

KIV6GAU: Estimation of LSDV with one exog variable and one lagged dep var

Follows Kiviet 1995 and Arellano&Bond 1991

Second try at 10,000 draws

In this version, draw a fresh X vector each time

kiv7c checks for wild draws using rho=0.5

NDraw=1000

NStart=50

T	N	SgS	Mu	Par	Stat	OLS	LSDV	LSDVC	A-HIV
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Gamma results, case 1

5	20	2	1	0.2	MEAN	0.207	-0.148	0.001	0.017
					STDEV	0.092	0.089	0.110	0.194
					MEDIAN	0.209	-0.144	0.000	0.012
					RMSE	0.226	0.173	0.109	0.194
					PCT05	0.050	-0.301	-0.166	-0.274
					PCT25	0.148	-0.210	-0.075	-0.109
					PCT75	0.270	-0.091	0.063	0.126
					PCT95	0.353	-0.004	0.190	0.335

Beta results, case 1

5	20	2	1	0.8	MEAN	-0.087	0.008	0.005	0.004
					STDEV	0.104	0.111	0.112	0.132
					MEDIAN	-0.084	0.001	-0.002	-0.003
					RMSE	0.136	0.111	0.112	0.132
					PCT05	-0.251	-0.169	-0.173	-0.211
					PCT25	-0.156	-0.067	-0.072	-0.087
					PCT75	-0.025	0.084	0.080	0.095
					PCT95	0.091	0.194	0.194	0.224

Time to run 1000 draws= 0.17 minutes

Gamma results, case 2

5	20	2	1	0.8	MEAN	0.033	-0.507	-0.190	0.060
					STDEV	0.062	0.130	0.160	1.861
					MEDIAN	0.036	-0.508	-0.175	0.029
					RMSE	0.071	0.524	0.248	1.861
					PCT05	-0.075	-0.718	-0.482	-0.682
					PCT25	-0.008	-0.594	-0.298	-0.261
					PCT75	0.077	-0.421	-0.073	0.327
					PCT95	0.123	-0.294	0.056	1.109

Beta results, case 2

5	20	2	1	0.2	MEAN	-0.001	-0.024	-0.007	0.002
					STDEV	0.133	0.171	0.184	0.381
					MEDIAN	-0.006	-0.032	-0.012	-0.002
					RMSE	0.133	0.172	0.184	0.381
					PCT05	-0.221	-0.294	-0.302	-0.398
					PCT25	-0.089	-0.141	-0.139	-0.147
					PCT75	0.086	0.087	0.111	0.150
					PCT95	0.217	0.274	0.311	0.418

Time to run 1000 draws= 0.17 minutes

Gamma results, case 3

5	20	8	1	0.2	MEAN	0.089	-0.057	0.002	0.004
					STDEV	0.058	0.057	0.061	0.121
					MEDIAN	0.089	-0.057	0.001	0.002
					RMSE	0.107	0.081	0.061	0.121
					PCT05	-0.009	-0.152	-0.098	-0.187
					PCT25	0.049	-0.094	-0.038	-0.070
					PCT75	0.127	-0.020	0.037	0.078
					PCT95	0.185	0.036	0.105	0.202

Beta results, case 3

5	20	8	1	0.8	MEAN	-0.037	0.003	0.001	0.001
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STDEV	0.055	0.055	0.055	0.065
MEDIAN	-0.038	-0.002	-0.003	0.000
RMSE	0.066	0.055	0.055	0.065
PCT05	-0.125	-0.084	-0.085	-0.101
PCT25	-0.072	-0.036	-0.037	-0.045
PCT75	-0.002	0.040	0.039	0.045
PCT95	0.057	0.093	0.092	0.107

Time to run 1000 draws= 0.17 minutes

Gamma results, case 4

5	20	8	1	0.8	MEAN	0.013	-0.255	-0.039	0.086
STDEV	0.041	0.102	0.128	2.139	MEDIAN	0.013	-0.250	-0.035	0.005
RMSE	0.043	0.275	0.134	2.140	PCT05	-0.058	-0.422	-0.250	-0.648
PCT25	-0.012	-0.322	-0.126	-0.220	PCT75	0.042	-0.185	0.055	0.229
PCT95	0.079	-0.091	0.164	0.877					

Beta results, case 4

5	20	8	1	0.2	MEAN	-0.001	-0.013	-0.003	0.008
STDEV	0.026	0.034	0.044	0.154	MEDIAN	-0.001	-0.015	-0.003	0.002
RMSE	0.026	0.037	0.044	0.154	PCT05	-0.041	-0.067	-0.062	-0.079
PCT25	-0.018	-0.038	-0.026	-0.032	PCT75	0.015	0.009	0.022	0.032
PCT95	0.043	0.046	0.062	0.101					

Time to run 1000 draws= 0.17 minutes

Gamma results, case 5

5	20	2	5	0.2	MEAN	0.718	-0.148	0.010	0.586
STDEV	0.041	0.089	0.134	17.026	MEDIAN	0.723	-0.144	-0.003	0.004
RMSE	0.719	0.173	0.134	17.028	PCT05	0.644	-0.301	-0.182	-0.936
PCT25	0.695	-0.210	-0.077	-0.230	PCT75	0.744	-0.091	0.089	0.277
PCT95	0.775	-0.004	0.266	1.435					

Beta results, case 5

5	20	2	5	0.8	MEAN	-0.302	0.008	0.017	0.137
STDEV	0.116	0.111	0.167	4.623	MEDIAN	-0.309	0.001	0.015	-0.001
RMSE	0.323	0.111	0.168	4.623	PCT05	-0.487	-0.169	-0.172	-0.295
PCT25	-0.380	-0.067	-0.066	-0.104	PCT75	-0.223	0.084	0.096	0.116
PCT95	-0.114	0.194	0.236	0.357					

Time to run 1000 draws= 0.17 minutes

Gamma results, case 6

5	20	2	5	0.8	MEAN	0.174	-0.507	-0.283	0.909
STDEV	0.023	0.130	0.191	39.791	MEDIAN	0.175	-0.508	-0.279	-0.124
RMSE	0.176	0.524	0.341	39.782	PCT05	0.135	-0.718	-0.604	-3.608
PCT25	0.160	-0.594	-0.421	-0.700	PCT75	0.190	-0.421	-0.139	0.587
PCT95	0.208	-0.294	0.012	3.659					

Beta results, case 6

5	20	2	5	0.2	MEAN	-0.025	-0.024	-0.003	0.067
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STDEV	0.133	0.171	0.433	4.004
MEDIAN	-0.029	-0.032	-0.015	-0.021
RMSE	0.135	0.172	0.433	4.003
PCT05	-0.237	-0.294	-0.308	-0.584
PCT25	-0.112	-0.141	-0.148	-0.187
PCT75	0.063	0.087	0.110	0.144
PCT95	0.203	0.274	0.308	0.642

Time to run 1000 draws= 0.17 minutes

Gamma results, case 7

5	20	8	5	0.2	MEAN	0.609	-0.057	0.014	0.031
STDEV	0.063	0.057	0.081	1.219					
MEDIAN	0.616	-0.057	0.007	-0.004					
RMSE	0.613	0.081	0.082	1.219					
PCT05	0.494	-0.152	-0.095	-0.350					
PCT25	0.572	-0.094	-0.037	-0.114					
PCT75	0.652	-0.020	0.051	0.125					
PCT95	0.699	0.036	0.136	0.445					

Beta results, case 7

5	20	8	5	0.8	MEAN	-0.257	0.003	0.005	0.012
STDEV	0.089	0.055	0.058	0.309					
MEDIAN	-0.258	-0.002	0.000	0.002					
RMSE	0.272	0.055	0.058	0.309					
PCT05	-0.413	-0.084	-0.085	-0.127					
PCT25	-0.315	-0.036	-0.036	-0.050					
PCT75	-0.197	0.040	0.043	0.051					
PCT95	-0.108	0.093	0.102	0.146					

Time to run 1000 draws= 0.17 minutes

Gamma results, case 8

5	20	8	5	0.8	MEAN	0.146	-0.255	-0.071	-0.161
STDEV	0.027	0.102	0.142	7.082					
MEDIAN	0.147	-0.250	-0.073	-0.048					
RMSE	0.148	0.275	0.159	7.081					
PCT05	0.098	-0.422	-0.325	-2.653					
PCT25	0.130	-0.322	-0.164	-0.401					
PCT75	0.164	-0.185	0.030	0.316					
PCT95	0.187	-0.091	0.159	2.038					

Beta results, case 8

5	20	8	5	0.2	MEAN	-0.022	-0.013	-0.005	-0.017
STDEV	0.029	0.034	0.048	0.651					
MEDIAN	-0.021	-0.015	-0.005	-0.005					
RMSE	0.036	0.037	0.049	0.651					
PCT05	-0.069	-0.067	-0.065	-0.198					
PCT25	-0.041	-0.038	-0.031	-0.050					
PCT75	-0.004	0.009	0.021	0.037					
PCT95	0.028	0.046	0.062	0.195					

Time to run 1000 draws= 0.17 minutes

Gamma results, case 9

5	100	2	1	0.2	MEAN	0.225	-0.147	-0.006	0.001
STDEV	0.039	0.040	0.046	0.077					
MEDIAN	0.227	-0.147	-0.007	0.000					
RMSE	0.228	0.152	0.046	0.077					
PCT05	0.158	-0.211	-0.078	-0.117					
PCT25	0.199	-0.173	-0.037	-0.054					
PCT75	0.251	-0.120	0.024	0.052					
PCT95	0.286	-0.083	0.071	0.123					

Beta results, case 9

5	100	2	1	0.8	MEAN	-0.098	0.006	0.001	0.000
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STDEV	0.044	0.045	0.045	0.054
MEDIAN	-0.098	0.005	0.001	0.001
RMSE	0.108	0.045	0.045	0.054
PCT05	-0.172	-0.067	-0.072	-0.089
PCT25	-0.128	-0.025	-0.031	-0.038
PCT75	-0.068	0.037	0.032	0.037
PCT95	-0.026	0.079	0.076	0.091

Time to run 1000 draws= 0.52 minutes

Gamma results, case 10

					MEAN	0.049	-0.504	-0.131	0.007
5	100	2	1	0.8	STDEV	0.026	0.058	0.080	0.202
					MEDIAN	0.050	-0.505	-0.123	-0.005
					RMSE	0.055	0.507	0.154	0.202
					PCT05	0.007	-0.597	-0.268	-0.301
					PCT25	0.032	-0.543	-0.184	-0.127
					PCT75	0.066	-0.465	-0.075	0.131
					PCT95	0.091	-0.406	-0.008	0.352

Beta results, case 10

					MEAN	-0.005	-0.027	-0.006	0.002
					STDEV	0.055	0.070	0.076	0.094
					MEDIAN	-0.006	-0.027	-0.007	0.000
					RMSE	0.055	0.075	0.076	0.094
					PCT05	-0.092	-0.143	-0.129	-0.154
					PCT25	-0.042	-0.074	-0.062	-0.063
					PCT75	0.031	0.022	0.045	0.064
					PCT95	0.088	0.086	0.120	0.154

Time to run 1000 draws= 0.52 minutes

Gamma results, case 11

5	100	8	1	0.2	MEAN	0.098	-0.056	-0.001	-0.001
					STDEV	0.026	0.025	0.026	0.048
					MEDIAN	0.099	-0.056	-0.001	0.000
					RMSE	0.102	0.062	0.026	0.048
					PCT05	0.055	-0.099	-0.043	-0.077
					PCT25	0.080	-0.073	-0.018	-0.033
					PCT75	0.116	-0.039	0.016	0.031
					PCT95	0.140	-0.016	0.042	0.077

Beta results, case 11

5	100	8	1	0.8	MEAN	-0.043	0.002	0.000	0.000
					STDEV	0.024	0.022	0.022	0.027
					MEDIAN	-0.043	0.001	0.000	0.001
					RMSE	0.049	0.022	0.022	0.027
					PCT05	-0.081	-0.035	-0.036	-0.043
					PCT25	-0.059	-0.013	-0.016	-0.019
					PCT75	-0.027	0.018	0.015	0.019
					PCT95	-0.005	0.038	0.037	0.044

Time to run 1000 draws= 0.53 minutes

Gamma results, case 12

5	100	8	1	0.8	MEAN	0.021	-0.252	-0.030	0.001
					STDEV	0.017	0.045	0.065	0.160
					MEDIAN	0.021	-0.251	-0.035	-0.006
					RMSE	0.027	0.256	0.071	0.160
					PCT05	-0.007	-0.328	-0.131	-0.229
					PCT25	0.009	-0.284	-0.075	-0.101
					PCT75	0.032	-0.221	0.014	0.086
					PCT95	0.047	-0.178	0.088	0.260

Beta results, case 12

Mean -0.003 -0.014 -0.001 0.000

STDEV	0.011	0.014	0.015	0.020
MEDIAN	-0.003	-0.014	-0.001	0.000
RMSE	0.011	0.020	0.015	0.020
PCT05	-0.020	-0.037	-0.025	-0.031
PCT25	-0.010	-0.024	-0.012	-0.015
PCT75	0.004	-0.004	0.009	0.013
PCT95	0.015	0.009	0.025	0.034

Time to run 1000 draws= 0.51 minutes

Gamma results, case 13

5	100	2	5	0.2	MEAN	0.726	-0.147	0.002	0.000
STDEV	0.015	0.040			0.058	0.189			
MEDIAN	0.727	-0.147			-0.004	-0.002			
RMSE	0.726	0.152			0.058	0.188			
PCT05	0.699	-0.211			-0.079	-0.289			
PCT25	0.716	-0.173			-0.037	-0.116			
PCT75	0.737	-0.120			0.032	0.104			
PCT95	0.750	-0.083			0.101	0.284			

Beta results, case 13

5	100	2	5	0.8	MEAN	-0.319	0.006	0.003	0.000
STDEV	0.050	0.045			0.046	0.065			
MEDIAN	-0.320	0.005			0.002	-0.002			
RMSE	0.323	0.045			0.046	0.065			
PCT05	-0.400	-0.067			-0.070	-0.102			
PCT25	-0.354	-0.025			-0.029	-0.046			
PCT75	-0.288	0.037			0.034	0.042			
PCT95	-0.236	0.079			0.079	0.113			

Time to run 1000 draws= 0.52 minutes

Gamma results, case 14

5	100	2	5	0.8	MEAN	0.179	-0.504	-0.192	-0.032
STDEV	0.009	0.058			0.130	3.838			
MEDIAN	0.179	-0.505			-0.175	-0.025			
RMSE	0.179	0.507			0.232	3.836			
PCT05	0.163	-0.597			-0.456	-1.114			
PCT25	0.173	-0.543			-0.271	-0.335			
PCT75	0.185	-0.465			-0.095	0.292			
PCT95	0.193	-0.406			-0.017	1.254			

Beta results, case 14

5	100	2	5	0.2	MEAN	-0.027	-0.027	-0.009	0.008
STDEV	0.054	0.070			0.082	0.319			
MEDIAN	-0.025	-0.027			-0.010	-0.009			
RMSE	0.060	0.075			0.082	0.319			
PCT05	-0.117	-0.143			-0.138	-0.180			
PCT25	-0.064	-0.074			-0.065	-0.080			
PCT75	0.010	0.022			0.044	0.069			
PCT95	0.065	0.086			0.119	0.221			

Time to run 1000 draws= 0.51 minutes

Gamma results, case 15

5	100	8	5	0.2	MEAN	0.623	-0.056	0.000	-0.001
STDEV	0.025	0.025			0.027	0.079			
MEDIAN	0.624	-0.056			0.000	-0.001			
RMSE	0.623	0.062			0.027	0.079			
PCT05	0.580	-0.099			-0.043	-0.127			
PCT25	0.606	-0.073			-0.018	-0.054			
PCT75	0.640	-0.039			0.018	0.052			
PCT95	0.661	-0.016			0.045	0.132			

Beta results, case 15

5	100	8	5	0.8	MEAN	-0.274	0.002	0.000	0.000
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STDEV	0.039	0.022	0.022	0.030
MEDIAN	-0.275	0.001	0.000	0.001
RMSE	0.277	0.022	0.022	0.030
PCT05	-0.338	-0.035	-0.035	-0.047
PCT25	-0.300	-0.013	-0.015	-0.021
PCT75	-0.249	0.018	0.015	0.019
PCT95	-0.210	0.038	0.038	0.048

Time to run 1000 draws= 0.52 minutes

Gamma results, case 16

5	100	8	5	0.8	MEAN	0.150	-0.252	-0.029	-0.330
STDEV	0.011	0.045	0.086	8.394	MEDIAN	0.150	-0.251	-0.035	-0.008
RMSE	0.150	0.256	0.091	8.396	PCT05	0.132	-0.328	-0.154	-0.533
PCT25	0.143	-0.284	-0.085	-0.184	PCT75	0.158	-0.221	0.025	0.163
PCT95	0.167	-0.178	0.123	0.551					

Beta results, case 16

5	100	8	5	0.2	MEAN	-0.024	-0.014	0.000	-0.027
STDEV	0.012	0.014	0.022	0.709	MEDIAN	-0.024	-0.014	-0.001	-0.003
RMSE	0.027	0.020	0.022	0.709	PCT05	-0.044	-0.037	-0.028	-0.049
PCT25	-0.032	-0.024	-0.013	-0.019	PCT75	-0.016	-0.004	0.010	0.018
PCT95	-0.005	0.009	0.027	0.056					

Time to run 1000 draws= 0.51 minutes

Gamma results, case 17

10	20	2	1	0.2	MEAN	0.210	-0.060	0.000	0.005
STDEV	0.072	0.049	0.052	0.098	MEDIAN	0.213	-0.061	-0.001	0.000
RMSE	0.222	0.078	0.052	0.098	PCT05	0.087	-0.138	-0.081	-0.148
PCT25	0.161	-0.094	-0.036	-0.062	PCT75	0.260	-0.028	0.036	0.071
PCT95	0.327	0.024	0.088	0.173					

Beta results, case 17

10	20	2	1	0.8	MEAN	-0.091	0.016	0.001	0.000
STDEV	0.071	0.060	0.061	0.078	MEDIAN	-0.095	0.015	-0.001	-0.003
RMSE	0.116	0.063	0.061	0.078	PCT05	-0.203	-0.082	-0.095	-0.124
PCT25	-0.137	-0.027	-0.042	-0.053	PCT75	-0.047	0.058	0.043	0.051
PCT95	0.031	0.118	0.104	0.128					

Time to run 1000 draws= 0.22 minutes

Gamma results, case 18

10	20	2	1	0.8	MEAN	0.038	-0.238	-0.049	0.013
STDEV	0.042	0.072	0.081	0.218	MEDIAN	0.043	-0.235	-0.043	0.012
RMSE	0.056	0.249	0.095	0.218	PCT05	-0.033	-0.358	-0.192	-0.308
PCT25	0.009	-0.289	-0.102	-0.132	PCT75	0.068	-0.191	0.009	0.138
PCT95	0.100	-0.125	0.072	0.354					

Beta results, case 18

10	20	2	1	0.2	MEAN	-0.005	0.003	0.003	-0.003
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STDEV	0.085	0.101	0.102	0.137
MEDIAN	-0.007	0.001	-0.004	-0.005
RMSE	0.086	0.101	0.102	0.137
PCT05	-0.143	-0.163	-0.160	-0.213
PCT25	-0.063	-0.064	-0.066	-0.090
PCT75	0.050	0.071	0.073	0.087
PCT95	0.140	0.174	0.177	0.221

Time to run 1000 draws= 0.22 minutes

Gamma results, case 19

10	20	8	1	0.2	MEAN	0.092	-0.022	0.000	0.002
					STDEV	0.044	0.030	0.030	0.062
					MEDIAN	0.091	-0.022	0.000	0.001
					RMSE	0.102	0.037	0.030	0.062
					PCT05	0.020	-0.071	-0.050	-0.096
					PCT25	0.062	-0.043	-0.021	-0.042
					PCT75	0.121	-0.002	0.021	0.043
					PCT95	0.168	0.027	0.048	0.104

Beta results, case 19

10	20	8	1	0.8	MEAN	-0.040	0.006	0.000	0.000
					STDEV	0.037	0.030	0.030	0.038
					MEDIAN	-0.040	0.005	-0.001	-0.001
					RMSE	0.054	0.031	0.030	0.038
					PCT05	-0.100	-0.041	-0.047	-0.059
					PCT25	-0.065	-0.016	-0.021	-0.026
					PCT75	-0.017	0.027	0.022	0.025
					PCT95	0.024	0.057	0.052	0.063

Time to run 1000 draws= 0.22 minutes

Gamma results, case 20

10	20	8	1	0.8	MEAN	0.015	-0.099	0.001	0.007
					STDEV	0.027	0.045	0.054	0.165
					MEDIAN	0.016	-0.097	-0.002	0.002
					RMSE	0.031	0.108	0.054	0.165
					PCT05	-0.030	-0.175	-0.086	-0.246
					PCT25	-0.002	-0.127	-0.036	-0.100
					PCT75	0.034	-0.070	0.037	0.108
					PCT95	0.060	-0.027	0.094	0.270

Beta results, case 20

10	20	8	1	0.2	MEAN	-0.002	0.000	0.001	0.000
					STDEV	0.017	0.019	0.019	0.025
					MEDIAN	-0.003	0.001	0.001	-0.001
					RMSE	0.017	0.019	0.019	0.025
					PCT05	-0.029	-0.031	-0.029	-0.039
					PCT25	-0.014	-0.012	-0.012	-0.016
					PCT75	0.009	0.013	0.014	0.017
					PCT95	0.027	0.033	0.033	0.042

Time to run 1000 draws= 0.22 minutes

Gamma results, case 21

10	20	2	5	0.2	MEAN	0.717	-0.060	0.002	0.003
					STDEV	0.033	0.049	0.053	0.221
					MEDIAN	0.721	-0.061	0.001	-0.005
					RMSE	0.718	0.078	0.053	0.221
					PCT05	0.657	-0.138	-0.081	-0.244
					PCT25	0.700	-0.094	-0.035	-0.097
					PCT75	0.739	-0.028	0.038	0.098
					PCT95	0.760	0.024	0.094	0.300

Beta results, case 21

10	20	2	5	0.8	MEAN	-0.308	0.016	0.002	0.000
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STDEV	0.077	0.060	0.060	0.089
MEDIAN	-0.313	0.015	0.000	-0.004
RMSE	0.318	0.063	0.060	0.089
PCT05	-0.422	-0.082	-0.095	-0.131
PCT25	-0.364	-0.027	-0.041	-0.055
PCT75	-0.259	0.058	0.043	0.053
PCT95	-0.175	0.118	0.104	0.142

Time to run 1000 draws= 0.21 minutes

Gamma results, case 22

10	20	2	5	0.8	MEAN	0.175	-0.238	-0.091	0.205
					STDEV	0.014	0.072	0.099	6.434
					MEDIAN	0.175	-0.235	-0.081	0.005
					RMSE	0.175	0.249	0.134	6.434
					PCT05	0.151	-0.358	-0.257	-0.994
					PCT25	0.166	-0.289	-0.161	-0.270
					PCT75	0.185	-0.191	-0.013	0.262
					PCT95	0.196	-0.125	0.058	1.114

Beta results, case 22

10	20	2	5	0.2	MEAN	-0.027	0.003	0.003	-0.009
					STDEV	0.085	0.101	0.110	0.459
					MEDIAN	-0.029	0.001	-0.002	-0.013
					RMSE	0.089	0.101	0.110	0.459
					PCT05	-0.166	-0.163	-0.162	-0.251
					PCT25	-0.085	-0.064	-0.064	-0.103
					PCT75	0.031	0.071	0.074	0.086
					PCT95	0.119	0.174	0.181	0.268

Time to run 1000 draws= 0.22 minutes

Gamma results, case 23

10	20	8	5	0.2	MEAN	0.607	-0.022	0.000	0.002
					STDEV	0.056	0.030	0.031	0.083
					MEDIAN	0.615	-0.022	0.001	0.000
					RMSE	0.610	0.037	0.031	0.083
					PCT05	0.507	-0.071	-0.050	-0.129
					PCT25	0.574	-0.043	-0.021	-0.051
					PCT75	0.646	-0.002	0.022	0.051
					PCT95	0.685	0.027	0.049	0.137

Beta results, case 23

10	20	8	5	0.8	MEAN	-0.261	0.006	0.000	0.000
					STDEV	0.063	0.030	0.030	0.039
					MEDIAN	-0.265	0.005	-0.001	-0.002
					RMSE	0.269	0.031	0.030	0.039
					PCT05	-0.362	-0.041	-0.047	-0.061
					PCT25	-0.306	-0.016	-0.021	-0.026
					PCT75	-0.222	0.027	0.022	0.026
					PCT95	-0.156	0.057	0.051	0.066

Time to run 1000 draws= 0.22 minutes

Gamma results, case 24

10	20	8	5	0.8	MEAN	0.145	-0.099	-0.006	-0.033
					STDEV	0.020	0.045	0.057	3.227
					MEDIAN	0.146	-0.097	-0.005	-0.012
					RMSE	0.147	0.108	0.057	3.226
					PCT05	0.110	-0.175	-0.105	-0.598
					PCT25	0.134	-0.127	-0.041	-0.166
					PCT75	0.159	-0.070	0.032	0.143
					PCT95	0.176	-0.027	0.089	0.581

Beta results, case 24

10	20	8	5	0.2	MEAN	-0.022	0.000	0.002	-0.004
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STDEV	0.018	0.019	0.020	0.256
MEDIAN	-0.024	0.001	0.001	-0.003
RMSE	0.029	0.019	0.020	0.256
PCT05	-0.051	-0.031	-0.030	-0.058
PCT25	-0.034	-0.012	-0.012	-0.022
PCT75	-0.011	0.013	0.015	0.020
PCT95	0.010	0.033	0.035	0.061

Time to run 1000 draws= 0.21 minutes

Gamma results, case 25

10	100	2	1	0.2	MEAN	0.225	-0.059	0.000	0.000
					STDEV	0.032	0.023	0.024	0.043
					MEDIAN	0.225	-0.060	-0.002	0.000
					RMSE	0.227	0.063	0.024	0.043
					PCT05	0.170	-0.094	-0.038	-0.070
					PCT25	0.204	-0.075	-0.017	-0.029
					PCT75	0.247	-0.043	0.017	0.030
					PCT95	0.277	-0.021	0.040	0.069

Beta results, case 25

10	100	2	1	0.8	MEAN	-0.099	0.015	0.001	0.000
					STDEV	0.031	0.026	0.027	0.033
					MEDIAN	-0.100	0.015	0.001	0.001
					RMSE	0.104	0.031	0.027	0.033
					PCT05	-0.153	-0.029	-0.042	-0.054
					PCT25	-0.119	-0.003	-0.017	-0.023
					PCT75	-0.078	0.032	0.018	0.022
					PCT95	-0.047	0.061	0.046	0.055

Time to run 1000 draws= 0.65 minutes

Gamma results, case 26

10	100	2	1	0.8	MEAN	0.049	-0.232	-0.032	0.000
					STDEV	0.017	0.032	0.041	0.088
					MEDIAN	0.050	-0.232	-0.032	-0.002
					RMSE	0.052	0.234	0.052	0.088
					PCT05	0.019	-0.285	-0.099	-0.148
					PCT25	0.037	-0.252	-0.060	-0.060
					PCT75	0.061	-0.209	-0.005	0.063
					PCT95	0.076	-0.180	0.035	0.140

Beta results, case 26

10	100	2	1	0.2	MEAN	-0.007	0.002	0.002	0.000
					STDEV	0.037	0.045	0.045	0.057
					MEDIAN	-0.007	0.002	0.002	0.001
					RMSE	0.037	0.045	0.045	0.057
					PCT05	-0.068	-0.071	-0.072	-0.092
					PCT25	-0.030	-0.029	-0.029	-0.040
					PCT75	0.019	0.031	0.032	0.040
					PCT95	0.052	0.079	0.077	0.094

Time to run 1000 draws= 0.65 minutes

Gamma results, case 27

10	100	8	1	0.2	MEAN	0.099	-0.021	0.000	0.000
					STDEV	0.020	0.014	0.014	0.027
					MEDIAN	0.099	-0.021	0.000	0.001
					RMSE	0.101	0.026	0.014	0.027
					PCT05	0.065	-0.044	-0.024	-0.045
					PCT25	0.085	-0.031	-0.010	-0.018
					PCT75	0.113	-0.012	0.010	0.018
					PCT95	0.133	0.002	0.024	0.043

Beta results, case 27

10	100	8	1	0.8	MEAN	-0.043	0.006	0.000	0.000
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STDEV	0.017	0.013	0.013	0.016
MEDIAN	-0.044	0.006	0.000	0.000
RMSE	0.047	0.014	0.013	0.016
PCT05	-0.071	-0.016	-0.022	-0.026
PCT25	-0.054	-0.003	-0.009	-0.011
PCT75	-0.032	0.014	0.009	0.011
PCT95	-0.016	0.028	0.023	0.027

Time to run 1000 draws= 0.66 minutes

Gamma results, case 28

10	100	8	1	0.8	MEAN	0.021	-0.095	-0.003	0.000
					STDEV	0.012	0.020	0.025	0.069
					MEDIAN	0.021	-0.094	-0.005	-0.002
					RMSE	0.024	0.097	0.025	0.069
					PCT05	0.000	-0.128	-0.042	-0.112
					PCT25	0.013	-0.108	-0.021	-0.048
					PCT75	0.029	-0.080	0.012	0.047
					PCT95	0.040	-0.063	0.040	0.115

Beta results, case 28

10	100	8	1	0.2	MEAN	-0.003	0.000	0.000	0.000
					STDEV	0.007	0.008	0.008	0.011
					MEDIAN	-0.004	0.000	0.000	0.000
					RMSE	0.008	0.008	0.008	0.011
					PCT05	-0.015	-0.013	-0.013	-0.018
					PCT25	-0.008	-0.005	-0.005	-0.007
					PCT75	0.002	0.006	0.006	0.007
					PCT95	0.009	0.014	0.014	0.017

Time to run 1000 draws= 0.65 minutes

Gamma results, case 29

10	100	2	5	0.2	MEAN	0.725	-0.059	0.000	-0.001
					STDEV	0.012	0.023	0.025	0.069
					MEDIAN	0.726	-0.060	-0.002	-0.001
					RMSE	0.726	0.063	0.024	0.069
					PCT05	0.705	-0.094	-0.039	-0.113
					PCT25	0.717	-0.075	-0.017	-0.046
					PCT75	0.734	-0.043	0.017	0.045
					PCT95	0.744	-0.021	0.040	0.115

Beta results, case 29

10	100	2	5	0.8	MEAN	-0.321	0.015	0.001	0.000
					STDEV	0.032	0.026	0.027	0.035
					MEDIAN	-0.322	0.015	0.001	-0.001
					RMSE	0.323	0.031	0.027	0.035
					PCT05	-0.374	-0.029	-0.042	-0.060
					PCT25	-0.343	-0.003	-0.017	-0.024
					PCT75	-0.301	0.032	0.018	0.024
					PCT95	-0.266	0.061	0.046	0.059

Time to run 1000 draws= 0.65 minutes

Gamma results, case 30

10	100	2	5	0.8	MEAN	0.179	-0.232	-0.040	-0.001
					STDEV	0.006	0.032	0.046	0.192
					MEDIAN	0.179	-0.232	-0.038	0.000
					RMSE	0.179	0.234	0.061	0.192
					PCT05	0.169	-0.285	-0.120	-0.316
					PCT25	0.175	-0.252	-0.069	-0.123
					PCT75	0.182	-0.209	-0.007	0.117
					PCT95	0.187	-0.180	0.029	0.315

Beta results, case 30

10	100	2	5	0.2	MEAN	-0.029	0.002	0.003	0.000
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STDEV	0.036	0.045	0.046	0.059
MEDIAN	-0.030	0.002	0.004	0.000
RMSE	0.046	0.045	0.046	0.059
PCT05	-0.088	-0.071	-0.073	-0.093
PCT25	-0.051	-0.029	-0.028	-0.040
PCT75	-0.004	0.031	0.033	0.041
PCT95	0.030	0.079	0.082	0.100

Time to run 1000 draws= 0.69 minutes

Gamma results, case 31

10	100	8	5	0.2	MEAN	0.622	-0.021	0.000	0.000
					STDEV	0.023	0.014	0.014	0.035
					MEDIAN	0.622	-0.021	-0.001	-0.002
					RMSE	0.622	0.026	0.014	0.035
					PCT05	0.584	-0.044	-0.024	-0.056
					PCT25	0.607	-0.031	-0.010	-0.024
					PCT75	0.637	-0.012	0.010	0.023
					PCT95	0.657	0.002	0.024	0.058

Beta results, case 31

10	100	8	5	0.8	MEAN	-0.275	0.006	0.000	0.000
					STDEV	0.028	0.013	0.013	0.017
					MEDIAN	-0.276	0.006	0.000	0.000
					RMSE	0.277	0.014	0.013	0.017
					PCT05	-0.319	-0.016	-0.022	-0.029
					PCT25	-0.294	-0.003	-0.009	-0.011
					PCT75	-0.257	0.014	0.009	0.011
					PCT95	-0.228	0.028	0.023	0.028

Time to run 1000 draws= 0.66 minutes

Gamma results, case 32

10	100	8	5	0.8	MEAN	0.150	-0.095	0.000	-0.002
					STDEV	0.008	0.020	0.029	0.111
					MEDIAN	0.150	-0.094	-0.004	-0.001
					RMSE	0.150	0.097	0.028	0.111
					PCT05	0.136	-0.128	-0.041	-0.182
					PCT25	0.145	-0.108	-0.020	-0.072
					PCT75	0.155	-0.080	0.015	0.063
					PCT95	0.162	-0.063	0.054	0.181

Beta results, case 32

10	100	8	5	0.2	MEAN	-0.025	0.000	0.001	0.000
					STDEV	0.008	0.008	0.009	0.013
					MEDIAN	-0.025	0.000	0.001	0.000
					RMSE	0.026	0.008	0.009	0.013
					PCT05	-0.038	-0.013	-0.013	-0.021
					PCT25	-0.030	-0.005	-0.005	-0.009
					PCT75	-0.019	0.006	0.007	0.008
					PCT95	-0.012	0.014	0.016	0.021

Time to run 1000 draws= 0.65 minutes

Gamma results, case 33

20	20	2	1	0.2	MEAN	0.213	-0.028	-0.001	0.001
					STDEV	0.061	0.033	0.034	0.063
					MEDIAN	0.216	-0.027	0.001	0.001
					RMSE	0.222	0.043	0.034	0.063
					PCT05	0.111	-0.083	-0.058	-0.101
					PCT25	0.171	-0.051	-0.025	-0.040
					PCT75	0.256	-0.005	0.023	0.039
					PCT95	0.309	0.025	0.055	0.108

Beta results, case 33

20	20	2	1	0.8	MEAN	-0.094	0.010	0.001	0.000
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	STDEV	0.051	0.038	0.038	0.051
	MEDIAN	-0.093	0.012	0.002	0.000
	RMSE	0.107	0.040	0.038	0.051
	PCT05	-0.180	-0.053	-0.064	-0.086
	PCT25	-0.128	-0.016	-0.025	-0.035
	PCT75	-0.061	0.035	0.025	0.033
	PCT95	-0.012	0.075	0.064	0.083

Time to run 1000 draws= 0.31 minutes

Gamma results, case 34

20	20	2	1	0.8	MEAN	0.041	-0.108	-0.007	0.003
					STDEV	0.030	0.040	0.046	0.118
					MEDIAN	0.044	-0.105	-0.003	0.003
					RMSE	0.051	0.115	0.047	0.118
					PCT05	-0.012	-0.175	-0.084	-0.198
					PCT25	0.022	-0.135	-0.039	-0.071
					PCT75	0.062	-0.079	0.024	0.080
					PCT95	0.087	-0.046	0.068	0.194

Beta results, case 34

20	20	2	1	0.2	MEAN	-0.006	0.008	0.003	-0.001
					STDEV	0.057	0.063	0.062	0.089
					MEDIAN	-0.008	0.007	0.002	-0.002
					RMSE	0.057	0.064	0.062	0.089
					PCT05	-0.093	-0.092	-0.092	-0.150
					PCT25	-0.046	-0.036	-0.040	-0.060
					PCT75	0.033	0.049	0.045	0.057
					PCT95	0.089	0.114	0.105	0.136

Time to run 1000 draws= 0.31 minutes

Gamma results, case 35

20	20	8	1	0.2	MEAN	0.093	-0.011	-0.001	0.000
					STDEV	0.036	0.019	0.020	0.039
					MEDIAN	0.092	-0.010	0.000	0.000
					RMSE	0.099	0.022	0.020	0.039
					PCT05	0.035	-0.043	-0.034	-0.064
					PCT25	0.067	-0.024	-0.014	-0.024
					PCT75	0.117	0.003	0.013	0.025
					PCT95	0.154	0.020	0.030	0.064

Beta results, case 35

20	20	8	1	0.8	MEAN	-0.041	0.004	0.000	0.000
					STDEV	0.027	0.019	0.019	0.025
					MEDIAN	-0.040	0.004	0.001	0.000
					RMSE	0.049	0.020	0.019	0.025
					PCT05	-0.087	-0.028	-0.032	-0.041
					PCT25	-0.059	-0.009	-0.013	-0.016
					PCT75	-0.022	0.016	0.013	0.016
					PCT95	0.001	0.036	0.032	0.040

Time to run 1000 draws= 0.31 minutes

Gamma results, case 36

20	20	8	1	0.8	MEAN	0.017	-0.041	0.001	0.002
					STDEV	0.020	0.024	0.027	0.086
					MEDIAN	0.018	-0.041	0.002	-0.001
					RMSE	0.026	0.048	0.027	0.086
					PCT05	-0.016	-0.081	-0.042	-0.138
					PCT25	0.004	-0.057	-0.018	-0.053
					PCT75	0.030	-0.024	0.019	0.058
					PCT95	0.048	-0.005	0.045	0.146

Beta results, case 36

Mean -0.003 0.003 0.001 0.000

STDEV	0.011	0.012	0.012	0.016
MEDIAN	-0.003	0.002	0.001	0.000
RMSE	0.012	0.012	0.012	0.016
PCT05	-0.021	-0.016	-0.017	-0.026
PCT25	-0.011	-0.005	-0.007	-0.010
PCT75	0.005	0.010	0.008	0.011
PCT95	0.016	0.022	0.021	0.026

Time to run 1000 draws= 0.30 minutes

Gamma results, case 37

20	20	2	5	0.2	MEAN	0.718	-0.028	0.000	-0.002
					STDEV	0.029	0.033	0.034	0.084
					MEDIAN	0.722	-0.027	0.000	-0.004
					RMSE	0.718	0.043	0.034	0.084
					PCT05	0.663	-0.083	-0.058	-0.140
					PCT25	0.702	-0.051	-0.025	-0.056
					PCT75	0.738	-0.005	0.023	0.053
					PCT95	0.755	0.025	0.055	0.134

Beta results, case 37

20	20	2	5	0.8	MEAN	-0.315	0.010	0.001	-0.001
					STDEV	0.053	0.038	0.038	0.052
					MEDIAN	-0.317	0.012	0.002	0.000
					RMSE	0.319	0.040	0.038	0.052
					PCT05	-0.399	-0.053	-0.064	-0.088
					PCT25	-0.349	-0.016	-0.026	-0.036
					PCT75	-0.282	0.035	0.025	0.035
					PCT95	-0.226	0.075	0.064	0.084

Time to run 1000 draws= 0.30 minutes

Gamma results, case 38

20	20	2	5	0.8	MEAN	0.176	-0.108	-0.014	-0.003
					STDEV	0.010	0.040	0.048	0.242
					MEDIAN	0.177	-0.105	-0.008	-0.001
					RMSE	0.176	0.115	0.050	0.242
					PCT05	0.158	-0.175	-0.097	-0.361
					PCT25	0.170	-0.135	-0.047	-0.123
					PCT75	0.182	-0.079	0.019	0.121
					PCT95	0.189	-0.046	0.057	0.316

Beta results, case 38

20	20	2	5	0.2	MEAN	-0.028	0.008	0.005	-0.001
					STDEV	0.056	0.063	0.063	0.093
					MEDIAN	-0.030	0.007	0.003	-0.005
					RMSE	0.063	0.064	0.063	0.093
					PCT05	-0.119	-0.092	-0.090	-0.148
					PCT25	-0.067	-0.036	-0.039	-0.064
					PCT75	0.010	0.049	0.048	0.059
					PCT95	0.063	0.114	0.109	0.139

Time to run 1000 draws= 0.30 minutes

Gamma results, case 39

20	20	8	5	0.2	MEAN	0.608	-0.011	0.000	-0.001
					STDEV	0.053	0.019	0.020	0.045
					MEDIAN	0.616	-0.010	0.000	-0.001
					RMSE	0.610	0.022	0.020	0.045
					PCT05	0.510	-0.043	-0.034	-0.077
					PCT25	0.579	-0.024	-0.014	-0.030
					PCT75	0.645	0.003	0.013	0.028
					PCT95	0.680	0.020	0.030	0.074

Beta results, case 39

20	20	8	5	0.8	MEAN	-0.266	0.004	0.000	0.000
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STDEV	0.047	0.019	0.019	0.025
MEDIAN	-0.268	0.004	0.001	0.000
RMSE	0.271	0.020	0.019	0.025
PCT05	-0.342	-0.028	-0.032	-0.042
PCT25	-0.296	-0.009	-0.013	-0.017
PCT75	-0.239	0.016	0.013	0.016
PCT95	-0.186	0.036	0.032	0.040

Time to run 1000 draws= 0.30 minutes

Gamma results, case 40

20	20	8	5	0.8	MEAN	0.146	-0.041	0.002	-0.002
					STDEV	0.016	0.024	0.027	0.131
					MEDIAN	0.148	-0.041	0.003	-0.003
					RMSE	0.147	0.048	0.027	0.131
					PCT05	0.116	-0.081	-0.042	-0.213
					PCT25	0.137	-0.057	-0.017	-0.078
					PCT75	0.157	-0.024	0.020	0.073
					PCT95	0.170	-0.005	0.046	0.195

Beta results, case 40

20	20	8	5	0.2	MEAN	-0.023	0.003	0.001	0.000
					STDEV	0.013	0.012	0.012	0.018
					MEDIAN	-0.023	0.002	0.001	-0.001
					RMSE	0.026	0.012	0.012	0.018
					PCT05	-0.044	-0.016	-0.017	-0.029
					PCT25	-0.031	-0.005	-0.007	-0.013
					PCT75	-0.015	0.010	0.009	0.012
					PCT95	-0.002	0.022	0.021	0.028

Time to run 1000 draws= 0.31 minutes

Gamma results, case 41

20	100	2	1	0.2	MEAN	0.225	-0.027	0.000	0.001
					STDEV	0.028	0.015	0.015	0.027
					MEDIAN	0.225	-0.027	0.000	0.000
					RMSE	0.227	0.031	0.015	0.027
					PCT05	0.178	-0.052	-0.027	-0.042
					PCT25	0.207	-0.037	-0.010	-0.017
					PCT75	0.244	-0.016	0.011	0.019
					PCT95	0.270	-0.003	0.024	0.045

Beta results, case 41

20	100	2	1	0.8	MEAN	-0.100	0.009	0.000	-0.001
					STDEV	0.023	0.017	0.017	0.022
					MEDIAN	-0.099	0.008	-0.001	-0.001
					RMSE	0.103	0.019	0.017	0.022
					PCT05	-0.139	-0.019	-0.028	-0.039
					PCT25	-0.117	-0.002	-0.012	-0.015
					PCT75	-0.084	0.020	0.011	0.014
					PCT95	-0.064	0.037	0.027	0.035

Time to run 1000 draws= 0.92 minutes

Gamma results, case 42

20	100	2	1	0.8	MEAN	0.049	-0.104	-0.005	0.001
					STDEV	0.013	0.019	0.023	0.050
					MEDIAN	0.050	-0.104	-0.004	0.001
					RMSE	0.051	0.106	0.023	0.050
					PCT05	0.028	-0.135	-0.041	-0.082
					PCT25	0.041	-0.116	-0.020	-0.032
					PCT75	0.058	-0.092	0.009	0.035
					PCT95	0.068	-0.074	0.031	0.078

Beta results, case 42

20	100	2	1	0.2	MEAN	-0.008	0.006	0.000	-0.002
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STDEV	0.026	0.028	0.028	0.039
MEDIAN	-0.008	0.005	0.000	-0.002
RMSE	0.027	0.029	0.028	0.039
PCT05	-0.052	-0.038	-0.043	-0.069
PCT25	-0.026	-0.014	-0.019	-0.026
PCT75	0.008	0.024	0.018	0.024
PCT95	0.035	0.053	0.046	0.062

Time to run 1000 draws= 0.95 minutes

Gamma results, case 43

20	100	8	1	0.2	MEAN	0.099	-0.010	0.000	0.000
					STDEV	0.016	0.009	0.009	0.017
					MEDIAN	0.099	-0.010	0.000	0.000
					RMSE	0.100	0.013	0.009	0.017
					PCT05	0.071	-0.025	-0.015	-0.028
					PCT25	0.087	-0.016	-0.006	-0.012
					PCT75	0.109	-0.003	0.007	0.012
					PCT95	0.127	0.005	0.015	0.028

Beta results, case 43

20	100	8	1	0.8	MEAN	-0.044	0.003	0.000	0.000
					STDEV	0.012	0.009	0.009	0.011
					MEDIAN	-0.043	0.003	0.000	0.000
					RMSE	0.046	0.009	0.009	0.011
					PCT05	-0.064	-0.011	-0.014	-0.018
					PCT25	-0.052	-0.002	-0.006	-0.007
					PCT75	-0.035	0.009	0.006	0.006
					PCT95	-0.025	0.017	0.013	0.017

Time to run 1000 draws= 0.93 minutes

Gamma results, case 44

20	100	8	1	0.8	MEAN	0.021	-0.039	0.000	0.001
					STDEV	0.009	0.011	0.012	0.038
					MEDIAN	0.021	-0.039	-0.001	0.000
					RMSE	0.023	0.040	0.012	0.038
					PCT05	0.007	-0.057	-0.019	-0.062
					PCT25	0.015	-0.047	-0.009	-0.024
					PCT75	0.027	-0.031	0.008	0.026
					PCT95	0.035	-0.021	0.020	0.062

Beta results, case 44

20	100	8	1	0.2	MEAN	-0.004	0.002	0.000	0.000
					STDEV	0.005	0.005	0.005	0.007
					MEDIAN	-0.003	0.002	0.000	0.000
					RMSE	0.006	0.006	0.005	0.007
					PCT05	-0.012	-0.006	-0.008	-0.012
					PCT25	-0.007	-0.001	-0.003	-0.005
					PCT75	0.000	0.006	0.003	0.004
					PCT95	0.005	0.011	0.009	0.011

Time to run 1000 draws= 0.92 minutes

Gamma results, case 45

20	100	2	5	0.2	MEAN	0.725	-0.027	0.000	0.000
					STDEV	0.011	0.015	0.015	0.035
					MEDIAN	0.726	-0.027	0.000	0.000
					RMSE	0.726	0.031	0.015	0.035
					PCT05	0.707	-0.052	-0.027	-0.056
					PCT25	0.718	-0.037	-0.010	-0.024
					PCT75	0.733	-0.016	0.011	0.024
					PCT95	0.742	-0.003	0.024	0.059

Beta results, case 45

20	100	2	5	0.8	MEAN	-0.322	0.009	0.000	-0.001
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	STDEV	0.023	0.017	0.017	0.023
	MEDIAN	-0.322	0.008	-0.001	-0.001
	RMSE	0.323	0.019	0.017	0.023
	PCT05	-0.358	-0.019	-0.028	-0.039
	PCT25	-0.338	-0.002	-0.012	-0.015
	PCT75	-0.307	0.020	0.011	0.015
	PCT95	-0.283	0.037	0.027	0.036

Time to run 1000 draws= 0.93 minutes

Gamma results, case 46

20	100	2	5	0.8	MEAN	0.178	-0.104	-0.004	0.001
					STDEV	0.004	0.019	0.024	0.083
					MEDIAN	0.178	-0.104	-0.003	0.001
					RMSE	0.178	0.106	0.024	0.083
					PCT05	0.171	-0.135	-0.043	-0.140
					PCT25	0.176	-0.116	-0.020	-0.054
					PCT75	0.181	-0.092	0.013	0.056
					PCT95	0.184	-0.074	0.036	0.135

Beta results, case 46

20	100	2	5	0.2	MEAN	-0.030	0.006	0.001	-0.002
					STDEV	0.025	0.028	0.028	0.039
					MEDIAN	-0.030	0.005	0.000	-0.002
					RMSE	0.039	0.029	0.028	0.039
					PCT05	-0.071	-0.038	-0.042	-0.070
					PCT25	-0.046	-0.014	-0.018	-0.027
					PCT75	-0.014	0.024	0.018	0.025
					PCT95	0.010	0.053	0.047	0.064

Time to run 1000 draws= 0.94 minutes

Gamma results, case 47

20	100	8	5	0.2	MEAN	0.621	-0.010	0.000	0.000
					STDEV	0.021	0.009	0.009	0.019
					MEDIAN	0.622	-0.010	0.000	0.000
					RMSE	0.622	0.013	0.009	0.019
					PCT05	0.585	-0.025	-0.015	-0.032
					PCT25	0.608	-0.016	-0.006	-0.012
					PCT75	0.637	-0.003	0.007	0.014
					PCT95	0.654	0.005	0.015	0.030

Beta results, case 47

20	100	8	5	0.8	MEAN	-0.276	0.003	0.000	0.000
					STDEV	0.020	0.009	0.009	0.011
					MEDIAN	-0.276	0.003	0.000	0.000
					RMSE	0.276	0.009	0.009	0.011
					PCT05	-0.310	-0.011	-0.014	-0.018
					PCT25	-0.289	-0.002	-0.006	-0.008
					PCT75	-0.262	0.009	0.006	0.007
					PCT95	-0.242	0.017	0.013	0.017

Time to run 1000 draws = 0.94 minutes

Gamma results, case 48

20	100	8	5	0.8	MEAN	0.149	-0.039	0.000	0.001
					STDEV	0.007	0.011	0.012	0.050
					MEDIAN	0.150	-0.039	0.000	0.001
					RMSE	0.150	0.040	0.012	0.050
					PCT05	0.138	-0.057	-0.019	-0.082
					PCT25	0.145	-0.047	-0.009	-0.031
					PCT75	0.154	-0.031	0.009	0.033
					PCT95	0.160	-0.021	0.020	0.080

Beta results, case 48

Mean Regressions, Case 48

STDEV	0.006	0.005	0.005	0.007
MEDIAN	-0.025	0.002	0.000	0.000
RMSE	0.025	0.006	0.005	0.007
PCT05	-0.034	-0.006	-0.008	-0.012
PCT25	-0.028	-0.001	-0.003	-0.005
PCT75	-0.021	0.006	0.003	0.004
PCT95	-0.016	0.011	0.009	0.011

Time to run 1000 draws= 0.94 minutes

Gamma results, case 49

30	20	2	1	0.2	MEAN	0.214	-0.018	0.000	-0.001
STDEV	0.057	0.026			MEDIAN	0.216	-0.018	0.000	-0.002
					RMSE	0.222	0.032	0.027	0.049
					PCT05	0.119	-0.063	-0.046	-0.082
					PCT25	0.174	-0.035	-0.018	-0.031
					PCT75	0.256	-0.001	0.018	0.031
					PCT95	0.308	0.025	0.044	0.080

Beta results, case 49

30	20	2	1	0.8	MEAN	-0.095	0.007	0.000	-0.001
STDEV	0.043	0.030			MEDIAN	-0.094	0.007	0.000	0.000
					RMSE	0.105	0.031	0.030	0.040
					PCT05	-0.168	-0.040	-0.048	-0.066
					PCT25	-0.124	-0.013	-0.020	-0.028
					PCT75	-0.067	0.026	0.019	0.027
					PCT95	-0.022	0.058	0.052	0.063

Time to run 1000 draws= 0.45 minutes

Gamma results, case 50

30	20	2	1	0.8	MEAN	0.043	-0.068	-0.001	0.003
STDEV	0.025	0.030			MEDIAN	0.045	-0.066	0.001	0.002
					RMSE	0.050	0.074	0.034	0.088
					PCT05	-0.002	-0.122	-0.059	-0.140
					PCT25	0.027	-0.087	-0.022	-0.052
					PCT75	0.061	-0.048	0.023	0.060
					PCT95	0.080	-0.020	0.054	0.143

Beta results, case 50

30	20	2	1	0.2	MEAN	-0.007	0.006	0.001	-0.002
STDEV	0.045	0.048			MEDIAN	-0.006	0.008	0.002	-0.001
					RMSE	0.045	0.048	0.047	0.070
					PCT05	-0.083	-0.074	-0.077	-0.116
					PCT25	-0.036	-0.027	-0.031	-0.045
					PCT75	0.024	0.038	0.032	0.045
					PCT95	0.068	0.089	0.081	0.111

Time to run 1000 draws= 0.44 minutes

Gamma results, case 51

30	20	8	1	0.2	MEAN	0.094	-0.007	0.000	-0.001
STDEV	0.033	0.016			MEDIAN	0.093	-0.007	0.000	-0.001
					RMSE	0.099	0.017	0.016	0.030
					PCT05	0.039	-0.033	-0.027	-0.052
					PCT25	0.071	-0.017	-0.011	-0.020
					PCT75	0.117	0.004	0.010	0.019
					PCT95	0.151	0.019	0.026	0.049

Beta results, case 51

30	20	8	1	0.8	MEAN	-0.042	0.003	0.000	-0.001
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STDEV	0.022	0.015	0.015	0.019
MEDIAN	-0.041	0.002	0.000	0.000
RMSE	0.047	0.015	0.015	0.019
PCT05	-0.080	-0.022	-0.025	-0.032
PCT25	-0.057	-0.008	-0.010	-0.013
PCT75	-0.027	0.013	0.010	0.012
PCT95	-0.004	0.028	0.026	0.030

Time to run 1000 draws= 0.45 minutes

Gamma results, case 52

30	20	8	1	0.8	MEAN	0.018	-0.025	0.001	0.001
					STDEV	0.016	0.018	0.019	0.063
					MEDIAN	0.019	-0.025	0.001	0.000
					RMSE	0.024	0.031	0.019	0.063
					PCT05	-0.008	-0.057	-0.031	-0.099
					PCT25	0.008	-0.036	-0.012	-0.043
					PCT75	0.029	-0.013	0.013	0.045
					PCT95	0.043	0.004	0.032	0.105

Beta results, case 52

30	20	8	1	0.2	MEAN	-0.003	0.002	0.000	0.000
					STDEV	0.009	0.009	0.009	0.012
					MEDIAN	-0.003	0.002	0.000	0.000
					RMSE	0.009	0.009	0.009	0.012
					PCT05	-0.018	-0.012	-0.015	-0.020
					PCT25	-0.009	-0.004	-0.006	-0.008
					PCT75	0.003	0.008	0.006	0.008
					PCT95	0.011	0.018	0.015	0.019

Time to run 1000 draws=

0.44 minutes

Gamma results, case 53

30	20	2	5	0.2	MEAN	0.717	-0.018	0.000	-0.001
					STDEV	0.028	0.026	0.027	0.059
					MEDIAN	0.722	-0.018	0.000	-0.002
					RMSE	0.718	0.032	0.027	0.059
					PCT05	0.664	-0.063	-0.046	-0.099
					PCT25	0.702	-0.035	-0.018	-0.036
					PCT75	0.737	-0.001	0.018	0.037
					PCT95	0.753	0.025	0.044	0.095

Beta results, case 53

30	20	2	5	0.8	MEAN	-0.316	0.007	0.000	-0.001
					STDEV	0.043	0.030	0.030	0.040
					MEDIAN	-0.316	0.007	0.000	-0.001
					RMSE	0.319	0.031	0.030	0.040
					PCT05	-0.386	-0.040	-0.048	-0.067
					PCT25	-0.345	-0.013	-0.020	-0.028
					PCT75	-0.289	0.026	0.019	0.026
					PCT95	-0.242	0.058	0.052	0.062

Time to run 1000 draws =

0.44 minutes

Gamma results, case 54

30	20	2	5	0.8	MEAN	0.176	-0.068	-0.002	0.003
					STDEV	0.009	0.030	0.034	0.133
					MEDIAN	0.177	-0.066	-0.001	0.000
					RMSE	0.176	0.074	0.034	0.133
					PCT05	0.160	-0.122	-0.063	-0.222
					PCT25	0.171	-0.087	-0.025	-0.077
					PCT75	0.182	-0.048	0.020	0.085
					PCT95	0.187	-0.020	0.052	0.213

Beta results, case 54

Beta residues, case 3-4

STDEV	0.045	0.048	0.047	0.070
MEDIAN	-0.027	0.008	0.003	-0.002
RMSE	0.053	0.048	0.047	0.070
PCT05	-0.103	-0.074	-0.076	-0.117
PCT25	-0.057	-0.027	-0.030	-0.045
PCT75	0.001	0.038	0.033	0.046
PCT95	0.043	0.089	0.082	0.108

Time to run 1000 draws= 0.45 minutes

Gamma results, case 55

30	20	8	5	0.2	MEAN	0.608	-0.007	0.000	-0.001
					STDEV	0.051	0.016	0.016	0.033
					MEDIAN	0.616	-0.007	0.000	-0.002
					RMSE	0.610	0.017	0.016	0.033
					PCT05	0.515	-0.033	-0.027	-0.058
					PCT25	0.577	-0.017	-0.011	-0.022
					PCT75	0.644	0.004	0.010	0.021
					PCT95	0.677	0.019	0.026	0.054

Beta results, case 55

30	20	8	5	0.8	MEAN	-0.268	0.003	0.000	-0.001
					STDEV	0.040	0.015	0.015	0.019
					MEDIAN	-0.268	0.002	0.000	-0.001
					RMSE	0.271	0.015	0.015	0.019
					PCT05	-0.333	-0.022	-0.025	-0.031
					PCT25	-0.295	-0.008	-0.010	-0.013
					PCT75	-0.243	0.013	0.010	0.012
					PCT95	-0.198	0.028	0.026	0.030

Time to run 1000 draws=

0.44 minutes

Gamma results, case 56

30	20	8	5	0.8	MEAN	0.146	-0.025	0.001	0.001
					STDEV	0.015	0.018	0.019	0.082
					MEDIAN	0.147	-0.025	0.001	0.001
					RMSE	0.147	0.031	0.019	0.081
					PCT05	0.117	-0.057	-0.031	-0.126
					PCT25	0.138	-0.036	-0.011	-0.051
					PCT75	0.157	-0.013	0.014	0.052
					PCT95	0.168	0.004	0.033	0.135

Beta results, case 56

30	20	8	5	0.2	MEAN	-0.023	0.002	0.000	0.000
					STDEV	0.010	0.009	0.009	0.013
					MEDIAN	-0.023	0.002	0.000	0.000
					RMSE	0.026	0.009	0.009	0.013
					PCT05	-0.040	-0.012	-0.014	-0.020
					PCT25	-0.030	-0.004	-0.006	-0.009
					PCT75	-0.016	0.008	0.006	0.008
					PCT95	-0.007	0.018	0.015	0.020

Time to run 1000 draws =

0.44 minutes

Gamma results, case 57

30	100	2	1	0.2	MEAN	0.226	-0.017	0.000	0.000
					STDEV	0.026	0.012	0.012	0.021
					MEDIAN	0.227	-0.017	0.000	0.000
					RMSE	0.227	0.021	0.012	0.021
					PCT05	0.182	-0.037	-0.020	-0.034
					PCT25	0.208	-0.026	-0.008	-0.015
					PCT75	0.244	-0.009	0.009	0.015
					PCT95	0.266	0.002	0.020	0.033

Beta results, case 57

Beta residues, Case 57

STDEV	0.019	0.014	0.014	0.018
MEDIAN	-0.100	0.007	0.000	0.000
RMSE	0.102	0.015	0.014	0.018
PCT05	-0.131	-0.016	-0.022	-0.032
PCT25	-0.114	-0.003	-0.010	-0.014
PCT75	-0.088	0.016	0.009	0.011
PCT95	-0.069	0.028	0.021	0.029

Time to run 1000 draws= 1.28 minutes

Gamma results, case 58

30	100	2	1	0.8	MEAN	0.049	-0.065	-0.001	0.000
					STDEV	0.011	0.014	0.015	0.037
					MEDIAN	0.050	-0.065	-0.001	0.001
					RMSE	0.050	0.067	0.015	0.037
					PCT05	0.031	-0.089	-0.027	-0.063
					PCT25	0.042	-0.075	-0.012	-0.026
					PCT75	0.057	-0.056	0.010	0.024
					PCT95	0.065	-0.044	0.024	0.057

Beta results, case 58

30	100	2	1	0.2	MEAN	-0.008	0.006	0.000	-0.001
					STDEV	0.020	0.022	0.022	0.032
					MEDIAN	-0.009	0.005	0.000	0.000
					RMSE	0.022	0.023	0.022	0.032
					PCT05	-0.043	-0.032	-0.037	-0.054
					PCT25	-0.022	-0.009	-0.015	-0.023
					PCT75	0.005	0.022	0.016	0.020
					PCT95	0.026	0.043	0.036	0.051

Time to run 1000 draws= 1.30 minutes

Gamma results, case 59

30	100	8	1	0.2	MEAN	0.099	-0.006	0.000	0.000
					STDEV	0.015	0.007	0.007	0.013
					MEDIAN	0.099	-0.006	0.000	0.000
					RMSE	0.100	0.009	0.007	0.013
					PCT05	0.074	-0.018	-0.012	-0.022
					PCT25	0.088	-0.011	-0.005	-0.009
					PCT75	0.109	-0.001	0.005	0.009
					PCT95	0.124	0.006	0.012	0.022

Beta results, case 59

30	100	8	1	0.8	MEAN	-0.044	0.002	0.000	0.000
					STDEV	0.010	0.007	0.007	0.009
					MEDIAN	-0.044	0.003	0.000	0.000
					RMSE	0.045	0.007	0.007	0.009
					PCT05	-0.061	-0.009	-0.011	-0.015
					PCT25	-0.051	-0.003	-0.005	-0.006
					PCT75	-0.037	0.007	0.005	0.006
					PCT95	-0.028	0.013	0.011	0.014

Time to run 1000 draws= 1.29 minutes

Gamma results, case 60

30	100	8	1	0.8	MEAN	0.021	-0.024	0.000	0.000
					STDEV	0.007	0.008	0.008	0.028
					MEDIAN	0.021	-0.024	0.000	0.001
					RMSE	0.022	0.025	0.008	0.028
					PCT05	0.009	-0.036	-0.013	-0.046
					PCT25	0.016	-0.029	-0.006	-0.018
					PCT75	0.026	-0.019	0.006	0.020
					PCT95	0.033	-0.011	0.013	0.043

Beta results, case 60

MEAN -0.004 0.002 0.000 0.000

STDEV	0.004	0.004	0.004	0.006
MEDIAN	-0.004	0.002	0.000	0.000
RMSE	0.005	0.005	0.004	0.006
PCT05	-0.010	-0.005	-0.007	-0.010
PCT25	-0.006	-0.001	-0.003	-0.004
PCT75	-0.001	0.005	0.003	0.004
PCT95	0.003	0.009	0.007	0.009

Time to run 1000 draws= 1.27 minutes

Gamma results, case 61

30	100	2	5	0.2	MEAN	0.725	-0.017	0.000	-0.001
					STDEV	0.010	0.012	0.012	0.026
					MEDIAN	0.726	-0.017	0.000	0.000
					RMSE	0.725	0.021	0.012	0.026
					PCT05	0.706	-0.037	-0.020	-0.041
					PCT25	0.719	-0.026	-0.008	-0.019
					PCT75	0.733	-0.009	0.009	0.017
					PCT95	0.741	0.002	0.020	0.040

Beta results, case 61

30	100	2	5	0.8	MEAN	-0.322	0.006	0.000	-0.001
					STDEV	0.019	0.014	0.014	0.019
					MEDIAN	-0.322	0.007	0.000	0.000
					RMSE	0.322	0.015	0.014	0.019
					PCT05	-0.352	-0.016	-0.022	-0.033
					PCT25	-0.334	-0.003	-0.010	-0.013
					PCT75	-0.310	0.016	0.009	0.012
					PCT95	-0.290	0.028	0.022	0.029

Time to run 1000 draws=

1.32 minutes

Gamma results, case 62

30	100	2	5	0.8	MEAN	0.178	-0.065	-0.001	-0.002
					STDEV	0.003	0.014	0.016	0.057
					MEDIAN	0.179	-0.065	-0.001	-0.001
					RMSE	0.178	0.067	0.016	0.057
					PCT05	0.172	-0.089	-0.027	-0.092
					PCT25	0.176	-0.075	-0.012	-0.041
					PCT75	0.181	-0.056	0.010	0.038
					PCT95	0.184	-0.044	0.025	0.089

Beta results, case 62

30	100	2	5	0.2	MEAN	-0.030	0.006	0.000	-0.001
					STDEV	0.020	0.022	0.022	0.032
					MEDIAN	-0.030	0.005	0.000	0.000
					RMSE	0.036	0.023	0.022	0.032
					PCT05	-0.065	-0.032	-0.037	-0.055
					PCT25	-0.043	-0.009	-0.015	-0.023
					PCT75	-0.017	0.022	0.016	0.020
					PCT95	0.003	0.043	0.036	0.052

Time to run 1000 draws =

1.30 minutes

Gamma results, case 63

30	100	8	5	0.2	MEAN	0.621	-0.006	0.000	0.000
					STDEV	0.021	0.007	0.007	0.015
					MEDIAN	0.623	-0.006	0.000	0.000
					RMSE	0.622	0.009	0.007	0.015
					PCT05	0.584	-0.018	-0.012	-0.024
					PCT25	0.608	-0.011	-0.005	-0.011
					PCT75	0.636	-0.001	0.005	0.010
					PCT95	0.654	0.006	0.012	0.024

Beta results, case 63

Beta residues, case 65

STDEV	0.017	0.007	0.007	0.009
MEDIAN	-0.276	0.003	0.000	0.000
RMSE	0.276	0.007	0.007	0.009
PCT05	-0.303	-0.009	-0.011	-0.016
PCT25	-0.287	-0.003	-0.005	-0.006
PCT75	-0.265	0.007	0.005	0.006
PCT95	-0.247	0.013	0.011	0.014

Time to run 1000 draws= 1.31 minutes

Gamma results, case 64

30	100	8	5	0.8	MEAN	0.150	-0.024	0.000	-0.001
					STDEV	0.006	0.008	0.008	0.035
					MEDIAN	0.150	-0.024	0.000	0.001
					RMSE	0.150	0.025	0.008	0.035
					PCT05	0.138	-0.036	-0.013	-0.060
					PCT25	0.146	-0.029	-0.006	-0.025
					PCT75	0.154	-0.019	0.006	0.024
					PCT95	0.159	-0.011	0.013	0.055

Beta results, case 64

30	100	8	5	0.2	MEAN	-0.025	0.002	0.000	0.000
					STDEV	0.005	0.004	0.004	0.006
					MEDIAN	-0.025	0.002	0.000	0.000
					RMSE	0.025	0.005	0.004	0.006
					PCT05	-0.033	-0.005	-0.007	-0.010
					PCT25	-0.028	-0.001	-0.003	-0.004
					PCT75	-0.022	0.005	0.003	0.004
					PCT95	-0.017	0.009	0.007	0.009

Time to run 1000 draws= 1.32 minutes