) 241.1116 | 264.5967 (5.7709) 267.0552 | 250.6168 (12.4261) 256.3132 | 222.7025 (3.4957) 222.0226 | 228.1939 (14.6335) 226.3507 | 227.1206 (50.6202) 230.3491 |
| $egin{array}{c} h_0^Q \ 	ext{std} \ 	ext{median} \end{array}$ | 1.2801e - 04 $(8.8249e - 05)$ $1.1288e - 04$ | 1.5636e - 04 $(1.0402e - 04)$ $1.2644e - 04$ | 8.7217e - 05 $(4.4206e - 05)$ $8.4289e - 05$ | 6.0637e - 05 $(3.1147e - 05)$ $4.8973e - 05$ | 6.5304e - 05 $(3.7862e - 05)$ $5.5260e - 05$ | 0.0001 (6.6153e - 05) 9.0858e - 05 | 1.0037e - 04 $(7.2105e - 05)$ $8.2538e - 05$ | 4.1069e - 05 $(2.3358e - 05)$ $3.3382e - 05$ | 1.0044e - 04 $(8.2938e - 05)$ $6.5660e - 05$ |
| persistency std median | 0.9622 (0.1361) 0.9807 | 0.9805 (0.0009) 0.9805 | 0.9596 (0.1371) 0.9788 | 0.9765 (0.0007) 0.9764 | 0.9784 (0.0007) 0.9786 | 0.9748 (0.0028) 0.9762 | 0.9671 (0.0014) 0.9672 | 0.9676 (0.0028) 0.9671 | 0.9279 (0.1914) 0.9668 |
| MSE | 25.1600 | 45.5099 | 17.7076 | 81.0171 | 148.2900 | 145.0361 | 197.4627 | 388.4116 | 302.6200 |
| median MSE | 16.2905 | 21.1171 | 7.8864 | 64.8565 | 145.4392 | 134.4795 | 148.1795 | 373.2194 | 235.5039 |
| IVRMSE | 0.2895 | 0.3214 | 0.2153 | 0.2968 | 0.3693 | 0.4291 | 0.4336 | 0.4966 | 0.3862 |
| MAPE | 0.3566 | 0.4147 | 0.3856 | 0.6144 | 1.1283 | 1.6699 | 1.6469 | 2.2636 | 1.0177 |
| OptLL Norm | -2.4669 | -2.6922 | -2.1918 | -2.7866 | -3.1707 | -3.3213 | -3.3369 | -3.7556 | -3.4888 |
| ${ m OptLL}$ | -137.0339 | -161.6806 | -151.2927 | -256.5975 | -310.6469 | -403.4363 | -499.6559 | -620.0705 | -648.6887 |
| AIC | 147.7208 | 169.6806 | 162.3185 | 264.5975 | 318.6469 | 411.4363 | 507.6559 | 628.0705 | 683.7173 |
| AICc | 148.5249 | 170.4493 | 162.9532 | 265.0716 | 319.0970 | 411.7996 | 507.9429 | 628.3312 | 683.9361 |
| BIC | 295.5488 | 339.6501 | 325.5824 | 531.2467 | 639.5872 | 825.9617 | 1019.2740 | 1260.4996 | 1372.4488 |