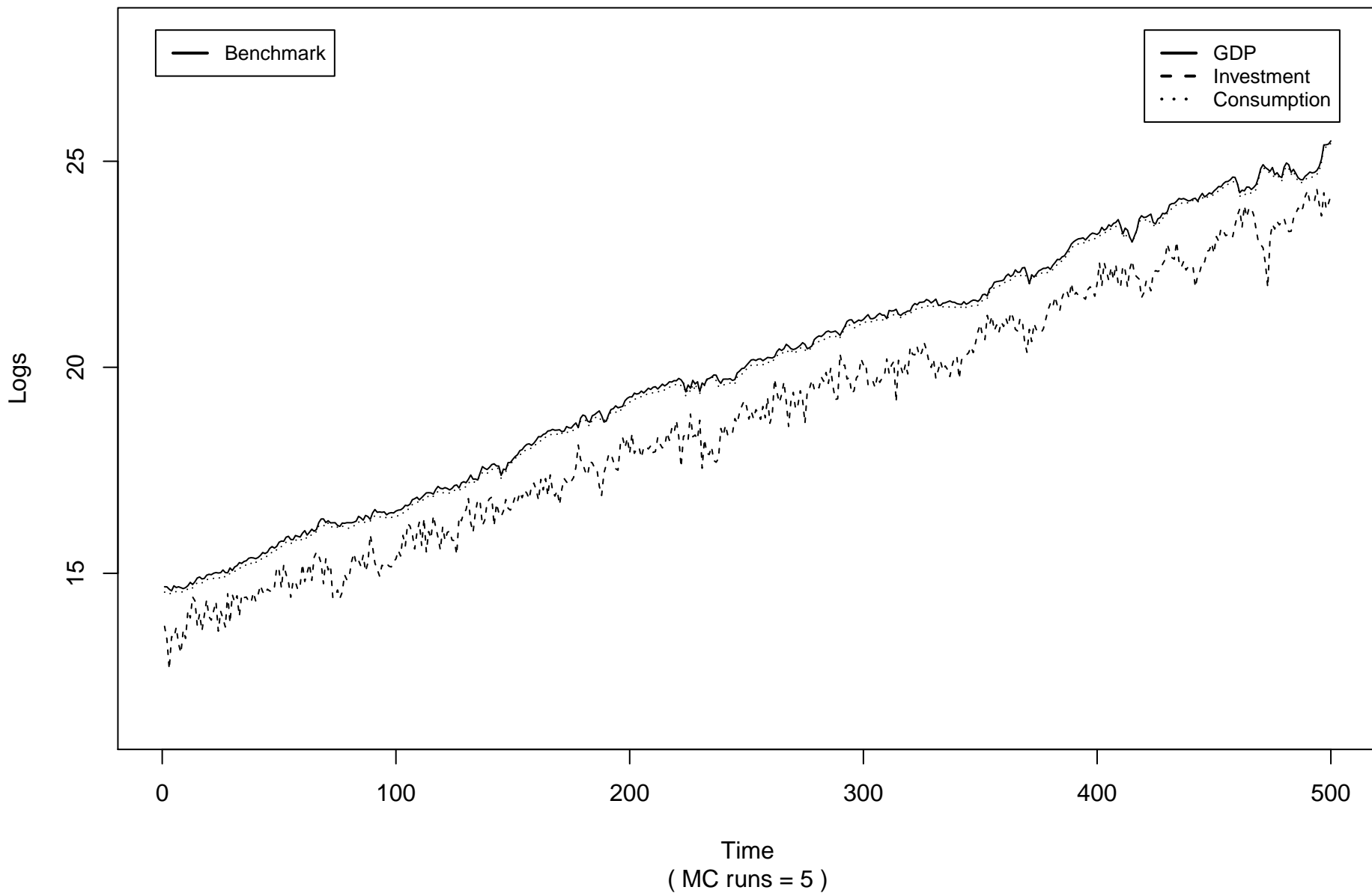
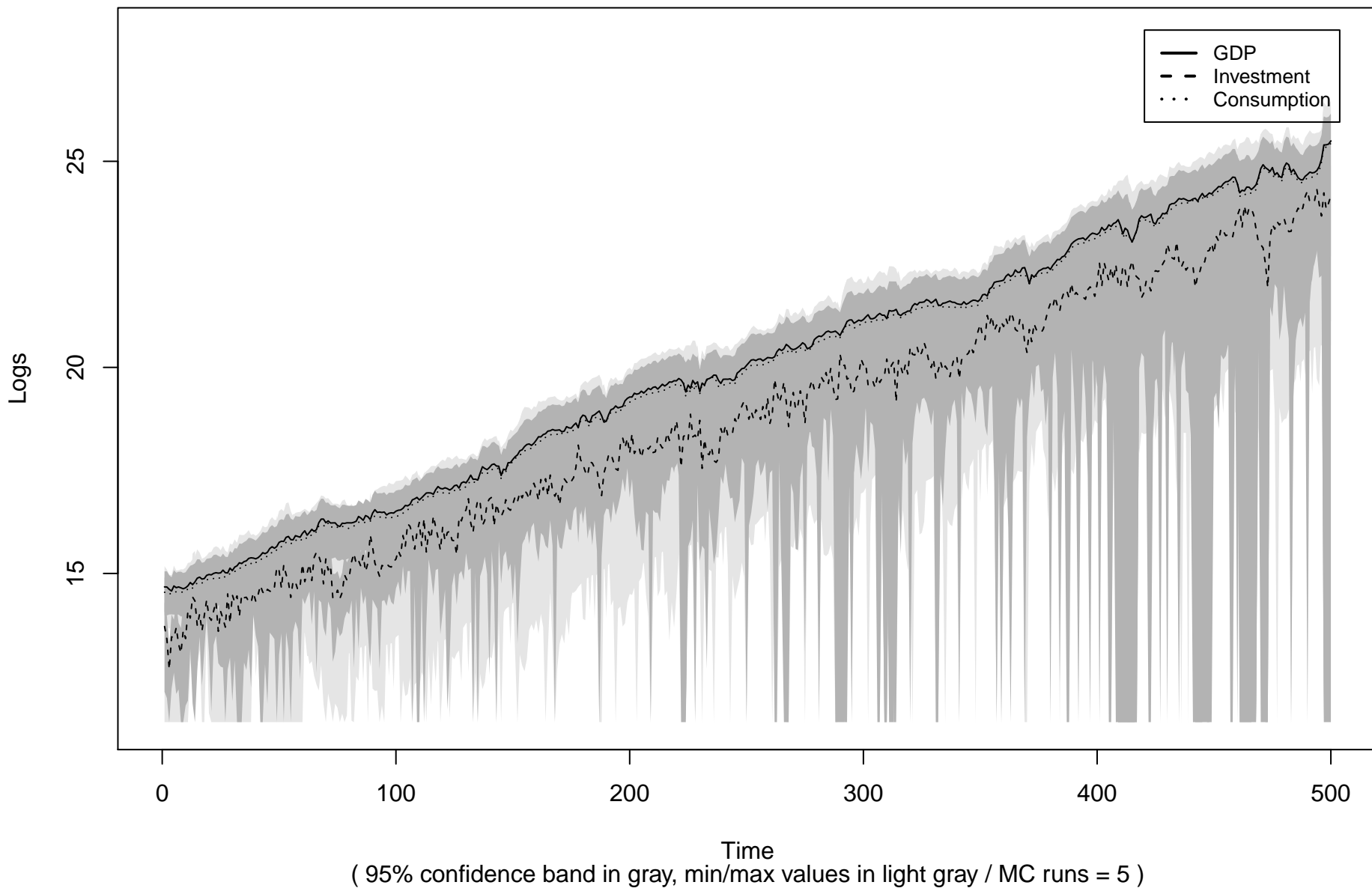


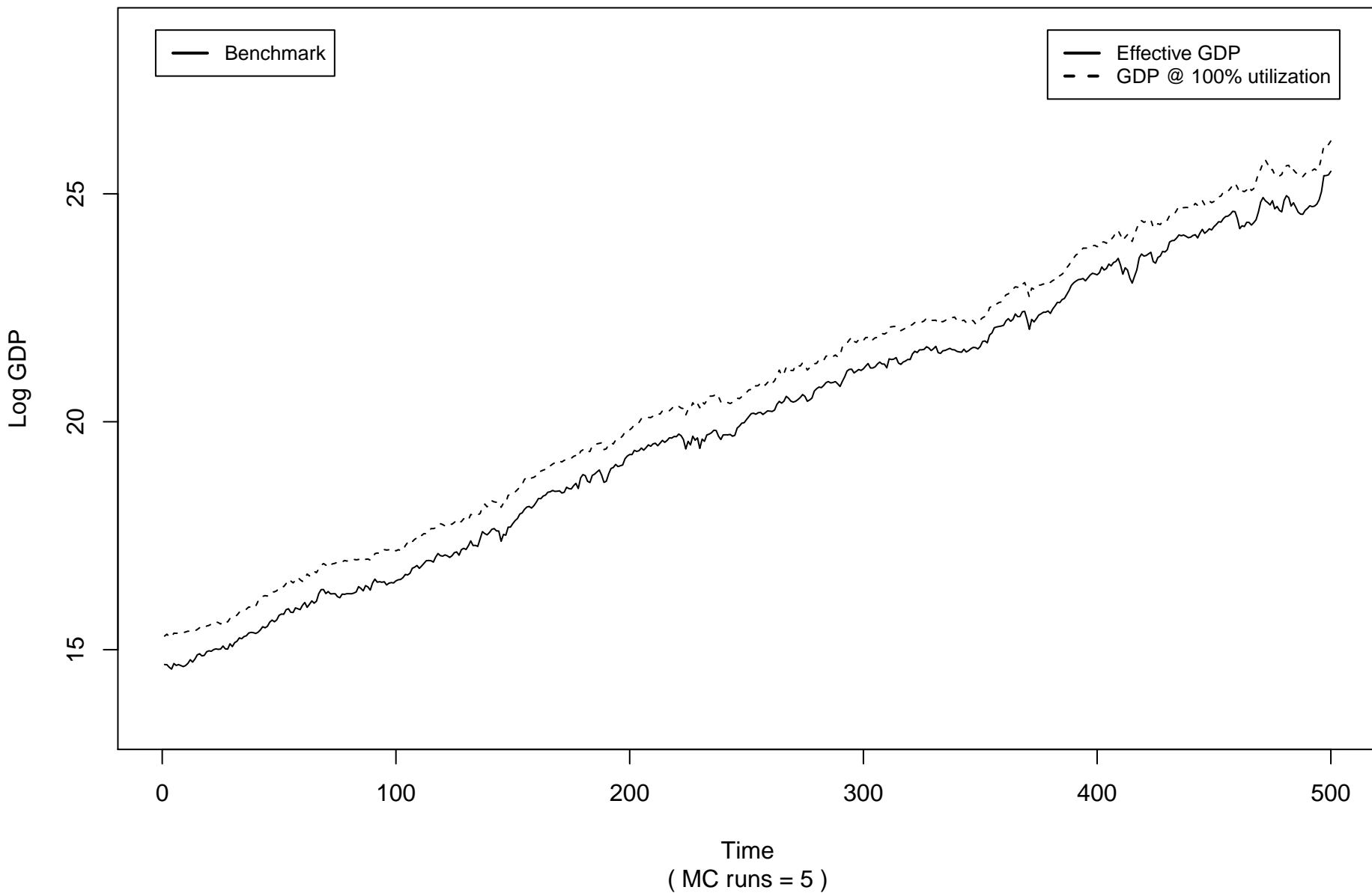
GDP, investment and consumption (all experiments)



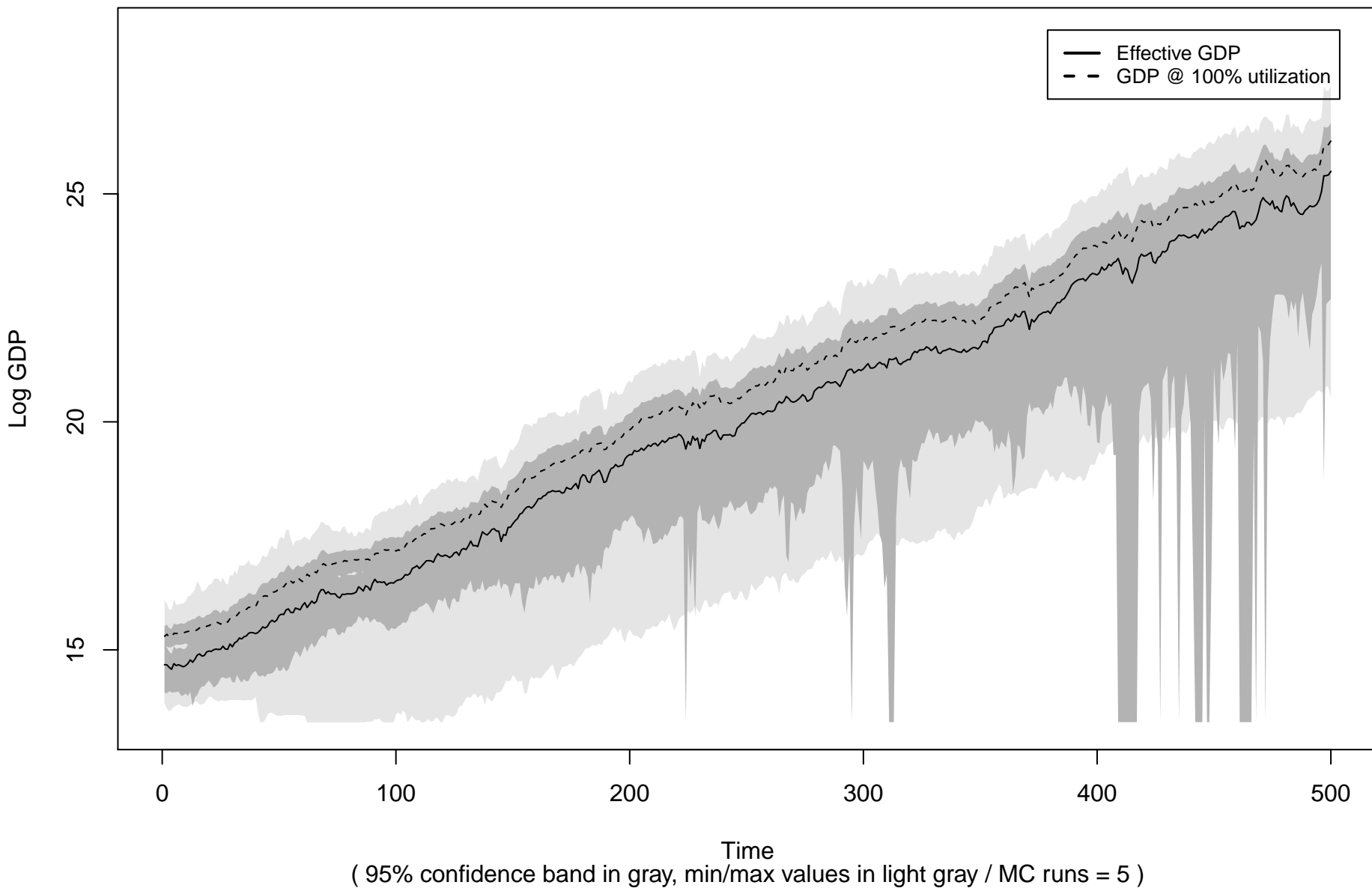
GDP, investment and consumption (Benchmark)



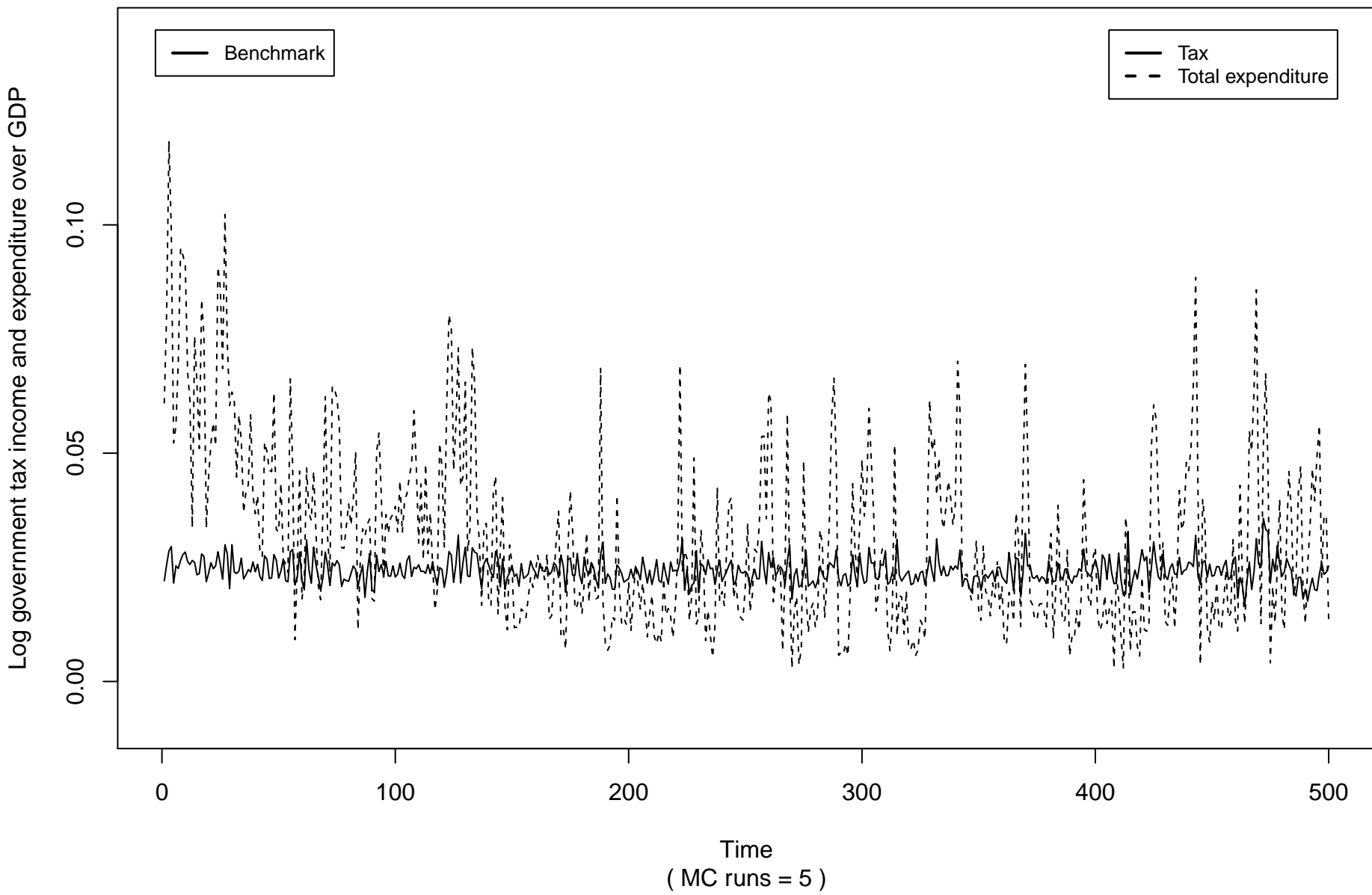
GDP (all experiments)



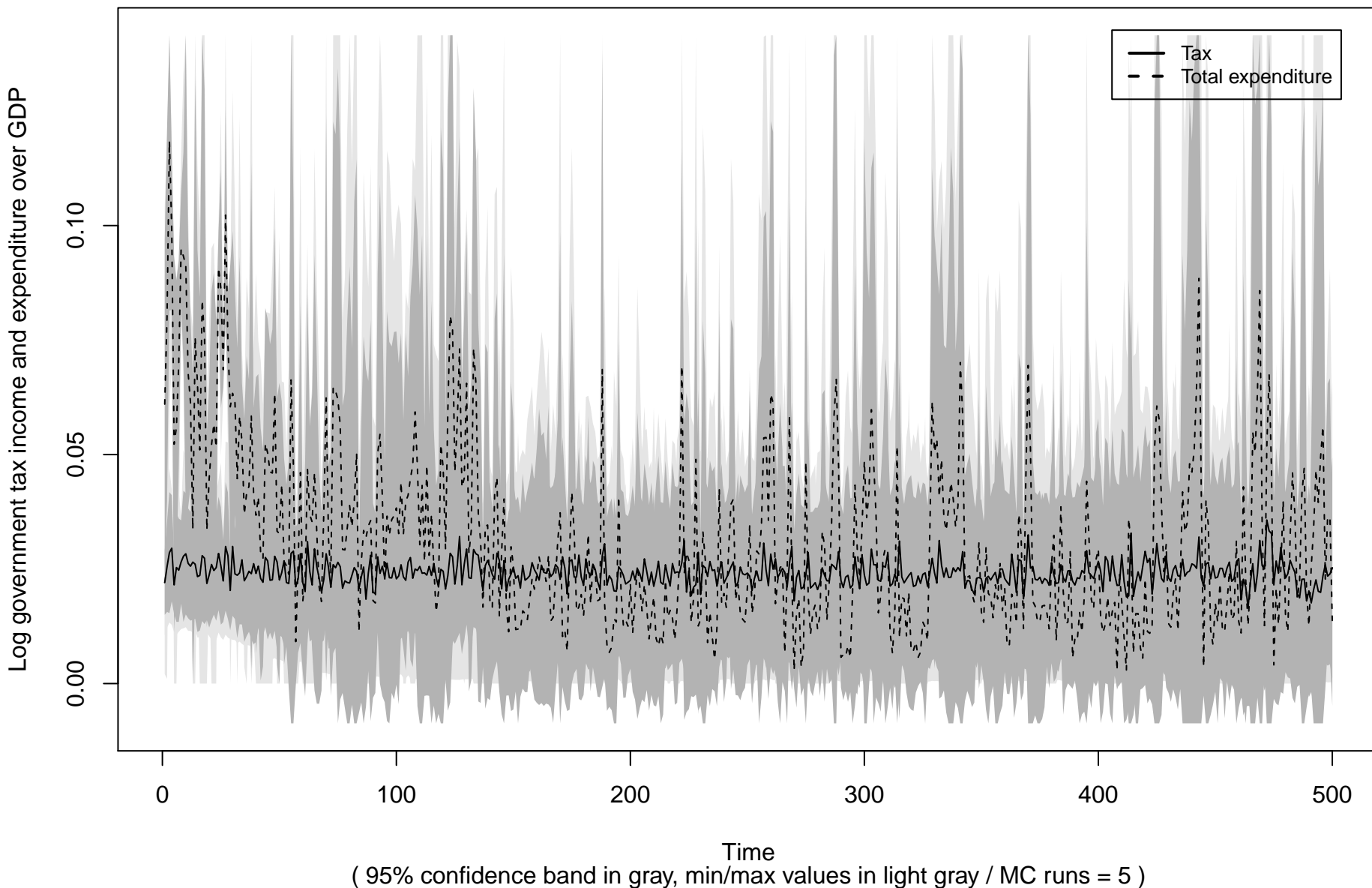
GDP (Benchmark)



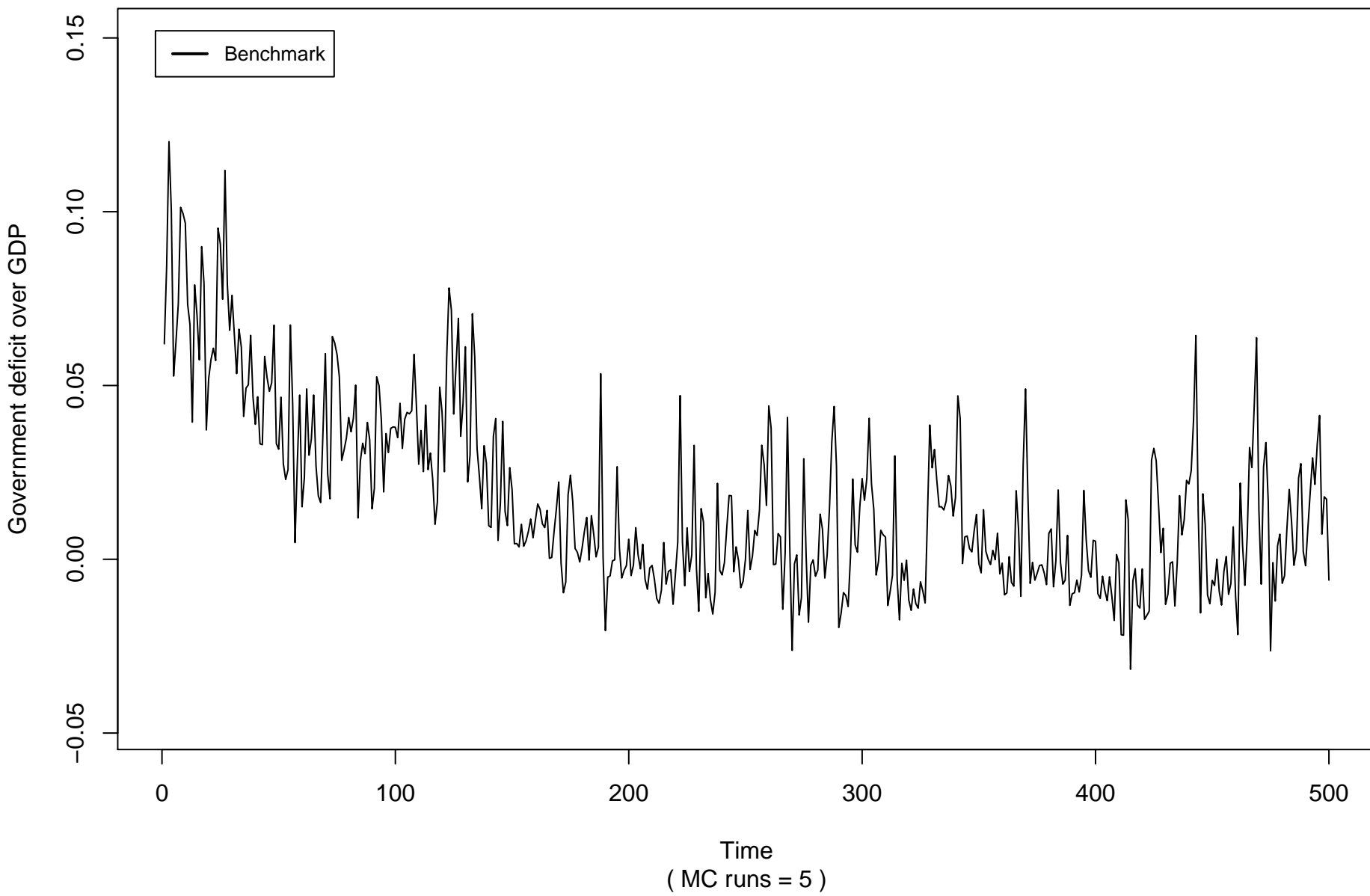
Government income and expenditure on GDP (all experiments)



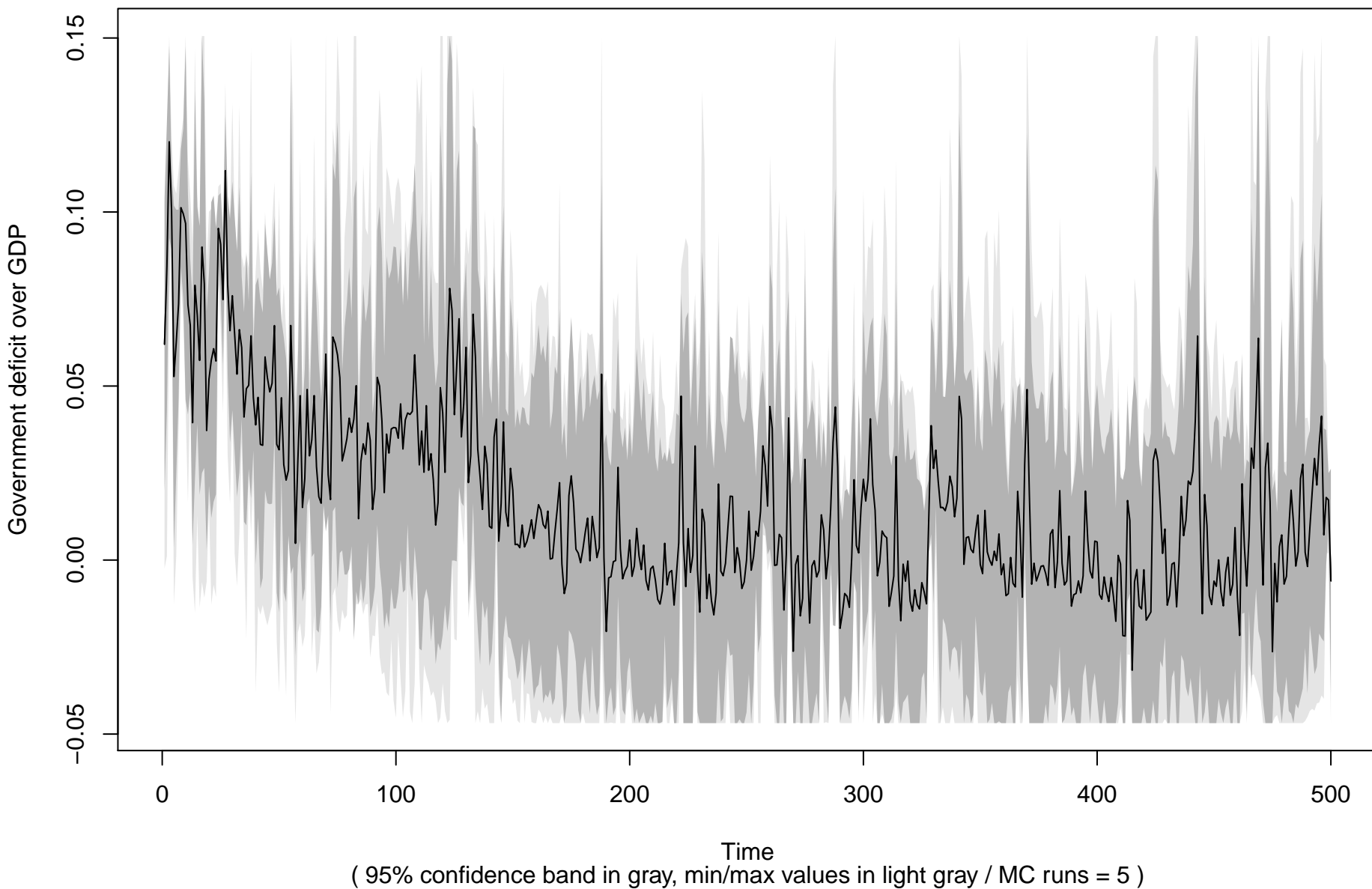
Government income and expenditure on GDP (Benchmark)



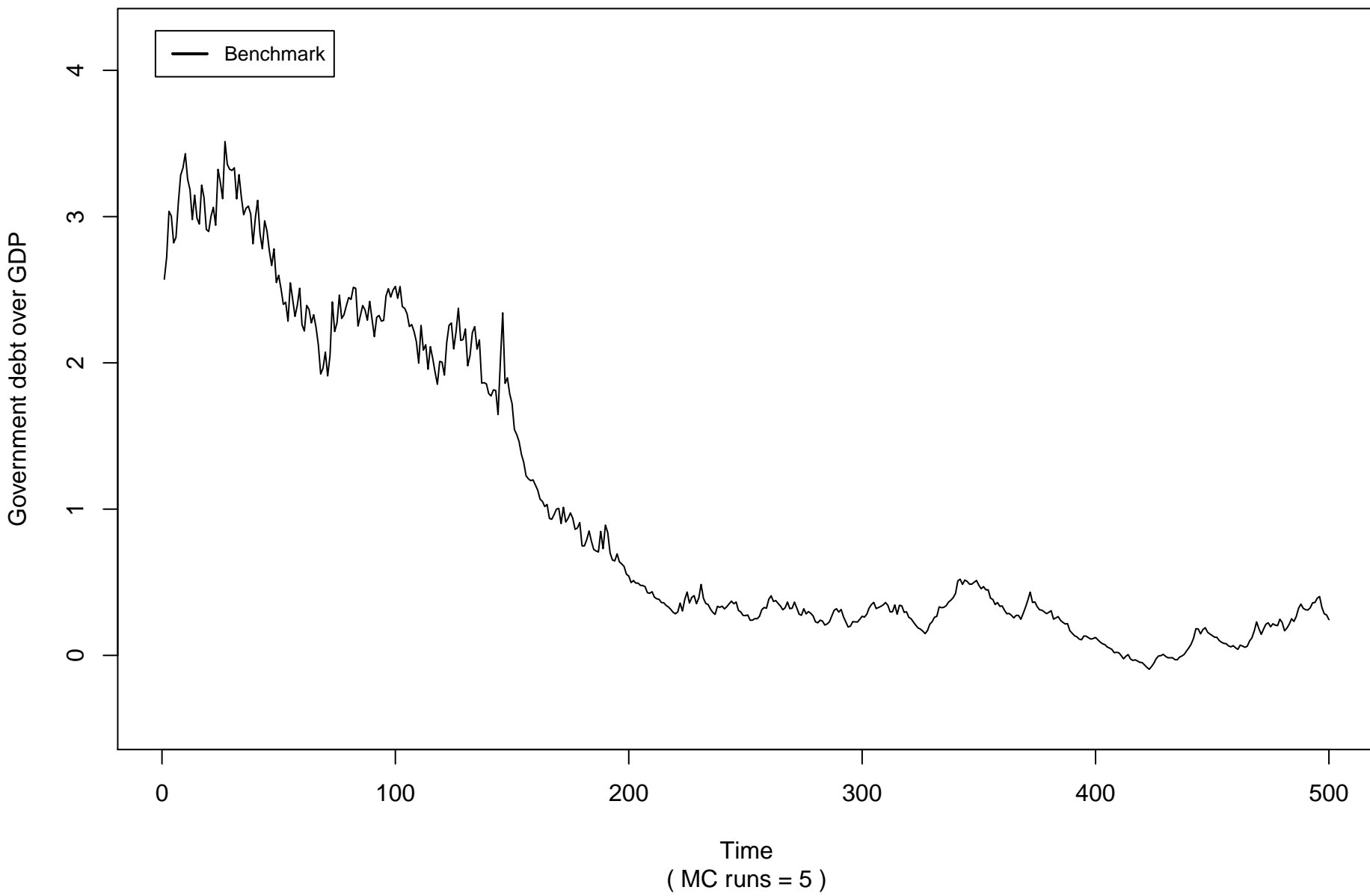
Government deficit on GDP (all experiments)



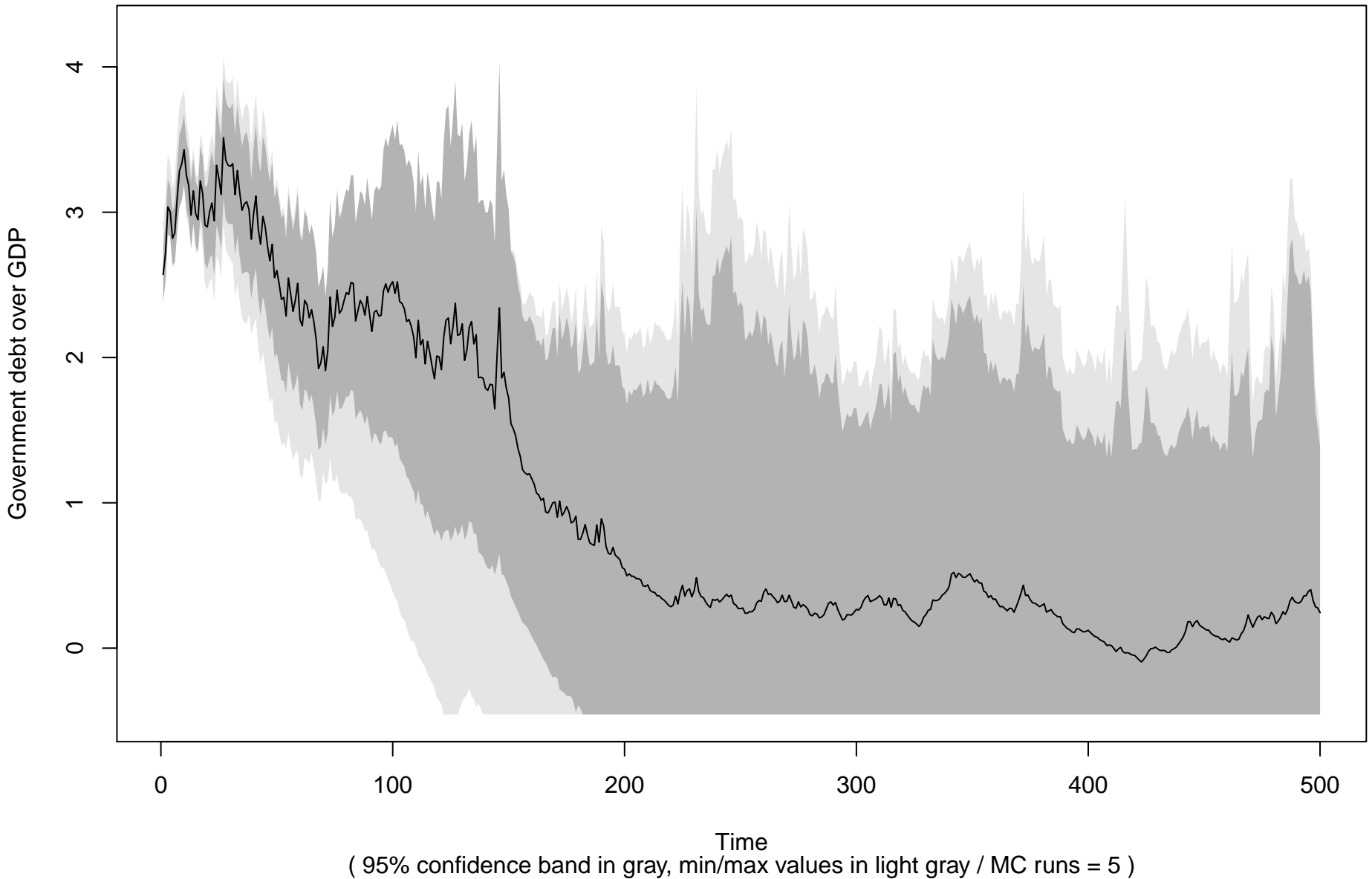
Government deficit on GDP (Benchmark)



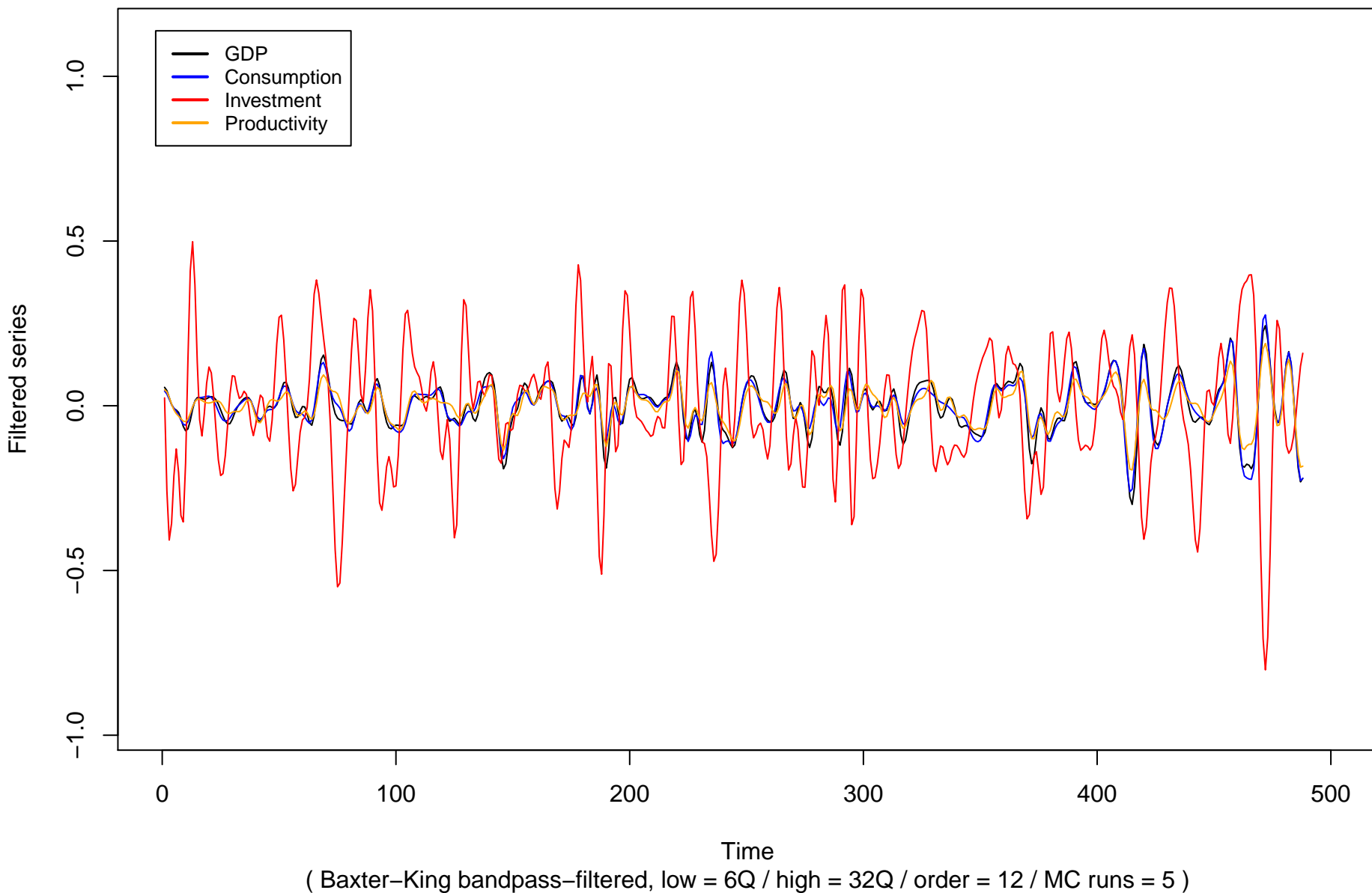
Government debt on GDP (all experiments)



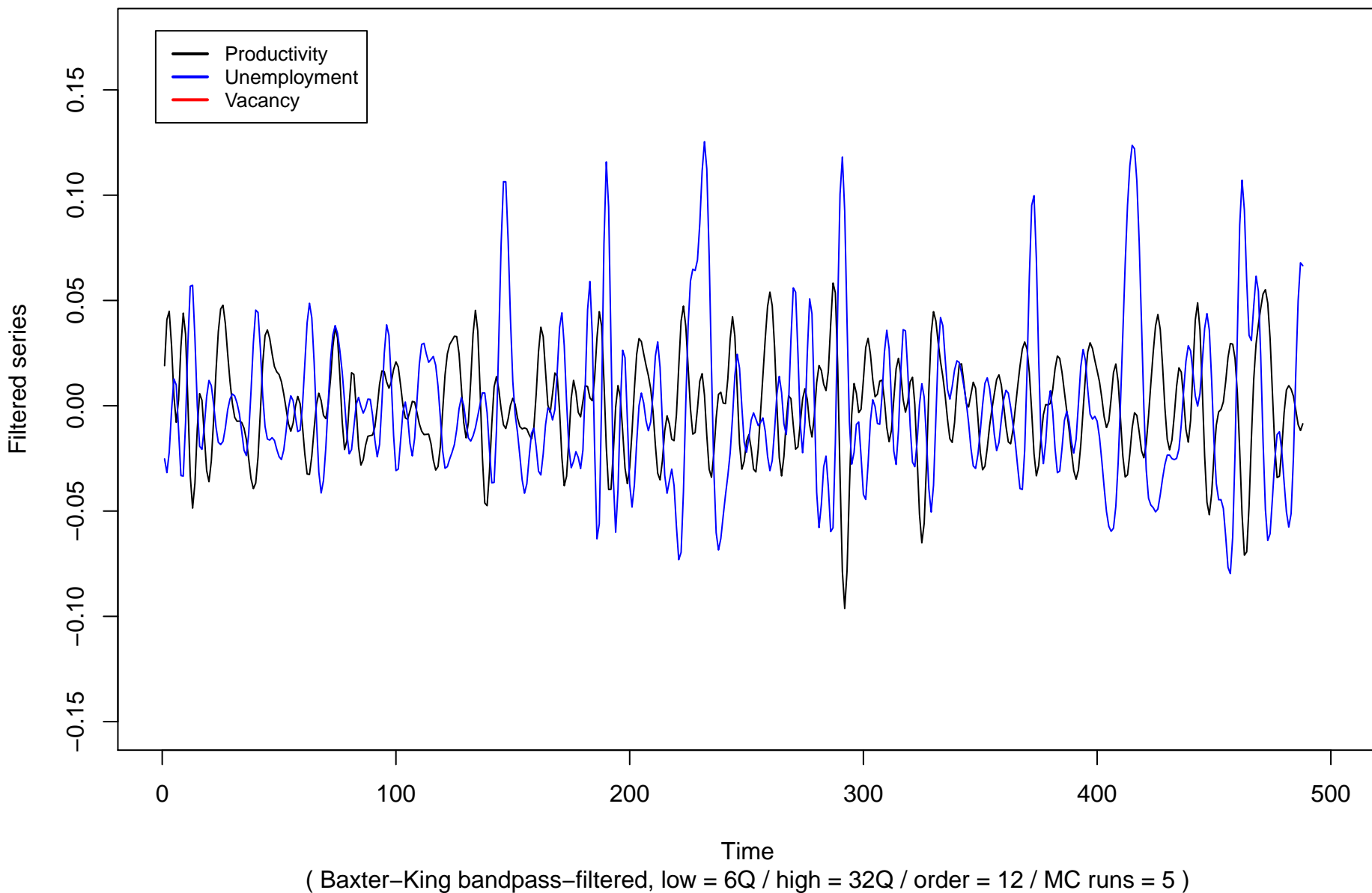
Government debt on GDP (Benchmark)



GDP cycles (Benchmark)



Shimer puzzle (Benchmark)



Key statistics and unit roots tests for cycles (Benchmark)

	GDP (output)	Consumption	Investment	Product.	Real wage
avg. growth rate	0.01944	0.01958	0.01704	0.01955	0.01952
(s.e.)	0.0008266	0.000764	0.001853	0.0006901	0.0005765
ADF test (logs)	-3.225	-3.09	-6.927	-3.351	-3.092
(s.e.)	0.5715	0.5018	0.1543	0.5325	0.1187
(p-val.)	0.2426	0.2641	0.01	0.1856	0.1376
(s.e.)	0.05837	0.0658	0	0.06481	0.04152
ADF test (bpf)	-5.657	-5.68	-6.803	-5.916	-6.114
(s.e.)	0.2937	0.3457	0.179	0.196	0.2537
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.1371	0.1226	1.874	0.1008	0.08997
(s.e.)	0.03626	0.03779	0.08642	0.02409	0.004897
relative s.d. (GDP)	1	0.8946	13.67	0.735	0.6563

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 301 – 600)
(ADF test H0: there are unit roots / non–stationary at 5% level)

Correlation structure for GDP (Benchmark)

	-4	-3	-2	-1	0	1	2	3	4
GDP (output)	-0.03305	0.2609	0.6056	0.8887	1	0.8887	0.6056	0.2609	-0.03305
(s.e.)	0.01141	0.01707	0.0143	0.004704	0	0.004704	0.0143	0.01707	0.01141
(p-val.)	0.9932	0.000224	1.635e-06	3.434e-09	NA	3.434e-09	1.635e-06	0.000224	0.9932
Consumption	0.06493	0.3262	0.619	0.8594	0.9611	0.8754	0.6331	0.3152	0.01548
(s.e.)	0.0372	0.0252	0.02338	0.01857	0.011	0.007949	0.0111	0.01398	0.02209
(p-val.)	0.4534	0.0003073	1.05e-05	9.632e-07	7.274e-08	2.99e-08	4.845e-07	3.662e-05	0.9937
Investment	-0.2864	-0.4208	-0.4746	-0.3899	-0.1738	0.09958	0.3244	0.4297	0.4127
(s.e.)	0.04232	0.02785	0.03121	0.04122	0.0506	0.05719	0.05136	0.02998	0.01935
(p-val.)	0.004089	0.0001281	0.0001127	0.0008376	0.06864	0.1484	0.00446	0.0001545	3.358e-05
Net investment	-0.2232	-0.3604	-0.4275	-0.3663	-0.1803	0.06326	0.2656	0.3611	0.3483
(s.e.)	0.04053	0.01337	0.02722	0.05044	0.06478	0.06811	0.05546	0.02768	0.0197
(p-val.)	0.01208	1.531e-05	0.0001085	0.002376	0.09824	0.1561	0.01434	0.0002647	8.419e-05
Change in inventories	-0.203	-0.1129	0.05386	0.2216	0.3031	0.261	0.123	-0.02941	-0.1161
(s.e.)	0.04285	0.05417	0.04177	0.02336	0.02586	0.02992	0.02929	0.02828	0.02553
(p-val.)	0.02275	0.09208	0.3869	0.001869	0.0004964	0.001884	0.108	0.8984	0.1152
Unemployment rate	0.3012	0.3274	0.2646	0.1272	-0.02911	-0.1405	-0.1668	-0.1191	-0.04579
(s.e.)	0.08061	0.05684	0.04713	0.04744	0.05695	0.0751	0.08982	0.09088	0.07481
(p-val.)	0.02586	0.006066	0.008645	0.1883	0.1411	0.009438	0.02683	0.05393	0.1768
Productivity	0.1463	0.3701	0.6033	0.7861	0.8586	0.7848	0.5884	0.3262	0.0668
(s.e.)	0.04499	0.04209	0.04571	0.04425	0.03169	0.03055	0.05904	0.08158	0.08516
(p-val.)	0.1074	0.001161	0.0001662	4.51e-05	8.146e-06	1.046e-05	0.0004998	0.01961	0.09188
Mark-up (sector 2)	0.3666	0.3033	0.1817	0.03712	-0.09012	-0.1711	-0.2006	-0.1932	-0.1711
(s.e.)	0.03963	0.05393	0.0787	0.0954	0.09665	0.08174	0.05812	0.03172	0.02194
(p-val.)	0.0009694	0.007191	0.1119	0.1355	0.06497	0.1486	0.05328	0.0117	0.007108
Total firm debt	0.1521	0.02294	-0.09633	-0.1901	-0.2511	-0.2778	-0.2781	-0.259	-0.2255
(s.e.)	0.0966	0.1015	0.09415	0.07531	0.05417	0.05312	0.07386	0.09166	0.09482
(p-val.)	0.004986	0.1347	0.117	0.06364	0.01713	0.01021	0.02757	0.01855	0.008
Liquidity-to-sales ratio	0.1579	-0.08303	-0.3515	-0.5887	-0.7336	-0.7452	-0.6351	-0.448	-0.2437
(s.e.)	0.03376	0.06235	0.07863	0.07436	0.05223	0.0244	0.03413	0.05719	0.07154
(p-val.)	0.04112	0.1098	0.013	0.001195	0.0001173	5.388e-06	4.181e-05	0.001499	0.02701
Bankruptcy rate	0.4144	0.4117	0.3028	0.1219	-0.06139	-0.1835	-0.2259	-0.2169	-0.2
(s.e.)	0.04094	0.04472	0.06935	0.07837	0.06763	0.04479	0.02122	0.01371	0.02584
(p-val.)	0.0006113	0.0008823	0.01626	0.132	0.1817	0.04103	0.001172	0.000283	0.004851

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 301 – 600)

(test H0: lag coefficient is not significant at 5% level)

Correlation structure for GDP (Benchmark)

	-4	-3	-2	-1	0	1	2	3	4
GDP (output)	-0.03305	0.2609	0.6056	0.8887	1	0.8887	0.6056	0.2609	-0.03305
(s.e.)	0.01141	0.01707	0.0143	0.004704	0	0.004704	0.0143	0.01707	0.01141
(p-val.)	0.9932	0.000224	1.635e-06	3.434e-09	NA	3.434e-09	1.635e-06	0.000224	0.9932
Consumption	0.06493	0.3262	0.619	0.8594	0.9611	0.8754	0.6331	0.3152	0.01548
(s.e.)	0.0372	0.0252	0.02338	0.01857	0.011	0.007949	0.0111	0.01398	0.02209
(p-val.)	0.4534	0.0003073	1.05e-05	9.632e-07	7.274e-08	2.99e-08	4.845e-07	3.662e-05	0.9937
Investment	-0.2864	-0.4208	-0.4746	-0.3899	-0.1738	0.09958	0.3244	0.4297	0.4127
(s.e.)	0.04232	0.02785	0.03121	0.04122	0.0506	0.05719	0.05136	0.02998	0.01935
(p-val.)	0.004089	0.0001281	0.0001127	0.0008376	0.06864	0.1484	0.00446	0.0001545	3.358e-05
Productivity	0.1463	0.3701	0.6033	0.7861	0.8586	0.7848	0.5884	0.3262	0.0668
(s.e.)	0.04499	0.04209	0.04571	0.04425	0.03169	0.03055	0.05904	0.08158	0.08516
(p-val.)	0.1074	0.001161	0.0001662	4.51e-05	8.146e-06	1.046e-05	0.0004998	0.01961	0.09188
Entry	-0.1606	0.02302	0.2534	0.4687	0.6022	0.6135	0.5145	0.3536	0.1871
(s.e.)	0.06372	0.06563	0.05428	0.03515	0.01618	0.02103	0.03839	0.04396	0.03178
(p-val.)	0.1374	0.1659	0.01654	0.0001901	2.749e-06	7.164e-06	0.0001738	0.001698	0.01402
Wage	0.2356	0.4474	0.6342	0.7427	0.7365	0.6122	0.4078	0.1787	-0.0252
(s.e.)	0.04718	0.04967	0.06139	0.07815	0.09128	0.09207	0.08278	0.06725	0.05259
(p-val.)	0.01499	0.0008911	0.0004169	0.0005302	0.0009903	0.002225	0.008336	0.01828	0.4409
Unemployment rate	0.3012	0.3274	0.2646	0.1272	-0.02911	-0.1405	-0.1668	-0.1191	-0.04579
(s.e.)	0.08061	0.05684	0.04713	0.04744	0.05695	0.0751	0.08982	0.09088	0.07481
(p-val.)	0.02586	0.006066	0.008645	0.1883	0.1411	0.009438	0.02683	0.05393	0.1768
Vacancy rate	0.1558	-0.0545	-0.2895	-0.4648	-0.5186	-0.442	-0.2923	-0.1424	-0.04062
(s.e.)	0.1358	0.1204	0.09534	0.07797	0.06471	0.04317	0.03128	0.05432	0.07668
(p-val.)	0.006527	0.2186	0.04649	0.003923	0.001237	0.000553	0.001231	0.1241	0.04688

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 301 – 600)
(test H0: lag coefficient is not significant at 5% level)

Stationarity, i.i.d. and ergodicity tests (Benchmark)

	avg.ADF	rej.ADF	avg.PP	rej.PP	avg.KPSS	rej.KPSS	avg.BDS	rej.BDS	avg.KS	rej.KS	AD	V
dGDP	0.01	1.00	0.01	1.00	0.10	0.00	0.15	0.40	0.49	0.00	0.08	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.13	0.40	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.13	0.50	0.00	C
V	0.01	1.00	0.01	1.00	0.08	0.20	0.00	1.00	0.04	0.90	0.00	C
U	0.01	1.00	0.01	1.00	0.07	0.40	0.00	1.00	0.00	1.00	0.00	C
mu2avg	0.01	1.00	0.01	1.00	0.03	0.80	0.00	1.00	0.00	1.00	0.00	C
HH1	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.21	0.60	0.00	C
HH2	0.01	1.00	0.01	1.00	0.07	0.20	0.00	1.00	0.12	0.70	0.00	C

(average p-values for testing H0 and rate of rejection of H0 / MC runs = 5 / period = 301 – 600)

(ADF/PP H0: non-stationary, KPSS H0: stationary, BDS H0: i.i.d., KS/AD/WW H0: ergodic)

(significance = 0.05)