Online Appendix for: Multidimensional Skills, Sorting, and Human Capital Accumulation*

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B Online Appendix

B.1 Extension: Worker Bargaining Power

When workers have bargaining power $\beta \in [0,1]$, the dynamic equations (2) and (3) characterizing, respectively, the value of a match and the value of unemployment, must be amended as follows:

$$(r+\delta+\mu)P(\mathbf{x},\mathbf{y}) = f(\mathbf{x},\mathbf{y}) - c(\mathbf{x},\mathbf{y}) + \delta U(\mathbf{x}) + \mathbf{g}(\mathbf{x},\mathbf{y}) \cdot \nabla_{\mathbf{x}} P(\mathbf{x},\mathbf{y}) \\ + \lambda_1 \beta \mathbf{E} \max\{P(\mathbf{x},\mathbf{y}') - P(\mathbf{x},\mathbf{y}), 0\} \quad \text{(B1)}$$

and:

$$(r+\mu)U(\mathbf{x}) = b(\mathbf{x}) + \mathbf{g}(\mathbf{x},\mathbf{0}) \cdot \nabla U(\mathbf{x}) + \lambda_0 \beta \mathbf{E} \max\{P(\mathbf{x},\mathbf{y}') - U(\mathbf{x}), 0\}. \quad \text{(B2)}$$

where, in both cases, the last (expectation) term captures the expected surplus share that the worker will extract from future matches thanks to her/his bargaining power.[1] The values defined by those two equations differ from the baseline case (which coincides with $\beta = 0$) precisely because of those expectation terms. While the economic interpretation of those expectation terms is clear enough, mathematically their impact is to add a non-linear term

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[1] With $\beta > 0$, worker-firm pairs thus partly internalize the surplus supplement from the worker's future matches, as the worker now captures a share β of that extra surplus. In the limit $\beta \to 1$, the extra surplus from the worker's future matches is fully internalized by current match partners, and the private match and unemployment values (B1) and (B2) coincide with the corresponding Planner's values.

to the PDEs defining $P(\mathbf{x},\mathbf{y})$ and $U(\mathbf{x})$, which rules out any closed-form solution. Those equations must therefore be solved numerically, using the following procedure.

We choose a grid $\{\mathbf{x}_1,\cdots,\mathbf{x}_n\}\times\{\mathbf{y}_1,\cdots,\mathbf{y}_m\}$ of n worker skill and m job skill requirement vectors. For any point $(\mathbf{x}_i,\mathbf{y}_j)$ on that grid, we approximate $P(\mathbf{x}_i,\mathbf{y}_j)=\mathbf{\Pi}(\mathbf{x}_i)\cdot\boldsymbol{\phi}_P(\mathbf{y}_j)$ and $U(\mathbf{x}_i)=\mathbf{\Pi}(\mathbf{x}_i)\cdot\boldsymbol{\phi}_U$, where $\mathbf{\Pi}(\cdot)$ is a basis of complete polynomials of some chosen order, and where $\boldsymbol{\phi}_U$ and $\boldsymbol{\phi}_P(\cdot)$ are a set of $m+1$ vectors of coefficients that are computed by minimizing the distance between the left- and right-hand sides of (B1) and (B2) over the grid. Then, for a generic pair $(\mathbf{x},\mathbf{y})$ that is not on the grid, we use the approximations $U(\mathbf{x})=\mathbf{\Pi}(\mathbf{x})\cdot\boldsymbol{\phi}_U$ and $P(\mathbf{x},\mathbf{y})=\mathbf{\Pi}(\mathbf{x})\cdot\widetilde{\boldsymbol{\phi}}_P(\mathbf{y})$, where $\widetilde{\boldsymbol{\phi}}_P(\mathbf{y})$ is a linear interpolation of $\boldsymbol{\phi}_P(\widetilde{\mathbf{y}}_{j1}(\mathbf{y}))$ and $\boldsymbol{\phi}_P(\widetilde{\mathbf{y}}_{j2}(\mathbf{y}))$, $\widetilde{\mathbf{y}}_{j1}(\mathbf{y})$ and $\widetilde{\mathbf{y}}_{j2}(\mathbf{y})$ being the nearest two neighbors of $\mathbf{y}$ on the grid.

Solving for $\boldsymbol{\phi}_U$ and $\boldsymbol{\phi}_P(\cdot)$ involves repeated calculations of $\mathbf{E}\max\{P(\mathbf{x},\mathbf{y}')-P(\mathbf{x},\mathbf{y}),0\}$, a three-dimensional integral. Unfortunately, the computational cost of that simulation step quickly becomes prohibitive as one increases the order of the polynomial basis $\mathbf{\Pi}(\cdot)$ or the size (n,m) of the grid of points upon which the approximation is based. This forces us to limit ourselves to a very sparse grid (in practice, we choose $n=10$ and $m=6$) and a low approximation order (in practice: 3), resulting in a very coarse approximation of our two value functions.[2] The results reported in this section should therefore be taken with the appropriate amount of caution. Yet we think it useful to provide an indication of what is likely to change and what isn't, compared to the baseline case $\beta=0$, when workers are endowed with positive bargaining power. To that end, we re-estimate our model under the assumption that $\beta=0.5$, using the approximation procedure just described.

Estimated parameters under the assumption $\beta=0.5$ are reported in Table B.1, alongside our baseline estimates, copied from Table 4 for comparison. Point estimates of the flow surplus parameters (the α's and the κ's) tend to be slightly smaller with $\beta=0.5$ than in the baseline case $\beta=0$. Smaller values of the α parameters can be explained by the fact that those parameters are mainly identified off of the levels of wages (see Sub-section IV.C and Appendix A.A5).[3] With positive bargaining power, workers appropriate an extra share of match productivity, which therefore needs to be estimated lower than in the $\beta=0$

[2]Even with those coarse approximation settings, a single evaluation of the $\beta>0$ version of the model takes about three times as long as a single evaluation of the baseline ($\beta=0$) model, which involves no approximation. Moreover, estimation of the $\beta>0$ model takes substantially more iterations to converge than estimation of the baseline model does. Although we cannot prove it, we suspect this is due to the extra noise caused by approximation error in the $\beta>0$ case.

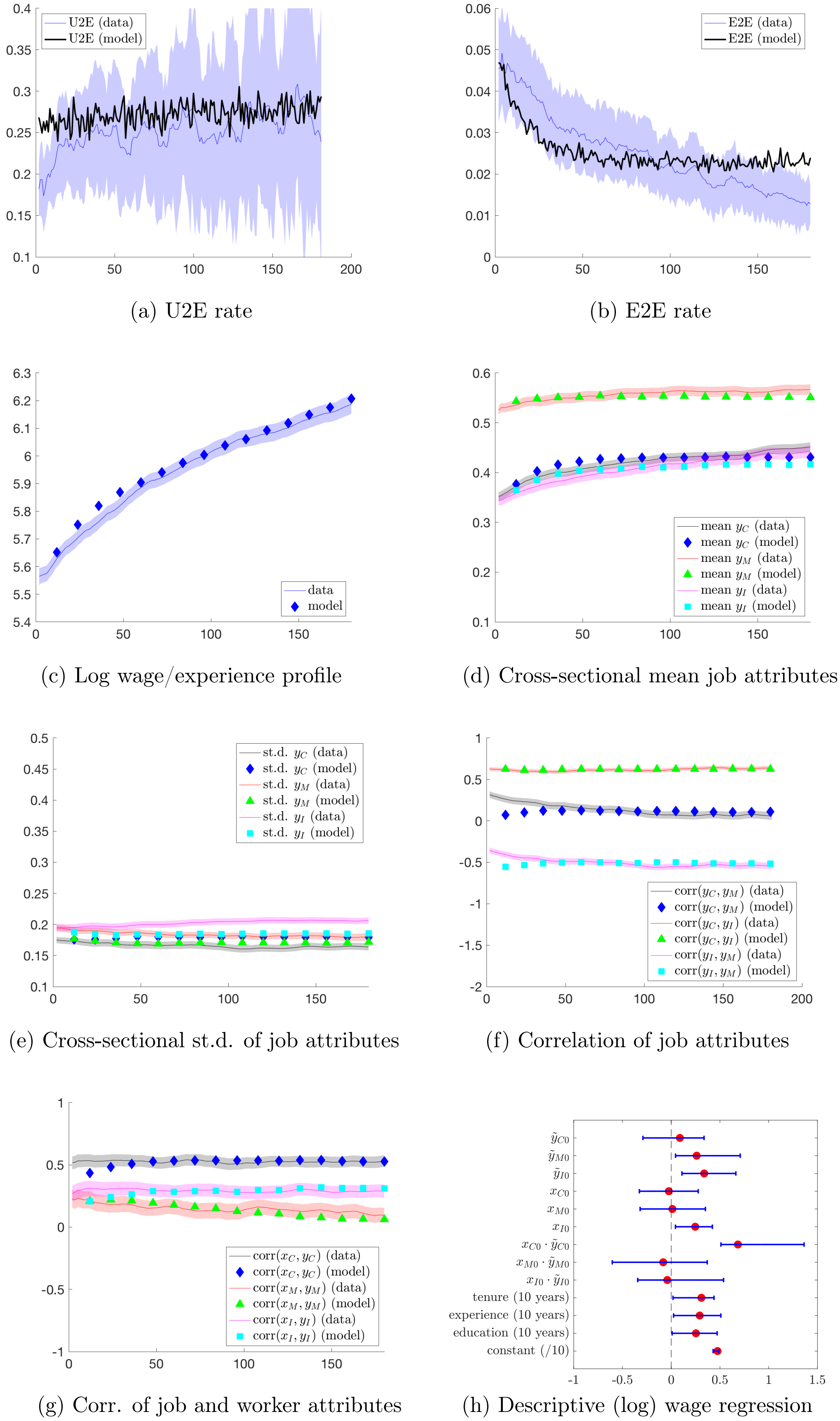
[3]In this version of the model, the wage equation is obtained, as before, by applying the rule $W(\mathbf{x},\mathbf{y},\sigma)=(1-\sigma)U(\mathbf{x})+\sigma P(\mathbf{x},\mathbf{y})$, with the worker's value function now solving: $(r+\delta+\mu)W(\mathbf{x},\mathbf{y},\sigma)=w(\mathbf{x},\mathbf{y},\sigma)-c(\mathbf{x},\mathbf{y})+\delta U(\mathbf{x})+\mathbf{g}(\mathbf{x},\mathbf{y})\cdot\nabla_{\mathbf{x}}W(\mathbf{x},\mathbf{y},\sigma)+\lambda_1\mathbf{E}\max\{0,\beta\max\{P(\mathbf{x},\mathbf{y}),P(\mathbf{x},\mathbf{y}')\}+(1-\beta)\min\{P(\mathbf{x},\mathbf{y}),P(\mathbf{x},\mathbf{y}')\}-W(\mathbf{x},\mathbf{y},\sigma)\}$.

Table B.1: Parameter estimates (with worker bargaining power)

	production function										disutility of work			un. inc.
	α_T	α_C	α_M	α_I	α_{CC}	α_{MM}	α_{II}	κ_C^u	κ_M^u	κ_I^u	κ_C^o	κ_M^o	κ_I^o	b
$\boldsymbol{\beta}$= 0	137.5	140.3	64.4	92.4	195.6	10.7	15.4	5,165.3	984.5	337.6	54.1	409.6	171.9	137.5
$\boldsymbol{\beta}$= 0.5	122.3	116.2	60.7	91.4	280.7	9.7	14.5	3,901.4	641.3	304.5	53.2	376.1	142.5	122.4

	skill accumulation function							general efficiency			
	γ_C^u	γ_C^o	γ_M^u	γ_M^o	γ_I^u	γ_I^o	g	ζ_S	ζ_C	ζ_M	ζ_I
$\boldsymbol{\beta}$= 0	7.7e − 3	2.1e − 3	3.4e − 2	7.7e − 3	1.0e − 3	5.8e − 7	2.3e − 3	2.4e − 2	0.18	−0.17	0.20
$\boldsymbol{\beta}$= 0.5	7.9e − 3	2.1e − 3	3.9e − 2	8.1e − 3	1.1e − 3	6.1e − 7	2.4e − 3	2.4e − 2	−0.16	−0.22	0.20

	sampling distribution												trans. rates	
	ξ_C	ξ_M	ξ_I	ρ_{CM}	ρ_{CI}	ρ_{IM}	η_C^1	η_C^2	η_M^1	η_M^2	η_I^1	η_I^2	λ_0	λ_1
$\boldsymbol{\beta}$= 0	1.21	0.79	0.88	0.14	0.73	−0.44	1.22	2.86	2.15	2.76	0.93	2.96	0.39	0.16
$\boldsymbol{\beta}$= 0.5	1.08	0.76	0.82	0.12	0.72	−0.47	1.23	3.07	2.12	2.90	0.92	3.11	0.41	0.17



(a) U2E rate

(b) E2E rate

(c) Log wage/experience profile

(d) Cross-sectional mean job attributes

(e) Cross-sectional st.d. of job attributes

(f) Correlation of job attributes

(g) Corr. of job and worker attributes

(h) Descriptive (log) wage regression

Figure B.1: Model fit (with worker bargaining power) case in order to match the wages observed in the data. Those lower estimated α's have a knock-on effect on the estimated cost of mismatch (the κ's): the cost of mismatch must stay commensurate with the returns on job attributes to rationalize observed mobility patterns.

Having said that, those differences are statistically small: point estimate differences between the two models are generally well within two standard deviations of our baseline estimates (see Table 4). Moreover, the relative values of the various parameters are very close between the $\beta = 0.5$ and $\beta = 0$ cases. As a result, none of the implications discussed above in the context of our baseline $\beta = 0$ case are substantially changed.

Figure B.1 echoes Figure 2 and shows the main aspect of the model's fit in the $\beta = 0.5$ case. A visual comparison of Figures B.1 and 2 suggests that the fit of the $\beta = 0.5$ model is very similar to that of the baseline $\beta = 0$ model, with two main differences. First, the model with bargaining power tends better to capture the wage/experience profile, in particular at low levels of experience (Figure B.1c). As discussed before, this was expected, as positive bargaining power mitigates the tendency of unemployed workers to exit unemployment on very low entry wages by bringing wages closer to match productivity. Second, the model with bargaining power no longer overstates the estimated returns to tenure to the extent that the baseline model did (Figure B.1h). This is again a consequence of bargaining power shifting weight away from workers' outside options and towards match productivity in the wage bargain, which affects entry wages (for which workers' outside option is low) proportionately more than the wages of longer-tenure workers (whose outside option is on average higher, closer to match productivity).

B.2 Sensitivity of Parameter Estimates to Data Moments

In Table B.2 we present a measure of the local sensitivity of the parameter estimates to the data moments (see Andrews, Gentzkow, and Shapiro, 2017). Specifically, we calculate and report the matrix Λ, defined as follows. Let Θ denote the parameter vector and $\mathbf{m}(\Theta)$ denote the vector of model-based moments we are matching. Next, let $G = \mathbb{E}\left[\partial \mathbf{m}/\partial \Theta^\top\right]$ denote the (expectation of the) Jacobian matrix of the moment function $\mathbf{m}(\Theta)$. Let Ω denote the covariance matrix of the data moments. Define $\tilde{\Lambda} = \left(G^\top G\right)^{-1} G^\top$. The Λ matrix is then the matrix whose ij-th element is given by $\Lambda_{ij} = \sqrt{\Omega_{jj}} \times \tilde{\Lambda}_{ij}$. The ij-th element of Λ can be interpreted as the local approximation to the effect of a one standard deviation change in moment j on parameter θ_i.

For the sake of brevity we omit from the table the five rows for the parameters $[\zeta_S, \zeta_C, \zeta_M, \zeta_I, \alpha_T]$ and the five columns for the moments corresponding to the wage regression coefficients on [years of education, x_{C0}, x_{M0}, x_{I0}, constant] since there is a one-to-one mapping between these parameters and moments.

B.3 Comparing the unconditional and the conditional variance decompositions (Table 5)

Conditioning on broad levels of education reduces the share of variance explained by initial skill bundles, as those are correlated with education. The basic reason is that education explains a fair share of the variance in $\mathbf{x}_0$, and a smaller share of the overall variance in $\ln Q$. Therefore, once one conditions on education, the residual variation in $\mathbf{x}_0$ explains a smaller share of the (conditional) variance of $\ln Q$.

This can be expressed formally, taking up the notation from Section 7 in the paper (and dropping indices to de-clutter the notation):

$$\frac{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0)\right]}{\mathbf{Var}\ln Q} > \frac{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\}}{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}\left[\ln Q \mid \mathrm{ed}\right]\right\}}$$

where our results in Section 7 say that the l.h.s. is about 0.65 while the r.h.s. is slightly below 0.3. Now, the l.h.s. can be further decomposed as:

$$\frac{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0)\right]}{\mathbf{Var}\ln Q} = \frac{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\} + \mathbf{Var}_{\mathrm{ed}}\left\{\mathbf{E}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\}}{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}\left[\ln Q \mid \mathrm{ed}\right]\right\} + \mathbf{Var}_{\mathrm{ed}}\left\{\mathbf{E}\left[\ln Q \mid \mathrm{ed}\right]\right\}} \tag{B3}$$

Applying our estimates to those decompositions of the numerator and denominator of the fraction above, we find that:

$$\begin{aligned} \mathbf{Var}_{\mathrm{ed}}\left\{\mathbf{E}\left[\ln Q \mid \mathrm{ed}\right]\right\} &\simeq 0.507 \times \mathbf{Var}\ln Q \\ \mathbf{Var}_{\mathrm{ed}}\left\{\mathbf{E}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\} &\simeq 0.779 \times \mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0)\right] \end{aligned} \tag{B4}$$

i.e. education explains much more of the variance of $\ln Q$ conditional on $\mathbf{x}_0$ than in the whole sample. Substitution of (B4) into (B3) implies:

$$\begin{aligned} \frac{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0)\right]}{\mathbf{Var}\ln Q} &\simeq \frac{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\} \times \left(1 + \frac{0.779}{1-0.779}\right)}{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}\left[\ln Q \mid \mathrm{ed}\right]\right\} \times \left(1 + \frac{0.507}{1-0.507}\right)} \\ &\simeq \frac{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}_{\mathbf{x}_0}\left[\mathbf{E}(\ln Q \mid \mathbf{x}_0) \mid \mathrm{ed}\right]\right\}}{\mathbf{E}_{\mathrm{ed}}\left\{\mathbf{Var}\left[\ln Q \mid \mathrm{ed}\right]\right\}} \times 2.23 \end{aligned}$$

which is roughly the ratio found in Table 5.

Table B.2: Sensitivity of parameters to moments

		$U2E$	$E2E_1$	$E2E_2$	$E2E_3$	$E2E_4$	$E2E_5$	$E2E_6$	y_{C1}
γ_C^u	***	-0.017	0.021	0.016	-0.004	0.003	0.000	0.001	0.008
γ_M^u	***	0.121	0.206	-0.084	0.200	0.146	0.115	-0.088	-0.145
γ_I^u	***	0.235	-0.017	0.033	0.026	-0.012	0.016	0.039	0.066
γ_C^o	***	-0.001	0.023	-0.013	0.013	0.008	0.004	-0.009	-0.014
γ_M^o	***	-0.017	0.008	0.018	0.005	0.012	0.002	0.015	-0.005
γ_I^o	***	-0.147	-0.052	-0.020	-0.017	-0.023	-0.003	-0.028	-0.020
κ_C^u		19.138	-27.787	12.328	-19.626	-13.829	-5.146	10.775	25.275
κ_M^u		5.454	-8.827	4.687	-2.673	-2.400	-0.139	1.439	4.400
κ_I^u		4.227	-0.013	-2.701	3.440	0.615	2.423	-1.090	-0.981
κ_C^o		0.230	0.024	0.076	-0.126	-0.029	-0.098	0.072	0.104
κ_M^o		2.130	-2.625	1.474	-0.753	-0.867	-0.200	1.266	1.888
κ_I^o		0.639	-0.748	0.145	-0.435	-0.429	0.013	0.377	0.531
ξ_C	**	-0.001	0.001	0.056	0.068	-0.026	0.008	0.044	0.376
ξ_M	**	-0.207	-0.320	0.013	-0.118	-0.145	-0.073	-0.057	0.039
ξ_I	**	0.104	0.127	0.206	-0.157	0.009	-0.068	0.080	0.166
α_C		0.925	-0.601	-0.031	-0.085	-0.098	0.066	0.335	0.137
α_M		0.035	-0.527	0.239	-0.390	-0.270	-0.174	0.124	0.295
α_I		0.577	-0.389	0.037	-0.017	-0.212	0.029	0.107	0.363
α_{CC}		0.933	-0.822	-0.203	0.004	-0.527	0.110	0.200	0.909
α_{MM}		0.049	-0.089	0.016	-0.043	-0.059	0.000	0.049	0.102
α_{II}		0.182	0.088	-0.130	0.066	-0.017	0.040	-0.034	0.040
b		0.457	-0.673	0.239	-0.262	-0.307	-0.030	0.330	0.505
g	***	-0.018	-0.027	0.021	-0.015	-0.012	-0.012	-0.002	0.010
η_C^1	**	-0.054	0.051	0.120	-0.081	-0.073	-0.115	-0.013	0.098
η_M^1	**	0.366	-0.863	0.310	-0.368	-0.306	-0.324	0.054	0.410
η_I^1	**	-0.247	-0.103	0.054	-0.321	-0.094	-0.131	0.097	0.208
η_C^2	**	0.287	0.371	0.012	-0.116	0.077	-0.121	-0.096	-0.164
η_M^2	**	0.333	-0.025	0.467	-0.345	0.140	-0.241	0.306	0.313
η_I^2	**	0.291	-0.333	-0.781	0.204	-0.112	0.110	0.002	-0.098
ρ_{CM}	**	-0.076	-0.040	0.019	-0.041	0.003	-0.002	0.017	0.000
ρ_{CI}	**	0.088	0.023	0.002	0.014	0.003	0.004	0.004	0.015
ρ_{MI}	**	0.052	-0.015	0.013	-0.024	0.000	0.002	0.012	0.023
λ_0	***	-0.607	0.507	-0.047	0.453	0.341	0.254	0.145	-0.368
λ_1	***	-0.015	0.009	0.032	-0.003	0.002	-0.011	0.009	0.003

		y_{C2}	y_{C3}	y_{C4}	y_{C5}	y_{C6}	y_{M1}	y_{M2}	y_{M3}	…
γ_C^u	***	-0.013	0.001	-0.002	0.010	0.003	-0.039	-0.001	0.011	
γ_M^u	***	-0.021	-0.084	-0.055	0.038	0.274	-0.083	-0.061	0.158	
γ_I^u	***	-0.014	0.029	0.059	-0.042	-0.100	-0.041	0.002	-0.079	
γ_C^o	***	0.005	0.002	-0.006	0.000	0.015	-0.015	-0.019	0.017	
γ_M^o	***	-0.012	0.010	0.017	0.002	-0.011	-0.026	0.024	0.012	
γ_I^o	***	-0.022	-0.009	-0.009	0.012	0.038	0.057	0.046	-0.002	
κ_C^u		-5.414	0.325	10.731	-1.540	-26.724	25.866	29.468	-22.689	
κ_M^u		-0.997	-1.417	3.227	-0.434	-5.457	8.745	9.970	-3.805	
κ_I^u		-0.883	-0.795	0.947	-0.762	2.394	2.738	0.955	-0.973	
κ_C^o		0.131	0.167	0.111	-0.067	-0.447	-0.032	0.168	0.032	
κ_M^o		-0.716	0.246	1.692	-0.470	-2.710	2.096	3.595	-2.134	
κ_I^o		-0.122	0.289	0.692	-0.348	-1.100	0.807	1.028	-0.698	
ξ_C	**	0.159	0.251	0.299	0.307	0.283	-0.108	-0.029	-0.067	
ξ_M	**	-0.026	-0.053	-0.013	0.005	0.007	0.424	0.297	0.065	
ξ_I	**	0.069	0.115	-0.021	-0.049	-0.254	-0.259	0.016	-0.011	
α_C		0.070	-0.001	0.527	-0.199	-0.511	0.910	0.564	-0.513	
α_M		-0.005	0.114	0.205	-0.041	-0.572	0.347	0.499	-0.171	
α_I		-0.152	0.060	0.297	-0.140	-0.479	0.459	0.523	-0.340	
α_{CC}		-0.524	-0.309	0.183	-0.054	-0.214	1.128	0.557	-1.039	
α_{MM}		-0.033	0.004	0.043	-0.029	-0.110	0.109	0.103	-0.102	
α_{II}		0.005	0.001	-0.001	-0.027	-0.035	0.070	-0.037	0.033	
b		-0.169	0.064	0.445	-0.187	-0.709	0.569	0.699	-0.671	
g	***	-0.001	-0.003	-0.003	0.003	-0.005	0.002	0.004	-0.012	
η_C^1	**	-0.004	-0.047	-0.140	0.119	0.087	-0.153	-0.223	0.077	
η_M^1	**	0.091	-0.021	0.090	-0.052	-0.615	0.534	0.752	-0.498	
η_I^1	**	0.104	0.173	0.015	-0.123	-0.430	0.065	0.205	-0.077	
η_C^2	**	0.306	-0.017	-0.253	0.112	0.209	-0.217	-0.497	0.403	
η_M^2	**	0.208	0.235	0.109	0.005	-0.814	-0.026	0.982	0.084	
η_I^2	**	0.049	0.019	0.264	-0.257	-0.206	0.891	0.151	-0.166	
ρ_{CM}	**	-0.004	0.010	0.005	-0.004	-0.008	0.032	0.076	-0.004	
ρ_{CI}	**	-0.004	-0.002	0.006	0.003	-0.008	-0.018	-0.018	-0.001	
ρ_{MI}	**	-0.005	0.008	0.012	-0.006	-0.032	0.016	0.060	-0.016	
λ_0	***	-0.036	0.058	0.166	-0.104	0.237	-0.568	-0.364	0.302	
λ_1	***	-0.017	-0.007	0.024	0.019	-0.017	-0.042	-0.024	0.019	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	y_{M4}	y_{M5}	y_{M6}	y_{I1}	y_{I2}	y_{I3}	y_{I4}	y_{I5}	y_{I6}	$\mathrm{corr}_1(y_C, y_M)$	$\mathrm{corr}_2(y_C, y_M)$	$\mathrm{corr}_3(y_C, y_M)$	$\mathrm{corr}_4(y_C, y_M)$	...
γ_C^u	***		-0.007	0.023	0.008	0.027	-0.040	-0.010	0.014	0.002	-0.001	0.033	-0.005	-0.011	0.269	
γ_M^u	***		-0.056	-0.018	-0.061	-0.008	0.031	-0.165	-0.063	-0.109	0.250	-1.144	1.585	-0.772	-0.599	
γ_I^u	***		0.090	0.004	0.030	0.102	0.069	0.109	-0.050	-0.059	-0.164	-0.172	-0.664	-0.240	-0.602	
γ_C^o	***		-0.008	0.011	0.007	0.005	0.014	-0.014	0.004	-0.011	0.002	0.044	-0.004	0.067	0.010	
γ_M^o	***		0.037	0.004	-0.029	0.021	-0.036	0.003	-0.014	0.011	0.008	-0.212	-0.094	0.066	-0.070	
γ_I^o	***		-0.032	-0.050	-0.061	-0.085	-0.061	0.004	0.012	0.047	0.097	0.332	-0.076	0.187	0.171	
κ_C^u			4.922	-11.581	-9.329	-0.872	-14.045	20.010	-1.737	14.198	-12.263	-71.440	2.606	-185.169	64.331	
κ_M^u			4.820	-6.664	-6.369	-2.353	-2.127	3.987	-5.177	4.400	1.497	-51.638	33.382	-55.538	-22.411	
κ_I^u			1.029	-3.780	-3.102	-2.496	1.769	1.527	-2.397	-0.337	3.033	-15.434	8.441	-3.368	-46.160	
κ_C^o			0.338	0.096	0.008	0.251	0.121	0.155	-0.105	0.072	-0.446	0.021	-0.711	1.736	-0.107	
κ_M^o			2.523	-1.582	-1.879	0.134	-1.539	2.533	-1.445	1.622	-0.755	-9.238	-4.931	-15.482	-12.182	
κ_I^o			0.445	-0.483	-0.527	0.006	-0.094	1.006	-0.224	0.399	-0.610	-4.386	-4.059	0.127	1.212	
ξ_C	**		0.010	-0.014	0.063	0.064	-0.144	0.046	0.033	0.011	-0.020	0.269	-0.297	-1.208	0.390	
ξ_M	**		0.125	0.090	0.144	-0.213	-0.012	0.071	0.022	0.085	0.103	1.537	-1.494	-0.327	0.335	
ξ_I	**		0.046	0.322	0.247	0.637	0.166	0.301	0.323	0.188	-0.141	0.164	-0.381	-0.457	1.571	
α_C			0.449	-0.543	-0.457	-0.370	0.378	0.539	-0.335	0.236	-0.153	-5.571	-0.302	-3.111	-4.159	
α_M			0.264	-0.176	-0.320	0.036	-0.105	0.285	-0.117	0.256	-0.236	-0.319	-1.188	-0.140	0.854	
α_I			0.340	-0.383	-0.358	0.002	-0.075	0.486	-0.248	0.230	-0.178	-0.991	0.186	-2.727	-1.283	
α_{CC}			-0.301	-1.002	-0.097	-0.487	-0.336	0.669	0.006	0.298	0.068	-1.086	1.168	-12.549	-1.946	
α_{MM}			0.025	-0.067	-0.025	-0.015	-0.049	0.098	-0.010	0.060	-0.051	-0.565	-0.101	-0.464	0.073	
α_{II}			-0.039	-0.064	0.028	0.012	0.127	0.002	0.000	-0.027	-0.072	-0.650	0.754	-0.430	0.014	
b			0.373	-0.394	-0.260	-0.049	-0.242	0.703	-0.184	0.347	-0.338	-2.744	-1.549	-3.647	-0.240	
g	***		-0.002	0.003	0.005	-0.003	-0.010	0.004	0.001	0.006	-0.002	0.199	-0.081	-0.053	0.080	
η_C^1	**		-0.224	0.125	0.273	0.073	-0.076	-0.172	0.142	-0.018	-0.042	1.128	-0.392	-0.012	2.532	
η_M^1	**		0.545	-0.205	-0.255	-0.061	0.020	0.473	-0.339	0.290	-0.288	3.669	-3.843	-0.926	-2.165	
η_I^1	**		-0.029	0.213	0.043	0.221	-0.042	0.108	0.131	0.051	-0.389	0.371	-0.182	0.472	3.642	
η_C^2	**		-0.287	0.319	0.401	0.147	0.411	-0.469	0.080	-0.200	-0.139	-0.601	0.063	3.199	1.625	
η_M^2	**		0.940	0.283	-0.343	0.629	-0.398	0.171	-0.376	0.283	-0.425	-0.982	2.156	1.716	-1.770	
η_I^2	**		0.057	-0.654	-0.601	-0.563	0.800	0.234	-0.153	0.087	0.097	-2.137	0.732	2.714	-0.350	
ρ_{CM}	**		0.006	-0.002	-0.077	-0.009	-0.059	0.003	-0.005	0.026	0.052	-0.378	-0.104	0.112	0.014	
ρ_{CI}	**		0.015	0.004	0.020	0.030	0.022	0.006	-0.007	-0.017	-0.033	-0.068	0.050	-0.165	-0.204	
ρ_{MI}	**		0.027	-0.002	-0.041	0.026	-0.020	0.021	-0.017	0.005	-0.011	-0.155	0.146	0.113	-0.067	
λ_0	***		0.173	0.264	-0.058	0.196	-0.026	-0.268	0.026	-0.181	0.216	-5.066	2.152	1.600	-0.856	
λ_1	***		0.018	0.015	0.014	0.025	-0.028	-0.028	0.015	0.032	-0.021	-0.167	0.029	-0.266	0.203	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	$\text{corr}_5(y_C, y_M)$	$\text{corr}_6(y_C, y_M)$	$\text{corr}_1(y_C, y_I)$	$\text{corr}_2(y_C, y_I)$	$\text{corr}_3(y_C, y_I)$	$\text{corr}_4(y_C, y_I)$	$\text{corr}_5(y_C, y_I)$	$\text{corr}_6(y_C, y_I)$	$\text{corr}_1(y_M, y_I)$	...
γ_C^u	***		-0.122	0.067	0.035	0.071	0.016	-0.174	0.005	0.093	0.054	
γ_M^u	***		-0.373	1.003	1.278	0.065	0.028	-0.124	0.548	-0.325	-0.419	
γ_I^u	***		-0.148	-0.567	-0.463	-0.106	0.039	0.092	0.256	0.244	-0.169	
γ_C^o	***		0.009	0.039	0.020	0.012	-0.055	-0.008	0.004	0.088	-0.004	
γ_M^o	***		-0.119	-0.010	0.064	0.078	0.016	-0.020	-0.032	-0.051	0.061	
γ_I^o	***		0.138	0.330	0.162	0.016	-0.244	-0.031	-0.097	-0.194	0.387	
κ_C^u			-12.538	-66.797	-48.565	4.002	29.870	-41.995	1.328	-55.169	-44.500	
κ_M^u			-22.174	-25.587	9.309	-14.790	15.415	15.545	13.193	-29.270	-12.871	
κ_I^u			16.867	3.233	1.308	-1.150	-10.104	13.003	7.964	-7.932	-17.342	
κ_C^o			0.177	0.557	-0.701	-0.433	-0.373	0.203	0.326	0.778	0.215	
κ_M^o			2.183	-7.926	-6.644	1.621	5.251	3.838	-2.341	-9.208	-4.453	
κ_I^o			1.420	-3.913	-2.963	0.298	-0.354	0.820	-0.093	-0.463	-1.923	
ξ_C	**		0.214	-0.299	-0.131	0.402	0.712	-0.196	-0.174	-0.228	0.150	
ξ_M	**		-0.397	-0.747	-0.383	-0.398	-0.047	0.034	-0.019	0.080	0.795	
ξ_I	**		-0.602	-0.131	-0.530	0.151	0.203	-0.732	-0.167	0.755	0.021	
α_C			2.344	-4.056	-2.122	-1.032	1.887	2.216	-0.450	-1.897	-3.685	
α_M			-2.475	-0.997	-0.560	-0.262	-0.356	-0.037	0.729	0.020	0.826	
α_I			1.547	-0.156	-1.531	0.219	-0.157	0.368	0.840	-0.883	-1.667	
α_{CC}			3.669	-1.560	-0.861	2.555	2.273	-0.092	-0.037	-4.979	-2.727	
α_{MM}			0.380	-0.097	-0.313	0.095	0.088	0.064	-0.122	-0.389	-0.483	
α_{II}			0.396	0.698	0.234	0.147	-0.338	0.075	0.430	0.029	-0.618	
b			1.013	-3.120	-2.427	0.009	1.739	0.572	-0.419	-1.826	-1.590	
g	***		-0.118	-0.161	-0.065	-0.043	0.051	-0.006	-0.026	0.027	0.094	
η_C^1	**		-0.895	-0.703	-0.555	0.770	0.478	-0.801	-0.595	0.109	-0.778	
η_M^1	**		-1.749	0.623	-1.570	-1.449	0.771	0.570	0.658	-0.441	1.435	
η_I^1	**		-0.822	-0.351	-0.174	-0.113	-0.492	-0.817	0.083	1.008	0.737	
η_C^2	**		-1.973	-1.187	-0.784	0.423	-0.726	-0.660	-0.392	1.073	-2.724	
η_M^2	**		-2.213	4.772	1.170	0.148	0.264	-0.150	0.243	-1.454	0.645	
η_I^2	**		1.236	-1.373	0.025	-0.933	-1.417	1.469	2.034	0.545	-1.972	
ρ_{CM}	**		-0.396	-0.005	0.157	0.084	-0.187	-0.081	-0.028	-0.124	-0.023	
ρ_{CI}	**		-0.035	-0.008	-0.166	-0.101	-0.090	-0.186	-0.020	-0.054	-0.152	
ρ_{MI}	**		-0.095	0.145	0.031	0.067	-0.102	-0.122	0.111	-0.026	-0.427	
λ_0	***		0.954	-0.270	0.298	-1.052	1.129	0.931	-0.980	0.086	-1.613	
λ_1	***		0.234	-0.486	0.001	-0.060	0.169	-0.185	-0.127	0.245	0.151	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	$\text{corr}_2(y_M, y_I)$	$\text{corr}_3(y_M, y_I)$	$\text{corr}_4(y_M, y_I)$	$\text{corr}_5(y_M, y_I)$	$\text{corr}_6(y_M, y_I)$	$\text{corr}_1(y_C, x_C)$	$\text{corr}_2(y_C, x_C)$	$\text{corr}_3(y_C, x_C)$	$\text{corr}_4(y_C, x_C)$	...
γ_C^u	***		0.026	-0.001	0.009	-0.116	0.121	-0.276	-0.049	0.001	0.260	
γ_M^u	***		-0.319	-0.240	0.097	-0.539	0.188	-1.305	1.794	2.664	2.638	
γ_I^u	***		0.185	0.061	-0.137	0.300	-0.267	-0.425	-1.146	-0.942	-1.113	
γ_C^o	***		-0.001	-0.097	-0.068	-0.071	0.133	0.002	0.130	0.119	0.136	
γ_M^o	***		0.103	-0.094	-0.045	-0.141	-0.035	-0.164	-0.314	-0.268	-0.049	
γ_I^o	***		-0.164	-0.108	0.166	-0.128	-0.154	-0.063	0.339	0.100	0.470	
κ_C^u			15.933	60.219	149.080	70.769	-148.034	-64.616	-203.664	34.137	-1.100	
κ_M^u			-19.832	10.313	63.632	11.125	-82.512	-31.039	-56.630	48.199	46.060	
κ_I^u			19.458	-2.498	-1.928	2.762	-13.261	-16.094	9.408	19.593	20.369	
κ_C^o			-0.304	-1.337	-0.616	0.867	-0.044	-0.046	-2.213	-1.039	-0.537	
κ_M^o			7.754	4.815	11.901	-0.102	-21.700	-8.933	-29.042	3.186	0.273	
κ_I^o			1.083	0.312	5.318	0.527	-4.938	0.814	-8.780	-3.890	0.391	
ξ_C	**		0.853	0.687	0.035	-0.580	-0.617	-0.770	-0.829	-0.843	-0.633	
ξ_M	**		-1.733	0.977	0.461	-0.069	-0.862	0.236	0.017	0.840	0.066	
ξ_I	**		-0.552	-0.905	0.286	0.465	0.991	1.309	-1.915	-1.201	-0.524	
α_C			1.729	1.664	1.681	1.214	-4.234	0.804	-2.786	2.902	-2.178	
α_M			-1.378	-0.382	2.083	0.712	-2.582	-1.023	-4.590	-1.485	-0.449	
α_I			2.324	-0.540	2.289	1.490	-3.650	-1.968	-4.285	0.369	1.822	
α_{CC}			5.773	4.614	3.703	0.628	-7.980	0.007	-1.912	4.242	0.611	
α_{MM}			0.562	0.366	0.662	0.211	-0.501	0.261	-0.788	-0.026	-0.067	
α_{II}			0.761	-0.594	0.161	0.079	-0.055	0.013	0.531	1.018	1.162	
b			1.812	1.944	3.161	0.457	-4.781	1.217	-5.998	-1.257	-0.755	
g	***		-0.158	0.100	0.079	-0.035	-0.122	0.006	-0.128	-0.008	-0.051	
η_C^1	**		-0.006	1.393	0.975	-0.755	-0.383	-0.588	0.615	0.413	0.212	
η_M^1	**		-5.024	3.476	0.918	1.035	-3.205	-2.468	-4.191	5.796	-0.708	
η_I^1	**		-1.621	-1.142	0.891	0.609	1.127	4.338	-2.749	-1.743	-1.278	
η_C^2	**		-0.691	0.780	0.483	0.123	1.806	1.133	3.395	2.972	2.300	
η_M^2	**		-1.160	-0.784	0.033	0.625	-0.469	-2.687	-6.162	2.350	-0.847	
η_I^2	**		0.494	1.017	-0.565	0.370	-1.039	3.949	-0.245	0.808	-1.880	
ρ_{CM}	**		-0.224	-0.071	0.241	-0.016	0.108	0.244	-0.392	-0.145	-0.045	
ρ_{CI}	**		0.172	0.016	-0.203	0.046	-0.028	-0.403	-0.044	0.103	-0.054	
ρ_{MI}	**		-0.240	-0.208	-0.165	-0.139	-0.332	-0.248	-0.414	-0.059	-0.068	
λ_0	***		2.373	-0.602	-1.417	-1.985	3.592	3.488	-1.385	-3.413	-1.668	
λ_1	***		0.169	0.046	-0.174	-0.106	0.067	-0.297	-0.415	0.033	0.444	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	$\text{corr}_5(y_C, x_C)$	$\text{corr}_6(y_C, x_C)$	$\text{corr}_1(y_M, x_M)$	$\text{corr}_2(y_M, x_M)$	$\text{corr}_3(y_M, x_M)$	$\text{corr}_4(y_M, x_M)$	$\text{corr}_5(y_M, x_M)$	$\text{corr}_6(y_M, x_M)$	$\text{corr}_1(y_I, x_I)$	...
γ_C^u	***		0.014	0.039	-0.200	0.128	-0.048	-0.365	-0.274	0.134	0.107	
γ_M^u	***		-1.025	-1.572	-0.643	7.594	-2.091	2.588	-0.731	1.158	0.695	
γ_I^u	***		0.122	-0.104	-0.392	0.999	1.079	-0.961	0.678	0.106	-0.334	
γ_C^o	***		-0.136	-0.025	-0.137	0.073	0.006	-0.008	0.070	-0.177	0.072	
γ_M^o	***		0.298	-0.029	0.135	0.201	0.224	0.048	0.057	0.052	0.339	
γ_I^o	***		0.257	-0.020	-0.039	-0.490	-0.100	0.158	-0.456	-0.030	0.118	
κ_C^u			98.356	-96.800	296.853	12.780	-73.988	-121.765	-63.652	84.404	-149.724	
κ_M^u			48.435	-35.187	43.499	138.408	-49.088	50.370	5.455	28.385	-47.247	
κ_I^u			10.390	-15.874	-0.052	48.318	13.807	-21.520	1.557	3.153	16.039	
κ_C^o			2.547	2.070	-1.739	-3.980	1.591	-0.516	1.879	-2.444	-1.331	
κ_M^o			23.561	-9.876	21.486	13.048	4.708	-12.011	9.672	-2.122	-4.085	
κ_I^o			8.651	-4.571	10.010	3.727	-2.885	-3.988	3.658	-1.706	-9.986	
ξ_C	**		-0.048	0.458	-2.605	1.335	0.970	-1.123	0.000	0.237	0.082	
ξ_M	**		-0.494	-0.556	-0.253	-1.343	0.073	-0.313	0.155	1.014	-0.645	
ξ_I	**		0.222	1.025	1.389	1.202	-0.833	-0.693	-0.294	-0.509	-1.343	
α_C			5.081	-4.512	13.214	-0.633	1.363	-1.053	3.829	-0.050	-4.607	
α_M			2.264	-0.165	2.481	-1.947	-0.120	0.380	2.427	1.296	-2.661	
α_I			3.728	0.191	2.126	3.191	-0.583	-5.183	3.269	-0.205	0.037	
α_{CC}			-0.240	-1.776	1.444	12.025	-1.153	0.388	-3.233	2.544	-5.926	
α_{MM}			0.750	0.148	0.324	-0.094	0.505	-1.005	-0.290	-0.486	-0.526	
α_{II}			-0.276	0.607	-1.976	1.444	0.563	0.576	-0.020	-1.340	-1.345	
b			6.508	-0.982	6.040	1.941	-0.658	-3.542	1.058	1.008	-4.378	
g	***		-0.065	-0.006	-0.017	-0.085	-0.002	-0.040	0.071	0.079	0.001	
η_C^1	**		-2.779	1.266	-2.814	-1.710	-1.140	-0.382	1.292	-0.940	0.687	
η_M^1	**		1.321	-1.734	-4.767	-1.758	2.664	-1.231	1.949	-0.787	0.087	
η_I^1	**		0.390	-0.108	3.558	0.137	-2.519	0.734	-0.805	-1.592	-0.801	
η_C^2	**		-4.313	1.308	0.942	-3.606	-3.796	2.380	3.586	-1.893	1.377	
η_M^2	**		4.193	-1.345	0.280	-0.173	0.126	2.954	-0.468	-3.038	4.411	
η_I^2	**		-0.036	-3.740	0.101	1.367	-0.808	1.141	3.184	-2.934	2.904	
ρ_{CM}	**		0.113	-0.604	1.386	0.235	-0.665	-0.003	-0.291	0.407	0.767	
ρ_{CI}	**		-0.135	0.052	-0.427	0.242	0.209	-0.218	0.113	0.060	-0.166	
ρ_{MI}	**		0.015	-0.477	0.726	0.454	-0.273	-0.320	-0.131	0.555	0.349	
λ_0	***		2.059	-0.146	-1.337	4.309	0.428	-3.541	2.523	1.810	4.400	
λ_1	***		0.086	-0.001	-0.249	-0.380	0.309	-0.076	0.340	0.395	0.348	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	$\text{corr}_2(y_I, x_I)$	$\text{corr}_3(y_I, x_I)$	$\text{corr}_4(y_I, x_I)$	$\text{corr}_5(y_I, x_I)$	$\text{corr}_6(y_I, x_I)$	$\text{sd}_1(y_C)$	$\text{sd}_2(y_C)$	$\text{sd}_3(y_C)$	$\text{sd}_4(y_C)$	$\text{sd}_5(y_C)$	$\text{sd}_6(y_C)$	$\text{sd}_1(y_M)$	$\text{sd}_2(y_M)$	...
γ_C^u	***		-0.051	0.111	-0.206	0.074	-0.108	0.011	0.010	0.005	-0.001	-0.001	0.000	-0.001	0.001	
γ_M^u	***		1.388	0.629	-1.398	-1.514	1.157	0.125	-0.006	0.049	-0.098	0.056	0.057	-0.069	-0.011	
γ_I^u	***		0.185	1.211	0.256	1.895	0.980	-0.080	-0.034	-0.049	-0.026	-0.049	-0.081	0.022	0.009	
γ_C^o	***		0.057	0.018	0.002	-0.102	-0.049	0.011	0.007	0.004	0.005	0.009	0.009	-0.006	-0.002	
γ_M^o	***		0.043	0.217	-0.131	-0.098	-0.009	-0.009	-0.001	-0.011	-0.011	-0.020	-0.029	0.012	0.008	
γ_I^o	***		0.481	-0.265	0.309	-0.056	-0.082	-0.009	-0.028	-0.021	-0.032	-0.020	-0.017	-0.030	-0.031	
κ_C^u			-139.556	117.349	-55.286	196.038	-13.921	-13.465	-4.817	-6.284	-5.867	-11.025	-10.664	13.386	8.187	
κ_M^u			-6.455	27.399	-1.501	3.281	38.548	-3.998	-3.876	-2.103	-3.702	-3.395	-3.323	4.106	4.000	
κ_I^u			-0.313	-15.235	-5.204	8.704	2.821	-1.549	-1.763	-1.640	-2.728	-1.183	-2.209	-0.849	-1.370	
κ_C^o			-0.851	2.252	-1.257	1.161	-0.545	-0.124	0.044	-0.035	0.101	-0.081	-0.090	0.264	0.286	
κ_M^o			-14.822	19.058	0.518	4.768	1.641	-2.177	-1.045	-1.223	-1.225	-1.936	-2.432	1.898	1.275	
κ_I^o			-2.209	10.034	0.405	4.227	-2.428	-0.827	-0.292	-0.525	-0.323	-0.659	-0.886	0.433	0.213	
ξ_C	**		-0.190	0.292	0.403	0.189	-0.477	-0.058	-0.067	-0.063	-0.095	-0.070	-0.110	-0.046	-0.075	
ξ_M	**		0.125	-0.464	0.602	0.517	-0.470	-0.071	-0.104	-0.047	-0.026	-0.029	-0.011	-0.108	-0.108	
ξ_I	**		-2.547	0.888	0.870	1.253	-0.041	0.063	0.122	0.077	0.136	0.041	0.069	0.180	0.185	
α_C			-0.784	7.971	-3.161	-2.129	4.972	-0.565	-0.177	-0.224	-0.186	-0.395	-0.552	0.346	0.251	
α_M			0.191	2.374	0.266	2.979	-2.260	-0.258	-0.121	-0.158	-0.026	-0.191	-0.171	0.211	0.166	
α_I			-1.603	1.503	-2.695	3.600	-0.822	-0.416	-0.186	-0.293	-0.268	-0.341	-0.462	0.228	0.123	
α_{CC}			-4.785	0.655	5.812	7.499	-4.345	-0.517	-0.554	-0.385	-0.708	-0.321	-0.423	-0.089	-0.427	
α_{MM}			-0.903	-0.001	0.707	0.815	-0.475	-0.074	-0.032	-0.045	-0.035	-0.049	-0.066	0.051	0.008	
α_{II}			0.060	0.148	0.672	0.855	-1.009	-0.009	-0.020	-0.027	-0.038	0.022	0.016	-0.003	-0.009	
b			-3.928	4.977	-0.737	2.123	1.386	-0.602	-0.257	-0.327	-0.282	-0.489	-0.657	0.324	0.161	
g	***		-0.075	-0.107	0.088	0.007	0.060	-0.002	-0.004	0.002	0.005	0.000	0.005	-0.001	0.001	
η_C^1	**		-0.087	-2.248	1.667	0.773	-1.361	0.185	0.132	0.166	0.177	0.203	0.316	-0.058	-0.067	
η_M^1	**		-3.097	3.171	-2.179	2.693	-0.042	-0.348	-0.255	-0.102	-0.023	-0.217	-0.162	0.419	0.442	
η_I^1	**		-2.574	1.440	1.318	2.091	-2.236	-0.016	0.073	-0.021	0.136	-0.014	-0.011	0.173	0.132	
η_C^2	**		-0.072	-3.049	1.291	0.519	-0.676	0.474	0.424	0.450	0.525	0.531	0.770	0.027	0.093	
η_M^2	**		-4.032	4.886	-2.186	0.180	-1.155	-0.036	0.122	0.075	0.119	-0.158	-0.075	0.895	0.894	
η_I^2	**		2.594	3.007	-3.665	2.847	-3.583	-0.388	-0.236	-0.363	-0.188	-0.192	-0.408	-0.165	-0.281	
ρ_{CM}	**		-0.261	-0.146	0.215	0.182	-0.373	0.008	0.006	-0.003	0.001	-0.008	-0.006	0.018	0.002	
ρ_{CI}	**		0.008	0.203	-0.309	0.351	-0.022	-0.001	0.005	0.004	0.000	0.005	0.005	0.006	0.008	
ρ_{MI}	**		-0.297	0.143	-0.230	0.691	-0.269	-0.006	0.002	-0.007	-0.005	-0.012	-0.010	0.028	0.017	
λ_0	***		-0.121	2.378	3.213	-6.672	0.749	0.031	0.045	-0.082	-0.033	-0.058	-0.316	-0.099	-0.130	
λ_1	***		-0.306	0.484	-0.122	-0.188	0.086	0.003	0.008	-0.001	0.006	-0.004	-0.014	0.000	0.006	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued ...

		...	$sd_3(y_M)$	$sd_4(y_M)$	$sd_5(y_M)$	$sd_6(y_M)$	$sd_1(y_I)$	$sd_2(y_I)$	$sd_3(y_I)$	$sd_4(y_I)$	$sd_5(y_I)$	$sd_6(y_I)$	β_{y_C}	β_{y_M}	β_{y_I}	...
γ_C^u	***		0.003	0.002	-0.011	-0.010	-0.014	-0.007	-0.013	-0.018	-0.015	-0.026	-0.097	-0.140	0.064	
γ_M^u	***		-0.100	-0.085	-0.032	-0.040	-0.097	-0.161	-0.106	-0.143	-0.051	-0.110	-0.379	-0.263	0.132	
γ_I^u	***		0.029	0.000	-0.001	-0.014	0.081	0.081	0.085	0.075	0.051	0.054	-0.248	0.695	-1.057	
γ_C^o	***		0.007	-0.002	-0.004	-0.012	0.000	0.004	0.005	0.000	0.002	0.003	0.037	0.078	-0.059	
γ_M^o	***		0.014	0.009	0.005	0.015	-0.010	-0.004	-0.005	-0.005	-0.008	-0.012	0.007	-0.013	0.091	
γ_I^o	***		-0.035	-0.018	-0.007	-0.005	-0.004	-0.014	-0.016	-0.006	0.004	-0.003	-0.081	-0.229	0.116	
κ_C^u			4.614	5.713	7.819	10.926	13.642	10.215	9.158	8.628	6.987	1.393	-202.089	90.022	-148.307	
κ_M^u			-0.443	1.063	4.404	6.715	1.405	-1.009	0.058	0.412	0.806	-0.404	-27.678	-18.971	2.966	
κ_I^u			-1.249	-2.205	-0.366	-1.212	1.840	0.592	1.421	1.188	1.654	1.794	-31.155	15.539	-35.377	
κ_C^o			0.423	0.236	0.180	0.214	0.140	0.279	0.250	0.182	0.091	0.136	-0.601	-0.680	-0.377	
κ_M^o			0.868	0.696	1.410	1.986	0.795	0.712	0.742	0.790	0.312	0.191	-18.517	15.914	-23.835	
κ_I^o			0.564	0.181	0.221	0.099	1.007	0.995	0.984	0.900	0.717	0.685	-7.643	3.784	-8.220	
ξ_C	**		-0.109	-0.055	-0.051	-0.047	-0.021	-0.043	-0.039	-0.029	-0.044	-0.060	-0.510	-0.368	-0.236	
ξ_M	**		-0.155	-0.067	-0.034	-0.068	0.083	0.050	0.034	0.069	0.076	0.065	0.631	0.439	-0.019	
ξ_I	**		0.231	0.173	0.045	0.108	-0.088	-0.008	-0.056	-0.060	-0.108	-0.127	0.122	-0.248	0.095	
α_C			0.161	0.060	0.275	0.261	0.506	0.431	0.530	0.478	0.337	0.452	-8.148	1.614	-7.041	
α_M			0.235	0.189	0.201	0.260	0.283	0.296	0.270	0.260	0.224	0.147	-1.592	1.583	-1.975	
α_I			0.209	0.023	0.137	0.100	0.459	0.416	0.438	0.358	0.287	0.245	-3.484	4.150	-5.695	
α_{CC}			-0.706	-0.418	-0.002	-0.065	0.504	-0.003	0.182	0.249	0.331	0.121	-8.709	5.791	-7.558	
α_{MM}			0.024	0.006	0.025	0.026	0.075	0.055	0.055	0.061	0.042	0.038	0.028	0.478	-0.345	
α_{II}			0.057	-0.025	0.013	-0.041	0.122	0.089	0.129	0.080	0.103	0.089	-0.482	1.057	-1.160	
b			0.123	0.095	0.177	0.207	0.435	0.366	0.380	0.398	0.236	0.230	-5.775	4.291	-6.649	
g	***		-0.011	0.003	0.003	0.007	-0.009	-0.009	-0.013	-0.007	-0.008	-0.008	0.066	-0.038	0.034	
η_C^1	**		-0.123	-0.022	-0.047	-0.040	-0.188	-0.154	-0.217	-0.196	-0.167	-0.163	-0.233	-1.579	1.310	
η_M^1	**		0.248	0.303	0.464	0.554	0.206	0.283	0.212	0.206	0.147	0.107	1.572	3.402	-1.525	
η_I^1	**		0.370	0.222	0.067	0.057	0.296	0.337	0.299	0.292	0.251	0.186	0.341	-0.871	0.853	
η_C^2	**		0.122	0.077	0.017	-0.014	-0.290	-0.148	-0.236	-0.265	-0.193	-0.115	0.870	-1.125	2.317	
η_M^2	**		0.884	0.687	0.673	1.053	-0.231	-0.008	-0.075	-0.131	-0.172	-0.278	-0.411	0.626	-0.324	
η_I^2	**		0.228	-0.161	-0.015	-0.425	1.308	1.136	1.281	1.134	1.161	1.146	0.489	1.843	-0.915	
ρ_{CM}	**		0.021	0.016	0.008	0.022	0.006	0.001	-0.007	0.005	0.015	-0.007	0.015	-0.131	-0.109	
ρ_{CI}	**		0.006	-0.001	0.000	-0.004	0.007	0.008	0.011	0.000	0.000	-0.002	0.000	0.093	-0.037	
ρ_{MI}	**		0.031	0.015	0.011	0.016	0.024	0.021	0.019	0.014	0.022	0.003	0.049	0.144	-0.234	
λ_0	***		0.066	-0.066	-0.194	-0.233	-0.062	-0.064	0.008	0.038	-0.061	0.038	0.214	-0.153	0.266	
λ_1	***		0.005	0.006	-0.006	-0.011	-0.015	0.001	-0.001	-0.010	-0.019	-0.020	0.026	-0.057	0.045	

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows).
Values multiplied by *10, **100, ***1000.

Table B.2: ... continued.

		...	$\beta_{x_C y_C}$	$\beta_{x_M y_M}$	$\beta_{x_I y_I}$	β_{ten}	β_{exp}
γ_C^u	***		-0.141	-0.104	0.034	0.000	0.000
γ_M^u	***		-1.281	-1.119	1.000	0.000	0.000
γ_I^u	***		-0.394	0.313	-0.810	0.000	0.000
γ_C^o	***		0.029	0.090	-0.012	0.000	0.000
γ_M^o	***		0.053	-0.017	0.014	0.000	0.000
γ_I^o	***		-0.101	-0.136	0.059	0.000	0.000
κ_C^u			-191.574	24.635	-286.850	0.016	-0.011
κ_M^u			-36.001	-39.612	-5.983	0.001	0.000
κ_I^u			-43.820	1.720	-35.270	0.000	0.001
κ_C^o			-0.397	-1.641	-0.819	0.000	0.000
κ_M^o			-19.606	2.550	-31.138	0.002	-0.001
κ_I^o			-8.613	0.876	-10.993	0.001	0.000
ξ_C	**		-0.987	-0.371	0.048	0.000	0.000
ξ_M	**		1.194	0.373	-0.234	0.000	0.000
ξ_I	**		0.271	-0.335	0.025	0.000	0.000
α_C			-9.582	-2.246	-9.639	0.000	0.000
α_M			-1.269	1.147	-3.237	0.000	0.000
α_I			-4.147	2.498	-6.379	0.000	0.000
α_{CC}			-10.309	2.008	-10.820	0.000	0.000
α_{MM}			0.093	0.308	-0.341	0.000	0.000
α_{II}			-0.696	0.515	-1.023	0.000	0.000
b			-6.469	1.417	-8.799	0.001	0.000
g	***		0.142	0.046	-0.020	0.000	0.000
η_C^1	**		-0.560	-1.402	1.306	0.000	0.000
η_M^1	**		2.935	3.579	-1.895	0.000	0.000
η_I^1	**		0.622	-0.707	0.626	0.000	0.000
η_C^2	**		1.435	-0.975	1.762	0.000	0.000
η_M^2	**		-1.014	1.684	-0.016	0.001	0.000
η_I^2	**		0.468	2.013	-0.469	0.000	0.000
ρ_{CM}	**		-0.001	0.025	-0.041	0.000	0.000
ρ_{CI}	**		0.005	0.079	-0.044	0.000	0.000
ρ_{MI}	**		0.070	0.220	-0.175	0.000	0.000
λ_0	***		0.434	0.942	0.000	0.000	0.000
λ_1	***		0.012	0.009	0.069	0.000	0.000

Note: The change in each parameter (rows) induced by a one standard deviation change in each moment (rows). Values multiplied by *10, **100, ***1000.

References

Andrews, I., M. Gentzkow, and J. Shapiro (2017): "Measuring the Sensitivity of Parameter Estimates to Estimation Moments," *Quarterly Journal of Economics*, 132(4), 1553–1592.