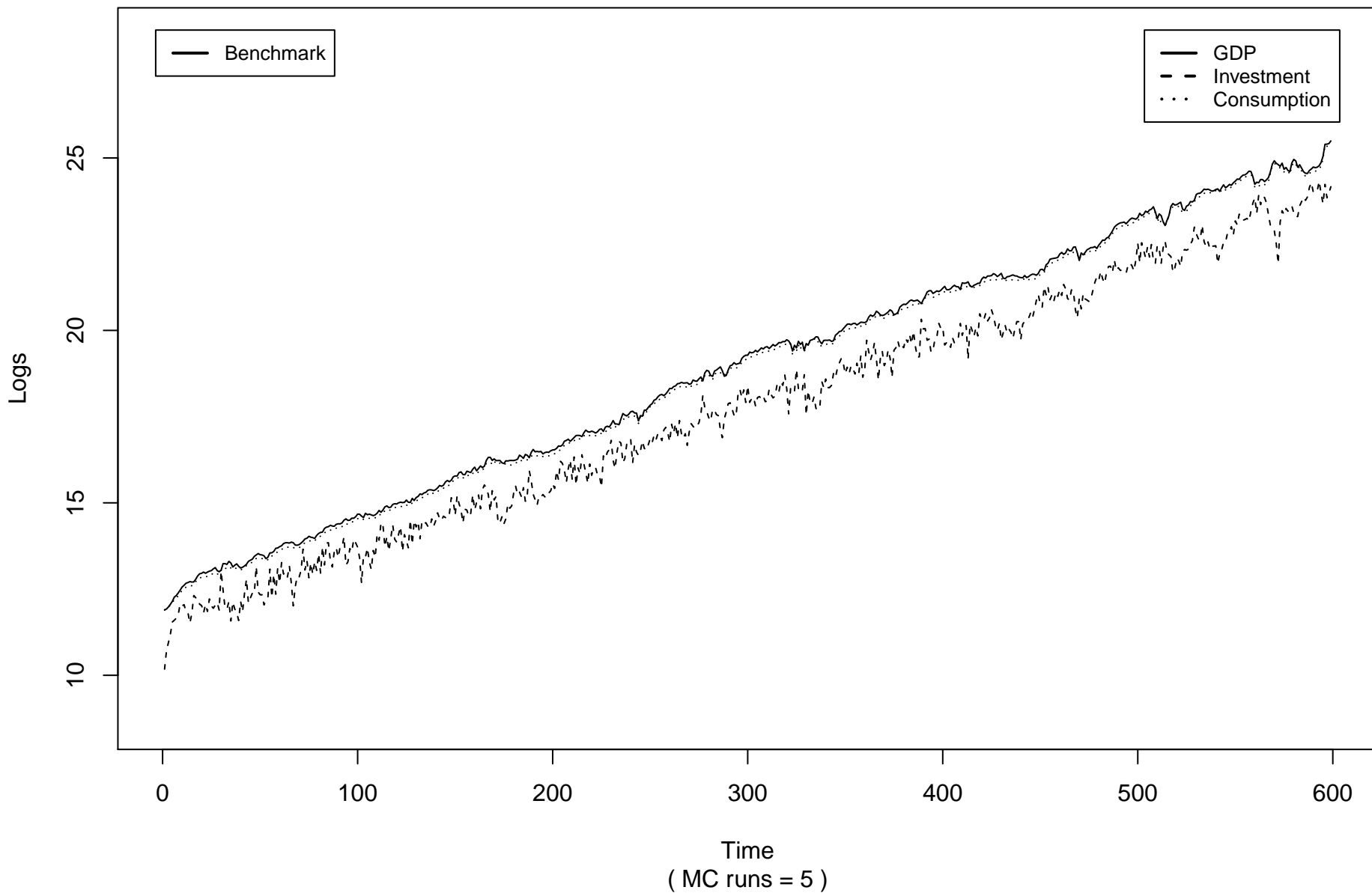
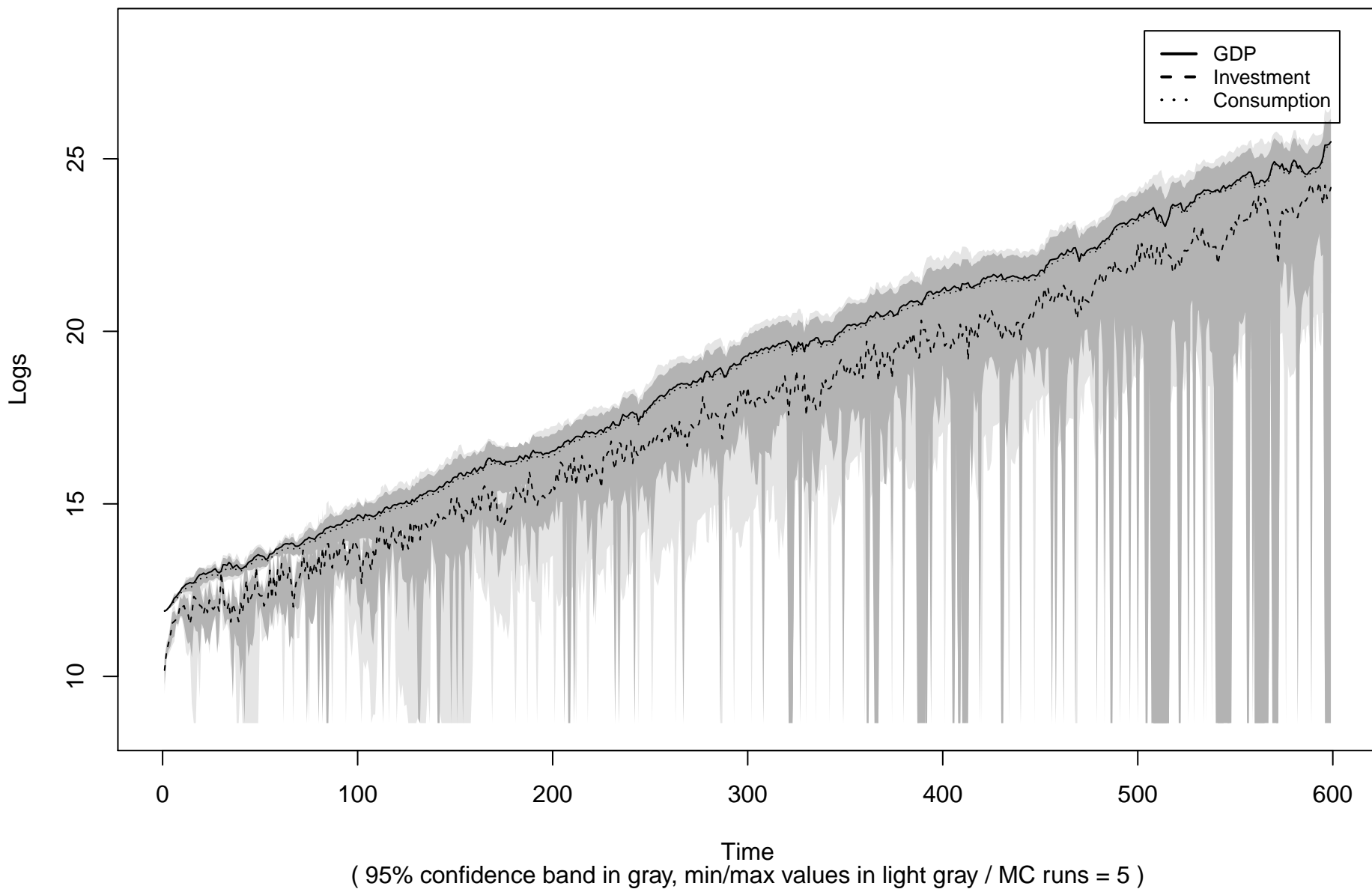


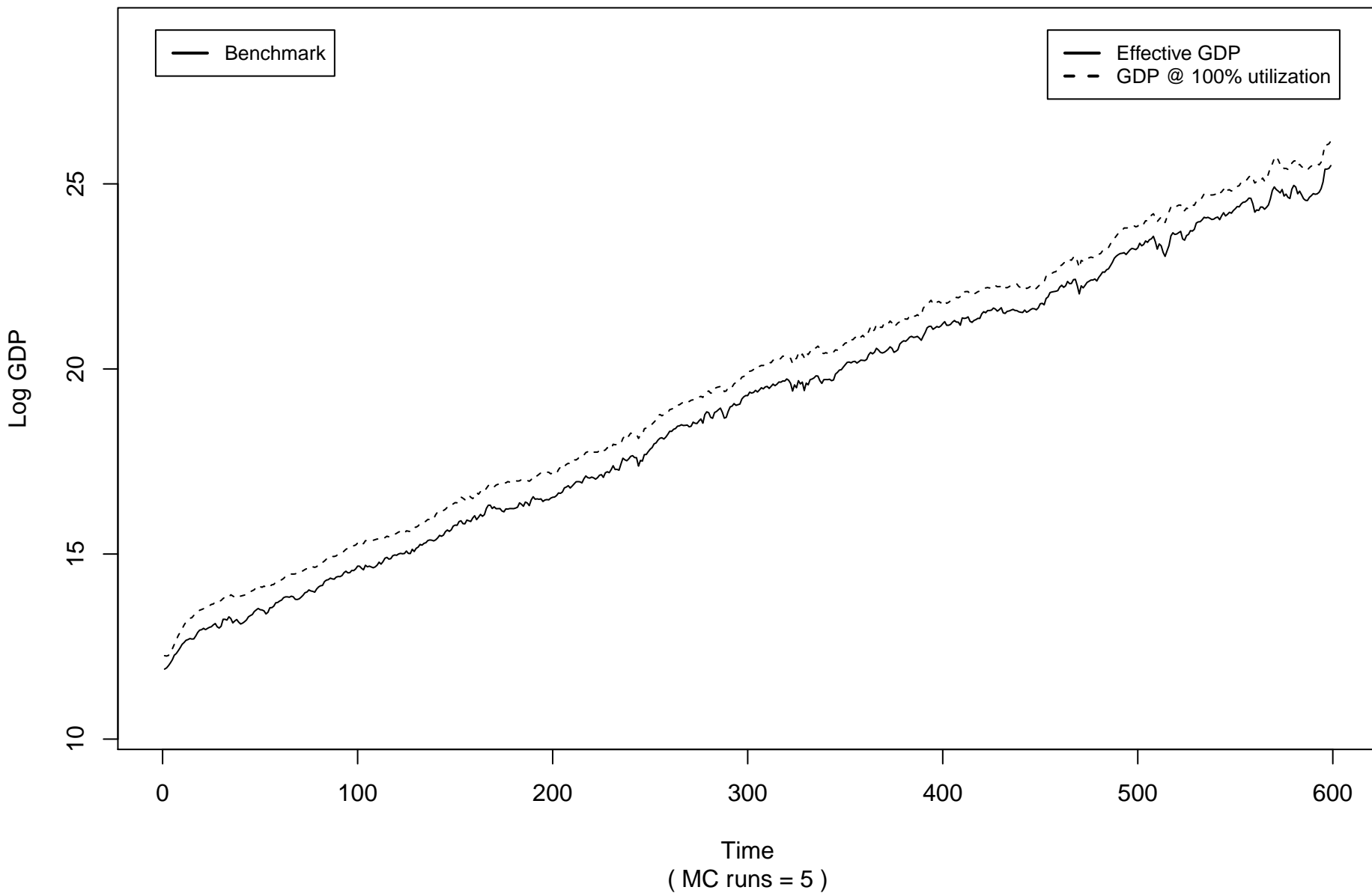
GDP, investment and consumption (all experiments)



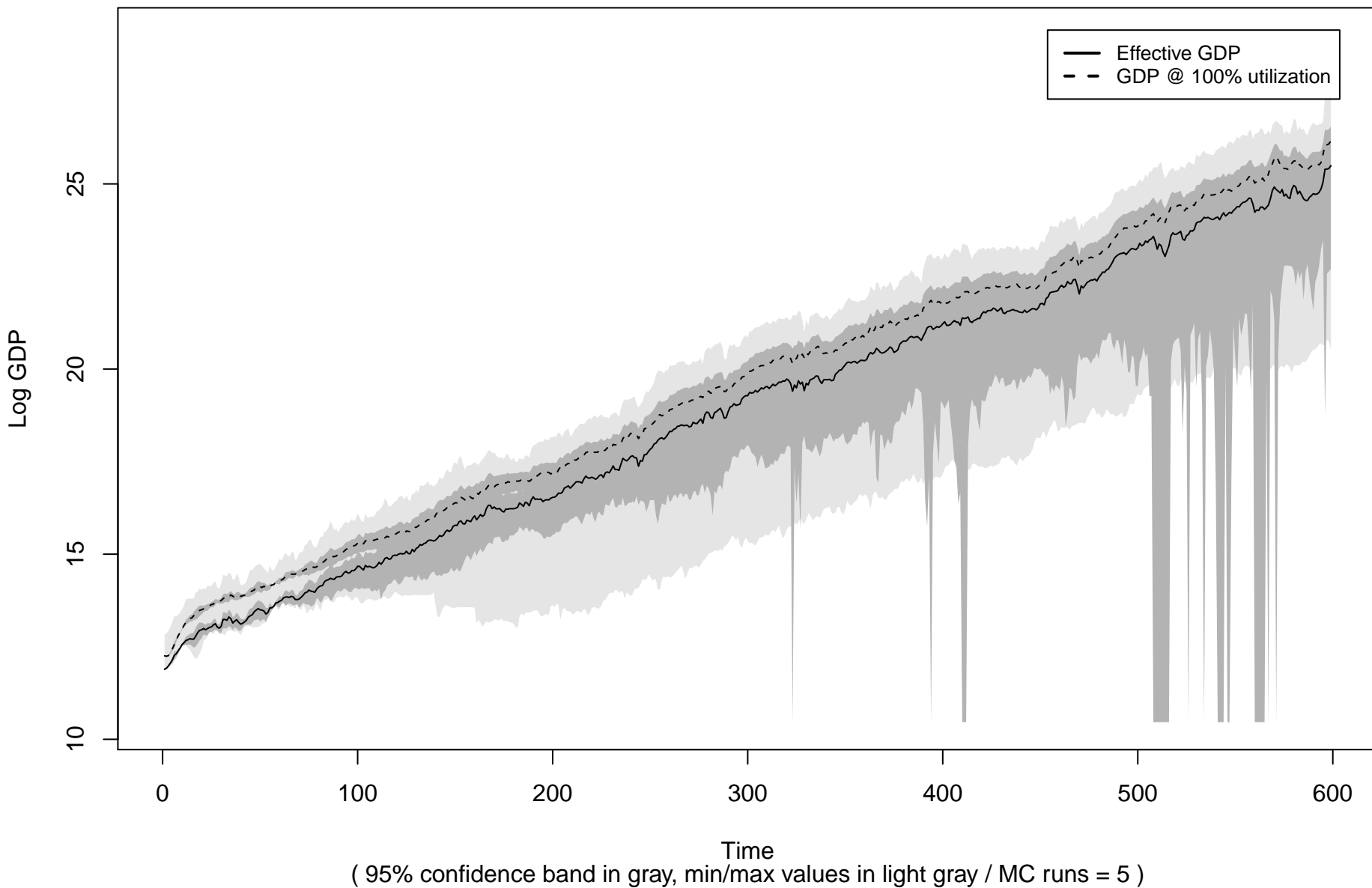
GDP, investment and consumption (Benchmark)



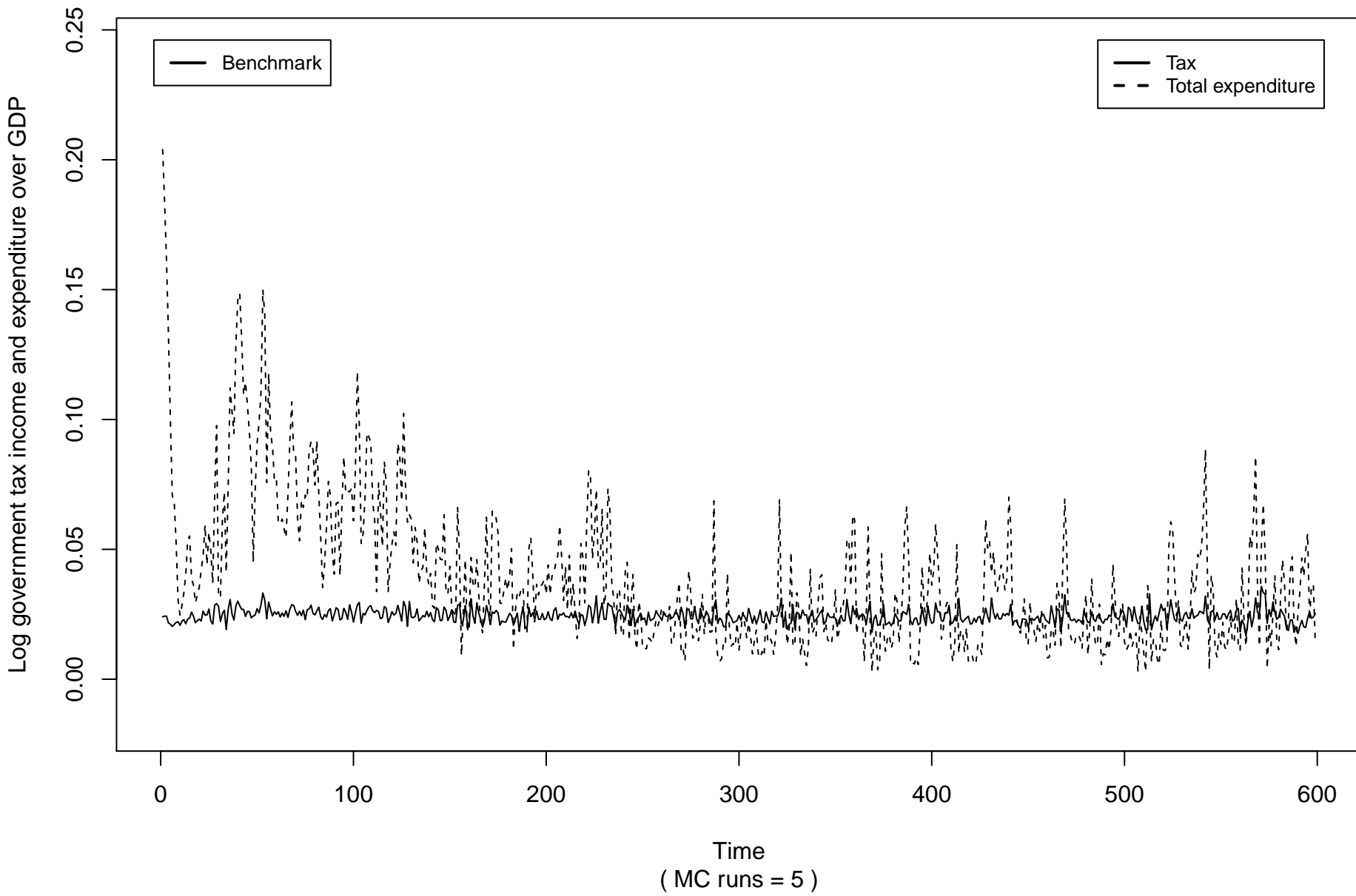
GDP (all experiments)



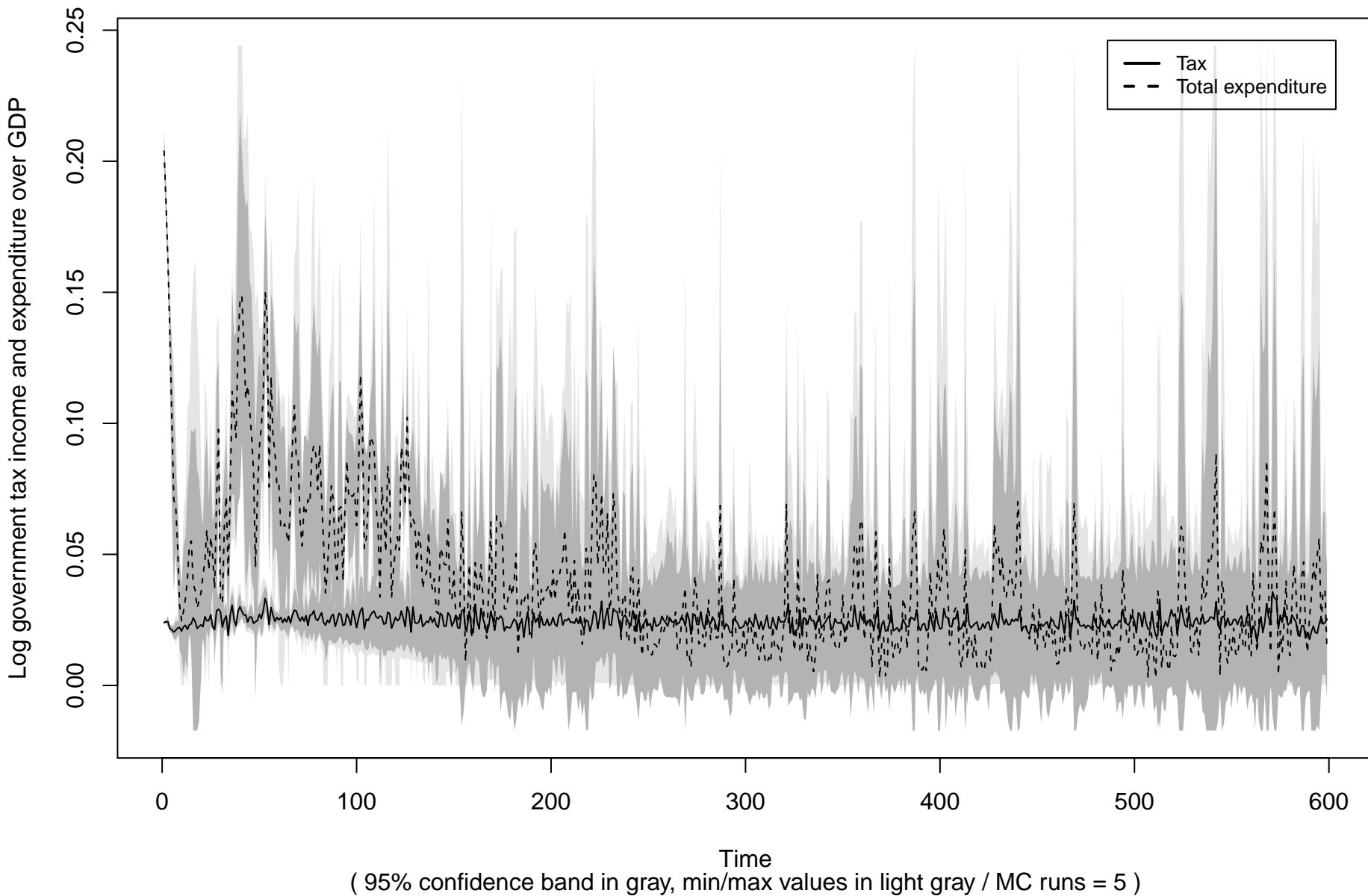
GDP (Benchmark)



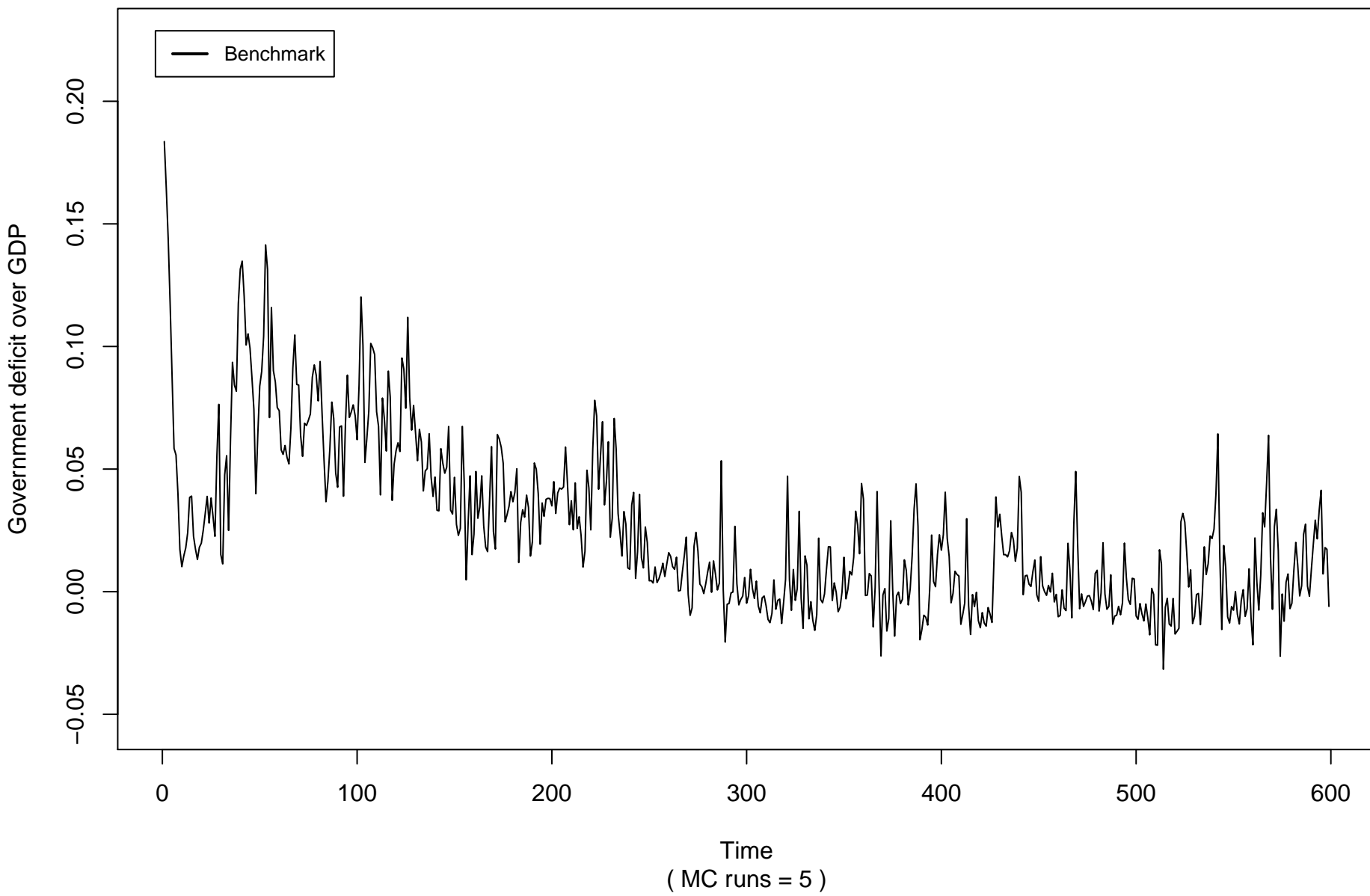
Government income and expenditure on GDP (all experiments)



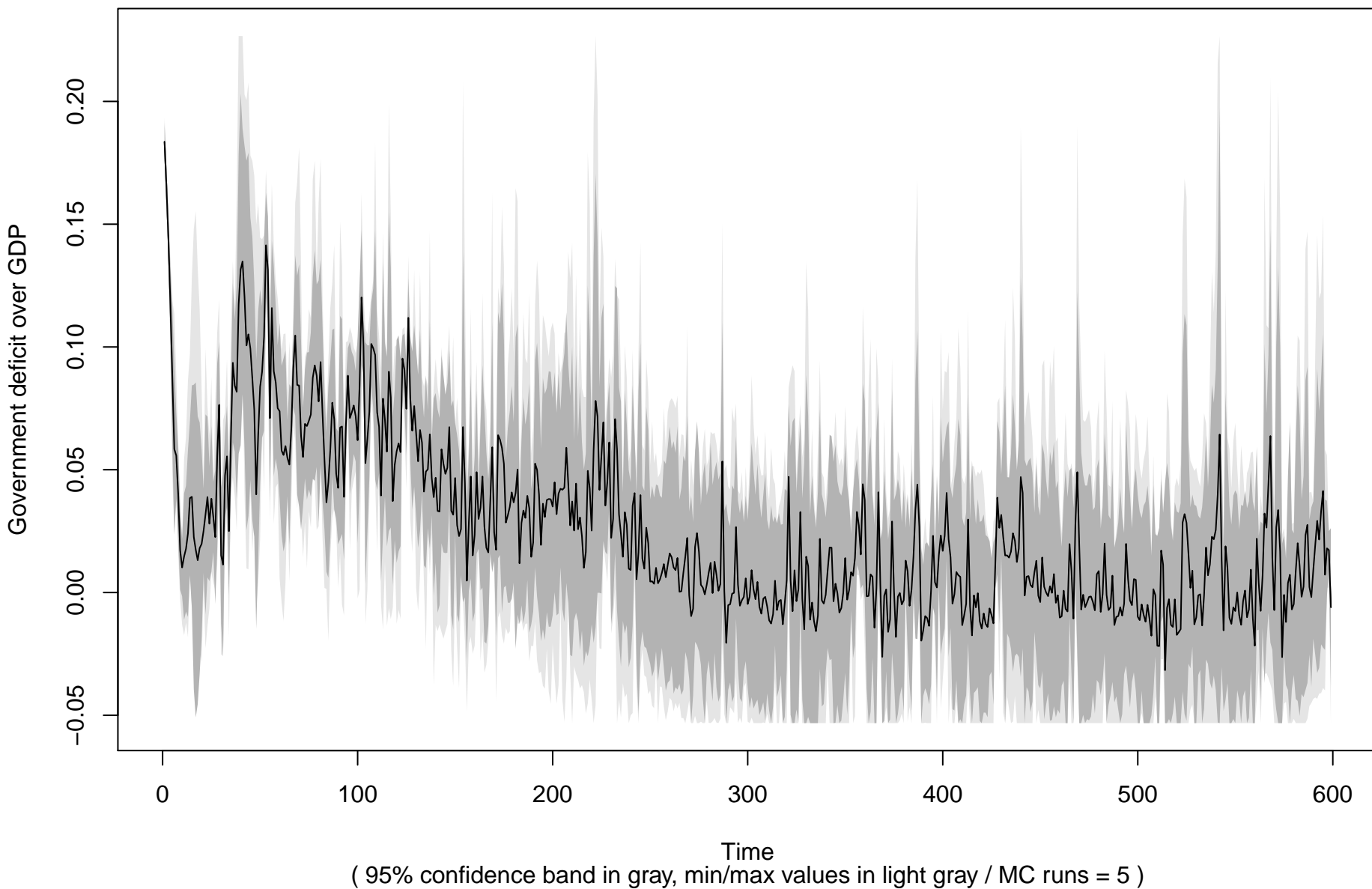
Government income and expenditure on GDP (Benchmark)



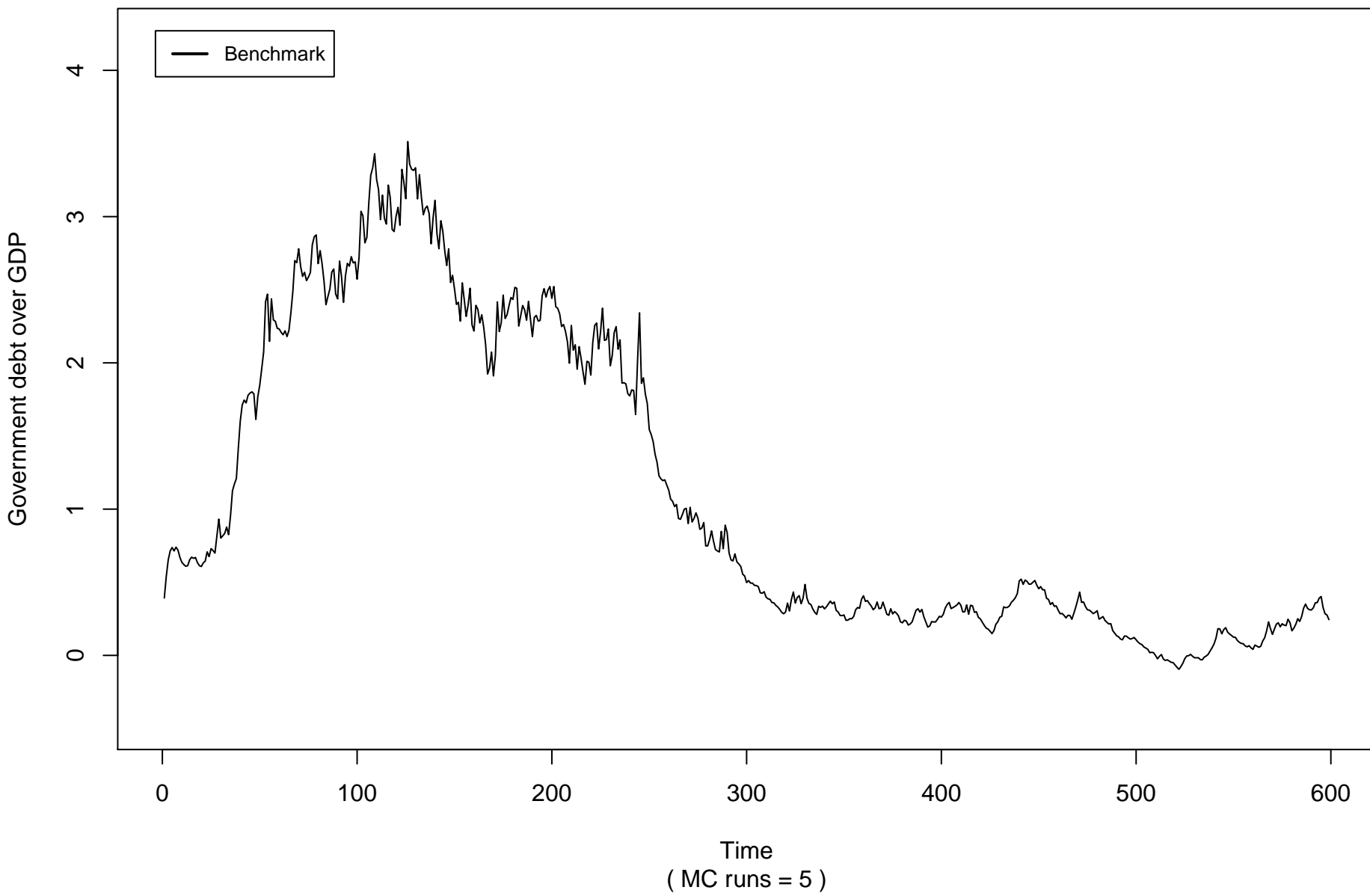
Government deficit on GDP (all experiments)



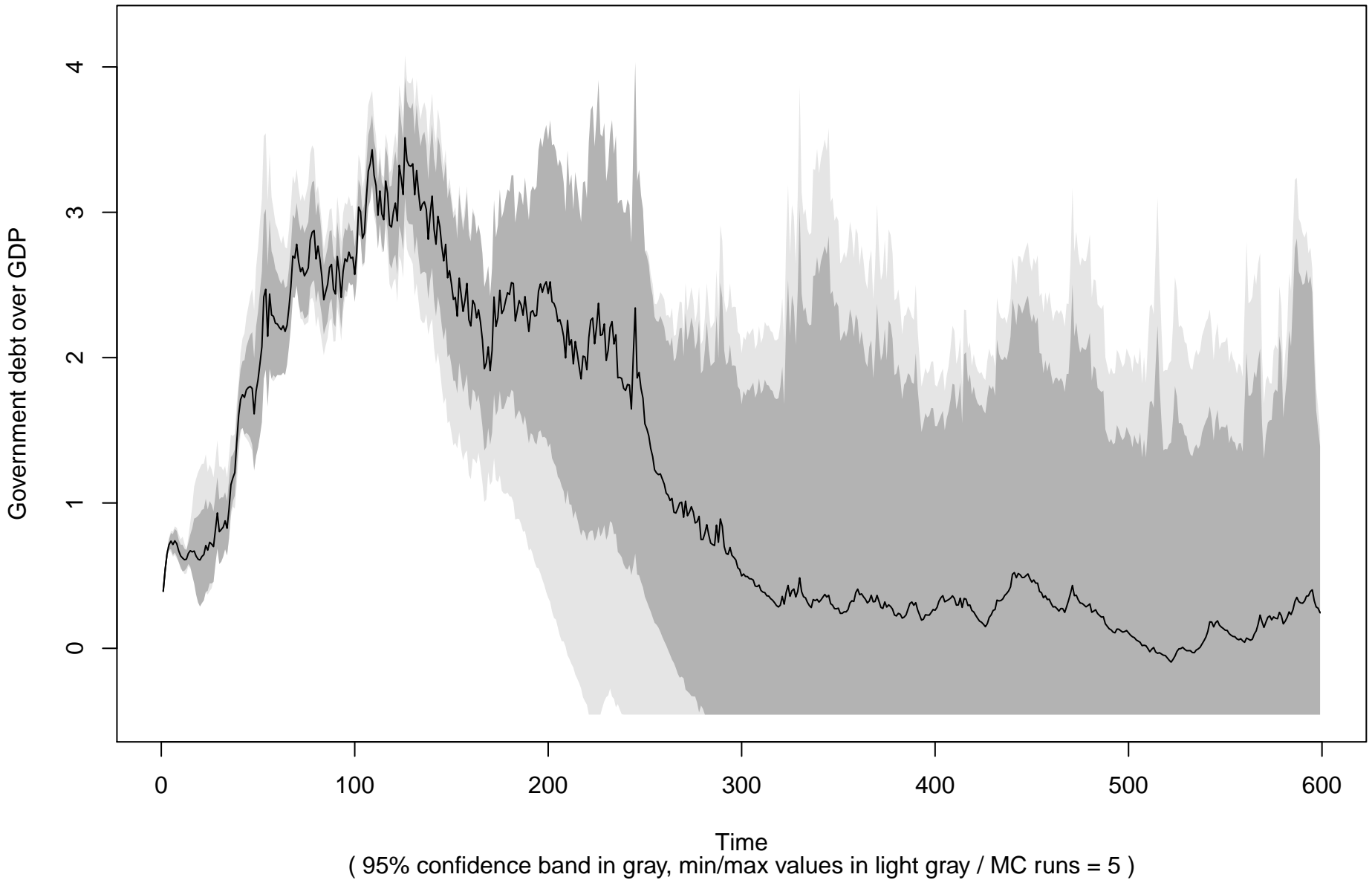
Government deficit on GDP (Benchmark)



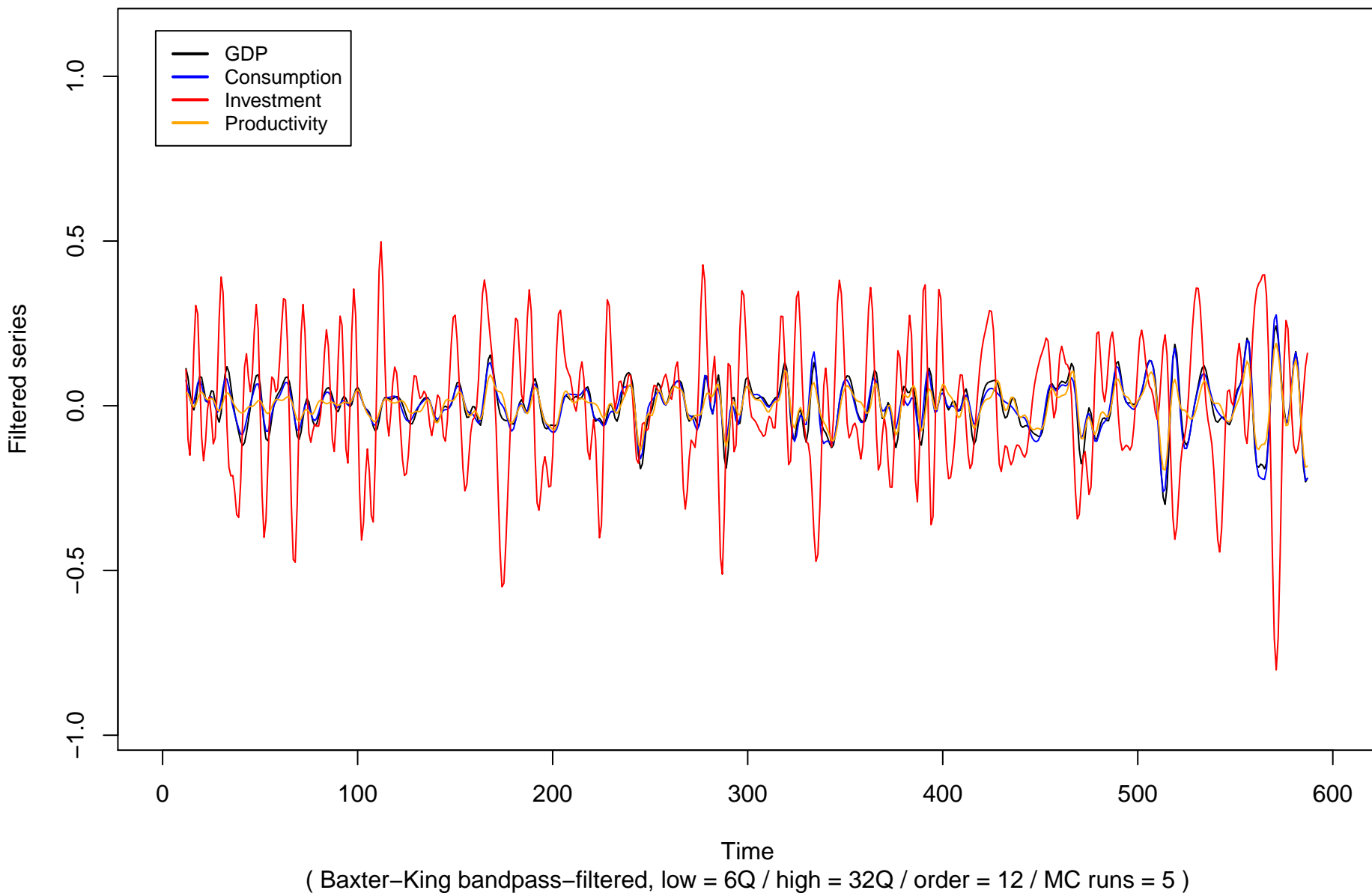
Government debt on GDP (all experiments)



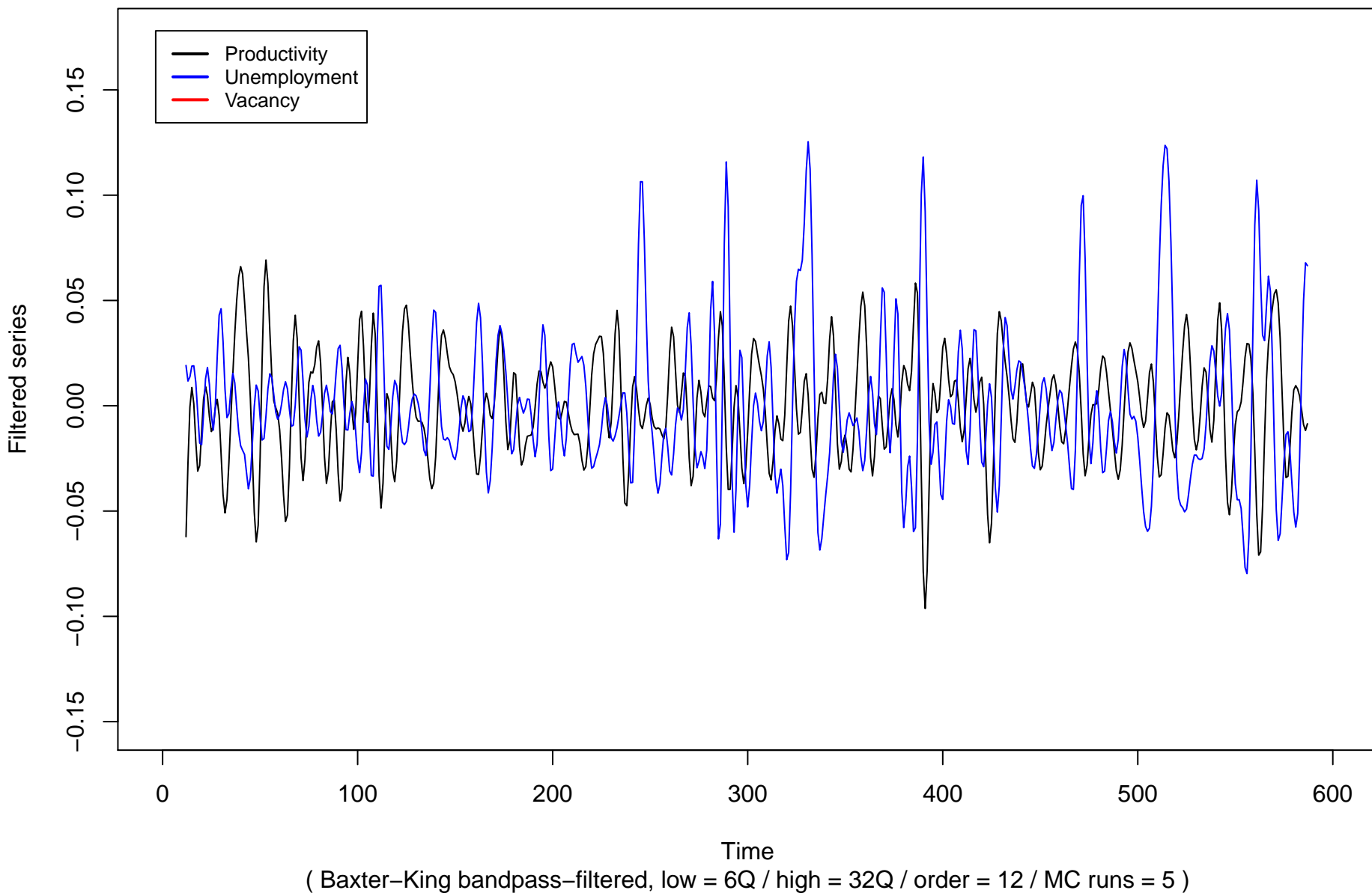
Government debt on GDP (Benchmark)



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	0.02084	0.02069	0.02116	0.02032	0.01986
(s.e.)	0.00176	0.001754	0.002177	0.001607	0.001624
ADF test (logs)	-2.699	-2.472	-8.038	-2.667	-2.473
(s.e.)	0.4762	0.4168	0.737	0.4949	0.3639
(p-val.)	0.3487	0.4137	0.01	0.3515	0.3734
(s.e.)	0.1582	0.1518	0	0.167	0.1491
ADF test (bpf)	-9.699	-9.328	-10.87	-9.507	-8.655
(s.e.)	0.2989	0.4844	0.1709	0.4442	0.2885
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.124	0.109	1.643	0.08928	0.0877
(s.e.)	0.02239	0.0229	0.09376	0.01394	0.005044
relative s.d. (GDP)	1	0.8793	13.26	0.7201	0.7074

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 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)	-0.05058	0.2431	0.5942	0.8852	1	0.8852	0.5942	0.2431	-0.05058
(s.e.)	0.0324	0.03116	0.02093	0.006726	2.483e-17	0.006726	0.02093	0.03116	0.0324
(p-val.)	0.6026	0.003186	8.146e-06	1.46e-08	NA	1.46e-08	8.146e-06	0.003186	0.6026
Consumption	0.04242	0.3027	0.6024	0.8529	0.961	0.8743	0.6244	0.2984	-0.002977
(s.e.)	0.04382	0.03561	0.02577	0.01397	0.006754	0.00999	0.01934	0.02907	0.0352
(p-val.)	0.34	0.001669	1.749e-05	3.193e-07	1.036e-08	7.499e-08	4.742e-06	0.0008399	0.8376
Investment	-0.2532	-0.368	-0.4085	-0.3248	-0.1262	0.1168	0.3095	0.3891	0.3562
(s.e.)	0.0438	0.03559	0.02105	0.01693	0.03412	0.05026	0.0581	0.05728	0.05252
(p-val.)	0.008391	0.0006342	4.921e-05	6.645e-05	0.1238	0.239	0.008414	0.002854	0.003133
Net investment	-0.1796	-0.2755	-0.3135	-0.2501	-0.09234	0.09887	0.2476	0.3032	0.269
(s.e.)	0.04383	0.0311	0.01001	0.0228	0.04748	0.06095	0.06044	0.04925	0.03936
(p-val.)	0.04279	0.001635	1.002e-05	0.0008633	0.1961	0.1737	0.02509	0.005287	0.004323
Change in inventories	-0.1427	-0.0751	0.04476	0.1636	0.2201	0.1887	0.0889	-0.02105	-0.08332
(s.e.)	0.02782	0.03975	0.0341	0.01995	0.01408	0.0172	0.01979	0.01979	0.01658
(p-val.)	0.04364	0.2416	0.6916	0.006907	0.0002865	0.001601	0.3384	0.9839	0.4259
Unemployment rate	0.2519	0.2436	0.1478	-0.008925	-0.1628	-0.246	-0.2295	-0.1362	-0.0236
(s.e.)	0.05304	0.03821	0.02538	0.02425	0.04942	0.07809	0.09596	0.09443	0.071
(p-val.)	0.01583	0.006422	0.02785	0.9876	0.08459	0.05036	0.04561	0.05908	0.1913
Productivity	0.1338	0.3562	0.5906	0.7743	0.844	0.7649	0.5621	0.2974	0.04336
(s.e.)	0.03044	0.03253	0.0382	0.0394	0.02935	0.02561	0.05316	0.078	0.08476
(p-val.)	0.07612	0.0005273	9.054e-05	3.046e-05	6.469e-06	5.813e-06	0.00041	0.02473	0.04881
Mark-up (sector 2)	0.3641	0.2964	0.175	0.03406	-0.08735	-0.1636	-0.1875	-0.1738	-0.1447
(s.e.)	0.03339	0.04099	0.05535	0.06073	0.05458	0.04222	0.03346	0.02728	0.01929
(p-val.)	0.0005229	0.003088	0.08062	0.2846	0.1691	0.05944	0.01626	0.01318	0.01426
Total firm debt	0.1552	0.04354	-0.06662	-0.1558	-0.2121	-0.2346	-0.2324	-0.2165	-0.1937
(s.e.)	0.06904	0.06718	0.05602	0.03626	0.01994	0.03641	0.06025	0.07576	0.0796
(p-val.)	0.0255	0.2064	0.2025	0.05235	0.001348	0.006598	0.03233	0.04308	0.04476
Liquidity-to-sales ratio	0.08405	-0.1488	-0.3985	-0.5996	-0.6939	-0.6504	-0.5033	-0.3084	-0.1241
(s.e.)	0.03357	0.03159	0.04734	0.06104	0.07091	0.07721	0.07947	0.0745	0.06584
(p-val.)	0.3446	0.04756	0.001272	0.0005225	0.0004897	0.0008952	0.002992	0.01872	0.2177
Bankruptcy rate	0.3673	0.3787	0.2894	0.1289	-0.03672	-0.1477	-0.1815	-0.1653	-0.1445
(s.e.)	0.01876	0.04126	0.0694	0.07787	0.06526	0.04108	0.01825	0.007588	0.02461
(p-val.)	5.296e-05	0.0009659	0.01963	0.1329	0.2149	0.08744	0.00256	0.0001788	0.02933

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 600)

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

Correlation structure for GDP (Benchmark)

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GDP (output)	-0.05058	0.2431	0.5942	0.8852	1	0.8852	0.5942	0.2431	-0.05058
(s.e.)	0.0324	0.03116	0.02093	0.006726	2.483e-17	0.006726	0.02093	0.03116	0.0324
(p-val.)	0.6026	0.003186	8.146e-06	1.46e-08	NA	1.46e-08	8.146e-06	0.003186	0.6026
Consumption	0.04242	0.3027	0.6024	0.8529	0.961	0.8743	0.6244	0.2984	-0.002977
(s.e.)	0.04382	0.03561	0.02577	0.01397	0.006754	0.00999	0.01934	0.02907	0.0352
(p-val.)	0.34	0.001669	1.749e-05	3.193e-07	1.036e-08	7.499e-08	4.742e-06	0.0008399	0.8376
Investment	-0.2532	-0.368	-0.4085	-0.3248	-0.1262	0.1168	0.3095	0.3891	0.3562
(s.e.)	0.0438	0.03559	0.02105	0.01693	0.03412	0.05026	0.0581	0.05728	0.05252
(p-val.)	0.008391	0.0006342	4.921e-05	6.645e-05	0.1238	0.239	0.008414	0.002854	0.003133
Productivity	0.1338	0.3562	0.5906	0.7743	0.844	0.7649	0.5621	0.2974	0.04336
(s.e.)	0.03044	0.03253	0.0382	0.0394	0.02935	0.02561	0.05316	0.078	0.08476
(p-val.)	0.07612	0.0005273	9.054e-05	3.046e-05	6.469e-06	5.813e-06	0.00041	0.02473	0.04881
Entry	-0.1795	-0.005335	0.2112	0.4084	0.5233	0.5222	0.4238	0.2785	0.1406
(s.e.)	0.04992	0.05084	0.04184	0.0268	0.01521	0.02171	0.03626	0.04599	0.04444
(p-val.)	0.05849	0.5722	0.01749	0.0001273	4.126e-06	1.717e-05	0.0003451	0.006243	0.04373
Wage	0.2199	0.4271	0.616	0.7311	0.7311	0.6111	0.4073	0.1787	-0.02048
(s.e.)	0.03786	0.04393	0.0518	0.06203	0.07172	0.07512	0.072	0.06363	0.05259
(p-val.)	0.01045	0.0006938	0.0002461	0.0002329	0.000408	0.001056	0.005228	0.09785	0.1129
Unemployment rate	0.2519	0.2436	0.1478	-0.008925	-0.1628	-0.246	-0.2295	-0.1362	-0.0236
(s.e.)	0.05304	0.03821	0.02538	0.02425	0.04942	0.07809	0.09596	0.09443	0.071
(p-val.)	0.01583	0.006422	0.02785	0.9876	0.08459	0.05036	0.04561	0.05908	0.1913
Vacancy rate	0.1811	-0.01566	-0.2398	-0.4077	-0.4572	-0.3823	-0.2375	-0.09655	-0.009231
(s.e.)	0.1156	0.1097	0.09717	0.08087	0.05781	0.02682	0.02832	0.05931	0.07846
(p-val.)	2.954e-05	0.1718	0.08768	0.007723	0.001425	0.0001766	0.002561	0.2379	0.08655

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 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	0.09	0.80	0.32	0.20	0.01	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.13	0.70	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.13	0.80	0.00	C
V	0.01	1.00	0.01	1.00	0.05	0.60	0.00	1.00	0.00	1.00	0.00	C
U	0.01	1.00	0.01	1.00	0.05	0.60	0.00	1.00	0.04	0.90	0.00	C
mu2avg	0.01	1.00	0.01	1.00	0.02	1.00	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	0.02	0.90	0.00	C
HH2	0.01	1.00	0.01	1.00	0.03	0.80	0.00	1.00	0.00	1.00	0.00	C

(average p–values for testing H0 and rate of rejection of H0 / MC runs = 5 / period = 2 – 600)

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

(significance = 0.05)