

Table A1a: Monte Carlo results for model parameters in the case of a $\sigma = 3$ and symmetric trade costs

Estimates	True	OLS		BV-OLS-1		BV-OLS-2		AvW		Suggested Model	
		uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
10-country-world, $\sigma = 3$											
$\rho(1 - \sigma)$											
mean	-4	-3.7571	-3.2041	-4.0136	-4.0194	-3.9321	-4.0462	-4.0119	-4.0035	-4.0136	-4.0194
std.	-	0.2799	0.3539	0.1698	0.1690	0.3235	0.3411	0.3167	0.2881	0.1698	0.1690
MAE	-	7.5737	19.9271	3.3738	3.3803	6.5394	7.0723	6.2824	5.8070	3.3738	3.3803
σ											
mean	3	-	-	-	-	-	-	-	-	3.0080	3.0129
std.	-	-	-	-	-	-	-	-	-	0.1153	0.1153
MAE	-	-	-	-	-	-	-	-	-	3.0183	3.0335
20-country-world, $\sigma = 3$											
$\rho(1 - \sigma)$											
mean	-4	-3.7878	-3.1911	-4.0034	-4.0043	-3.9528	-3.9859	-4.0033	-3.8925	-4.0034	-4.0043
std.	-	0.1631	0.2800	0.0787	0.0785	0.2024	0.1871	0.1926	0.1841	0.0787	0.0785
MAE	-	5.5451	20.2220	1.5676	1.5565	4.0657	3.7943	3.7673	4.3525	1.5676	1.5565
σ											
mean	3	-	-	-	-	-	-	-	-	3.0032	3.0044
std.	-	-	-	-	-	-	-	-	-	0.0926	0.0919
MAE	-	-	-	-	-	-	-	-	-	2.1690	2.1483
40-country-world, $\sigma = 3$											
$\rho(1 - \sigma)$											
mean	-4	-3.8842	-3.5452	-4.0021	-4.0017	-3.9462	-3.9459	-4.0011	-3.9242	-4.0021	-4.0017
std.	-	0.0694	0.1030	0.0380	0.0382	0.0975	0.0972	0.0868	0.0997	0.0380	0.0382
MAE	-	2.9590	11.3697	0.7595	0.7626	2.1731	2.2230	1.7105	2.6967	0.7595	0.7626
σ											
mean	3	-	-	-	-	-	-	-	-	3.0016	3.0013
std.	-	-	-	-	-	-	-	-	-	0.0286	0.0288
MAE	-	-	-	-	-	-	-	-	-	0.7539	0.7585

Notes: The mean absolute error (MAE) is expressed as a percent of the true value.

Table A1b: Monte Carlo results for predicted trade flow and welfare changes in the case of a $\sigma = 3$ and symmetric trade costs

Estimates (1)	True (2)	OLS		BV-OLS-1		BV-OLS-2		AvW		Suggested Model	
		uncorr. (3)	corr. (4)	uncorr. (5)	corr. (6)	uncorr. (7)	corr. (8)	uncorr. (9)	corr. (10)	uncorr. (11)	corr. (12)
10-country-world, $\sigma = 3$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	6.6662	3.2435	2.3500	3.5120	3.5190	8.2709	9.3040	6.6014	6.8860	6.7489	6.7416
std.	36.9948	27.8818	23.5375	27.7128	27.7392	41.0057	44.4533	37.1356	38.1079	37.2688	37.2623
MAE	-	17.8267	17.6405	15.2644	15.2651	4.4485	5.3880	1.6633	1.5481	0.9934	0.9887
EV_i											
mean	0.2351	-	-	-	-	-	-	-0.0611	-0.0875	0.2304	0.2317
std.	14.1707	-	-	-	-	-	-	7.4562	7.5313	14.1729	14.1630
MAE	-	-	-	-	-	-	-	4.3464	4.3028	0.1355	0.1352
20-country-world, $\sigma = 3$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	5.4797	3.7566	2.5930	4.4173	4.4194	6.0417	6.0668	5.4408	5.1722	5.4923	5.4933
std.	35.3275	31.1362	25.9515	31.3472	31.3551	36.6611	36.8558	35.4044	34.3500	35.3767	35.3852
MAE	-	13.1648	13.4517	11.3259	11.3260	3.7866	3.7163	1.0460	1.1888	0.4772	0.4750
EV_i											
mean	0.1196	-	-	-	-	-	-	-0.0231	-0.0290	0.1184	0.1187
std.	9.8557	-	-	-	-	-	-	5.2396	5.1146	9.8611	9.8581
MAE	-	-	-	-	-	-	-	3.4358	3.5203	0.1346	0.1339
40-country-world, $\sigma = 3$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	4.7364	4.5261	3.7749	4.4345	4.4335	4.7299	4.7390	4.6834	4.5225	4.7431	4.7416
std.	33.7559	31.2879	28.2547	31.4914	31.4874	34.1411	34.1706	33.7530	33.0860	33.7794	33.7748
MAE	-	9.8183	9.9459	9.0524	9.0524	2.2595	2.2712	0.4662	0.7302	0.2050	0.2058
EV_i											
mean	0.4752	-	-	-	-	-	-	0.1975	0.1907	0.4748	0.4749
std.	7.0784	-	-	-	-	-	-	3.7986	3.7388	7.0774	7.0777
MAE	-	-	-	-	-	-	-	2.5146	2.5626	0.0190	0.0191

Notes: The mean absolute error (MAE) is expressed in percentage points of the true value (as scaled trade flows and EVs are in percentage points already).

Table A2a: Monte Carlo results for model parameters in the case of a $\sigma = 10$ and symmetric trade costs

Estimates	True	OLS		BV-OLS-1		BV-OLS-2		AvW		Suggested Model	
		uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
10-country-world, $\sigma = 10$											
$\rho(1 - \sigma)$											
mean	-18	-18.0739	-17.4395	-18.1151	-18.0950	-16.4232	-16.3901	-18.0302	-17.3963	-18.1151	-18.0950
std.	-	1.0715	1.1069	0.7788	0.7756	2.6003	2.5866	0.8402	0.7863	0.7788	0.7756
MAE	-	4.7878	5.4869	3.4823	3.4579	13.1853	13.1519	3.7112	4.4491	3.4823	3.4579
σ											
mean	10	-	-	-	-	-	-	-	-	10.0318	10.0207
std.	-	-	-	-	-	-	-	-	-	0.5865	0.5889
MAE	-	-	-	-	-	-	-	-	-	4.1089	4.0843
20-country-world, $\sigma = 10$											
$\rho(1 - \sigma)$											
mean	-18	-17.6570	-17.0613	-18.0253	-18.0327	-15.6098	-15.5545	-18.0037	-17.5787	-18.0253	-18.0327
std.	-	0.6485	0.6821	0.3721	0.3759	2.1116	2.0400	0.4886	0.5454	0.3721	0.3759
MAE	-	3.3918	5.6584	1.6554	1.6777	14.1517	13.9282	2.1710	3.1475	1.6554	1.6777
σ											
mean	10	-	-	-	-	-	-	-	-	10.0001	9.9912
std.	-	-	-	-	-	-	-	-	-	0.7965	0.7933
MAE	-	-	-	-	-	-	-	-	-	4.3285	4.3509
40-country-world, $\sigma = 10$											
$\rho(1 - \sigma)$											
mean	-18	-17.5999	-17.2310	-18.0035	-18.0024	-15.4103	-15.4223	-17.7132	-17.4493	-18.0035	-18.0024
std.	-	0.3311	0.3615	0.1831	0.1838	0.8177	0.8364	0.3260	0.3568	0.1831	0.1838
MAE	-	2.3740	4.2745	0.8119	0.8141	14.3872	14.3203	1.9529	3.1321	0.8119	0.8141
σ											
mean	10	-	-	-	-	-	-	-	-	9.9974	10.0029
std.	-	-	-	-	-	-	-	-	-	1.0969	1.0989
MAE	-	-	-	-	-	-	-	-	-	5.5566	5.5380

Notes: The mean absolute error (MAE) is expressed as a percent of the true value.

Table A2b: Monte Carlo results for predicted trade flow and welfare changes in the case of a $\sigma = 10$ and symmetric trade costs

Estimates	True	OLS		BV-OLS-1		BV-OLS-2		AvW		Suggested Model	
		uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.	uncorr.	corr.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
10-country-world, $\sigma = 10$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	123.3248	129.9514	116.2394	91.1245	90.9670	227.5535	233.1863	125.6036	113.0115	127.7351	127.5996
std.	469.3185	521.3890	453.9210	293.4474	293.1617	1128.8546	1204.7017	485.1469	432.9379	494.9210	495.4916
MAE	-	92.7117	85.5440	74.4546	74.4805	214.5082	219.7298	15.3387	16.9658	17.5295	17.4202
EV_i											
mean	0.1390	-	-	-	-	-	-	0.9072	0.9780	0.1034	0.1056
std.	7.0641	-	-	-	-	-	-	15.5048	15.6467	7.0674	7.0776
MAE	-	-	-	-	-	-	-	5.4158	5.6047	0.3054	0.3043
20-country-world, $\sigma = 10$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	137.9529	139.7465	125.7076	129.4379	129.5752	136.3740	133.9121	139.2621	129.7217	139.7014	139.9970
std.	509.0532	536.1079	474.6907	471.1198	471.2312	531.6067	509.3490	516.0786	476.7905	516.9189	517.5073
MAE	-	79.3370	76.5853	80.4346	80.4387	116.1598	114.3426	10.0604	13.7876	11.2513	11.3483
EV_i											
mean	0.5568	-	-	-	-	-	-	1.6953	1.6870	0.5251	0.5120
std.	6.5455	-	-	-	-	-	-	14.3039	14.3381	7.0969	6.6141
MAE	-	-	-	-	-	-	-	5.5801	5.6378	0.2931	0.2868
40-country-world, $\sigma = 10$											
$\Delta \frac{X_{ij}Y_W}{Y_iY_j}$											
mean	192.7730	160.0134	149.9590	154.7657	154.7352	177.6109	177.6029	185.2525	177.1900	196.6792	196.5124
std.	714.2798	574.2420	532.3568	574.5780	574.4365	787.0798	792.4892	686.9376	652.4061	736.2606	735.6959
MAE	-	111.2852	111.3648	112.1997	112.2014	146.8040	146.9326	11.3912	17.6107	19.2990	19.1996
EV_i											
mean	0.2995	-	-	-	-	-	-	1.2536	1.2613	0.1826	0.1867
std.	7.4031	-	-	-	-	-	-	16.2158	16.1786	7.6870	7.6855
MAE	-	-	-	-	-	-	-	6.5144	6.5101	0.5404	0.5367

Notes: The mean absolute error (MAE) is expressed in percentage points of the true value (as scaled trade flows and EVs are in percentage points already).