Supplemental Appendix

"Dynamic Panel Data Models with Irregular Spacing: with an Application to Early Childhood Development"

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$AR(1)$ Imputation

E-CRE-AR1

Suppose that each covariate follows its own $AR(1)$ process

$$x_{it} = x_{it-1} \times \text{diag}[\rho_1, ..., \rho_K] + u_{it}, \tag{1}$$

where x_{it}, x_{it-1}, and u_{it} are $1 \times K$ vectors and $\text{diag}[A_1, ..., A_K]$ is a $K \times K$ diagonal matrix with elements $A_1, ..., A_K$ along the diagonal. Repeated substitution of (1) into (16) found in the main text yields

$$\begin{aligned} y_{im} &= \gamma^{g_m} y_{im-1} + x_{im}\beta + D_{im} x_{im-1} \times \text{diag}\left[\sum_{j=1}^{g_m-1} \rho_1^{g_m-j}\gamma^j, ..., \sum_{j=1}^{g_m-1} \rho_K^{g_m-j}\gamma^j\right] \times \beta \\ &\quad + \overline{x}_i \left(\frac{1-\gamma^{g_m}}{1-\gamma}\right)\delta + \overset{\vee}{\varepsilon}_{im}, \qquad i = 1, ..., N;\ m = 1, ..., M, \end{aligned} \tag{2}$$

where

$$\overset{\vee}{\varepsilon}_{im} \equiv \left(\frac{1-\gamma^{g_m}}{1-\gamma}\right)\upsilon_i + D_{im}\sum_{j=1}^{g_m-1} u_{i,t(m)-j}\left(\sum_{l=1}^{j}\rho^{l-1}\gamma^{j+1-l}\beta\right) + \sum_{j=0}^{g_m-1}\gamma^j \varepsilon_{i,t(m)-j}.$$

Assuming x is strictly exogenous with respect to ε and $\text{E}[x_{it}u_{is}] = 0\ \forall s \neq t$, and (**??**) and (1) are correctly specified, then E-CRE applied to (2) is consistent as $T \to \infty$ and also yields estimates of ρ_k, $k = 1, ..., K$. We denote this estimator as E-CRE-AR1.

QD-GMM-AR1

Suppose that each covariate follows its own $AR(1)$ process, given in (1). The estimating equation in this case is given by

$$\begin{aligned} y_{im} - \varphi_m y_{im-1} &= \gamma^{g_m} y_{im-1} - \varphi_m \gamma^{g_{m-1}} y_{im-2} + (x_{im} - \varphi_m x_{im-1})\beta \\ &+ D_{im} x_{im-1} \times \text{diag}\left[\sum_{j=1}^{g_m-1} \rho_1^{g_m-j}\gamma^j, ..., \sum_{j=1}^{g_m-1} \rho_K^{g_m-j}\gamma^j\right] \times \beta \\ &- \varphi_m D_{im-1} x_{im-2} \times \text{diag}\left[\sum_{j=1}^{g_{m-1}-1} \rho_1^{g_{m-1}-j}\gamma^j, ..., \sum_{j=1}^{g_{m-1}-1} \rho_K^{g_{m-1}-j}\gamma^j\right] \times \beta \\ &+ \overset{\vee}{\varepsilon}_{im}, \qquad i = 1, ..., N;\ m = 2, ..., M, \end{aligned} \tag{3}$$

where

$$\begin{aligned} \overset{\vee}{\varepsilon}_{im} \equiv\ & D_{im} \sum_{j=1}^{g_m-1} u_{i,t(m)-j} \left(\sum_{l=1}^{j} \rho^{l-1}\gamma^{j+1-l}\beta\right) - \varphi_m D_{im-1} \sum_{j=1}^{g_{m-1}-1} u_{i,t(m-1)-j} \left(\sum_{l=1}^{j} \rho^{l-1}\gamma^{j+1-l}\beta\right) \\ &+ \sum_{j=0}^{g_m-1} \gamma^j \varepsilon_{i,t(m)-j} - \varphi_m \sum_{j=0}^{g_{m-1}-1} \gamma^j \varepsilon_{i,t(m-1)-j}. \end{aligned}$$

Empirical Monte Carlo Study

To investigate the source(s) of the differences between the QD-GMM-A(-C) and E-CRE-A(-C) estimators in the real data, we perform an Empirical Monte Carlo study akin to the strategy pursued in Huber et al. (2013) and Millimet and Tchernis (2013). The simulations utilize the preceding sample from the ECLS-K, along with actual data on the covariates, x, and BMI z-score from initial period, y_0. We then vary γ while fixing β and the salience of the unobserved effect, α.

Specifically, the data are simulated as follows:

$$
\begin{aligned}
\widetilde{y}_{im} &= \gamma^{g_m}\widetilde{y}_{im-1} + x_{im}\boldsymbol{\beta} + \left(\frac{1-\gamma^{g_m}}{1-\gamma}\right)\widetilde{\alpha}_i + \widetilde{\varepsilon}_{im}, \qquad i = 1, ..., N;\ m = 1, ..., M \\
\widetilde{\varepsilon}_{im} &= \widetilde{\varepsilon}_{1im} + \widetilde{\varepsilon}_{2im} + \widetilde{\varepsilon}_{3im} \\
\widetilde{\varepsilon}_{1im} &\overset{\text{iid}}{\sim} N\left(x_{im}\boldsymbol{\beta}\gamma^2, \frac{0.25}{s}\right) \\
\widetilde{\varepsilon}_{2im} &\overset{\text{iid}}{\sim} N\left(x_{im-1}\boldsymbol{\beta}\gamma^2, \frac{0.25}{s}\right) \\
\widetilde{\varepsilon}_{3im} &\overset{\text{iid}}{\sim} N\left(0, \frac{0.50}{s}\right) \\
\widetilde{\alpha}_i &\overset{\text{iid}}{\sim} N\left(\overline{x}_i\boldsymbol{\beta}, \frac{\mu_\alpha}{s}(1-\gamma)^2\right),
\end{aligned}
$$

where $\widetilde{\cdot}$ denotes simulated variables (except that $\widetilde{y}_{i0} = y_{i0}$ for all i), $\boldsymbol{\beta}$ is a $K \times 1$ vector of parameters, $\overline{x}_i$ is a vector of individual-specific means of the covariates, $\widetilde{\varepsilon}_1$ and $\widetilde{\varepsilon}_2$ capture correlation between the covariates and the error term due to the presence of missing, serially correlated covariates, μ_α affects the relative importance of α versus ε in the determination of y, and s manipulates the variance of the noise explaining y_{it} contained in α_i and ε_{it} relative to the signal contained in the within variation of x_{it} and y_{it-1}. The parameter values are

$$
(\gamma, \boldsymbol{\beta}) = \left\{ \begin{array}{c} (0.4, 0.1) \\ \\ (0.8, 0.1) \end{array} \right\}
$$

and for each case we set $\mu_\alpha = 5$. When $\gamma = 0.4$ ($\gamma = 0.8$), we set $s = 6$ ($s = 2.25$) to roughly mimic the signal-to-noise ratios in DGP3 in Tables A11 and A15.

The results are presented in Table F1 in Appendix F. Due to the computational time involved in the GMM estimation, we only perform 10 simulations for each experiment. The small standard deviations indicate that the results are nonetheless informative. For the sake of brevity, we only

display the results for QD-GMM, QD-GMM-A(-C), E-CRE, and E-CRE-A(-C). We report the median bias and SD of the estimates. A few conclusions stand out.

First, the estimates of γ are very sensitive to the true level of persistence in BMI as governed by the underlying weight production function, especially for E-CRE and E-CRE-A(-C). When $\gamma = 0.4$, the median bias for E-CRE and E-CRE-A(-C) ranges from -0.15 to 0.56 (with the median bias of E-CRE roughly 0.31). For QD-GMM and QD-GMM-A(-C), the median bias ranges -0.001 to -0.08. When $\gamma = 0.8$, the median bias ranges from -0.44 for E-CRE to 0.05 for E-CRE-C (with the median bias of E-CRE-A roughly -0.31). For QD-GMM and QD-GMM-A(-C), again when $\gamma = 0.8$, the median bias ranges from -0.002 to -0.18 for QD-GMM and QD-GMM-A(-C), respectively. Thus, given the predominantly lower median bias of the QD-GMM estimators compared with the E-CRE estimators, the simulation results in this case seem to mimic the actual results fairly well and suggest that the QD-GMM-A(-C) estimates of γ are more credible.

Second, the relative performance of the estimators, with respect to β, are sensitive to the value of γ in the underlying DGP. Specifically, when $\gamma = 0.4$, the median bias (in an absolute sense) for the E-CRE-A(-C) estimators tends to be smaller than the QD-GMM-A(-C) estimators. This result is most pronounced for β_6, which corresponds to fast food prices. When $\gamma = 0.8$, the QD-GMM-A(-C) estimators do slightly better compared to the E-CRE-A(-C) estimators. This is especially true for β_3 and β_5, which correspond to the dummy variables indicating that SES and household size are missing, respectively. The magnitude of the absolute median bias is also sensitive to the value of γ in the underlying DGP. This is especially true for β_3, β_5, and β_6, which again correspond to the dummy variable indicating that SES is missing, the dummy variable indicating that household size is missing, and fast food prices, respectively.

In sum, the Empirical Monte Carlo study proves to be quite insightful as it brings to light two new issues as it relates to irregular spacing and the performances of our newly proposed estimators.

First, in contrast to the DGPs used in the simulations in Appendices A-D, the QD-GMM estimators and the E-CRE estimators produce quite different estimates of γ in the application and the Empirical Monte Carlo. Second, the performances of the QD-GMM and the E-CRE estimators seem relatively poor for β_3, β_5, and β_6 in Table F1. These correspond to the coefficients on the two dummy variables and fast food prices. In terms of fast food prices, it is noteworthy that this variable displays considerably smaller variation than the other covariates (see Table 3). In terms of the dummy variables, it suggests that the performance of our estimators may be affected by the presence of binary covariates in that they change over time in relatively large, discrete jumps.

To further explore this final point, we undertake one final simulation. We utilize the DGP from Section 3.1, with the following changes

$$\begin{aligned} y_{it} &= \gamma y_{it-1} + \beta D_{it} + \alpha_i + \varepsilon_{it}, \qquad i = 1, ..., N;\ t = 1, ..., T \\ D_{it} &= \mathrm{I}(x_{it} > \mathrm{med}(x)), \end{aligned}$$

where $\mathrm{I}(\cdot)$ is the indicator function, taking the value one if the argument is true and zero otherwise and $\mathrm{med}(x)$ is the sample median of x. All other aspects of the DGP remain unchanged. In this setup, x_{it} is a continuous, serially correlated latent variable, D is a binary indicator if x is above the median, and the outcome, y, now depends on D rather than x. Thus, there is a single, binary covariate in the model. In the interest of brevity, we only conduct experiments corresponding to DGP3 in Tables A11, A12, A15, and A16. Results are presented in Table F2 in Appendix F for select estimators. Interestingly, we find that regardless of whether the true value of γ is 0.4 or 0.8, the E-CRE estimators overestimate γ; the median bias exceeds roughly 0.40 (0.05) when the true value is 0.4 (0.8). This gives us further confidence that the lower estimates of γ produced by the QD-GMM

estimators in Table 4 are more credible. In terms of the estimates of β, the performances of the QD-GMM and E-CRE estimators are not overly different, although the QD-GMM estimators with imputation do perform a bit better than the corresponding E-CRE estimators with imputation in terms of median bias.[1] In fact, across the four experiments and three parameters (γ, β, and $\beta/(1-\gamma)$), the coverage rates for QD-GMM-A are very close to 0.95, particularly when the true value of γ is 0.4.

References

[1] Huber M, Lechner M, Wunsch C. 2013. The performance of estimators based on the propensity score. *Journal of Econometrics* **175**: 1-21.

[2] Millimet DL, Tchernis R. 2013. Estimation of treatment effects without an exclusion restriction: with an application to the analysis of the school breakfast program. *Journal of Applied Econometrics* **28**: 982-1017.

[1] We leave to future work a more rigorous investigation into the apparent adverse consequences of a discrete covariate on the performance of the E-CRE estimates of γ.

Tables

Table A1. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 1$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.154	-0.158	-0.150	0.003	0.017	0.033	-0.029	-0.011	0.010
AB	-0.139	-0.141	-0.147	0.004	0.019	0.034	-0.026	-0.006	0.014
BB	-0.193	-0.198	-0.200	0.002	0.019	0.035	-0.038	-0.017	0.002
QD-GMM	-0.007	-0.028	-0.145	0.000	0.008	0.029	-0.002	0.006	0.007
QD-GMM-L	-0.148	-0.150	-0.140	-0.009	0.011	0.027	-0.045	-0.019	0.005
QD-GMM-A	-0.070	-0.046	-0.035	-0.013	-0.003	0.007	-0.037	-0.016	0.001
QD-GMM-C	-0.053	-0.008	0.002	-0.021	-0.015	-0.006	-0.045	-0.027	-0.011
QD-GMM-AR1	-0.008	-0.031	-0.096	0.000	0.010	0.024	-0.002	0.007	0.012
E-CRE	0.040	0.009	-0.229	0.001	0.011	0.033	0.013	0.021	-0.007
E-CRE-L	-0.251	-0.236	-0.208	-0.002	0.014	0.033	-0.051	-0.030	-0.002
E-CRE-A	-0.153	-0.094	-0.053	-0.007	0.001	0.011	-0.044	-0.020	0.002
E-CRE-C	-0.176	-0.087	0.009	-0.014	-0.011	-0.012	-0.056	-0.037	-0.018
E-CRE-AR1	0.058	0.021	-0.124	0.000	0.010	0.029	0.018	0.024	0.012
Panel II. SD									
AH	0.024	0.025	0.031	0.002	0.003	0.004	0.006	0.007	0.009
AB	0.021	0.022	0.027	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.020	0.021	0.025	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.023	0.032	0.004	0.004	0.007	0.008	0.007	0.007
QD-GMM-L	0.016	0.021	0.029	0.004	0.005	0.007	0.005	0.006	0.006
QD-GMM-A	0.018	0.021	0.029	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-C	0.019	0.024	0.033	0.003	0.004	0.006	0.005	0.005	0.006
QD-GMM-AR1	0.021	0.022	0.025	0.002	0.003	0.004	0.007	0.006	0.006
E-CRE	0.035	0.044	0.043	0.002	0.002	0.003	0.012	0.014	0.008
E-CRE-L	0.016	0.017	0.020	0.002	0.002	0.003	0.003	0.004	0.005
E-CRE-A	0.021	0.023	0.029	0.002	0.002	0.004	0.004	0.004	0.005
E-CRE-C	0.021	0.031	0.055	0.002	0.003	0.007	0.003	0.003	0.004
E-CRE-AR1	0.033	0.036	0.036	0.002	0.002	0.003	0.012	0.011	0.008
Panel III. Mean SE									
AH	0.032	0.036	0.049	0.003	0.003	0.004	0.008	0.010	0.015
AB	0.021	0.022	0.028	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.020	0.022	0.026	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.023	0.028	0.004	0.004	0.006	0.008	0.008	0.007
QD-GMM-L	0.018	0.020	0.025	0.004	0.005	0.006	0.005	0.006	0.006
QD-GMM-A	0.019	0.022	0.029	0.003	0.004	0.006	0.006	0.006	0.006
QD-GMM-C	0.020	0.023	0.031	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-AR1	0.021	0.022	0.025	0.002	0.003	0.004	0.007	0.007	0.006
E-CRE	0.037	0.039	0.040	0.002	0.002	0.003	0.013	0.013	0.008
E-CRE-L	0.020	0.020	0.021	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.024	0.026	0.031	0.002	0.002	0.004	0.004	0.005	0.006
E-CRE-C	0.021	0.027	0.041	0.002	0.003	0.005	0.003	0.003	0.005
E-CRE-AR1	0.039	0.040	0.038	0.002	0.002	0.003	0.015	0.013	0.009
Panel IV. Coverage Rates									
AH	0.000	0.002	0.060	0.716	0.000	0.000	0.052	0.836	0.996
AB	0.000	0.000	0.000	0.598	0.000	0.000	0.014	0.800	0.604
BB	0.000	0.000	0.000	0.794	0.000	0.000	0.000	0.130	0.958
QD-GMM	0.932	0.762	0.002	0.950	0.540	0.002	0.942	0.906	0.854
QD-GMM-L	0.000	0.000	0.000	0.262	0.332	0.012	0.000	0.076	0.878
QD-GMM-A	0.030	0.458	0.774	0.024	0.892	0.798	0.000	0.256	0.948
QD-GMM-C	0.218	0.938	0.930	0.000	0.066	0.784	0.000	0.002	0.574
QD-GMM-AR1	0.930	0.708	0.026	0.952	0.058	0.000	0.928	0.824	0.494
E-CRE	0.796	0.914	0.000	0.916	0.002	0.000	0.866	0.638	0.848
E-CRE-L	0.000	0.000	0.000	0.890	0.000	0.000	0.000	0.000	0.944
E-CRE-A	0.000	0.010	0.596	0.012	0.886	0.230	0.000	0.012	0.976
E-CRE-C	0.000	0.148	0.844	0.000	0.034	0.422	0.000	0.000	0.032
E-CRE-AR1	0.694	0.938	0.074	0.946	0.010	0.000	0.842	0.588	0.766

Notes: Results obtaining using 500 simulations with N=500 and M=6. SD = standard deviation. SE = (robust) standard error. DGP1: Mean Corr(X_t,X_{t-1})=0.00. DGP2: Mean Corr(X_t,X_{t-1})=0.40. DGP3: Mean Corr(X_t,X_{t-1})=0.80. Coverage rates based on 95% confidence interval. Initial period in simulations is t=-99. Lowest median bias (in absolute value) highlighted in gray. See text for further details.

Table A2. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 0.5$, $\mu_\alpha = 1$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.153	-0.155	-0.152	0.003	0.016	0.031	-0.030	-0.013	0.008
AB	-0.149	-0.150	-0.155	0.003	0.017	0.032	-0.029	-0.011	0.008
BB	-0.202	-0.204	-0.208	0.002	0.018	0.033	-0.040	-0.020	-0.001
QD-GMM	-0.015	-0.026	-0.063	-0.001	0.008	0.013	-0.005	0.005	0.003
QD-GMM-L	-0.066	-0.058	-0.045	-0.012	-0.001	0.010	-0.035	-0.015	0.004
QD-GMM-A	-0.031	-0.020	-0.015	-0.015	-0.006	0.003	-0.033	-0.015	0.001
QD-GMM-C	-0.028	-0.008	-0.006	-0.024	-0.017	-0.007	-0.046	-0.030	-0.013
QD-GMM-AR1	-0.014	-0.026	-0.050	-0.001	0.009	0.019	-0.005	0.008	0.017
E-CRE	0.057	0.028	-0.091	0.001	0.010	0.024	0.019	0.027	0.014
E-CRE-L	-0.167	-0.159	-0.140	-0.002	0.011	0.027	-0.039	-0.020	0.006
E-CRE-A	-0.066	-0.031	-0.013	-0.011	-0.003	0.005	-0.033	-0.013	0.005
E-CRE-C	-0.076	-0.012	0.017	-0.021	-0.019	-0.014	-0.050	-0.034	-0.019
E-CRE-AR1	0.061	0.035	-0.046	0.000	0.009	0.024	0.019	0.027	0.025
Panel II. SD									
AH	0.034	0.034	0.037	0.005	0.007	0.009	0.010	0.012	0.016
AB	0.031	0.031	0.033	0.005	0.006	0.009	0.009	0.011	0.014
BB	0.028	0.029	0.030	0.005	0.007	0.009	0.008	0.010	0.013
QD-GMM	0.031	0.032	0.036	0.009	0.010	0.013	0.016	0.016	0.016
QD-GMM-L	0.027	0.031	0.033	0.009	0.010	0.012	0.012	0.014	0.016
QD-GMM-A	0.029	0.031	0.033	0.008	0.009	0.010	0.012	0.014	0.015
QD-GMM-C	0.030	0.033	0.034	0.007	0.008	0.010	0.011	0.012	0.014
QD-GMM-AR1	0.031	0.031	0.031	0.006	0.007	0.008	0.012	0.012	0.012
E-CRE	0.048	0.055	0.056	0.004	0.005	0.007	0.018	0.019	0.014
E-CRE-L	0.028	0.030	0.033	0.004	0.005	0.007	0.007	0.008	0.010
E-CRE-A	0.038	0.041	0.043	0.004	0.005	0.007	0.008	0.009	0.010
E-CRE-C	0.044	0.051	0.052	0.005	0.006	0.008	0.006	0.007	0.008
E-CRE-AR1	0.047	0.050	0.048	0.004	0.005	0.007	0.018	0.017	0.014
Panel III. Mean SE									
AH	0.047	0.050	0.058	0.005	0.006	0.009	0.013	0.015	0.020
AB	0.029	0.030	0.033	0.005	0.007	0.009	0.009	0.011	0.014
BB	0.028	0.028	0.030	0.005	0.007	0.009	0.008	0.010	0.012
QD-GMM	0.031	0.032	0.032	0.009	0.010	0.012	0.017	0.017	0.016
QD-GMM-L	0.029	0.030	0.032	0.008	0.010	0.011	0.013	0.015	0.016
QD-GMM-A	0.030	0.032	0.033	0.008	0.009	0.011	0.013	0.014	0.016
QD-GMM-C	0.030	0.032	0.033	0.007	0.009	0.010	0.012	0.013	0.014
QD-GMM-AR1	0.031	0.031	0.031	0.006	0.007	0.008	0.012	0.013	0.013
E-CRE	0.053	0.054	0.052	0.004	0.005	0.007	0.021	0.020	0.015
E-CRE-L	0.035	0.035	0.037	0.004	0.005	0.007	0.008	0.010	0.011
E-CRE-A	0.042	0.045	0.047	0.004	0.005	0.007	0.009	0.011	0.012
E-CRE-C	0.042	0.048	0.052	0.004	0.006	0.008	0.006	0.008	0.009
E-CRE-AR1	0.053	0.054	0.050	0.004	0.005	0.007	0.021	0.020	0.016
Panel IV. Coverage Rates									
AH	0.050	0.064	0.174	0.902	0.252	0.052	0.366	0.906	0.990
AB	0.002	0.002	0.008	0.910	0.260	0.044	0.168	0.828	0.918
BB	0.000	0.000	0.000	0.930	0.224	0.034	0.002	0.464	0.938
QD-GMM	0.912	0.852	0.510	0.952	0.882	0.778	0.930	0.948	0.942
QD-GMM-L	0.376	0.506	0.702	0.702	0.940	0.842	0.242	0.846	0.944
QD-GMM-A	0.820	0.898	0.918	0.504	0.906	0.956	0.300	0.836	0.952
QD-GMM-C	0.834	0.930	0.932	0.094	0.514	0.868	0.026	0.366	0.860
QD-GMM-AR1	0.908	0.854	0.608	0.948	0.748	0.336	0.908	0.938	0.776
E-CRE	0.820	0.924	0.590	0.942	0.510	0.056	0.932	0.830	0.904
E-CRE-L	0.000	0.000	0.010	0.914	0.440	0.022	0.002	0.432	0.964
E-CRE-A	0.702	0.914	0.952	0.212	0.906	0.880	0.054	0.774	0.970
E-CRE-C	0.564	0.910	0.928	0.002	0.120	0.528	0.000	0.006	0.426
E-CRE-AR1	0.804	0.928	0.860	0.940	0.588	0.078	0.938	0.836	0.732

Table A3. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.153	-0.157	-0.153	0.003	0.017	0.032	-0.030	-0.012	0.008
AB	-0.167	-0.167	-0.165	0.003	0.017	0.032	-0.033	-0.014	0.006
BB	-0.214	-0.217	-0.211	0.001	0.017	0.032	-0.042	-0.023	-0.004
QD-GMM	-0.018	-0.054	-0.198	0.000	0.009	0.032	-0.006	0.000	-0.001
QD-GMM-L	-0.169	-0.175	-0.167	-0.008	0.012	0.027	-0.047	-0.023	0.000
QD-GMM-A	-0.086	-0.063	-0.050	-0.013	-0.002	0.008	-0.039	-0.019	-0.001
QD-GMM-C	-0.068	-0.022	-0.002	-0.020	-0.014	-0.006	-0.047	-0.028	-0.012
QD-GMM-AR1	-0.019	-0.053	-0.130	0.000	0.010	0.026	-0.006	0.002	0.006
E-CRE	-0.013	-0.100	-0.323	0.000	0.012	0.032	-0.003	-0.007	-0.023
E-CRE-L	-0.269	-0.262	-0.247	-0.002	0.013	0.032	-0.054	-0.035	-0.011
E-CRE-A	-0.180	-0.132	-0.112	-0.007	0.003	0.014	-0.047	-0.026	-0.006
E-CRE-C	-0.202	-0.141	-0.112	-0.013	-0.007	0.002	-0.058	-0.041	-0.024
E-CRE-AR1	0.017	-0.052	-0.203	0.000	0.011	0.031	0.004	0.003	-0.004
Panel II. SD									
AH	0.028	0.030	0.039	0.002	0.003	0.004	0.007	0.008	0.012
AB	0.026	0.027	0.032	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.024	0.025	0.030	0.002	0.003	0.004	0.005	0.006	0.008
QD-GMM	0.023	0.027	0.031	0.004	0.004	0.006	0.008	0.007	0.006
QD-GMM-L	0.018	0.022	0.029	0.004	0.005	0.006	0.005	0.005	0.006
QD-GMM-A	0.020	0.025	0.032	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-C	0.022	0.028	0.037	0.003	0.005	0.007	0.005	0.005	0.006
QD-GMM-AR1	0.023	0.025	0.025	0.002	0.003	0.004	0.007	0.006	0.006
E-CRE	0.060	0.071	0.052	0.002	0.002	0.003	0.017	0.016	0.008
E-CRE-L	0.022	0.023	0.024	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.030	0.033	0.039	0.002	0.003	0.004	0.004	0.005	0.006
E-CRE-C	0.030	0.042	0.065	0.002	0.004	0.008	0.003	0.004	0.004
E-CRE-AR1	0.054	0.059	0.045	0.002	0.002	0.003	0.017	0.014	0.008
Panel III. Mean SE									
AH	0.046	0.053	0.073	0.003	0.004	0.004	0.012	0.014	0.021
AB	0.025	0.027	0.033	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.024	0.026	0.031	0.002	0.003	0.004	0.005	0.006	0.008
QD-GMM	0.023	0.026	0.028	0.004	0.004	0.006	0.009	0.008	0.006
QD-GMM-L	0.019	0.021	0.026	0.004	0.005	0.006	0.005	0.006	0.006
QD-GMM-A	0.021	0.025	0.031	0.003	0.004	0.006	0.006	0.006	0.006
QD-GMM-C	0.022	0.026	0.033	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-AR1	0.023	0.025	0.026	0.002	0.003	0.004	0.007	0.007	0.006
E-CRE	0.063	0.062	0.046	0.002	0.002	0.003	0.018	0.015	0.007
E-CRE-L	0.025	0.025	0.025	0.002	0.002	0.003	0.004	0.005	0.005
E-CRE-A	0.033	0.036	0.041	0.002	0.003	0.004	0.005	0.006	0.006
E-CRE-C	0.029	0.040	0.058	0.002	0.004	0.007	0.003	0.004	0.004
E-CRE-AR1	0.067	0.064	0.045	0.002	0.002	0.003	0.021	0.017	0.009
Panel IV. Coverage Rates									
AH	0.022	0.060	0.404	0.842	0.000	0.000	0.248	0.946	1.000
AB	0.000	0.000	0.006	0.798	0.000	0.000	0.002	0.448	0.924
BB	0.000	0.000	0.000	0.908	0.000	0.000	0.000	0.054	0.914
QD-GMM	0.850	0.456	0.000	0.942	0.484	0.000	0.878	0.960	0.962
QD-GMM-L	0.000	0.000	0.000	0.392	0.296	0.010	0.000	0.018	0.960
QD-GMM-A	0.010	0.274	0.612	0.032	0.914	0.780	0.000	0.106	0.950
QD-GMM-C	0.122	0.828	0.916	0.000	0.118	0.764	0.000	0.002	0.474
QD-GMM-AR1	0.854	0.426	0.002	0.948	0.058	0.000	0.866	0.960	0.858
E-CRE	0.948	0.622	0.000	0.954	0.002	0.000	0.930	0.858	0.124
E-CRE-L	0.000	0.000	0.000	0.832	0.000	0.000	0.000	0.000	0.472
E-CRE-A	0.000	0.014	0.158	0.026	0.794	0.064	0.000	0.002	0.848
E-CRE-C	0.000	0.058	0.518	0.000	0.540	0.902	0.000	0.000	0.002
E-CRE-AR1	0.984	0.886	0.002	0.948	0.012	0.000	0.980	0.982	0.906

Table A4. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 0.5$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.152	-0.153	-0.152	0.002	0.013	0.027	-0.031	-0.016	0.002
AB	-0.186	-0.186	-0.186	0.000	0.012	0.027	-0.039	-0.024	-0.006
BB	-0.221	-0.221	-0.219	-0.001	0.013	0.029	-0.046	-0.029	-0.009
QD-GMM	-0.033	-0.053	-0.109	-0.003	0.004	0.010	-0.014	-0.008	-0.013
QD-GMM-L	-0.089	-0.081	-0.068	-0.012	-0.001	0.010	-0.039	-0.021	-0.002
QD-GMM-A	-0.047	-0.033	-0.024	-0.015	-0.007	0.001	-0.036	-0.020	-0.004
QD-GMM-C	-0.044	-0.021	-0.013	-0.024	-0.017	-0.009	-0.049	-0.034	-0.018
QD-GMM-AR1	-0.034	-0.052	-0.081	-0.002	0.008	0.020	-0.012	-0.002	0.009
E-CRE	-0.060	-0.121	-0.200	-0.002	0.008	0.022	-0.018	-0.017	-0.013
E-CRE-L	-0.216	-0.222	-0.196	-0.003	0.009	0.025	-0.049	-0.034	-0.010
E-CRE-A	-0.143	-0.117	-0.080	-0.009	0.000	0.008	-0.045	-0.029	-0.008
E-CRE-C	-0.162	-0.125	-0.066	-0.016	-0.010	-0.007	-0.057	-0.044	-0.027
E-CRE-AR1	-0.048	-0.094	-0.137	-0.002	0.008	0.023	-0.016	-0.013	0.001
Panel II. SD									
AH	0.044	0.045	0.050	0.005	0.006	0.008	0.012	0.014	0.018
AB	0.036	0.037	0.038	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.034	0.034	0.036	0.005	0.006	0.008	0.008	0.010	0.013
QD-GMM	0.036	0.037	0.042	0.008	0.010	0.014	0.016	0.015	0.016
QD-GMM-L	0.030	0.034	0.036	0.009	0.010	0.012	0.012	0.013	0.015
QD-GMM-A	0.033	0.035	0.036	0.008	0.009	0.010	0.012	0.013	0.015
QD-GMM-C	0.034	0.037	0.037	0.007	0.008	0.010	0.011	0.012	0.014
QD-GMM-AR1	0.036	0.035	0.032	0.005	0.006	0.008	0.012	0.012	0.011
E-CRE	0.087	0.085	0.061	0.004	0.005	0.007	0.021	0.018	0.011
E-CRE-L	0.044	0.044	0.039	0.004	0.005	0.007	0.008	0.009	0.010
E-CRE-A	0.061	0.061	0.054	0.004	0.005	0.007	0.009	0.010	0.010
E-CRE-C	0.062	0.068	0.065	0.005	0.007	0.009	0.006	0.007	0.008
E-CRE-AR1	0.085	0.081	0.056	0.004	0.005	0.007	0.021	0.018	0.013
Panel III. Mean SE									
AH	0.078	0.083	0.095	0.006	0.007	0.008	0.020	0.023	0.029
AB	0.035	0.036	0.038	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.033	0.034	0.035	0.005	0.006	0.008	0.008	0.010	0.012
QD-GMM	0.036	0.036	0.035	0.009	0.010	0.011	0.016	0.016	0.015
QD-GMM-L	0.033	0.034	0.034	0.008	0.010	0.011	0.013	0.014	0.015
QD-GMM-A	0.035	0.036	0.036	0.008	0.009	0.011	0.013	0.014	0.015
QD-GMM-C	0.035	0.037	0.037	0.007	0.009	0.010	0.011	0.013	0.014
QD-GMM-AR1	0.036	0.035	0.032	0.005	0.006	0.008	0.012	0.012	0.012
E-CRE	0.095	0.084	0.058	0.004	0.005	0.006	0.024	0.019	0.012
E-CRE-L	0.052	0.050	0.043	0.004	0.005	0.006	0.010	0.010	0.011
E-CRE-A	0.067	0.067	0.060	0.004	0.005	0.007	0.011	0.011	0.012
E-CRE-C	0.063	0.070	0.067	0.005	0.007	0.009	0.007	0.008	0.008
E-CRE-AR1	0.096	0.085	0.059	0.004	0.005	0.006	0.025	0.020	0.014
Panel IV. Coverage Rates									
AH	0.510	0.566	0.722	0.962	0.464	0.072	0.670	0.942	0.998
AB	0.002	0.002	0.004	0.956	0.484	0.072	0.064	0.408	0.918
BB	0.000	0.000	0.000	0.958	0.432	0.048	0.000	0.232	0.846
QD-GMM	0.816	0.650	0.140	0.930	0.910	0.808	0.854	0.936	0.858
QD-GMM-L	0.202	0.340	0.488	0.724	0.940	0.844	0.130	0.734	0.948
QD-GMM-A	0.708	0.876	0.906	0.484	0.880	0.954	0.194	0.704	0.940
QD-GMM-C	0.738	0.910	0.928	0.098	0.478	0.840	0.016	0.208	0.742
QD-GMM-AR1	0.814	0.662	0.270	0.932	0.798	0.286	0.852	0.954	0.922
E-CRE	0.922	0.672	0.074	0.938	0.618	0.066	0.844	0.778	0.782
E-CRE-L	0.000	0.000	0.000	0.890	0.562	0.024	0.002	0.058	0.852
E-CRE-A	0.390	0.586	0.744	0.374	0.956	0.782	0.012	0.302	0.892
E-CRE-C	0.242	0.550	0.824	0.072	0.668	0.864	0.000	0.002	0.106
E-CRE-AR1	0.934	0.804	0.346	0.930	0.654	0.054	0.852	0.878	0.966

Table A5. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 3$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.050	-0.017	-0.009	0.010	0.037	0.079	-0.056	0.123	0.356
AB	-0.048	-0.023	-0.021	0.011	0.037	0.081	-0.052	0.112	0.328
BB	-0.212	-0.189	-0.191	0.004	0.033	0.077	-0.247	-0.159	-0.045
QD-GMM	-0.015	-0.014	-0.009	-0.001	0.005	-0.012	-0.041	-0.012	-0.083
QD-GMM-L	-0.146	-0.098	-0.051	-0.038	-0.023	0.000	-0.320	-0.239	-0.102
QD-GMM-A	-0.082	-0.042	-0.018	-0.032	-0.018	0.001	-0.258	-0.160	-0.042
QD-GMM-C	-0.066	-0.016	0.005	-0.049	-0.041	-0.026	-0.308	-0.227	-0.119
QD-GMM-AR1	-0.018	-0.029	-0.048	0.000	0.012	0.024	-0.047	-0.012	-0.004
E-CRE	0.016	0.020	0.005	0.000	0.020	0.042	0.041	0.161	0.235
E-CRE-L	-0.271	-0.200	-0.167	-0.023	-0.006	0.040	-0.337	-0.267	-0.117
E-CRE-A	-0.058	-0.031	-0.028	-0.039	-0.024	0.005	-0.266	-0.173	-0.038
E-CRE-C	-0.007	0.011	0.000	-0.061	-0.052	-0.036	-0.311	-0.249	-0.178
E-CRE-AR1	0.017	0.005	-0.030	-0.001	0.020	0.049	0.042	0.115	0.143
Panel II. SD									
AH	0.053	0.056	0.065	0.006	0.009	0.017	0.129	0.245	0.883
AB	0.045	0.047	0.054	0.006	0.009	0.017	0.105	0.173	0.311
BB	0.038	0.038	0.040	0.005	0.009	0.016	0.029	0.040	0.060
QD-GMM	0.023	0.024	0.026	0.007	0.010	0.014	0.066	0.072	0.076
QD-GMM-L	0.029	0.030	0.027	0.009	0.013	0.015	0.020	0.030	0.044
QD-GMM-A	0.024	0.023	0.022	0.006	0.008	0.011	0.026	0.037	0.053
QD-GMM-C	0.026	0.024	0.022	0.005	0.006	0.009	0.023	0.034	0.051
QD-GMM-AR1	0.024	0.025	0.027	0.006	0.008	0.012	0.061	0.062	0.059
E-CRE	0.015	0.015	0.021	0.004	0.006	0.010	0.051	0.068	0.093
E-CRE-L	0.048	0.048	0.044	0.008	0.013	0.017	0.010	0.015	0.026
E-CRE-A	0.023	0.019	0.019	0.004	0.005	0.008	0.017	0.025	0.038
E-CRE-C	0.019	0.017	0.019	0.003	0.003	0.005	0.016	0.022	0.032
E-CRE-AR1	0.015	0.017	0.025	0.004	0.006	0.010	0.052	0.061	0.073
Panel III. Mean SE									
AH	0.091	0.100	0.120	0.007	0.010	0.016	0.220	0.428	1.404
AB	0.044	0.046	0.053	0.006	0.009	0.016	0.102	0.167	0.285
BB	0.037	0.038	0.040	0.005	0.008	0.015	0.029	0.042	0.060
QD-GMM	0.023	0.023	0.021	0.008	0.010	0.013	0.065	0.071	0.075
QD-GMM-L	0.025	0.025	0.024	0.007	0.010	0.013	0.020	0.029	0.044
QD-GMM-A	0.023	0.023	0.022	0.006	0.009	0.012	0.026	0.038	0.053
QD-GMM-C	0.024	0.022	0.021	0.005	0.006	0.009	0.023	0.036	0.051
QD-GMM-AR1	0.025	0.025	0.024	0.006	0.008	0.011	0.062	0.063	0.060
E-CRE	0.022	0.023	0.027	0.005	0.008	0.013	0.076	0.102	0.129
E-CRE-L	0.030	0.030	0.031	0.005	0.007	0.013	0.013	0.019	0.032
E-CRE-A	0.026	0.025	0.027	0.004	0.006	0.009	0.023	0.035	0.053
E-CRE-C	0.025	0.024	0.027	0.003	0.004	0.006	0.021	0.032	0.044
E-CRE-AR1	0.024	0.027	0.034	0.005	0.008	0.014	0.081	0.099	0.112
Panel IV. Coverage Rates									
AH	0.992	0.996	1.000	0.668	0.020	0.000	0.964	1.000	1.000
AB	0.806	0.918	0.938	0.568	0.010	0.000	0.832	0.998	0.954
BB	0.000	0.000	0.000	0.880	0.020	0.000	0.000	0.104	0.846
QD-GMM	0.916	0.910	0.890	0.960	0.948	0.828	0.882	0.940	0.768
QD-GMM-L	0.000	0.046	0.394	0.008	0.384	0.910	0.000	0.000	0.370
QD-GMM-A	0.046	0.522	0.876	0.000	0.450	0.964	0.000	0.024	0.860
QD-GMM-C	0.230	0.894	0.916	0.000	0.000	0.202	0.000	0.000	0.356
QD-GMM-AR1	0.908	0.800	0.500	0.956	0.646	0.448	0.864	0.950	0.964
E-CRE	0.966	0.924	0.968	0.960	0.222	0.056	0.996	0.736	0.604
E-CRE-L	0.000	0.004	0.000	0.016	0.692	0.166	0.000	0.000	0.032
E-CRE-A	0.328	0.854	0.936	0.000	0.014	0.958	0.000	0.000	0.928
E-CRE-C	0.994	0.978	0.988	0.000	0.000	0.000	0.000	0.000	0.026
E-CRE-AR1	0.962	0.992	0.964	0.964	0.216	0.012	0.996	0.940	0.890

Table A6. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.051	-0.045	-0.042	0.010	0.033	0.066	-0.067	0.031	0.184
AB	-0.058	-0.054	-0.058	0.009	0.033	0.068	-0.073	0.024	0.157
BB	-0.223	-0.219	-0.225	0.003	0.029	0.068	-0.256	-0.196	-0.105
QD-GMM	-0.022	-0.023	-0.020	-0.002	0.001	-0.029	-0.056	-0.048	-0.168
QD-GMM-L	-0.053	-0.036	-0.021	-0.049	-0.040	-0.019	-0.302	-0.240	-0.132
QD-GMM-A	-0.036	-0.024	-0.014	-0.036	-0.023	-0.004	-0.224	-0.153	-0.057
QD-GMM-C	-0.030	-0.018	-0.008	-0.053	-0.044	-0.028	-0.294	-0.239	-0.157
QD-GMM-AR1	-0.023	-0.027	-0.030	-0.002	0.008	0.011	-0.059	-0.024	-0.015
E-CRE	0.016	0.010	-0.002	-0.001	0.015	0.025	0.036	0.110	0.121
E-CRE-L	-0.009	-0.017	-0.027	-0.069	-0.053	-0.015	-0.354	-0.284	-0.122
E-CRE-A	0.001	-0.003	-0.011	-0.045	-0.029	-0.002	-0.225	-0.148	-0.031
E-CRE-C	0.011	0.007	-0.004	-0.062	-0.053	-0.038	-0.298	-0.258	-0.198
E-CRE-AR1	0.016	0.005	-0.010	-0.002	0.016	0.035	0.032	0.099	0.142
Panel II. SD									
AH	0.060	0.062	0.066	0.012	0.019	0.033	0.177	0.253	0.472
AB	0.052	0.053	0.056	0.012	0.019	0.032	0.123	0.167	0.243
BB	0.042	0.042	0.043	0.012	0.019	0.032	0.038	0.054	0.084
QD-GMM	0.028	0.028	0.025	0.017	0.022	0.026	0.105	0.120	0.127
QD-GMM-L	0.030	0.028	0.025	0.015	0.019	0.024	0.054	0.075	0.101
QD-GMM-A	0.028	0.026	0.024	0.013	0.017	0.022	0.061	0.081	0.108
QD-GMM-C	0.029	0.027	0.024	0.010	0.013	0.018	0.049	0.065	0.091
QD-GMM-AR1	0.029	0.028	0.026	0.013	0.017	0.023	0.086	0.097	0.106
E-CRE	0.015	0.016	0.018	0.010	0.013	0.018	0.069	0.089	0.105
E-CRE-L	0.020	0.022	0.024	0.008	0.012	0.017	0.034	0.045	0.063
E-CRE-A	0.017	0.017	0.018	0.007	0.010	0.014	0.036	0.050	0.069
E-CRE-C	0.016	0.016	0.018	0.005	0.007	0.010	0.028	0.037	0.051
E-CRE-AR1	0.015	0.016	0.019	0.010	0.013	0.019	0.069	0.085	0.100
Panel III. Mean SE									
AH	0.105	0.110	0.121	0.012	0.018	0.029	0.280	0.390	0.660
AB	0.049	0.051	0.054	0.013	0.019	0.032	0.120	0.160	0.225
BB	0.040	0.041	0.042	0.012	0.018	0.029	0.039	0.054	0.080
QD-GMM	0.028	0.027	0.023	0.018	0.023	0.026	0.104	0.120	0.128
QD-GMM-L	0.028	0.027	0.024	0.014	0.018	0.024	0.053	0.074	0.102
QD-GMM-A	0.027	0.026	0.024	0.013	0.018	0.023	0.061	0.083	0.108
QD-GMM-C	0.028	0.026	0.023	0.010	0.014	0.018	0.049	0.067	0.091
QD-GMM-AR1	0.028	0.027	0.025	0.013	0.017	0.022	0.085	0.097	0.108
E-CRE	0.024	0.025	0.024	0.010	0.016	0.024	0.095	0.122	0.147
E-CRE-L	0.027	0.028	0.026	0.008	0.011	0.017	0.035	0.049	0.071
E-CRE-A	0.025	0.026	0.025	0.008	0.011	0.016	0.046	0.063	0.084
E-CRE-C	0.025	0.025	0.024	0.005	0.007	0.011	0.035	0.046	0.061
E-CRE-AR1	0.025	0.026	0.025	0.010	0.016	0.025	0.096	0.122	0.145
Panel IV. Coverage Rates									
AH	0.992	0.994	0.998	0.852	0.552	0.370	0.954	0.990	1.000
AB	0.792	0.828	0.824	0.872	0.602	0.414	0.836	0.970	0.988
BB	0.000	0.000	0.000	0.938	0.618	0.386	0.000	0.134	0.672
QD-GMM	0.900	0.864	0.852	0.960	0.964	0.804	0.880	0.916	0.700
QD-GMM-L	0.536	0.746	0.848	0.084	0.426	0.838	0.000	0.110	0.710
QD-GMM-A	0.748	0.870	0.910	0.242	0.756	0.962	0.086	0.524	0.910
QD-GMM-C	0.808	0.892	0.930	0.000	0.118	0.650	0.000	0.092	0.576
QD-GMM-AR1	0.894	0.842	0.770	0.952	0.920	0.922	0.848	0.928	0.942
E-CRE	0.970	0.980	0.984	0.958	0.884	0.904	0.992	0.960	0.966
E-CRE-L	0.996	0.982	0.888	0.000	0.012	0.842	0.000	0.000	0.582
E-CRE-A	0.998	1.000	0.996	0.000	0.228	0.964	0.004	0.314	0.956
E-CRE-C	0.982	0.984	0.988	0.000	0.000	0.038	0.000	0.000	0.102
E-CRE-AR1	0.970	0.988	0.992	0.958	0.886	0.782	0.988	0.968	0.950

Table A7. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 3$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.051	-0.020	-0.006	0.010	0.036	0.077	-0.058	0.114	0.346
AB	-0.060	-0.035	-0.029	0.010	0.036	0.077	-0.078	0.081	0.282
BB	-0.227	-0.206	-0.202	0.003	0.032	0.074	-0.259	-0.177	-0.068
QD-GMM	-0.020	-0.021	-0.013	-0.001	0.004	-0.017	-0.051	-0.028	-0.116
QD-GMM-L	-0.167	-0.116	-0.060	-0.035	-0.019	0.001	-0.322	-0.241	-0.111
QD-GMM-A	-0.093	-0.049	-0.021	-0.031	-0.017	0.000	-0.265	-0.167	-0.050
QD-GMM-C	-0.077	-0.021	0.004	-0.049	-0.041	-0.027	-0.314	-0.233	-0.125
QD-GMM-AR1	-0.022	-0.037	-0.058	-0.001	0.012	0.023	-0.057	-0.031	-0.028
E-CRE	0.017	0.018	-0.007	0.000	0.019	0.038	0.044	0.151	0.166
E-CRE-L	-0.282	-0.230	-0.208	-0.022	-0.001	0.049	-0.338	-0.270	-0.132
E-CRE-A	-0.061	-0.039	-0.042	-0.039	-0.023	0.007	-0.267	-0.179	-0.057
E-CRE-C	-0.006	0.006	-0.012	-0.061	-0.052	-0.035	-0.312	-0.255	-0.193
E-CRE-AR1	0.018	0.001	-0.054	-0.001	0.020	0.049	0.046	0.099	0.086
Panel II. SD									
AH	0.058	0.062	0.072	0.006	0.009	0.017	0.150	0.304	2.718
AB	0.050	0.052	0.060	0.006	0.009	0.016	0.107	0.182	0.350
BB	0.040	0.040	0.042	0.005	0.009	0.016	0.028	0.039	0.057
QD-GMM	0.025	0.026	0.029	0.007	0.010	0.014	0.067	0.071	0.072
QD-GMM-L	0.033	0.034	0.029	0.009	0.013	0.016	0.019	0.029	0.042
QD-GMM-A	0.026	0.024	0.022	0.007	0.008	0.011	0.025	0.037	0.052
QD-GMM-C	0.029	0.026	0.023	0.005	0.007	0.009	0.023	0.034	0.050
QD-GMM-AR1	0.027	0.027	0.028	0.006	0.008	0.012	0.063	0.062	0.055
E-CRE	0.016	0.017	0.027	0.004	0.006	0.009	0.055	0.074	0.098
E-CRE-L	0.050	0.050	0.045	0.008	0.013	0.016	0.010	0.015	0.025
E-CRE-A	0.025	0.021	0.023	0.004	0.005	0.008	0.018	0.025	0.038
E-CRE-C	0.021	0.019	0.023	0.003	0.004	0.005	0.017	0.023	0.032
E-CRE-AR1	0.017	0.019	0.036	0.004	0.006	0.010	0.057	0.065	0.078
Panel III. Mean SE									
AH	0.105	0.115	0.139	0.007	0.010	0.017	0.265	0.547	7.370
AB	0.049	0.051	0.059	0.006	0.009	0.016	0.104	0.176	0.312
BB	0.039	0.040	0.042	0.005	0.008	0.014	0.028	0.040	0.058
QD-GMM	0.025	0.024	0.022	0.008	0.010	0.013	0.066	0.070	0.071
QD-GMM-L	0.027	0.027	0.024	0.007	0.010	0.013	0.020	0.028	0.042
QD-GMM-A	0.025	0.024	0.022	0.006	0.009	0.012	0.026	0.037	0.052
QD-GMM-C	0.025	0.024	0.021	0.005	0.006	0.009	0.022	0.035	0.050
QD-GMM-AR1	0.026	0.027	0.025	0.006	0.008	0.011	0.063	0.062	0.056
E-CRE	0.027	0.029	0.035	0.005	0.008	0.014	0.091	0.120	0.135
E-CRE-L	0.034	0.034	0.034	0.005	0.008	0.013	0.013	0.020	0.031
E-CRE-A	0.031	0.031	0.033	0.004	0.006	0.010	0.026	0.039	0.055
E-CRE-C	0.029	0.030	0.034	0.003	0.004	0.006	0.025	0.036	0.046
E-CRE-AR1	0.029	0.033	0.045	0.005	0.008	0.014	0.097	0.115	0.115
Panel IV. Coverage Rates									
AH	0.994	1.000	1.000	0.722	0.028	0.000	0.966	1.000	1.000
AB	0.770	0.900	0.928	0.608	0.012	0.000	0.786	0.990	0.998
BB	0.000	0.000	0.000	0.922	0.024	0.000	0.000	0.052	0.726
QD-GMM	0.886	0.874	0.862	0.962	0.952	0.688	0.846	0.910	0.584
QD-GMM-L	0.000	0.014	0.296	0.026	0.516	0.902	0.000	0.000	0.242
QD-GMM-A	0.028	0.438	0.856	0.004	0.484	0.962	0.000	0.014	0.822
QD-GMM-C	0.146	0.844	0.922	0.000	0.000	0.180	0.000	0.000	0.318
QD-GMM-AR1	0.868	0.726	0.368	0.954	0.652	0.450	0.812	0.906	0.910
E-CRE	0.980	0.972	0.990	0.970	0.298	0.116	0.998	0.928	0.888
E-CRE-L	0.000	0.002	0.000	0.026	0.812	0.068	0.000	0.000	0.004
E-CRE-A	0.508	0.866	0.902	0.000	0.028	0.956	0.000	0.002	0.878
E-CRE-C	1.000	0.992	1.000	0.000	0.000	0.000	0.000	0.000	0.016
E-CRE-AR1	0.976	1.000	0.932	0.968	0.290	0.014	1.000	0.994	0.982

Table A8. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.052	-0.046	-0.042	0.009	0.031	0.063	-0.066	0.030	0.168
AB	-0.075	-0.071	-0.072	0.008	0.030	0.063	-0.101	-0.014	0.106
BB	-0.238	-0.235	-0.239	0.002	0.027	0.063	-0.268	-0.213	-0.129
QD-GMM	-0.028	-0.029	-0.022	-0.003	-0.003	-0.037	-0.075	-0.079	-0.210
QD-GMM-L	-0.063	-0.043	-0.025	-0.048	-0.039	-0.020	-0.304	-0.245	-0.146
QD-GMM-A	-0.042	-0.029	-0.016	-0.035	-0.023	-0.006	-0.230	-0.162	-0.065
QD-GMM-C	-0.036	-0.021	-0.010	-0.052	-0.044	-0.029	-0.299	-0.245	-0.168
QD-GMM-AR1	-0.029	-0.035	-0.036	-0.002	0.007	0.008	-0.076	-0.047	-0.041
E-CRE	0.016	0.007	-0.007	-0.001	0.013	0.019	0.034	0.083	0.072
E-CRE-L	-0.012	-0.025	-0.038	-0.069	-0.052	-0.014	-0.354	-0.286	-0.138
E-CRE-A	-0.001	-0.008	-0.016	-0.045	-0.028	-0.003	-0.228	-0.157	-0.047
E-CRE-C	0.010	0.003	-0.008	-0.062	-0.053	-0.039	-0.300	-0.264	-0.211
E-CRE-AR1	0.016	0.002	-0.016	-0.002	0.014	0.031	0.030	0.074	0.101
Panel II. SD									
AH	0.067	0.069	0.074	0.012	0.019	0.031	0.231	0.352	1.760
AB	0.057	0.059	0.062	0.012	0.018	0.030	0.123	0.164	0.235
BB	0.044	0.044	0.045	0.011	0.018	0.030	0.036	0.051	0.077
QD-GMM	0.031	0.030	0.026	0.017	0.022	0.025	0.104	0.115	0.118
QD-GMM-L	0.033	0.031	0.026	0.015	0.020	0.024	0.052	0.072	0.097
QD-GMM-A	0.030	0.028	0.025	0.013	0.017	0.022	0.060	0.079	0.104
QD-GMM-C	0.031	0.029	0.025	0.010	0.013	0.018	0.048	0.063	0.087
QD-GMM-AR1	0.032	0.031	0.027	0.013	0.017	0.022	0.086	0.093	0.098
E-CRE	0.016	0.018	0.021	0.009	0.013	0.017	0.071	0.090	0.101
E-CRE-L	0.023	0.027	0.029	0.009	0.013	0.018	0.034	0.044	0.059
E-CRE-A	0.018	0.020	0.021	0.007	0.010	0.014	0.037	0.049	0.067
E-CRE-C	0.017	0.019	0.020	0.005	0.007	0.010	0.029	0.037	0.049
E-CRE-AR1	0.016	0.019	0.022	0.010	0.013	0.018	0.071	0.085	0.096
Panel III. Mean SE									
AH	0.123	0.129	0.142	0.012	0.018	0.028	0.369	0.543	3.182
AB	0.055	0.057	0.060	0.012	0.019	0.030	0.119	0.157	0.217
BB	0.042	0.043	0.044	0.011	0.017	0.027	0.037	0.051	0.074
QD-GMM	0.030	0.028	0.024	0.018	0.022	0.025	0.102	0.115	0.119
QD-GMM-L	0.030	0.029	0.025	0.014	0.018	0.023	0.052	0.072	0.098
QD-GMM-A	0.029	0.028	0.024	0.013	0.018	0.022	0.060	0.080	0.105
QD-GMM-C	0.030	0.028	0.024	0.010	0.014	0.018	0.048	0.065	0.088
QD-GMM-AR1	0.031	0.029	0.025	0.013	0.017	0.021	0.084	0.093	0.100
E-CRE	0.030	0.030	0.028	0.010	0.016	0.024	0.109	0.132	0.145
E-CRE-L	0.033	0.034	0.031	0.008	0.012	0.017	0.036	0.049	0.068
E-CRE-A	0.031	0.031	0.028	0.008	0.011	0.016	0.050	0.066	0.083
E-CRE-C	0.030	0.031	0.028	0.005	0.008	0.011	0.038	0.048	0.059
E-CRE-AR1	0.030	0.032	0.029	0.011	0.017	0.024	0.110	0.131	0.142
Panel IV. Coverage Rates									
AH	0.998	1.000	1.000	0.870	0.594	0.380	0.962	0.988	1.000
AB	0.736	0.790	0.784	0.888	0.638	0.424	0.730	0.940	0.998
BB	0.000	0.000	0.000	0.946	0.650	0.394	0.000	0.070	0.546
QD-GMM	0.852	0.816	0.840	0.960	0.958	0.698	0.832	0.850	0.550
QD-GMM-L	0.440	0.670	0.818	0.104	0.448	0.820	0.000	0.088	0.648
QD-GMM-A	0.692	0.832	0.888	0.250	0.742	0.948	0.070	0.468	0.890
QD-GMM-C	0.760	0.878	0.920	0.000	0.110	0.614	0.000	0.066	0.506
QD-GMM-AR1	0.834	0.780	0.698	0.944	0.936	0.932	0.798	0.888	0.906
E-CRE	0.986	0.988	0.986	0.962	0.920	0.948	0.996	0.988	0.992
E-CRE-L	1.000	0.976	0.834	0.000	0.032	0.830	0.000	0.000	0.468
E-CRE-A	1.000	1.000	0.996	0.000	0.264	0.966	0.008	0.290	0.938
E-CRE-C	0.998	0.994	0.994	0.000	0.000	0.030	0.000	0.000	0.066
E-CRE-AR1	0.986	0.998	0.992	0.966	0.924	0.838	0.998	0.994	0.986

Table A9. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 1$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.153	-0.158	-0.151	0.003	0.017	0.032	-0.030	-0.012	0.009
AB	-0.141	-0.143	-0.150	0.004	0.018	0.033	-0.026	-0.008	0.011
BB	-0.195	-0.201	-0.203	0.002	0.018	0.033	-0.038	-0.019	-0.001
QD-GMM	-0.015	-0.040	-0.165	0.000	0.008	0.028	-0.004	0.003	0.001
QD-GMM-L	-0.151	-0.152	-0.144	-0.009	0.010	0.026	-0.046	-0.020	0.003
QD-GMM-A	-0.073	-0.050	-0.039	-0.013	-0.003	0.006	-0.038	-0.017	0.000
QD-GMM-C	-0.056	-0.013	0.001	-0.021	-0.015	-0.007	-0.046	-0.028	-0.012
QD-GMM-AR1	-0.015	-0.042	-0.109	0.000	0.010	0.024	-0.005	0.004	0.009
E-CRE	0.013	-0.046	-0.277	0.001	0.011	0.032	0.004	0.005	-0.016
E-CRE-L	-0.259	-0.249	-0.228	-0.002	0.013	0.032	-0.052	-0.033	-0.007
E-CRE-A	-0.164	-0.114	-0.085	-0.007	0.002	0.012	-0.045	-0.023	-0.003
E-CRE-C	-0.188	-0.116	-0.063	-0.014	-0.009	-0.004	-0.057	-0.040	-0.022
E-CRE-AR1	0.035	-0.019	-0.164	0.000	0.010	0.030	0.010	0.012	0.003
Panel II. SD									
AH	0.024	0.025	0.032	0.002	0.003	0.004	0.006	0.007	0.009
AB	0.022	0.022	0.028	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.021	0.021	0.025	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.023	0.030	0.004	0.004	0.006	0.008	0.007	0.006
QD-GMM-L	0.016	0.021	0.027	0.004	0.005	0.006	0.005	0.006	0.006
QD-GMM-A	0.018	0.021	0.028	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-C	0.019	0.024	0.031	0.003	0.004	0.006	0.005	0.005	0.006
QD-GMM-AR1	0.021	0.022	0.023	0.002	0.003	0.004	0.007	0.006	0.006
E-CRE	0.037	0.044	0.039	0.002	0.002	0.003	0.012	0.012	0.007
E-CRE-L	0.017	0.018	0.019	0.002	0.002	0.003	0.003	0.004	0.005
E-CRE-A	0.022	0.024	0.029	0.002	0.002	0.004	0.004	0.004	0.005
E-CRE-C	0.021	0.030	0.048	0.002	0.003	0.006	0.003	0.003	0.004
E-CRE-AR1	0.034	0.037	0.033	0.002	0.002	0.003	0.012	0.010	0.007
Panel III. Mean SE									
AH	0.033	0.037	0.052	0.003	0.003	0.004	0.009	0.010	0.015
AB	0.021	0.023	0.028	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.021	0.022	0.026	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.023	0.026	0.004	0.004	0.006	0.008	0.007	0.006
QD-GMM-L	0.018	0.019	0.024	0.004	0.004	0.006	0.005	0.006	0.006
QD-GMM-A	0.019	0.022	0.027	0.003	0.004	0.006	0.006	0.006	0.006
QD-GMM-C	0.020	0.023	0.029	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-AR1	0.021	0.022	0.023	0.002	0.003	0.004	0.007	0.006	0.006
E-CRE	0.038	0.040	0.037	0.002	0.002	0.003	0.012	0.011	0.007
E-CRE-L	0.021	0.020	0.021	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.024	0.026	0.031	0.002	0.002	0.004	0.004	0.005	0.005
E-CRE-C	0.021	0.027	0.040	0.002	0.003	0.005	0.003	0.003	0.004
E-CRE-AR1	0.040	0.041	0.036	0.002	0.002	0.003	0.014	0.012	0.008
Panel IV. Coverage Rates									
AH	0.000	0.002	0.076	0.754	0.000	0.000	0.056	0.834	1.000
AB	0.000	0.000	0.002	0.634	0.000	0.000	0.008	0.752	0.728
BB	0.000	0.000	0.000	0.834	0.000	0.000	0.000	0.088	0.948
QD-GMM	0.894	0.566	0.000	0.942	0.554	0.002	0.918	0.954	0.950
QD-GMM-L	0.000	0.000	0.000	0.250	0.390	0.014	0.000	0.036	0.938
QD-GMM-A	0.022	0.386	0.698	0.024	0.890	0.808	0.000	0.184	0.964
QD-GMM-C	0.172	0.898	0.916	0.000	0.070	0.732	0.000	0.002	0.508
QD-GMM-AR1	0.884	0.532	0.004	0.950	0.060	0.000	0.890	0.922	0.692
E-CRE	0.950	0.776	0.000	0.946	0.002	0.000	0.962	0.928	0.326
E-CRE-L	0.000	0.000	0.000	0.850	0.000	0.000	0.000	0.000	0.712
E-CRE-A	0.000	0.002	0.166	0.014	0.854	0.076	0.000	0.002	0.934
E-CRE-C	0.000	0.014	0.626	0.000	0.116	0.796	0.000	0.000	0.002
E-CRE-AR1	0.892	0.944	0.002	0.950	0.008	0.000	0.962	0.892	0.970

Table A10. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 0.5$, $\mu_\alpha = 1$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.153	-0.154	-0.152	0.002	0.014	0.028	-0.031	-0.016	0.003
AB	-0.153	-0.154	-0.161	0.002	0.015	0.029	-0.031	-0.016	0.002
BB	-0.205	-0.208	-0.211	0.000	0.015	0.030	-0.042	-0.024	-0.006
QD-GMM	-0.026	-0.040	-0.081	-0.002	0.005	0.007	-0.010	-0.004	-0.010
QD-GMM-L	-0.071	-0.062	-0.052	-0.013	-0.002	0.008	-0.037	-0.019	0.000
QD-GMM-A	-0.037	-0.025	-0.018	-0.016	-0.007	0.001	-0.035	-0.019	-0.003
QD-GMM-C	-0.034	-0.014	-0.007	-0.024	-0.018	-0.009	-0.047	-0.032	-0.017
QD-GMM-AR1	-0.026	-0.040	-0.064	-0.001	0.008	0.018	-0.009	0.002	0.011
E-CRE	0.010	-0.037	-0.146	-0.001	0.008	0.021	0.002	0.004	-0.003
E-CRE-L	-0.187	-0.185	-0.166	-0.003	0.009	0.025	-0.044	-0.027	-0.004
E-CRE-A	-0.098	-0.068	-0.043	-0.010	-0.003	0.005	-0.038	-0.021	-0.002
E-CRE-C	-0.113	-0.065	-0.020	-0.019	-0.015	-0.012	-0.053	-0.040	-0.024
E-CRE-AR1	0.015	-0.022	-0.088	-0.001	0.007	0.022	0.003	0.007	0.011
Panel II. SD									
AH	0.034	0.035	0.038	0.005	0.006	0.008	0.010	0.012	0.015
AB	0.031	0.032	0.034	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.029	0.029	0.030	0.005	0.006	0.009	0.008	0.009	0.012
QD-GMM	0.031	0.031	0.036	0.008	0.010	0.013	0.016	0.015	0.016
QD-GMM-L	0.026	0.029	0.032	0.008	0.010	0.012	0.012	0.014	0.016
QD-GMM-A	0.028	0.030	0.031	0.008	0.009	0.010	0.012	0.013	0.015
QD-GMM-C	0.030	0.031	0.032	0.007	0.008	0.009	0.011	0.012	0.014
QD-GMM-AR1	0.031	0.030	0.029	0.005	0.006	0.008	0.012	0.011	0.012
E-CRE	0.051	0.055	0.049	0.004	0.005	0.007	0.016	0.015	0.011
E-CRE-L	0.029	0.030	0.030	0.004	0.005	0.007	0.007	0.008	0.009
E-CRE-A	0.039	0.040	0.041	0.004	0.005	0.006	0.008	0.009	0.010
E-CRE-C	0.042	0.048	0.050	0.004	0.006	0.007	0.006	0.006	0.008
E-CRE-AR1	0.050	0.050	0.043	0.004	0.005	0.007	0.016	0.015	0.012
Panel III. Mean SE									
AH	0.049	0.052	0.061	0.005	0.006	0.008	0.013	0.016	0.020
AB	0.030	0.031	0.033	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.028	0.029	0.030	0.005	0.006	0.008	0.008	0.009	0.012
QD-GMM	0.030	0.030	0.030	0.009	0.010	0.011	0.016	0.016	0.015
QD-GMM-L	0.028	0.029	0.030	0.008	0.010	0.011	0.013	0.015	0.016
QD-GMM-A	0.030	0.031	0.031	0.008	0.009	0.010	0.013	0.014	0.015
QD-GMM-C	0.030	0.031	0.031	0.007	0.008	0.010	0.011	0.013	0.014
QD-GMM-AR1	0.030	0.030	0.029	0.006	0.006	0.008	0.012	0.012	0.012
E-CRE	0.054	0.053	0.047	0.004	0.005	0.006	0.018	0.016	0.012
E-CRE-L	0.036	0.036	0.035	0.004	0.005	0.006	0.008	0.009	0.010
E-CRE-A	0.043	0.044	0.045	0.004	0.005	0.006	0.009	0.010	0.011
E-CRE-C	0.041	0.046	0.049	0.004	0.005	0.007	0.006	0.007	0.008
E-CRE-AR1	0.055	0.053	0.046	0.004	0.005	0.006	0.018	0.017	0.014
Panel IV. Coverage Rates									
AH	0.060	0.092	0.212	0.918	0.344	0.058	0.344	0.864	0.996
AB	0.002	0.002	0.006	0.930	0.376	0.052	0.130	0.694	0.956
BB	0.000	0.000	0.000	0.952	0.336	0.036	0.000	0.304	0.898
QD-GMM	0.850	0.708	0.264	0.942	0.912	0.866	0.898	0.952	0.904
QD-GMM-L	0.280	0.438	0.600	0.674	0.938	0.866	0.182	0.774	0.954
QD-GMM-A	0.754	0.874	0.908	0.476	0.880	0.952	0.234	0.752	0.946
QD-GMM-C	0.774	0.914	0.930	0.084	0.446	0.828	0.016	0.240	0.768
QD-GMM-AR1	0.846	0.716	0.392	0.940	0.810	0.338	0.874	0.962	0.880
E-CRE	0.954	0.890	0.128	0.942	0.612	0.086	0.960	0.968	0.950
E-CRE-L	0.000	0.000	0.000	0.890	0.556	0.030	0.000	0.112	0.954
E-CRE-A	0.366	0.668	0.878	0.234	0.918	0.858	0.002	0.424	0.956
E-CRE-C	0.208	0.704	0.918	0.008	0.194	0.598	0.000	0.002	0.158
E-CRE-AR1	0.958	0.938	0.502	0.940	0.666	0.070	0.968	0.972	0.944

Table A11. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.152	-0.157	-0.155	0.002	0.015	0.029	-0.031	-0.015	0.004
AB	-0.172	-0.174	-0.171	0.002	0.014	0.029	-0.035	-0.019	0.000
BB	-0.215	-0.220	-0.216	0.000	0.015	0.029	-0.044	-0.027	-0.009
QD-GMM	-0.039	-0.084	-0.223	-0.002	0.008	0.030	-0.013	-0.009	-0.009
QD-GMM-L	-0.173	-0.175	-0.167	-0.009	0.009	0.024	-0.049	-0.026	-0.005
QD-GMM-A	-0.093	-0.069	-0.055	-0.013	-0.003	0.006	-0.041	-0.022	-0.005
QD-GMM-C	-0.077	-0.034	-0.007	-0.020	-0.014	-0.008	-0.049	-0.031	-0.016
QD-GMM-AR1	-0.040	-0.079	-0.149	-0.001	0.009	0.025	-0.012	-0.006	0.000
E-CRE	-0.113	-0.218	-0.352	-0.002	0.010	0.028	-0.028	-0.032	-0.032
E-CRE-L	-0.298	-0.297	-0.270	-0.003	0.011	0.028	-0.059	-0.043	-0.019
E-CRE-A	-0.226	-0.187	-0.148	-0.007	0.004	0.014	-0.054	-0.035	-0.014
E-CRE-C	-0.246	-0.209	-0.175	-0.011	-0.003	0.006	-0.062	-0.047	-0.030
E-CRE-AR1	-0.078	-0.156	-0.238	-0.002	0.010	0.027	-0.022	-0.021	-0.014
Panel II. SD									
AH	0.029	0.031	0.040	0.002	0.003	0.004	0.007	0.008	0.012
AB	0.026	0.027	0.032	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.025	0.026	0.029	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.023	0.026	0.026	0.004	0.004	0.006	0.008	0.007	0.006
QD-GMM-L	0.017	0.021	0.026	0.004	0.005	0.006	0.005	0.005	0.006
QD-GMM-A	0.019	0.023	0.029	0.003	0.004	0.006	0.005	0.006	0.006
QD-GMM-C	0.021	0.026	0.033	0.003	0.004	0.006	0.005	0.005	0.006
QD-GMM-AR1	0.023	0.023	0.022	0.002	0.003	0.003	0.007	0.006	0.005
E-CRE	0.061	0.061	0.040	0.002	0.002	0.003	0.013	0.010	0.006
E-CRE-L	0.023	0.024	0.022	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.031	0.033	0.034	0.002	0.002	0.003	0.004	0.005	0.005
E-CRE-C	0.029	0.036	0.047	0.002	0.003	0.005	0.003	0.003	0.004
E-CRE-AR1	0.057	0.057	0.036	0.002	0.002	0.003	0.013	0.011	0.007
Panel III. Mean SE									
AH	0.048	0.056	0.076	0.003	0.004	0.004	0.012	0.015	0.022
AB	0.025	0.027	0.032	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.024	0.026	0.030	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.023	0.024	0.024	0.004	0.004	0.005	0.008	0.007	0.006
QD-GMM-L	0.019	0.021	0.024	0.004	0.004	0.005	0.005	0.006	0.006
QD-GMM-A	0.021	0.023	0.028	0.003	0.004	0.005	0.006	0.006	0.006
QD-GMM-C	0.021	0.025	0.029	0.003	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.023	0.023	0.022	0.002	0.003	0.003	0.007	0.006	0.005
E-CRE	0.061	0.055	0.036	0.002	0.002	0.003	0.013	0.009	0.005
E-CRE-L	0.026	0.025	0.023	0.002	0.002	0.003	0.004	0.005	0.005
E-CRE-A	0.033	0.035	0.036	0.002	0.002	0.003	0.005	0.005	0.006
E-CRE-C	0.028	0.036	0.045	0.002	0.003	0.005	0.003	0.003	0.004
E-CRE-AR1	0.066	0.058	0.037	0.002	0.002	0.003	0.016	0.011	0.007
Panel IV. Coverage Rates									
AH	0.036	0.096	0.456	0.926	0.004	0.000	0.252	0.926	1.000
AB	0.000	0.000	0.002	0.890	0.000	0.000	0.002	0.252	0.960
BB	0.000	0.000	0.000	0.952	0.000	0.000	0.000	0.018	0.780
QD-GMM	0.582	0.068	0.000	0.924	0.594	0.002	0.636	0.764	0.672
QD-GMM-L	0.000	0.000	0.000	0.272	0.494	0.016	0.000	0.002	0.878
QD-GMM-A	0.006	0.172	0.486	0.024	0.870	0.818	0.000	0.028	0.874
QD-GMM-C	0.044	0.712	0.900	0.000	0.098	0.672	0.000	0.002	0.248
QD-GMM-AR1	0.572	0.062	0.000	0.912	0.082	0.000	0.538	0.840	0.958
E-CRE	0.528	0.014	0.000	0.868	0.004	0.000	0.440	0.132	0.002
E-CRE-L	0.000	0.000	0.000	0.592	0.002	0.000	0.000	0.000	0.014
E-CRE-A	0.000	0.000	0.006	0.026	0.672	0.006	0.000	0.000	0.286
E-CRE-C	0.000	0.000	0.036	0.000	0.842	0.812	0.000	0.000	0.000
E-CRE-AR1	0.822	0.212	0.000	0.838	0.014	0.000	0.694	0.516	0.442

Table A12. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 0.5$, $\mu_\alpha = 5$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.152	-0.153	-0.154	-0.001	0.008	0.021	-0.035	-0.023	-0.006
AB	-0.191	-0.191	-0.191	-0.003	0.007	0.020	-0.044	-0.032	-0.016
BB	-0.223	-0.221	-0.222	-0.004	0.007	0.023	-0.051	-0.036	-0.017
QD-GMM	-0.061	-0.078	-0.132	-0.008	-0.003	0.001	-0.028	-0.025	-0.029
QD-GMM-L	-0.097	-0.083	-0.071	-0.014	-0.006	0.005	-0.044	-0.029	-0.009
QD-GMM-A	-0.060	-0.041	-0.028	-0.017	-0.011	-0.003	-0.041	-0.027	-0.011
QD-GMM-C	-0.059	-0.033	-0.016	-0.025	-0.020	-0.013	-0.053	-0.041	-0.025
QD-GMM-AR1	-0.060	-0.075	-0.099	-0.004	0.004	0.016	-0.021	-0.014	0.000
E-CRE	-0.141	-0.175	-0.234	-0.006	0.002	0.015	-0.040	-0.035	-0.028
E-CRE-L	-0.256	-0.246	-0.213	-0.007	0.003	0.018	-0.058	-0.045	-0.022
E-CRE-A	-0.210	-0.165	-0.105	-0.011	-0.003	0.005	-0.057	-0.041	-0.018
E-CRE-C	-0.220	-0.180	-0.102	-0.016	-0.010	-0.007	-0.064	-0.053	-0.035
E-CRE-AR1	-0.131	-0.147	-0.162	-0.006	0.003	0.017	-0.038	-0.030	-0.014
Panel II. SD									
AH	0.045	0.047	0.051	0.005	0.006	0.007	0.012	0.014	0.017
AB	0.036	0.037	0.038	0.005	0.005	0.007	0.009	0.010	0.012
BB	0.034	0.035	0.036	0.005	0.006	0.007	0.008	0.009	0.012
QD-GMM	0.034	0.034	0.041	0.008	0.010	0.014	0.015	0.014	0.015
QD-GMM-L	0.028	0.030	0.032	0.008	0.009	0.011	0.011	0.013	0.014
QD-GMM-A	0.030	0.032	0.032	0.007	0.008	0.010	0.012	0.013	0.014
QD-GMM-C	0.032	0.033	0.034	0.007	0.008	0.009	0.011	0.011	0.013
QD-GMM-AR1	0.033	0.032	0.029	0.005	0.006	0.007	0.011	0.010	0.010
E-CRE	0.076	0.067	0.048	0.004	0.005	0.006	0.015	0.012	0.009
E-CRE-L	0.043	0.040	0.034	0.004	0.005	0.006	0.007	0.008	0.009
E-CRE-A	0.056	0.053	0.047	0.004	0.005	0.006	0.008	0.008	0.009
E-CRE-C	0.052	0.055	0.054	0.004	0.005	0.007	0.006	0.006	0.007
E-CRE-AR1	0.076	0.066	0.045	0.004	0.005	0.006	0.015	0.013	0.010
Panel III. Mean SE									
AH	0.081	0.087	0.100	0.006	0.006	0.008	0.021	0.023	0.029
AB	0.035	0.036	0.037	0.005	0.006	0.007	0.009	0.010	0.012
BB	0.033	0.034	0.035	0.005	0.006	0.007	0.008	0.009	0.011
QD-GMM	0.034	0.033	0.031	0.008	0.009	0.011	0.015	0.014	0.014
QD-GMM-L	0.031	0.031	0.031	0.008	0.009	0.011	0.012	0.014	0.015
QD-GMM-A	0.033	0.033	0.033	0.007	0.009	0.010	0.012	0.013	0.015
QD-GMM-C	0.033	0.034	0.033	0.007	0.008	0.009	0.011	0.012	0.013
QD-GMM-AR1	0.033	0.032	0.029	0.005	0.006	0.007	0.011	0.011	0.011
E-CRE	0.082	0.067	0.047	0.004	0.005	0.006	0.017	0.013	0.010
E-CRE-L	0.050	0.046	0.039	0.004	0.005	0.006	0.009	0.009	0.010
E-CRE-A	0.061	0.058	0.052	0.004	0.005	0.006	0.009	0.010	0.010
E-CRE-C	0.054	0.056	0.055	0.004	0.005	0.007	0.006	0.007	0.007
E-CRE-AR1	0.083	0.069	0.049	0.004	0.005	0.006	0.017	0.015	0.012
Panel IV. Coverage Rates									
AH	0.556	0.620	0.770	0.982	0.792	0.182	0.618	0.896	0.990
AB	0.002	0.002	0.004	0.922	0.796	0.190	0.012	0.164	0.730
BB	0.000	0.000	0.000	0.820	0.760	0.090	0.000	0.060	0.660
QD-GMM	0.572	0.342	0.042	0.844	0.924	0.856	0.544	0.622	0.422
QD-GMM-L	0.082	0.224	0.376	0.572	0.898	0.904	0.048	0.458	0.904
QD-GMM-A	0.552	0.778	0.878	0.352	0.770	0.954	0.076	0.460	0.896
QD-GMM-C	0.566	0.838	0.920	0.040	0.264	0.698	0.002	0.068	0.528
QD-GMM-AR1	0.556	0.352	0.072	0.868	0.898	0.366	0.492	0.770	0.954
E-CRE	0.614	0.228	0.000	0.714	0.906	0.204	0.370	0.292	0.174
E-CRE-L	0.000	0.000	0.000	0.582	0.888	0.112	0.000	0.002	0.392
E-CRE-A	0.022	0.118	0.472	0.174	0.892	0.862	0.000	0.014	0.584
E-CRE-C	0.008	0.082	0.540	0.024	0.490	0.792	0.000	0.000	0.002
E-CRE-AR1	0.639	0.416	0.038	0.701	0.904	0.152	0.409	0.484	0.784

Table A13. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 3$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.051	-0.019	-0.003	0.010	0.035	0.072	-0.059	0.105	0.334
AB	-0.052	-0.029	-0.024	0.010	0.035	0.073	-0.061	0.089	0.274
BB	-0.217	-0.199	-0.198	0.004	0.031	0.069	-0.252	-0.173	-0.075
QD-GMM	-0.024	-0.027	-0.016	-0.001	0.001	-0.028	-0.064	-0.055	-0.168
QD-GMM-L	-0.154	-0.106	-0.059	-0.037	-0.023	-0.004	-0.322	-0.246	-0.127
QD-GMM-A	-0.088	-0.049	-0.021	-0.032	-0.018	-0.001	-0.263	-0.170	-0.059
QD-GMM-C	-0.073	-0.023	0.003	-0.049	-0.041	-0.028	-0.313	-0.236	-0.137
QD-GMM-AR1	-0.027	-0.043	-0.064	-0.001	0.010	0.019	-0.069	-0.048	-0.054
E-CRE	0.010	0.008	-0.013	-0.001	0.017	0.030	0.021	0.104	0.107
E-CRE-L	-0.305	-0.265	-0.233	-0.020	0.003	0.048	-0.340	-0.276	-0.156
E-CRE-A	-0.075	-0.054	-0.045	-0.038	-0.022	0.004	-0.275	-0.195	-0.075
E-CRE-C	-0.018	-0.005	-0.011	-0.060	-0.052	-0.037	-0.318	-0.267	-0.204
E-CRE-AR1	0.011	-0.011	-0.067	-0.002	0.018	0.044	0.021	0.056	0.033
Panel II. SD									
AH	0.054	0.059	0.069	0.006	0.009	0.016	0.133	0.258	3.919
AB	0.047	0.049	0.057	0.006	0.009	0.015	0.105	0.172	0.329
BB	0.039	0.039	0.041	0.005	0.008	0.014	0.028	0.039	0.055
QD-GMM	0.024	0.025	0.026	0.007	0.010	0.012	0.063	0.065	0.063
QD-GMM-L	0.029	0.030	0.026	0.009	0.012	0.015	0.020	0.029	0.041
QD-GMM-A	0.024	0.022	0.020	0.006	0.008	0.011	0.025	0.036	0.050
QD-GMM-C	0.027	0.024	0.021	0.005	0.006	0.009	0.022	0.032	0.047
QD-GMM-AR1	0.025	0.026	0.026	0.006	0.008	0.011	0.058	0.056	0.049
E-CRE	0.016	0.018	0.026	0.004	0.006	0.009	0.051	0.068	0.084
E-CRE-L	0.043	0.043	0.040	0.007	0.010	0.014	0.010	0.014	0.023
E-CRE-A	0.026	0.023	0.022	0.004	0.005	0.007	0.017	0.024	0.035
E-CRE-C	0.022	0.020	0.022	0.003	0.004	0.005	0.016	0.022	0.030
E-CRE-AR1	0.017	0.020	0.038	0.004	0.006	0.010	0.052	0.060	0.068
Panel III. Mean SE									
AH	0.095	0.106	0.132	0.007	0.010	0.015	0.231	0.458	17.952
AB	0.046	0.048	0.057	0.006	0.009	0.015	0.103	0.167	0.296
BB	0.037	0.038	0.041	0.005	0.008	0.013	0.029	0.040	0.056
QD-GMM	0.024	0.023	0.020	0.008	0.010	0.012	0.062	0.064	0.063
QD-GMM-L	0.025	0.025	0.022	0.007	0.010	0.012	0.020	0.028	0.041
QD-GMM-A	0.023	0.022	0.020	0.006	0.008	0.011	0.026	0.037	0.049
QD-GMM-C	0.024	0.022	0.020	0.005	0.006	0.008	0.022	0.034	0.047
QD-GMM-AR1	0.025	0.025	0.023	0.006	0.008	0.010	0.057	0.056	0.049
E-CRE	0.025	0.026	0.030	0.005	0.008	0.012	0.077	0.099	0.108
E-CRE-L	0.031	0.031	0.030	0.005	0.007	0.012	0.013	0.018	0.027
E-CRE-A	0.029	0.029	0.028	0.004	0.006	0.009	0.023	0.033	0.047
E-CRE-C	0.027	0.028	0.029	0.003	0.004	0.006	0.021	0.030	0.040
E-CRE-AR1	0.026	0.031	0.039	0.005	0.008	0.012	0.082	0.096	0.090
Panel IV. Coverage Rates									
AH	0.994	1.000	1.000	0.694	0.028	0.000	0.966	1.000	1.000
AB	0.792	0.908	0.938	0.596	0.012	0.000	0.818	0.996	0.996
BB	0.000	0.000	0.000	0.906	0.034	0.000	0.000	0.056	0.674
QD-GMM	0.820	0.782	0.824	0.954	0.960	0.376	0.788	0.822	0.274
QD-GMM-L	0.000	0.012	0.262	0.012	0.388	0.888	0.000	0.000	0.118
QD-GMM-A	0.028	0.412	0.828	0.000	0.436	0.958	0.000	0.010	0.748
QD-GMM-C	0.136	0.816	0.932	0.000	0.000	0.100	0.000	0.000	0.212
QD-GMM-AR1	0.804	0.590	0.216	0.950	0.722	0.568	0.746	0.838	0.812
E-CRE	0.984	0.980	0.968	0.970	0.378	0.242	0.996	0.942	0.926
E-CRE-L	0.000	0.000	0.000	0.046	0.818	0.046	0.000	0.000	0.000
E-CRE-A	0.172	0.544	0.720	0.000	0.032	0.962	0.000	0.000	0.638
E-CRE-C	0.950	0.996	0.994	0.000	0.000	0.000	0.000	0.000	0.004
E-CRE-AR1	0.982	1.000	0.634	0.958	0.332	0.024	1.000	0.994	0.986

Table A14. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.053	-0.047	-0.042	0.008	0.026	0.054	-0.071	0.007	0.134
AB	-0.064	-0.062	-0.066	0.008	0.026	0.056	-0.087	-0.012	0.091
BB	-0.228	-0.227	-0.233	0.001	0.023	0.054	-0.264	-0.217	-0.145
QD-GMM	-0.032	-0.032	-0.022	-0.007	-0.012	-0.049	-0.097	-0.122	-0.265
QD-GMM-L	-0.059	-0.040	-0.025	-0.049	-0.042	-0.026	-0.306	-0.257	-0.170
QD-GMM-A	-0.041	-0.028	-0.016	-0.036	-0.026	-0.010	-0.232	-0.174	-0.085
QD-GMM-C	-0.036	-0.021	-0.010	-0.053	-0.045	-0.033	-0.301	-0.254	-0.185
QD-GMM-AR1	-0.033	-0.037	-0.039	-0.004	0.002	-0.001	-0.091	-0.072	-0.084
E-CRE	0.008	0.000	-0.007	-0.003	0.007	0.006	0.002	0.039	0.012
E-CRE-L	-0.023	-0.034	-0.040	-0.067	-0.053	-0.023	-0.354	-0.297	-0.178
E-CRE-A	-0.010	-0.015	-0.016	-0.045	-0.031	-0.009	-0.239	-0.178	-0.076
E-CRE-C	0.002	-0.003	-0.007	-0.062	-0.054	-0.043	-0.308	-0.277	-0.225
E-CRE-AR1	0.009	-0.005	-0.017	-0.004	0.009	0.020	0.001	0.032	0.049
Panel II. SD									
AH	0.062	0.064	0.069	0.012	0.018	0.028	0.185	0.261	0.544
AB	0.053	0.055	0.059	0.012	0.017	0.027	0.121	0.156	0.218
BB	0.042	0.043	0.044	0.011	0.017	0.027	0.037	0.049	0.071
QD-GMM	0.029	0.027	0.024	0.017	0.021	0.022	0.098	0.106	0.104
QD-GMM-L	0.029	0.027	0.024	0.014	0.018	0.022	0.052	0.070	0.092
QD-GMM-A	0.027	0.025	0.023	0.013	0.016	0.021	0.058	0.075	0.098
QD-GMM-C	0.028	0.026	0.023	0.010	0.012	0.016	0.047	0.060	0.081
QD-GMM-AR1	0.029	0.028	0.025	0.012	0.016	0.020	0.079	0.085	0.088
E-CRE	0.016	0.018	0.020	0.009	0.012	0.015	0.065	0.079	0.085
E-CRE-L	0.025	0.028	0.028	0.009	0.012	0.017	0.032	0.041	0.054
E-CRE-A	0.019	0.020	0.019	0.007	0.010	0.013	0.034	0.045	0.061
E-CRE-C	0.018	0.019	0.019	0.005	0.006	0.009	0.027	0.034	0.045
E-CRE-AR1	0.017	0.018	0.021	0.009	0.012	0.017	0.066	0.076	0.083
Panel III. Mean SE									
AH	0.110	0.116	0.130	0.012	0.016	0.025	0.295	0.408	0.778
AB	0.051	0.053	0.057	0.012	0.018	0.027	0.118	0.150	0.203
BB	0.041	0.041	0.043	0.011	0.016	0.025	0.037	0.049	0.068
QD-GMM	0.028	0.026	0.022	0.017	0.021	0.022	0.095	0.105	0.104
QD-GMM-L	0.028	0.026	0.023	0.013	0.017	0.022	0.051	0.069	0.092
QD-GMM-A	0.027	0.025	0.022	0.013	0.017	0.021	0.058	0.077	0.099
QD-GMM-C	0.027	0.025	0.022	0.010	0.013	0.017	0.047	0.062	0.082
QD-GMM-AR1	0.028	0.027	0.024	0.012	0.016	0.020	0.077	0.085	0.089
E-CRE	0.026	0.026	0.024	0.010	0.014	0.020	0.091	0.107	0.120
E-CRE-L	0.029	0.030	0.027	0.008	0.011	0.015	0.033	0.043	0.060
E-CRE-A	0.027	0.027	0.024	0.007	0.010	0.014	0.044	0.056	0.073
E-CRE-C	0.027	0.026	0.024	0.005	0.007	0.009	0.033	0.041	0.052
E-CRE-AR1	0.026	0.027	0.025	0.010	0.015	0.021	0.092	0.107	0.117
Panel IV. Coverage Rates									
AH	0.992	0.996	1.000	0.874	0.630	0.394	0.952	0.988	1.000
AB	0.766	0.796	0.808	0.894	0.672	0.452	0.794	0.940	0.994
BB	0.000	0.000	0.000	0.952	0.710	0.404	0.000	0.050	0.428
QD-GMM	0.812	0.752	0.828	0.952	0.902	0.394	0.764	0.748	0.292
QD-GMM-L	0.422	0.654	0.802	0.076	0.346	0.744	0.000	0.052	0.524
QD-GMM-A	0.684	0.818	0.882	0.202	0.646	0.920	0.060	0.406	0.826
QD-GMM-C	0.738	0.862	0.920	0.000	0.058	0.494	0.000	0.030	0.390
QD-GMM-AR1	0.800	0.710	0.642	0.934	0.942	0.946	0.732	0.816	0.830
E-CRE	0.990	0.988	0.980	0.946	0.946	0.984	0.986	0.990	0.998
E-CRE-L	0.918	0.838	0.712	0.000	0.016	0.606	0.000	0.000	0.124
E-CRE-A	0.998	0.994	0.982	0.000	0.126	0.904	0.000	0.102	0.844
E-CRE-C	0.998	0.992	0.986	0.000	0.000	0.006	0.000	0.000	0.020
E-CRE-AR1	0.988	0.998	0.972	0.946	0.944	0.904	0.986	0.994	0.994

Table A15. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 3$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.052	-0.022	-0.003	0.010	0.033	0.068	-0.065	0.093	0.308
AB	-0.068	-0.044	-0.034	0.009	0.033	0.068	-0.089	0.045	0.225
BB	-0.235	-0.215	-0.211	0.003	0.028	0.064	-0.265	-0.194	-0.100
QD-GMM	-0.033	-0.038	-0.021	-0.002	-0.001	-0.035	-0.085	-0.085	-0.204
QD-GMM-L	-0.176	-0.123	-0.069	-0.034	-0.020	-0.004	-0.324	-0.250	-0.141
QD-GMM-A	-0.101	-0.057	-0.025	-0.031	-0.018	-0.002	-0.271	-0.181	-0.071
QD-GMM-C	-0.086	-0.030	0.001	-0.048	-0.041	-0.030	-0.319	-0.244	-0.149
QD-GMM-AR1	-0.037	-0.056	-0.079	-0.002	0.009	0.017	-0.089	-0.076	-0.080
E-CRE	0.006	-0.003	-0.033	-0.001	0.015	0.024	0.009	0.060	0.031
E-CRE-L	-0.332	-0.305	-0.268	-0.017	0.008	0.051	-0.344	-0.286	-0.177
E-CRE-A	-0.091	-0.076	-0.061	-0.037	-0.021	0.004	-0.282	-0.213	-0.100
E-CRE-C	-0.027	-0.020	-0.025	-0.059	-0.051	-0.037	-0.323	-0.281	-0.222
E-CRE-AR1	0.007	-0.025	-0.108	-0.002	0.016	0.043	0.008	0.012	-0.037
Panel II. SD									
AH	0.060	0.065	0.077	0.006	0.009	0.015	0.158	0.337	6.946
AB	0.052	0.055	0.063	0.006	0.009	0.014	0.106	0.176	0.377
BB	0.040	0.041	0.042	0.005	0.008	0.013	0.027	0.037	0.052
QD-GMM	0.026	0.028	0.028	0.008	0.010	0.012	0.062	0.062	0.058
QD-GMM-L	0.033	0.033	0.028	0.009	0.013	0.015	0.019	0.027	0.039
QD-GMM-A	0.026	0.024	0.021	0.007	0.008	0.010	0.025	0.034	0.047
QD-GMM-C	0.029	0.026	0.022	0.005	0.006	0.008	0.022	0.031	0.045
QD-GMM-AR1	0.028	0.029	0.028	0.006	0.008	0.011	0.057	0.053	0.044
E-CRE	0.018	0.023	0.061	0.004	0.006	0.009	0.055	0.073	0.092
E-CRE-L	0.043	0.041	0.038	0.006	0.009	0.013	0.010	0.014	0.022
E-CRE-A	0.032	0.029	0.026	0.005	0.006	0.007	0.018	0.024	0.035
E-CRE-C	0.028	0.027	0.028	0.003	0.004	0.005	0.017	0.022	0.029
E-CRE-AR1	0.019	0.026	0.059	0.004	0.006	0.011	0.057	0.064	0.072
Panel III. Mean SE									
AH	0.110	0.124	0.153	0.007	0.010	0.016	0.282	0.609	54.981
AB	0.051	0.054	0.063	0.006	0.009	0.014	0.103	0.170	0.320
BB	0.039	0.040	0.042	0.005	0.008	0.013	0.028	0.038	0.053
QD-GMM	0.025	0.024	0.021	0.008	0.010	0.011	0.060	0.061	0.058
QD-GMM-L	0.027	0.026	0.023	0.007	0.010	0.012	0.019	0.027	0.038
QD-GMM-A	0.025	0.024	0.021	0.006	0.008	0.011	0.025	0.035	0.047
QD-GMM-C	0.025	0.023	0.020	0.005	0.006	0.008	0.022	0.033	0.046
QD-GMM-AR1	0.027	0.027	0.024	0.006	0.007	0.010	0.056	0.053	0.044
E-CRE	0.031	0.034	0.039	0.005	0.008	0.012	0.091	0.111	0.106
E-CRE-L	0.035	0.034	0.032	0.005	0.007	0.011	0.013	0.018	0.026
E-CRE-A	0.035	0.036	0.034	0.004	0.006	0.009	0.025	0.035	0.047
E-CRE-C	0.034	0.036	0.035	0.003	0.004	0.006	0.023	0.032	0.040
E-CRE-AR1	0.033	0.041	0.051	0.005	0.008	0.012	0.098	0.107	0.084
Panel IV. Coverage Rates									
AH	0.996	1.000	1.000	0.778	0.048	0.000	0.966	1.000	1.000
AB	0.742	0.882	0.922	0.640	0.018	0.000	0.748	0.982	1.000
BB	0.000	0.000	0.000	0.936	0.056	0.000	0.000	0.024	0.508
QD-GMM	0.734	0.656	0.760	0.942	0.940	0.160	0.646	0.644	0.114
QD-GMM-L	0.000	0.002	0.152	0.028	0.478	0.880	0.000	0.000	0.032
QD-GMM-A	0.014	0.306	0.772	0.004	0.446	0.954	0.000	0.002	0.640
QD-GMM-C	0.074	0.728	0.936	0.000	0.000	0.064	0.000	0.000	0.136
QD-GMM-AR1	0.730	0.426	0.118	0.934	0.768	0.606	0.608	0.658	0.522
E-CRE	0.998	0.998	0.950	0.972	0.562	0.438	0.996	0.994	0.980
E-CRE-L	0.000	0.000	0.000	0.086	0.774	0.016	0.000	0.000	0.000
E-CRE-A	0.192	0.404	0.592	0.000	0.076	0.964	0.000	0.000	0.416
E-CRE-C	0.944	0.996	0.992	0.000	0.000	0.000	0.000	0.000	0.004
E-CRE-AR1	0.998	1.000	0.410	0.960	0.482	0.028	1.000	1.000	0.916

Table A16. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**	**DGP1**	**DGP2**	**DGP3**
Panel I. Median Bias									
AH	-0.053	-0.047	-0.041	0.007	0.023	0.050	-0.077	-0.003	0.117
AB	-0.083	-0.080	-0.084	0.006	0.022	0.049	-0.119	-0.057	0.032
BB	-0.245	-0.243	-0.245	-0.001	0.019	0.048	-0.277	-0.235	-0.169
QD-GMM	-0.040	-0.039	-0.025	-0.010	-0.019	-0.056	-0.127	-0.166	-0.301
QD-GMM-L	-0.071	-0.048	-0.029	-0.048	-0.042	-0.029	-0.309	-0.266	-0.190
QD-GMM-A	-0.049	-0.034	-0.019	-0.036	-0.027	-0.013	-0.240	-0.186	-0.100
QD-GMM-C	-0.043	-0.028	-0.013	-0.053	-0.046	-0.035	-0.307	-0.264	-0.201
QD-GMM-AR1	-0.043	-0.047	-0.046	-0.005	-0.002	-0.006	-0.115	-0.106	-0.115
E-CRE	0.004	-0.006	-0.013	-0.005	0.003	-0.001	-0.016	0.001	-0.037
E-CRE-L	-0.035	-0.047	-0.051	-0.066	-0.051	-0.025	-0.354	-0.303	-0.200
E-CRE-A	-0.016	-0.023	-0.021	-0.045	-0.032	-0.012	-0.248	-0.194	-0.099
E-CRE-C	-0.003	-0.010	-0.011	-0.062	-0.055	-0.045	-0.313	-0.287	-0.240
E-CRE-AR1	0.004	-0.011	-0.024	-0.005	0.005	0.014	-0.018	0.000	0.007
Panel II. SD									
AH	0.069	0.072	0.078	0.012	0.017	0.026	0.254	0.398	1.957
AB	0.059	0.061	0.065	0.011	0.016	0.025	0.119	0.149	0.205
BB	0.044	0.045	0.045	0.011	0.016	0.024	0.035	0.045	0.065
QD-GMM	0.031	0.029	0.025	0.017	0.020	0.020	0.094	0.098	0.095
QD-GMM-L	0.031	0.029	0.025	0.015	0.018	0.022	0.049	0.066	0.088
QD-GMM-A	0.029	0.027	0.023	0.013	0.016	0.020	0.056	0.072	0.093
QD-GMM-C	0.030	0.027	0.024	0.010	0.012	0.016	0.045	0.057	0.076
QD-GMM-AR1	0.032	0.031	0.027	0.012	0.016	0.019	0.076	0.079	0.080
E-CRE	0.019	0.021	0.022	0.009	0.012	0.014	0.067	0.078	0.079
E-CRE-L	0.033	0.037	0.033	0.010	0.014	0.017	0.031	0.038	0.050
E-CRE-A	0.023	0.024	0.022	0.007	0.009	0.012	0.034	0.043	0.058
E-CRE-C	0.021	0.022	0.021	0.005	0.006	0.008	0.026	0.032	0.042
E-CRE-AR1	0.019	0.022	0.024	0.009	0.012	0.016	0.067	0.075	0.077
Panel III. Mean SE									
AH	0.129	0.137	0.153	0.012	0.016	0.024	0.405	0.618	4.624
AB	0.057	0.059	0.063	0.012	0.017	0.025	0.115	0.143	0.190
BB	0.043	0.044	0.045	0.011	0.015	0.023	0.035	0.046	0.063
QD-GMM	0.029	0.027	0.022	0.017	0.020	0.020	0.090	0.098	0.095
QD-GMM-L	0.029	0.027	0.023	0.013	0.017	0.021	0.049	0.065	0.087
QD-GMM-A	0.028	0.026	0.023	0.013	0.016	0.020	0.056	0.073	0.094
QD-GMM-C	0.029	0.026	0.023	0.010	0.013	0.016	0.045	0.059	0.078
QD-GMM-AR1	0.030	0.028	0.024	0.012	0.015	0.019	0.074	0.078	0.081
E-CRE	0.032	0.031	0.027	0.010	0.014	0.019	0.099	0.109	0.114
E-CRE-L	0.037	0.036	0.030	0.008	0.011	0.014	0.032	0.041	0.056
E-CRE-A	0.033	0.032	0.027	0.008	0.010	0.013	0.045	0.056	0.070
E-CRE-C	0.033	0.031	0.027	0.005	0.007	0.009	0.035	0.041	0.050
E-CRE-AR1	0.032	0.032	0.029	0.010	0.015	0.020	0.101	0.109	0.112
Panel IV. Coverage Rates									
AH	0.998	1.000	1.000	0.922	0.676	0.436	0.958	0.980	0.996
AB	0.704	0.734	0.746	0.920	0.730	0.494	0.658	0.884	0.972
BB	0.000	0.000	0.000	0.960	0.780	0.434	0.000	0.010	0.272
QD-GMM	0.716	0.688	0.802	0.914	0.820	0.230	0.648	0.568	0.158
QD-GMM-L	0.320	0.568	0.742	0.086	0.330	0.690	0.000	0.028	0.412
QD-GMM-A	0.600	0.752	0.858	0.196	0.606	0.900	0.028	0.302	0.766
QD-GMM-C	0.670	0.818	0.906	0.000	0.046	0.396	0.000	0.016	0.302
QD-GMM-AR1	0.696	0.608	0.540	0.916	0.938	0.934	0.614	0.704	0.696
E-CRE	0.998	1.000	0.986	0.946	0.968	0.990	0.984	0.990	0.976
E-CRE-L	0.906	0.774	0.640	0.000	0.038	0.566	0.000	0.000	0.030
E-CRE-A	0.998	0.990	0.980	0.000	0.100	0.874	0.000	0.068	0.710
E-CRE-C	1.000	1.000	0.992	0.000	0.000	0.000	0.000	0.000	0.006
E-CRE-AR1	0.998	1.000	0.970	0.948	0.960	0.948	0.984	0.994	0.998

Table B1. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 1$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.155	-0.148	-0.130	0.004	0.018	0.033	-0.030	-0.010	0.016
AB	-0.138	-0.136	-0.125	0.004	0.018	0.032	-0.026	-0.007	0.016
BB	-0.192	-0.195	-0.192	0.003	0.018	0.031	-0.037	-0.018	0.000
QD-GMM	-0.010	-0.025	-0.083	0.000	0.007	0.015	-0.002	0.005	0.001
QD-GMM-L	-0.150	-0.142	-0.096	-0.009	0.006	0.015	-0.046	-0.023	-0.002
QD-GMM-A	-0.072	-0.050	-0.028	-0.013	-0.003	0.004	-0.037	-0.017	-0.001
QD-GMM-C	-0.057	-0.022	-0.009	-0.021	-0.014	-0.005	-0.045	-0.028	-0.011
QD-GMM-AR1	-0.011	-0.030	-0.069	0.000	0.010	0.020	-0.003	0.008	0.013
E-CRE	0.039	-0.029	-0.328	0.001	0.010	0.027	0.014	0.009	-0.030
E-CRE-L	-0.252	-0.248	-0.231	-0.001	0.012	0.027	-0.051	-0.035	-0.014
E-CRE-A	-0.154	-0.113	-0.097	-0.007	0.002	0.012	-0.044	-0.024	-0.006
E-CRE-C	-0.178	-0.121	-0.118	-0.014	-0.009	0.002	-0.056	-0.040	-0.025
E-CRE-AR1	0.056	0.000	-0.199	0.000	0.010	0.026	0.018	0.016	-0.009
Panel II. SD									
AH	0.025	0.026	0.031	0.002	0.003	0.004	0.006	0.007	0.010
AB	0.023	0.024	0.028	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.022	0.023	0.025	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.022	0.025	0.028	0.004	0.004	0.005	0.009	0.008	0.008
QD-GMM-L	0.018	0.020	0.021	0.004	0.005	0.005	0.005	0.006	0.007
QD-GMM-A	0.019	0.021	0.023	0.004	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.021	0.024	0.026	0.003	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.023	0.023	0.023	0.002	0.003	0.004	0.007	0.007	0.007
E-CRE	0.034	0.042	0.047	0.002	0.002	0.003	0.012	0.012	0.007
E-CRE-L	0.018	0.019	0.021	0.002	0.002	0.003	0.003	0.004	0.005
E-CRE-A	0.021	0.023	0.027	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-C	0.020	0.026	0.035	0.002	0.003	0.004	0.003	0.003	0.004
E-CRE-AR1	0.032	0.037	0.040	0.002	0.002	0.003	0.012	0.011	0.008
Panel III. Mean SE									
AH	0.032	0.035	0.046	0.003	0.003	0.004	0.008	0.010	0.015
AB	0.021	0.022	0.026	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.020	0.021	0.024	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.023	0.024	0.004	0.004	0.005	0.008	0.008	0.008
QD-GMM-L	0.018	0.019	0.020	0.004	0.004	0.005	0.005	0.006	0.007
QD-GMM-A	0.019	0.021	0.022	0.003	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.020	0.022	0.023	0.003	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.022	0.023	0.023	0.002	0.003	0.004	0.007	0.007	0.007
E-CRE	0.037	0.041	0.047	0.002	0.002	0.003	0.013	0.012	0.007
E-CRE-L	0.020	0.021	0.024	0.002	0.002	0.003	0.004	0.004	0.006
E-CRE-A	0.024	0.026	0.032	0.002	0.002	0.004	0.004	0.005	0.006
E-CRE-C	0.021	0.025	0.037	0.002	0.003	0.005	0.003	0.003	0.004
E-CRE-AR1	0.039	0.043	0.049	0.002	0.002	0.003	0.014	0.014	0.010
Panel IV. Coverage Rates									
AH	0.002	0.002	0.116	0.704	0.000	0.000	0.050	0.898	0.948
AB	0.000	0.000	0.004	0.568	0.000	0.000	0.018	0.784	0.518
BB	0.000	0.000	0.000	0.788	0.000	0.000	0.000	0.108	0.936
QD-GMM	0.912	0.774	0.090	0.936	0.584	0.180	0.924	0.928	0.954
QD-GMM-L	0.000	0.000	0.004	0.288	0.660	0.138	0.000	0.030	0.930
QD-GMM-A	0.032	0.350	0.746	0.044	0.854	0.882	0.000	0.224	0.934
QD-GMM-C	0.174	0.794	0.902	0.000	0.080	0.762	0.000	0.006	0.560
QD-GMM-AR1	0.906	0.716	0.146	0.940	0.062	0.000	0.918	0.822	0.508
E-CRE	0.822	0.872	0.000	0.914	0.012	0.000	0.874	0.930	0.042
E-CRE-L	0.000	0.000	0.000	0.896	0.008	0.000	0.000	0.000	0.286
E-CRE-A	0.000	0.000	0.076	0.008	0.914	0.050	0.000	0.002	0.878
E-CRE-C	0.000	0.008	0.102	0.000	0.070	0.942	0.000	0.000	0.000
E-CRE-AR1	0.708	0.964	0.010	0.968	0.018	0.000	0.838	0.884	0.862

Notes: Results obtaining using 500 simulations with N=500 and M=6. SD = standard deviation. SE = (robust) standard error. DGP1: Mean Corr(X_t,X_{t-1})=0.00. DGP2: Mean Corr(X_t,X_{t-1})=0.40. DGP3: Mean Corr(X_t,X_{t-1})=0.80. Coverage rates based on 95% confidence interval. Initial period in simulations is t=0. Lowest median bias (in absolute value) highlighted in gray; yellow indicates the lowest median bias when the initial period is t=-99 (if different). See text for further details.

Table B2. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 0.5$, $\mu_\alpha = 1$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.156	-0.154	-0.150	0.004	0.017	0.031	-0.030	-0.012	0.009
AB	-0.149	-0.152	-0.156	0.004	0.017	0.031	-0.029	-0.011	0.007
BB	-0.203	-0.203	-0.208	0.002	0.018	0.033	-0.039	-0.020	-0.002
QD-GMM	-0.020	-0.029	-0.058	0.000	0.007	0.010	-0.005	0.004	-0.001
QD-GMM-L	-0.070	-0.059	-0.043	-0.012	-0.001	0.008	-0.035	-0.016	0.001
QD-GMM-A	-0.036	-0.024	-0.018	-0.015	-0.006	0.002	-0.032	-0.016	-0.001
QD-GMM-C	-0.033	-0.018	-0.014	-0.024	-0.016	-0.007	-0.045	-0.031	-0.014
QD-GMM-AR1	-0.020	-0.029	-0.048	0.000	0.009	0.018	-0.006	0.006	0.017
E-CRE	0.057	-0.004	-0.157	0.001	0.009	0.020	0.019	0.016	-0.007
E-CRE-L	-0.168	-0.171	-0.170	-0.002	0.010	0.023	-0.039	-0.024	-0.007
E-CRE-A	-0.067	-0.052	-0.062	-0.011	-0.002	0.008	-0.033	-0.017	-0.004
E-CRE-C	-0.081	-0.047	-0.060	-0.021	-0.016	-0.005	-0.050	-0.036	-0.024
E-CRE-AR1	0.062	0.009	-0.105	0.000	0.009	0.022	0.020	0.018	0.006
Panel II. SD									
AH	0.034	0.035	0.038	0.005	0.007	0.009	0.010	0.012	0.015
AB	0.032	0.032	0.035	0.005	0.007	0.009	0.009	0.011	0.014
BB	0.030	0.030	0.032	0.005	0.007	0.009	0.008	0.010	0.013
QD-GMM	0.034	0.034	0.036	0.009	0.010	0.012	0.017	0.018	0.017
QD-GMM-L	0.030	0.032	0.032	0.009	0.011	0.011	0.013	0.015	0.016
QD-GMM-A	0.031	0.033	0.033	0.008	0.010	0.010	0.013	0.015	0.016
QD-GMM-C	0.033	0.035	0.035	0.008	0.009	0.009	0.012	0.013	0.014
QD-GMM-AR1	0.034	0.034	0.032	0.006	0.007	0.008	0.013	0.013	0.014
E-CRE	0.048	0.054	0.054	0.004	0.005	0.007	0.019	0.018	0.013
E-CRE-L	0.028	0.030	0.034	0.004	0.005	0.007	0.007	0.008	0.010
E-CRE-A	0.037	0.039	0.042	0.004	0.005	0.006	0.008	0.009	0.011
E-CRE-C	0.041	0.046	0.049	0.004	0.006	0.007	0.006	0.007	0.008
E-CRE-AR1	0.047	0.051	0.049	0.004	0.005	0.007	0.018	0.017	0.014
Panel III. Mean SE									
AH	0.047	0.050	0.057	0.005	0.006	0.009	0.013	0.016	0.020
AB	0.029	0.030	0.033	0.005	0.007	0.009	0.009	0.011	0.014
BB	0.028	0.028	0.030	0.005	0.007	0.009	0.008	0.010	0.012
QD-GMM	0.031	0.032	0.030	0.009	0.010	0.011	0.017	0.017	0.017
QD-GMM-L	0.029	0.030	0.030	0.009	0.010	0.011	0.013	0.015	0.016
QD-GMM-A	0.030	0.031	0.031	0.008	0.009	0.010	0.013	0.015	0.016
QD-GMM-C	0.031	0.032	0.031	0.007	0.009	0.009	0.012	0.013	0.014
QD-GMM-AR1	0.031	0.031	0.030	0.006	0.007	0.008	0.012	0.013	0.014
E-CRE	0.053	0.056	0.057	0.004	0.005	0.007	0.021	0.019	0.014
E-CRE-L	0.035	0.037	0.040	0.004	0.005	0.007	0.008	0.010	0.011
E-CRE-A	0.042	0.045	0.050	0.004	0.005	0.007	0.009	0.011	0.012
E-CRE-C	0.042	0.047	0.054	0.004	0.005	0.008	0.006	0.008	0.009
E-CRE-AR1	0.053	0.057	0.057	0.004	0.005	0.007	0.021	0.020	0.016
Panel IV. Coverage Rates									
AH	0.058	0.070	0.192	0.904	0.230	0.058	0.396	0.908	0.988
AB	0.004	0.004	0.004	0.906	0.278	0.074	0.194	0.800	0.930
BB	0.000	0.000	0.000	0.934	0.232	0.040	0.006	0.464	0.938
QD-GMM	0.884	0.800	0.506	0.942	0.894	0.860	0.930	0.954	0.958
QD-GMM-L	0.336	0.494	0.674	0.720	0.922	0.898	0.280	0.796	0.946
QD-GMM-A	0.770	0.856	0.902	0.538	0.886	0.944	0.324	0.788	0.952
QD-GMM-C	0.792	0.884	0.910	0.138	0.518	0.862	0.018	0.366	0.812
QD-GMM-AR1	0.878	0.818	0.624	0.946	0.720	0.394	0.914	0.920	0.790
E-CRE	0.820	0.932	0.198	0.944	0.556	0.156	0.914	0.938	0.924
E-CRE-L	0.000	0.000	0.000	0.934	0.522	0.068	0.000	0.290	0.928
E-CRE-A	0.676	0.842	0.798	0.246	0.934	0.838	0.044	0.672	0.956
E-CRE-C	0.510	0.824	0.820	0.002	0.200	0.910	0.000	0.002	0.224
E-CRE-AR1	0.808	0.962	0.556	0.962	0.606	0.122	0.928	0.932	0.974

Table B3. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.156	-0.150	-0.134	0.003	0.017	0.032	-0.030	-0.011	0.014
AB	-0.168	-0.169	-0.164	0.003	0.016	0.030	-0.033	-0.016	0.004
BB	-0.213	-0.216	-0.212	0.002	0.017	0.030	-0.042	-0.023	-0.006
QD-GMM	-0.027	-0.055	-0.142	0.000	0.008	0.017	-0.007	-0.002	-0.009
QD-GMM-L	-0.182	-0.173	-0.123	-0.007	0.008	0.016	-0.048	-0.028	-0.006
QD-GMM-A	-0.094	-0.072	-0.039	-0.012	-0.002	0.004	-0.040	-0.021	-0.003
QD-GMM-C	-0.079	-0.044	-0.018	-0.019	-0.012	-0.005	-0.047	-0.030	-0.013
QD-GMM-AR1	-0.028	-0.056	-0.105	0.000	0.010	0.021	-0.008	0.001	0.006
E-CRE	-0.012	-0.173	-0.508	0.000	0.010	0.027	-0.003	-0.025	-0.052
E-CRE-L	-0.269	-0.286	-0.298	-0.002	0.011	0.026	-0.054	-0.041	-0.027
E-CRE-A	-0.180	-0.165	-0.186	-0.007	0.004	0.016	-0.047	-0.031	-0.018
E-CRE-C	-0.204	-0.184	-0.253	-0.013	-0.004	0.013	-0.058	-0.045	-0.034
E-CRE-AR1	0.016	-0.113	-0.335	0.000	0.010	0.027	0.004	-0.012	-0.032
Panel II. SD									
AH	0.029	0.032	0.039	0.002	0.003	0.004	0.007	0.009	0.012
AB	0.028	0.029	0.034	0.002	0.003	0.004	0.007	0.008	0.010
BB	0.026	0.027	0.029	0.002	0.003	0.004	0.006	0.007	0.008
QD-GMM	0.027	0.030	0.029	0.004	0.004	0.005	0.009	0.009	0.007
QD-GMM-L	0.022	0.023	0.023	0.004	0.005	0.005	0.005	0.006	0.006
QD-GMM-A	0.024	0.026	0.026	0.004	0.005	0.005	0.006	0.006	0.007
QD-GMM-C	0.026	0.030	0.029	0.004	0.005	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.027	0.028	0.025	0.002	0.003	0.004	0.008	0.008	0.006
E-CRE	0.055	0.066	0.067	0.002	0.002	0.003	0.016	0.013	0.007
E-CRE-L	0.022	0.024	0.028	0.002	0.002	0.003	0.004	0.005	0.006
E-CRE-A	0.029	0.032	0.037	0.002	0.002	0.003	0.004	0.005	0.006
E-CRE-C	0.028	0.035	0.047	0.002	0.003	0.005	0.003	0.003	0.004
E-CRE-AR1	0.051	0.060	0.091	0.002	0.002	0.003	0.016	0.013	0.011
Panel III. Mean SE									
AH	0.046	0.052	0.070	0.003	0.004	0.005	0.012	0.015	0.022
AB	0.025	0.027	0.031	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.024	0.025	0.028	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.025	0.027	0.025	0.004	0.004	0.005	0.009	0.008	0.007
QD-GMM-L	0.021	0.022	0.022	0.004	0.004	0.005	0.005	0.006	0.007
QD-GMM-A	0.023	0.025	0.024	0.003	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.024	0.026	0.025	0.003	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.025	0.026	0.024	0.002	0.003	0.004	0.007	0.007	0.006
E-CRE	0.062	0.066	0.061	0.002	0.002	0.003	0.018	0.013	0.007
E-CRE-L	0.025	0.027	0.029	0.002	0.002	0.003	0.004	0.005	0.006
E-CRE-A	0.033	0.037	0.044	0.002	0.002	0.004	0.005	0.006	0.007
E-CRE-C	0.029	0.037	0.053	0.002	0.003	0.006	0.003	0.004	0.004
E-CRE-AR1	0.067	0.072	0.057	0.002	0.002	0.003	0.021	0.016	0.008
Panel IV. Coverage Rates									
AH	0.028	0.080	0.526	0.854	0.000	0.000	0.240	0.958	1.000
AB	0.000	0.000	0.000	0.768	0.000	0.000	0.008	0.390	0.918
BB	0.000	0.000	0.000	0.908	0.000	0.000	0.000	0.052	0.856
QD-GMM	0.798	0.468	0.000	0.940	0.538	0.100	0.836	0.930	0.748
QD-GMM-L	0.000	0.000	0.000	0.520	0.566	0.102	0.000	0.006	0.832
QD-GMM-A	0.018	0.186	0.610	0.094	0.896	0.850	0.000	0.104	0.898
QD-GMM-C	0.086	0.610	0.852	0.002	0.210	0.768	0.000	0.000	0.440
QD-GMM-AR1	0.790	0.426	0.010	0.942	0.060	0.000	0.790	0.936	0.872
E-CRE	0.956	0.226	0.000	0.958	0.012	0.000	0.952	0.508	0.000
E-CRE-L	0.000	0.000	0.000	0.854	0.010	0.000	0.000	0.000	0.002
E-CRE-A	0.000	0.000	0.002	0.028	0.718	0.006	0.000	0.000	0.184
E-CRE-C	0.000	0.002	0.000	0.000	0.788	0.316	0.000	0.000	0.000
E-CRE-AR1	0.978	0.688	0.000	0.964	0.016	0.000	0.986	0.888	0.038

Table B4. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 0.5$, $\mu_\alpha = 5$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.156	-0.153	-0.149	0.002	0.013	0.027	-0.031	-0.016	0.003
AB	-0.187	-0.190	-0.191	0.001	0.013	0.026	-0.038	-0.024	-0.006
BB	-0.219	-0.220	-0.221	0.000	0.014	0.030	-0.045	-0.028	-0.008
QD-GMM	-0.040	-0.058	-0.100	-0.002	0.004	0.004	-0.013	-0.009	-0.018
QD-GMM-L	-0.095	-0.083	-0.062	-0.011	-0.002	0.007	-0.038	-0.022	-0.004
QD-GMM-A	-0.053	-0.039	-0.027	-0.015	-0.007	0.001	-0.035	-0.021	-0.005
QD-GMM-C	-0.051	-0.032	-0.020	-0.023	-0.017	-0.009	-0.048	-0.035	-0.019
QD-GMM-AR1	-0.042	-0.056	-0.079	-0.001	0.007	0.018	-0.013	-0.004	0.008
E-CRE	-0.056	-0.172	-0.278	-0.001	0.007	0.019	-0.016	-0.028	-0.031
E-CRE-L	-0.216	-0.243	-0.243	-0.003	0.008	0.021	-0.048	-0.039	-0.024
E-CRE-A	-0.145	-0.151	-0.145	-0.009	0.000	0.010	-0.044	-0.033	-0.019
E-CRE-C	-0.162	-0.166	-0.156	-0.016	-0.008	0.000	-0.056	-0.046	-0.033
E-CRE-AR1	-0.050	-0.141	-0.210	-0.002	0.007	0.021	-0.015	-0.022	-0.019
Panel II. SD									
AH	0.043	0.045	0.050	0.005	0.006	0.008	0.012	0.014	0.017
AB	0.038	0.039	0.040	0.005	0.006	0.008	0.010	0.011	0.014
BB	0.035	0.036	0.037	0.005	0.006	0.009	0.009	0.011	0.013
QD-GMM	0.040	0.041	0.042	0.009	0.011	0.013	0.017	0.017	0.016
QD-GMM-L	0.035	0.036	0.035	0.009	0.011	0.011	0.012	0.015	0.016
QD-GMM-A	0.037	0.038	0.037	0.008	0.010	0.010	0.013	0.015	0.016
QD-GMM-C	0.039	0.041	0.039	0.008	0.009	0.009	0.012	0.013	0.014
QD-GMM-AR1	0.040	0.039	0.034	0.006	0.007	0.008	0.013	0.013	0.012
E-CRE	0.082	0.080	0.062	0.004	0.005	0.006	0.022	0.016	0.011
E-CRE-L	0.041	0.044	0.043	0.004	0.005	0.006	0.008	0.009	0.010
E-CRE-A	0.056	0.057	0.055	0.004	0.005	0.006	0.009	0.010	0.010
E-CRE-C	0.058	0.062	0.059	0.005	0.006	0.007	0.006	0.007	0.007
E-CRE-AR1	0.081	0.078	0.060	0.004	0.005	0.006	0.022	0.017	0.012
Panel III. Mean SE									
AH	0.077	0.082	0.094	0.006	0.007	0.008	0.020	0.023	0.029
AB	0.035	0.035	0.037	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.033	0.033	0.034	0.005	0.006	0.008	0.008	0.010	0.012
QD-GMM	0.037	0.036	0.033	0.009	0.010	0.011	0.016	0.016	0.015
QD-GMM-L	0.034	0.034	0.032	0.008	0.010	0.011	0.013	0.015	0.016
QD-GMM-A	0.036	0.036	0.033	0.008	0.009	0.010	0.013	0.014	0.015
QD-GMM-C	0.036	0.036	0.034	0.007	0.009	0.009	0.011	0.013	0.014
QD-GMM-AR1	0.037	0.035	0.031	0.005	0.006	0.008	0.012	0.012	0.012
E-CRE	0.094	0.087	0.064	0.004	0.005	0.006	0.025	0.018	0.011
E-CRE-L	0.051	0.052	0.049	0.004	0.005	0.006	0.010	0.010	0.011
E-CRE-A	0.067	0.069	0.065	0.004	0.005	0.007	0.011	0.011	0.012
E-CRE-C	0.063	0.068	0.068	0.005	0.006	0.008	0.007	0.008	0.008
E-CRE-AR1	0.095	0.089	0.067	0.004	0.005	0.006	0.025	0.019	0.014
Panel IV. Coverage Rates									
AH	0.462	0.570	0.718	0.962	0.486	0.090	0.642	0.962	1.000
AB	0.004	0.004	0.004	0.950	0.482	0.096	0.050	0.432	0.906
BB	0.000	0.000	0.000	0.940	0.394	0.058	0.006	0.256	0.874
QD-GMM	0.766	0.618	0.170	0.936	0.922	0.886	0.824	0.898	0.768
QD-GMM-L	0.200	0.330	0.492	0.740	0.922	0.892	0.168	0.664	0.930
QD-GMM-A	0.692	0.776	0.854	0.552	0.864	0.948	0.242	0.658	0.920
QD-GMM-C	0.724	0.834	0.880	0.160	0.494	0.828	0.010	0.230	0.726
QD-GMM-AR1	0.758	0.612	0.294	0.946	0.780	0.346	0.786	0.936	0.932
E-CRE	0.934	0.498	0.008	0.952	0.722	0.134	0.870	0.610	0.226
E-CRE-L	0.000	0.000	0.000	0.902	0.652	0.070	0.000	0.022	0.424
E-CRE-A	0.408	0.372	0.364	0.412	0.960	0.686	0.016	0.174	0.630
E-CRE-C	0.238	0.280	0.338	0.072	0.770	0.954	0.000	0.000	0.016
E-CRE-AR1	0.954	0.696	0.064	0.950	0.710	0.104	0.882	0.760	0.722

Table B5. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 3$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.051	-0.019	0.002	0.011	0.036	0.078	-0.058	0.129	0.395
AB	-0.046	-0.022	-0.004	0.011	0.037	0.078	-0.051	0.118	0.368
BB	-0.212	-0.196	-0.194	0.005	0.031	0.068	-0.245	-0.167	-0.072
QD-GMM	-0.016	-0.014	-0.012	-0.001	0.005	-0.011	-0.042	-0.018	-0.080
QD-GMM-L	-0.146	-0.103	-0.052	-0.038	-0.024	-0.004	-0.319	-0.245	-0.118
QD-GMM-A	-0.082	-0.047	-0.020	-0.032	-0.018	-0.001	-0.256	-0.168	-0.047
QD-GMM-C	-0.068	-0.023	-0.004	-0.049	-0.041	-0.025	-0.310	-0.235	-0.131
QD-GMM-AR1	-0.018	-0.030	-0.043	0.000	0.012	0.019	-0.048	-0.015	-0.005
E-CRE	0.016	0.014	-0.029	0.000	0.017	0.027	0.042	0.140	0.056
E-CRE-L	-0.268	-0.201	-0.184	-0.023	-0.009	0.031	-0.337	-0.275	-0.159
E-CRE-A	-0.058	-0.035	-0.048	-0.039	-0.024	0.005	-0.265	-0.177	-0.073
E-CRE-C	-0.009	0.005	-0.026	-0.060	-0.052	-0.033	-0.310	-0.252	-0.205
E-CRE-AR1	0.017	0.002	-0.069	-0.001	0.018	0.038	0.040	0.096	0.013
Panel II. SD									
AH	0.055	0.059	0.067	0.006	0.010	0.017	0.152	0.362	3.950
AB	0.046	0.048	0.055	0.006	0.009	0.016	0.111	0.190	0.423
BB	0.040	0.041	0.042	0.006	0.009	0.015	0.032	0.045	0.063
QD-GMM	0.024	0.025	0.027	0.008	0.010	0.014	0.067	0.075	0.081
QD-GMM-L	0.030	0.030	0.024	0.009	0.012	0.013	0.020	0.029	0.044
QD-GMM-A	0.024	0.023	0.021	0.007	0.009	0.011	0.026	0.038	0.054
QD-GMM-C	0.027	0.025	0.023	0.005	0.007	0.009	0.023	0.035	0.051
QD-GMM-AR1	0.026	0.027	0.026	0.006	0.008	0.012	0.063	0.065	0.065
E-CRE	0.014	0.015	0.026	0.004	0.006	0.010	0.051	0.067	0.079
E-CRE-L	0.049	0.046	0.034	0.008	0.012	0.013	0.010	0.015	0.024
E-CRE-A	0.022	0.019	0.021	0.004	0.005	0.007	0.017	0.025	0.036
E-CRE-C	0.019	0.018	0.023	0.003	0.003	0.005	0.016	0.023	0.030
E-CRE-AR1	0.015	0.018	0.034	0.004	0.006	0.010	0.053	0.063	0.067
Panel III. Mean SE									
AH	0.091	0.100	0.119	0.007	0.010	0.017	0.229	0.519	13.575
AB	0.044	0.047	0.053	0.006	0.009	0.016	0.102	0.174	0.375
BB	0.037	0.038	0.039	0.005	0.008	0.015	0.029	0.041	0.058
QD-GMM	0.023	0.023	0.022	0.008	0.010	0.013	0.065	0.073	0.080
QD-GMM-L	0.025	0.025	0.022	0.007	0.010	0.012	0.020	0.029	0.045
QD-GMM-A	0.024	0.023	0.021	0.006	0.009	0.011	0.026	0.038	0.054
QD-GMM-C	0.024	0.023	0.021	0.005	0.006	0.009	0.023	0.035	0.051
QD-GMM-AR1	0.025	0.025	0.024	0.006	0.008	0.011	0.061	0.064	0.066
E-CRE	0.022	0.024	0.037	0.005	0.008	0.014	0.076	0.101	0.120
E-CRE-L	0.030	0.031	0.034	0.005	0.007	0.013	0.013	0.019	0.032
E-CRE-A	0.026	0.026	0.032	0.004	0.006	0.010	0.023	0.035	0.053
E-CRE-C	0.024	0.025	0.034	0.003	0.004	0.007	0.022	0.032	0.043
E-CRE-AR1	0.024	0.027	0.047	0.005	0.008	0.014	0.081	0.099	0.110
Panel IV. Coverage Rates									
AH	0.986	0.998	1.000	0.678	0.032	0.000	0.954	0.998	1.000
AB	0.792	0.916	0.938	0.552	0.030	0.000	0.838	0.994	0.980
BB	0.000	0.000	0.002	0.854	0.054	0.004	0.000	0.084	0.726
QD-GMM	0.880	0.878	0.848	0.938	0.924	0.864	0.864	0.932	0.764
QD-GMM-L	0.000	0.018	0.318	0.008	0.364	0.904	0.000	0.000	0.220
QD-GMM-A	0.034	0.470	0.834	0.004	0.438	0.952	0.000	0.024	0.822
QD-GMM-C	0.168	0.802	0.908	0.000	0.000	0.214	0.000	0.004	0.294
QD-GMM-AR1	0.876	0.768	0.576	0.944	0.662	0.578	0.824	0.922	0.952
E-CRE	0.952	0.944	0.990	0.974	0.364	0.532	0.994	0.868	0.994
E-CRE-L	0.000	0.000	0.000	0.014	0.670	0.338	0.000	0.000	0.000
E-CRE-A	0.328	0.812	0.800	0.000	0.010	0.978	0.000	0.002	0.734
E-CRE-C	0.984	0.984	0.990	0.000	0.000	0.002	0.000	0.000	0.002
E-CRE-AR1	0.944	0.994	0.880	0.970	0.342	0.176	0.998	0.968	0.996

Table B6. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.052	-0.046	-0.042	0.010	0.033	0.067	-0.059	0.052	0.201
AB	-0.057	-0.054	-0.055	0.011	0.033	0.067	-0.066	0.032	0.156
BB	-0.222	-0.221	-0.227	0.005	0.029	0.063	-0.253	-0.195	-0.118
QD-GMM	-0.023	-0.025	-0.022	-0.002	0.001	-0.030	-0.065	-0.059	-0.174
QD-GMM-L	-0.053	-0.039	-0.025	-0.049	-0.039	-0.019	-0.294	-0.245	-0.139
QD-GMM-A	-0.037	-0.025	-0.016	-0.035	-0.024	-0.007	-0.223	-0.159	-0.064
QD-GMM-C	-0.032	-0.020	-0.012	-0.052	-0.044	-0.029	-0.296	-0.246	-0.162
QD-GMM-AR1	-0.025	-0.028	-0.031	-0.001	0.009	0.009	-0.059	-0.023	-0.030
E-CRE	0.016	0.008	-0.013	-0.001	0.014	0.016	0.044	0.090	0.043
E-CRE-L	-0.009	-0.019	-0.038	-0.069	-0.053	-0.016	-0.352	-0.285	-0.150
E-CRE-A	0.001	-0.004	-0.018	-0.045	-0.029	-0.002	-0.226	-0.152	-0.048
E-CRE-C	0.012	0.005	-0.011	-0.062	-0.053	-0.038	-0.296	-0.258	-0.205
E-CRE-AR1	0.017	0.005	-0.018	-0.002	0.015	0.027	0.037	0.088	0.078
Panel II. SD									
AH	0.061	0.063	0.067	0.013	0.020	0.032	0.177	0.249	0.401
AB	0.052	0.054	0.058	0.012	0.019	0.031	0.122	0.163	0.235
BB	0.044	0.045	0.046	0.012	0.019	0.030	0.042	0.058	0.086
QD-GMM	0.029	0.029	0.027	0.018	0.024	0.027	0.107	0.124	0.131
QD-GMM-L	0.030	0.028	0.025	0.014	0.019	0.023	0.051	0.071	0.097
QD-GMM-A	0.028	0.027	0.024	0.014	0.018	0.023	0.062	0.083	0.107
QD-GMM-C	0.029	0.028	0.025	0.011	0.014	0.019	0.050	0.068	0.090
QD-GMM-AR1	0.030	0.029	0.027	0.013	0.017	0.023	0.088	0.099	0.109
E-CRE	0.015	0.017	0.020	0.009	0.013	0.017	0.069	0.087	0.097
E-CRE-L	0.021	0.023	0.026	0.008	0.012	0.017	0.033	0.044	0.058
E-CRE-A	0.017	0.018	0.019	0.007	0.010	0.013	0.036	0.048	0.066
E-CRE-C	0.016	0.017	0.019	0.005	0.007	0.010	0.028	0.037	0.050
E-CRE-AR1	0.015	0.017	0.021	0.009	0.013	0.018	0.069	0.083	0.093
Panel III. Mean SE									
AH	0.105	0.110	0.121	0.012	0.018	0.029	0.281	0.395	0.646
AB	0.049	0.051	0.054	0.013	0.019	0.032	0.118	0.159	0.229
BB	0.040	0.040	0.041	0.012	0.018	0.029	0.039	0.054	0.080
QD-GMM	0.028	0.027	0.023	0.018	0.023	0.026	0.103	0.120	0.128
QD-GMM-L	0.028	0.027	0.024	0.014	0.018	0.023	0.053	0.073	0.101
QD-GMM-A	0.027	0.026	0.023	0.013	0.018	0.023	0.061	0.082	0.108
QD-GMM-C	0.028	0.026	0.023	0.010	0.014	0.018	0.049	0.067	0.091
QD-GMM-AR1	0.028	0.027	0.024	0.013	0.017	0.023	0.084	0.097	0.110
E-CRE	0.024	0.025	0.027	0.010	0.016	0.025	0.096	0.122	0.143
E-CRE-L	0.027	0.028	0.029	0.008	0.011	0.017	0.035	0.049	0.070
E-CRE-A	0.025	0.026	0.026	0.008	0.011	0.016	0.047	0.063	0.084
E-CRE-C	0.025	0.026	0.026	0.005	0.007	0.011	0.036	0.047	0.060
E-CRE-AR1	0.024	0.026	0.028	0.010	0.017	0.025	0.097	0.122	0.143
Panel IV. Coverage Rates									
AH	0.986	0.994	0.996	0.858	0.540	0.378	0.940	0.990	0.998
AB	0.772	0.810	0.808	0.878	0.614	0.452	0.812	0.952	0.986
BB	0.000	0.000	0.000	0.924	0.650	0.428	0.004	0.120	0.646
QD-GMM	0.862	0.838	0.810	0.942	0.940	0.814	0.878	0.906	0.680
QD-GMM-L	0.524	0.694	0.792	0.094	0.420	0.860	0.000	0.090	0.702
QD-GMM-A	0.726	0.828	0.878	0.280	0.742	0.960	0.078	0.500	0.900
QD-GMM-C	0.780	0.870	0.904	0.004	0.132	0.644	0.006	0.074	0.542
QD-GMM-AR1	0.846	0.816	0.728	0.938	0.912	0.910	0.822	0.918	0.934
E-CRE	0.958	0.986	0.992	0.970	0.900	0.976	0.998	0.976	0.996
E-CRE-L	0.984	0.966	0.782	0.000	0.018	0.824	0.000	0.000	0.426
E-CRE-A	0.994	0.996	0.988	0.000	0.248	0.974	0.000	0.318	0.938
E-CRE-C	0.980	0.990	0.994	0.000	0.000	0.066	0.000	0.000	0.086
E-CRE-AR1	0.962	0.994	0.978	0.972	0.912	0.898	0.998	0.986	0.994

Table B7. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 3$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.051	-0.019	0.003	0.011	0.036	0.076	-0.060	0.119	0.379
AB	-0.060	-0.033	-0.015	0.010	0.036	0.075	-0.076	0.078	0.311
BB	-0.229	-0.214	-0.209	0.004	0.030	0.066	-0.258	-0.184	-0.093
QD-GMM	-0.021	-0.022	-0.017	-0.001	0.004	-0.017	-0.055	-0.0369	-0.118
QD-GMM-L	-0.169	-0.122	-0.061	-0.034	-0.020	-0.003	-0.322	-0.248	-0.129
QD-GMM-A	-0.094	-0.055	-0.023	-0.031	-0.017	-0.001	-0.264	-0.175	-0.055
QD-GMM-C	-0.081	-0.030	-0.005	-0.048	-0.040	-0.026	-0.315	-0.242	-0.137
QD-GMM-AR1	-0.024	-0.040	-0.054	-0.001	0.012	0.018	-0.061	-0.0369	-0.034
E-CRE	0.017	0.011	-0.068	0.000	0.016	0.024	0.045	0.119	-0.038
E-CRE-L	-0.277	-0.232	-0.229	-0.022	-0.003	0.039	-0.338	-0.278	-0.175
E-CRE-A	-0.060	-0.046	-0.072	-0.039	-0.023	0.008	-0.266	-0.186	-0.099
E-CRE-C	-0.008	-0.002	-0.053	-0.061	-0.052	-0.031	-0.310	-0.259	-0.228
E-CRE-AR1	0.019	-0.005	-0.124	-0.001	0.018	0.039	0.046	0.075	-0.074
Panel II. SD									
AH	0.060	0.065	0.074	0.006	0.010	0.016	0.179	0.511	10.428
AB	0.051	0.054	0.062	0.006	0.009	0.016	0.117	0.210	0.579
BB	0.042	0.043	0.044	0.006	0.009	0.015	0.031	0.043	0.060
QD-GMM	0.026	0.028	0.029	0.008	0.010	0.013	0.069	0.075	0.076
QD-GMM-L	0.034	0.034	0.026	0.010	0.013	0.014	0.019	0.028	0.042
QD-GMM-A	0.027	0.025	0.022	0.007	0.009	0.011	0.026	0.037	0.053
QD-GMM-C	0.030	0.028	0.024	0.006	0.007	0.009	0.023	0.035	0.050
QD-GMM-AR1	0.028	0.029	0.028	0.006	0.008	0.011	0.066	0.065	0.060
E-CRE	0.015	0.018	0.046	0.004	0.006	0.010	0.055	0.072	0.082
E-CRE-L	0.051	0.047	0.033	0.008	0.011	0.012	0.010	0.014	0.023
E-CRE-A	0.025	0.023	0.025	0.004	0.005	0.007	0.018	0.026	0.036
E-CRE-C	0.021	0.021	0.032	0.003	0.003	0.006	0.017	0.024	0.030
E-CRE-AR1	0.016	0.021	0.053	0.004	0.006	0.010	0.058	0.067	0.066
Panel III. Mean SE									
AH	0.105	0.116	0.139	0.007	0.010	0.017	0.279	0.761	116.909
AB	0.049	0.052	0.060	0.006	0.009	0.016	0.104	0.184	0.475
BB	0.039	0.040	0.041	0.005	0.008	0.014	0.028	0.039	0.056
QD-GMM	0.025	0.025	0.022	0.008	0.010	0.013	0.066	0.072	0.074
QD-GMM-L	0.027	0.027	0.022	0.007	0.010	0.012	0.020	0.028	0.043
QD-GMM-A	0.025	0.024	0.021	0.006	0.009	0.011	0.026	0.037	0.053
QD-GMM-C	0.026	0.024	0.021	0.005	0.007	0.009	0.022	0.035	0.050
QD-GMM-AR1	0.027	0.027	0.025	0.006	0.008	0.011	0.062	0.063	0.061
E-CRE	0.027	0.030	0.057	0.005	0.008	0.014	0.091	0.118	0.123
E-CRE-L	0.033	0.034	0.037	0.005	0.008	0.013	0.013	0.019	0.031
E-CRE-A	0.031	0.032	0.041	0.004	0.006	0.011	0.026	0.039	0.054
E-CRE-C	0.029	0.031	0.048	0.003	0.004	0.008	0.025	0.036	0.044
E-CRE-AR1	0.029	0.035	0.072	0.005	0.009	0.014	0.098	0.116	0.106
Panel IV. Coverage Rates									
AH	0.992	0.998	1.000	0.736	0.040	0.000	0.956	0.998	1.000
AB	0.744	0.892	0.932	0.596	0.030	0.000	0.758	0.984	0.996
BB	0.000	0.000	0.000	0.878	0.074	0.004	0.000	0.046	0.592
QD-GMM	0.838	0.844	0.804	0.942	0.930	0.758	0.816	0.880	0.596
QD-GMM-L	0.000	0.008	0.220	0.056	0.478	0.908	0.000	0.000	0.140
QD-GMM-A	0.018	0.372	0.784	0.008	0.474	0.952	0.000	0.014	0.780
QD-GMM-C	0.112	0.752	0.904	0.000	0.000	0.194	0.000	0.002	0.242
QD-GMM-AR1	0.840	0.696	0.448	0.942	0.672	0.602	0.766	0.870	0.884
E-CRE	0.976	0.978	0.994	0.974	0.472	0.686	1.000	0.976	0.984
E-CRE-L	0.000	0.000	0.000	0.018	0.818	0.128	0.000	0.000	0.000
E-CRE-A	0.484	0.800	0.690	0.000	0.020	0.968	0.000	0.002	0.552
E-CRE-C	0.990	0.996	0.982	0.000	0.000	0.018	0.000	0.000	0.002
E-CRE-AR1	0.966	1.000	0.730	0.976	0.444	0.146	1.000	1.000	0.924

Table B8. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 1$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.053	-0.045	-0.039	0.010	0.031	0.064	-0.067	0.036	0.183
AB	-0.070	-0.068	-0.069	0.010	0.031	0.063	-0.094	-0.010	0.100
BB	-0.238	-0.238	-0.243	0.003	0.026	0.060	-0.266	-0.210	-0.137
QD-GMM	-0.030	-0.032	-0.025	-0.004	-0.004	-0.038	-0.080	-0.089	-0.218
QD-GMM-L	-0.064	-0.046	-0.029	-0.047	-0.039	-0.021	-0.297	-0.248	-0.152
QD-GMM-A	-0.044	-0.031	-0.019	-0.035	-0.024	-0.008	-0.230	-0.170	-0.077
QD-GMM-C	-0.040	-0.025	-0.014	-0.052	-0.044	-0.031	-0.300	-0.252	-0.174
QD-GMM-AR1	-0.032	-0.037	-0.037	-0.002	0.007	0.006	-0.074	-0.051	-0.053
E-CRE	0.016	0.004	-0.020	-0.001	0.011	0.010	0.039	0.066	0.000
E-CRE-L	-0.011	-0.028	-0.051	-0.069	-0.051	-0.015	-0.353	-0.288	-0.162
E-CRE-A	0.000	-0.011	-0.025	-0.045	-0.028	-0.003	-0.226	-0.161	-0.065
E-CRE-C	0.011	0.000	-0.017	-0.062	-0.053	-0.038	-0.297	-0.265	-0.218
E-CRE-AR1	0.017	-0.001	-0.027	-0.002	0.013	0.023	0.035	0.063	0.040
Panel II. SD									
AH	0.068	0.070	0.075	0.013	0.019	0.030	0.216	0.313	0.819
AB	0.059	0.060	0.065	0.012	0.019	0.029	0.124	0.163	0.230
BB	0.047	0.047	0.048	0.012	0.018	0.029	0.040	0.056	0.080
QD-GMM	0.032	0.031	0.028	0.018	0.023	0.026	0.107	0.120	0.122
QD-GMM-L	0.033	0.031	0.026	0.015	0.019	0.023	0.050	0.068	0.093
QD-GMM-A	0.030	0.029	0.025	0.014	0.018	0.022	0.061	0.080	0.104
QD-GMM-C	0.031	0.029	0.026	0.011	0.014	0.018	0.049	0.066	0.087
QD-GMM-AR1	0.033	0.032	0.028	0.013	0.017	0.022	0.088	0.096	0.101
E-CRE	0.016	0.019	0.024	0.009	0.013	0.016	0.072	0.087	0.092
E-CRE-L	0.024	0.028	0.031	0.009	0.013	0.017	0.034	0.042	0.054
E-CRE-A	0.019	0.021	0.022	0.007	0.010	0.013	0.036	0.048	0.063
E-CRE-C	0.018	0.020	0.022	0.005	0.007	0.009	0.029	0.037	0.047
E-CRE-AR1	0.017	0.020	0.025	0.009	0.013	0.018	0.072	0.083	0.088
Panel III. Mean SE									
AH	0.122	0.128	0.141	0.012	0.018	0.028	0.358	0.523	1.410
AB	0.055	0.057	0.060	0.013	0.019	0.030	0.118	0.156	0.220
BB	0.042	0.043	0.043	0.011	0.017	0.027	0.037	0.051	0.074
QD-GMM	0.030	0.028	0.024	0.018	0.023	0.025	0.101	0.115	0.119
QD-GMM-L	0.030	0.028	0.024	0.014	0.018	0.023	0.052	0.071	0.097
QD-GMM-A	0.029	0.028	0.024	0.013	0.018	0.022	0.060	0.080	0.105
QD-GMM-C	0.030	0.028	0.024	0.010	0.014	0.018	0.048	0.065	0.087
QD-GMM-AR1	0.031	0.029	0.025	0.013	0.017	0.021	0.083	0.093	0.101
E-CRE	0.029	0.031	0.032	0.010	0.016	0.024	0.110	0.131	0.140
E-CRE-L	0.032	0.035	0.034	0.008	0.012	0.017	0.036	0.048	0.067
E-CRE-A	0.030	0.032	0.031	0.008	0.011	0.016	0.051	0.066	0.083
E-CRE-C	0.030	0.031	0.030	0.005	0.008	0.011	0.039	0.048	0.059
E-CRE-AR1	0.030	0.032	0.033	0.011	0.017	0.025	0.111	0.131	0.139
Panel IV. Coverage Rates									
AH	0.994	0.998	0.998	0.876	0.576	0.386	0.942	0.990	0.996
AB	0.724	0.750	0.742	0.896	0.628	0.456	0.738	0.914	0.974
BB	0.000	0.000	0.000	0.938	0.680	0.430	0.002	0.066	0.514
QD-GMM	0.830	0.786	0.782	0.946	0.940	0.688	0.828	0.834	0.526
QD-GMM-L	0.420	0.620	0.754	0.122	0.430	0.856	0.000	0.072	0.640
QD-GMM-A	0.682	0.778	0.858	0.294	0.742	0.952	0.068	0.422	0.868
QD-GMM-C	0.728	0.840	0.890	0.004	0.118	0.604	0.004	0.060	0.480
QD-GMM-AR1	0.820	0.754	0.664	0.934	0.930	0.914	0.768	0.882	0.902
E-CRE	0.980	0.992	0.994	0.974	0.944	0.988	0.998	0.994	0.990
E-CRE-L	0.992	0.946	0.714	0.000	0.030	0.844	0.000	0.000	0.292
E-CRE-A	1.000	0.998	0.988	0.000	0.264	0.976	0.006	0.310	0.904
E-CRE-C	0.986	0.998	0.994	0.000	0.000	0.052	0.000	0.000	0.040
E-CRE-AR1	0.978	0.998	0.974	0.974	0.944	0.918	0.998	0.998	0.998

Table B9. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 1$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.155	-0.149	-0.132	0.004	0.017	0.032	-0.030	-0.011	0.014
AB	-0.140	-0.140	-0.135	0.004	0.017	0.031	-0.026	-0.008	0.012
BB	-0.195	-0.198	-0.199	0.002	0.017	0.030	-0.038	-0.020	-0.003
QD-GMM	-0.018	-0.038	-0.110	0.000	0.007	0.014	-0.005	0.001	-0.006
QD-GMM-L	-0.153	-0.144	-0.103	-0.009	0.006	0.015	-0.046	-0.024	-0.004
QD-GMM-A	-0.075	-0.054	-0.030	-0.013	-0.003	0.004	-0.038	-0.018	-0.002
QD-GMM-C	-0.060	-0.027	-0.010	-0.021	-0.014	-0.006	-0.046	-0.028	-0.012
QD-GMM-AR1	-0.018	-0.041	-0.086	0.000	0.010	0.020	-0.005	0.004	0.009
E-CRE	0.012	-0.086	-0.368	0.001	0.010	0.026	0.005	-0.006	-0.037
E-CRE-L	-0.259	-0.261	-0.254	-0.002	0.011	0.026	-0.052	-0.038	-0.019
E-CRE-A	-0.165	-0.134	-0.126	-0.007	0.002	0.013	-0.045	-0.027	-0.011
E-CRE-C	-0.190	-0.147	-0.158	-0.013	-0.007	0.005	-0.057	-0.042	-0.028
E-CRE-AR1	0.035	-0.045	-0.243	0.000	0.010	0.026	0.010	0.003	-0.017
Panel II. SD									
AH	0.025	0.027	0.032	0.002	0.003	0.004	0.006	0.007	0.010
AB	0.023	0.024	0.029	0.002	0.003	0.004	0.006	0.007	0.009
BB	0.022	0.023	0.025	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.022	0.024	0.027	0.004	0.004	0.005	0.009	0.008	0.007
QD-GMM-L	0.018	0.020	0.020	0.004	0.005	0.005	0.005	0.006	0.006
QD-GMM-A	0.019	0.021	0.022	0.004	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.021	0.024	0.025	0.003	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.023	0.023	0.022	0.002	0.003	0.004	0.007	0.007	0.006
E-CRE	0.035	0.042	0.044	0.002	0.002	0.003	0.011	0.010	0.006
E-CRE-L	0.018	0.019	0.022	0.002	0.002	0.003	0.003	0.004	0.005
E-CRE-A	0.022	0.023	0.028	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-C	0.020	0.025	0.033	0.002	0.003	0.004	0.003	0.003	0.004
E-CRE-AR1	0.033	0.037	0.038	0.002	0.002	0.003	0.011	0.010	0.007
Panel III. Mean SE									
AH	0.033	0.037	0.049	0.003	0.003	0.004	0.009	0.011	0.016
AB	0.021	0.022	0.027	0.002	0.003	0.004	0.006	0.006	0.008
BB	0.021	0.022	0.024	0.002	0.003	0.004	0.005	0.005	0.007
QD-GMM	0.021	0.022	0.023	0.004	0.004	0.005	0.008	0.008	0.007
QD-GMM-L	0.018	0.019	0.019	0.004	0.004	0.005	0.005	0.006	0.007
QD-GMM-A	0.019	0.021	0.021	0.003	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.020	0.022	0.022	0.003	0.004	0.004	0.005	0.006	0.006
QD-GMM-AR1	0.021	0.022	0.021	0.002	0.003	0.004	0.007	0.007	0.006
E-CRE	0.038	0.041	0.043	0.002	0.002	0.003	0.012	0.010	0.006
E-CRE-L	0.021	0.022	0.024	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.024	0.027	0.033	0.002	0.002	0.003	0.004	0.005	0.006
E-CRE-C	0.021	0.025	0.037	0.002	0.003	0.004	0.003	0.003	0.004
E-CRE-AR1	0.040	0.044	0.045	0.002	0.002	0.003	0.014	0.012	0.008
Panel IV. Coverage Rates									
AH	0.002	0.004	0.170	0.740	0.000	0.000	0.054	0.886	0.984
AB	0.000	0.000	0.000	0.614	0.000	0.000	0.016	0.716	0.712
BB	0.000	0.000	0.000	0.826	0.000	0.000	0.000	0.080	0.908
QD-GMM	0.854	0.574	0.010	0.940	0.604	0.190	0.878	0.950	0.842
QD-GMM-L	0.000	0.000	0.000	0.290	0.690	0.142	0.000	0.016	0.902
QD-GMM-A	0.020	0.262	0.666	0.046	0.846	0.890	0.000	0.178	0.926
QD-GMM-C	0.118	0.724	0.896	0.000	0.076	0.700	0.000	0.004	0.478
QD-GMM-AR1	0.846	0.546	0.032	0.944	0.068	0.000	0.856	0.912	0.714
E-CRE	0.938	0.432	0.000	0.934	0.012	0.000	0.958	0.880	0.004
E-CRE-L	0.000	0.000	0.000	0.880	0.010	0.000	0.000	0.000	0.038
E-CRE-A	0.000	0.000	0.000	0.012	0.854	0.020	0.000	0.000	0.552
E-CRE-C	0.000	0.000	0.002	0.000	0.200	0.856	0.000	0.000	0.000
E-CRE-AR1	0.890	0.874	0.000	0.968	0.018	0.000	0.962	0.974	0.430

Table B10. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 0.5$, $\mu_\alpha = 1$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.155	-0.154	-0.150	0.003	0.014	0.028	-0.031	-0.015	0.005
AB	-0.153	-0.156	-0.162	0.003	0.014	0.028	-0.030	-0.015	0.002
BB	-0.205	-0.207	-0.212	0.001	0.015	0.030	-0.041	-0.024	-0.006
QD-GMM	-0.031	-0.043	-0.079	-0.001	0.004	0.004	-0.010	-0.004	-0.014
QD-GMM-L	-0.073	-0.063	-0.050	-0.013	-0.003	0.006	-0.037	-0.020	-0.003
QD-GMM-A	-0.041	-0.029	-0.020	-0.015	-0.008	0.001	-0.034	-0.019	-0.004
QD-GMM-C	-0.037	-0.023	-0.015	-0.024	-0.017	-0.009	-0.046	-0.034	-0.018
QD-GMM-AR1	-0.032	-0.043	-0.062	-0.001	0.008	0.017	-0.010	0.000	0.011
E-CRE	0.009	-0.065	-0.188	0.000	0.007	0.017	0.002	-0.005	-0.017
E-CRE-L	-0.187	-0.195	-0.187	-0.003	0.008	0.021	-0.043	-0.031	-0.014
E-CRE-A	-0.097	-0.086	-0.077	-0.010	-0.002	0.007	-0.038	-0.024	-0.010
E-CRE-C	-0.114	-0.092	-0.077	-0.019	-0.013	-0.007	-0.053	-0.041	-0.028
E-CRE-AR1	0.015	-0.046	-0.128	-0.001	0.007	0.020	0.002	0.000	-0.003
Panel II. SD									
AH	0.035	0.036	0.039	0.005	0.006	0.008	0.010	0.012	0.015
AB	0.032	0.033	0.036	0.005	0.006	0.008	0.009	0.011	0.014
BB	0.030	0.031	0.032	0.005	0.006	0.008	0.008	0.010	0.012
QD-GMM	0.033	0.034	0.036	0.009	0.010	0.012	0.017	0.017	0.016
QD-GMM-L	0.029	0.031	0.031	0.009	0.011	0.011	0.013	0.015	0.016
QD-GMM-A	0.031	0.032	0.032	0.008	0.009	0.010	0.013	0.015	0.016
QD-GMM-C	0.032	0.033	0.033	0.008	0.009	0.009	0.012	0.013	0.014
QD-GMM-AR1	0.033	0.032	0.030	0.006	0.007	0.008	0.012	0.013	0.013
E-CRE	0.049	0.052	0.048	0.004	0.005	0.006	0.017	0.015	0.011
E-CRE-L	0.028	0.030	0.032	0.004	0.005	0.006	0.007	0.008	0.010
E-CRE-A	0.037	0.038	0.040	0.004	0.005	0.006	0.007	0.009	0.010
E-CRE-C	0.039	0.043	0.046	0.004	0.005	0.006	0.005	0.006	0.008
E-CRE-AR1	0.049	0.050	0.045	0.004	0.005	0.006	0.016	0.015	0.012
Panel III. Mean SE									
AH	0.049	0.052	0.060	0.005	0.006	0.008	0.013	0.016	0.020
AB	0.030	0.031	0.033	0.005	0.006	0.008	0.009	0.011	0.013
BB	0.028	0.029	0.030	0.005	0.006	0.008	0.008	0.010	0.012
QD-GMM	0.031	0.030	0.029	0.009	0.010	0.011	0.016	0.016	0.016
QD-GMM-L	0.028	0.029	0.028	0.008	0.010	0.011	0.013	0.015	0.016
QD-GMM-A	0.030	0.030	0.029	0.008	0.009	0.010	0.013	0.014	0.015
QD-GMM-C	0.030	0.031	0.030	0.007	0.008	0.009	0.011	0.013	0.014
QD-GMM-AR1	0.031	0.030	0.028	0.006	0.006	0.008	0.012	0.012	0.013
E-CRE	0.054	0.055	0.050	0.004	0.005	0.006	0.018	0.016	0.012
E-CRE-L	0.035	0.037	0.038	0.004	0.005	0.006	0.008	0.009	0.011
E-CRE-A	0.043	0.045	0.047	0.004	0.005	0.006	0.009	0.010	0.011
E-CRE-C	0.041	0.045	0.049	0.004	0.005	0.007	0.006	0.007	0.008
E-CRE-AR1	0.055	0.055	0.050	0.004	0.005	0.006	0.019	0.016	0.014
Panel IV. Coverage Rates									
AH	0.060	0.090	0.244	0.928	0.338	0.066	0.372	0.858	0.994
AB	0.004	0.004	0.004	0.934	0.386	0.090	0.138	0.672	0.952
BB	0.000	0.000	0.000	0.932	0.342	0.056	0.002	0.310	0.898
QD-GMM	0.802	0.666	0.260	0.944	0.926	0.902	0.882	0.936	0.852
QD-GMM-L	0.266	0.404	0.566	0.684	0.918	0.904	0.230	0.726	0.936
QD-GMM-A	0.730	0.828	0.886	0.512	0.860	0.946	0.276	0.704	0.938
QD-GMM-C	0.762	0.858	0.902	0.122	0.444	0.830	0.016	0.272	0.750
QD-GMM-AR1	0.802	0.670	0.380	0.942	0.786	0.408	0.834	0.952	0.884
E-CRE	0.954	0.808	0.030	0.956	0.696	0.206	0.968	0.934	0.704
E-CRE-L	0.000	0.000	0.000	0.912	0.628	0.088	0.000	0.070	0.780
E-CRE-A	0.346	0.526	0.660	0.252	0.940	0.848	0.006	0.320	0.894
E-CRE-C	0.188	0.464	0.694	0.004	0.278	0.860	0.000	0.000	0.058
E-CRE-AR1	0.950	0.900	0.228	0.956	0.694	0.152	0.974	0.972	0.970

Table B11. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.156	-0.152	-0.138	0.002	0.015	0.029	-0.031	-0.014	0.009
AB	-0.172	-0.176	-0.174	0.002	0.014	0.027	-0.035	-0.020	-0.002
BB	-0.215	-0.219	-0.216	0.000	0.014	0.028	-0.043	-0.027	-0.010
QD-GMM	-0.049	-0.085	-0.178	-0.001	0.006	0.015	-0.015	-0.012	-0.019
QD-GMM-L	-0.183	-0.172	-0.131	-0.008	0.005	0.014	-0.050	-0.031	-0.011
QD-GMM-A	-0.101	-0.077	-0.046	-0.013	-0.003	0.003	-0.041	-0.024	-0.007
QD-GMM-C	-0.086	-0.050	-0.021	-0.019	-0.013	-0.007	-0.049	-0.033	-0.017
QD-GMM-AR1	-0.050	-0.082	-0.127	-0.001	0.009	0.021	-0.014	-0.007	0.000
E-CRE	-0.108	-0.273	-0.451	-0.001	0.008	0.023	-0.027	-0.043	-0.050
E-CRE-L	-0.295	-0.318	-0.309	-0.003	0.009	0.023	-0.058	-0.048	-0.032
E-CRE-A	-0.223	-0.214	-0.203	-0.007	0.004	0.015	-0.053	-0.040	-0.024
E-CRE-C	-0.246	-0.237	-0.252	-0.011	-0.002	0.010	-0.061	-0.050	-0.037
E-CRE-AR1	-0.072	-0.210	-0.326	-0.002	0.008	0.023	-0.021	-0.032	-0.034
Panel II. SD									
AH	0.030	0.033	0.040	0.002	0.003	0.004	0.007	0.009	0.012
AB	0.028	0.030	0.034	0.002	0.003	0.004	0.007	0.008	0.009
BB	0.026	0.027	0.029	0.002	0.003	0.004	0.006	0.007	0.008
QD-GMM	0.026	0.028	0.026	0.004	0.005	0.006	0.008	0.008	0.006
QD-GMM-L	0.021	0.022	0.021	0.004	0.005	0.005	0.005	0.006	0.006
QD-GMM-A	0.023	0.024	0.023	0.004	0.004	0.005	0.006	0.006	0.007
QD-GMM-C	0.025	0.028	0.027	0.004	0.004	0.005	0.005	0.006	0.006
QD-GMM-AR1	0.026	0.026	0.021	0.002	0.003	0.003	0.007	0.007	0.006
E-CRE	0.056	0.059	0.047	0.002	0.002	0.003	0.012	0.009	0.006
E-CRE-L	0.023	0.025	0.027	0.002	0.002	0.003	0.004	0.004	0.005
E-CRE-A	0.029	0.031	0.035	0.002	0.002	0.003	0.004	0.005	0.005
E-CRE-C	0.027	0.032	0.039	0.002	0.003	0.004	0.003	0.003	0.004
E-CRE-AR1	0.053	0.059	0.041	0.002	0.002	0.003	0.013	0.010	0.006
Panel III. Mean SE									
AH	0.048	0.056	0.074	0.003	0.004	0.005	0.012	0.015	0.023
AB	0.025	0.027	0.031	0.002	0.003	0.004	0.006	0.007	0.008
BB	0.024	0.025	0.028	0.002	0.003	0.004	0.005	0.006	0.007
QD-GMM	0.024	0.024	0.022	0.004	0.004	0.005	0.008	0.008	0.006
QD-GMM-L	0.020	0.021	0.020	0.004	0.004	0.005	0.005	0.006	0.006
QD-GMM-A	0.022	0.023	0.022	0.003	0.004	0.004	0.006	0.006	0.007
QD-GMM-C	0.023	0.024	0.023	0.003	0.004	0.004	0.005	0.006	0.006
QD-GMM-AR1	0.024	0.024	0.021	0.002	0.003	0.003	0.007	0.006	0.006
E-CRE	0.061	0.058	0.043	0.002	0.002	0.003	0.013	0.009	0.005
E-CRE-L	0.026	0.027	0.027	0.002	0.002	0.003	0.004	0.005	0.005
E-CRE-A	0.033	0.036	0.040	0.002	0.002	0.003	0.005	0.005	0.006
E-CRE-C	0.029	0.034	0.043	0.002	0.003	0.004	0.003	0.003	0.004
E-CRE-AR1	0.065	0.065	0.044	0.002	0.002	0.003	0.016	0.011	0.007
Panel IV. Coverage Rates									
AH	0.046	0.112	0.552	0.934	0.004	0.000	0.244	0.934	1.000
AB	0.000	0.000	0.000	0.868	0.004	0.000	0.008	0.228	0.930
BB	0.000	0.000	0.000	0.948	0.000	0.000	0.000	0.018	0.698
QD-GMM	0.468	0.080	0.000	0.934	0.670	0.154	0.542	0.646	0.192
QD-GMM-L	0.000	0.000	0.000	0.382	0.730	0.140	0.000	0.002	0.634
QD-GMM-A	0.004	0.086	0.440	0.070	0.844	0.900	0.000	0.024	0.812
QD-GMM-C	0.038	0.436	0.804	0.000	0.124	0.636	0.000	0.000	0.226
QD-GMM-AR1	0.458	0.072	0.000	0.938	0.090	0.000	0.454	0.780	0.952
E-CRE	0.604	0.004	0.000	0.900	0.058	0.000	0.472	0.018	0.000
E-CRE-L	0.000	0.000	0.000	0.664	0.038	0.000	0.000	0.000	0.000
E-CRE-A	0.000	0.000	0.000	0.026	0.690	0.006	0.000	0.000	0.018
E-CRE-C	0.000	0.000	0.000	0.000	0.918	0.354	0.000	0.000	0.000
E-CRE-AR1	0.860	0.054	0.000	0.886	0.048	0.000	0.722	0.174	0.008

Table B12. Simulation Results: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 0.5$, $\mu_\alpha = 5$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.157	-0.155	-0.150	-0.001	0.008	0.021	-0.035	-0.023	-0.005
AB	-0.190	-0.192	-0.196	-0.002	0.007	0.020	-0.043	-0.031	-0.015
BB	-0.219	-0.220	-0.220	-0.004	0.008	0.024	-0.049	-0.035	-0.015
QD-GMM	-0.065	-0.082	-0.124	-0.007	-0.004	-0.005	-0.026	-0.025	-0.035
QD-GMM-L	-0.101	-0.084	-0.067	-0.013	-0.006	0.003	-0.043	-0.029	-0.012
QD-GMM-A	-0.062	-0.045	-0.032	-0.016	-0.011	-0.003	-0.040	-0.028	-0.012
QD-GMM-C	-0.062	-0.039	-0.023	-0.024	-0.020	-0.013	-0.052	-0.041	-0.025
QD-GMM-AR1	-0.065	-0.079	-0.097	-0.003	0.004	0.015	-0.023	-0.015	-0.001
E-CRE	-0.124	-0.195	-0.270	-0.004	0.002	0.013	-0.034	-0.038	-0.037
E-CRE-L	-0.245	-0.257	-0.239	-0.006	0.003	0.016	-0.055	-0.047	-0.029
E-CRE-A	-0.195	-0.180	-0.138	-0.010	-0.003	0.005	-0.053	-0.042	-0.025
E-CRE-C	-0.211	-0.197	-0.148	-0.016	-0.010	-0.005	-0.062	-0.053	-0.039
E-CRE-AR1	-0.118	-0.165	-0.199	-0.005	0.003	0.015	-0.033	-0.033	-0.024
Panel II. SD									
AH	0.045	0.047	0.051	0.005	0.006	0.007	0.012	0.014	0.017
AB	0.038	0.039	0.040	0.005	0.006	0.007	0.009	0.011	0.013
BB	0.035	0.036	0.037	0.005	0.006	0.008	0.009	0.010	0.013
QD-GMM	0.037	0.038	0.042	0.008	0.010	0.014	0.015	0.015	0.015
QD-GMM-L	0.032	0.033	0.032	0.009	0.010	0.011	0.012	0.014	0.015
QD-GMM-A	0.034	0.035	0.034	0.008	0.009	0.010	0.012	0.014	0.015
QD-GMM-C	0.036	0.037	0.036	0.007	0.008	0.009	0.011	0.012	0.014
QD-GMM-AR1	0.036	0.035	0.030	0.005	0.006	0.007	0.011	0.011	0.011
E-CRE	0.070	0.063	0.048	0.004	0.004	0.006	0.016	0.012	0.009
E-CRE-L	0.039	0.039	0.036	0.004	0.005	0.006	0.007	0.008	0.009
E-CRE-A	0.051	0.050	0.046	0.004	0.004	0.005	0.008	0.008	0.009
E-CRE-C	0.049	0.051	0.049	0.004	0.005	0.006	0.005	0.006	0.007
E-CRE-AR1	0.071	0.063	0.047	0.004	0.005	0.006	0.016	0.013	0.011
Panel III. Mean SE									
AH	0.081	0.087	0.099	0.006	0.007	0.008	0.021	0.024	0.029
AB	0.035	0.036	0.037	0.005	0.006	0.007	0.009	0.010	0.012
BB	0.033	0.033	0.034	0.005	0.006	0.007	0.008	0.009	0.011
QD-GMM	0.034	0.033	0.030	0.008	0.009	0.010	0.015	0.015	0.014
QD-GMM-L	0.031	0.031	0.030	0.008	0.009	0.010	0.012	0.014	0.015
QD-GMM-A	0.033	0.033	0.031	0.007	0.009	0.010	0.012	0.014	0.015
QD-GMM-C	0.034	0.033	0.032	0.007	0.008	0.009	0.011	0.012	0.013
QD-GMM-AR1	0.034	0.032	0.028	0.005	0.006	0.007	0.011	0.011	0.011
E-CRE	0.080	0.068	0.049	0.004	0.005	0.006	0.017	0.013	0.009
E-CRE-L	0.048	0.047	0.042	0.004	0.005	0.006	0.009	0.009	0.010
E-CRE-A	0.059	0.059	0.054	0.004	0.005	0.006	0.009	0.010	0.010
E-CRE-C	0.054	0.056	0.055	0.004	0.005	0.006	0.006	0.007	0.007
E-CRE-AR1	0.081	0.070	0.053	0.004	0.005	0.006	0.018	0.014	0.012
Panel IV. Coverage Rates									
AH	0.520	0.624	0.764	0.982	0.788	0.182	0.582	0.896	0.996
AB	0.004	0.004	0.004	0.930	0.786	0.176	0.020	0.184	0.690
BB	0.000	0.000	0.000	0.866	0.724	0.120	0.000	0.086	0.654
QD-GMM	0.516	0.296	0.058	0.856	0.912	0.828	0.536	0.564	0.298
QD-GMM-L	0.102	0.230	0.384	0.614	0.868	0.926	0.066	0.446	0.866
QD-GMM-A	0.546	0.712	0.826	0.410	0.764	0.928	0.102	0.470	0.864
QD-GMM-C	0.566	0.770	0.872	0.076	0.304	0.692	0.004	0.082	0.520
QD-GMM-AR1	0.510	0.288	0.088	0.886	0.884	0.442	0.464	0.742	0.944
E-CRE	0.698	0.166	0.000	0.790	0.928	0.352	0.484	0.194	0.030
E-CRE-L	0.000	0.000	0.000	0.700	0.906	0.236	0.000	0.000	0.152
E-CRE-A	0.050	0.076	0.222	0.204	0.918	0.868	0.000	0.010	0.346
E-CRE-C	0.030	0.050	0.198	0.018	0.520	0.914	0.000	0.000	0.000
E-CRE-AR1	0.730	0.306	0.010	0.788	0.914	0.264	0.492	0.366	0.474

Table B13. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 3$, $\mu_\alpha = 3$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.052	-0.021	0.004	0.011	0.035	0.072	-0.060	0.114	0.363
AB	-0.050	-0.028	-0.012	0.010	0.035	0.071	-0.060	0.088	0.299
BB	-0.217	-0.206	-0.206	0.004	0.029	0.063	-0.250	-0.180	-0.098
QD-GMM	-0.026	-0.027	-0.023	-0.002	0.001	-0.027	-0.066	-0.062	-0.172
QD-GMM-L	-0.153	-0.110	-0.060	-0.037	-0.023	-0.007	-0.321	-0.250	-0.142
QD-GMM-A	-0.088	-0.053	-0.024	-0.031	-0.018	-0.003	-0.260	-0.177	-0.065
QD-GMM-C	-0.074	-0.029	-0.005	-0.049	-0.041	-0.027	-0.313	-0.244	-0.148
QD-GMM-AR1	-0.029	-0.045	-0.062	-0.001	0.010	0.014	-0.070	-0.052	-0.062
E-CRE	0.010	0.000	-0.062	-0.001	0.014	0.018	0.023	0.073	-0.056
E-CRE-L	-0.300	-0.267	-0.247	-0.020	0.001	0.037	-0.341	-0.284	-0.193
E-CRE-A	-0.074	-0.062	-0.068	-0.038	-0.022	0.004	-0.274	-0.202	-0.108
E-CRE-C	-0.018	-0.014	-0.044	-0.060	-0.051	-0.035	-0.317	-0.273	-0.232
E-CRE-AR1	0.012	-0.017	-0.125	-0.001	0.016	0.036	0.020	0.033	-0.088
Panel II. SD									
AH	0.057	0.061	0.072	0.006	0.009	0.015	0.157	0.387	9.994
AB	0.048	0.051	0.060	0.006	0.009	0.015	0.112	0.193	0.494
BB	0.041	0.042	0.043	0.006	0.009	0.014	0.032	0.043	0.059
QD-GMM	0.025	0.026	0.027	0.008	0.010	0.013	0.064	0.068	0.065
QD-GMM-L	0.030	0.030	0.024	0.009	0.012	0.013	0.019	0.028	0.040
QD-GMM-A	0.024	0.023	0.020	0.007	0.009	0.011	0.026	0.036	0.050
QD-GMM-C	0.027	0.025	0.022	0.005	0.007	0.009	0.022	0.033	0.047
QD-GMM-AR1	0.026	0.027	0.026	0.006	0.008	0.011	0.060	0.059	0.052
E-CRE	0.015	0.019	0.050	0.004	0.006	0.009	0.051	0.066	0.076
E-CRE-L	0.043	0.040	0.032	0.007	0.009	0.011	0.009	0.014	0.021
E-CRE-A	0.026	0.024	0.024	0.004	0.005	0.007	0.017	0.024	0.034
E-CRE-C	0.022	0.022	0.029	0.003	0.003	0.005	0.016	0.022	0.029
E-CRE-AR1	0.017	0.022	0.052	0.004	0.006	0.010	0.054	0.061	0.060
Panel III. Mean SE									
AH	0.095	0.107	0.132	0.007	0.010	0.016	0.240	0.568	108.164
AB	0.046	0.049	0.058	0.006	0.009	0.015	0.102	0.173	0.410
BB	0.037	0.039	0.040	0.005	0.008	0.013	0.029	0.039	0.054
QD-GMM	0.024	0.023	0.021	0.008	0.010	0.012	0.061	0.065	0.064
QD-GMM-L	0.025	0.024	0.021	0.007	0.009	0.012	0.020	0.028	0.041
QD-GMM-A	0.024	0.022	0.020	0.006	0.008	0.011	0.026	0.036	0.050
QD-GMM-C	0.024	0.022	0.020	0.005	0.006	0.008	0.022	0.033	0.047
QD-GMM-AR1	0.025	0.025	0.023	0.006	0.008	0.010	0.057	0.057	0.052
E-CRE	0.024	0.028	0.046	0.005	0.008	0.013	0.077	0.098	0.100
E-CRE-L	0.031	0.031	0.033	0.005	0.007	0.012	0.013	0.018	0.027
E-CRE-A	0.028	0.029	0.034	0.004	0.006	0.009	0.023	0.033	0.047
E-CRE-C	0.027	0.029	0.038	0.003	0.004	0.006	0.021	0.030	0.038
E-CRE-AR1	0.026	0.033	0.058	0.005	0.008	0.012	0.083	0.096	0.084
Panel IV. Coverage Rates									
AH	0.988	0.998	1.000	0.700	0.044	0.000	0.956	0.998	1.000
AB	0.776	0.894	0.934	0.576	0.036	0.000	0.808	0.988	0.996
BB	0.000	0.000	0.000	0.872	0.078	0.004	0.000	0.050	0.534
QD-GMM	0.788	0.736	0.740	0.942	0.936	0.362	0.756	0.786	0.262
QD-GMM-L	0.000	0.010	0.178	0.016	0.352	0.888	0.000	0.000	0.070
QD-GMM-A	0.020	0.346	0.758	0.004	0.406	0.946	0.000	0.012	0.712
QD-GMM-C	0.112	0.726	0.894	0.000	0.000	0.122	0.000	0.000	0.156
QD-GMM-AR1	0.772	0.584	0.258	0.944	0.724	0.682	0.706	0.798	0.746
E-CRE	0.982	0.990	0.868	0.976	0.562	0.812	0.998	0.988	0.948
E-CRE-L	0.000	0.000	0.000	0.036	0.888	0.100	0.000	0.000	0.000
E-CRE-A	0.204	0.434	0.460	0.000	0.020	0.976	0.000	0.000	0.348
E-CRE-C	0.976	0.988	0.952	0.000	0.000	0.002	0.000	0.000	0.000
E-CRE-AR1	0.974	1.000	0.302	0.966	0.488	0.128	0.998	0.996	0.834

Table B14. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 3$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.054	-0.047	-0.040	0.009	0.027	0.055	-0.068	0.018	0.148
AB	-0.063	-0.061	-0.063	0.009	0.027	0.055	-0.081	-0.010	0.089
BB	-0.227	-0.230	-0.237	0.003	0.022	0.053	-0.261	-0.213	-0.149
QD-GMM	-0.032	-0.033	-0.025	-0.007	-0.013	-0.049	-0.098	-0.128	-0.271
QD-GMM-L	-0.059	-0.042	-0.028	-0.048	-0.042	-0.026	-0.298	-0.257	-0.175
QD-GMM-A	-0.041	-0.029	-0.019	-0.035	-0.027	-0.012	-0.231	-0.175	-0.093
QD-GMM-C	-0.038	-0.024	-0.014	-0.053	-0.046	-0.034	-0.300	-0.260	-0.191
QD-GMM-AR1	-0.034	-0.039	-0.039	-0.004	0.002	-0.002	-0.088	-0.074	-0.094
E-CRE	0.009	-0.002	-0.016	-0.003	0.006	0.000	0.010	0.026	-0.034
E-CRE-L	-0.023	-0.036	-0.047	-0.067	-0.052	-0.024	-0.353	-0.299	-0.193
E-CRE-A	-0.009	-0.016	-0.020	-0.045	-0.031	-0.010	-0.238	-0.180	-0.087
E-CRE-C	0.003	-0.005	-0.012	-0.062	-0.054	-0.042	-0.306	-0.277	-0.231
E-CRE-AR1	0.010	-0.006	-0.023	-0.004	0.008	0.014	0.008	0.025	0.009
Panel II. SD									
AH	0.063	0.066	0.071	0.012	0.018	0.027	0.182	0.251	0.437
AB	0.054	0.056	0.061	0.012	0.018	0.026	0.120	0.154	0.213
BB	0.045	0.046	0.047	0.012	0.017	0.026	0.040	0.054	0.075
QD-GMM	0.029	0.028	0.026	0.018	0.022	0.023	0.099	0.109	0.106
QD-GMM-L	0.029	0.027	0.024	0.014	0.018	0.022	0.049	0.066	0.088
QD-GMM-A	0.027	0.026	0.023	0.013	0.017	0.021	0.059	0.077	0.098
QD-GMM-C	0.028	0.026	0.024	0.011	0.014	0.017	0.047	0.063	0.082
QD-GMM-AR1	0.030	0.029	0.026	0.013	0.016	0.021	0.080	0.086	0.090
E-CRE	0.016	0.019	0.021	0.009	0.012	0.014	0.066	0.078	0.080
E-CRE-L	0.025	0.029	0.029	0.009	0.012	0.016	0.031	0.039	0.050
E-CRE-A	0.019	0.020	0.020	0.007	0.009	0.012	0.034	0.044	0.058
E-CRE-C	0.018	0.019	0.020	0.005	0.006	0.009	0.026	0.034	0.044
E-CRE-AR1	0.017	0.019	0.022	0.009	0.012	0.016	0.066	0.075	0.078
Panel III. Mean SE									
AH	0.110	0.116	0.130	0.012	0.016	0.025	0.293	0.409	0.721
AB	0.051	0.053	0.057	0.012	0.018	0.027	0.116	0.149	0.205
BB	0.040	0.041	0.042	0.011	0.016	0.025	0.038	0.050	0.068
QD-GMM	0.027	0.026	0.022	0.017	0.021	0.022	0.094	0.105	0.104
QD-GMM-L	0.027	0.026	0.023	0.013	0.017	0.021	0.051	0.069	0.091
QD-GMM-A	0.027	0.025	0.022	0.013	0.017	0.021	0.058	0.077	0.099
QD-GMM-C	0.027	0.025	0.022	0.010	0.013	0.017	0.047	0.062	0.082
QD-GMM-AR1	0.028	0.027	0.024	0.012	0.016	0.020	0.076	0.084	0.090
E-CRE	0.026	0.026	0.026	0.010	0.014	0.021	0.091	0.107	0.117
E-CRE-L	0.029	0.030	0.028	0.008	0.011	0.015	0.033	0.043	0.059
E-CRE-A	0.027	0.027	0.025	0.007	0.010	0.014	0.044	0.056	0.073
E-CRE-C	0.026	0.027	0.025	0.005	0.007	0.009	0.034	0.041	0.052
E-CRE-AR1	0.026	0.027	0.027	0.010	0.015	0.021	0.092	0.106	0.116
Panel IV. Coverage Rates									
AH	0.990	0.994	0.998	0.870	0.602	0.384	0.940	0.984	0.994
AB	0.762	0.774	0.782	0.900	0.660	0.466	0.764	0.916	0.974
BB	0.000	0.000	0.000	0.940	0.716	0.436	0.002	0.052	0.440
QD-GMM	0.772	0.732	0.762	0.936	0.902	0.392	0.756	0.718	0.262
QD-GMM-L	0.402	0.612	0.750	0.088	0.338	0.760	0.000	0.052	0.512
QD-GMM-A	0.668	0.776	0.858	0.254	0.660	0.940	0.050	0.360	0.822
QD-GMM-C	0.710	0.838	0.894	0.002	0.070	0.466	0.002	0.028	0.336
QD-GMM-AR1	0.760	0.690	0.596	0.934	0.940	0.934	0.718	0.810	0.810
E-CRE	0.982	0.996	0.978	0.962	0.968	0.994	0.992	0.990	0.978
E-CRE-L	0.950	0.834	0.616	0.000	0.022	0.608	0.000	0.000	0.064
E-CRE-A	0.996	0.990	0.972	0.000	0.132	0.926	0.000	0.104	0.812
E-CRE-C	0.988	0.998	0.990	0.000	0.000	0.002	0.000	0.000	0.010
E-CRE-AR1	0.982	0.998	0.944	0.962	0.954	0.952	0.992	0.992	0.994

Table B15. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 3$, $\mu_\alpha = 5$.

Estimator	γ			β			$\beta/(1-\gamma)$		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.052	-0.022	0.003	0.010	0.033	0.069	-0.064	0.095	0.343
AB	-0.067	-0.043	-0.027	0.010	0.033	0.067	-0.089	0.041	0.234
BB	-0.235	-0.223	-0.219	0.003	0.027	0.059	-0.263	-0.199	-0.119
QD-GMM	-0.034	-0.039	-0.030	-0.003	-0.002	-0.034	-0.090	-0.096	-0.212
QD-GMM-L	-0.176	-0.127	-0.071	-0.034	-0.021	-0.007	-0.324	-0.257	-0.156
QD-GMM-A	-0.102	-0.062	-0.028	-0.031	-0.018	-0.004	-0.269	-0.188	-0.079
QD-GMM-C	-0.089	-0.038	-0.008	-0.048	-0.041	-0.029	-0.319	-0.252	-0.159
QD-GMM-AR1	-0.039	-0.060	-0.076	-0.002	0.009	0.013	-0.093	-0.083	-0.092
E-CRE	0.007	-0.014	-0.117	-0.001	0.012	0.015	0.012	0.025	-0.146
E-CRE-L	-0.328	-0.309	-0.284	-0.017	0.005	0.040	-0.344	-0.293	-0.210
E-CRE-A	-0.088	-0.086	-0.090	-0.037	-0.020	0.005	-0.281	-0.221	-0.135
E-CRE-C	-0.027	-0.035	-0.071	-0.060	-0.050	-0.034	-0.322	-0.289	-0.255
E-CRE-AR1	0.008	-0.036	-0.199	-0.002	0.014	0.037	0.010	-0.015	-0.158
Panel II. SD									
AH	0.062	0.068	0.080	0.006	0.009	0.015	0.189	0.619	4.917
AB	0.054	0.057	0.067	0.006	0.009	0.014	0.117	0.205	1.209
BB	0.043	0.044	0.045	0.006	0.009	0.013	0.031	0.042	0.056
QD-GMM	0.028	0.029	0.029	0.008	0.010	0.012	0.063	0.065	0.059
QD-GMM-L	0.034	0.033	0.025	0.009	0.013	0.013	0.019	0.027	0.038
QD-GMM-A	0.027	0.024	0.021	0.007	0.009	0.010	0.025	0.035	0.048
QD-GMM-C	0.030	0.027	0.022	0.006	0.007	0.009	0.022	0.032	0.045
QD-GMM-AR1	0.029	0.030	0.027	0.006	0.008	0.011	0.059	0.056	0.046
E-CRE	0.018	0.024	0.178	0.004	0.006	0.011	0.056	0.070	0.096
E-CRE-L	0.043	0.038	0.031	0.006	0.008	0.011	0.010	0.014	0.021
E-CRE-A	0.032	0.030	0.027	0.004	0.005	0.007	0.018	0.024	0.033
E-CRE-C	0.028	0.031	0.041	0.003	0.004	0.006	0.017	0.023	0.028
E-CRE-AR1	0.019	0.029	0.067	0.004	0.006	0.010	0.059	0.066	0.053
Panel III. Mean SE									
AH	0.110	0.124	0.155	0.007	0.010	0.016	0.298	0.950	26.024
AB	0.050	0.055	0.064	0.006	0.009	0.014	0.103	0.178	1.093
BB	0.039	0.041	0.042	0.005	0.008	0.013	0.028	0.038	0.051
QD-GMM	0.026	0.025	0.021	0.008	0.010	0.011	0.060	0.061	0.058
QD-GMM-L	0.027	0.026	0.021	0.007	0.010	0.012	0.019	0.027	0.039
QD-GMM-A	0.025	0.024	0.020	0.006	0.008	0.010	0.025	0.035	0.048
QD-GMM-C	0.026	0.024	0.020	0.005	0.006	0.008	0.022	0.032	0.045
QD-GMM-AR1	0.027	0.027	0.024	0.006	0.007	0.010	0.055	0.053	0.047
E-CRE	0.030	0.037	0.077	0.005	0.008	0.012	0.092	0.109	0.089
E-CRE-L	0.034	0.035	0.035	0.005	0.007	0.011	0.013	0.018	0.026
E-CRE-A	0.035	0.038	0.041	0.004	0.006	0.009	0.025	0.034	0.047
E-CRE-C	0.034	0.039	0.050	0.003	0.004	0.007	0.024	0.032	0.037
E-CRE-AR1	0.033	0.045	0.075	0.005	0.008	0.012	0.098	0.107	0.072
Panel IV. Coverage Rates									
AH	0.992	0.998	1.000	0.788	0.066	0.002	0.958	0.998	1.000
AB	0.714	0.856	0.922	0.654	0.046	0.000	0.708	0.968	1.000
BB	0.000	0.000	0.000	0.900	0.098	0.004	0.000	0.028	0.390
QD-GMM	0.700	0.638	0.636	0.942	0.928	0.162	0.634	0.610	0.098
QD-GMM-L	0.000	0.002	0.102	0.056	0.428	0.886	0.000	0.000	0.022
QD-GMM-A	0.006	0.234	0.706	0.008	0.414	0.932	0.000	0.002	0.600
QD-GMM-C	0.062	0.632	0.888	0.000	0.000	0.088	0.000	0.000	0.094
QD-GMM-AR1	0.690	0.426	0.120	0.930	0.764	0.700	0.566	0.616	0.492
E-CRE	0.988	1.000	0.682	0.978	0.740	0.790	0.998	0.998	0.634
E-CRE-L	0.000	0.000	0.000	0.060	0.876	0.050	0.000	0.000	0.000
E-CRE-A	0.208	0.282	0.332	0.000	0.082	0.978	0.000	0.000	0.144
E-CRE-C	0.970	0.976	0.842	0.000	0.000	0.012	0.000	0.000	0.000
E-CRE-AR1	0.992	1.000	0.106	0.964	0.642	0.078	1.000	0.998	0.404

Table B16. Simulation Results: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$.

Estimator	γ			β			β/(1-γ)		
	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3	DGP1	DGP2	DGP3
Panel I. Median Bias									
AH	-0.054	-0.049	-0.040	0.008	0.024	0.050	-0.079	0.003	0.126
AB	-0.076	-0.075	-0.079	0.007	0.024	0.048	-0.114	-0.053	0.034
BB	-0.244	-0.245	-0.249	0.000	0.019	0.047	-0.275	-0.231	-0.171
QD-GMM	-0.041	-0.040	-0.029	-0.010	-0.021	-0.057	-0.127	-0.169	-0.306
QD-GMM-L	-0.072	-0.049	-0.033	-0.047	-0.043	-0.029	-0.301	-0.264	-0.194
QD-GMM-A	-0.050	-0.035	-0.022	-0.035	-0.028	-0.015	-0.240	-0.188	-0.111
QD-GMM-C	-0.046	-0.030	-0.017	-0.053	-0.047	-0.036	-0.306	-0.270	-0.207
QD-GMM-AR1	-0.044	-0.049	-0.048	-0.006	-0.002	-0.007	-0.113	-0.106	-0.122
E-CRE	0.005	-0.009	-0.022	-0.004	0.002	-0.006	-0.006	-0.008	-0.075
E-CRE-L	-0.033	-0.049	-0.059	-0.066	-0.051	-0.026	-0.354	-0.306	-0.212
E-CRE-A	-0.015	-0.024	-0.027	-0.045	-0.032	-0.012	-0.245	-0.197	-0.109
E-CRE-C	-0.003	-0.012	-0.017	-0.062	-0.055	-0.044	-0.310	-0.287	-0.244
E-CRE-AR1	0.005	-0.013	-0.030	-0.005	0.004	0.009	-0.005	-0.009	-0.028
Panel II. SD									
AH	0.070	0.073	0.079	0.012	0.017	0.025	0.227	0.329	2.094
AB	0.061	0.063	0.068	0.012	0.017	0.024	0.121	0.150	0.203
BB	0.048	0.048	0.049	0.011	0.016	0.024	0.038	0.050	0.070
QD-GMM	0.032	0.030	0.026	0.017	0.021	0.021	0.095	0.101	0.096
QD-GMM-L	0.031	0.029	0.025	0.014	0.017	0.021	0.047	0.063	0.083
QD-GMM-A	0.029	0.027	0.024	0.013	0.017	0.020	0.057	0.073	0.093
QD-GMM-C	0.030	0.027	0.024	0.011	0.013	0.016	0.045	0.060	0.078
QD-GMM-AR1	0.033	0.031	0.027	0.012	0.016	0.020	0.077	0.080	0.082
E-CRE	0.019	0.022	0.024	0.009	0.011	0.013	0.068	0.076	0.075
E-CRE-L	0.033	0.037	0.035	0.010	0.014	0.017	0.031	0.037	0.047
E-CRE-A	0.022	0.024	0.022	0.007	0.009	0.012	0.033	0.042	0.055
E-CRE-C	0.021	0.023	0.022	0.005	0.006	0.008	0.026	0.032	0.041
E-CRE-AR1	0.019	0.023	0.026	0.009	0.011	0.015	0.068	0.073	0.073
Panel III. Mean SE									
AH	0.129	0.137	0.153	0.012	0.016	0.024	0.382	0.558	6.343
AB	0.056	0.059	0.063	0.012	0.017	0.025	0.114	0.143	0.192
BB	0.043	0.043	0.044	0.011	0.015	0.023	0.036	0.046	0.063
QD-GMM	0.029	0.027	0.022	0.017	0.020	0.020	0.090	0.098	0.094
QD-GMM-L	0.029	0.027	0.023	0.013	0.017	0.021	0.049	0.065	0.086
QD-GMM-A	0.028	0.026	0.023	0.013	0.016	0.020	0.056	0.073	0.094
QD-GMM-C	0.029	0.026	0.022	0.010	0.013	0.016	0.045	0.059	0.077
QD-GMM-AR1	0.030	0.028	0.024	0.012	0.015	0.019	0.073	0.078	0.082
E-CRE	0.031	0.031	0.029	0.010	0.014	0.020	0.100	0.109	0.112
E-CRE-L	0.036	0.036	0.032	0.008	0.011	0.015	0.032	0.041	0.055
E-CRE-A	0.032	0.032	0.028	0.008	0.010	0.013	0.046	0.056	0.070
E-CRE-C	0.032	0.032	0.028	0.005	0.007	0.009	0.035	0.041	0.050
E-CRE-AR1	0.032	0.033	0.031	0.010	0.015	0.020	0.101	0.109	0.110
Panel IV. Coverage Rates									
AH	0.998	0.998	0.998	0.900	0.664	0.432	0.936	0.980	0.994
AB	0.712	0.708	0.710	0.918	0.720	0.510	0.686	0.840	0.952
BB	0.000	0.000	0.000	0.938	0.774	0.450	0.000	0.030	0.292
QD-GMM	0.696	0.658	0.738	0.918	0.830	0.218	0.652	0.554	0.132
QD-GMM-L	0.298	0.522	0.686	0.104	0.336	0.696	0.000	0.024	0.386
QD-GMM-A	0.586	0.714	0.826	0.248	0.604	0.928	0.030	0.278	0.762
QD-GMM-C	0.640	0.792	0.880	0.000	0.058	0.366	0.000	0.022	0.262
QD-GMM-AR1	0.678	0.584	0.506	0.920	0.924	0.924	0.600	0.652	0.650
E-CRE	0.992	1.000	0.976	0.954	0.984	0.988	0.990	0.988	0.946
E-CRE-L	0.924	0.750	0.554	0.002	0.038	0.562	0.000	0.000	0.012
E-CRE-A	0.996	0.986	0.960	0.000	0.102	0.892	0.000	0.056	0.658
E-CRE-C	0.998	1.000	0.990	0.000	0.000	0.000	0.000	0.000	0.000
E-CRE-AR1	0.994	0.998	0.928	0.954	0.986	0.976	0.990	0.988	0.978

Table C1. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.984	0.974	0.998	0.952	1.000	1.000	0.012	1.000	1.000
DGP2	0.892	0.254	0.794	0.274	0.800	0.966	0.112	0.984	0.998
DGP3	0.002	0.002	0.280	0.006	0.042	0.626	0.306	0.478	0.778
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.776	0.834	0.906	0.736	0.938	0.966	0.386	0.998	1.000
DGP2	0.324	0.472	0.638	0.294	0.718	0.830	0.360	0.894	0.960
DGP3	0.094	0.240	0.430	0.132	0.402	0.634	0.408	0.586	0.680
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.996	0.976	0.998	0.982	1.000	1.000	0.034	1.000	1.000
DGP2	0.720	0.198	0.942	0.110	0.744	0.994	0.044	0.960	1.000
DGP3	0.000	0.000	0.512	0.000	0.016	0.868	0.212	0.456	0.870
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.774	0.880	0.964	0.706	0.956	0.984	0.422	0.998	1.000
DGP2	0.172	0.580	0.838	0.144	0.786	0.940	0.304	0.908	0.988
DGP3	0.040	0.264	0.322	0.054	0.476	0.694	0.340	0.668	0.820
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.984	0.974	0.970	0.998	1.000	0.996	0.960	1.000	1.000
DGP2	0.928	0.002	0.468	0.866	0.492	0.826	0.324	0.968	1.000
DGP3	0.000	0.000	0.312	0.000	0.006	0.964	0.318	0.554	0.964
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.552	0.900	0.722	0.598	0.996	0.912	0.760	1.000	1.000
DGP2	0.484	0.258	0.314	0.418	0.794	0.624	0.476	0.976	0.996
DGP3	0.114	0.014	0.246	0.228	0.250	0.606	0.562	0.720	0.792
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.996	0.976	0.994	0.998	1.000	0.998	0.950	1.000	1.000
DGP2	0.760	0.000	0.898	0.842	0.202	0.990	0.658	0.744	1.000
DGP3	0.000	0.000	0.004	0.000	0.000	0.554	0.506	0.080	0.998
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.920	0.918	0.970	0.934	0.988	0.992	0.780	0.996	1.000
DGP2	0.458	0.226	0.852	0.510	0.576	0.984	0.584	0.834	1.000
DGP3	0.002	0.010	0.250	0.010	0.136	0.970	0.402	0.454	0.980
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.748	0.352	0.742	1.000	0.036	0.916	1.000	0.012	0.990
DGP2	0.540	0.798	0.906	0.992	0.316	0.854	0.982	0.198	0.982
DGP3	1.000	0.776	0.506	0.742	0.744	0.422	0.672	0.736	0.924
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.746	0.300	0.678	0.872	0.270	0.490	0.914	0.316	0.676
DGP2	0.590	0.548	0.780	0.632	0.274	0.378	0.688	0.592	0.648
DGP3	0.724	0.838	0.606	0.598	0.432	0.398	0.676	0.690	0.640
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.724	0.308	0.682	1.000	0.032	0.936	1.000	0.016	0.996
DGP2	0.786	0.760	0.772	0.992	0.488	0.914	0.996	0.074	0.994
DGP3	1.000	0.508	0.986	0.948	0.868	0.622	0.916	0.414	0.988
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.744	0.292	0.620	0.978	0.196	0.782	0.978	0.142	0.816
DGP2	0.860	0.528	0.650	0.954	0.236	0.750	0.946	0.212	0.822
DGP3	0.974	0.798	0.484	0.856	0.570	0.454	0.808	0.434	0.790

Notes: Figures represent the empirical probablity that the first estimator listed in the title of each panel is closer in absolute value to the true parameter than the second estimator. Figures greater than 0.6 are shaded in dark gray. Figures less than 0.4 are shaded in light blue. Initial period in simulations is t=-99. See Table 2 and text for further details.

Table C2. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.988	0.990	0.998	0.960	1.000	1.000	0.028	1.000	1.000
DGP2	0.886	0.774	0.926	0.550	0.986	0.986	0.100	1.000	1.000
DGP3	0.566	0.334	0.186	0.450	0.886	0.742	0.378	0.872	0.936
II. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.848	0.892	0.946	0.748	0.984	0.984	0.240	0.996	0.990
DGP2	0.466	0.694	0.822	0.280	0.904	0.928	0.230	0.978	0.990
DGP3	0.322	0.286	0.212	0.312	0.470	0.414	0.326	0.782	0.842
III. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	0.992	0.990	0.998	0.974	1.000	1.000	0.056	1.000	1.000
DGP2	0.924	0.770	0.956	0.514	0.988	0.992	0.070	0.998	1.000
DGP3	0.542	0.244	0.122	0.424	0.810	0.566	0.334	0.884	0.948
IV. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.850	0.898	0.958	0.742	0.984	0.990	0.232	0.996	0.990
DGP2	0.410	0.700	0.804	0.250	0.930	0.952	0.212	0.980	0.990
DGP3	0.348	0.200	0.136	0.262	0.356	0.300	0.298	0.810	0.874
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.898	1.000	0.998	0.408	1.000	1.000	0.028	1.000	1.000
DGP2	0.638	0.646	0.548	0.196	1.000	0.818	0.270	1.000	1.000
DGP3	0.730	0.002	0.038	0.378	0.308	0.318	0.224	0.982	0.996
II. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.296	0.998	0.958	0.196	1.000	0.992	0.646	1.000	1.000
DGP2	0.406	0.736	0.638	0.340	0.968	0.878	0.548	1.000	1.000
DGP3	0.614	0.208	0.286	0.502	0.706	0.698	0.342	0.960	0.964
III. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	0.878	1.000	0.994	0.402	1.000	0.998	0.034	1.000	1.000
DGP2	0.724	0.646	0.616	0.282	1.000	0.854	0.200	1.000	1.000
DGP3	0.844	0.004	0.166	0.460	0.384	0.586	0.106	0.980	1.000
IV. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.330	0.998	0.958	0.246	1.000	0.992	0.606	1.000	1.000
DGP2	0.512	0.770	0.718	0.444	0.982	0.916	0.444	1.000	1.000
DGP3	0.660	0.266	0.412	0.506	0.798	0.834	0.260	0.968	0.980
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.436	0.310	0.444	0.200	0.908	0.652	0.034	0.992	0.540
DGP2	0.504	0.896	0.926	0.328	0.782	0.630	0.388	0.976	0.750
DGP3	0.424	0.928	0.904	0.640	0.380	0.414	0.438	0.876	0.898
II. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.346	0.270	0.336	0.168	0.792	0.510	0.250	0.840	0.524
DGP2	0.292	0.516	0.570	0.258	0.604	0.462	0.308	0.772	0.596
DGP3	0.308	0.478	0.376	0.412	0.282	0.314	0.374	0.724	0.668
III. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	0.406	0.314	0.426	0.144	0.920	0.564	0.020	0.992	0.436
DGP2	0.430	0.882	0.866	0.362	0.774	0.626	0.336	0.976	0.754
DGP3	0.474	0.854	0.654	0.768	0.468	0.500	0.520	0.838	0.934
IV. $\gamma = 0.8, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.304	0.282	0.322	0.154	0.808	0.486	0.218	0.848	0.488
DGP2	0.252	0.480	0.450	0.266	0.600	0.466	0.300	0.774	0.610
DGP3	0.338	0.290	0.228	0.492	0.304	0.340	0.430	0.718	0.690

Table C3. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.992	0.982	0.998	0.974	1.000	1.000	0.012	1.000	1.000
DGP2	0.786	0.248	0.876	0.136	0.794	0.996	0.068	0.986	1.000
DGP3	0.000	0.002	0.496	0.004	0.038	0.824	0.260	0.518	0.844
II. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.764	0.870	0.944	0.702	0.952	0.982	0.386	0.998	1.000
DGP2	0.174	0.572	0.780	0.164	0.788	0.920	0.306	0.922	0.982
DGP3	0.054	0.272	0.352	0.072	0.520	0.744	0.368	0.674	0.776
III. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.998	0.988	1.000	0.996	1.000	1.000	0.054	1.000	1.000
DGP2	0.190	0.290	0.994	0.010	0.796	0.998	0.016	0.986	1.000
DGP3	0.000	0.000	0.158	0.000	0.024	0.970	0.124	0.568	0.972
IV. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.432	0.954	0.974	0.444	0.988	1.000	0.508	0.998	1.000
DGP2	0.044	0.788	0.658	0.052	0.918	0.990	0.276	0.972	0.998
DGP3	0.016	0.280	0.084	0.020	0.670	0.296	0.272	0.808	0.914

	E-CRE vs. E-CRE-A			E-CRE vs. E-CRE-C			E-CRE-A vs. E-CRE-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	1.000	0.976	0.994	1.000	1.000	1.000	0.960	1.000	1.000
DGP2	0.978	0.000	0.870	0.978	0.314	0.996	0.548	0.896	1.000
DGP3	0.000	0.000	0.014	0.000	0.000	0.882	0.242	0.190	0.998
II. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.870	0.920	0.946	0.900	0.996	0.992	0.838	1.000	1.000
DGP2	0.754	0.296	0.772	0.720	0.772	0.958	0.430	0.962	0.998
DGP3	0.010	0.014	0.406	0.034	0.236	0.946	0.388	0.680	0.946
III. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.990	0.990	0.996	0.994	1.000	1.000	0.928	1.000	1.000
DGP2	0.242	0.000	0.654	0.392	0.074	0.976	0.862	0.432	1.000
DGP3	0.000	0.000	0.000	0.000	0.000	0.294	0.798	0.014	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.956	0.974	0.984	0.970	0.994	0.994	0.710	0.998	0.990
DGP2	0.402	0.540	0.812	0.526	0.802	0.984	0.718	0.916	1.000
DGP3	0.000	0.040	0.050	0.000	0.252	0.896	0.474	0.580	0.998

	QD-GMM vs. E-CRE			QD-GMM-A vs. E-CRE-A			QD-GMM-C vs. E-CRE-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.620	0.318	0.572	1.000	0.028	0.950	1.000	0.012	0.994
DGP2	0.636	0.792	0.702	1.000	0.374	0.924	0.996	0.088	0.994
DGP3	1.000	0.718	0.908	0.936	0.860	0.478	0.822	0.384	0.982
II. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.558	0.266	0.452	0.972	0.222	0.646	0.978	0.224	0.748
DGP2	0.570	0.518	0.516	0.888	0.230	0.572	0.846	0.398	0.742
DGP3	0.934	0.846	0.320	0.716	0.488	0.368	0.674	0.554	0.728
III. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.934	0.356	0.916	1.000	0.016	0.998	1.000	0.000	1.000
DGP2	1.000	0.714	0.992	1.000	0.506	0.988	1.000	0.006	1.000
DGP3	1.000	0.368	1.000	0.994	0.936	0.936	0.998	0.406	0.998
IV. $\gamma = 0.4, \beta = 0.1, \theta = 2, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.904	0.320	0.760	1.000	0.162	0.932	1.000	0.072	0.898
DGP2	0.970	0.302	0.768	0.998	0.156	0.866	0.998	0.098	0.868
DGP3	0.996	0.720	0.462	0.958	0.434	0.664	0.946	0.298	0.808

Table C4. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.996	0.990	1.000	0.982	1.000	1.000	0.034	1.000	1.000
DGP2	0.938	0.848	0.988	0.378	0.994	0.996	0.060	1.000	1.000
DGP3	0.534	0.076	0.026	0.390	0.504	0.242	0.322	0.938	0.978
II. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.800	0.928	0.974	0.646	0.992	0.994	0.226	0.996	0.990
DGP2	0.254	0.698	0.720	0.180	0.958	0.960	0.204	0.986	0.992
DGP3	0.306	0.088	0.058	0.264	0.244	0.182	0.278	0.878	0.912
III. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	1.000	0.990	1.000	0.992	1.000	1.000	0.062	1.000	1.000
DGP2	0.928	0.874	0.990	0.280	0.994	1.000	0.018	1.000	1.000
DGP3	0.516	0.044	0.006	0.322	0.316	0.114	0.252	0.960	0.990
IV. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.768	0.946	0.980	0.588	0.994	0.998	0.240	0.998	0.990
DGP2	0.206	0.626	0.610	0.138	0.948	0.918	0.168	0.988	0.992
DGP3	0.300	0.056	0.026	0.242	0.148	0.100	0.244	0.910	0.948
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.970	1.000	1.000	0.576	1.000	1.000	0.008	1.000	1.000
DGP2	0.888	0.720	0.836	0.488	1.000	0.964	0.064	1.000	1.000
DGP3	0.902	0.010	0.370	0.388	0.742	0.804	0.086	0.992	1.000
II. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.524	1.000	0.990	0.382	1.000	0.998	0.420	1.000	1.000
DGP2	0.660	0.874	0.880	0.524	0.992	0.976	0.298	1.000	1.000
DGP3	0.670	0.512	0.656	0.428	0.952	0.946	0.264	0.988	0.998
III. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	0.982	1.000	1.000	0.690	1.000	1.000	0.008	1.000	1.000
DGP2	0.966	0.736	0.940	0.708	1.000	0.980	0.024	1.000	1.000
DGP3	0.846	0.026	0.694	0.276	0.852	0.932	0.040	0.992	1.000
IV. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.638	1.000	0.992	0.506	1.000	1.000	0.308	1.000	1.000
DGP2	0.750	0.928	0.934	0.606	1.000	0.988	0.240	1.000	1.000
DGP3	0.710	0.648	0.774	0.410	0.980	0.988	0.198	0.994	1.000
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 3$									
DGP1	0.282	0.304	0.310	0.322	0.868	0.722	0.036	0.990	0.598
DGP2	0.296	0.828	0.668	0.596	0.700	0.776	0.340	0.968	0.826
DGP3	0.460	0.520	0.316	0.818	0.392	0.618	0.528	0.866	0.952
II. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 3$									
DGP1	0.240	0.298	0.246	0.174	0.792	0.548	0.182	0.842	0.550
DGP2	0.210	0.374	0.268	0.306	0.610	0.528	0.304	0.760	0.634
DGP3	0.308	0.104	0.064	0.480	0.344	0.392	0.418	0.730	0.700
III. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 3, \mu_\alpha = 5$									
DGP1	0.228	0.332	0.246	0.370	0.822	0.710	0.048	0.992	0.564
DGP2	0.216	0.768	0.420	0.744	0.632	0.842	0.404	0.958	0.878
DGP3	0.622	0.264	0.106	0.898	0.414	0.736	0.682	0.818	0.968
IV. $\gamma = 0.8, \beta = 0.1, \theta = 2, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.188	0.292	0.186	0.174	0.788	0.534	0.176	0.850	0.542
DGP2	0.188	0.246	0.144	0.374	0.606	0.542	0.310	0.760	0.640
DGP3	0.344	0.036	0.018	0.516	0.370	0.454	0.454	0.724	0.720

Table D1. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.980	0.964	0.998	0.958	0.998	0.998	0.026	1.000	1.000
DGP2	0.938	0.312	0.810	0.424	0.762	0.960	0.042	0.976	1.000
DGP3	0.014	0.034	0.442	0.042	0.180	0.782	0.236	0.572	0.838
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.788	0.780	0.880	0.722	0.922	0.978	0.394	0.988	0.998
DGP2	0.342	0.494	0.622	0.286	0.676	0.804	0.336	0.892	0.960
DGP3	0.124	0.274	0.454	0.146	0.444	0.682	0.410	0.592	0.714
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.988	0.946	1.000	0.982	0.994	1.000	0.066	1.000	0.998
DGP2	0.808	0.238	0.944	0.268	0.700	0.992	0.038	0.938	0.998
DGP3	0.000	0.012	0.188	0.000	0.122	0.832	0.154	0.544	0.898
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.680	0.824	0.960	0.660	0.948	0.990	0.434	0.988	0.998
DGP2	0.168	0.564	0.802	0.170	0.742	0.942	0.324	0.904	0.978
DGP3	0.050	0.276	0.222	0.062	0.558	0.526	0.362	0.656	0.806
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.992	0.968	0.978	0.998	1.000	1.000	0.946	1.000	1.000
DGP2	0.980	0.012	0.842	0.986	0.382	0.976	0.658	0.958	1.000
DGP3	0.000	0.000	0.004	0.000	0.000	0.184	0.814	0.024	0.998
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.560	0.896	0.702	0.620	0.994	0.902	0.750	1.000	1.000
DGP2	0.652	0.218	0.510	0.656	0.742	0.820	0.518	0.968	1.000
DGP3	0.014	0.018	0.364	0.016	0.120	0.936	0.504	0.422	0.930
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.994	0.972	0.988	0.996	1.000	1.000	0.934	1.000	1.000
DGP2	0.414	0.004	0.788	0.606	0.098	0.986	0.818	0.562	1.000
DGP3	0.000	0.000	0.000	0.000	0.000	0.004	0.982	0.104	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.922	0.920	0.958	0.946	0.990	0.986	0.782	0.998	1.000
DGP2	0.302	0.204	0.738	0.418	0.546	0.970	0.714	0.764	1.000
DGP3	0.000	0.014	0.038	0.002	0.054	0.644	0.628	0.196	0.998
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.734	0.318	0.738	1.000	0.040	0.942	1.000	0.012	0.992
DGP2	0.648	0.776	0.680	1.000	0.320	0.890	0.996	0.100	0.996
DGP3	1.000	0.994	0.976	1.000	0.960	0.578	0.992	0.312	0.994
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.702	0.244	0.630	0.844	0.278	0.510	0.896	0.366	0.662
DGP2	0.540	0.464	0.588	0.762	0.234	0.482	0.774	0.496	0.680
DGP3	0.992	0.846	0.478	0.812	0.580	0.390	0.812	0.414	0.760
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.626	0.266	0.606	1.000	0.062	0.924	1.000	0.020	0.994
DGP2	0.976	0.702	0.930	1.000	0.520	0.982	1.000	0.030	1.000
DGP3	1.000	0.988	1.000	1.000	0.998	0.962	1.000	0.844	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.710	0.238	0.582	0.970	0.208	0.744	0.970	0.162	0.784
DGP2	0.942	0.438	0.786	0.972	0.218	0.786	0.972	0.142	0.820
DGP3	1.000	0.840	0.814	0.980	0.690	0.682	0.966	0.284	0.864

Notes: Figures represent the empirical probablity that the first estimator listed in the title of each panel is closer in absolute value to the true parameter than the second estimator. Figures greater than 0.6 are shaded in dark gray. Figures less than 0.4 are shaded in light blue. Initial period in simulations is t=0. See Table 2 and text for further details.

Table D2. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.992	0.992	0.996	0.974	1.000	1.000	0.050	1.000	1.000
DGP2	0.914	0.762	0.954	0.672	0.986	0.980	0.050	1.000	1.000
DGP3	0.578	0.304	0.220	0.332	0.888	0.794	0.282	0.886	0.952
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.856	0.860	0.956	0.756	0.966	0.984	0.256	0.998	0.994
DGP2	0.490	0.670	0.802	0.292	0.874	0.948	0.240	0.974	0.984
DGP3	0.236	0.278	0.206	0.240	0.446	0.412	0.284	0.806	0.878
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.996	0.988	0.996	0.986	1.000	1.000	0.070	1.000	1.000
DGP2	0.948	0.764	0.964	0.652	0.986	0.984	0.044	1.000	0.998
DGP3	0.514	0.202	0.142	0.284	0.798	0.592	0.248	0.898	0.964
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.860	0.868	0.958	0.748	0.966	0.990	0.280	0.998	0.994
DGP2	0.422	0.662	0.794	0.250	0.894	0.952	0.210	0.980	0.984
DGP3	0.224	0.188	0.128	0.214	0.360	0.332	0.268	0.830	0.910

	E-CRE vs. E-CRE-A			E-CRE vs. E-CRE-C			E-CRE-A vs. E-CRE-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.882	1.000	0.998	0.428	1.000	1.000	0.034	1.000	1.000
DGP2	0.706	0.740	0.666	0.274	1.000	0.890	0.216	1.000	1.000
DGP3	0.882	0.016	0.578	0.350	0.668	0.896	0.036	0.988	1.000
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.288	0.998	0.950	0.172	1.000	0.998	0.652	1.000	1.000
DGP2	0.448	0.768	0.666	0.406	0.988	0.908	0.504	1.000	1.000
DGP3	0.638	0.320	0.474	0.394	0.820	0.870	0.248	0.956	0.986
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.868	1.000	0.998	0.412	1.000	1.000	0.048	1.000	1.000
DGP2	0.802	0.726	0.768	0.432	1.000	0.916	0.128	1.000	1.000
DGP3	0.556	0.014	0.732	0.166	0.712	0.990	0.088	0.952	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.320	1.000	0.950	0.220	1.000	0.992	0.618	1.000	1.000
DGP2	0.568	0.794	0.756	0.474	0.994	0.942	0.412	1.000	1.000
DGP3	0.622	0.372	0.568	0.346	0.884	0.938	0.186	0.962	0.994

	QD-GMM vs. E-CRE			QD-GMM-A vs. E-CRE-A			QD-GMM-C vs. E-CRE-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.444	0.296	0.434	0.154	0.908	0.624	0.018	0.996	0.496
DGP2	0.456	0.862	0.874	0.310	0.778	0.614	0.320	0.958	0.690
DGP3	0.634	0.802	0.424	0.874	0.464	0.650	0.668	0.848	0.940
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.398	0.286	0.352	0.156	0.802	0.500	0.252	0.820	0.516
DGP2	0.300	0.458	0.496	0.250	0.608	0.446	0.318	0.774	0.592
DGP3	0.350	0.338	0.222	0.430	0.290	0.356	0.410	0.696	0.690
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.420	0.294	0.440	0.096	0.928	0.510	0.014	0.998	0.384
DGP2	0.364	0.846	0.746	0.372	0.772	0.622	0.264	0.956	0.688
DGP3	0.856	0.636	0.278	0.966	0.548	0.776	0.860	0.740	0.974
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.334	0.272	0.332	0.136	0.818	0.452	0.218	0.834	0.480
DGP2	0.248	0.438	0.386	0.250	0.608	0.460	0.288	0.762	0.602
DGP3	0.416	0.204	0.120	0.520	0.278	0.378	0.470	0.688	0.704

Table D3. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.986	0.964	0.998	0.970	0.998	1.000	0.026	1.000	1.000
DGP2	0.882	0.326	0.888	0.228	0.772	0.982	0.030	0.976	1.000
DGP3	0.000	0.042	0.294	0.008	0.194	0.912	0.184	0.604	0.880
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.718	0.814	0.930	0.652	0.944	0.988	0.388	0.990	0.998
DGP2	0.172	0.552	0.772	0.180	0.750	0.906	0.296	0.922	0.978
DGP3	0.062	0.308	0.296	0.080	0.590	0.624	0.366	0.666	0.778
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	1.000	0.972	1.000	0.988	0.998	1.000	0.074	1.000	1.000
DGP2	0.324	0.376	0.998	0.040	0.776	1.000	0.022	0.974	0.998
DGP3	0.000	0.032	0.020	0.000	0.174	0.286	0.096	0.664	0.974
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.358	0.924	0.974	0.374	0.980	0.998	0.460	0.992	0.998
DGP2	0.048	0.756	0.580	0.062	0.904	0.982	0.316	0.968	0.994
DGP3	0.020	0.248	0.048	0.024	0.690	0.134	0.312	0.804	0.910
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	1.000	0.978	0.994	1.000	1.000	1.000	0.944	1.000	1.000
DGP2	0.932	0.008	0.986	0.976	0.260	1.000	0.758	0.866	1.000
DGP3	0.000	0.000	0.000	0.000	0.000	0.058	0.894	0.008	1.000
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.854	0.926	0.918	0.888	0.994	0.990	0.802	1.000	1.000
DGP2	0.786	0.282	0.864	0.816	0.732	0.976	0.570	0.958	1.000
DGP3	0.002	0.020	0.176	0.004	0.168	0.938	0.502	0.474	0.974
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.996	0.990	1.000	1.000	1.000	1.000	0.900	1.000	1.000
DGP2	0.084	0.008	0.280	0.148	0.080	0.856	0.856	0.374	1.000
DGP3	0.000	0.000	0.000	0.000	0.000	0.010	0.954	0.036	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.970	0.986	0.994	0.986	0.996	1.000	0.736	1.000	0.998
DGP2	0.352	0.544	0.744	0.492	0.800	0.986	0.736	0.928	1.000
DGP3	0.000	0.050	0.024	0.002	0.210	0.654	0.598	0.482	1.000
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.542	0.292	0.536	1.000	0.038	0.964	1.000	0.010	0.994
DGP2	0.956	0.774	0.658	1.000	0.358	0.952	1.000	0.042	0.998
DGP3	1.000	0.992	0.998	1.000	0.974	0.830	1.000	0.392	1.000
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.504	0.218	0.434	0.974	0.240	0.616	0.972	0.240	0.724
DGP2	0.724	0.466	0.444	0.934	0.196	0.634	0.926	0.298	0.746
DGP3	1.000	0.820	0.540	0.904	0.528	0.476	0.868	0.382	0.808
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.904	0.328	0.838	1.000	0.036	1.000	1.000	0.004	1.000
DGP2	1.000	0.646	0.998	1.000	0.466	1.000	1.000	0.004	1.000
DGP3	1.000	0.932	1.000	1.000	0.992	1.000	1.000	0.686	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.846	0.280	0.660	0.998	0.194	0.886	1.000	0.088	0.854
DGP2	0.984	0.266	0.786	0.998	0.150	0.872	0.998	0.078	0.852
DGP3	1.000	0.604	0.540	0.992	0.432	0.764	0.976	0.164	0.854

Table D4. Simulation Results: Pitman's Nearness Measure.

	QD-GMM vs. QD-GMM-A			QD-GMM vs. QD-GMM-C			QD-GMM-A vs. QD-GMM-C		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.996	0.996	1.000	0.992	1.000	1.000	0.054	1.000	1.000
DGP2	0.958	0.828	0.982	0.510	0.990	0.994	0.038	1.000	1.000
DGP3	0.382	0.092	0.020	0.254	0.526	0.286	0.226	0.924	0.982
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.804	0.902	0.966	0.668	0.986	0.994	0.266	0.998	0.994
DGP2	0.276	0.658	0.698	0.162	0.940	0.944	0.206	0.990	0.986
DGP3	0.214	0.092	0.046	0.210	0.250	0.210	0.256	0.882	0.934
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	1.000	0.992	1.000	0.994	1.000	1.000	0.090	1.000	1.000
DGP2	0.934	0.868	0.990	0.452	0.994	1.000	0.020	1.000	1.000
DGP3	0.340	0.042	0.010	0.204	0.292	0.134	0.182	0.954	0.990
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.740	0.920	0.972	0.626	0.990	0.994	0.286	0.998	0.994
DGP2	0.228	0.588	0.568	0.140	0.932	0.912	0.178	0.994	0.988
DGP3	0.210	0.056	0.032	0.182	0.168	0.138	0.232	0.912	0.958
	E-CRE vs. E-CRE-A			**E-CRE vs. E-CRE-C**			**E-CRE-A vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.956	1.000	1.000	0.584	1.000	1.000	0.012	1.000	1.000
DGP2	0.932	0.774	0.904	0.632	1.000	0.982	0.040	1.000	1.000
DGP3	0.572	0.062	0.770	0.088	0.918	0.990	0.038	0.988	1.000
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.502	1.000	0.982	0.382	1.000	1.000	0.444	1.000	1.000
DGP2	0.666	0.890	0.908	0.530	1.000	0.980	0.298	1.000	1.000
DGP3	0.642	0.548	0.688	0.330	0.980	0.986	0.216	0.992	1.000
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.974	1.000	1.000	0.666	1.000	1.000	0.012	1.000	1.000
DGP2	0.974	0.794	0.974	0.808	1.000	0.998	0.008	1.000	1.000
DGP3	0.212	0.098	0.452	0.026	0.864	0.878	0.174	0.986	1.000
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.582	1.000	0.988	0.488	1.000	1.000	0.362	1.000	1.000
DGP2	0.766	0.942	0.954	0.594	1.000	0.998	0.226	1.000	1.000
DGP3	0.630	0.568	0.692	0.314	0.996	1.000	0.170	0.996	1.000
	QD-GMM vs. E-CRE			**QD-GMM-A vs. E-CRE-A**			**QD-GMM-C vs. E-CRE-C**		
	γ	β	β/(1-γ)	γ	β	β/(1-γ)	γ	β	β/(1-γ)
I. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 1$									
DGP1	0.302	0.280	0.310	0.300	0.894	0.714	0.020	0.994	0.554
DGP2	0.272	0.788	0.560	0.626	0.680	0.794	0.306	0.952	0.810
DGP3	0.844	0.282	0.082	0.964	0.424	0.818	0.804	0.810	0.970
II. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 1$									
DGP1	0.228	0.266	0.230	0.144	0.808	0.536	0.174	0.822	0.550
DGP2	0.214	0.312	0.248	0.312	0.620	0.518	0.294	0.758	0.630
DGP3	0.358	0.070	0.032	0.466	0.302	0.414	0.426	0.704	0.700
III. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 2, \mu_\alpha = 5$									
DGP1	0.208	0.268	0.230	0.322	0.878	0.684	0.024	0.990	0.500
DGP2	0.258	0.706	0.282	0.810	0.588	0.866	0.478	0.924	0.878
DGP3	0.960	0.160	0.262	0.978	0.438	0.898	0.926	0.674	0.984
IV. $\gamma = 0.4, \beta = 0.1, \theta = 1, \sigma^2_s = 0.5, \mu_\alpha = 5$									
DGP1	0.168	0.230	0.184	0.132	0.818	0.512	0.138	0.846	0.538
DGP2	0.206	0.212	0.134	0.356	0.624	0.534	0.316	0.756	0.640
DGP3	0.418	0.018	0.014	0.524	0.314	0.474	0.472	0.702	0.714

Table E1. Determinants of Child BMI *z*-scores.

	AH		AB		BB		QD-GMM		E-CRE		QD-GMM-A		E-CRE-A		QD-GMM-C		E-CRE-C	
γ	0.269	*	0.286	*	0.348	*	0.340	*	0.895	*	0.321	*	0.886	*	0.322	*	0.888	*
	(0.018)		(0.013)		(0.013)		(0.014)		(0.008)		(0.014)		(0.008)		(0.014)		(0.008)	
SES	0.012		0.011		-0.026	†	0.049	*	0.026	*	-0.031	‡	0.010		-0.023		0.010	†
	(0.011)		(0.012)		(0.013)		(0.017)		(0.010)		(0.019)		(0.006)		(0.018)		(0.004)	
SES^2	0.007		0.005		-0.002		0.022	*	0.007		0.009		0.012	*	0.010		0.007	*
	(0.005)		(0.006)		(0.006)		(0.007)		(0.006)		(0.008)		(0.004)		(0.007)		(0.003)	
Household Size	-0.004		-0.005		-0.004		-0.007		-0.0037		-0.006		0.000		-0.006		-0.001	
	(0.005)		(0.006)		(0.006)		(0.007)		(0.005)		(0.006)		(0.002)		(0.006)		(0.002)	
Fast Food Price Index	-0.119	‡	-0.078		-0.094		-0.070		0.054	‡	0.060		-0.018		0.027		-0.020	
	(0.061)		(0.069)		(0.071)		(0.054)		(0.030)		(0.094)		(0.031)		(0.084)		(0.019)	
No Mother in Household	-0.038		-0.035		-0.040		-0.049		-0.012		-0.032		-0.012		-0.036		-0.010	
(1 = Yes)	(0.026)		(0.027)		(0.028)		(0.047)		(0.033)		(0.046)		(0.020)		(0.044)		(0.012)	
Exercise at least 3 days/wk	-0.008		-0.006		-0.009		-0.040	†	-0.033	*	-0.048	*	-0.017	*	-0.041	*	-0.010	*
(1 = Yes)	(0.007)		(0.008)		(0.008)		(0.016)		(0.009)		(0.014)		(0.004)		(0.013)		(0.003)	
Usually Eats a School-	0.020	*	0.022	†	0.029	*	0.010		0.005		0.032	†	0.002		0.029	†	0.003	
Provided Lunch	(0.008)		(0.009)		(0.009)		(0.015)		(0.010)		(0.014)		(0.005)		(0.013)		(0.003)	
Health Insurance	0.022	†	0.020	‡	0.021	‡	0.064	†	-0.008		0.066	†	-0.009		0.061	†	-0.008	‡
(1 = Yes)	(0.010)		(0.012)		(0.012)		(0.031)		(0.013)		(0.029)		(0.006)		(0.028)		(0.005)	
Number of Books	0.0001	†	0.0001	†	0.0001	‡	0.0000		0.000		0.000		0.0000		0.0000		0.000	
at Home (100s)	(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)	

Notes: ‡ $p<0.10$, † $p<0.05$, and * $p<0.01$. Data from the ECLS-K. Cluster-robust standard errors in parentheses. Number of observations = 54,930 (9,155 students over six time periods). γ is the coefficient on the lagged dependent variable. SES = index of socioeconomic status. Coefficients on the time fixed effects and imputation dummies for missing covariates not shown. See text for further details.

Table E2. Determinants of Child BMI z-scores: Kindergarten through Third Grade Only.

	AH		AB		BB		QD-GMM		E-CRE		QD-GMM-A		E-CRE-A		QD-GMM-C		E-CRE-C	
γ	0.205	*	0.214	*	0.202	*	0.174	*	0.688	*	0.176	*	0.631	*	0.176	*	0.632	*
	(0.019)		(0.016)		(0.014)		(0.014)		(0.016)		(0.014)		(0.019)		(0.014)		(0.019)	
SES	0.003		0.003		0.012		-0.003		0.010		-0.039	†	-0.028		-0.037	†	0.000	
	(0.016)		(0.017)		(0.017)		(0.018)		(0.012)		(0.018)		(0.021)		(0.017)		(0.012)	
SES^2	0.004		0.004		0.006		0.013	†	0.008		0.006		0.006		0.006		0.003	
	(0.006)		(0.006)		(0.006)		(0.006)		(0.006)		(0.006)		(0.012)		(0.006)		(0.008)	
Household Size	-0.004		-0.004		-0.005		-0.007		-0.008		-0.010		-0.003		-0.010		-0.010	
	(0.008)		(0.009)		(0.009)		(0.007)		(0.007)		(0.007)		(0.009)		(0.007)		(0.007)	
Fast Food Price Index	-0.331	*	-0.336	†	-0.357	†	-0.081		0.080	†	-0.525	*	-0.384	†	-0.521	*	-0.297	*
	(0.122)		(0.148)		(0.147)		(0.049)		(0.035)		(0.191)		(0.156)		(0.176)		(0.087)	

Notes: ‡ $p<0.10$, † $p<0.05$, and * $p<0.01$. Data from the ECLS-K. Cluster-robust standard errors in parentheses. Number of observations = 27,465 (9,155 students over three time periods). γ is the coefficient on the lagged dependent variable. SES = index of socioeconomic status. Coefficients on the time fixed effects and imputation dummies for missing covariates not shown. See text for further details.

Table E3. Determinants of Child BMI z-scores: Kindergarten through Third Grade Only.

	AH		AB		BB		QD-GMM		E-CRE		QD-GMM-A		E-CRE-A		QD-GMM-C		E-CRE-C	
γ	0.217	*	0.222	*	0.206	*	0.233	*	0.714	*	0.230	*	0.639	*	0.231	*	0.642	*
	(0.020)		(0.017)		(0.015)		(0.016)		(0.015)		(0.016)		(0.019)		(0.016)		(0.019)	
SES	0.003		0.003		0.012		0.005		0.011		-0.038	†	-0.027		-0.036	†	-0.003	
	(0.016)		(0.017)		(0.017)		(0.017)		(0.012)		(0.018)		(0.021)		(0.017)		(0.012)	
SES^2	0.004		0.004		0.007		0.014	†	0.007		0.006		0.007		0.006		0.003	
	(0.006)		(0.006)		(0.006)		(0.006)		(0.006)		(0.006)		(0.012)		(0.006)		(0.008)	
Household Size	-0.005		-0.005		-0.006		-0.004		-0.0057		-0.009		-0.0031		-0.0083		-0.0104	
	(0.008)		(0.009)		(0.009)		(0.007)		(0.007)		(0.007)		(0.009)		(0.007)		(0.006)	
Fast Food Price Index	-0.310	†	-0.312	†	-0.333	†	-0.104	‡	-0.012		-0.601	*	-0.394	†	-0.596	*	-0.277	*
	(0.124)		(0.149)		(0.148)		(0.054)		(0.040)		(0.194)		(0.157)		(0.174)		(0.087)	
No Mother in Household	-0.065	‡	-0.064	‡	-0.063		0.006		-0.012		0.012		-0.066		0.012		-0.046	
(1 = Yes)	(0.038)		(0.039)		(0.039)		(0.042)		(0.041)		(0.040)		(0.054)		(0.039)		(0.031)	
Exercise at least 3 days/wk	-0.004		-0.004		-0.003		-0.028	†	-0.019		-0.034	*	-0.039	*	-0.031	*	-0.019	†
(1 = Yes)	(0.009)		(0.011)		(0.011)		(0.013)		(0.012)		(0.012)		(0.014)		(0.012)		(0.009)	
Usually Eats a School-	0.016		0.016		0.015		-0.009		0.014		-0.001		0.014		-0.001		0.003	
Provided Lunch	(0.011)		(0.012)		(0.012)		(0.014)		(0.012)		(0.013)		(0.016)		(0.012)		(0.009)	
Health Insurance	0.037	*	0.037	*	0.037	*	0.006		0.031	†	-0.006		-0.007		-0.010		0.002	
(1 = Yes)	(0.012)		(0.014)		(0.014)		(0.020)		(0.014)		(0.018)		(0.015)		(0.017)		(0.008)	
Number of Books	0.0001	†	0.0001	†	0.0001	†	0.0001		0.0001	†	0.0000		0.0001	†	0.0000		0.000	†
at Home (100s)	(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)	

Notes: ‡ $p<0.10$, † $p<0.05$, and * $p<0.01$. Data from the ECLS-K. Cluster-robust standard errors in parentheses. Number of observations = 27,465 (9,155 students over three time periods). γ is the coefficient on the lagged dependent variable. SES = index of socioeconomic status. Coefficients on the time fixed effects and imputation dummies for missing covariates not shown. See text for further details.

Table E4. Determinants of Child BMI z-scores: Kindergarten through Fifth Grade Only.

	AH	AB	BB	QD-GMM	E-CRE	QD-GMM-A	E-CRE-A	QD-GMM-C	E-CRE-C
γ	0.202 *	0.224 *	0.276 *	0.224 *	0.823 *	0.223 *	0.811 *	0.223 *	0.811 *
	(0.016)	(0.013)	(0.013)	(0.014)	(0.010)	(0.014)	(0.010)	(0.014)	(0.010)
SES	0.001	-0.0002	-0.032 †	0.014	0.018 ‡	-0.052 *	0.009	-0.049 *	0.007
	(0.013)	(0.014)	(0.015)	(0.019)	(0.011)	(0.019)	(0.010)	(0.019)	(0.007)
SES^2	0.004	0.004	-0.004	0.007	0.006	-0.005	0.011 ‡	-0.004	0.005
	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.007)	(0.006)	(0.006)	(0.005)
Household Size	-0.006	-0.006	-0.005	-0.014 †	-0.0111 †	-0.011	-0.004	-0.010	-0.006
	(0.006)	(0.007)	(0.007)	(0.007)	(0.005)	(0.007)	(0.004)	(0.007)	(0.003)
Fast Food Price Index	-0.042	-0.012	-0.113	0.030	0.097 *	0.259 ‡	0.074	0.257 †	0.048
	(0.086)	(0.101)	(0.105)	(0.044)	(0.029)	(0.132)	(0.049)	(0.121)	(0.039)

Notes: ‡ $p<0.10$, † $p<0.05$, and * $p<0.01$. Data from the ECLS-K. Cluster-robust standard errors in parentheses. Number of observations = 36,620 (9,155 students over four time periods). γ is the coefficient on the lagged dependent variable. SES = index of socioeconomic status. Coefficients on the time fixed effects and imputation dummies for missing covariates not shown. See text for further details.

Table E5. Determinants of Child BMI z-scores: Kindergarten through Fifth Grade Only.

	AH		AB		BB		QD-GMM		E-CRE		QD-GMM-A		E-CRE-A		QD-GMM-C		E-CRE-C	
γ	0.210	*	0.228	*	0.281	*	0.292	*	0.834	*	0.282	*	0.815	*	0.285	*	0.816	*
	(0.017)		(0.014)		(0.013)		(0.015)		(0.010)		(0.015)		(0.010)		(0.015)		(0.010)	
SES	0.002		0.000		-0.030	†	0.026		0.019	‡	-0.047	*	0.009		-0.043	†	0.005	
	(0.013)		(0.014)		(0.015)		(0.017)		(0.011)		(0.018)		(0.010)		(0.017)		(0.007)	
SES^2	0.004		0.004		-0.003		0.008		0.005		-0.005		0.011	‡	-0.004		0.006	
	(0.005)		(0.006)		(0.006)		(0.006)		(0.005)		(0.006)		(0.006)		(0.006)		(0.005)	
Household Size	-0.007		-0.007		-0.006		-0.013	‡	-0.009	‡	-0.009		-0.004		-0.008		-0.006	‡
	(0.006)		(0.007)		(0.007)		(0.007)		(0.005)		(0.007)		(0.004)		(0.006)		(0.003)	
Fast Food Price Index	-0.037		-0.005		-0.108		-0.056		0.050		0.275	†	0.068		0.272	†	0.054	
	(0.087)		(0.101)		(0.105)		(0.057)		(0.033)		(0.133)		(0.049)		(0.119)		(0.039)	
No Mother in Household	-0.051	‡	-0.048		-0.056	‡	-0.006		-0.012		0.010		-0.030		0.007		-0.031	‡
(1 = Yes)	(0.030)		(0.031)		(0.032)		(0.045)		(0.036)		(0.042)		(0.026)		(0.041)		(0.016)	
Exercise at least 3 days/wk	-0.008		-0.007		-0.008		-0.056	*	-0.030	*	-0.058	*	-0.029	*	-0.056	*	-0.018	*
(1 = Yes)	(0.007)		(0.009)		(0.009)		(0.015)		(0.010)		(0.013)		(0.007)		(0.013)		(0.005)	
Usually Eats a School-	0.022	†	0.021	†	0.026	†	0.011		0.009		0.030	†	0.008		0.035	*	0.006	
Provided Lunch	(0.009)		(0.010)		(0.010)		(0.015)		(0.011)		(0.013)		(0.008)		(0.013)		(0.005)	
Health Insurance	0.022	†	0.021	‡	0.022	‡	0.065	†	0.008		0.049	‡	-0.009		0.048	‡	-0.007	
(1 = Yes)	(0.010)		(0.012)		(0.012)		(0.029)		(0.013)		(0.027)		(0.009)		(0.025)		(0.005)	
Number of Books	0.0001	†	0.0001	†	0.0001	†	0.0001		0.0001	†	0.0001		0.0000	†	0.0001		0.000	‡
at Home (100s)	(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)	

Notes: ‡ $p<0.10$, † $p<0.05$, and * $p<0.01$. Data from the ECLS-K. Cluster-robust standard errors in parentheses. Number of observations = 36,620 (9,155 students over four time periods). γ is the coefficient on the lagged dependent variable. SES = index of socioeconomic status. Coefficients on the time fixed effects and imputation dummies for missing covariates not shown. See text for further details.

Table F1. Empirical Monte Carlo Results.

	$\gamma = 0.4, \beta = 0.1, \mu_\alpha = 5$						$\gamma = 0.8, \beta = 0.1, \mu_\alpha = 5$					
	QD-GMM	**E-CRE**	**QD-GMM-A**	**E-CRE-A**	**QD-GMM-C**	**E-CRE-C**	**QD-GMM**	**E-CRE**	**QD-GMM-A**	**E-CRE-A**	**QD-GMM-C**	**E-CRE-C**
γ	-0.001	0.314	-0.084	-0.149	-0.084	0.564	-0.002	-0.439	-0.177	-0.307	-0.177	0.054
	(0.002)	(0.004)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)	(0.001)	(0.003)	(0.027)
β_1	0.027	0.021	0.024	0.011	0.020	-0.072	0.113	-0.190	0.056	0.080	0.035	-0.006
	(0.002)	(0.002)	(0.004)	(0.003)	(0.004)	(0.001)	(0.005)	(0.014)	(0.012)	(0.011)	(0.011)	(0.005)
β_2	0.032	0.013	0.026	0.017	0.024	-0.078	0.134	-0.105	0.075	0.051	0.063	-0.055
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.005)	(0.005)	(0.006)	(0.004)	(0.006)	(0.002)
β_3	0.025	-0.306	-0.071	-0.032	-0.095	-0.161	0.117	-0.557	-0.078	-0.271	-0.143	-0.802
	(0.028)	(0.015)	(0.028)	(0.016)	(0.028)	(0.010)	(0.077)	(0.044)	(0.073)	(0.049)	(0.075)	(0.034)
β_4	0.026	-0.002	0.008	0.009	0.001	-0.081	0.114	-0.072	0.042	0.042	0.020	-0.052
	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.000)	(0.004)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
β_5	0.021	0.283	0.062	0.037	0.067	0.006	0.100	0.573	0.115	0.279	0.125	0.629
	(0.022)	(0.013)	(0.023)	(0.014)	(0.024)	(0.011)	(0.057)	(0.037)	(0.061)	(0.041)	(0.064)	(0.030)
β_6	0.055	-0.066	0.357	0.076	0.308	-0.018	0.181	-3.913	0.459	0.557	0.348	0.696
	(0.007)	(0.007)	(0.024)	(0.016)	(0.021)	(0.009)	(0.012)	(0.028)	(0.051)	(0.031)	(0.038)	(0.061)

Notes: Numbers represent the median bias; standard deviation below in parentheses. Results obtaining using 10 simulations. Number of observations = 54,930 (9,155 students over six time periods). The coefficients, β_1-β_6, correspond to the coefficients on SES, SES squared, a dummy if SES missing, household size, a dummy if household size is missing, and fast food prices. See text for further details.

Table F2. Simulation Results With Only a Discrete Covariate.

Estimator	γ				β				β/(1-γ)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Panel I. Median Bias												
AB	-0.188	-0.189	-0.071	-0.071	0.003	-0.003	0.013	0.015	-0.035	-0.044	-0.078	-0.093
BB	-0.222	-0.222	-0.236	-0.236	0.005	-0.001	0.004	0.006	-0.038	-0.045	-0.258	-0.259
QD-GMM	-0.014	-0.014	-0.016	-0.016	-0.016	-0.018	-0.045	-0.047	-0.029	-0.030	-0.249	-0.255
QD-GMM-L	-0.012	-0.011	-0.015	-0.015	-0.014	-0.019	-0.058	-0.056	-0.026	-0.036	-0.297	-0.294
QD-GMM-A	-0.012	-0.011	-0.015	-0.015	-0.019	-0.021	-0.040	-0.042	-0.036	-0.039	-0.229	-0.229
QD-GMM-C	-0.013	-0.011	-0.014	-0.014	-0.029	-0.029	-0.057	-0.056	-0.052	-0.051	-0.291	-0.296
E-CRE	0.424	0.513	0.049	0.096	-0.015	-0.014	-0.022	-0.022	0.309	0.804	0.025	0.252
E-CRE-L	0.423	0.513	0.049	0.096	-0.083	-0.098	-0.083	-0.091	-0.074	-0.143	-0.375	-0.404
E-CRE-A	0.423	0.513	0.049	0.096	-0.050	-0.062	-0.053	-0.059	0.111	0.278	-0.184	-0.111
E-CRE-C	0.424	0.513	0.049	0.096	-0.060	-0.064	-0.064	-0.066	0.055	0.242	-0.265	-0.183
Panel II. SD												
AB	0.040	0.040	0.058	0.058	0.051	0.052	0.070	0.071	0.066	0.067	0.314	0.314
BB	0.037	0.037	0.044	0.044	0.052	0.052	0.067	0.068	0.063	0.064	0.158	0.159
QD-GMM	0.043	0.043	0.032	0.031	0.082	0.085	0.074	0.074	0.133	0.139	0.353	0.354
QD-GMM-L	0.043	0.043	0.032	0.031	0.084	0.086	0.076	0.075	0.136	0.141	0.353	0.354
QD-GMM-A	0.043	0.043	0.032	0.031	0.077	0.080	0.075	0.074	0.127	0.132	0.355	0.355
QD-GMM-C	0.043	0.043	0.032	0.031	0.069	0.072	0.055	0.056	0.113	0.119	0.262	0.264
E-CRE	0.029	0.012	0.016	0.013	0.039	0.039	0.045	0.045	0.236	0.464	0.305	0.450
E-CRE-L	0.030	0.012	0.016	0.013	0.030	0.028	0.037	0.035	0.168	0.327	0.250	0.344
E-CRE-A	0.029	0.012	0.016	0.013	0.032	0.031	0.038	0.038	0.183	0.367	0.257	0.375
E-CRE-C	0.029	0.012	0.016	0.013	0.023	0.022	0.027	0.026	0.136	0.263	0.179	0.260
Panel III. Mean SE												
AB	0.038	0.038	0.055	0.055	0.052	0.053	0.071	0.071	0.067	0.068	0.312	0.312
BB	0.036	0.036	0.043	0.043	0.052	0.052	0.065	0.066	0.063	0.065	0.154	0.155
QD-GMM	0.045	0.045	0.031	0.031	0.086	0.088	0.076	0.077	0.141	0.145	0.366	0.369
QD-GMM-L	0.045	0.045	0.031	0.031	0.087	0.090	0.073	0.074	0.142	0.147	0.341	0.347
QD-GMM-A	0.045	0.045	0.031	0.031	0.080	0.083	0.074	0.076	0.132	0.137	0.355	0.360
QD-GMM-C	0.045	0.045	0.031	0.031	0.071	0.074	0.057	0.058	0.117	0.121	0.272	0.277
E-CRE	0.034	0.017	0.025	0.019	0.058	0.059	0.072	0.073	0.350	0.720	0.497	0.730
E-CRE-L	0.034	0.017	0.025	0.019	0.031	0.028	0.037	0.035	0.176	0.327	0.252	0.344
E-CRE-A	0.034	0.017	0.025	0.019	0.034	0.031	0.041	0.039	0.197	0.372	0.281	0.390
E-CRE-C	0.034	0.017	0.025	0.019	0.025	0.023	0.029	0.028	0.146	0.279	0.200	0.279
Panel IV. Coverage Rates												
AB	0.006	0.006	0.758	0.750	0.956	0.944	0.946	0.960	0.908	0.906	0.942	0.942
BB	0.000	0.000	0.000	0.000	0.946	0.940	0.944	0.944	0.886	0.888	0.594	0.586
QD-GMM	0.956	0.956	0.916	0.922	0.960	0.954	0.922	0.930	0.950	0.952	0.906	0.910
QD-GMM-L	0.954	0.950	0.912	0.918	0.952	0.960	0.850	0.866	0.958	0.960	0.842	0.844
QD-GMM-A	0.952	0.952	0.922	0.926	0.950	0.954	0.908	0.920	0.950	0.954	0.890	0.908
QD-GMM-C	0.956	0.956	0.922	0.924	0.932	0.942	0.834	0.838	0.938	0.942	0.788	0.794
E-CRE	0.000	0.000	0.490	0.000	0.988	0.994	0.994	0.992	0.974	0.932	1.000	0.998
E-CRE-L	0.000	0.000	0.500	0.000	0.220	0.050	0.416	0.262	0.942	0.948	0.656	0.776
E-CRE-A	0.000	0.000	0.496	0.000	0.690	0.494	0.778	0.700	0.948	0.900	0.926	0.960
E-CRE-C	0.000	0.000	0.488	0.000	0.326	0.174	0.402	0.318	0.962	0.922	0.740	0.918

Notes: Results obtaining using 500 simulations with N=500 and M=6. SD = standard deviation. SE = (robust) standard error. Column 1: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$, mean Corr(X_t,X_{t-1})=0.80. Column 2: $\gamma = 0.4$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 0.5$, $\mu_\alpha = 5$, mean Corr(Xt,Xt-1)=0.80. Column 3: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 3$, $\mu_\alpha = 5$, mean Corr(Xt,Xt-1)=0.80. Column 4: $\gamma = 0.8$, $\beta = 0.1$, $\theta = 2$, $\sigma^2_s = 2$, $\mu_\alpha = 5$, mean Corr(Xt,Xt-1)=0.80.Coverage rates based on 95% confidence interval. Initial period in simulations is t=-99. Lowest median bias (in absolute value) highlighted in gray. See text for further details.