Table 1: Summary Statistics of Feasible KGMM and Infeasible GMM

Sample Size: 128									
Model Parameters: $\phi = 0.1, \sigma_{12} = .5$									
Estimator	θ	.01	.1	.5	.9	.99	MAE	MSE	Var
IV 20	-.9	0.1598	0.3518	0.6908	1.0498	1.3627	0.7013	0.5620	0.0713
IV $k_B, \hat{M}^*$		-0.3980	0.0820	0.4998	1.1237	1.6614	0.5874	0.5139	0.2166
IV $k_P, \hat{M}^*$		-0.4208	0.0896	0.4948	1.1568	1.7547	0.5917	0.5179	0.2023
IV $k_T, \hat{M}^*$		-0.4609	0.0854	0.4973	1.1713	1.8391	0.6061	0.6248	0.2886
IV 10	-.6	0.1981	0.3763	0.6434	1.0137	1.3589	0.6719	0.5169	0.0660
IV $k_B, \hat{M}^*$		-0.1390	0.2079	0.5671	1.0902	1.5934	0.6209	0.5423	0.1659
IV $k_P, \hat{M}^*$		-0.1484	0.2097	0.5739	1.0878	1.5812	0.6235	0.5122	0.1443
IV $k_T, \hat{M}^*$		-0.1440	0.1923	0.5765	1.1001	1.6107	0.6223	0.5063	0.1302
IV 4	-.3	-0.0663	0.3164	0.6577	1.0326	1.4346	0.6713	0.5323	0.0883
IV $k_B, \hat{M}^*$		-0.2198	0.2171	0.6194	1.0125	1.5630	0.6334	0.4990	0.1081
IV $k_P, \hat{M}^*$		-0.1397	0.2516	0.6230	1.0149	1.5434	0.6433	0.5037	0.0996
IV $k_T, \hat{M}^*$		-0.1919	0.2304	0.6167	1.0284	1.5603	0.6382	0.5055	0.1102
IV 3	0	-0.1591	0.2496	0.6435	1.0040	1.3749	0.6511	0.5141	0.0995
IV $k_B, \hat{M}^*$		-0.2532	0.1943	0.6144	0.9936	1.3893	0.6157	0.4695	0.1049
IV $k_P, \hat{M}^*$		-0.0966	0.2663	0.6387	0.9954	1.3426	0.6406	0.4861	0.0819
IV $k_T, \hat{M}^*$		-0.1318	0.2364	0.6355	0.9944	1.3986	0.6322	0.4827	0.0910
IV 3	.3	-0.1360	0.2447	0.6333	1.0570	1.5259	0.6528	0.5289	0.1124
IV $k_B, \hat{M}^*$		-0.0684	0.2287	0.6216	1.0264	1.5690	0.6401	0.5177	0.1113
IV $k_P, \hat{M}^*$		-0.0479	0.2659	0.6314	1.0089	1.4668	0.6469	0.5090	0.0930
IV $k_T, \hat{M}^*$		-0.0698	0.2474	0.6214	1.0192	1.5619	0.6412	0.5118	0.1049
IV 20	.6	0.2882	0.4547	0.6737	0.9456	1.1720	0.6902	0.5140	0.0377
IV $k_B, \hat{M}^*$		-0.2033	0.1721	0.5800	1.0650	1.6624	0.6238	0.5114	0.1351
IV $k_P, \hat{M}^*$		-0.1651	0.1896	0.5939	1.0586	1.5574	0.6298	0.5174	0.1367
IV $k_T, \hat{M}^*$		-0.2180	0.1861	0.5894	1.0858	1.6660	0.6335	0.5286	0.1443
IV 20	.9	0.1593	0.3815	0.7059	1.0559	1.2965	0.7128	0.5763	0.0686
IV $k_B, \hat{M}^*$		-0.5271	0.0618	0.5203	1.1092	1.7327	0.6037	0.5530	0.2402
IV $k_P, \hat{M}^*$		-0.4138	0.0892	0.5214	1.1371	1.7167	0.6220	0.7458	0.4212
IV $k_T, \hat{M}^*$		-0.3605	0.0864	0.5149	1.1348	1.7565	0.6092	0.6094	0.2925

All calculations are based on 1,000 replications. "IV M" stands for optimal infeasible GMM with M lagged instruments. "IV $k_B, \hat{M}^*$","IV $k_P, \hat{M}^*$" and "IV $k_T, \hat{M}^*$" stand for feasible KGMM using the Bartlett, Parzen and Tukey-Hanning kernels respectively. The columns ".01",".1",...,".99" are the empirical quantiles of $\hat{\beta} - 1$ for the respective estimators. "MAE" is the mean absolute error of $\hat{\beta}$, "MSE" is the sample mean squared error and "Var" is the sample variance of $\hat{\beta}$.

Table 2: Summary Statistics of Feasible KGMM and Infeasible GMM

Sample Size: 128									
Model Parameters: $\phi = 0.2, \sigma_{12} = .5$									
Estimator	θ	.01	.1	.5	.9	.99	MAE	MSE	Var
IV 3	-.9	-0.6274	-0.1522	0.3165	0.9945	1.5882	0.4500	0.3392	0.2018
IV $k_B, \hat{M}^*$		-0.5508	-0.0611	0.2682	0.7728	1.4198	0.3661	0.2367	0.1383
IV $k_P, \hat{M}^*$		-0.6405	-0.0436	0.2836	0.7981	1.4064	0.4161	0.7264	0.6303
IV $k_T, \hat{M}^*$		-0.5605	-0.0534	0.2802	0.8090	1.6169	0.4219	0.6788	0.5791
IV 3	-.6	-0.6201	-0.0448	0.3198	0.7399	1.3382	0.3962	0.2464	0.1312
IV k_B, M^*		-2.1080	-0.6749	0.1039	0.6217	2.2852	0.4721	0.6152	0.6128
IV k_P, M^*		-1.2818	-0.4114	0.1589	0.6335	1.5741	0.3731	0.2796	0.2621
IV k_T, M^*		-2.1080	-0.6749	0.1039	0.6217	2.2852	0.4721	0.6152	0.6128
IV 2	-.3	-0.8354	-0.1402	0.2974	0.6444	1.1442	0.3644	0.2037	0.1300
IV $k_B, \hat{M}^*$		-0.1868	0.0574	0.3651	0.6721	0.9662	0.3786	0.1913	0.0613
IV $k_P, \hat{M}^*$		-0.1758	0.0942	0.3904	0.6768	0.9853	0.4014	0.2082	0.0580
IV $k_T, \hat{M}^*$		-0.2298	0.0698	0.3752	0.6725	1.0228	0.3920	0.2039	0.0652
IV 2	0	-0.8337	-0.1165	0.3137	0.6419	1.2542	0.3803	0.2315	0.1446
IV $k_B, \hat{M}^*$		-0.4817	-0.0306	0.3158	0.6615	1.0309	0.3659	0.1910	0.0910
IV $k_P, \hat{M}^*$		-0.2633	0.0765	0.3842	0.6873	0.9815	0.4069	0.2165	0.0698
IV $k_T, \hat{M}^*$		-0.3304	0.0465	0.3683	0.6916	0.9844	0.3982	0.2112	0.0764
IV 3	.3	-0.3359	0.0592	0.3892	0.7123	1.1351	0.4107	0.2297	0.0798
IV $k_B, \hat{M}^*$		-0.2296	0.0500	0.3708	0.6731	1.1419	0.3833	0.2011	0.0671
IV $k_P, \hat{M}^*$		-0.1783	0.0827	0.3980	0.6878	1.1412	0.4044	0.2169	0.0636
IV $k_T, \hat{M}^*$		-0.2740	0.0526	0.3851	0.6840	1.1342	0.3947	0.2104	0.0689
IV 3	.6	-.4271	-0.0728	0.3175	0.7683	1.4493	0.3916	0.2432	0.1280
IV $k_B, \hat{M}^*$		-0.3115	-0.0148	0.3067	0.6698	1.0877	0.3472	0.1776	0.0778
IV $k_P, \hat{M}^*$		-0.3874	0.0082	0.3358	0.6846	1.1365	0.3786	0.2803	0.1735
IV $k_T, \hat{M}^*$		-0.3839	-0.0187	0.3271	0.6854	1.1888	0.4106	0.9473	0.8240
IV 5	.9	-0.3526	-0.0229	0.3845	0.9271	1.4203	0.4536	0.3289	0.1503
IV $k_B, \hat{M}^*$		-0.5520	-0.0900	0.2588	0.7494	1.5210	0.3984	0.6946	0.5842
IV $k_P, \hat{M}^*$		-0.6033	-0.0575	0.2642	0.7581	1.5520	0.4319	1.8120	1.6954
IV $k_T, \hat{M}^*$		-0.5800	-0.0692	0.2685	0.7665	1.3757	0.4043	0.4813	0.3827

All calculations are based on 1,000 replications. "IV M" stands for optimal infeasible GMM with M lagged instruments. "IV $k_B, \hat{M}^*$","IV $k_P, \hat{M}^*$" and "IV $k_T, \hat{M}^*$" stand for feasible KGMM using the Bartlett, Parzen and Tukey-Hanning kernels respectively. The columns ".01",".1",...,".99" are the empirical quantiles of $\hat{\beta} - 1$ for the respective estimators. "MAE" is the mean absolute error of $\hat{\beta}$, "MSE" is the sample mean squared error and "Var" is the sample variance of $\hat{\beta}$.

Table 3: Summary Statistics of Feasible KGMM and Infeasible GMM

Sample Size: 128									
Model Parameters: $\phi = 0.3, \sigma_{12} = .5$									
Estimator	θ	.01	.1	.5	.9	.99	MAE	MSE	Var
IV 3	-.9	-0.7807	-0.2147	0.1148	0.5476	1.0310	0.2665	0.1312	0.1099
IV $k_B, \hat{M}^*$		-0.6449	-0.1471	0.1219	0.4697	0.9794	0.2422	0.1778	0.1575
IV $k_P, \hat{M}^*$		-1.0047	-0.1395	0.1402	0.4786	0.9299	0.4939	42.1296	42.0785
IV $k_T, \hat{M}^*$		-0.6300	-0.1444	0.1368	0.4917	1.1061	0.2835	1.0345	1.0192
IV 3	-.6	-0.5081	-0.1168	0.1532	0.4539	0.7661	0.2280	0.0885	0.0642
IV $k_B, \hat{M}^*$		-0.4381	-0.0861	0.1749	0.4553	0.7768	0.2633	1.0577	1.0142
IV $k_P, \hat{M}^*$		-0.3984	-0.0501	0.1952	0.4676	0.7619	0.2477	0.1191	0.0778
IV $k_T, \hat{M}^*$		-0.4514	-0.0775	0.1866	0.4727	1.2116	0.2866	0.5706	0.5346
IV 2	-.3	-0.7849	-0.1910	0.1287	0.3782	0.6024	0.2116	0.0722	0.0624
IV $Bk_B, \hat{M}^*$		-0.5767	-0.1426	0.1598	0.4060	0.5931	0.2123	0.0675	0.0483
IV $Bk_P, \hat{M}^*$		-0.5301	-0.0950	0.1904	0.4328	0.5947	0.2292	0.0755	0.0460
IV $Bk_T, \hat{M}^*$		-0.5044	-0.1105	0.1875	0.4284	0.6005	0.2280	0.0750	0.0469
IV 2	0	-0.7909	-0.2190	0.1520	0.4024	0.5337	0.2350	0.0845	0.0719
IV $k_B, \hat{M}^*$		-0.6178	-0.1858	0.1723	0.4060	0.6156	0.2327	0.0776	0.0575
IV $k_P, \hat{M}^*$		-0.4367	-0.0652	0.2354	0.4486	0.6550	0.2600	0.0903	0.0451
IV $k_T, \hat{M}^*$		-0.4688	-0.0931	0.2214	0.4431	0.6509	0.2545	0.0879	0.0494
IV 2	.3	-0.6702	-0.2047	0.1432	0.3781	0.6369	0.2185	0.0746	0.0632
IV $k_B, \hat{M}^*$		-0.3621	-0.0723	0.1989	0.4218	0.6915	0.2307	0.0763	0.0418
IV $k_P, \hat{M}^*$		-0.3312	-0.0236	0.2349	0.4507	0.6909	0.2524	0.0873	0.0392
IV $k_T, \hat{M}^*$		-0.3408	-0.0531	0.2175	0.4356	0.6960	0.2456	0.0842	0.0422
IV 3	.6	-0.4766	-0.1076	0.1590	0.4589	0.7588	0.2306	0.0893	0.0627
IV $k_B, \hat{M}^*$		-0.6364	-0.0712	0.1740	0.4382	0.8336	0.3007	1.2469	1.2196
IV $k_P, \hat{M}^*$		-0.4154	-0.0349	0.1971	0.4635	0.8108	0.2719	0.6652	0.6150
IV $k_T, \hat{M}^*$		-0.4882	-0.0541	0.1840	0.4541	0.8519	0.3809	18.7174	18.6322
IV 3	.9	-0.5555	-0.1751	0.1300	0.5787	1.0006	0.2628	0.1244	0.0955
IV $k_B, \hat{M}^*$		-0.9126	-0.1396	0.1456	0.4572	0.9361	0.3646	9.3151	9.3220
IV $k_P, \hat{M}^*$		-0.6166	-0.1115	0.1579	0.4950	1.0554	0.3036	1.6505	1.6250
IV $k_T, \hat{M}^*$		-0.5658	-0.1242	0.1541	0.4762	1.0573	0.3032	1.4174	1.3797

All calculations are based on 1,000 replications. "IV M" stands for optimal infeasible GMM with M lagged instruments. "IV $k_B, \hat{M}^*$","IV $k_P, \hat{M}^*$" and "IV $k_T, \hat{M}^*$" stand for feasible KGMM using the Bartlett, Parzen and Tukey-Hanning kernels respectively. The columns ".01",".1",...,".99" are the empirical quantiles of $\hat{\beta} - 1$ for the respective estimators. "MAE" is the mean absolute error of $\hat{\beta}$, "MSE" is the sample mean squared error and "Var" is the sample variance of $\hat{\beta}$.

Table 4: Summary Statistics of Feasible KGMM and Infeasible GMM

Sample Size: 128									
Model Parameters: $\phi = 0.6, \sigma_{12} = .5$									
Estimator	θ	.01	.1	.5	.9	.99	MAE	MSE	Var
IV 3	-.9	-0.2969	-0.1195	0.0039	0.1299	0.2714	0.0789	0.0113	0.0112
IV $k_B, \hat{M}^*$		-0.4930	-0.1272	0.0154	0.1486	0.5818	0.1185	0.1381	0.1378
IV $k_P, \hat{M}^*$		-0.8847	-0.1128	0.0209	0.1543	0.4839	0.1651	1.9576	1.9574
IV $k_T, \hat{M}^*$		-0.6115	-0.1198	0.0131	0.1468	0.4407	0.1303	0.4730	0.4726
IV 3	-.6	-0.2713	-0.1222	0.0174	0.1185	0.2023	0.0769	0.0098	0.0098
IV $k_B, \hat{M}^*$		-0.3453	-0.1120	0.0353	0.1480	0.3472	0.0948	0.0220	0.0211
IV $k_P, \hat{M}^*$		-0.3555	-0.0942	0.0430	0.1411	0.2940	0.0943	0.0328	0.0318
IV $k_T, \hat{M}^*$		-0.3717	-0.0988	0.0399	0.1437	0.2621	0.1754	2.7570	2.7570
IV 4	-.3	-0.2449	-0.0800	0.0583	0.1603	0.2418	0.0896	0.0123	0.0102
IV $k_B, \hat{M}^*$		-0.3129	-0.0923	0.0582	0.1663	0.2520	0.0953	0.0140	0.0120
IV $k_P, \hat{M}^*$		-0.2587	-0.0677	0.0752	0.1764	0.2644	0.0998	0.0146	0.0106
IV $k_T, \hat{M}^*$		-0.2663	-0.0731	0.0713	0.1702	0.2604	0.0985	0.0144	0.0110
IV 3	0	-0.2895	-0.1011	0.0454	0.1675	0.2533	0.0938	0.0139	0.0127
IV $k_B, \hat{M}^*$		-0.2848	-0.0924	0.0584	0.1795	0.2701	0.0988	0.0152	0.0129
IV $k_P, \hat{M}^*$		-0.2427	-0.0608	0.0789	0.2001	0.2812	0.1068	0.0168	0.0117
IV $k_T, \hat{M}^*$		-0.2486	-0.0632	0.0738	0.1949	0.2808	0.1043	0.0163	0.0119
IV 4	.3	-0.2562	-0.0922	0.0501	0.1573	0.2480	0.0905	0.0124	0.0108
IV $k_B, \hat{M}^*$		-0.2848	-0.1088	0.0510	0.1643	0.2574	0.0957	0.0140	0.0125
IV $k_P, \hat{M}^*$		-0.2622	-0.0838	0.0701	0.1768	0.2795	0.0995	0.0147	0.0114
IV $k_T, \hat{M}^*$		-0.2675	-0.0910	0.0646	0.1705	0.2739	0.0976	0.0143	0.0116
IV 3	.6	-0.2836	-0.1165	0.0150	0.1162	0.2320	0.0741	0.0097	0.0097
IV $k_B, \hat{M}^*$		-0.3471	-0.1035	0.0317	0.1443	0.2948	0.1023	0.1735	0.1736
IV $k_P, \hat{M}^*$		-0.3325	-0.0865	0.0403	0.1476	0.3444	0.1680	3.1446	3.1437
IV $k_T, \hat{M}^*$		-0.3088	-0.0882	0.0361	0.1404	0.2916	0.1067	0.4413	0.4416
IV 3	.9	-0.2586	-0.1241	0.0055	0.1216	0.2892	0.0788	0.0123	0.0123
IV $k_B, \hat{M}^*$		-0.6798	-0.1366	0.0135	0.1355	0.6191	0.1630	1.8270	1.8286
IV $k_P, \hat{M}^*$		-1.0119	-0.1242	0.0230	0.1456	1.0058	0.1495	0.2867	0.2868
IV $k_T, \hat{M}^*$		-0.6343	-0.1319	0.0173	0.1402	0.6594	0.1051	0.0470	0.0469

All calculations are based on 1,000 replications. "IV M" stands for optimal infeasible GMM with M lagged instruments. "IV $k_B, \hat{M}^*$","IV $k_P, \hat{M}^*$" and "IV $k_T, \hat{M}^*$" stand for feasible KGMM using the Bartlett, Parzen and Tukey-Hanning kernels respectively. The columns ".01",".1",...,".99" are the empirical quantiles of $\hat{\beta} - 1$ for the respective estimators. "MAE" is the mean absolute error of $\hat{\beta}$, "MSE" is the sample mean squared error and "Var" is the sample variance of $\hat{\beta}$.

Table 5: Mean Absolute Error - Bartlett Kernel

Sample Size: 128, Model Parameters: $\phi = .1, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV		1.1309	0.7814	0.7258	0.7004	0.6950	0.6921	0.6917	0.6886
IV k_B	-.9	1.1109	0.8033	0.7199	0.6726	0.6487	0.6105	0.5892	0.5801
IV $k_B, \hat{M}^*$		0.6135							
IV		0.8427	0.6581	0.6554	0.6508	0.6594	0.6667	0.6692	0.6742
IV k_B	-.6	0.8391	0.6507	0.6202	0.6085	0.6048	0.6252	0.6170	0.6296
IV $k_B, \hat{M}^*$		0.5975							
IV		0.8476	0.6404	0.6614	0.6774	0.6831	0.7115	0.7192	0.7236
IV k_B	-.3	0.8438	0.6225	0.6116	0.6174	0.6280	0.6640	0.6818	0.6935
IV $k_B, \hat{M}^*$		0.6355							
IV		0.8071	0.6313	0.6575	0.6840	0.7118	0.7497	0.7615	0.7686
IV k_B	0	0.8057	0.5901	0.5949	0.6082	0.6258	0.6862	0.7148	0.7302
IV $k_B, \hat{M}^*$		0.6266							
IV		0.7988	0.6456	0.6540	0.6666	0.6817	0.7151	0.7284	0.7302
IV k_B	.3	0.7955	0.6331	0.6130	0.6150	0.6223	0.6631	0.6861	0.6976
IV $k_B, \hat{M}^*$		0.6400							
IV		0.8970	0.6762	0.6681	0.6510	0.6600	0.6801	0.6783	0.6801
IV k_B	.6	0.8922	0.6606	0.6277	0.6109	0.6034	0.6132	0.6260	0.6132
IV $k_B, \hat{M}^*$		0.6021							
IV		1.0078	0.7760	0.7342	0.7114	0.7049	0.6979	0.7057	0.7067
IV k_B	.9	0.9835	0.7641	0.7120	0.6770	0.6538	0.6611	0.6290	0.6199
IV $k_B, \hat{M}^*$		0.6461							

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "IV $k_B, \hat{M}^*$" stands for feasible GMM using the Bartlett kernel. The numbers reported are mean absolute errors of $\hat{\beta}$.

Table 6: Mean Absolute Error - Bartlett Kernel

Sample Size: 128, Model Parameters: $\phi = .2, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.5330	0.4511	0.4491	0.4562	0.4682	0.5341	0.5686	0.5931
IV k_B		0.5233	0.4265	0.4032	0.4002	0.4021	0.3951	0.4437	0.4052
IV $k_B, \hat{M}^*$		1.0308							
IV	-.6	0.4861	0.3787	0.3974	0.4196	0.4515	0.5419	0.5842	0.6083
IV k_B		0.4831	0.3672	0.3440	0.3387	0.3458	0.3990	2.3282	0.4972
IV $k_B, \hat{M}^*$		0.3832							
IV	-.3	0.4161	0.3778	0.4153	0.4501	0.4898	0.5884	0.6300	0.6555
IV k_B		0.4141	0.3482	0.3445	0.3520	0.3652	0.4460	0.5022	0.5381
IV $k_B, \hat{M}^*$		0.3852							
IV	0	0.3963	0.3715	0.4275	0.4784	0.5189	0.6297	0.6760	0.7031
IV k_B		0.3955	0.3404	0.3316	0.3481	0.3706	0.4711	0.5372	0.5786
IV $k_B, \hat{M}^*$		0.3665							
IV	.3	0.4242	0.3661	0.4083	0.4505	0.4886	0.5822	0.6242	0.6463
IV k_B		0.4236	0.3355	0.3282	0.3392	0.3565	0.4452	0.5007	0.5348
IV $k_B, \hat{M}^*$		0.3770							
IV	.6	0.4725	0.3911	0.4005	0.4220	0.4450	0.5345	0.5762	0.5964
IV k_B		0.4680	0.3712	0.3450	0.3401	0.3440	0.3846	0.4211	0.4600
IV $k_B, \hat{M}^*$		0.4259							
IV	.9	0.5795	0.4701	0.4661	0.4755	0.4893	0.5670	0.5885	0.6157
IV k_B		0.5658	0.4609	0.4343	0.4149	0.4231	0.4797	0.4607	0.4258
IV $k_B, \hat{M}^*$		0.4001							

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "IV $k_B, \hat{M}^*$" stands for feasible GMM using the Bartlett kernel. The numbers reported are mean absolute errors of $\hat{\beta}$.

Table 7: Mean Absolute Error - Bartlett Kernel

Sample Size: 128, Model Parameters: $\phi = .3, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.3217	0.2656	0.2521	0.2663	0.2787	0.3520	0.4111	0.4524
IV k_B		0.3126	0.2682	0.2530	0.2419	0.2939	0.4679	0.3125	0.3076
IV $k_B, \hat{M}^*$		0.3004							
IV	-.6	0.2787	0.2255	0.2226	0.2407	0.2635	0.3737	0.4266	0.4630
IV k_B		0.2752	0.2287	0.2143	0.2066	0.2157	0.2382	0.3396	0.3588
IV $k_B, \hat{M}^*$		0.2909							
IV	-.3	0.2518	0.2297	0.2510	0.2899	0.3249	0.4521	0.5133	0.5527
IV k_B		0.2513	0.2227	0.2157	0.2174	0.2249	0.2871	0.3478	0.3937
IV $k_B, \hat{M}^*$		0.2408							
IV	0	0.2635	0.2364	0.2638	0.3026	0.3436	0.4885	0.5630	0.6063
IV k_B		0.2634	0.2321	0.2187	0.2185	0.2254	0.2956	0.3667	0.4214
IV $k_B, \hat{M}^*$		0.2358							
IV	.3	0.2436	0.2239	0.2487	0.2830	0.3180	0.4437	0.5072	0.5466
IV k_B		0.2434	0.2208	0.2136	0.2130	0.2199	0.2793	0.3385	0.3844
IV $k_B, \hat{M}^*$		0.2343							
IV	.6	0.2806	0.2327	0.2344	0.2508	0.2751	0.3726	0.4480	0.4679
IV k_B		0.2769	0.2348	0.2247	0.2164	0.2846	0.2500	0.2758	0.3345
IV $k_B, \hat{M}^*$		0.2580							
IV	.9	0.3253	0.2649	0.2597	0.2697	0.2851	0.3560	0.4167	0.4610
IV k_B		0.3166	0.2692	0.2528	0.2631	0.2600	0.2789	0.2815	0.3143
IV $k_B, \hat{M}^*$		0.3303							

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "IV $k_B, \hat{M}^*$" stands for feasible GMM using the Bartlett kernel. The numbers reported are mean absolute errors of $\hat{\beta}$.

Table 8: Mean Absolute Error - Bartlett Kernel

Sample Size: 128, Model Parameters: $\phi = .6, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.1308	0.0850	0.0797	0.0918	0.1040	0.1120	0.1410	0.1622
IV k_B		0.1291	0.0980	0.1174	0.1206	0.1114	0.1627	0.1425	0.1150
IV $k, \hat{M}^*$		0.1454							
IV	-.6	0.1077	0.0837	0.0758	0.0740	0.0772	0.1037	0.1263	0.1662
IV k_B		0.1070	0.0894	0.0898	0.0898	0.0846	0.0926	0.1076	0.1087
IV $k_B, \hat{M}^*$		0.1347							
IV	-.3	0.1017	0.0897	0.0863	0.0890	0.0942	0.1438	0.1977	0.2422
IV k_B		0.1016	0.0939	0.0952	0.0917	0.0898	0.0908	0.1000	0.1146
IV $k_B, \hat{M}^*$		0.0943							
IV	0	0.1012	0.0969	0.0961	0.0993	0.1085	0.1682	0.2299	0.2818
IV k_B		0.1012	0.0995	0.1007	0.0986	0.0967	0.1004	0.1135	0.1315
IV $k_B, \hat{M}^*$		0.1016							
IV	.3	0.1028	0.0885	0.0888	0.0921	0.0971	0.1442	0.1989	0.2416
IV k_B		0.1026	0.0941	0.0966	0.0924	0.0909	0.0924	0.1031	0.1179
IV $k_B, \hat{M}^*$		0.0951							
IV	.6	0.1119	0.0819	0.0750	0.0745	0.0774	0.1079	0.1846	0.1741
IV k_B		0.1112	0.0906	0.0906	0.0883	0.0909	0.1149	0.1453	0.1286
IV $k_B, \hat{M}^*$		0.1374							
IV	.9	0.1297	0.0880	0.0784	0.0846	0.0938	0.1041	0.1685	0.1502
IV k_B		0.1282	0.1010	0.1060	0.1065	0.1128	0.1606	0.3205	0.1248
IV $k_B, \hat{M}^*$		0.1804							

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "IV $k_B, \hat{M}^*$" stands for feasible GMM using the Bartlett kernel. The numbers reported are mean absolute errors of $\hat{\beta}$.

Table 9: Median Bias - Bartlett Kernel and Bias Correction

Sample Size: 128, Model Parameters: $\phi = .1, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.4689	0.6075	0.6444	0.6404	0.6426	0.6579	0.6740	0.6799
IV k_B		0.4445	0.4889	0.5344	0.5472	0.5388	0.5161	0.5063	0.4971
IV B		0.4680	0.5258	0.5615	0.5651	0.5839	0.5945	0.6059	0.6440
IV	-.6	0.4492	0.5813	0.6174	0.6076	0.6309	0.6345	0.6477	0.6602
IV k_B		0.4494	0.4782	0.5293	0.5440	0.5450	0.5632	0.5723	0.5699
IV B		0.4432	0.4601	0.5174	0.5130	0.5128	0.4920	0.4658	0.4360
IV	-.3	0.4581	0.5778	0.6386	0.6640	0.6801	0.7083	0.7106	0.7125
IV k_B		0.4541	0.4995	0.5377	0.5754	0.5941	0.6508	0.6726	0.6847
$\tilde{\beta}^{**}_{n,M}$.		0.3616	0.3552	0.3414	0.3016	0.2755	0.0493	-0.1907	-0.4502
IV	0	0.4410	0.6009	0.6463	0.6785	0.6979	0.7447	0.7596	0.7678
IV k_B		0.4362	0.4999	0.5517	0.5896	0.6114	0.6782	0.7102	0.7252
$\tilde{\beta}^{**}_{n,M}$		0.0746	-0.1037	-0.2937	-0.4865	-0.6800	-1.7068	-2.7555	-3.8503
IV	.3	0.4546	0.5779	0.6272	0.6521	0.6686	0.7035	0.7232	0.7236
IV k_B		0.4546	0.5065	0.5476	0.5701	0.5875	0.6441	0.6678	0.6843
$\tilde{\beta}^{**}_{n,M}$		0.3771	0.3901	0.3680	0.3385	0.2987	0.0852	-0.1404	-0.3608
IV	.6	0.4381	0.5570	0.6087	0.6183	0.6212	0.6450	0.6623	0.6684
IV k_B		0.4292	0.4651	0.5095	0.5363	0.5447	0.5686	0.5777	0.5762
$\tilde{\beta}^{**}_{n,M}$		0.4255	0.4672	0.5057	0.5061	0.5016	0.4894	0.4781	0.4545
IV	.9	0.4726	0.6154	0.6581	0.6590	0.6499	0.6600	0.6910	0.6916
IV k_B		0.4510	0.4753	0.5347	0.5487	0.5440	0.5224	0.5253	0.5287
$\tilde{\beta}^{**}_{n,M}$		0.4654	0.4964	0.5571	0.5702	0.5725	0.5694	0.5879	0.6157

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "$\tilde{\beta}^{**}_{n,M}$" stands for the bias corrected KGMM estimator using the Bartlett kernel. The numbers reported are the .5 quantile of the empirical distribution of $\hat{\beta}$.

Table 10: Median Bias - Bartlett Kernel and Bias Correction

Sample Size: 128, Model Parameters: $\phi = .3, \sigma_{12} = .5$									
			Number of Instruments						
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.0368	0.0809	0.1229	0.1616	0.1943	0.2983	0.3700	0.4247
IV k_B		0.0345	0.0344	0.0559	0.0670	0.0849	0.1297	0.1528	0.1658
$\tilde{\beta}^{**}_{n,M\cdot}$		0.0083	0.0150	0.0389	0.0336	0.0456	0.0381	-0.0025	-0.0433
IV	-.6	0.0397	0.1014	0.1489	0.1924	0.2256	0.3418	0.4024	0.4330
IV k_B		0.0383	0.0468	0.0815	0.1014	0.1267	0.2005	0.2444	0.2683
$\tilde{\beta}^{**}_{n,M}$		0.0078	-0.0099	0.0040	-0.0004	-0.0047	-0.0598	-0.1331	-0.2383
IV	-.3	0.0657	0.1582	0.2242	0.2726	0.3173	0.4487	0.5053	0.5419
IV k_B		0.0669	0.0916	0.1329	0.1635	0.1864	0.2775	0.3443	0.3892
$\tilde{\beta}^{**}_{n,M}$		0.0100	-0.0089	-0.0232	-0.0392	-0.0681	-0.2156	-0.3915	-0.5739
IV	0	0.0672	0.1609	0.2350	0.2998	0.3432	0.4860	0.5640	0.6057
IV k_B		0.0673	0.0906	0.1259	0.1517	0.1802	0.2918	0.3711	0.4206
$\tilde{\beta}^{**}_{n,M}$		-0.0316	-0.1019	-0.1606	-0.2205	-0.2813	-0.5784	-0.9099	-1.2723
IV	.3	0.0444	0.1475	0.2212	0.2703	0.3128	0.4375	0.4979	0.5399
IV k_B		0.0451	0.0812	0.1158	0.1432	0.1709	0.2730	0.3368	0.3825
$\tilde{\beta}^{**}_{n,M}$		-0.0049	-0.0232	-0.0381	-0.0625	-0.0809	-0.2248	-0.4008	-0.5951
IV	.6	0.0473	0.1178	0.1542	0.2000	0.2359	0.3362	0.3997	0.4394
IV k_B		0.0483	0.0694	0.1053	0.1232	0.1347	0.2032	0.2485	0.2760
$\tilde{\beta}^{**}_{n,M}$		0.0211	0.0181	0.0299	0.0203	0.0116	-0.0412	-0.1268	-0.2178
IV	.9	0.0571	0.0988	0.1435	0.1729	0.1979	0.3036	0.3737	0.4283
IV k_B		0.0504	0.0522	0.0717	0.0856	0.1031	0.1248	0.1586	0.1607
$\tilde{\beta}^{**}_{n,M}$		0.0332	0.0504	0.0633	0.0574	0.0641	0.0599	0.0553	0.0098

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "$\tilde{\beta}^{**}_{n,M}$" stands for the bias corrected KGMM estimator using the Bartlett kernel. The numbers reported are the .5 quantile of the empirical distribution of $\hat{\beta}$.

Table 11: Mean Absolute Error - Bartlett Kernel and Bias Correction

Sample Size: 128, Model Parameters: $\phi = .1, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	1.1309	0.7814	0.7258	0.7004	0.6950	0.6921	0.6917	0.6886
IV k_B		1.1109	0.8033	0.7199	0.6726	0.6487	0.6105	0.5892	0.5801
$\tilde{\beta}^{**}_{n,M}$		1.1339	0.8418	0.7735	0.7411	0.7319	0.7671	0.8336	0.9262
IV	-.6	0.8427	0.6581	0.6554	0.6508	0.6594	0.6667	0.6692	0.6742
IV k_B		0.8391	0.6507	0.6202	0.6085	0.6048	0.6252	0.6170	0.6296
$\tilde{\beta}^{**}_{n,M}$		0.8535	0.6663	0.6289	0.6103	0.6013	0.6074	0.6418	0.7375
IV	-.3	0.8476	0.6404	0.6614	0.6774	0.6831	0.7115	0.7192	0.7236
IV k_B		0.8438	0.6225	0.6116	0.6174	0.6280	0.6640	0.6818	0.6935
$\tilde{\beta}^{**}_{n,M}$		0.8532	0.6211	0.5930	0.5871	0.5940	0.7811	1.0837	1.4277
IV	0	0.8071	0.6313	0.6575	0.6840	0.7118	0.7497	0.7615	0.7686
IV k_B		0.8057	0.5901	0.5949	0.6082	0.6258	0.6862	0.7148	0.7302
$\tilde{\beta}^{**}_{n,M}$		0.9971	1.0598	1.4010	1.7946	2.2124	4.4475	6.7601	9.0942
IV	.3	0.7988	0.6456	0.6540	0.6666	0.6817	0.7151	0.7284	0.7302
IV k_B		0.7955	0.6331	0.6130	0.6150	0.6223	0.6631	0.6861	0.6976
$\tilde{\beta}^{**}_{n,M}$		0.8054	0.6327	0.5992	0.5951	0.6039	0.7958	1.0967	1.4366
IV	.6	0.8970	0.6762	0.6681	0.6510	0.6600	0.6801	0.6783	0.6801
IV k_B		0.8922	0.6606	0.6277	0.6109	0.6034	0.6132	0.6260	0.6132
$\tilde{\beta}^{**}_{n,M}$		0.9055	0.6765	0.6400	0.6158	0.6032	0.5967	0.6632	0.7381
IV	.9	1.0078	0.7760	0.7342	0.7114	0.7049	0.6979	0.7057	0.7067
IV k_B		0.9835	0.7641	0.7120	0.6770	0.6538	0.6611	0.6290	0.6199
$\tilde{\beta}^{**}_{n,M}$		1.0014	0.7947	0.7507	0.7261	0.7111	0.7716	0.8171	0.8908

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "$\tilde{\beta}^{**}_{n,M}$" stands for the bias corrected KGMM estimator using the Bartlett kernel. The numbers reported are the mean absolute error of the empirical distribution of $\hat{\beta}$.

Table 12: Mean Absolute Error - Bartlett Kernel and Bias Correction

Sample Size: 128, Model Parameters: $\phi = .3, \sigma_{12} = .5$									
		Number of Instruments							
Estimator	θ	1	2	3	4	5	10	15	20
IV	-.9	0.3217	0.2656	0.2521	0.2663	0.2787	0.3520	0.4111	0.4524
IV k_B		0.3126	0.2682	0.2530	0.2419	0.2939	0.4679	0.3125	0.3076
$\tilde{\beta}^{**}_{n,M}$		0.3373	0.3168	0.3202	0.3280	0.3961	0.6599	0.6140	0.7301
IV	-.6	0.2787	0.2255	0.2226	0.2407	0.2635	0.3737	0.4266	0.4630
IV k_B		0.2752	0.2287	0.2143	0.2066	0.2157	0.2382	0.3396	0.3588
$\tilde{\beta}^{**}_{n,M}$		0.2822	0.2423	0.2263	0.2152	0.2195	0.2246	0.3204	0.3886
IV	-.3	0.2518	0.2297	0.2510	0.2899	0.3249	0.4521	0.5133	0.5527
IV k_B		0.2513	0.2227	0.2157	0.2174	0.2249	0.2871	0.3478	0.3937
$\tilde{\beta}^{**}_{n,M}$		0.2503	0.2180	0.2008	0.1917	0.1921	0.2590	0.4056	0.5881
IV	0	0.2635	0.2364	0.2638	0.3026	0.3436	0.4885	0.5630	0.6063
IV k_B		0.2634	0.2321	0.2187	0.2185	0.2254	0.2956	0.3667	0.4214
$\tilde{\beta}^{**}_{n,M}$		0.2555	0.2352	0.2421	0.2695	0.3117	0.6177	0.9828	1.3741
IV	.3	0.2436	0.2239	0.2487	0.2830	0.3180	0.4437	0.5072	0.5466
IV k_B		0.2434	0.2208	0.2136	0.2130	0.2199	0.2793	0.3385	0.3844
$\tilde{\beta}^{**}_{n,M}$		0.2435	0.2167	0.2002	0.1895	0.1872	0.2604	0.4117	0.5967
IV	.6	0.2806	0.2327	0.2344	0.2508	0.2751	0.3726	0.4480	0.4679
IV k_B		0.2769	0.2348	0.2247	0.2164	0.2846	0.2500	0.2758	0.3345
$\tilde{\beta}^{**}_{n,M}$		0.2833	0.2469	0.2342	0.2239	0.2887	0.2401	0.2811	0.3829
IV	.9	0.3253	0.2649	0.2597	0.2697	0.2851	0.3560	0.4167	0.4610
IV k_B		0.3166	0.2692	0.2528	0.2631	0.2600	0.2789	0.2815	0.3143
$\tilde{\beta}^{**}_{n,M}$		0.3416	0.3210	0.3253	0.3545	0.3704	0.5013	0.6119	0.7849

All calculations are based on 1,000 replications. "IV" stands for standard GMM. "IV k_B" stands for KGMM using the Bartlett kernel. "$\tilde{\beta}^{**}_{n,M}$" stands for the bias corrected KGMM estimator using the Bartlett kernel. The numbers reported are the mean absolute error of the empirical distribution of $\hat{\beta}$.