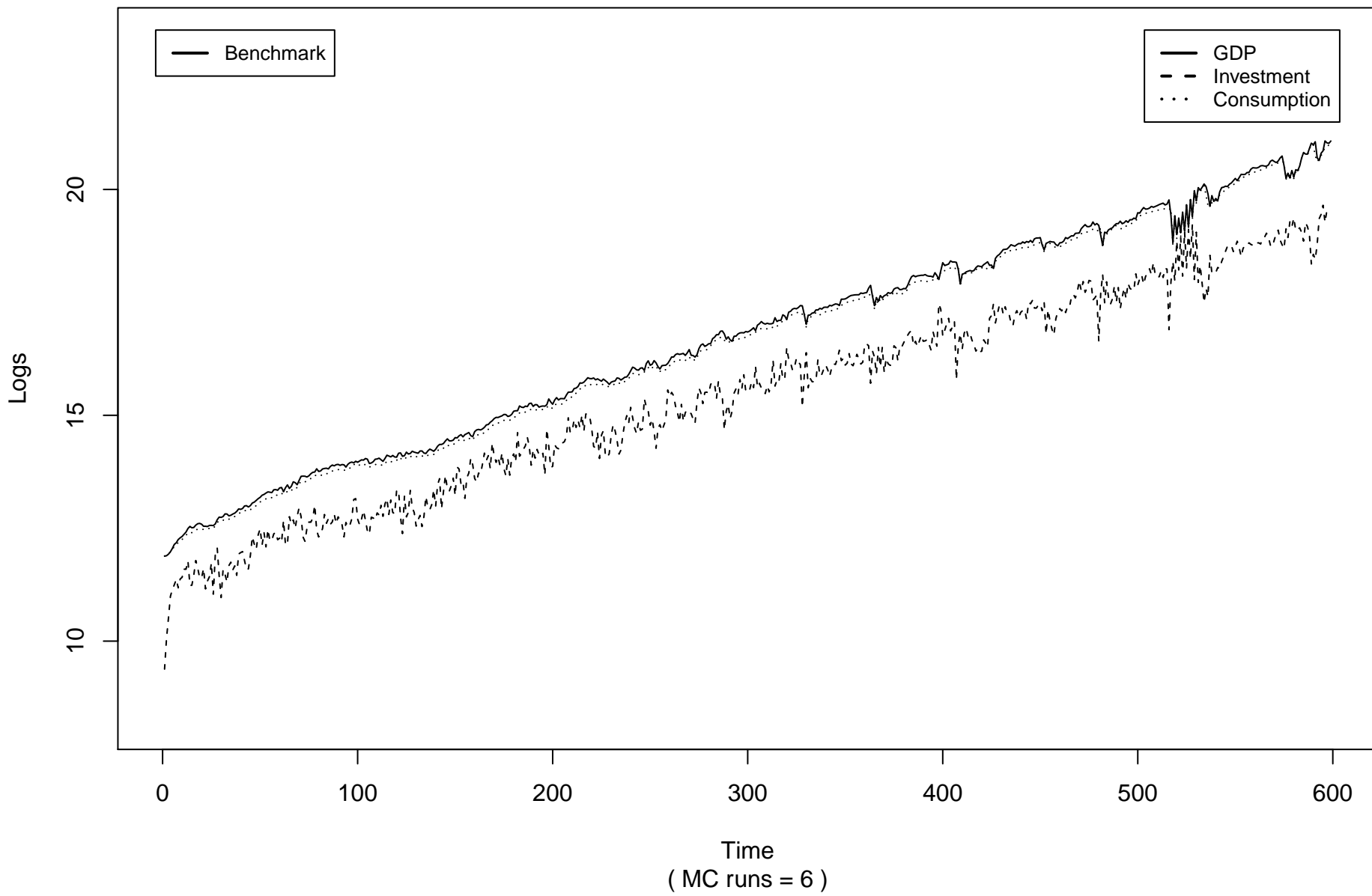
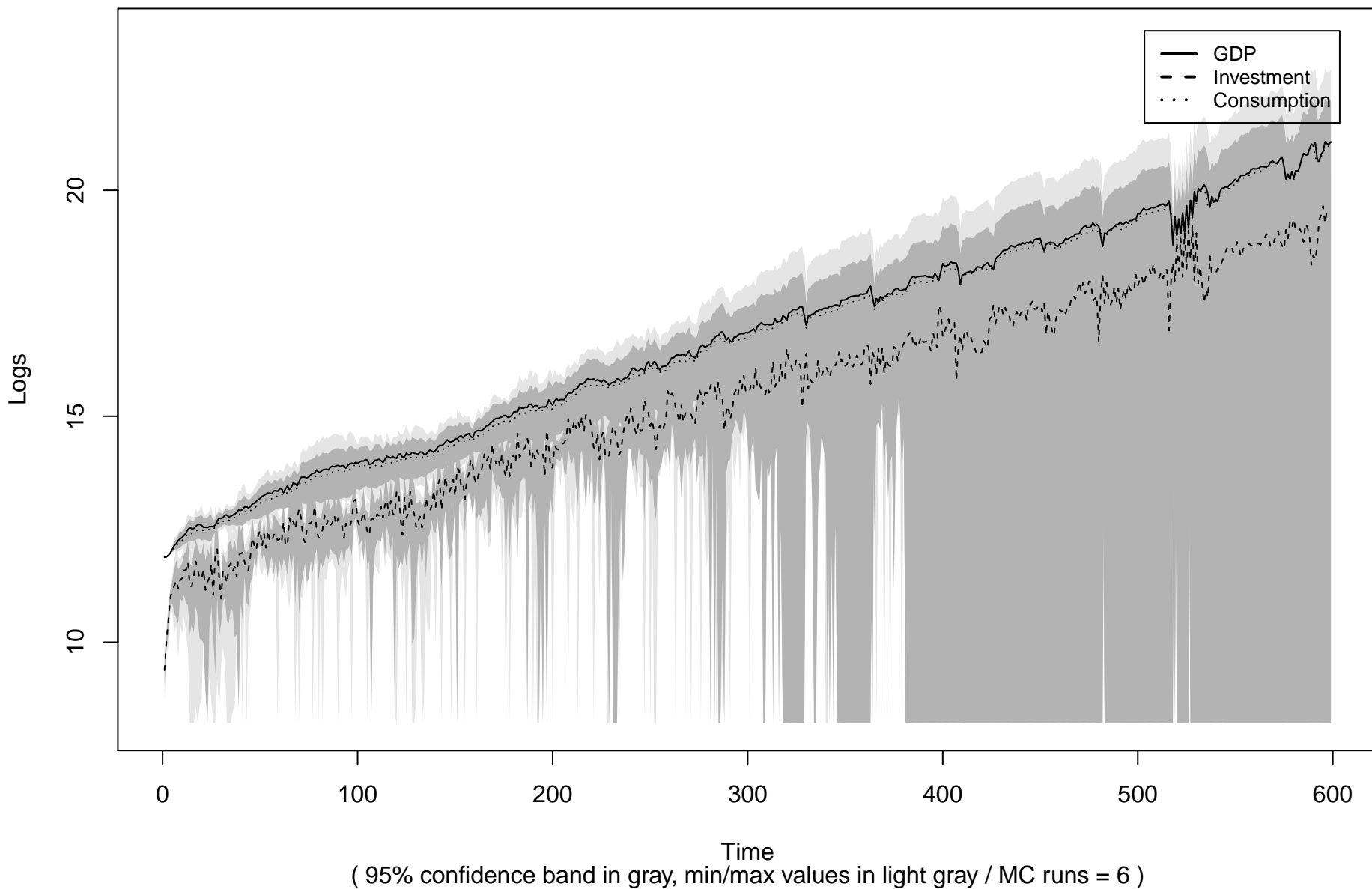


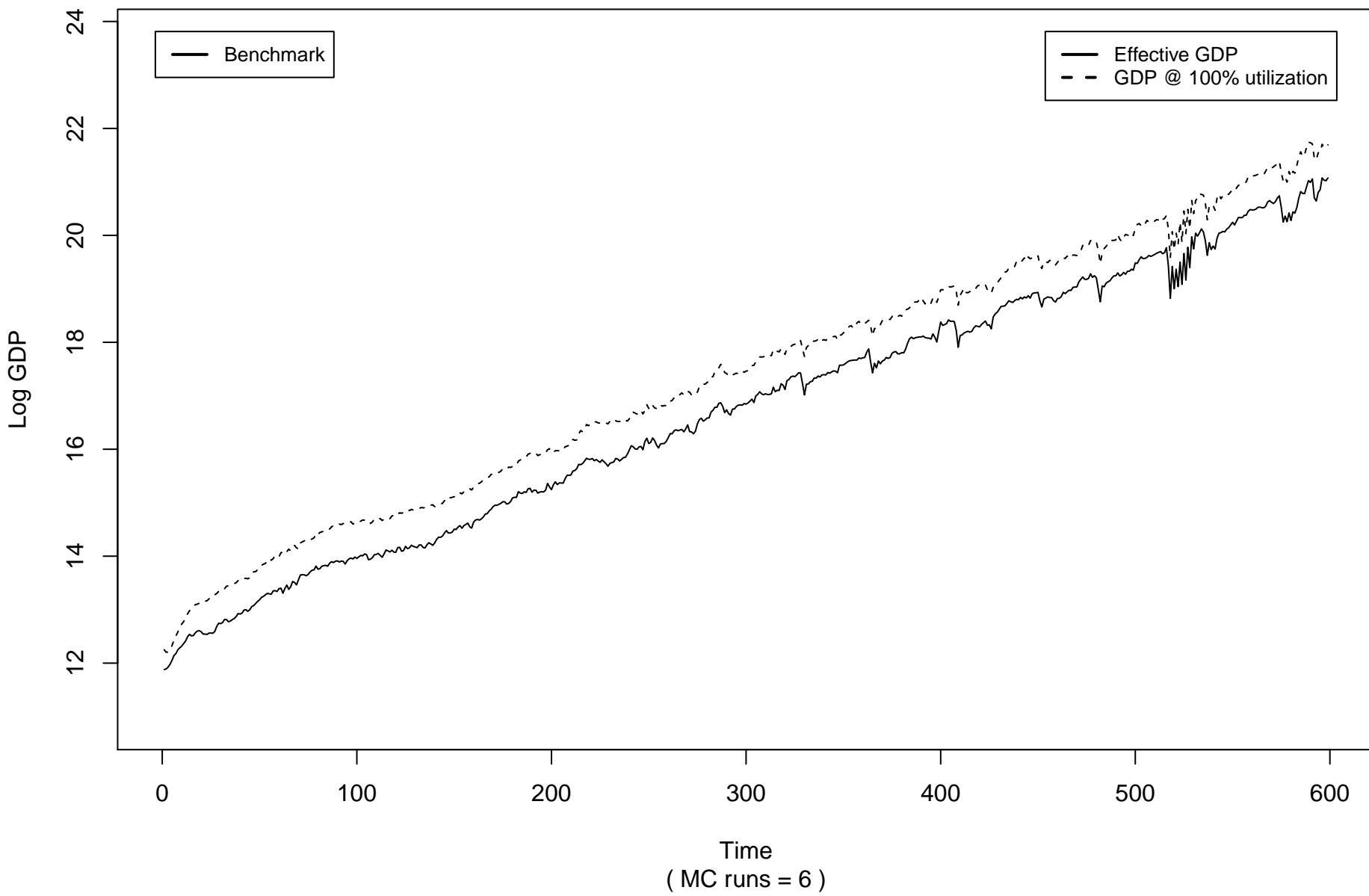
GDP, investment and consumption (all experiments)



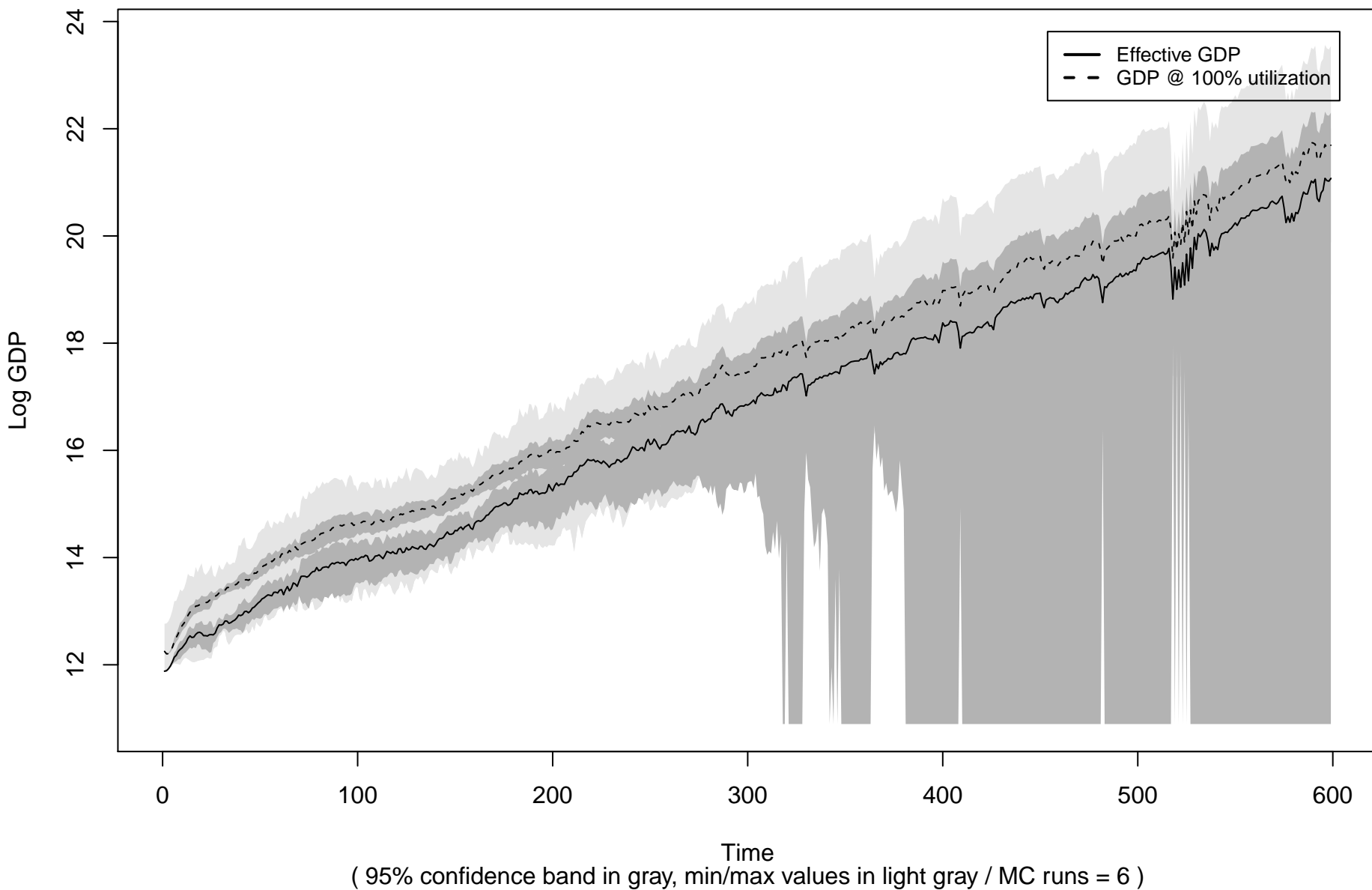
GDP, investment and consumption (Benchmark)



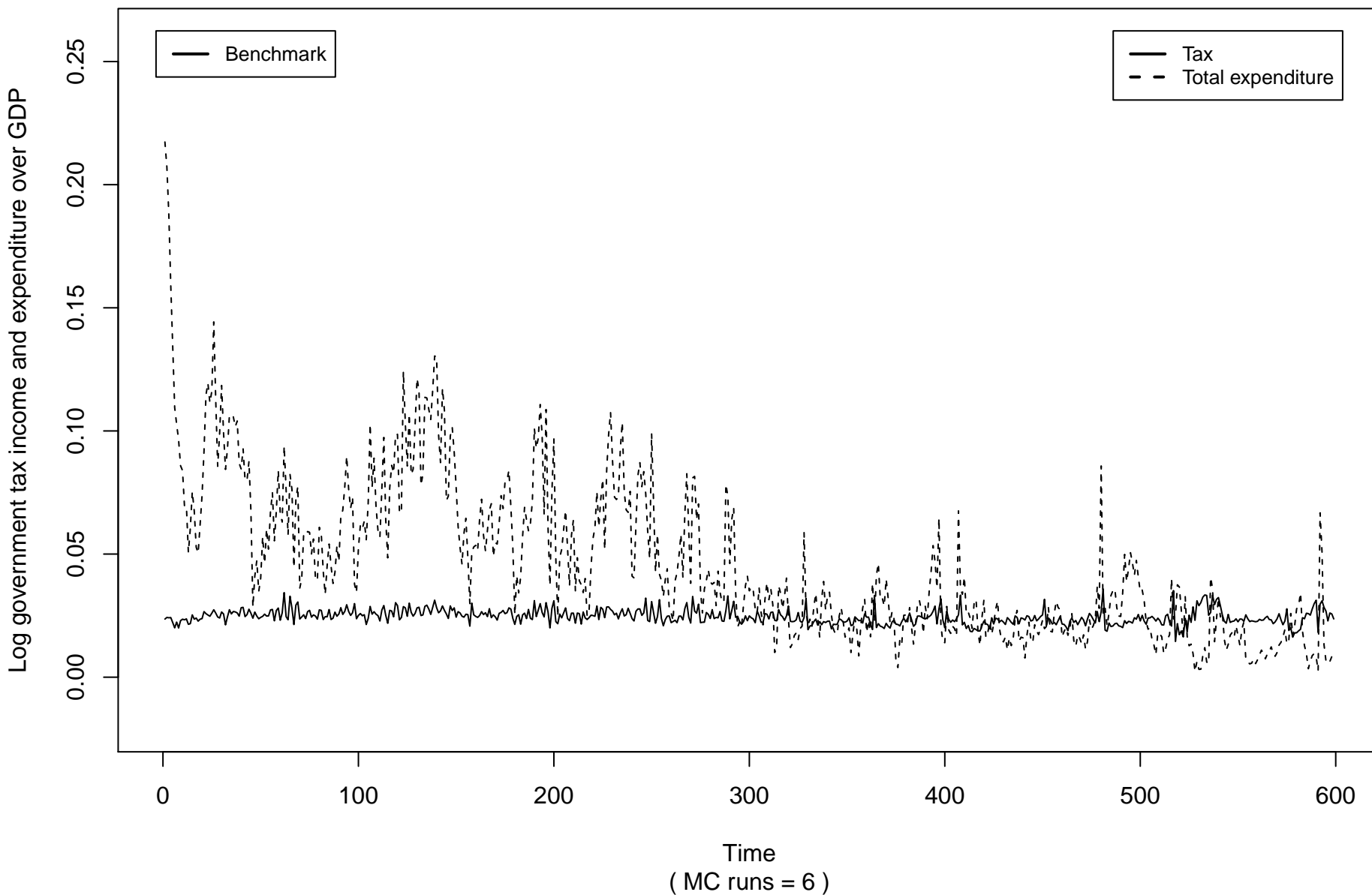
GDP (all experiments)



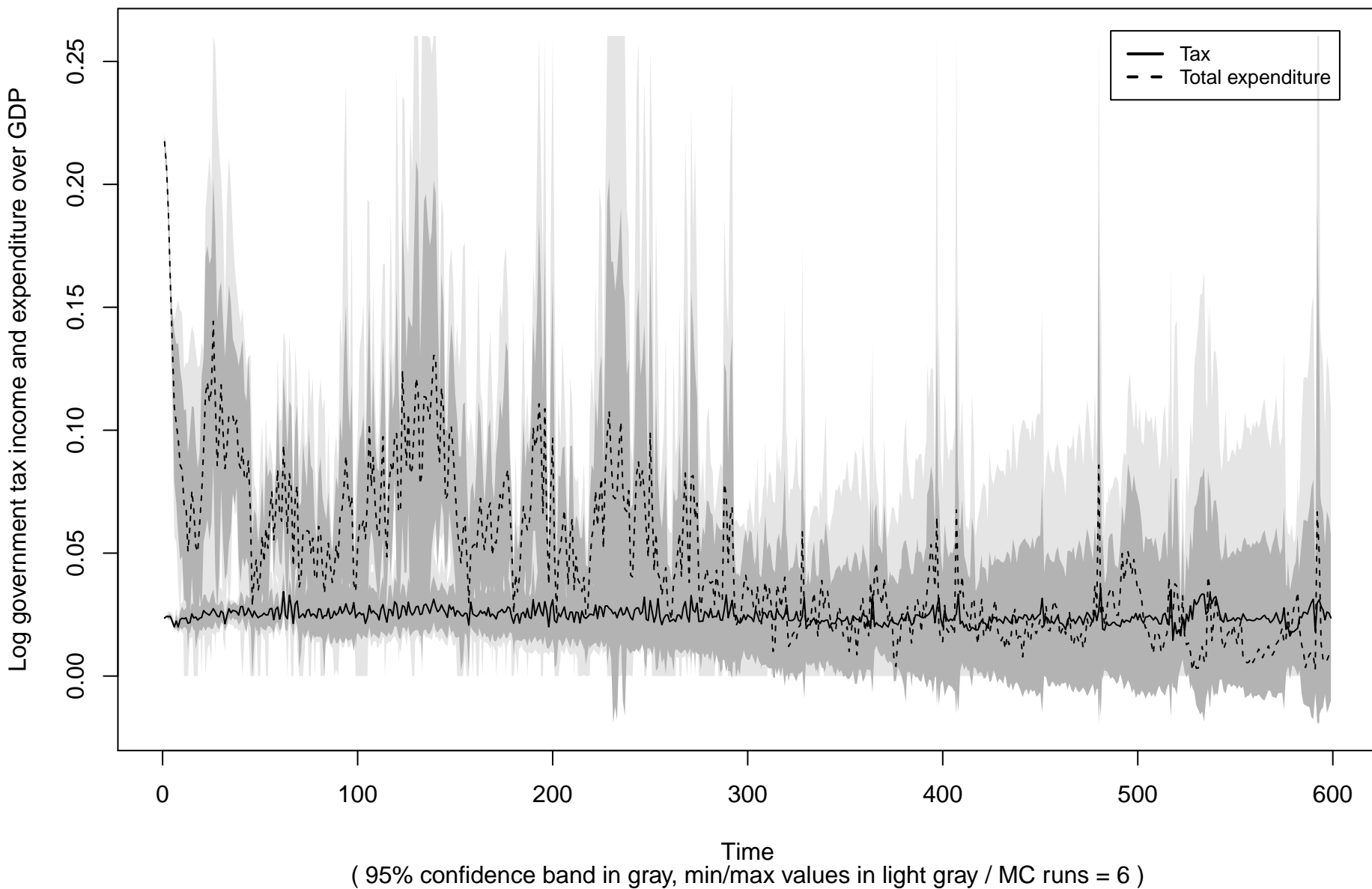
GDP (Benchmark)



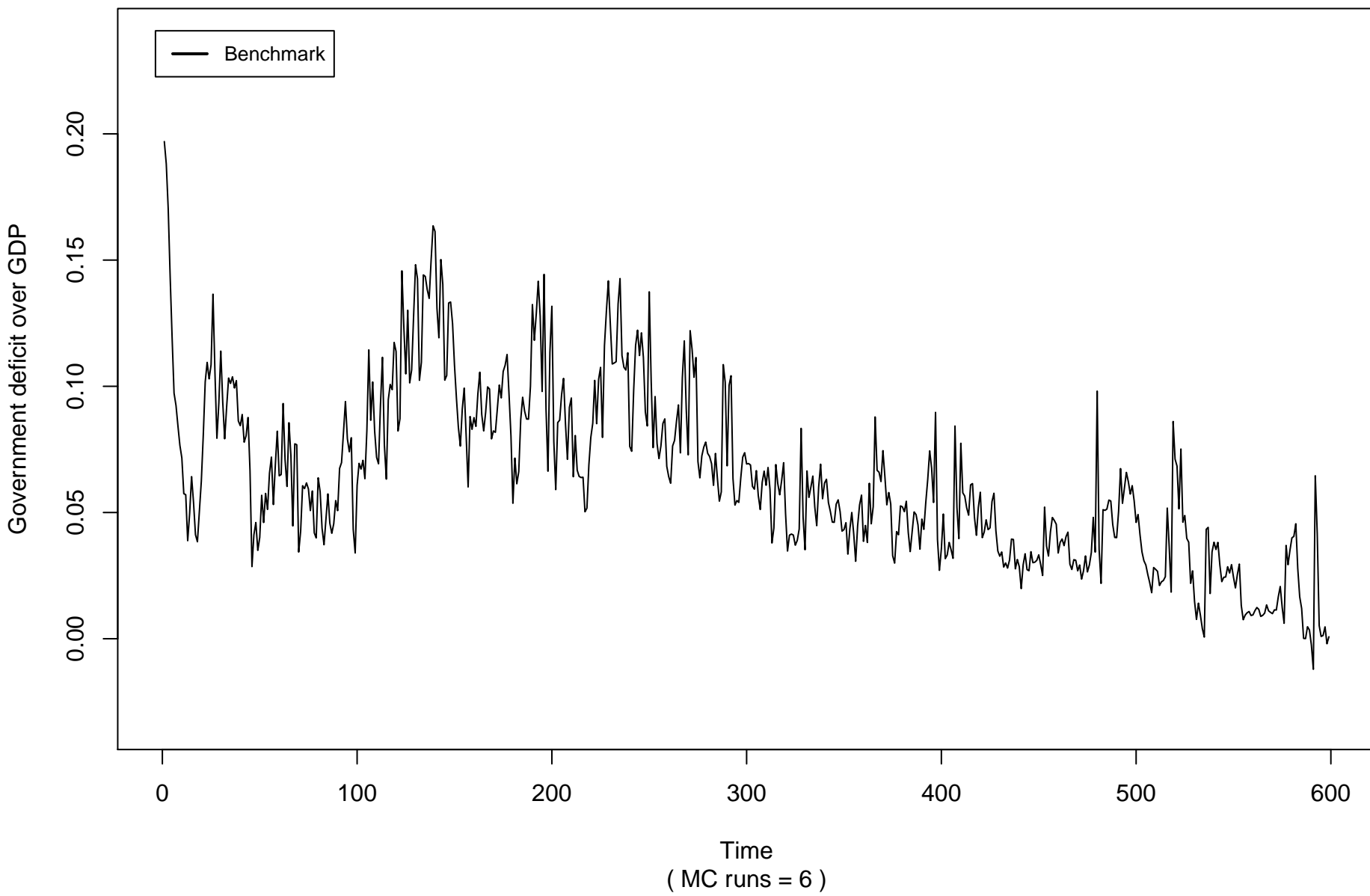
Government income and expenditure on GDP (all experiments)



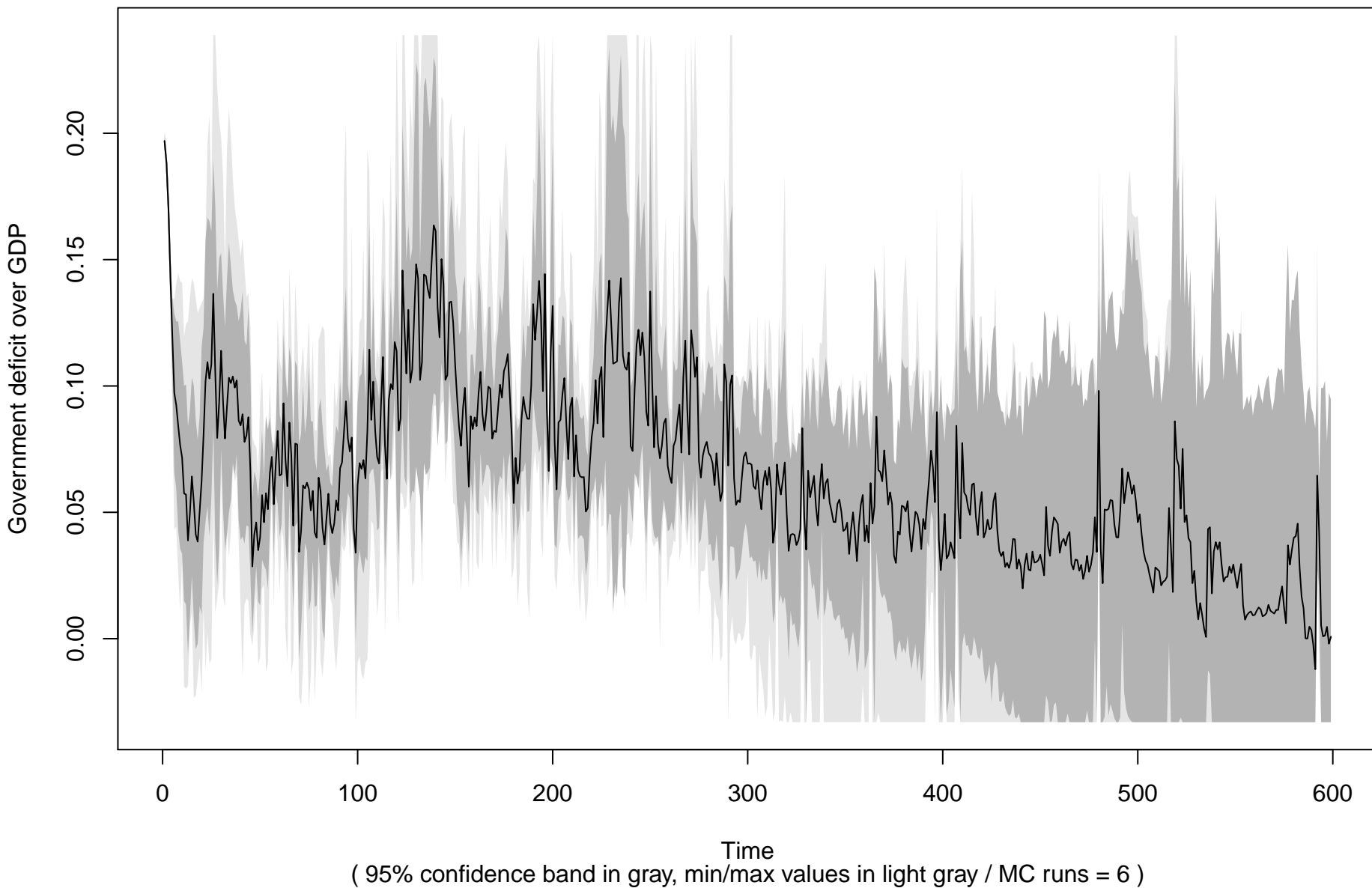
Government income and expenditure on GDP (Benchmark)



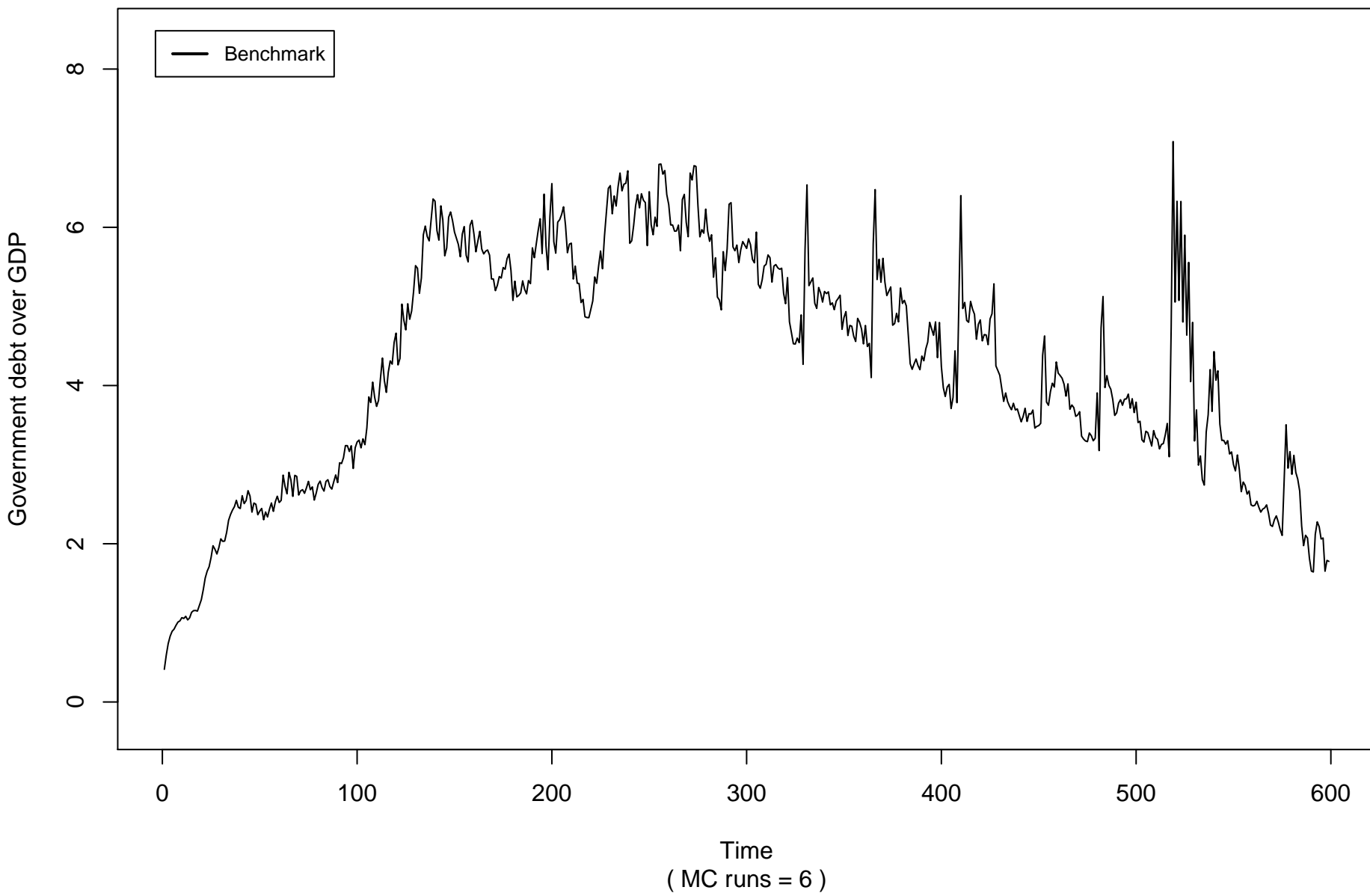
Government deficit on GDP (all experiments)



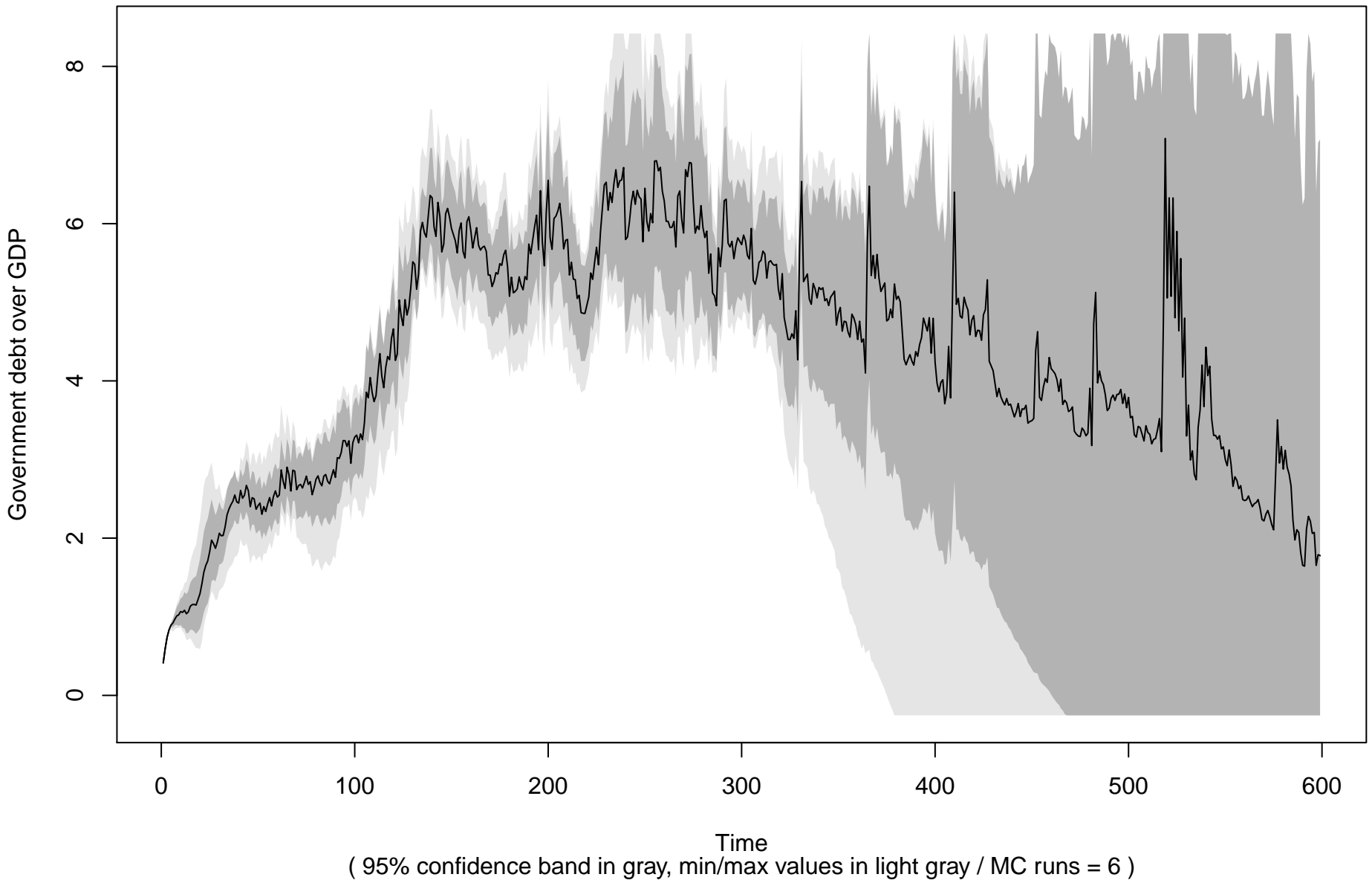
Government deficit on GDP (Benchmark)



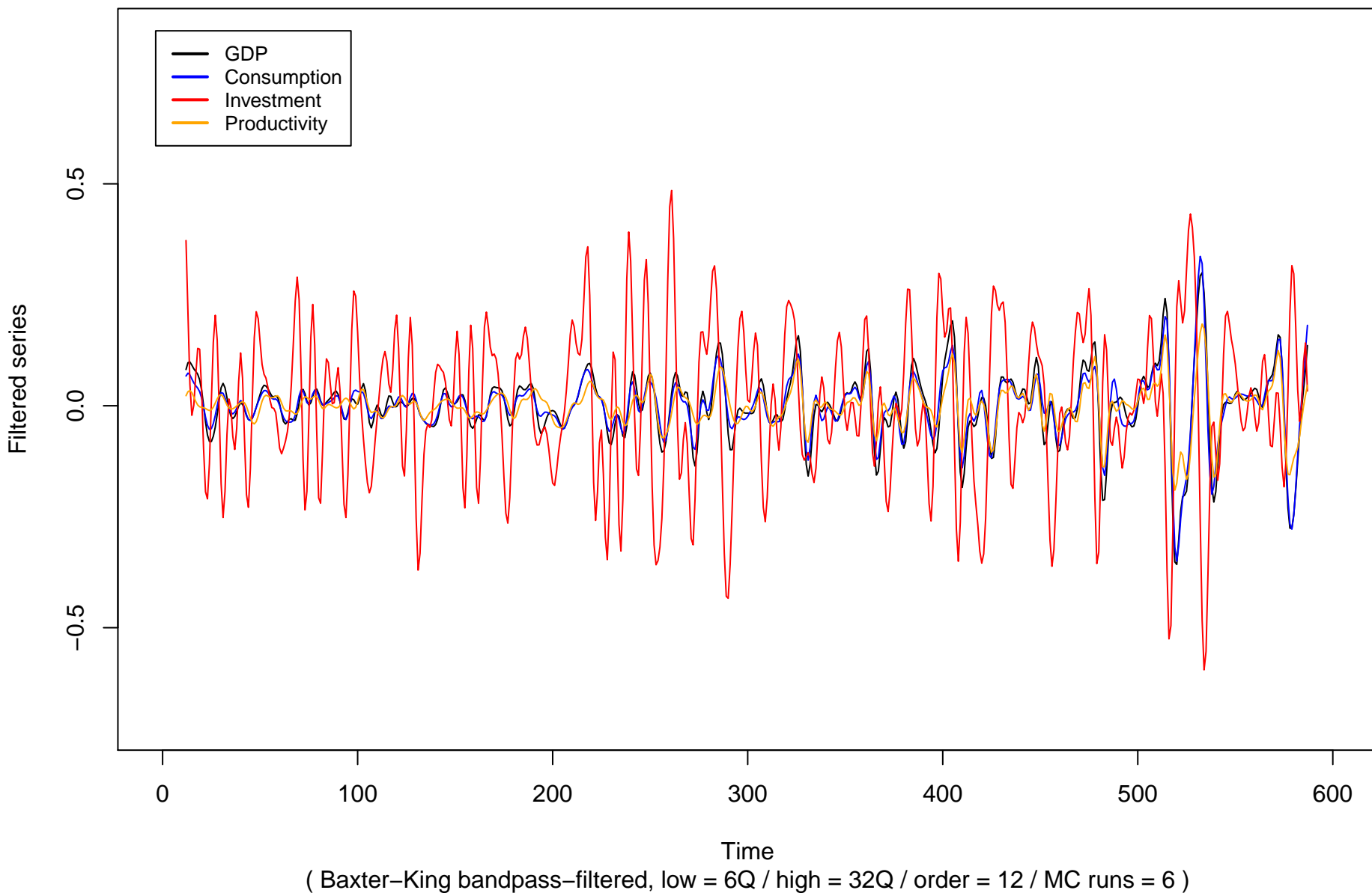
Government debt on GDP (all experiments)



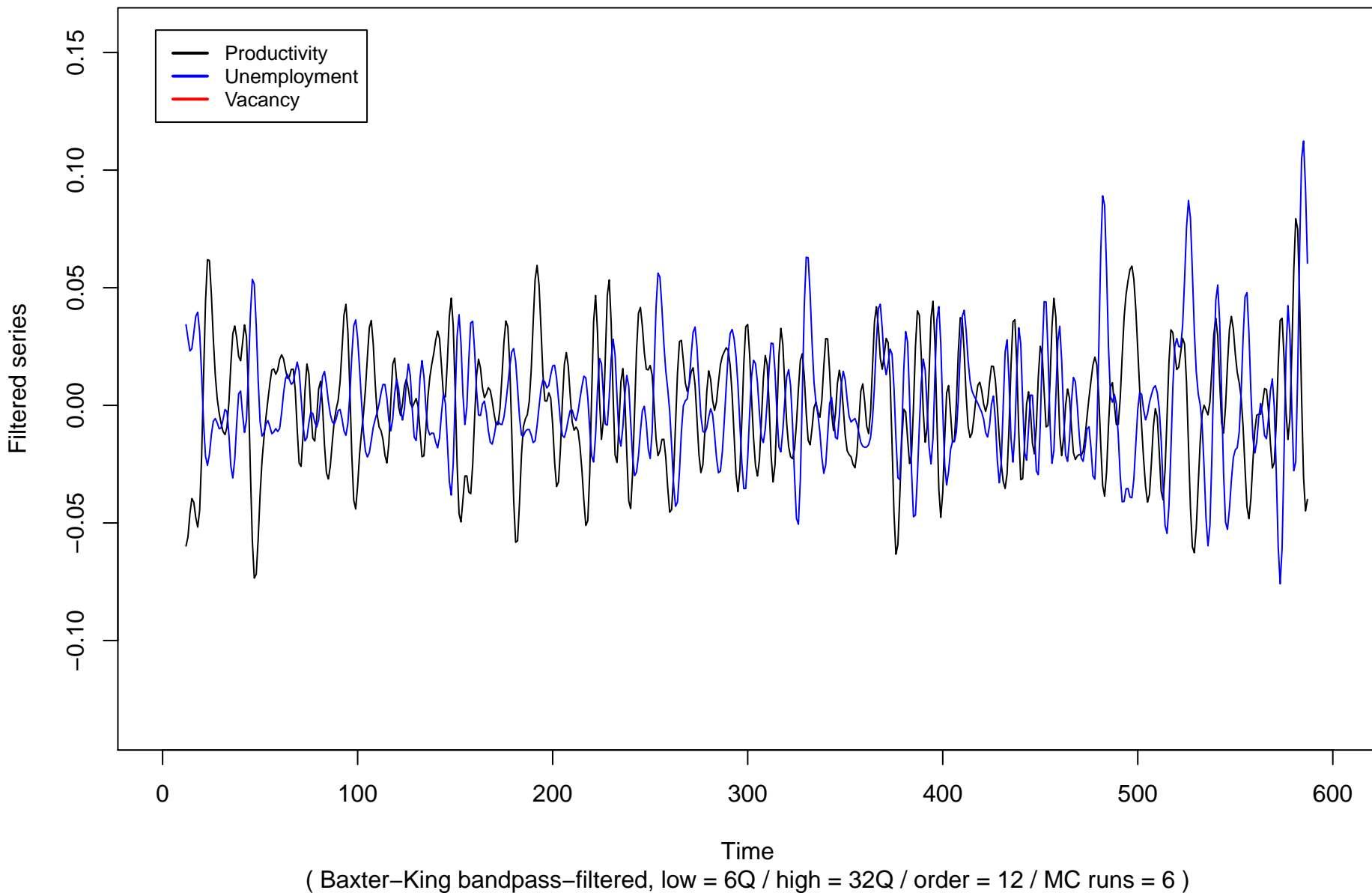
Government debt on GDP (Benchmark)



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	0.01349	0.01329	0.01576	0.01292	0.01247
(s.e.)	0.0009452	0.0009639	0.0008336	0.0008842	0.0009517
ADF test (logs)	−3.166	−2.838	−8.222	−2.876	−2.888
(s.e.)	0.3783	0.4123	0.3368	0.305	0.3409
(p-val.)	0.2134	0.302	0.01	0.2632	0.2699
(s.e.)	0.1082	0.1431	0	0.1035	0.1123
ADF test (bpf)	−10.61	−10.03	−11.39	−9.677	−9.181
(s.e.)	0.5176	0.474	0.3932	0.4708	0.5598
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.09902	0.08008	1.572	0.0653	0.074
(s.e.)	0.007184	0.006793	0.08253	0.003275	0.003125
relative s.d. (GDP)	1	0.8088	15.87	0.6595	0.7474

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 6 / 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)	0.01206	0.2899	0.6197	0.8926	1	0.8926	0.6197	0.2899	0.01206
(s.e.)	0.03271	0.02854	0.01726	0.005225	4.054e-17	0.005225	0.01726	0.02854	0.03271
(p-val.)	0.8194	0.0003649	3.138e-07	1.042e-10	NA	1.042e-10	3.138e-07	0.0003649	0.8194
Consumption	0.1135	0.348	0.6187	0.8476	0.9493	0.8744	0.6489	0.3502	0.06856
(s.e.)	0.03677	0.03192	0.02209	0.01111	0.004007	0.007078	0.01567	0.0241	0.0283
(p-val.)	0.03583	0.0001963	1.081e-06	6.015e-09	1.974e-11	5.324e-10	1.493e-07	4.927e-05	0.5781
Investment	-0.3442	-0.38	-0.3238	-0.1602	0.07158	0.2916	0.4235	0.437	0.3595
(s.e.)	0.02795	0.03686	0.05141	0.06085	0.05517	0.03508	0.02413	0.04079	0.04987
(p-val.)	0.000112	0.0002273	0.00257	0.1223	0.07155	0.0009018	1.541e-05	0.0001615	0.00125
Net investment	-0.232	-0.2356	-0.1699	-0.03023	0.1472	0.2981	0.3689	0.3457	0.26
(s.e.)	0.0264	0.03962	0.06094	0.07333	0.06601	0.04329	0.0361	0.05554	0.06572
(p-val.)	0.001109	0.005545	0.1002	0.1911	0.004343	0.001988	0.0002462	0.002476	0.01305
Change in inventories	-0.1873	-0.1193	0.03361	0.2072	0.3145	0.3035	0.1918	0.04791	-0.05418
(s.e.)	0.03339	0.02949	0.01598	0.01289	0.0205	0.01601	0.01537	0.02679	0.03059
(p-val.)	0.01183	0.09026	0.9938	9.096e-05	4.474e-05	1.696e-05	0.0003831	0.7464	0.6805
Unemployment rate	0.2776	0.2456	0.1066	-0.1012	-0.2949	-0.3926	-0.3646	-0.2449	-0.1052
(s.e.)	0.04567	0.04091	0.04954	0.06187	0.06953	0.06849	0.06336	0.06105	0.05966
(p-val.)	0.003762	0.004919	0.1063	0.02083	0.00676	0.003017	0.003223	0.0189	0.04777
Productivity	0.2487	0.4294	0.6053	0.7276	0.7516	0.6579	0.4723	0.2456	0.03155
(s.e.)	0.05025	0.04489	0.03419	0.02645	0.03166	0.04268	0.04927	0.04749	0.03875
(p-val.)	0.01008	0.0002802	1.06e-05	1.06e-06	2.159e-06	1.968e-05	0.000252	0.008779	0.738
Mark-up (sector 2)	0.2393	0.1881	0.1042	0.00591	-0.08196	-0.1395	-0.1619	-0.1578	-0.1417
(s.e.)	0.04519	0.04093	0.03767	0.03053	0.02306	0.02935	0.04415	0.05554	0.05904
(p-val.)	0.00841	0.023	0.2659	0.8862	0.4575	0.04917	0.02449	0.006572	0.002642
Total firm debt	0.231	0.1468	0.05368	-0.03458	-0.1103	-0.1733	-0.2241	-0.2604	-0.2771
(s.e.)	0.01759	0.02822	0.04025	0.04783	0.04927	0.04592	0.04078	0.03558	0.03007
(p-val.)	0.0001767	0.03213	0.2314	0.2633	0.2269	0.04892	0.008347	0.001934	0.0006194
Liquidity-to-sales ratio	0.01281	-0.181	-0.4096	-0.6183	-0.7429	-0.7366	-0.6095	-0.409	-0.1985
(s.e.)	0.03122	0.03936	0.04019	0.03171	0.0187	0.01197	0.01863	0.026	0.03149
(p-val.)	0.8563	0.02516	0.0002195	6.487e-06	1.68e-07	1.908e-08	5.045e-07	2.738e-05	0.006567
Bankruptcy rate	0.269	0.274	0.2153	0.1195	0.03197	-0.01446	-0.0233	-0.02636	-0.05269
(s.e.)	0.0644	0.07002	0.08118	0.09045	0.08898	0.07486	0.05469	0.03674	0.02971
(p-val.)	0.01624	0.01968	0.07535	0.05437	0.07785	0.2328	0.3973	0.5608	0.5794

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 6 / period = 2 – 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)	0.01206	0.2899	0.6197	0.8926	1	0.8926	0.6197	0.2899	0.01206
(s.e.)	0.03271	0.02854	0.01726	0.005225	4.054e-17	0.005225	0.01726	0.02854	0.03271
(p-val.)	0.8194	0.0003649	3.138e-07	1.042e-10	NA	1.042e-10	3.138e-07	0.0003649	0.8194
Consumption	0.1135	0.348	0.6187	0.8476	0.9493	0.8744	0.6489	0.3502	0.06856
(s.e.)	0.03677	0.03192	0.02209	0.01111	0.004007	0.007078	0.01567	0.0241	0.0283
(p-val.)	0.03583	0.0001963	1.081e-06	6.015e-09	1.974e-11	5.324e-10	1.493e-07	4.927e-05	0.5781
Investment	-0.3442	-0.38	-0.3238	-0.1602	0.07158	0.2916	0.4235	0.437	0.3595
(s.e.)	0.02795	0.03686	0.05141	0.06085	0.05517	0.03508	0.02413	0.04079	0.04987
(p-val.)	0.000112	0.0002273	0.00257	0.1223	0.07155	0.0009018	1.541e-05	0.0001615	0.00125
Productivity	0.2487	0.4294	0.6053	0.7276	0.7516	0.6579	0.4723	0.2456	0.03155
(s.e.)	0.05025	0.04489	0.03419	0.02645	0.03166	0.04268	0.04927	0.04749	0.03875
(p-val.)	0.01008	0.0002802	1.06e-05	1.06e-06	2.159e-06	1.968e-05	0.000252	0.008779	0.738
Entry	-0.04625	0.142	0.3311	0.4687	0.5181	0.4738	0.366	0.2371	0.122
(s.e.)	0.04483	0.04291	0.03516	0.02774	0.02832	0.03121	0.02958	0.0272	0.02897
(p-val.)	0.4522	0.02174	0.0004177	1.667e-05	1.025e-05	2.774e-05	0.0001005	0.001093	0.08895
Wage	0.3098	0.5018	0.6595	0.7364	0.7062	0.5756	0.3841	0.1805	0.002602
(s.e.)	0.04291	0.03209	0.02359	0.02734	0.03478	0.0356	0.02819	0.01629	0.008349
(p-val.)	0.001527	2.275e-05	1.042e-06	1.167e-06	4.858e-06	1.719e-05	5.933e-05	0.0008142	1
Unemployment rate	0.2776	0.2456	0.1066	-0.1012	-0.2949	-0.3926	-0.3646	-0.2449	-0.1052
(s.e.)	0.04567	0.04091	0.04954	0.06187	0.06953	0.06849	0.06336	0.06105	0.05966
(p-val.)	0.003762	0.004919	0.1063	0.02083	0.00676	0.003017	0.003223	0.0189	0.04777
Vacancy rate	0.1385	-0.042	-0.2193	-0.3169	-0.2985	-0.1913	-0.06433	0.01671	0.02789
(s.e.)	0.05603	0.04353	0.03691	0.04179	0.04898	0.04867	0.03727	0.02371	0.03057
(p-val.)	0.06502	0.396	0.006489	0.001189	0.003316	0.03545	0.4359	0.9767	0.8553

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 6 / 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	0.03	0.67	0.58	0.07	0.21	1
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.12	0.73	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.12	0.73	0.00	C
V	0.01	1.00	0.01	1.00	0.05	0.50	0.00	1.00	0.23	0.60	0.00	C
U	0.01	1.00	0.01	1.00	0.03	0.83	0.00	1.00	0.07	0.87	0.00	C
mu2avg	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.07	0.87	0.00	C
HH1	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.12	0.60	0.00	C
HH2	0.01	1.00	0.01	1.00	0.04	0.67	0.00	1.00	0.13	0.60	0.00	C

(average p-values for testing H0 and rate of rejection of H0 / MC runs = 6 / period = 2 – 600)

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

(significance = 0.05)