

	0Q	6Q	12Q	18Q	24Q	30Q
NL-PF-5%	1.90	1.96	1.99	2.12	2.09	2.08
PW-IF-0%	1.53	1.63	1.71	2.01	1.99	1.91
Lin-KF-0%	1.49	1.62	1.89	2.10	2.30	2.24
Lin-KF-5%	1.88	2.01	2.11	2.27	2.28	2.28

Table 1: Sum of the NRMSE across the mean parameter estimates. Columns denote the ZLB duration in the data.

Ptr	Truth	NL-PF-5%		PW-IF-0%		Lin-KF-0%	
		0Q	30Q	0Q	30Q	0Q	30Q
$\varphi_p$	100	152.6 (134.2, 165.8) [0.520]	187.4 (174.7, 202.7) [0.888]	144.6 (121.1, 157.3) [0.438]	182.2 (169.2, 198.5) [0.841]	144.7 (125.9, 157.7) [0.442]	184.4 (168.5, 201.1) [0.876]
$h$	0.8	0.661 (0.618, 0.695) [0.177]	0.676 (0.644, 0.714) [0.157]	0.640 (0.611, 0.673) [0.200]	0.629 (0.596, 0.672) [0.215]	0.641 (0.612, 0.676) [0.198]	0.630 (0.596, 0.672) [0.214]
$\rho_s$	0.8	0.759 (0.718, 0.797) [0.062]	0.809 (0.783, 0.843) [0.028]	0.763 (0.728, 0.808) [0.054]	0.821 (0.785, 0.856) [0.035]	0.760 (0.720, 0.800) [0.059]	0.825 (0.795, 0.851) [0.036]
$\rho_i$	0.8	0.783 (0.751, 0.823) [0.032]	0.804 (0.753, 0.838) [0.031]	0.755 (0.712, 0.790) [0.061]	0.763 (0.733, 0.808) [0.050]	0.760 (0.727, 0.787) [0.056]	0.809 (0.767, 0.852) [0.034]
$\sigma_g$	0.0050	0.0032 (0.0023, 0.0039) [0.367]	0.0040 (0.0030, 0.0052) [0.230]	0.0051 (0.0044, 0.0058) [0.091]	0.0059 (0.0050, 0.0069) [0.217]	0.0050 (0.0043, 0.0054) [0.074]	0.0059 (0.0051, 0.0068) [0.214]
$\sigma_s$	0.0050	0.0051 (0.0040, 0.0066) [0.147]	0.0051 (0.0039, 0.0062) [0.135]	0.0050 (0.0042, 0.0063) [0.133]	0.0045 (0.0036, 0.0056) [0.147]	0.0050 (0.0043, 0.0064) [0.138]	0.0045 (0.0036, 0.0052) [0.151]
$\sigma_i$	0.0020	0.0017 (0.0014, 0.0020) [0.165]	0.0015 (0.0013, 0.0019) [0.244]	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0019, 0.0024) [0.091]	0.0020 (0.0018, 0.0022) [0.073]	0.0019 (0.0017, 0.0022) [0.076]
$\phi_\pi$	2.0	2.048 (1.876, 2.191) [0.064]	2.116 (1.939, 2.309) [0.088]	2.026 (1.840, 2.155) [0.058]	1.946 (1.771, 2.138) [0.063]	2.027 (1.845, 2.154) [0.056]	1.678 (1.464, 1.886) [0.171]
$\phi_y$	0.5	0.330 (0.212, 0.543) [0.360]	0.403 (0.275, 0.617) [0.283]	0.332 (0.175, 0.480) [0.409]	0.436 (0.273, 0.610) [0.248]	0.330 (0.179, 0.478) [0.395]	0.271 (0.169, 0.437) [0.465]

 Table 2: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the posterior mean parameter estimates.

Ptr	Truth	0Q	6Q	12Q	18Q	24Q	30Q
Piecwise Linear, Inversion Filter, ME 0%							
$\varphi_p$	100	144.6 (121.1, 157.3) [0.438]	153.0 (131.3, 170.7) [0.539]	163.1 (140.8, 185.5) [0.661]	171.3 (153.9, 202.0) [0.761]	180.8 (165.3, 204.1) [0.839]	182.2 (169.2, 198.5) [0.841]
$h$	0.8	0.640 (0.611, 0.673) [0.200]	0.641 (0.606, 0.676) [0.202]	0.634 (0.596, 0.667) [0.211]	0.637 (0.611, 0.672) [0.208]	0.633 (0.586, 0.670) [0.211]	0.629 (0.596, 0.672) [0.215]
$\rho_s$	0.8	0.763 (0.728, 0.808) [0.054]	0.774 (0.733, 0.809) [0.043]	0.806 (0.755, 0.833) [0.029]	0.814 (0.783, 0.847) [0.034]	0.821 (0.799, 0.847) [0.033]	0.821 (0.785, 0.856) [0.035]
$\rho_i$	0.8	0.755 (0.712, 0.790) [0.061]	0.756 (0.706, 0.798) [0.068]	0.757 (0.727, 0.786) [0.056]	0.762 (0.683, 0.800) [0.064]	0.763 (0.724, 0.806) [0.058]	0.763 (0.733, 0.808) [0.050]
$\sigma_g$	0.0050	0.0051 (0.0044, 0.0058) [0.091]	0.0053 (0.0048, 0.0068) [0.129]	0.0056 (0.0047, 0.0066) [0.194]	0.0057 (0.0051, 0.0079) [0.243]	0.0058 (0.0051, 0.0074) [0.245]	0.0059 (0.0050, 0.0069) [0.217]
$\sigma_s$	0.0050	0.0050 (0.0042, 0.0063) [0.133]	0.0050 (0.0041, 0.0063) [0.139]	0.0048 (0.0039, 0.0058) [0.133]	0.0048 (0.0031, 0.0058) [0.182]	0.0044 (0.0037, 0.0053) [0.150]	0.0045 (0.0036, 0.0056) [0.147]
$\sigma_i$	0.0020	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0018, 0.0023) [0.073]	0.0021 (0.0018, 0.0022) [0.067]	0.0020 (0.0018, 0.0024) [0.095]	0.0020 (0.0018, 0.0023) [0.081]	0.0020 (0.0019, 0.0024) [0.091]
$\phi_\pi$	2.0	2.026 (1.840, 2.155) [0.058]	1.954 (1.768, 2.158) [0.070]	2.010 (1.785, 2.164) [0.058]	1.978 (1.732, 2.225) [0.076]	1.953 (1.690, 2.190) [0.081]	1.946 (1.771, 2.138) [0.063]
$\phi_y$	0.5	0.332 (0.175, 0.480) [0.409]	0.331 (0.177, 0.534) [0.371]	0.390 (0.236, 0.559) [0.297]	0.368 (0.202, 0.521) [0.349]	0.396 (0.209, 0.620) [0.288]	0.436 (0.273, 0.610) [0.248]
Global, Particle Filter, ME 5%							
$\varphi_p$	100	152.6 (134.2, 165.8) [0.520]	160.5 (143.2, 179.3) [0.619]	170.6 (153.8, 193.4) [0.732]	180.2 (161.3, 201.4) [0.814]	187.6 (167.0, 204.5) [0.878]	187.4 (174.7, 202.7) [0.888]
$h$	0.8	0.661 (0.618, 0.695) [0.177]	0.662 (0.611, 0.710) [0.173]	0.670 (0.619, 0.706) [0.169]	0.678 (0.631, 0.707) [0.161]	0.682 (0.637, 0.716) [0.153]	0.676 (0.644, 0.714) [0.157]
$\rho_s$	0.8	0.759 (0.718, 0.797) [0.062]	0.773 (0.741, 0.807) [0.044]	0.795 (0.751, 0.823) [0.028]	0.801 (0.768, 0.840) [0.031]	0.808 (0.780, 0.834) [0.023]	0.809 (0.783, 0.843) [0.028]
$\rho_i$	0.8	0.783 (0.751, 0.823) [0.032]	0.797 (0.746, 0.825) [0.039]	0.795 (0.768, 0.825) [0.023]	0.808 (0.759, 0.829) [0.028]	0.806 (0.757, 0.842) [0.033]	0.804 (0.753, 0.838) [0.031]
$\sigma_g$	0.0050	0.0032 (0.0023, 0.0039) [0.367]	0.0031 (0.0023, 0.0041) [0.381]	0.0034 (0.0024, 0.0044) [0.341]	0.0037 (0.0027, 0.0049) [0.287]	0.0038 (0.0027, 0.0047) [0.275]	0.0040 (0.0030, 0.0052) [0.230]
$\sigma_s$	0.0050	0.0051 (0.0040, 0.0066) [0.147]	0.0051 (0.0042, 0.0068) [0.146]	0.0050 (0.0040, 0.0060) [0.134]	0.0052 (0.0034, 0.0064) [0.184]	0.0050 (0.0041, 0.0064) [0.121]	0.0051 (0.0039, 0.0062) [0.135]
$\sigma_i$	0.0020	0.0017 (0.0014, 0.0020) [0.165]	0.0017 (0.0014, 0.0019) [0.183]	0.0016 (0.0014, 0.0019) [0.209]	0.0016 (0.0013, 0.0019) [0.241]	0.0015 (0.0013, 0.0018) [0.252]	0.0015 (0.0013, 0.0019) [0.244]
$\phi_\pi$	2.0	2.048 (1.876, 2.191) [0.064]	2.073 (1.867, 2.243) [0.072]	2.122 (1.936, 2.329) [0.084]	2.119 (1.899, 2.407) [0.095]	2.120 (1.844, 2.332) [0.086]	2.116 (1.939, 2.309) [0.088]
$\phi_y$	0.5	0.330 (0.212, 0.543) [0.360]	0.377 (0.222, 0.615) [0.308]	0.403 (0.267, 0.602) [0.271]	0.395 (0.256, 0.536) [0.273]	0.403 (0.261, 0.608) [0.268]	0.403 (0.275, 0.617) [0.283]

 Table 3: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.

Ptr	Truth	0Q	6Q	12Q	18Q	24Q	30Q
Level Linear, Kalman Filter, ME 5%							
$\varphi_p$	100	153.8 (134.0, 165.7) [0.523]	160.6 (142.0, 179.5) [0.621]	171.7 (153.7, 198.6) [0.760]	184.4 (163.0, 208.5) [0.841]	193.7 (172.1, 210.9) [0.918]	191.3 (175.3, 204.1) [0.920]
$h$	0.8	0.662 (0.618, 0.692) [0.177]	0.659 (0.609, 0.707) [0.176]	0.671 (0.617, 0.714) [0.169]	0.670 (0.626, 0.705) [0.166]	0.677 (0.635, 0.710) [0.160]	0.668 (0.629, 0.703) [0.168]
$\rho_s$	0.8	0.762 (0.716, 0.801) [0.058]	0.779 (0.740, 0.812) [0.039]	0.800 (0.753, 0.826) [0.027]	0.807 (0.779, 0.846) [0.034]	0.820 (0.792, 0.847) [0.033]	0.823 (0.784, 0.856) [0.040]
$\rho_i$	0.8	0.785 (0.752, 0.823) [0.031]	0.801 (0.745, 0.830) [0.036]	0.812 (0.777, 0.841) [0.029]	0.825 (0.779, 0.862) [0.045]	0.832 (0.800, 0.879) [0.053]	0.843 (0.799, 0.875) [0.058]
$\sigma_g$	0.0050	0.0032 (0.0023, 0.0039) [0.362]	0.0032 (0.0025, 0.0041) [0.363]	0.0036 (0.0027, 0.0045) [0.308]	0.0040 (0.0029, 0.0052) [0.240]	0.0042 (0.0029, 0.0054) [0.222]	0.0043 (0.0030, 0.0057) [0.204]
$\sigma_s$	0.0050	0.0052 (0.0040, 0.0067) [0.153]	0.0051 (0.0042, 0.0068) [0.149]	0.0052 (0.0041, 0.0062) [0.140]	0.0049 (0.0033, 0.0063) [0.177]	0.0047 (0.0039, 0.0059) [0.119]	0.0047 (0.0037, 0.0061) [0.146]
$\sigma_i$	0.0020	0.0017 (0.0015, 0.0020) [0.164]	0.0016 (0.0014, 0.0019) [0.197]	0.0017 (0.0014, 0.0020) [0.172]	0.0016 (0.0012, 0.0019) [0.217]	0.0016 (0.0014, 0.0020) [0.194]	0.0016 (0.0014, 0.0019) [0.196]
$\phi_\pi$	2.0	2.059 (1.876, 2.204) [0.061]	1.992 (1.720, 2.211) [0.073]	1.886 (1.670, 2.087) [0.083]	1.834 (1.615, 2.088) [0.114]	1.692 (1.524, 1.925) [0.155]	1.739 (1.521, 1.913) [0.149]
$\phi_y$	0.5	0.341 (0.219, 0.539) [0.353]	0.341 (0.205, 0.555) [0.356]	0.328 (0.140, 0.539) [0.420]	0.296 (0.180, 0.498) [0.430]	0.296 (0.195, 0.452) [0.422]	0.309 (0.167, 0.467) [0.398]
Global, Particle Filter, ME 5%							
$\varphi_p$	100	152.6 (134.2, 165.8) [0.520]	160.5 (143.2, 179.3) [0.619]	170.6 (153.8, 193.4) [0.732]	180.2 (161.3, 201.4) [0.814]	187.6 (167.0, 204.5) [0.878]	187.4 (174.7, 202.7) [0.888]
$h$	0.8	0.661 (0.618, 0.695) [0.177]	0.662 (0.611, 0.710) [0.173]	0.670 (0.619, 0.706) [0.169]	0.678 (0.631, 0.707) [0.161]	0.682 (0.637, 0.716) [0.153]	0.676 (0.644, 0.714) [0.157]
$\rho_s$	0.8	0.759 (0.718, 0.797) [0.062]	0.773 (0.741, 0.807) [0.044]	0.795 (0.751, 0.823) [0.028]	0.801 (0.768, 0.840) [0.031]	0.808 (0.780, 0.834) [0.023]	0.809 (0.783, 0.843) [0.028]
$\rho_i$	0.8	0.783 (0.751, 0.823) [0.032]	0.797 (0.746, 0.825) [0.039]	0.795 (0.768, 0.825) [0.023]	0.808 (0.759, 0.829) [0.028]	0.806 (0.757, 0.842) [0.033]	0.804 (0.753, 0.838) [0.031]
$\sigma_g$	0.0050	0.0032 (0.0023, 0.0039) [0.367]	0.0031 (0.0023, 0.0041) [0.381]	0.0034 (0.0024, 0.0044) [0.341]	0.0037 (0.0027, 0.0049) [0.287]	0.0038 (0.0027, 0.0047) [0.275]	0.0040 (0.0030, 0.0052) [0.230]
$\sigma_s$	0.0050	0.0051 (0.0040, 0.0066) [0.147]	0.0051 (0.0042, 0.0068) [0.146]	0.0050 (0.0040, 0.0060) [0.134]	0.0052 (0.0034, 0.0064) [0.184]	0.0050 (0.0041, 0.0064) [0.121]	0.0051 (0.0039, 0.0062) [0.135]
$\sigma_i$	0.0020	0.0017 (0.0014, 0.0020) [0.165]	0.0017 (0.0014, 0.0019) [0.183]	0.0016 (0.0014, 0.0019) [0.209]	0.0016 (0.0013, 0.0019) [0.241]	0.0015 (0.0013, 0.0018) [0.252]	0.0015 (0.0013, 0.0019) [0.244]
$\phi_\pi$	2.0	2.048 (1.876, 2.191) [0.064]	2.073 (1.867, 2.243) [0.072]	2.122 (1.936, 2.329) [0.084]	2.119 (1.899, 2.407) [0.095]	2.120 (1.844, 2.332) [0.086]	2.116 (1.939, 2.309) [0.088]
$\phi_y$	0.5	0.330 (0.212, 0.543) [0.360]	0.377 (0.222, 0.615) [0.308]	0.403 (0.267, 0.602) [0.271]	0.395 (0.256, 0.536) [0.273]	0.403 (0.261, 0.608) [0.268]	0.403 (0.275, 0.617) [0.283]

 Table 4: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.

Ptr	Truth	0Q	6Q	12Q	18Q	24Q	30Q
Piecwise Linear, Inversion Filter, ME 0%							
$\varphi_p$	100	144.6 (121.1, 157.3) [0.438]	153.0 (131.3, 170.7) [0.539]	163.1 (140.8, 185.5) [0.661]	171.3 (153.9, 202.0) [0.761]	180.8 (165.3, 204.1) [0.839]	182.2 (169.2, 198.5) [0.841]
$h$	0.8	0.640 (0.611, 0.673) [0.200]	0.641 (0.606, 0.676) [0.202]	0.634 (0.596, 0.667) [0.211]	0.637 (0.611, 0.672) [0.208]	0.633 (0.586, 0.670) [0.211]	0.629 (0.596, 0.672) [0.215]
$\rho_s$	0.8	0.763 (0.728, 0.808) [0.054]	0.774 (0.733, 0.809) [0.043]	0.806 (0.755, 0.833) [0.029]	0.814 (0.783, 0.847) [0.034]	0.821 (0.799, 0.847) [0.033]	0.821 (0.785, 0.856) [0.035]
$\rho_i$	0.8	0.755 (0.712, 0.790) [0.061]	0.756 (0.706, 0.798) [0.068]	0.757 (0.727, 0.786) [0.056]	0.762 (0.683, 0.800) [0.064]	0.763 (0.724, 0.806) [0.058]	0.763 (0.733, 0.808) [0.050]
$\sigma_g$	0.0050	0.0051 (0.0044, 0.0058) [0.091]	0.0053 (0.0048, 0.0068) [0.129]	0.0056 (0.0047, 0.0066) [0.194]	0.0057 (0.0051, 0.0079) [0.243]	0.0058 (0.0051, 0.0074) [0.245]	0.0059 (0.0050, 0.0069) [0.217]
$\sigma_s$	0.0050	0.0050 (0.0042, 0.0063) [0.133]	0.0050 (0.0041, 0.0063) [0.139]	0.0048 (0.0039, 0.0058) [0.133]	0.0048 (0.0031, 0.0058) [0.182]	0.0044 (0.0037, 0.0053) [0.150]	0.0045 (0.0036, 0.0056) [0.147]
$\sigma_i$	0.0020	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0018, 0.0023) [0.073]	0.0021 (0.0018, 0.0022) [0.067]	0.0020 (0.0018, 0.0024) [0.095]	0.0020 (0.0018, 0.0023) [0.081]	0.0020 (0.0019, 0.0024) [0.091]
$\phi_\pi$	2.0	2.026 (1.840, 2.155) [0.058]	1.954 (1.768, 2.158) [0.070]	2.010 (1.785, 2.164) [0.058]	1.978 (1.732, 2.225) [0.076]	1.953 (1.690, 2.190) [0.081]	1.946 (1.771, 2.138) [0.063]
$\phi_y$	0.5	0.332 (0.175, 0.480) [0.409]	0.331 (0.177, 0.534) [0.371]	0.390 (0.236, 0.559) [0.297]	0.368 (0.202, 0.521) [0.349]	0.396 (0.209, 0.620) [0.288]	0.436 (0.273, 0.610) [0.248]
Level Linear, Kalman Filter, ME 0%							
$\varphi_p$	100	144.7 (125.9, 157.7) [0.442]	152.8 (134.2, 168.4) [0.544]	164.2 (147.0, 196.6) [0.688]	175.1 (157.1, 204.9) [0.788]	184.6 (165.6, 204.5) [0.872]	184.4 (168.5, 201.1) [0.876]
$h$	0.8	0.641 (0.612, 0.676) [0.198]	0.639 (0.603, 0.684) [0.200]	0.640 (0.601, 0.674) [0.205]	0.641 (0.616, 0.673) [0.201]	0.636 (0.596, 0.673) [0.205]	0.630 (0.596, 0.672) [0.214]
$\rho_s$	0.8	0.760 (0.720, 0.800) [0.059]	0.777 (0.738, 0.805) [0.042]	0.797 (0.758, 0.830) [0.026]	0.808 (0.764, 0.843) [0.029]	0.818 (0.796, 0.848) [0.033]	0.825 (0.795, 0.851) [0.036]
$\rho_i$	0.8	0.760 (0.727, 0.787) [0.056]	0.769 (0.716, 0.801) [0.054]	0.779 (0.750, 0.809) [0.036]	0.789 (0.736, 0.840) [0.035]	0.789 (0.766, 0.847) [0.031]	0.809 (0.767, 0.852) [0.034]
$\sigma_g$	0.0050	0.0050 (0.0043, 0.0054) [0.074]	0.0051 (0.0045, 0.0058) [0.083]	0.0054 (0.0048, 0.0066) [0.158]	0.0057 (0.0051, 0.0067) [0.171]	0.0059 (0.0049, 0.0071) [0.231]	0.0059 (0.0051, 0.0068) [0.214]
$\sigma_s$	0.0050	0.0050 (0.0043, 0.0064) [0.138]	0.0049 (0.0042, 0.0062) [0.143]	0.0049 (0.0040, 0.0058) [0.115]	0.0048 (0.0035, 0.0059) [0.150]	0.0044 (0.0038, 0.0053) [0.149]	0.0045 (0.0036, 0.0052) [0.151]
$\sigma_i$	0.0020	0.0020 (0.0018, 0.0022) [0.073]	0.0020 (0.0018, 0.0022) [0.071]	0.0020 (0.0018, 0.0023) [0.075]	0.0020 (0.0016, 0.0022) [0.077]	0.0019 (0.0017, 0.0022) [0.078]	0.0019 (0.0017, 0.0022) [0.076]
$\phi_\pi$	2.0	2.027 (1.845, 2.154) [0.056]	1.951 (1.712, 2.168) [0.073]	1.848 (1.604, 2.071) [0.099]	1.778 (1.511, 2.039) [0.137]	1.646 (1.419, 1.917) [0.188]	1.678 (1.464, 1.886) [0.171]
$\phi_y$	0.5	0.330 (0.179, 0.478) [0.395]	0.316 (0.198, 0.523) [0.406]	0.280 (0.112, 0.479) [0.484]	0.257 (0.140, 0.430) [0.512]	0.239 (0.150, 0.374) [0.515]	0.271 (0.169, 0.437) [0.465]

 Table 5: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.

Ptr	Truth	0Q	6Q	12Q	18Q	24Q	30Q
No misspecification, Piecewise Linear, Inversion Filter, ME 0%							
$\varphi_p$	100	93.9 (81.8, 108.3) [0.105]	96.5 (81.8, 114.7) [0.115]	98.8 (88.6, 116.6) [0.095]	107.8 (92.7, 119.2) [0.114]	108.4 (90.5, 123.0) [0.136]	110.3 (95.3, 125.1) [0.148]
$h$	0.8	0.793 (0.755, 0.816) [0.024]	0.793 (0.761, 0.824) [0.026]	0.793 (0.765, 0.821) [0.022]	0.793 (0.760, 0.825) [0.025]	0.798 (0.765, 0.816) [0.020]	0.794 (0.770, 0.820) [0.021]
$\rho_s$	0.8	0.808 (0.758, 0.849) [0.037]	0.811 (0.773, 0.856) [0.034]	0.819 (0.755, 0.861) [0.043]	0.830 (0.788, 0.863) [0.046]	0.833 (0.797, 0.862) [0.046]	0.835 (0.798, 0.874) [0.056]
$\rho_i$	0.8	0.795 (0.766, 0.822) [0.023]	0.798 (0.753, 0.820) [0.029]	0.791 (0.754, 0.818) [0.029]	0.796 (0.766, 0.825) [0.023]	0.791 (0.762, 0.828) [0.028]	0.791 (0.735, 0.818) [0.032]
$\sigma_g$	0.0050	0.0050 (0.0044, 0.0056) [0.082]	0.0049 (0.0043, 0.0060) [0.101]	0.0050 (0.0043, 0.0059) [0.101]	0.0051 (0.0044, 0.0060) [0.090]	0.0051 (0.0041, 0.0058) [0.093]	0.0051 (0.0043, 0.0061) [0.110]
$\sigma_s$	0.0050	0.0049 (0.0039, 0.0060) [0.165]	0.0050 (0.0042, 0.0062) [0.128]	0.0049 (0.0040, 0.0072) [0.178]	0.0046 (0.0038, 0.0060) [0.155]	0.0047 (0.0039, 0.0058) [0.136]	0.0047 (0.0034, 0.0057) [0.168]
$\sigma_i$	0.0020	0.0020 (0.0017, 0.0022) [0.069]	0.0020 (0.0018, 0.0023) [0.072]	0.0020 (0.0018, 0.0023) [0.073]	0.0020 (0.0017, 0.0023) [0.083]	0.0021 (0.0018, 0.0023) [0.085]	0.0020 (0.0016, 0.0022) [0.098]
$\phi_\pi$	2.0	1.968 (1.738, 2.142) [0.064]	1.938 (1.588, 2.158) [0.087]	1.941 (1.709, 2.144) [0.073]	1.885 (1.649, 2.085) [0.085]	1.874 (1.614, 2.069) [0.097]	1.811 (1.582, 2.063) [0.123]
$\phi_y$	0.5	0.460 (0.296, 0.631) [0.212]	0.504 (0.329, 0.648) [0.199]	0.523 (0.353, 0.729) [0.244]	0.550 (0.392, 0.749) [0.238]	0.538 (0.373, 0.718) [0.247]	0.520 (0.317, 0.729) [0.228]
$\Sigma$		[0.782]	[0.792]	[0.856]	[0.860]	[0.889]	[0.985]
No misspecification, Level Linear, Kalman Filter, ME 0%							
$\varphi_p$	100	92.6 (82.1, 107.2) [0.108]	96.5 (80.5, 116.2) [0.118]	104.1 (83.5, 121.6) [0.119]	110.1 (92.4, 125.1) [0.140]	112.2 (95.2, 131.4) [0.175]	121.4 (101.3, 136.9) [0.226]
$h$	0.8	0.793 (0.754, 0.816) [0.023]	0.793 (0.761, 0.824) [0.026]	0.793 (0.764, 0.822) [0.022]	0.794 (0.755, 0.822) [0.025]	0.795 (0.768, 0.817) [0.020]	0.792 (0.770, 0.815) [0.021]
$\rho_s$	0.8	0.808 (0.756, 0.836) [0.036]	0.811 (0.774, 0.852) [0.033]	0.827 (0.764, 0.867) [0.047]	0.836 (0.798, 0.874) [0.051]	0.841 (0.810, 0.869) [0.058]	0.853 (0.813, 0.883) [0.072]
$\rho_i$	0.8	0.795 (0.764, 0.821) [0.022]	0.807 (0.768, 0.829) [0.024]	0.813 (0.771, 0.841) [0.028]	0.820 (0.795, 0.853) [0.034]	0.828 (0.804, 0.865) [0.047]	0.834 (0.806, 0.863) [0.050]
$\sigma_g$	0.0050	0.0049 (0.0045, 0.0056) [0.079]	0.0048 (0.0042, 0.0060) [0.098]	0.0050 (0.0043, 0.0058) [0.091]	0.0050 (0.0043, 0.0056) [0.078]	0.0050 (0.0041, 0.0057) [0.087]	0.0050 (0.0041, 0.0057) [0.092]
$\sigma_s$	0.0050	0.0050 (0.0039, 0.0060) [0.161]	0.0049 (0.0041, 0.0061) [0.121]	0.0047 (0.0038, 0.0067) [0.172]	0.0045 (0.0037, 0.0061) [0.168]	0.0044 (0.0037, 0.0054) [0.156]	0.0043 (0.0031, 0.0052) [0.208]
$\sigma_i$	0.0020	0.0020 (0.0017, 0.0022) [0.069]	0.0019 (0.0018, 0.0022) [0.071]	0.0020 (0.0018, 0.0022) [0.070]	0.0019 (0.0017, 0.0021) [0.089]	0.0020 (0.0017, 0.0021) [0.080]	0.0019 (0.0016, 0.0021) [0.104]
$\phi_\pi$	2.0	1.954 (1.722, 2.158) [0.066]	1.936 (1.660, 2.130) [0.078]	1.889 (1.651, 2.090) [0.093]	1.767 (1.578, 2.002) [0.136]	1.707 (1.583, 1.912) [0.151]	1.605 (1.417, 1.841) [0.204]
$\phi_y$	0.5	0.463 (0.324, 0.635) [0.213]	0.486 (0.309, 0.656) [0.212]	0.504 (0.328, 0.656) [0.202]	0.490 (0.390, 0.681) [0.198]	0.486 (0.322, 0.625) [0.197]	0.469 (0.316, 0.658) [0.207]
$\Sigma$		[0.778]	[0.782]	[0.845]	[0.919]	[0.972]	[1.184]

Table 6: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.  $\Sigma$  is the sum of NRMSE.

Ptr	Truth	NL-PF-2%		PW-IF-0%		Lin-KF-2%	
		0Q	30Q	0Q	30Q	0Q	30Q
$\varphi_p$	100	151.8 (133.5, 165.3) [0.513]	192.4 (176.5, 207.1) [0.925]	144.6 (121.1, 157.3) [0.438]	182.2 (169.2, 198.5) [0.841]	152.5 (133.3, 165.3) [0.514]	194.3 (177.8, 209.3) [0.957]
$h$	0.8	0.656 (0.617, 0.685) [0.182]	0.667 (0.641, 0.707) [0.167]	0.640 (0.611, 0.673) [0.200]	0.629 (0.596, 0.672) [0.215]	0.656 (0.619, 0.687) [0.183]	0.656 (0.624, 0.697) [0.181]
$\rho_s$	0.8	0.757 (0.715, 0.795) [0.064]	0.807 (0.782, 0.839) [0.025]	0.763 (0.728, 0.808) [0.054]	0.821 (0.785, 0.856) [0.035]	0.760 (0.717, 0.798) [0.059]	0.821 (0.788, 0.853) [0.036]
$\rho_i$	0.8	0.766 (0.732, 0.801) [0.048]	0.790 (0.748, 0.831) [0.034]	0.755 (0.712, 0.790) [0.061]	0.763 (0.733, 0.808) [0.050]	0.770 (0.734, 0.801) [0.045]	0.829 (0.776, 0.862) [0.044]
$\sigma_g$	0.0050	0.0038 (0.0031, 0.0043) [0.253]	0.0042 (0.0035, 0.0052) [0.176]	0.0051 (0.0044, 0.0058) [0.091]	0.0059 (0.0050, 0.0069) [0.217]	0.0038 (0.0031, 0.0043) [0.252]	0.0045 (0.0036, 0.0058) [0.152]
$\sigma_s$	0.0050	0.0051 (0.0039, 0.0065) [0.147]	0.0051 (0.0040, 0.0061) [0.130]	0.0050 (0.0042, 0.0063) [0.133]	0.0045 (0.0036, 0.0056) [0.147]	0.0052 (0.0041, 0.0065) [0.153]	0.0048 (0.0038, 0.0058) [0.132]
$\sigma_i$	0.0020	0.0019 (0.0017, 0.0021) [0.102]	0.0017 (0.0016, 0.0021) [0.142]	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0019, 0.0024) [0.091]	0.0019 (0.0017, 0.0021) [0.101]	0.0017 (0.0016, 0.0020) [0.137]
$\phi_\pi$	2.0	2.024 (1.837, 2.161) [0.061]	2.127 (1.956, 2.309) [0.089]	2.026 (1.840, 2.155) [0.058]	1.946 (1.771, 2.138) [0.063]	2.033 (1.856, 2.175) [0.058]	1.701 (1.512, 1.909) [0.162]
$\phi_y$	0.5	0.308 (0.182, 0.481) [0.418]	0.377 (0.243, 0.596) [0.319]	0.332 (0.175, 0.480) [0.409]	0.436 (0.273, 0.610) [0.248]	0.308 (0.182, 0.490) [0.407]	0.265 (0.144, 0.395) [0.480]
$\Sigma$		[1.788]	[2.007]	[1.527]	[1.906]	[1.772]	[2.280]

Table 7: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.  $\Sigma$  is the sum of the NRMSE.

Ptr	Truth	NL-PF-10%		PW-IF-0%		Lin-KF-10%	
		0Q	30Q	0Q	30Q	0Q	30Q
$\varphi_p$	100	150.2 (132.6, 163.8) [0.503]	182.3 (168.6, 197.3) [0.831]	144.6 (121.1, 157.3) [0.438]	182.2 (169.2, 198.5) [0.841]	151.4 (133.8, 162.1) [0.506]	184.9 (172.1, 201.7) [0.863]
$h$	0.8	0.665 (0.614, 0.696) [0.174]	0.683 (0.645, 0.720) [0.149]	0.640 (0.611, 0.673) [0.200]	0.629 (0.596, 0.672) [0.215]	0.667 (0.613, 0.693) [0.173]	0.676 (0.638, 0.711) [0.157]
$\rho_s$	0.8	0.760 (0.718, 0.791) [0.060]	0.810 (0.786, 0.850) [0.031]	0.763 (0.728, 0.808) [0.054]	0.821 (0.785, 0.856) [0.035]	0.763 (0.718, 0.798) [0.057]	0.824 (0.786, 0.859) [0.044]
$\rho_i$	0.8	0.806 (0.770, 0.838) [0.027]	0.811 (0.761, 0.846) [0.033]	0.755 (0.712, 0.790) [0.061]	0.763 (0.733, 0.808) [0.050]	0.804 (0.771, 0.837) [0.026]	0.855 (0.817, 0.887) [0.071]
$\sigma_g$	0.0050	0.0027 (0.0020, 0.0035) [0.463]	0.0039 (0.0025, 0.0050) [0.282]	0.0051 (0.0044, 0.0058) [0.091]	0.0059 (0.0050, 0.0069) [0.217]	0.0028 (0.0020, 0.0036) [0.456]	0.0041 (0.0025, 0.0057) [0.263]
$\sigma_s$	0.0050	0.0050 (0.0041, 0.0065) [0.139]	0.0050 (0.0037, 0.0061) [0.145]	0.0050 (0.0042, 0.0063) [0.133]	0.0045 (0.0036, 0.0056) [0.147]	0.0051 (0.0041, 0.0065) [0.142]	0.0047 (0.0036, 0.0060) [0.165]
$\sigma_i$	0.0020	0.0016 (0.0012, 0.0018) [0.246]	0.0013 (0.0011, 0.0017) [0.342]	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0019, 0.0024) [0.091]	0.0016 (0.0012, 0.0018) [0.243]	0.0015 (0.0013, 0.0018) [0.250]
$\phi_\pi$	2.0	2.072 (1.894, 2.214) [0.066]	2.100 (1.922, 2.282) [0.082]	2.026 (1.840, 2.155) [0.058]	1.946 (1.771, 2.138) [0.063]	2.074 (1.897, 2.224) [0.064]	1.752 (1.572, 1.917) [0.139]
$\phi_y$	0.5	0.405 (0.263, 0.588) [0.270]	0.452 (0.303, 0.659) [0.235]	0.332 (0.175, 0.480) [0.409]	0.436 (0.273, 0.610) [0.248]	0.408 (0.269, 0.585) [0.267]	0.369 (0.224, 0.549) [0.295]
$\Sigma$		[1.948]	[2.130]	[1.527]	[1.906]	[1.936]	[2.248]

Table 8: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters.  $\Sigma$  is the sum of the NRMSE.

Ptr	Truth	NL-PF-2%		NL-PF-5%		NL-PF-10%	
		0Q	30Q	0Q	30Q	0Q	30Q
$\varphi_p$	100	151.8 (133.5, 165.3) [0.513]	192.4 (176.5, 207.1) [0.925]	152.6 (134.2, 165.8) [0.520]	187.4 (174.7, 202.7) [0.888]	150.2 (132.6, 163.8) [0.503]	182.3 (168.2, 193.0) [0.824]
$h$	0.8	0.656 (0.617, 0.685) [0.182]	0.667 (0.641, 0.707) [0.167]	0.661 (0.618, 0.695) [0.177]	0.676 (0.644, 0.714) [0.157]	0.665 (0.614, 0.696) [0.174]	0.683 (0.647, 0.720) [0.148]
$\rho_s$	0.8	0.757 (0.715, 0.795) [0.064]	0.807 (0.782, 0.839) [0.025]	0.759 (0.718, 0.797) [0.062]	0.809 (0.783, 0.843) [0.028]	0.760 (0.718, 0.791) [0.060]	0.806 (0.784, 0.848) [0.029]
$\rho_i$	0.8	0.766 (0.732, 0.801) [0.048]	0.790 (0.748, 0.831) [0.034]	0.783 (0.751, 0.823) [0.032]	0.804 (0.753, 0.838) [0.031]	0.806 (0.770, 0.838) [0.027]	0.811 (0.761, 0.846) [0.033]
$\sigma_g$	0.0050	0.0038 (0.0031, 0.0043) [0.253]	0.0042 (0.0035, 0.0052) [0.176]	0.0032 (0.0023, 0.0039) [0.367]	0.0040 (0.0030, 0.0052) [0.230]	0.0027 (0.0020, 0.0035) [0.463]	0.0039 (0.0025, 0.0050) [0.286]
$\sigma_s$	0.0050	0.0051 (0.0039, 0.0065) [0.147]	0.0051 (0.0040, 0.0061) [0.130]	0.0051 (0.0040, 0.0066) [0.147]	0.0051 (0.0039, 0.0062) [0.135]	0.0050 (0.0041, 0.0065) [0.139]	0.0050 (0.0037, 0.0061) [0.142]
$\sigma_i$	0.0020	0.0019 (0.0017, 0.0021) [0.102]	0.0017 (0.0016, 0.0021) [0.142]	0.0017 (0.0014, 0.0020) [0.165]	0.0015 (0.0013, 0.0019) [0.244]	0.0016 (0.0012, 0.0018) [0.246]	0.0013 (0.0011, 0.0017) [0.336]
$\phi_\pi$	2.0	2.024 (1.837, 2.161) [0.061]	2.127 (1.956, 2.309) [0.089]	2.048 (1.876, 2.191) [0.064]	2.116 (1.939, 2.309) [0.088]	2.072 (1.894, 2.214) [0.066]	2.100 (1.918, 2.284) [0.083]
$\phi_y$	0.5	0.308 (0.182, 0.481) [0.418]	0.377 (0.243, 0.596) [0.319]	0.330 (0.212, 0.543) [0.360]	0.403 (0.275, 0.617) [0.283]	0.405 (0.263, 0.588) [0.270]	0.452 (0.302, 0.670) [0.240]
$\Sigma$		[1.788]	[2.007]	[1.895]	[2.084]	[1.948]	[2.120]

 Table 9: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean parameter estimates.  $\Sigma$  is the NRMSE sum.

	0Q	6Q	12Q	18Q	24Q	30Q
Level Linear, Kalman Filter, ME 0% (1 core)						
Seconds per draw	0.002 (0.002, 0.004)	0.002 (0.001, 0.003)	0.002 (0.001, 0.003)	0.002 (0.001, 0.003)	0.002 (0.001, 0.003)	0.002 (0.001, 0.003)
Hours per dataset	0.044 (0.044, 0.089)	0.044 (0.022, 0.067)	0.044 (0.022, 0.067)	0.044 (0.022, 0.067)	0.044 (0.022, 0.067)	0.044 (0.022, 0.067)
Piecewise Linear, Inversion Filter, ME 0% (1 core)						
Seconds per draw	0.034 (0.031, 0.040)	0.039 (0.035, 0.046)	0.062 (0.044, 0.084)	0.058 (0.039, 0.080)	0.093 (0.055, 0.141)	0.098 (0.051, 0.135)
Hours per dataset	0.767 (0.689, 0.889)	0.867 (0.778, 1.022)	1.378 (0.978, 1.866)	1.289 (0.867, 1.778)	2.077 (1.222, 3.133)	2.177 (1.133, 3.000)
Global, Particle Filter, ME 5% (16 cores)						
Seconds per draw	6.5 (6.1, 7.9)	7.0 (6.5, 8.5)	7.9 (6.7, 8.9)	8.0 (7.0, 9.2)	8.4 (7.1, 9.4)	8.2 (7.5, 9.5)
Hours per dataset	144.5 (134.9, 176.5)	156.6 (143.8, 189.3)	176.0 (148.0, 196.7)	178.8 (155.2, 204.3)	187.5 (157.6, 208.2)	182.5 (167.6, 210.7)

Table 10: Median, (5%, 95%) credible sets estimation times.



Ptr	Truth	NL-PF-5%		PW-IF-0%		Lin-KF-0%	
		0Q	30Q	0Q	30Q	0Q	30Q
mean( $y^g$ )	0.058	0.026 (0.021, 0.035) [0.031]	0.034 (0.027, 0.043) [0.024]	0.023 (0.018, 0.030) [0.035]	0.030 (0.022, 0.038) [0.028]	0.024 (0.018, 0.032) [0.035]	0.038 (0.030, 0.056) [0.020]
mean( $\pi$ )	1.388	2.073 (2.029, 2.091) [0.681]	1.969 (1.870, 2.021) [0.577]	2.139 (2.134, 2.143) [0.751]	2.134 (2.126, 2.141) [0.745]	2.142 (2.137, 2.147) [0.754]	2.144 (2.137, 2.153) [0.757]
mean( $i$ )	2.259	3.139 (3.075, 3.166) [0.873]	2.983 (2.836, 3.065) [0.719]	3.277 (3.264, 3.308) [1.021]	3.315 (3.291, 3.350) [1.058]	3.267 (3.259, 3.275) [1.007]	3.267 (3.254, 3.284) [1.008]
std( $y^g$ )	3.265	2.377 (2.184, 2.692) [0.875]	2.741 (2.452, 3.044) [0.557]	2.487 (2.265, 2.793) [0.774]	2.844 (2.558, 3.133) [0.452]	2.479 (2.247, 2.763) [0.787]	3.255 (2.945, 3.704) [0.222]
std( $\pi$ )	1.578	1.022 (0.900, 1.145) [0.559]	1.263 (1.142, 1.406) [0.318]	1.065 (0.949, 1.188) [0.515]	1.281 (1.178, 1.438) [0.293]	1.057 (0.943, 1.177) [0.526]	1.388 (1.245, 1.559) [0.209]
std( $i$ )	1.964	1.444 (1.310, 1.678) [0.515]	1.786 (1.687, 1.906) [0.185]	1.579 (1.456, 1.832) [0.388]	1.902 (1.758, 2.136) [0.110]	1.580 (1.466, 1.899) [0.382]	1.703 (1.571, 1.884) [0.270]
skew( $y^g$ )	-0.280	0.087 (0.077, 0.099) [0.368]	0.085 (0.069, 0.102) [0.366]	0.052 (0.046, 0.059) [0.332]	0.054 (0.044, 0.064) [0.334]	0.052 (0.044, 0.060) [0.332]	0.066 (0.059, 0.077) [0.347]
skew( $\pi$ )	-0.343	0.036 (-0.024, 0.063) [0.373]	-0.098 (-0.162, -0.014) [0.253]	0.012 (-0.007, 0.021) [0.354]	-0.018 (-0.066, 0.002) [0.322]	0.021 (0.013, 0.025) [0.363]	0.026 (0.017, 0.033) [0.369]
skew( $i$ )	0.547	0.081 (0.050, 0.151) [0.460]	0.205 (0.148, 0.287) [0.338]	0.111 (0.078, 0.190) [0.431]	0.211 (0.164, 0.297) [0.331]	0.029 (0.022, 0.036) [0.518]	0.027 (0.022, 0.034) [0.520]
AC( $y^g$ )	0.567	0.362 (0.333, 0.399) [0.203]	0.421 (0.381, 0.443) [0.150]	0.367 (0.333, 0.399) [0.200]	0.401 (0.362, 0.421) [0.172]	0.363 (0.331, 0.396) [0.204]	0.405 (0.365, 0.430) [0.165]
AC( $\pi$ )	0.845	0.675 (0.640, 0.712) [0.170]	0.734 (0.708, 0.755) [0.111]	0.681 (0.651, 0.722) [0.164]	0.753 (0.732, 0.772) [0.093]	0.677 (0.649, 0.714) [0.167]	0.739 (0.718, 0.759) [0.107]
AC( $i$ )	0.904	0.854 (0.813, 0.881) [0.056]	0.902 (0.879, 0.924) [0.013]	0.838 (0.801, 0.858) [0.070]	0.881 (0.851, 0.897) [0.030]	0.837 (0.801, 0.861) [0.070]	0.875 (0.853, 0.891) [0.031]

 Table 11: Median, (5%, 95%) credible sets and  $[NRMSE]$  of moments.

Ptr	Truth	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6
Global, Particle Filter, ME 5%							
$\varphi_p$	100	152.6 (134.2, 165.8) [0.520]	160.0 (143.2, 175.5) [0.612]	170.1 (152.3, 182.4) [0.696]	181.6 (166.1, 192.9) [0.810]	185.9 (173.9, 203.0) [0.874]	192.2 (178.1, 209.1) [0.930]
$h$	0.8	0.661 (0.618, 0.695) [0.177]	0.660 (0.611, 0.710) [0.175]	0.668 (0.628, 0.696) [0.171]	0.670 (0.623, 0.716) [0.164]	0.681 (0.651, 0.714) [0.152]	0.683 (0.644, 0.712) [0.150]
$\rho_s$	0.8	0.759 (0.718, 0.797) [0.062]	0.773 (0.741, 0.807) [0.044]	0.794 (0.749, 0.829) [0.031]	0.801 (0.775, 0.839) [0.026]	0.804 (0.779, 0.834) [0.021]	0.815 (0.794, 0.843) [0.030]
$\rho_i$	0.8	0.783 (0.751, 0.823) [0.032]	0.799 (0.746, 0.824) [0.038]	0.797 (0.761, 0.829) [0.024]	0.802 (0.755, 0.827) [0.032]	0.806 (0.753, 0.842) [0.032]	0.803 (0.757, 0.834) [0.029]
$\sigma_g$	0.0050	0.0032 (0.0023, 0.0039) [0.367]	0.0031 (0.0023, 0.0041) [0.383]	0.0034 (0.0023, 0.0044) [0.344]	0.0036 (0.0027, 0.0045) [0.301]	0.0038 (0.0027, 0.0047) [0.271]	0.0043 (0.0030, 0.0054) [0.208]
$\sigma_s$	0.0050	0.0051 (0.0040, 0.0066) [0.147]	0.0051 (0.0042, 0.0068) [0.146]	0.0050 (0.0039, 0.0066) [0.164]	0.0050 (0.0037, 0.0064) [0.153]	0.0051 (0.0040, 0.0065) [0.135]	0.0051 (0.0039, 0.0059) [0.127]
$\sigma_i$	0.0020	0.0017 (0.0014, 0.0020) [0.165]	0.0017 (0.0014, 0.0019) [0.183]	0.0016 (0.0013, 0.0019) [0.217]	0.0015 (0.0013, 0.0019) [0.249]	0.0016 (0.0012, 0.0019) [0.239]	0.0015 (0.0013, 0.0018) [0.241]
$\phi_\pi$	2.0	2.048 (1.876, 2.191) [0.064]	2.087 (1.895, 2.270) [0.073]	2.087 (1.899, 2.274) [0.076]	2.139 (1.950, 2.328) [0.091]	2.125 (1.931, 2.416) [0.096]	2.101 (1.928, 2.332) [0.088]
$\phi_y$	0.5	0.330 (0.212, 0.543) [0.360]	0.384 (0.222, 0.634) [0.305]	0.390 (0.242, 0.571) [0.286]	0.399 (0.256, 0.602) [0.297]	0.415 (0.285, 0.576) [0.241]	0.403 (0.275, 0.617) [0.270]
$\Sigma$		[1.895]	[1.960]	[2.011]	[2.124]	[2.062]	[2.072]
Piecewise Linear, Inversion Filter, ME 0%							
$\varphi_p$	100	144.6 (121.1, 157.3) [0.438]	153.0 (131.7, 169.1) [0.538]	160.1 (140.8, 177.3) [0.612]	174.8 (155.6, 185.5) [0.739]	182.1 (170.5, 203.1) [0.836]	189.5 (169.9, 205.0) [0.899]
$h$	0.8	0.640 (0.611, 0.673) [0.200]	0.635 (0.591, 0.676) [0.204]	0.631 (0.605, 0.669) [0.212]	0.634 (0.577, 0.675) [0.212]	0.639 (0.598, 0.670) [0.207]	0.630 (0.596, 0.668) [0.212]
$\rho_s$	0.8	0.763 (0.728, 0.808) [0.054]	0.774 (0.733, 0.809) [0.043]	0.806 (0.755, 0.833) [0.030]	0.813 (0.779, 0.847) [0.032]	0.817 (0.792, 0.841) [0.027]	0.828 (0.793, 0.855) [0.041]
$\rho_i$	0.8	0.755 (0.712, 0.790) [0.061]	0.756 (0.706, 0.798) [0.068]	0.755 (0.725, 0.783) [0.061]	0.756 (0.697, 0.800) [0.066]	0.769 (0.730, 0.808) [0.051]	0.764 (0.733, 0.808) [0.050]
$\sigma_g$	0.0050	0.0051 (0.0044, 0.0058) [0.091]	0.0052 (0.0048, 0.0061) [0.115]	0.0055 (0.0047, 0.0070) [0.198]	0.0057 (0.0050, 0.0079) [0.229]	0.0057 (0.0051, 0.0067) [0.209]	0.0061 (0.0053, 0.0074) [0.268]
$\sigma_s$	0.0050	0.0050 (0.0042, 0.0063) [0.133]	0.0050 (0.0041, 0.0063) [0.141]	0.0047 (0.0034, 0.0059) [0.163]	0.0046 (0.0033, 0.0058) [0.164]	0.0047 (0.0037, 0.0056) [0.125]	0.0044 (0.0036, 0.0056) [0.160]
$\sigma_i$	0.0020	0.0020 (0.0018, 0.0023) [0.082]	0.0020 (0.0018, 0.0023) [0.075]	0.0021 (0.0018, 0.0024) [0.090]	0.0020 (0.0018, 0.0023) [0.075]	0.0020 (0.0018, 0.0023) [0.080]	0.0020 (0.0018, 0.0023) [0.088]
$\phi_\pi$	2.0	2.026 (1.840, 2.155) [0.058]	1.958 (1.768, 2.158) [0.071]	1.984 (1.732, 2.164) [0.068]	1.965 (1.689, 2.190) [0.070]	1.977 (1.738, 2.229) [0.071]	1.951 (1.756, 2.138) [0.071]
$\phi_y$	0.5	0.332 (0.175, 0.480) [0.409]	0.339 (0.177, 0.547) [0.363]	0.359 (0.201, 0.523) [0.334]	0.364 (0.202, 0.621) [0.348]	0.425 (0.245, 0.610) [0.251]	0.439 (0.258, 0.575) [0.256]
$\Sigma$		[1.527]	[1.618]	[1.767]	[1.935]	[1.857]	[2.044]

Table 12: Median, (5%, 95%) credible sets and  $[NRMSE]$  of the mean posterior estimated parameters. Column number refers to quantile of the summed notional rate below 0.