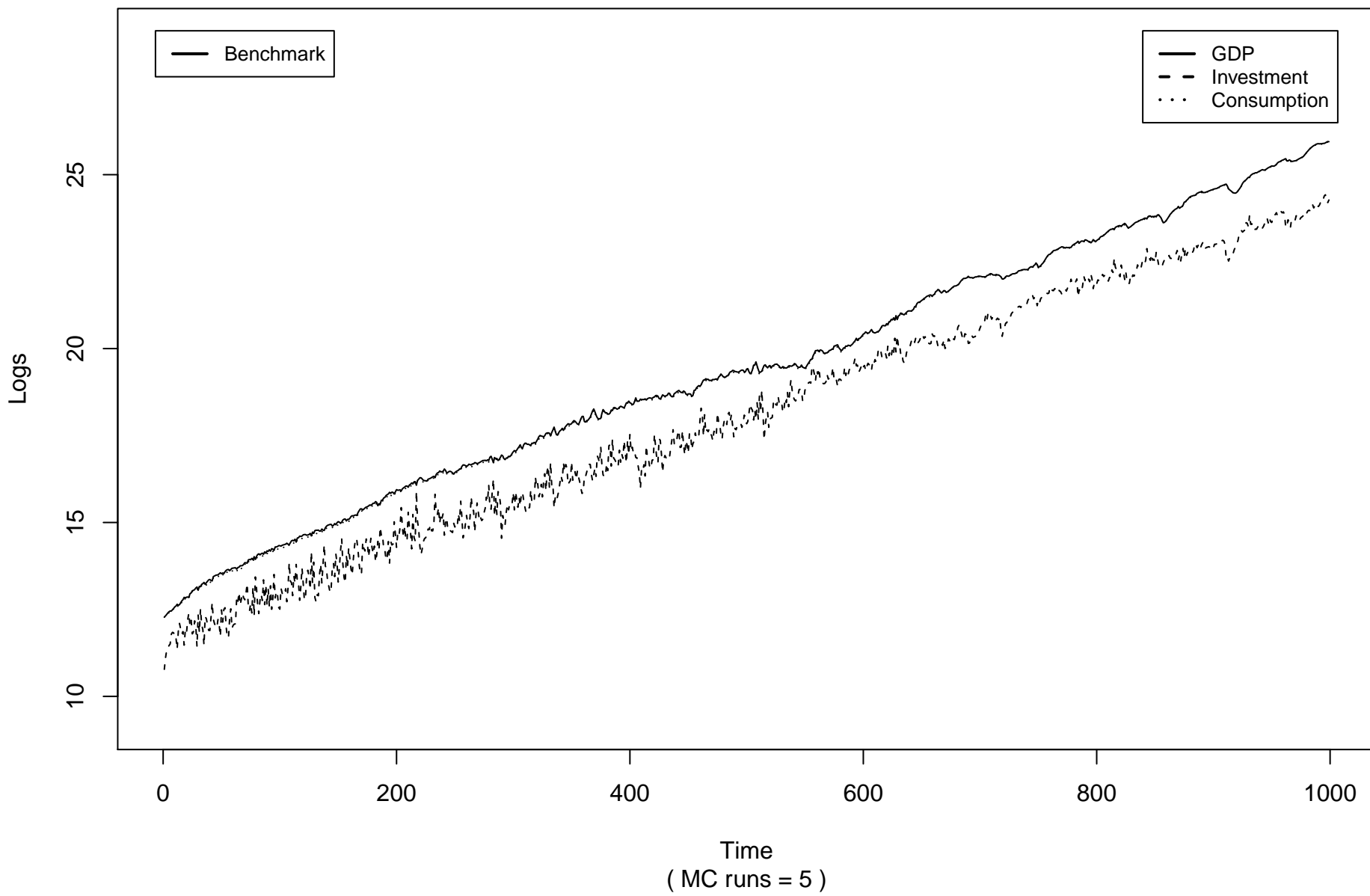
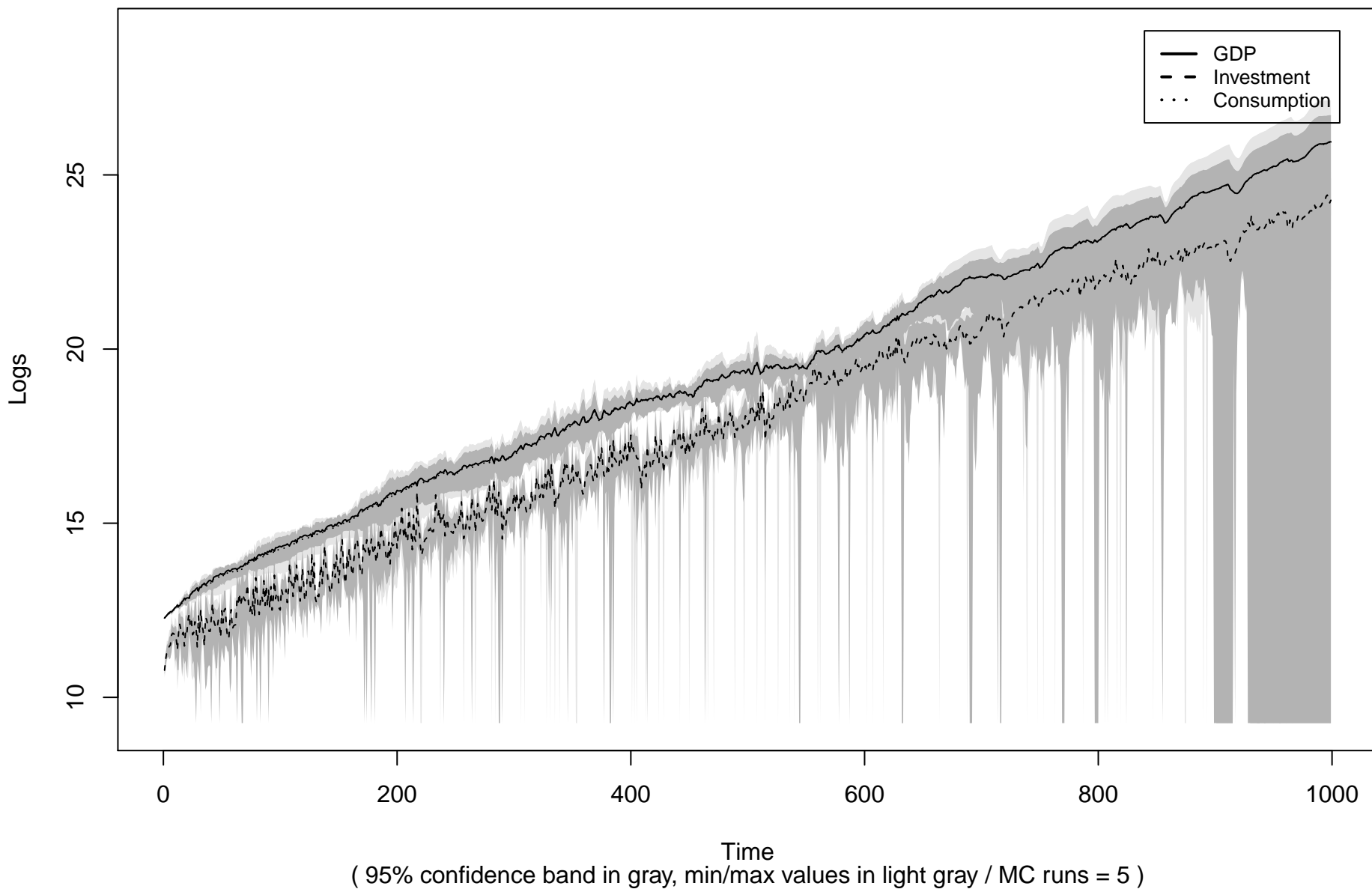


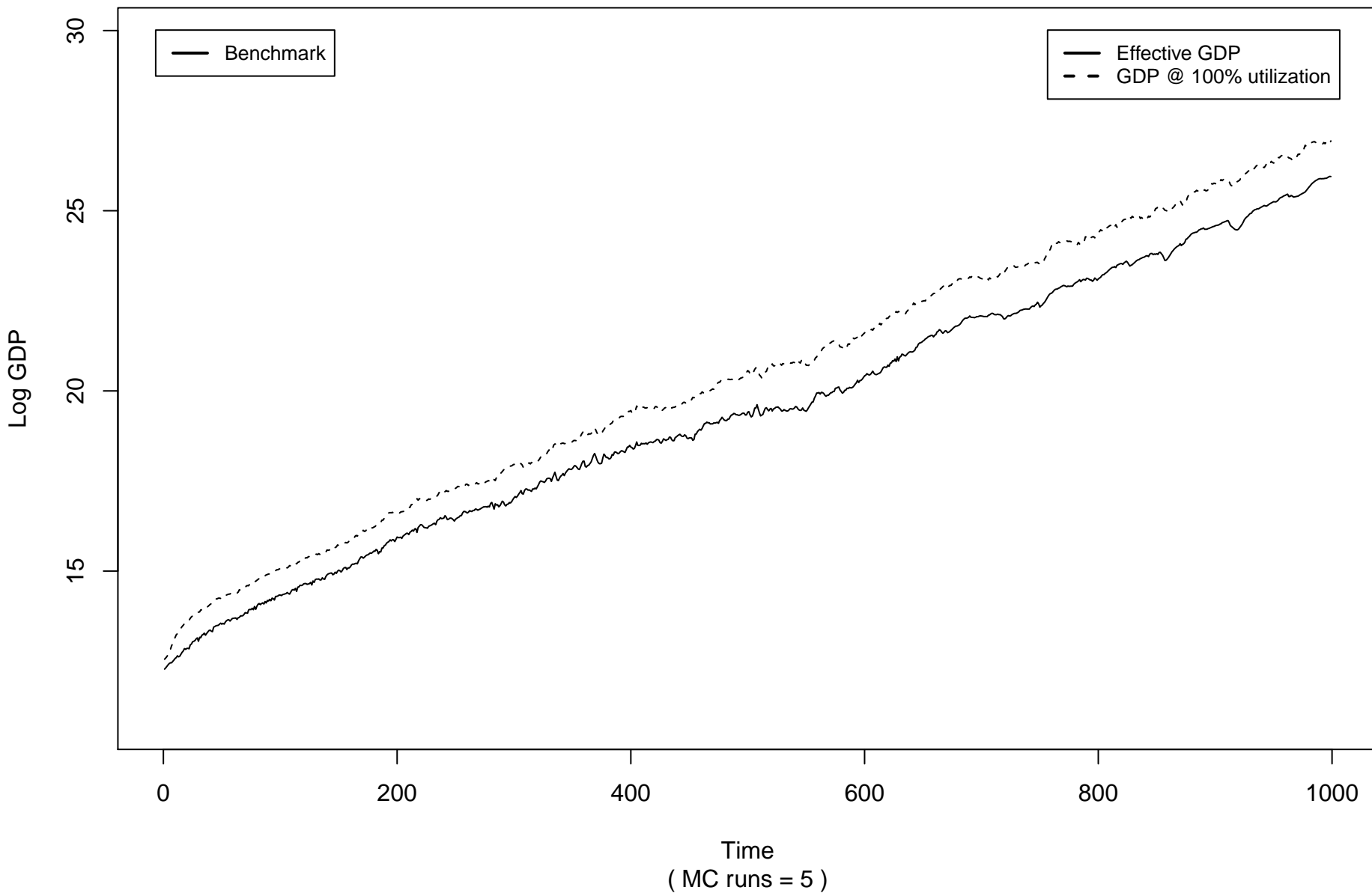
GDP, investment and consumption (all experiments)



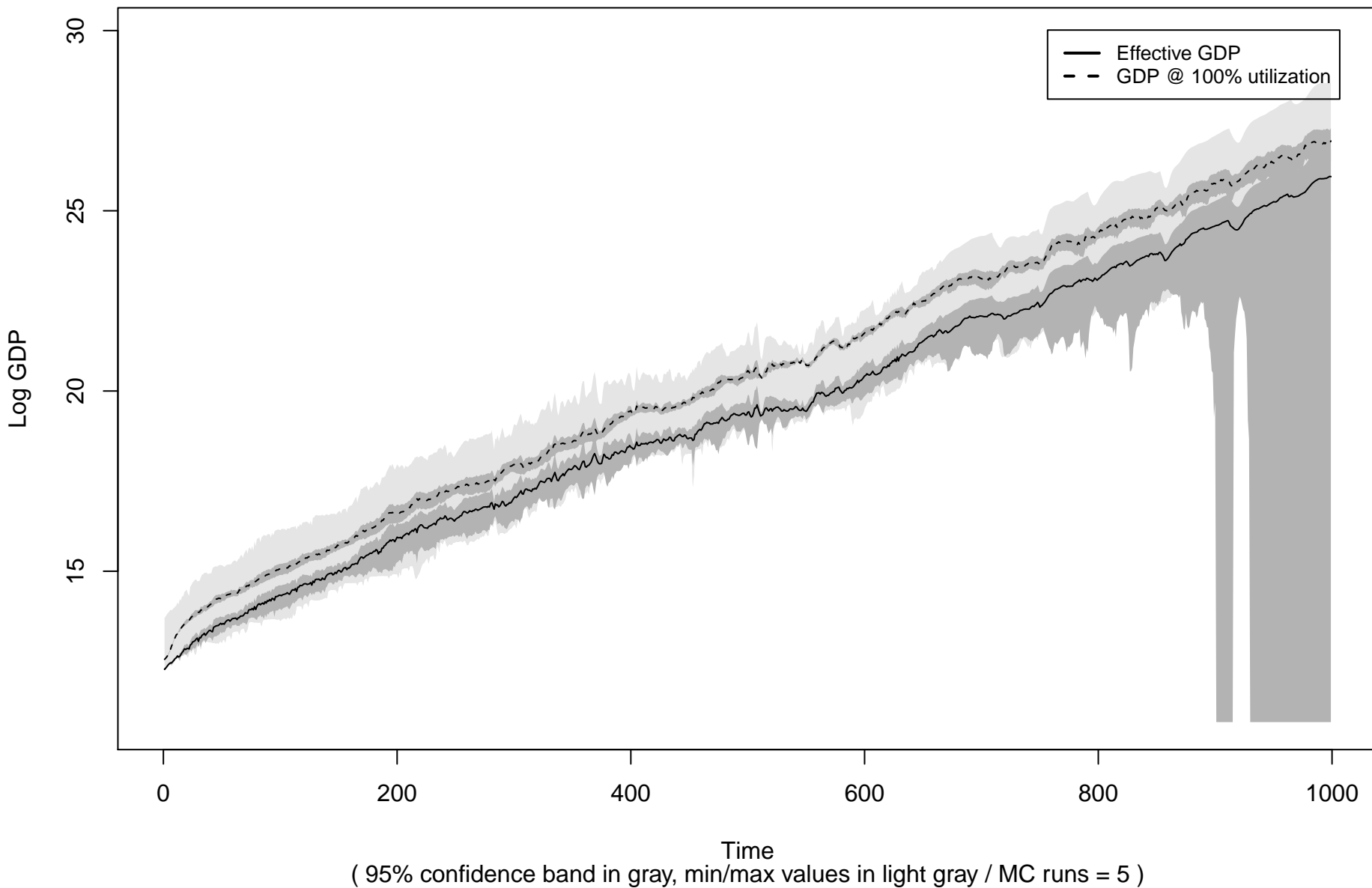
GDP, investment and consumption (Benchmark)



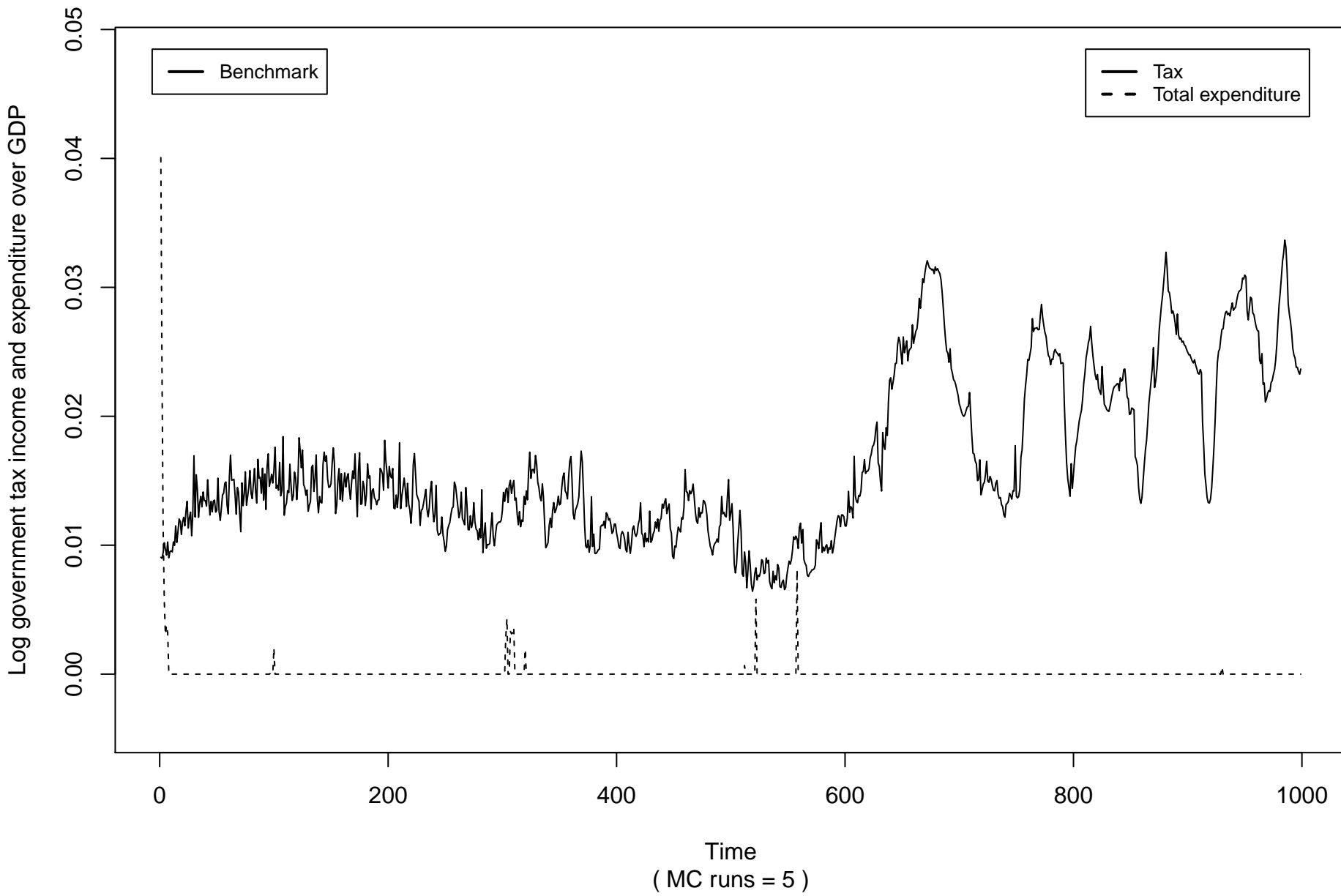
GDP (all experiments)



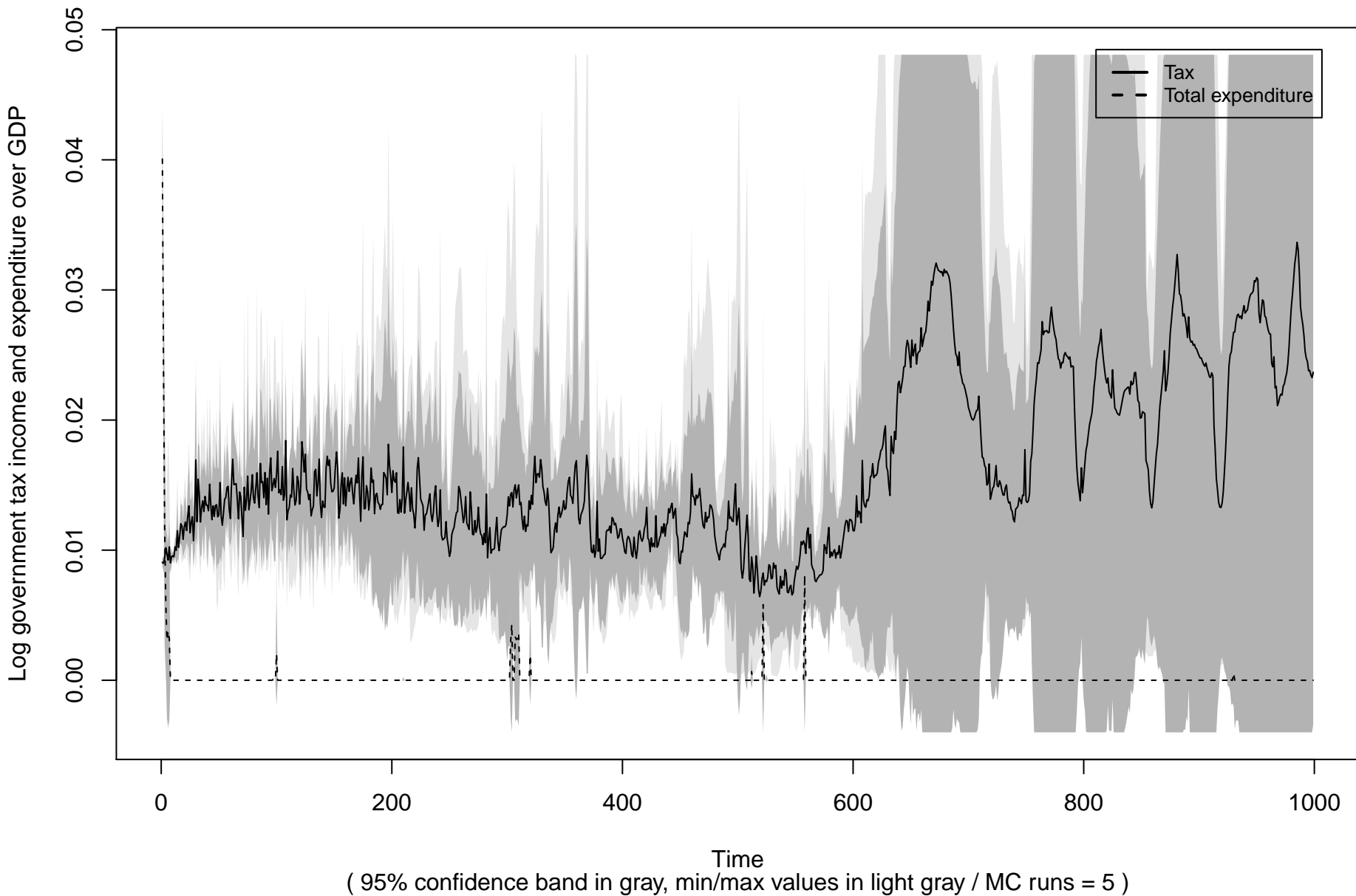
GDP (Benchmark)



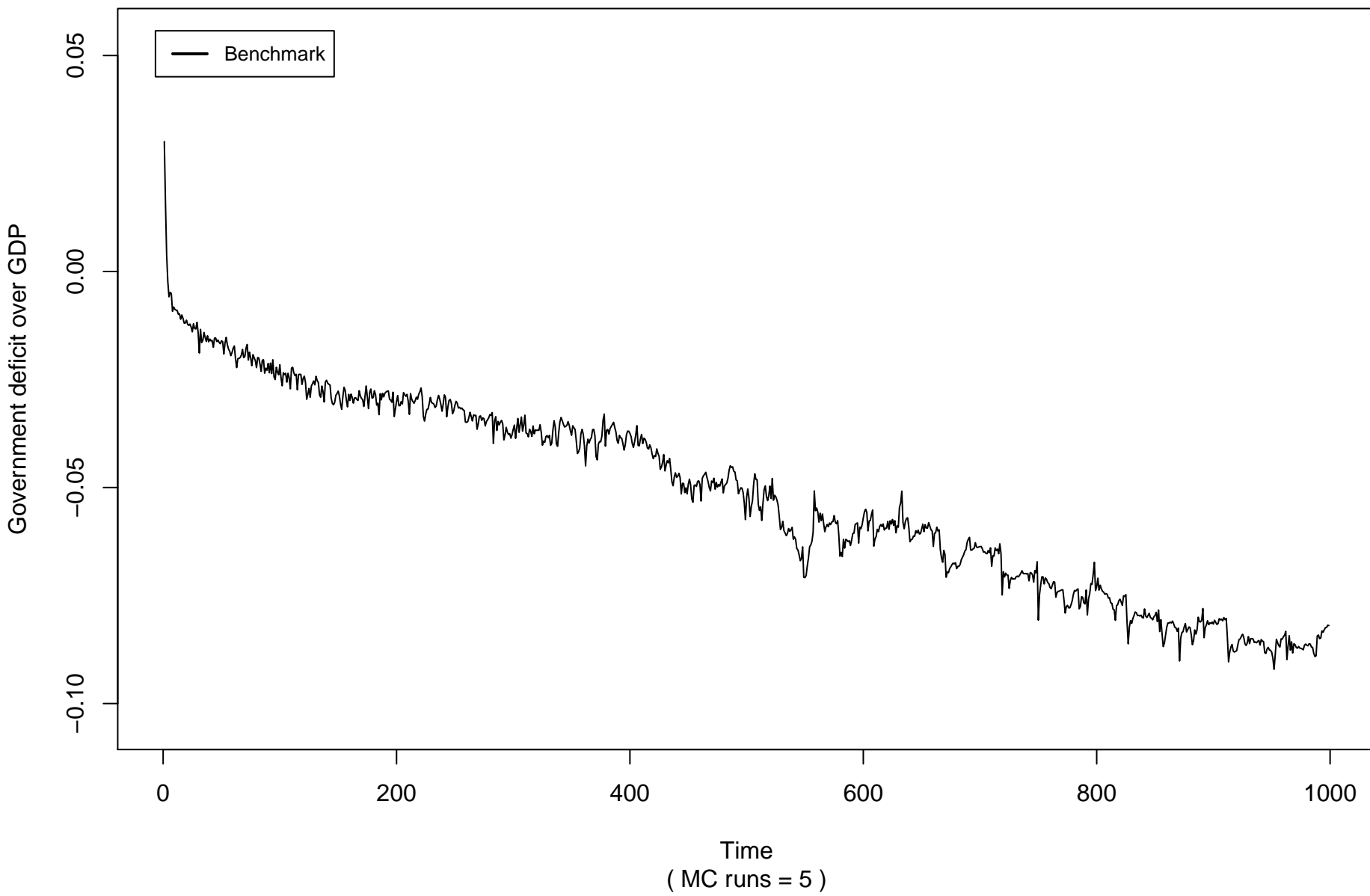
Government income and expenditure on GDP (all experiments)



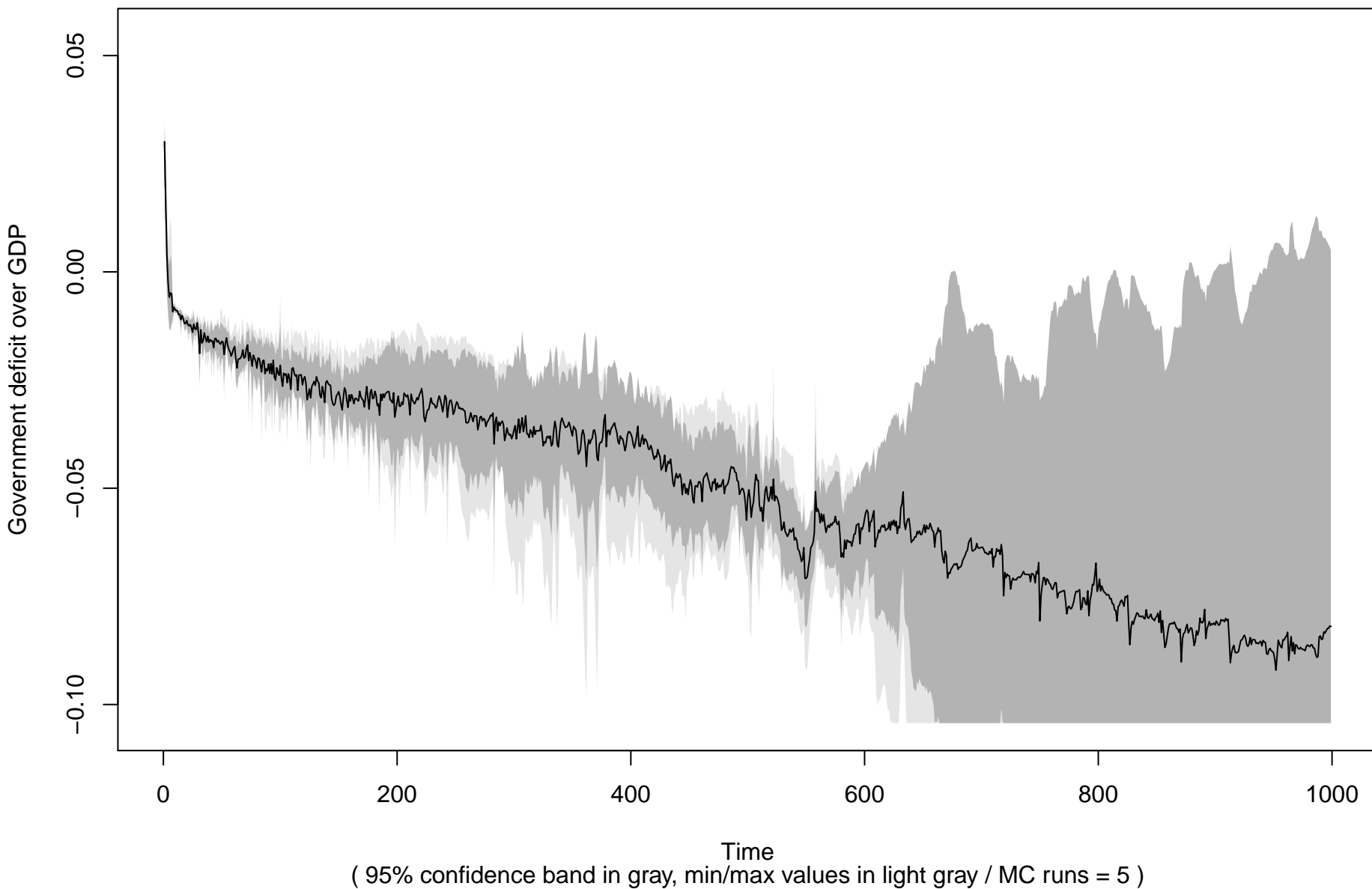
Government income and expenditure on GDP (Benchmark)



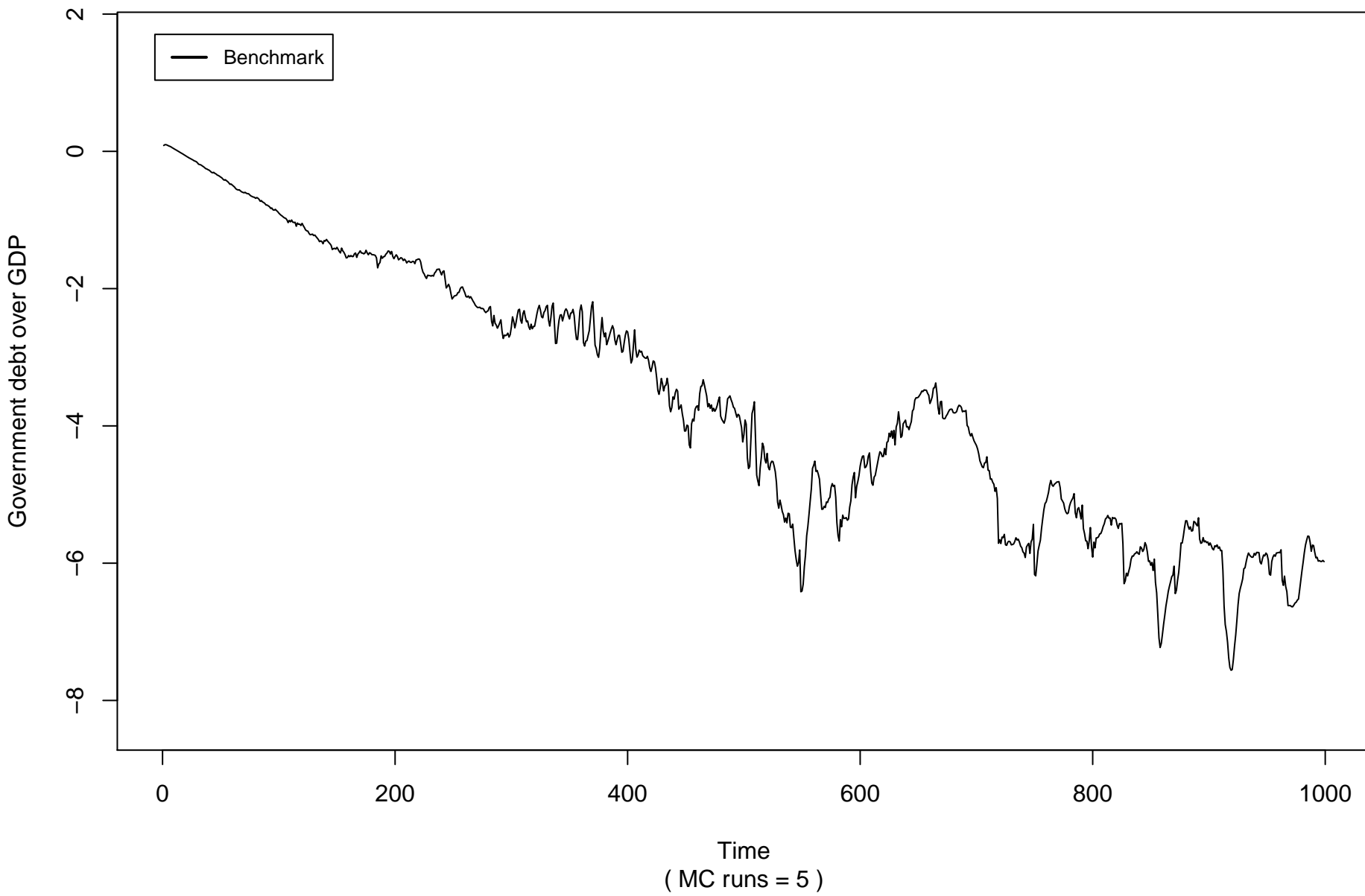
Government deficit on GDP (all experiments)



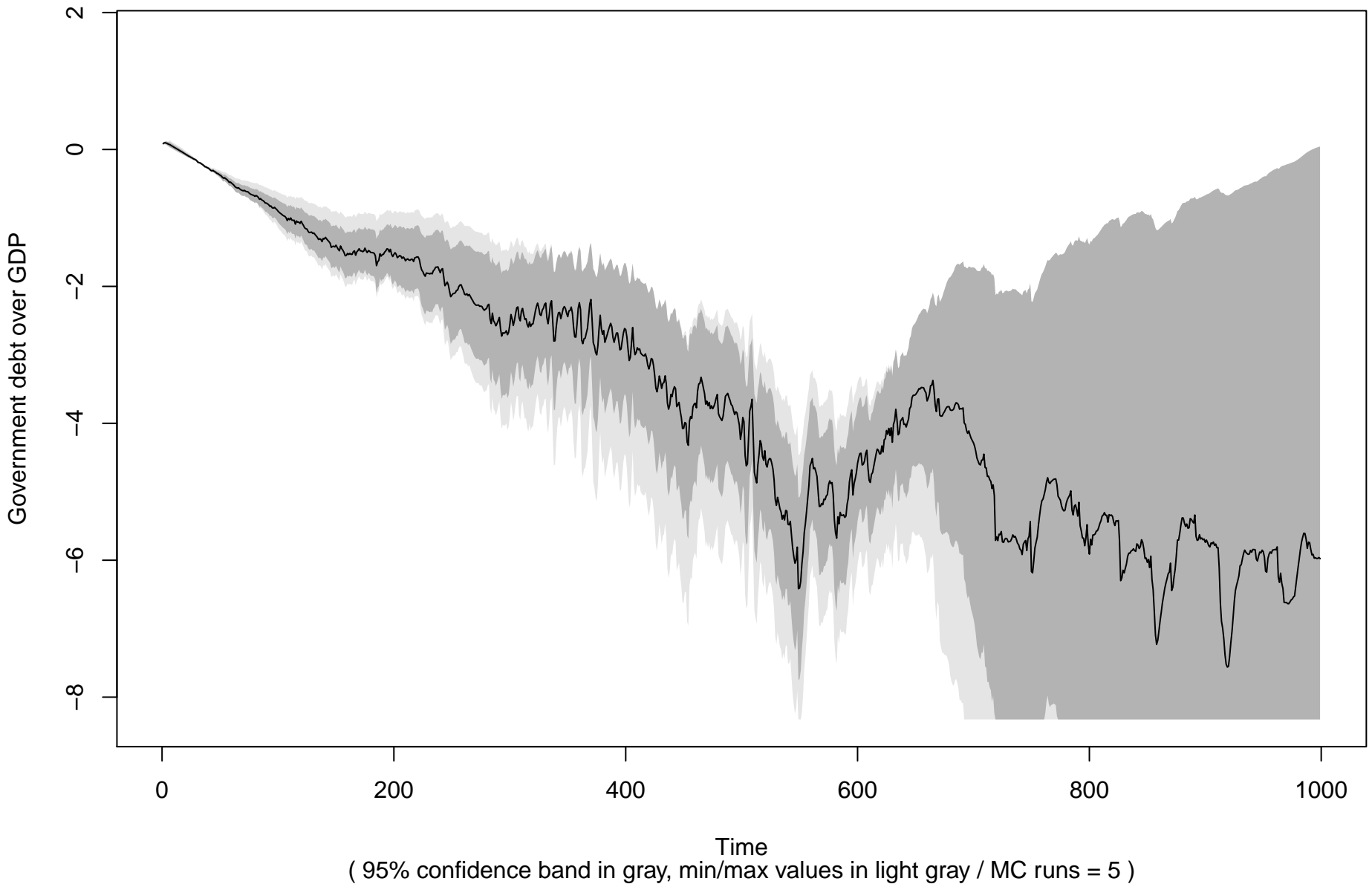
Government deficit on GDP (Benchmark)



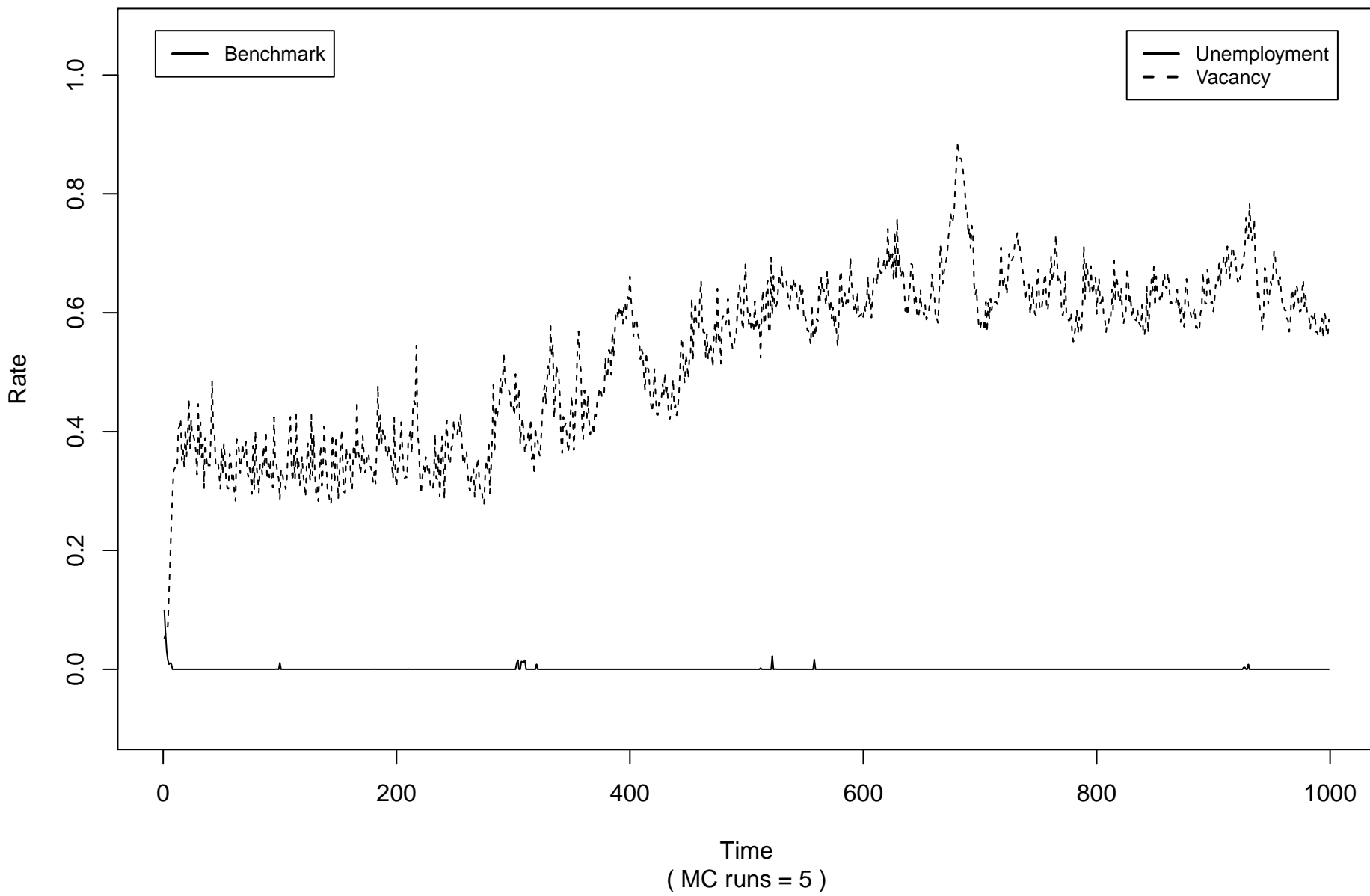
Government debt on GDP (all experiments)



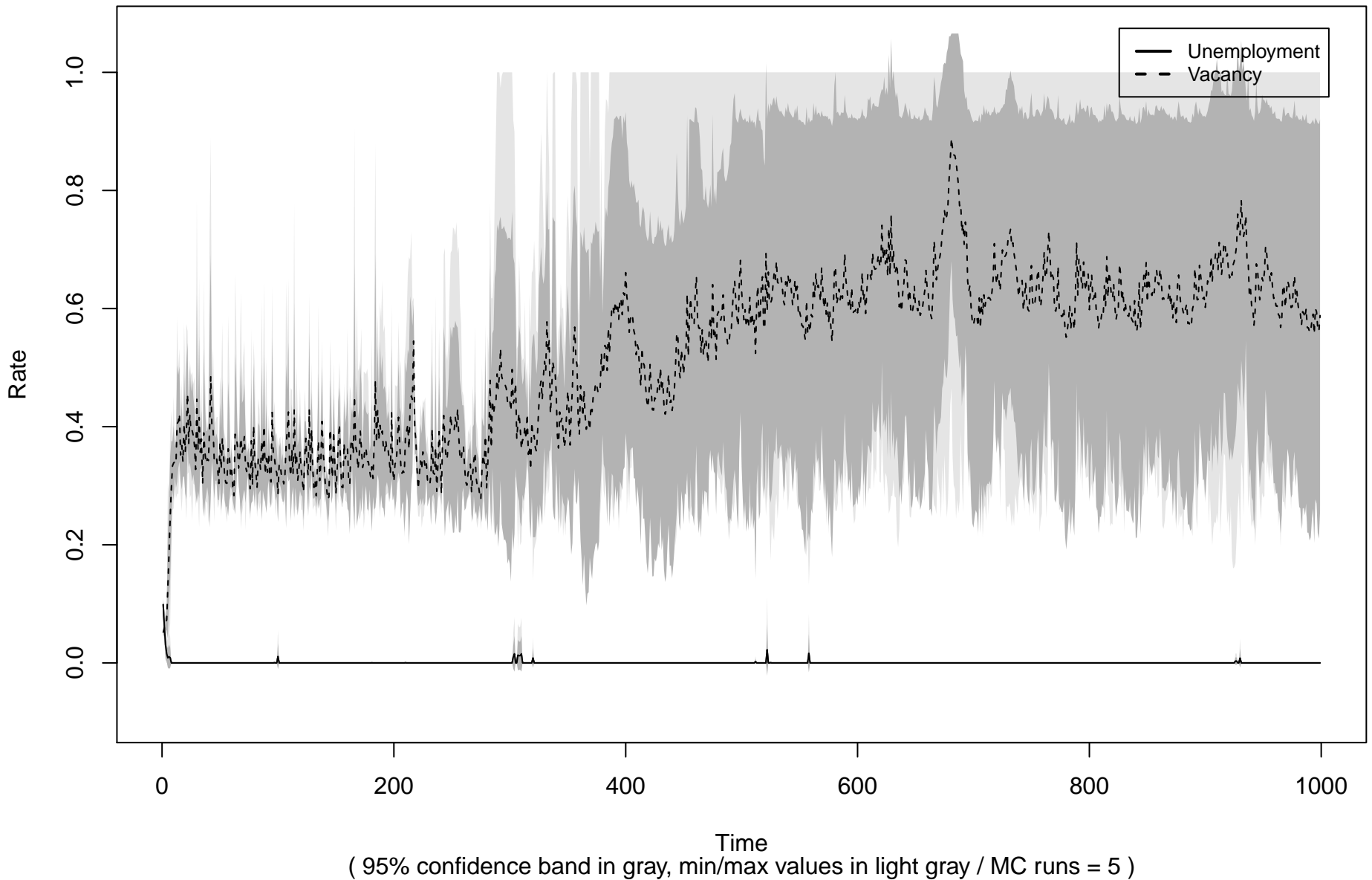
Government debt on GDP (Benchmark)



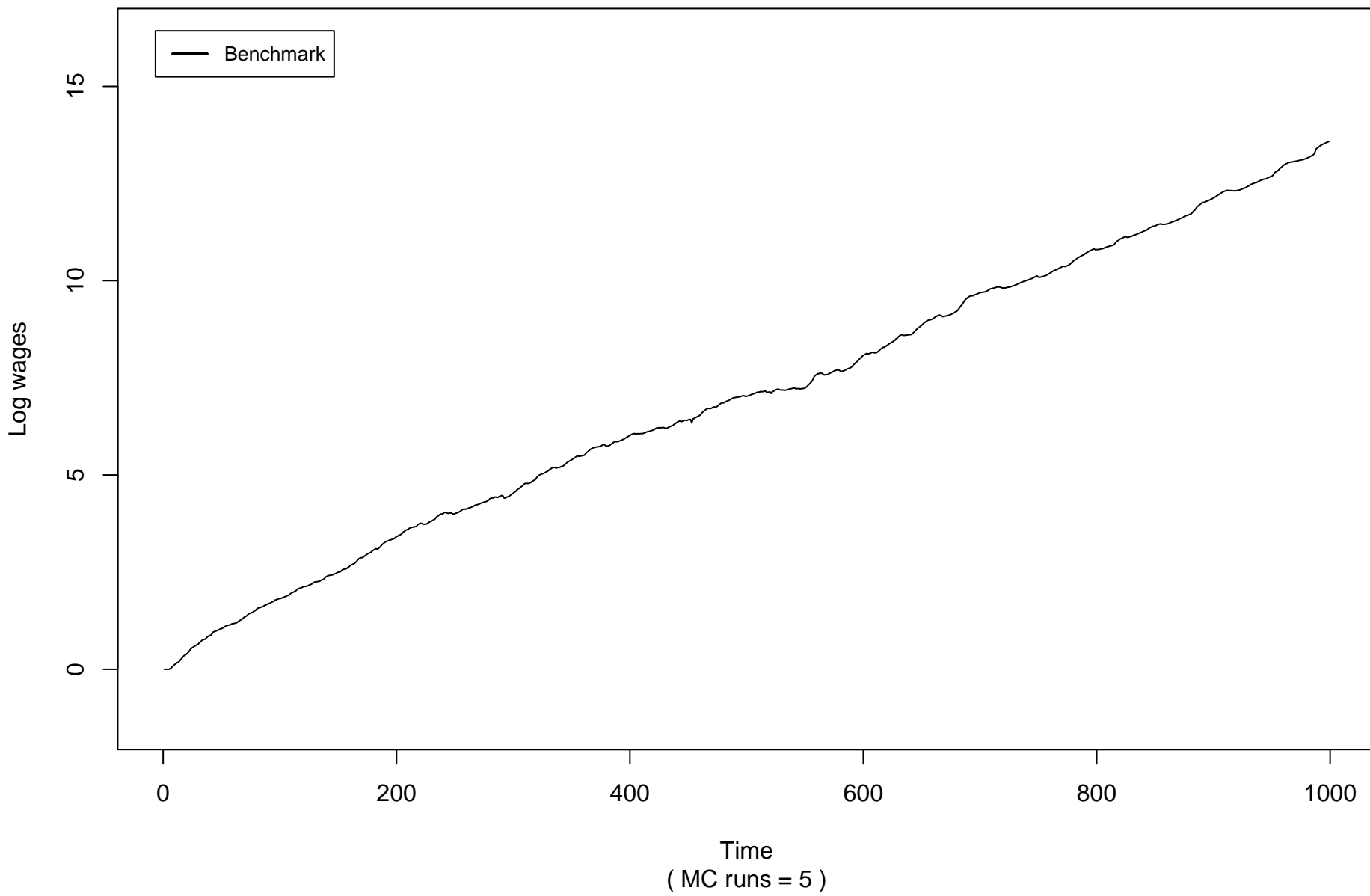
Unemployment and vacancy rates (all experiments)



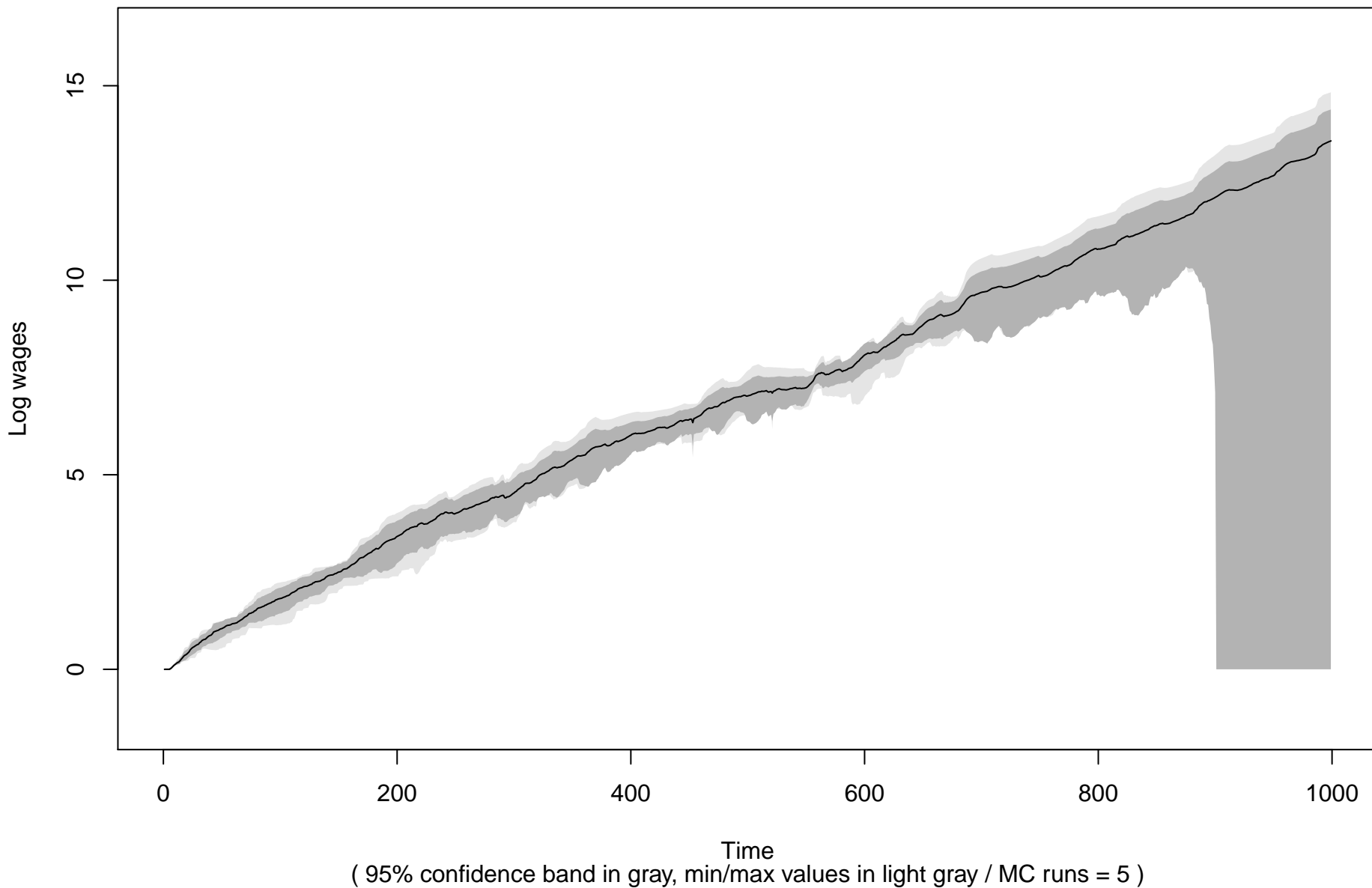
Unemployment and vacancy rates (Benchmark)



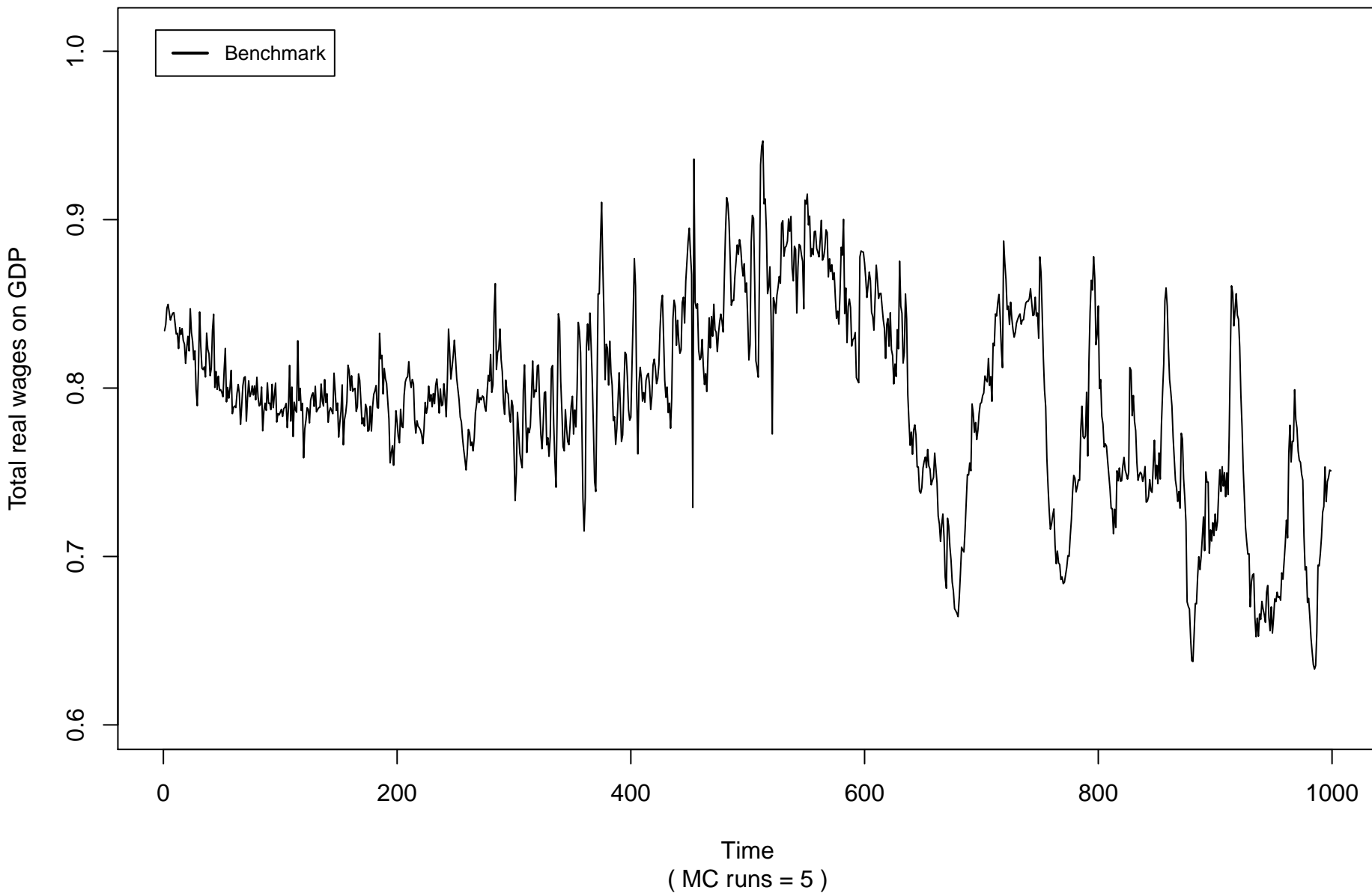
Real wages average (all experiments)



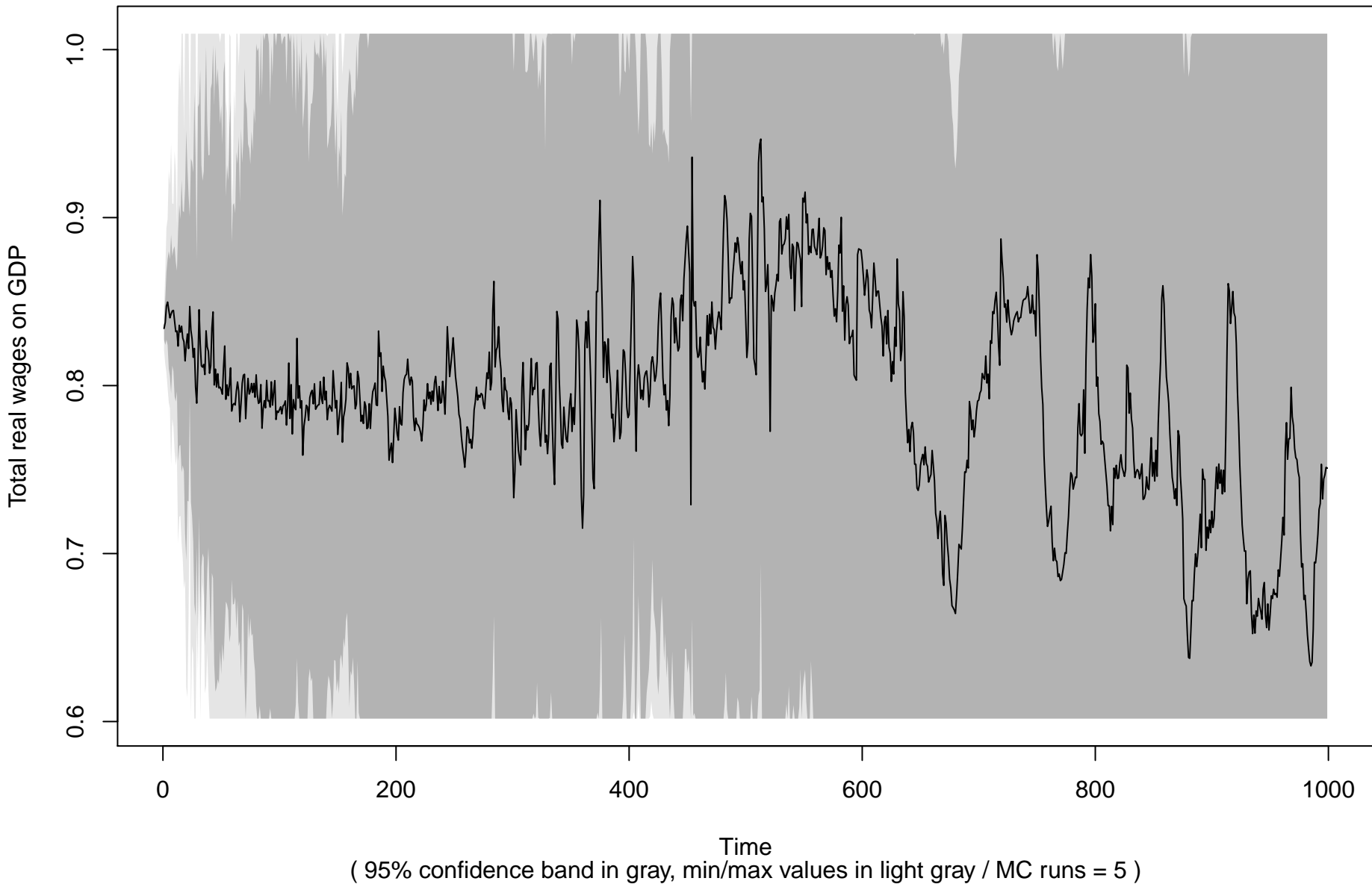
Real wages average (Benchmark)



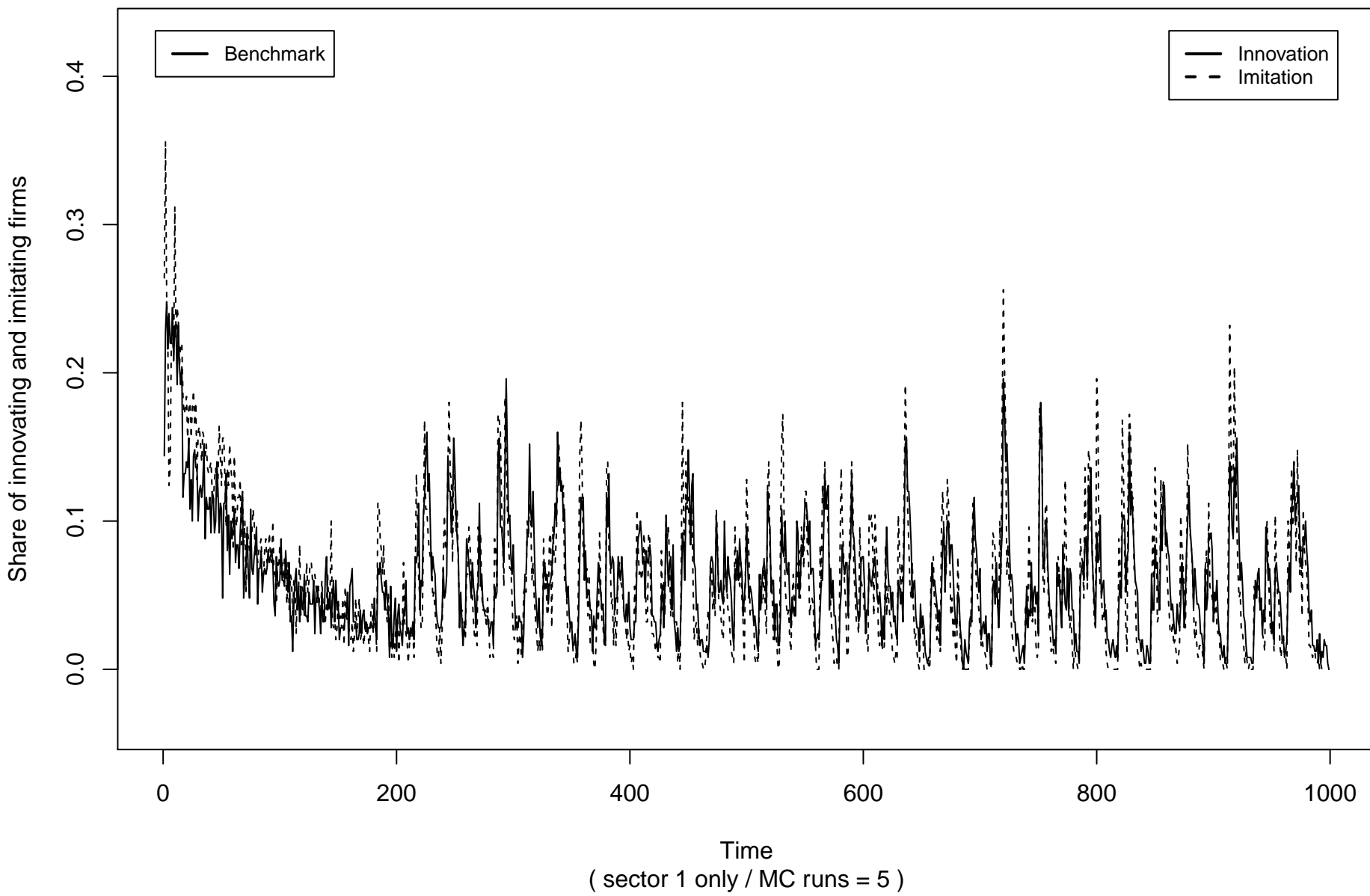
Wage share (all experiments)



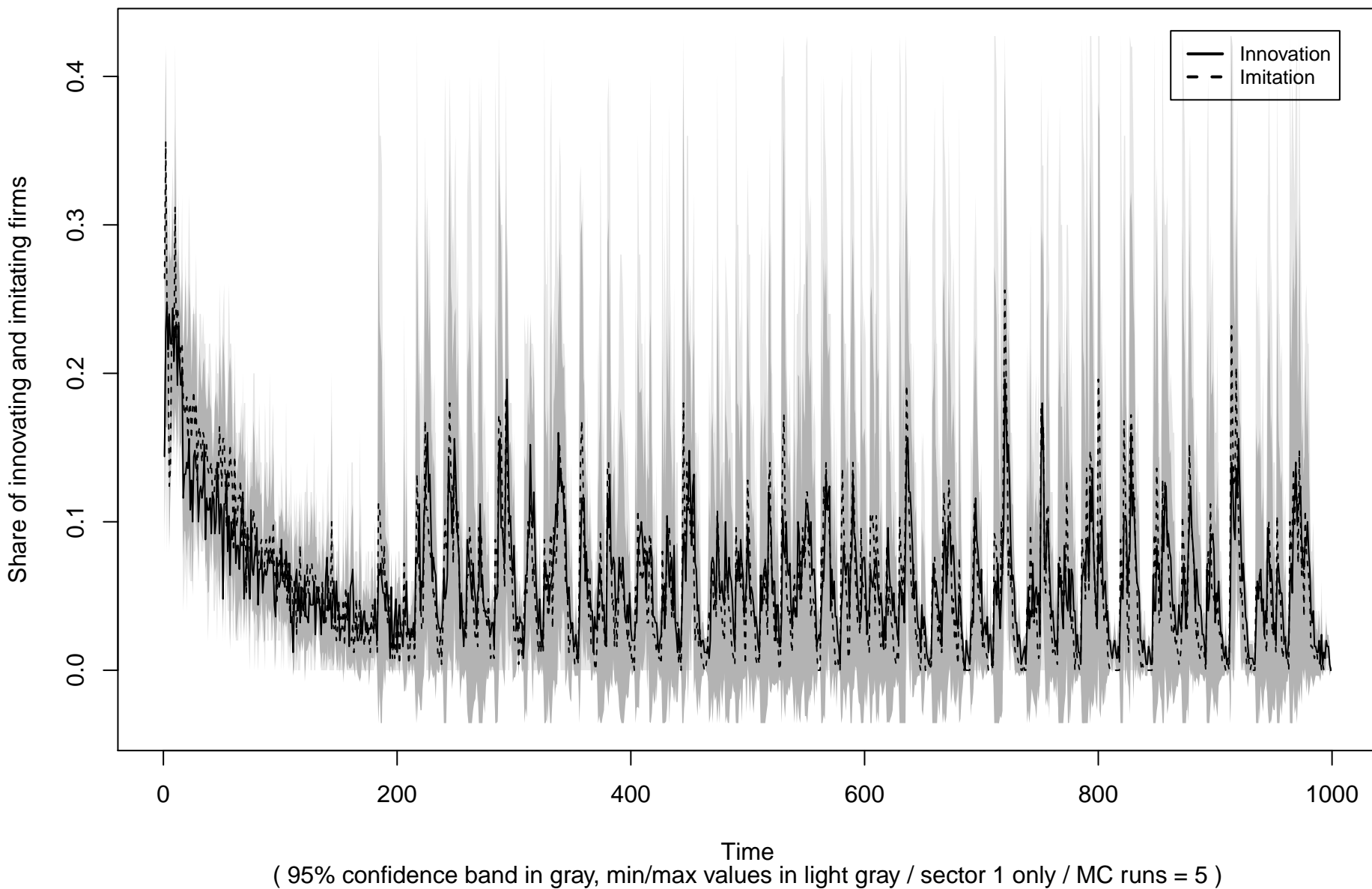
Wage share (Benchmark)



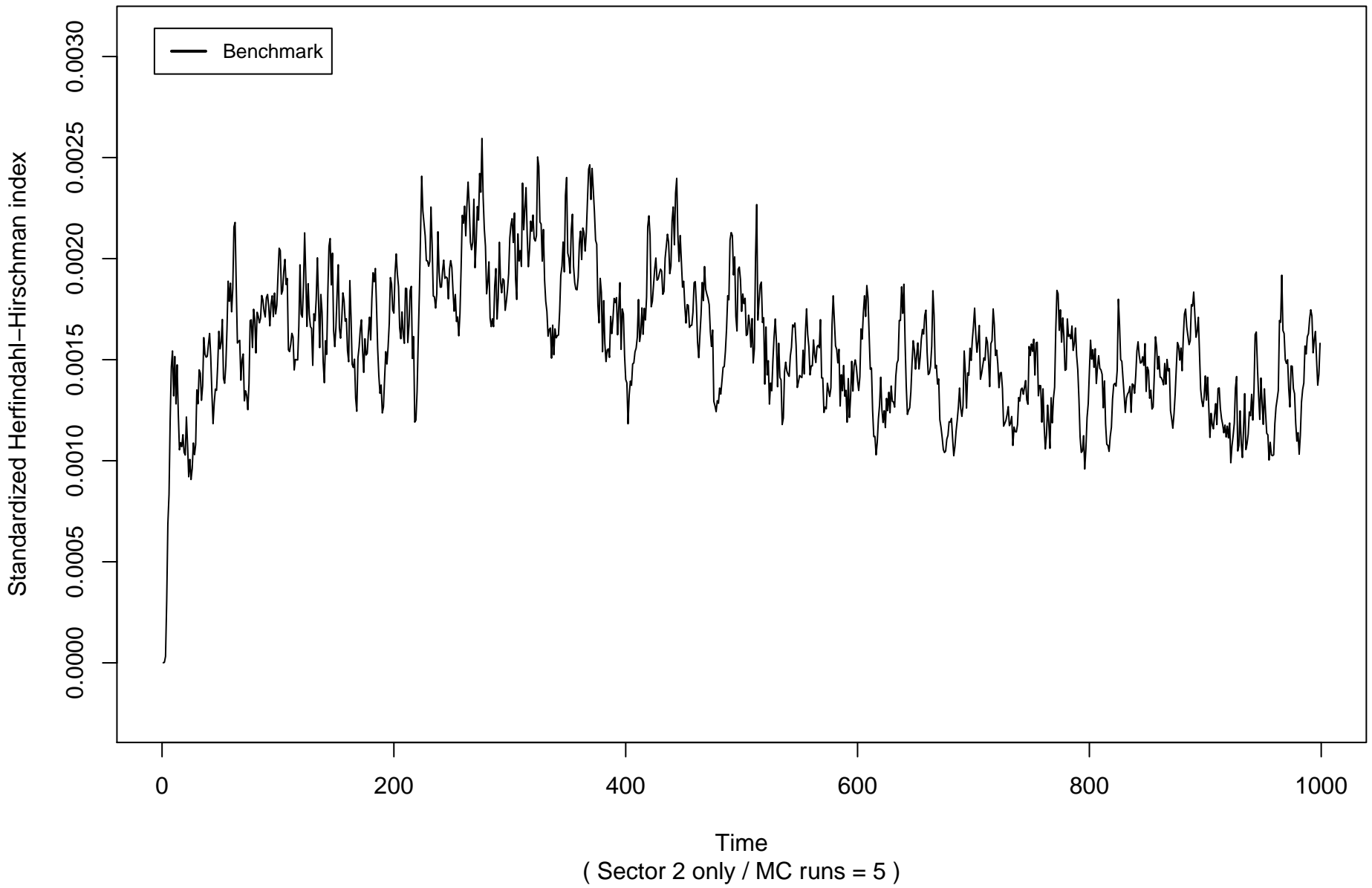
Innovation and imitation (all experiments)



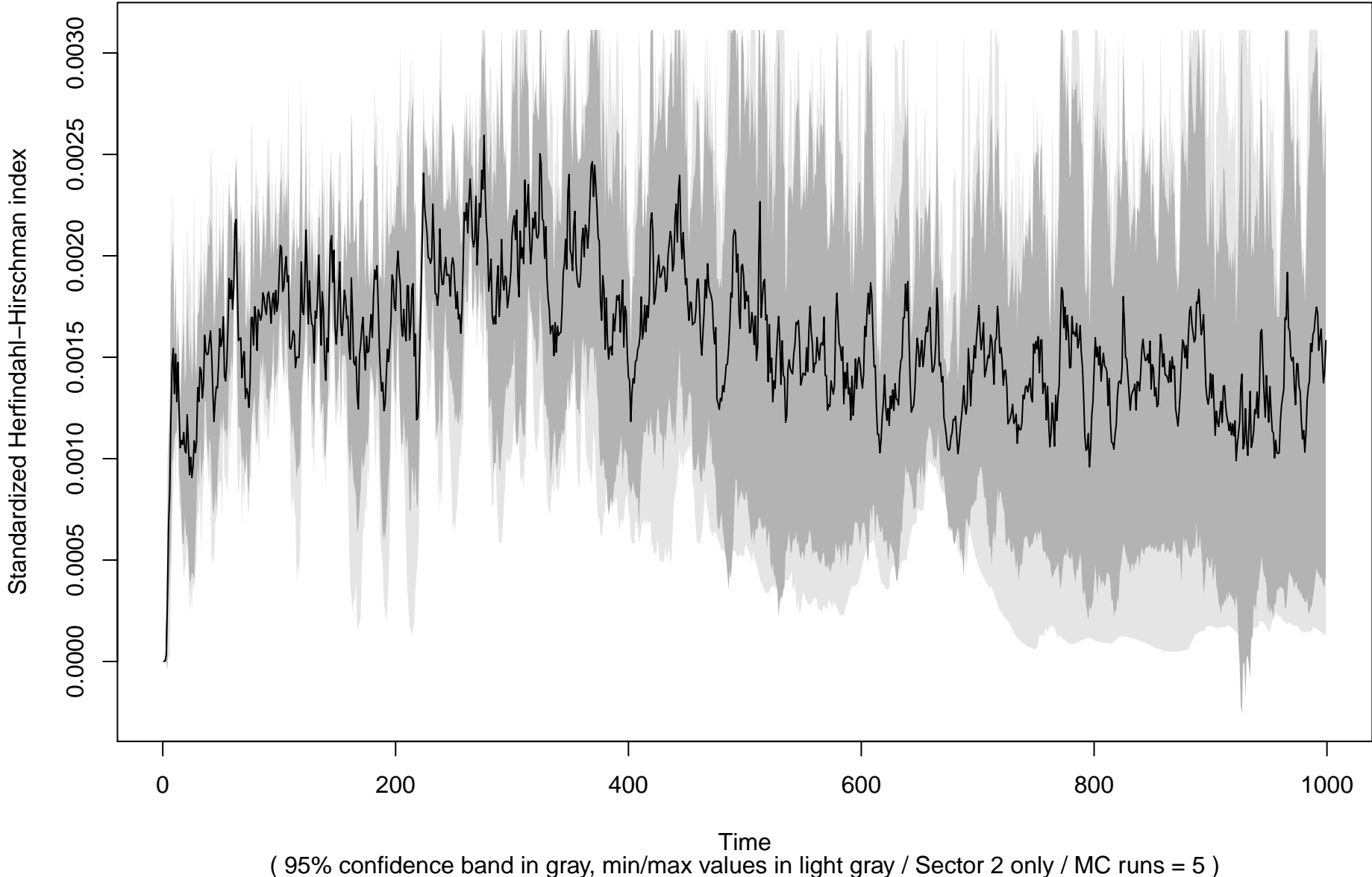
Innovation and imitation (Benchmark)



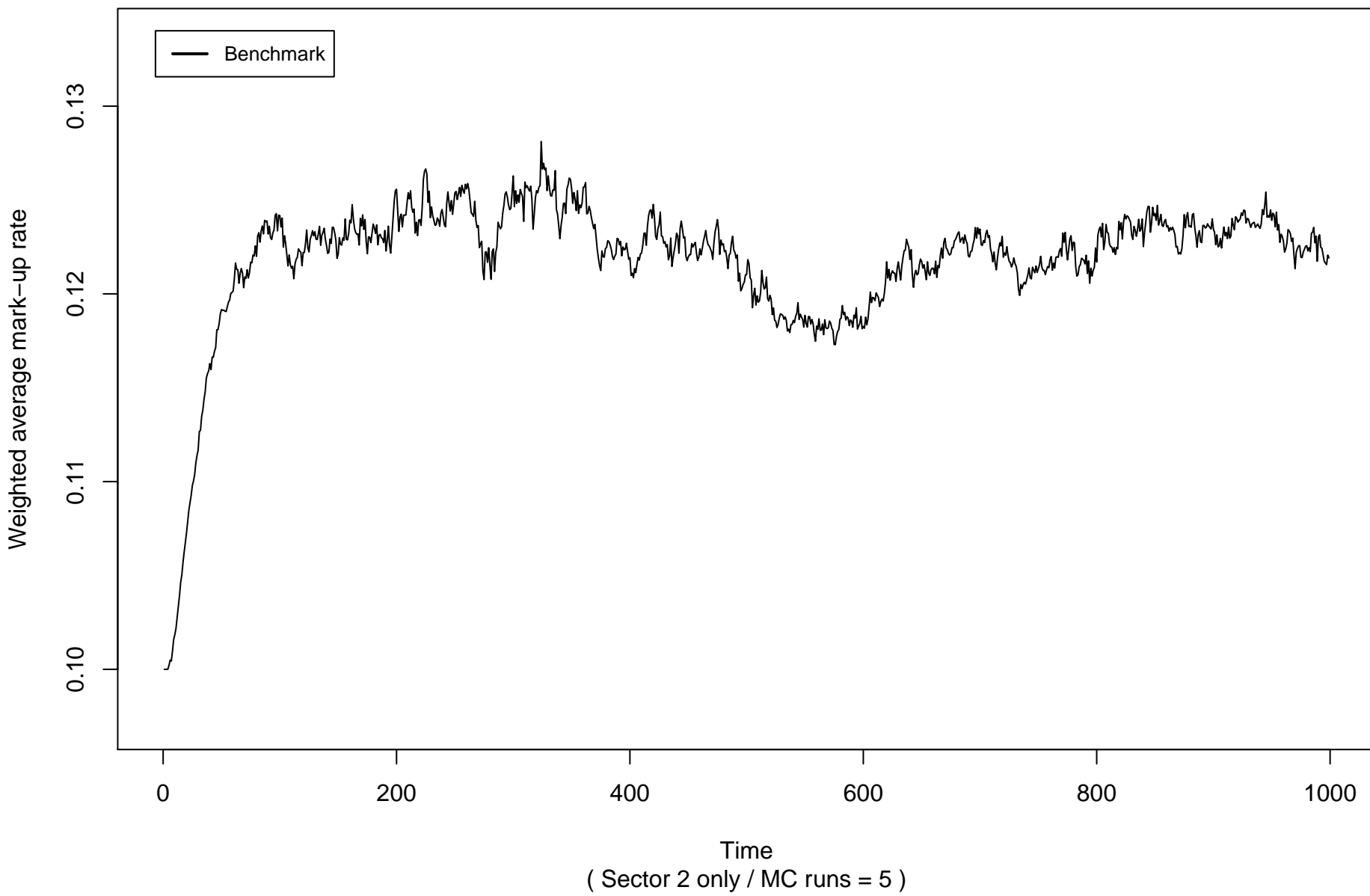
Market concentration (all experiments)



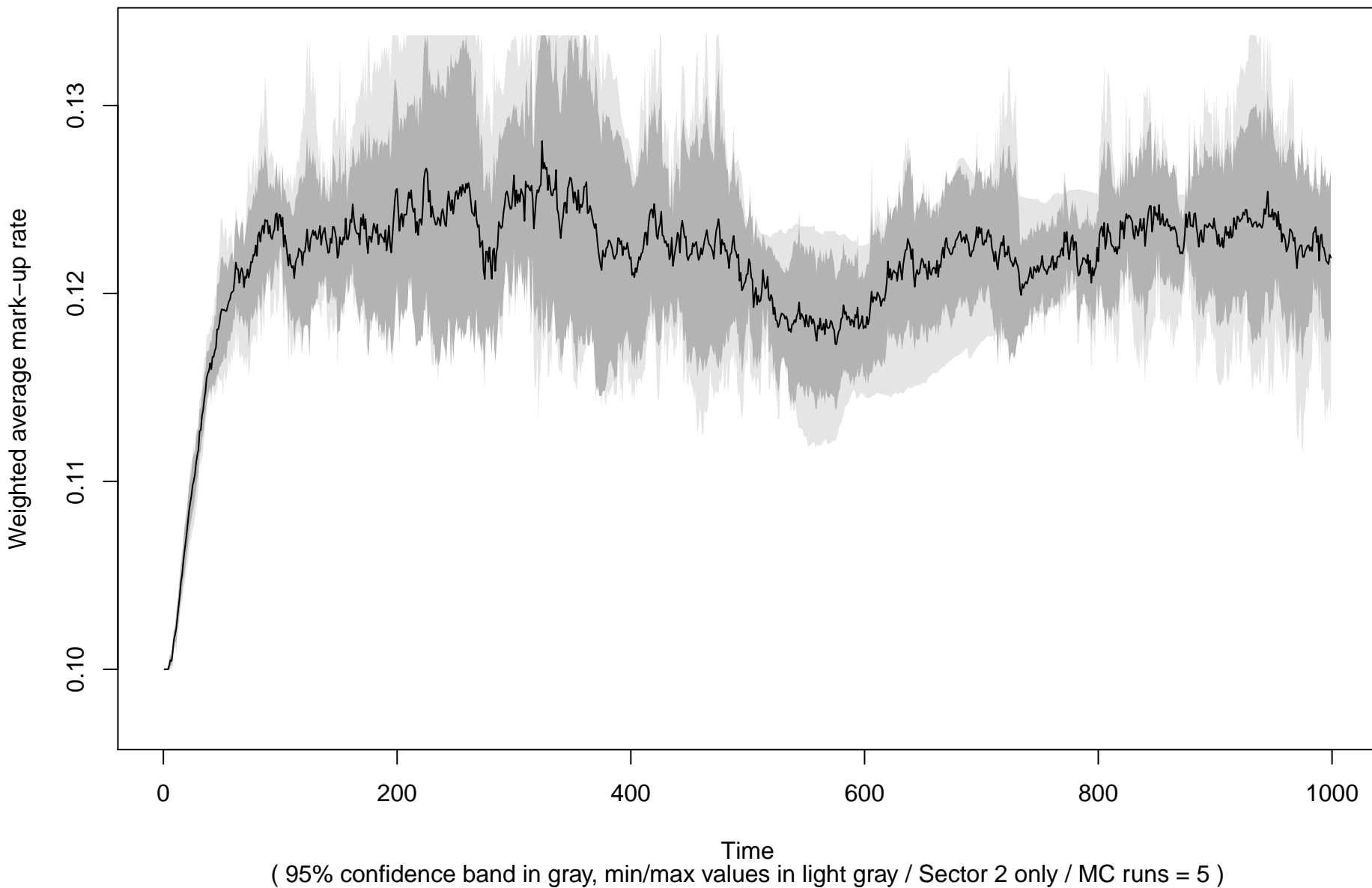
Market concentration (Benchmark)



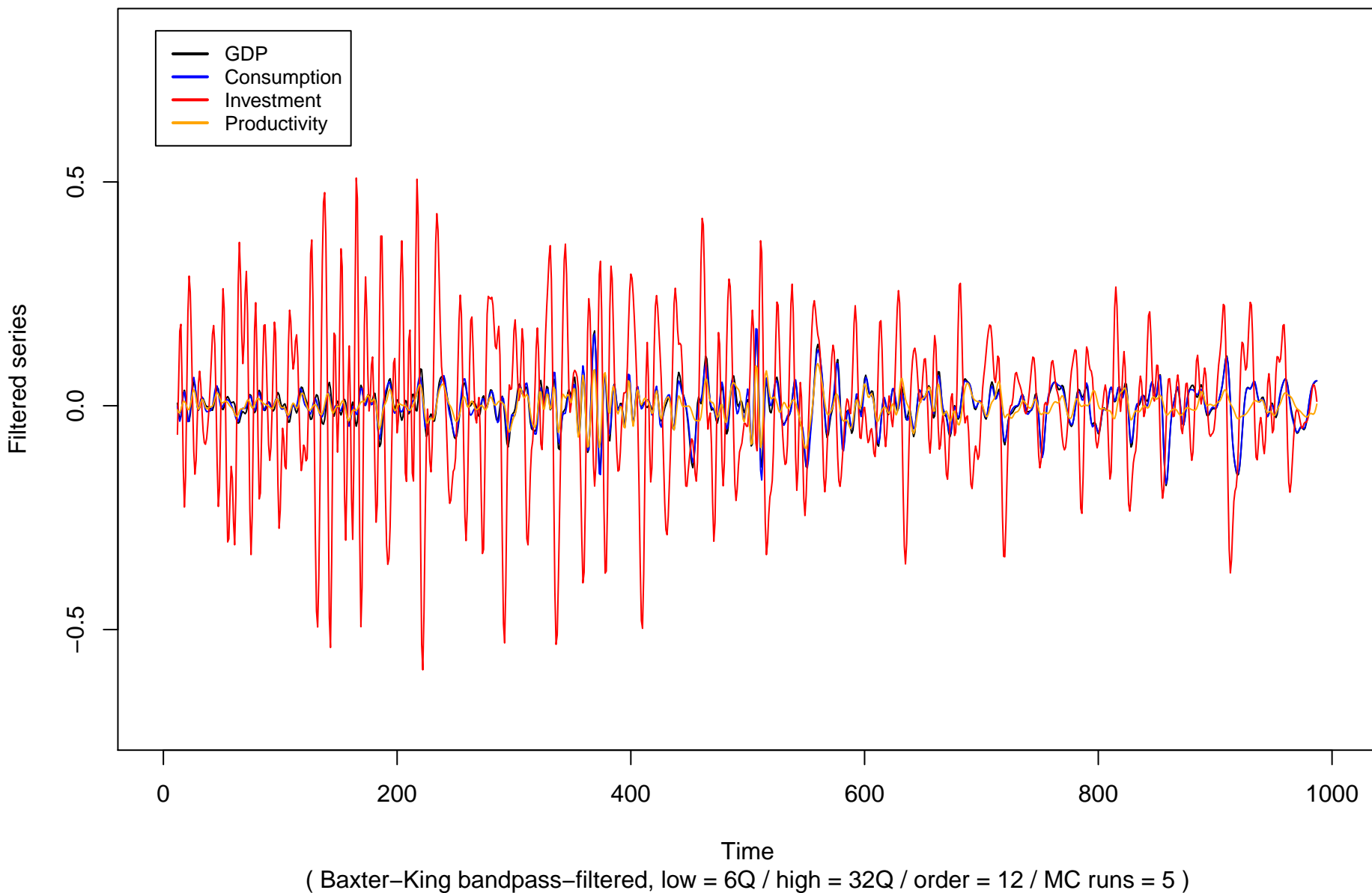
Mark-up average (all experiments)



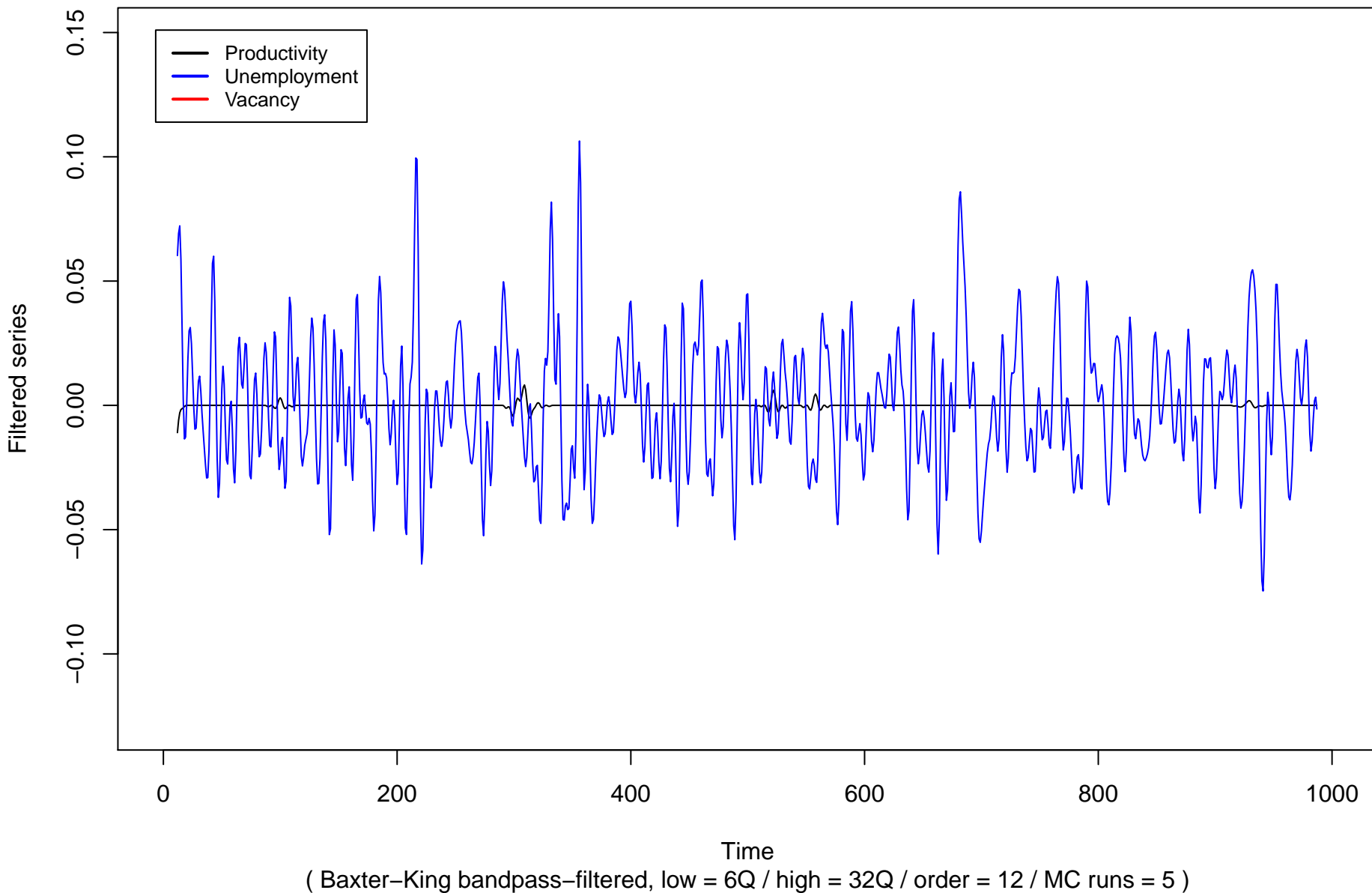
Mark-up average (Benchmark)



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	0.01302	0.013	0.01301	0.01279	0.01285
(s.e.)	0.0005687	0.000579	0.0005235	0.0004993	0.0005944
ADF test (logs)	-2.893	-2.677	-10.03	-2.239	-2.35
(s.e.)	0.3658	0.3529	0.6398	0.4083	0.3852
(p-val.)	0.2809	0.3524	0.01	0.5167	0.4741
(s.e.)	0.08102	0.09115	0	0.1361	0.1209
ADF test (bpf)	-11.53	-11.42	-13.98	-10.64	-10.34
(s.e.)	0.3395	0.2687	0.186	0.337	0.4786
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.09819	0.08907	1.191	0.05168	0.05223
(s.e.)	0.002745	0.004492	0.2072	0.001007	0.007116
relative s.d. (GDP)	1	0.9072	12.13	0.5264	0.5319

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 1000)

(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)	-0.02031	0.2572	0.5995	0.8872	1	0.8872	0.5995	0.2572	-0.02031
(s.e.)	0.01597	0.01289	0.007452	0.002177	0	0.002177	0.007452	0.01289	0.01597
(p-val.)	0.976	5.537e-05	1.107e-07	1.454e-10	NA	1.454e-10	1.107e-07	5.537e-05	0.976
Consumption	-0.01842	0.2449	0.5728	0.8546	0.9756	0.883	0.618	0.2892	0.009929
(s.e.)	0.02063	0.01315	0.004573	0.00485	0.005496	0.00341	0.01155	0.01962	0.02194
(p-val.)	0.9362	7.747e-05	1.925e-08	4.204e-09	3.927e-09	8.927e-10	5.58e-07	0.0001587	0.9426
Investment	-0.1124	-0.2444	-0.3962	-0.4655	-0.3744	-0.1298	0.1713	0.3989	0.4696
(s.e.)	0.03928	0.05306	0.06134	0.05765	0.04101	0.01875	0.02336	0.04224	0.05079
(p-val.)	0.1069	0.01317	0.002755	0.001096	0.0007971	0.01121	0.004732	0.0006697	0.0006539
Net investment	-0.07383	-0.1919	-0.3362	-0.4129	-0.3474	-0.1398	0.1258	0.3322	0.4007
(s.e.)	0.03043	0.03841	0.04615	0.04612	0.03568	0.01986	0.02047	0.03622	0.04589
(p-val.)	0.3357	0.01386	0.002013	0.0008003	0.0006621	0.008641	0.01776	0.0008633	0.0008979
Change in inventories	-0.142	-0.1199	-0.03414	0.08302	0.1759	0.2017	0.1572	0.07825	0.01216
(s.e.)	0.04997	0.04771	0.03081	0.011	0.02849	0.04117	0.03799	0.02885	0.02971
(p-val.)	0.09224	0.1456	0.6701	0.06414	0.00806	0.01372	0.03318	0.3015	0.6585
Unemployment rate	0.0142	0.02147	0.02867	0.03703	0.04496	0.04676	0.04136	0.03121	0.01957
(s.e.)	0.02393	0.02414	0.02762	0.02989	0.03115	0.03038	0.02984	0.03067	0.03411
(p-val.)	0.8926	0.879	0.8425	0.7377	0.5989	0.5195	0.5534	0.6964	0.7323
Productivity	0.06769	0.2394	0.4688	0.6835	0.7942	0.7447	0.5465	0.2723	0.01503
(s.e.)	0.08454	0.08692	0.07227	0.05321	0.04179	0.04416	0.05728	0.06602	0.0578
(p-val.)	0.009261	0.05541	0.002449	0.0001536	3.114e-05	5.109e-05	0.0005353	0.01667	0.09806
Mark-up (sector 2)	0.1351	0.1195	0.06733	-0.01011	-0.08934	-0.1458	-0.1653	-0.1493	-0.1113
(s.e.)	0.03099	0.04682	0.07301	0.08735	0.08281	0.06576	0.05137	0.04745	0.04345
(p-val.)	0.03881	0.07534	0.1205	0.02972	0.06314	0.1358	0.05735	0.05544	0.03137
Total firm debt	0.06017	-0.02526	-0.1157	-0.1805	-0.1983	-0.1696	-0.1143	-0.05965	-0.02323
(s.e.)	0.06282	0.06361	0.0632	0.06564	0.06853	0.06531	0.05452	0.04557	0.05188
(p-val.)	0.08884	0.04446	0.08979	0.04805	0.0495	0.07661	0.1957	0.2644	0.1164
Liquidity-to-sales ratio	0.1133	-0.08562	-0.3186	-0.527	-0.6509	-0.6577	-0.5571	-0.3923	-0.2162
(s.e.)	0.06119	0.05387	0.04188	0.0288	0.01691	0.01546	0.03261	0.05143	0.06318
(p-val.)	0.06569	0.2288	0.001796	4.304e-05	2.028e-06	1.356e-06	5.484e-05	0.00151	0.02081
Bankruptcy rate	0.3743	0.4796	0.4663	0.3246	0.107	-0.09831	-0.2174	-0.2302	-0.1735
(s.e.)	0.04919	0.07575	0.08393	0.07012	0.04177	0.0174	0.02289	0.02996	0.03009
(p-val.)	0.001577	0.002641	0.004267	0.01001	0.1708	0.05251	0.001231	0.002475	0.01038

(non-rate/ratio series are Baxter-King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 1000)
(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)	-0.02031	0.2572	0.5995	0.8872	1	0.8872	0.5995	0.2572	-0.02031
(s.e.)	0.01597	0.01289	0.007452	0.002177	0	0.002177	0.007452	0.01289	0.01597
(p-val.)	0.976	5.537e-05	1.107e-07	1.454e-10	NA	1.454e-10	1.107e-07	5.537e-05	0.976
Consumption	-0.01842	0.2449	0.5728	0.8546	0.9756	0.883	0.618	0.2892	0.009929
(s.e.)	0.02063	0.01315	0.004573	0.00485	0.005496	0.00341	0.01155	0.01962	0.02194
(p-val.)	0.9362	7.747e-05	1.925e-08	4.204e-09	3.927e-09	8.927e-10	5.58e-07	0.0001587	0.9426
Investment	-0.1124	-0.2444	-0.3962	-0.4655	-0.3744	-0.1298	0.1713	0.3989	0.4696
(s.e.)	0.03928	0.05306	0.06134	0.05765	0.04101	0.01875	0.02336	0.04224	0.05079
(p-val.)	0.1069	0.01317	0.002755	0.001096	0.0007971	0.01121	0.004732	0.0006697	0.0006539
Productivity	0.06769	0.2394	0.4688	0.6835	0.7942	0.7447	0.5465	0.2723	0.01503
(s.e.)	0.08454	0.08692	0.07227	0.05321	0.04179	0.04416	0.05728	0.06602	0.0578
(p-val.)	0.009261	0.05541	0.002449	0.0001536	3.114e-05	5.109e-05	0.0005353	0.01667	0.09806
Entry	-0.3025	-0.1984	-0.0139	0.223	0.447	0.5855	0.5986	0.4986	0.3398
(s.e.)	0.01773	0.02276	0.03409	0.04634	0.05007	0.03974	0.01838	0.01322	0.03131
(p-val.)	8.555e-05	0.001947	0.5178	0.01273	0.0007697	9.592e-05	4.097e-06	2.508e-06	0.0004459
Wage	0.1896	0.355	0.5331	0.6705	0.7134	0.6373	0.4627	0.2439	0.04029
(s.e.)	0.01768	0.04375	0.07863	0.1075	0.119	0.1082	0.07981	0.04556	0.01848
(p-val.)	0.0009776	0.001293	0.001952	0.002404	0.00271	0.003005	0.003689	0.008106	0.8327
Unemployment rate	0.0142	0.02147	0.02867	0.03703	0.04496	0.04676	0.04136	0.03121	0.01957
(s.e.)	0.02393	0.02414	0.02762	0.02989	0.03115	0.03038	0.02984	0.03067	0.03411
(p-val.)	0.8926	0.879	0.8425	0.7377	0.5989	0.5195	0.5534	0.6964	0.7323
Vacancy rate	0.114	0.007855	-0.1555	-0.2997	-0.3457	-0.264	-0.09584	0.07403	0.1713
(s.e.)	0.05943	0.04779	0.0285	0.0293	0.04599	0.05328	0.04952	0.04039	0.02858
(p-val.)	0.213	0.05553	0.01521	0.0006278	0.001753	0.009613	0.09202	0.3677	0.009338

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 5 / period = 2 – 1000)
(test H0: lag coefficient is not significant at 5% level)

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

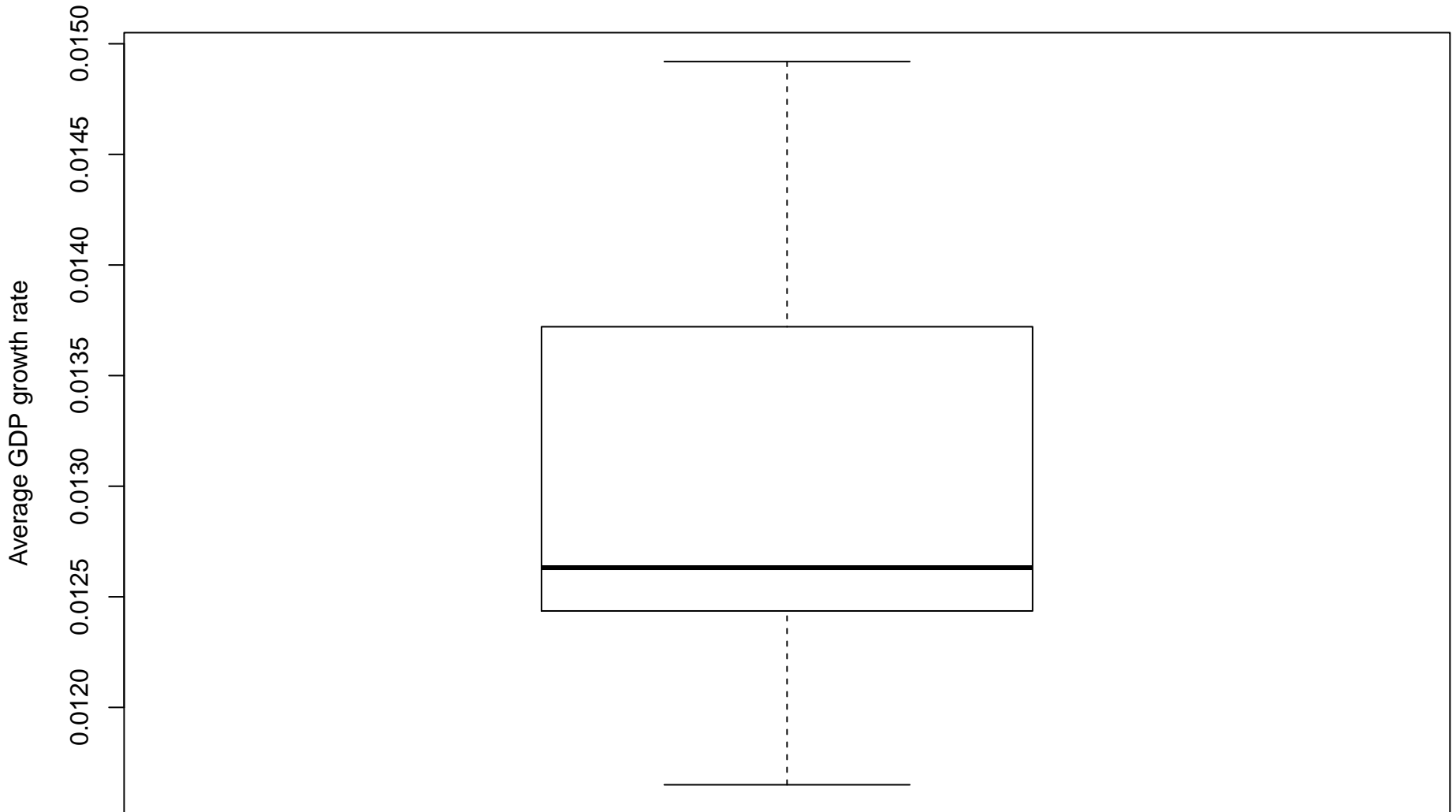
	avg.ADF	rej.ADF	avg.PP	rej.PP	avg.KPSS	rej.KPSS	avg.BDS	rej.BDS	avg.KS	rej.KS	AD	V
dGDP	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.11	0.70	0.00	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.20	0.70	0.00	C
dw	0.01	1.00	0.01	1.00	0.09	0.00	0.00	1.00	0.20	0.70	0.00	C
V	0.03	0.80	0.01	1.00	0.01	1.00	0.00	1.00	0.04	0.80	0.00	C
U	0.01	1.00	0.01	1.00	0.08	0.20	0.00	1.00	1.00	0.00	0.04	C
mu2avg	0.02	1.00	0.02	1.00	0.01	1.00	0.00	1.00	0.05	0.90	0.00	C
HH1	0.01	1.00	0.01	1.00	0.06	0.40	0.00	1.00	0.18	0.60	0.00	C
HH2	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.06	0.90	0.00	C

(average p-values for testing H0 and rate of rejection of H0 / MC runs = 5 / period = 2 – 1000)

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

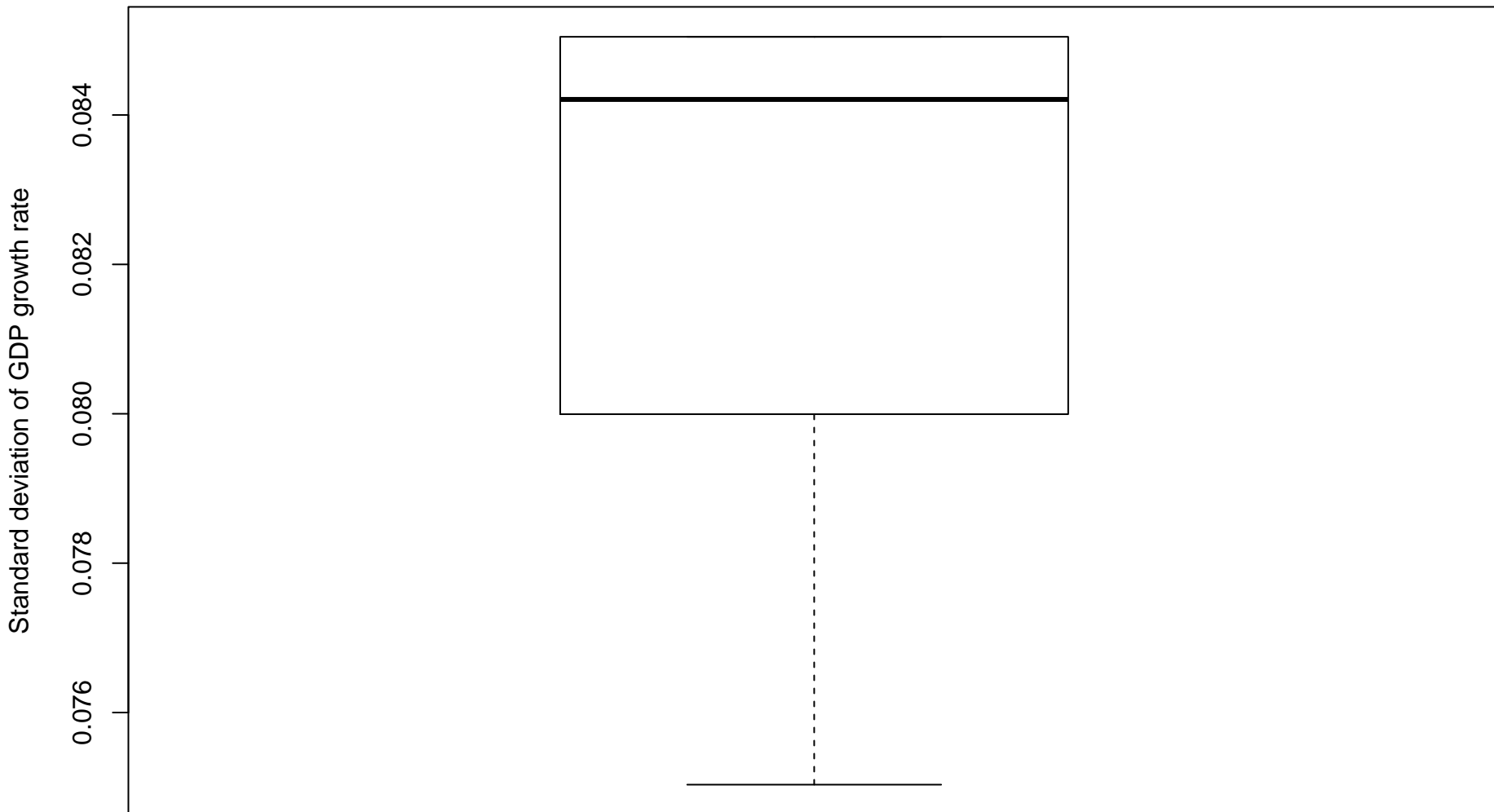
(significance = 0.05)

GDP growth



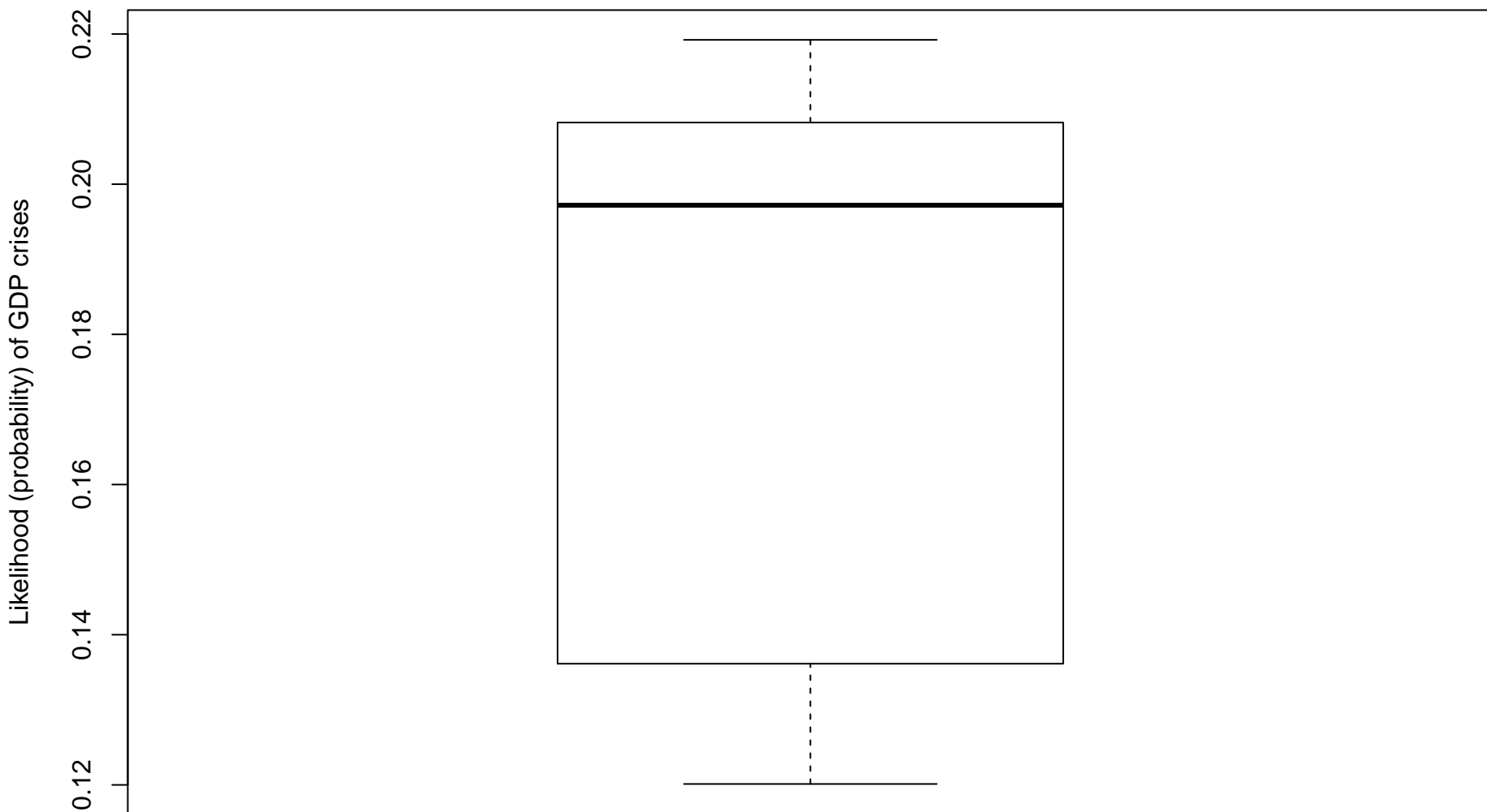
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Volatility of GDP growth



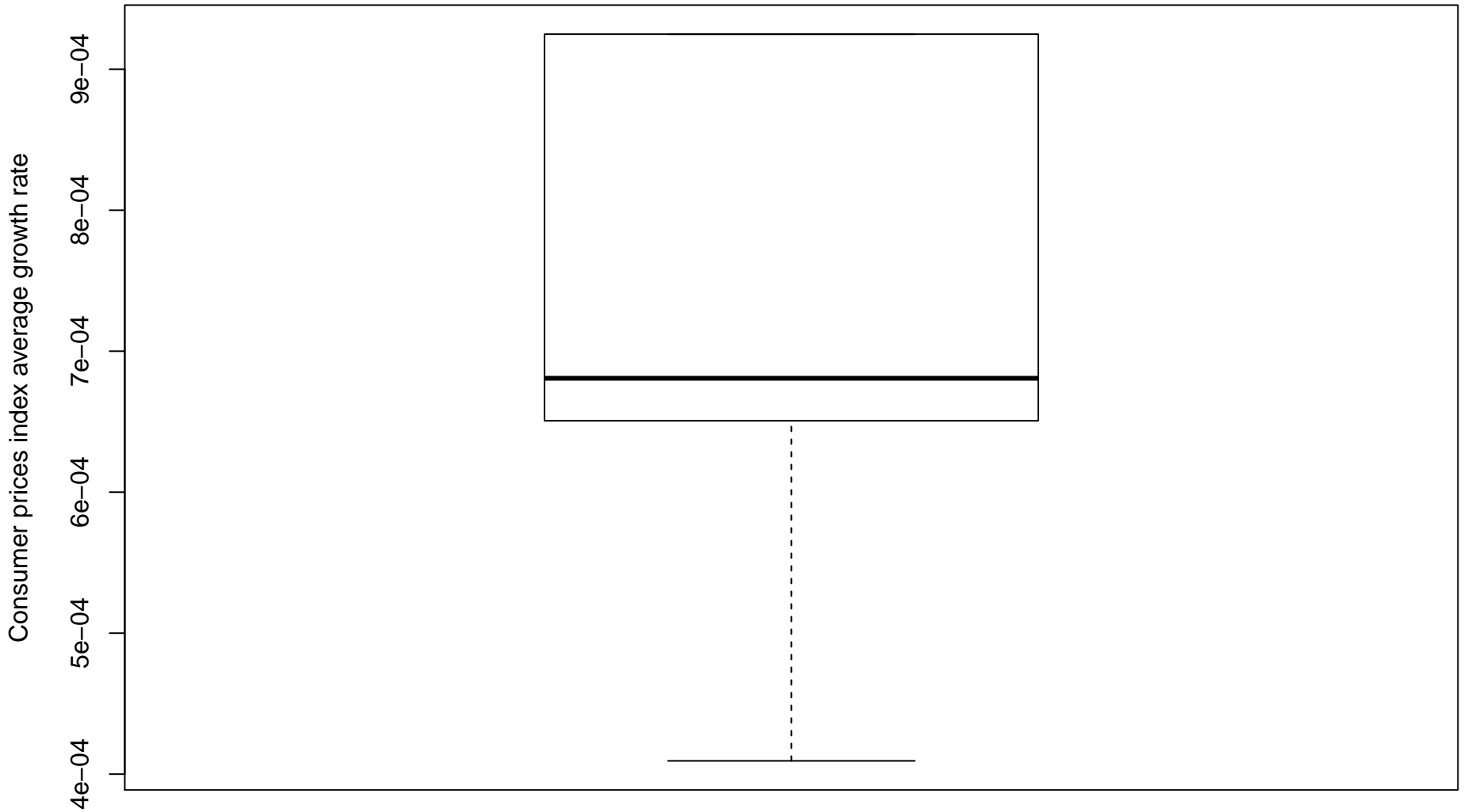
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Likelihood of GDP crises

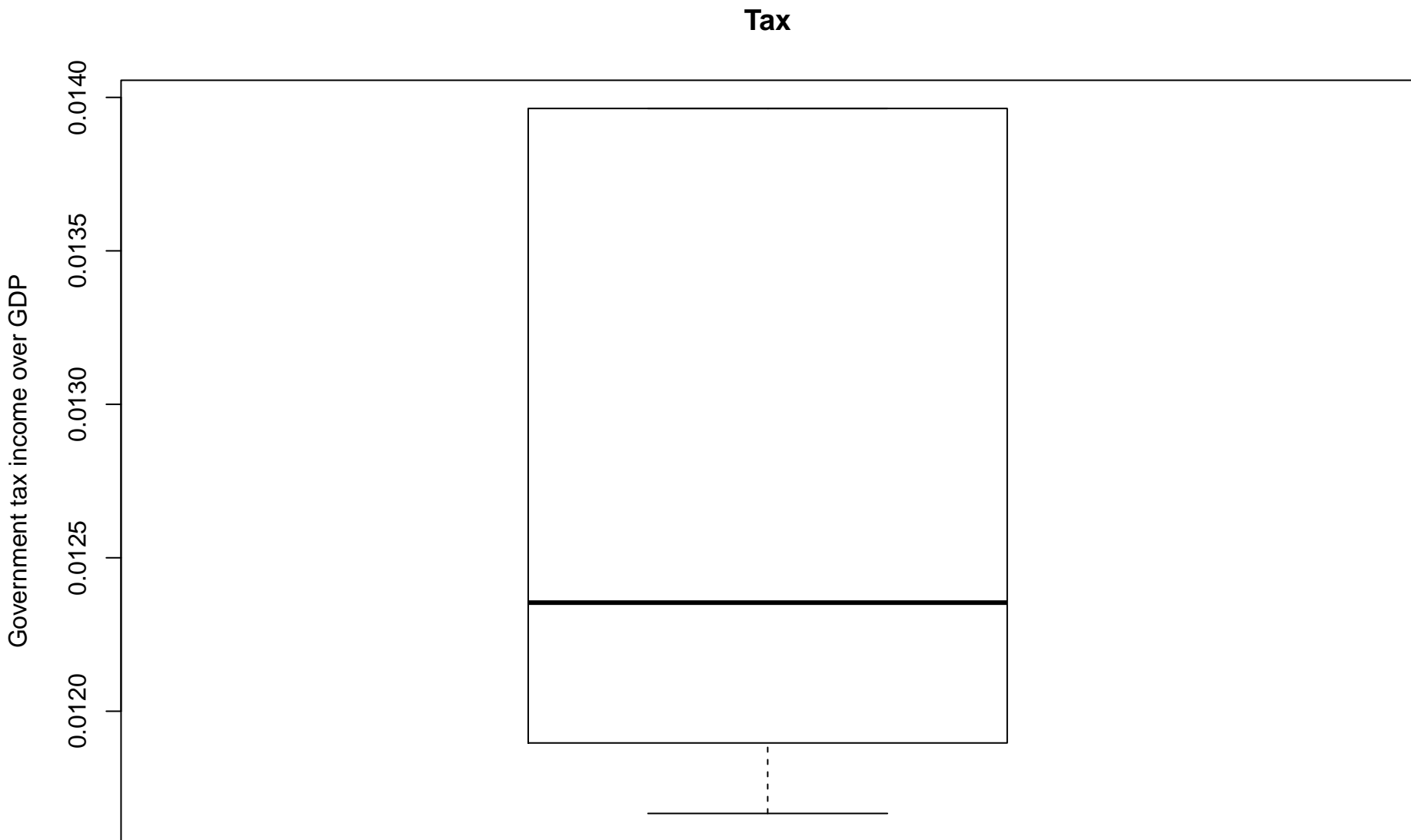


(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Inflation

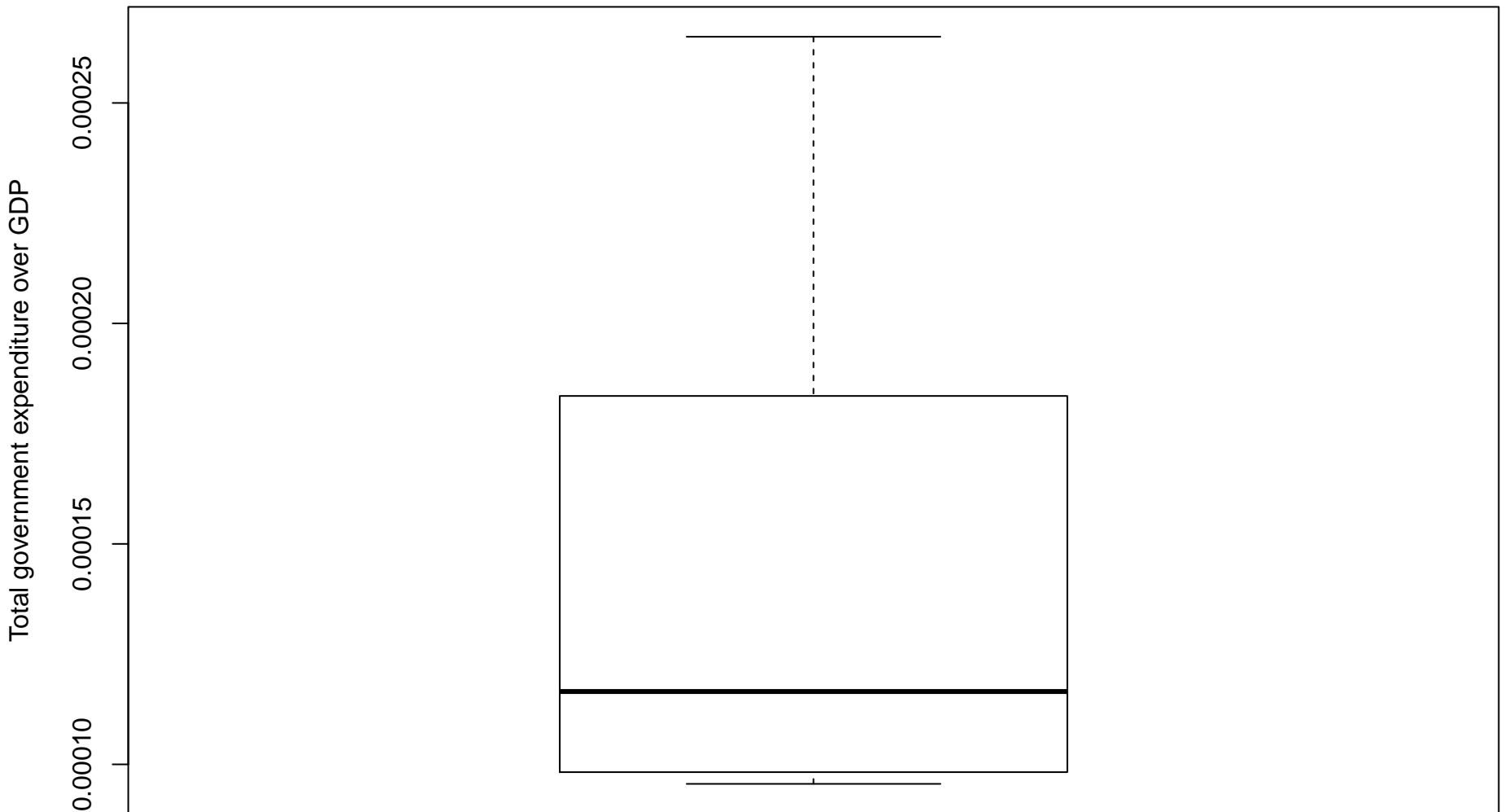


(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)



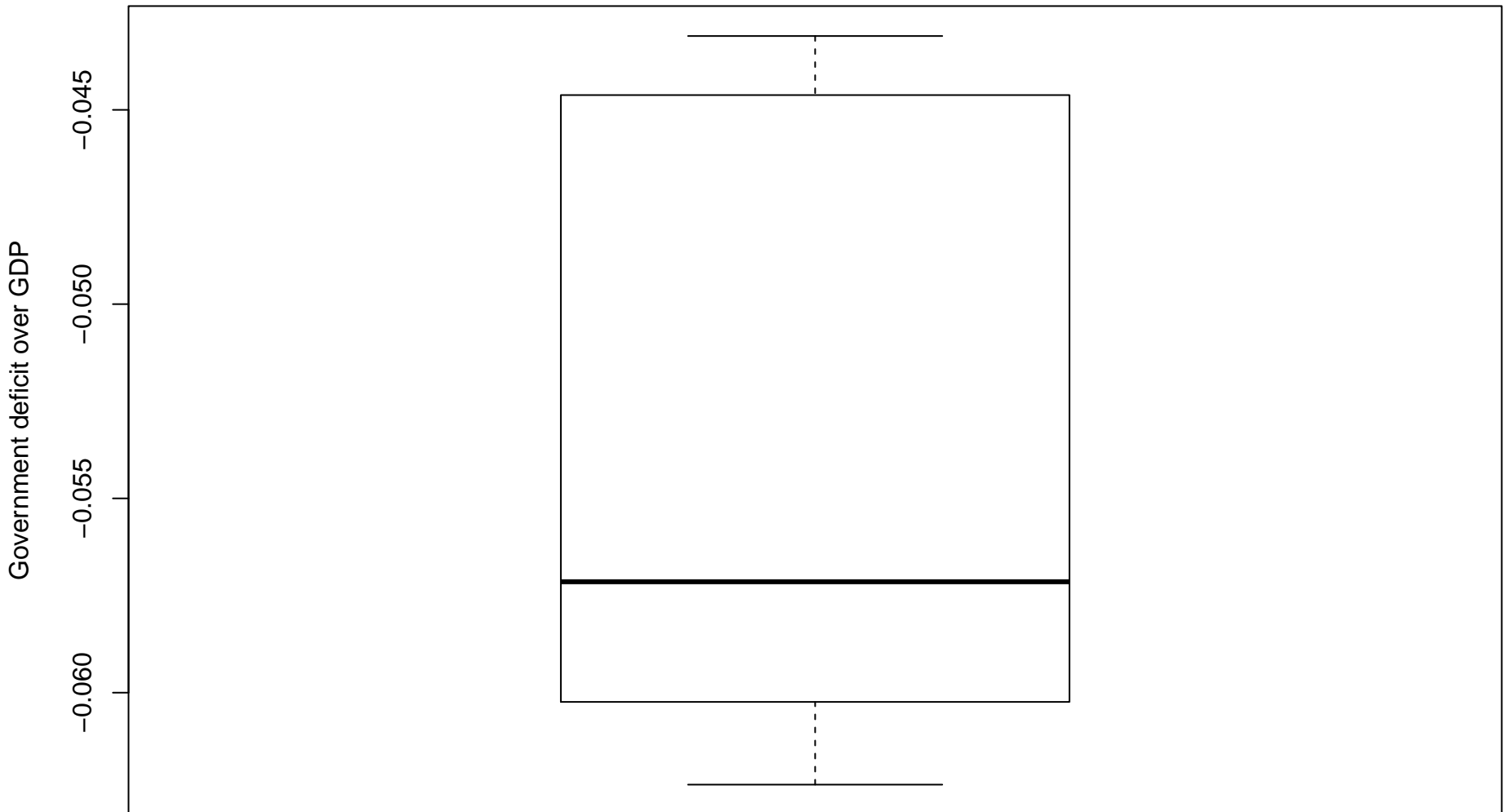
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government total expenditure



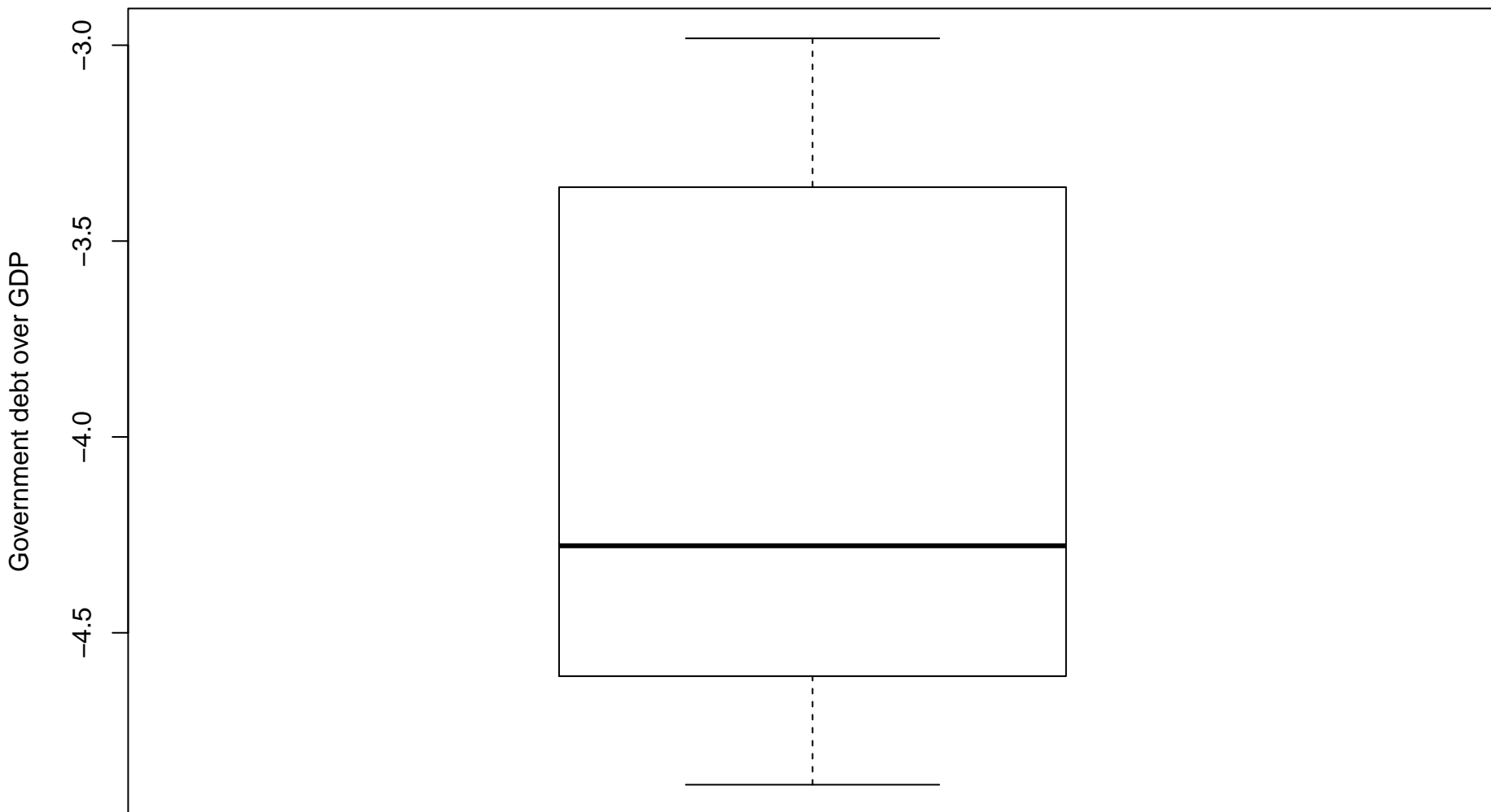
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government deficit



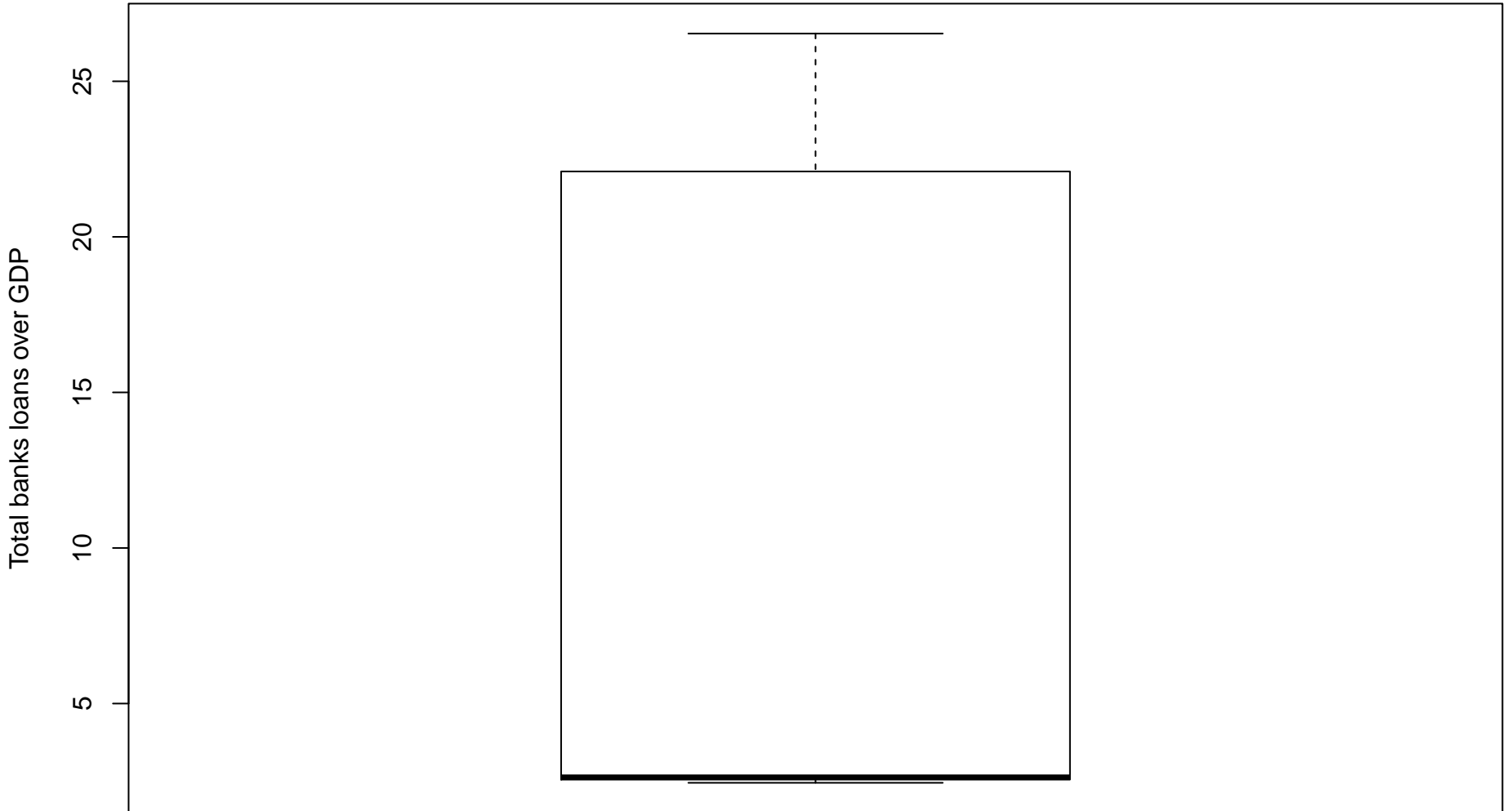
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government debt



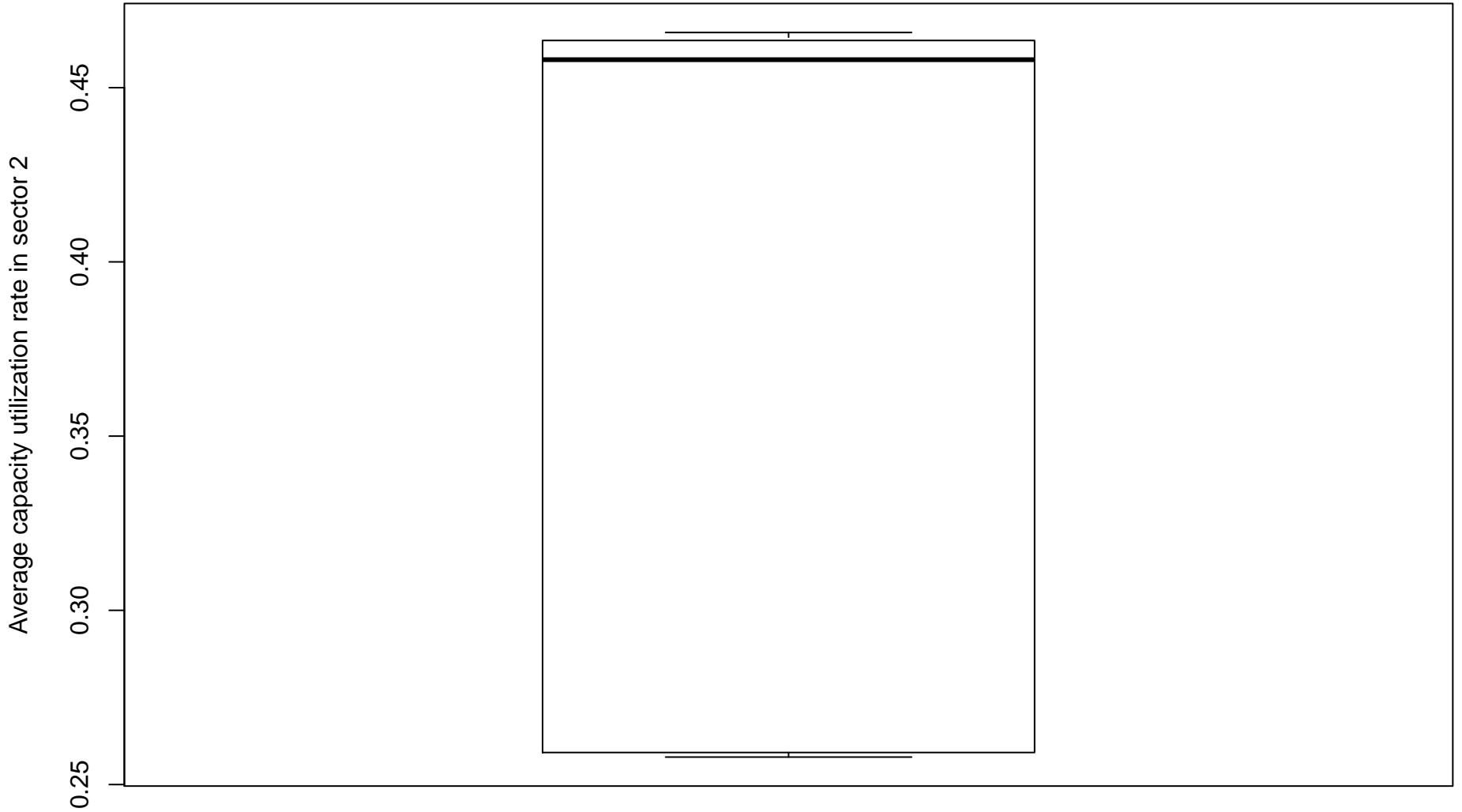
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Loans



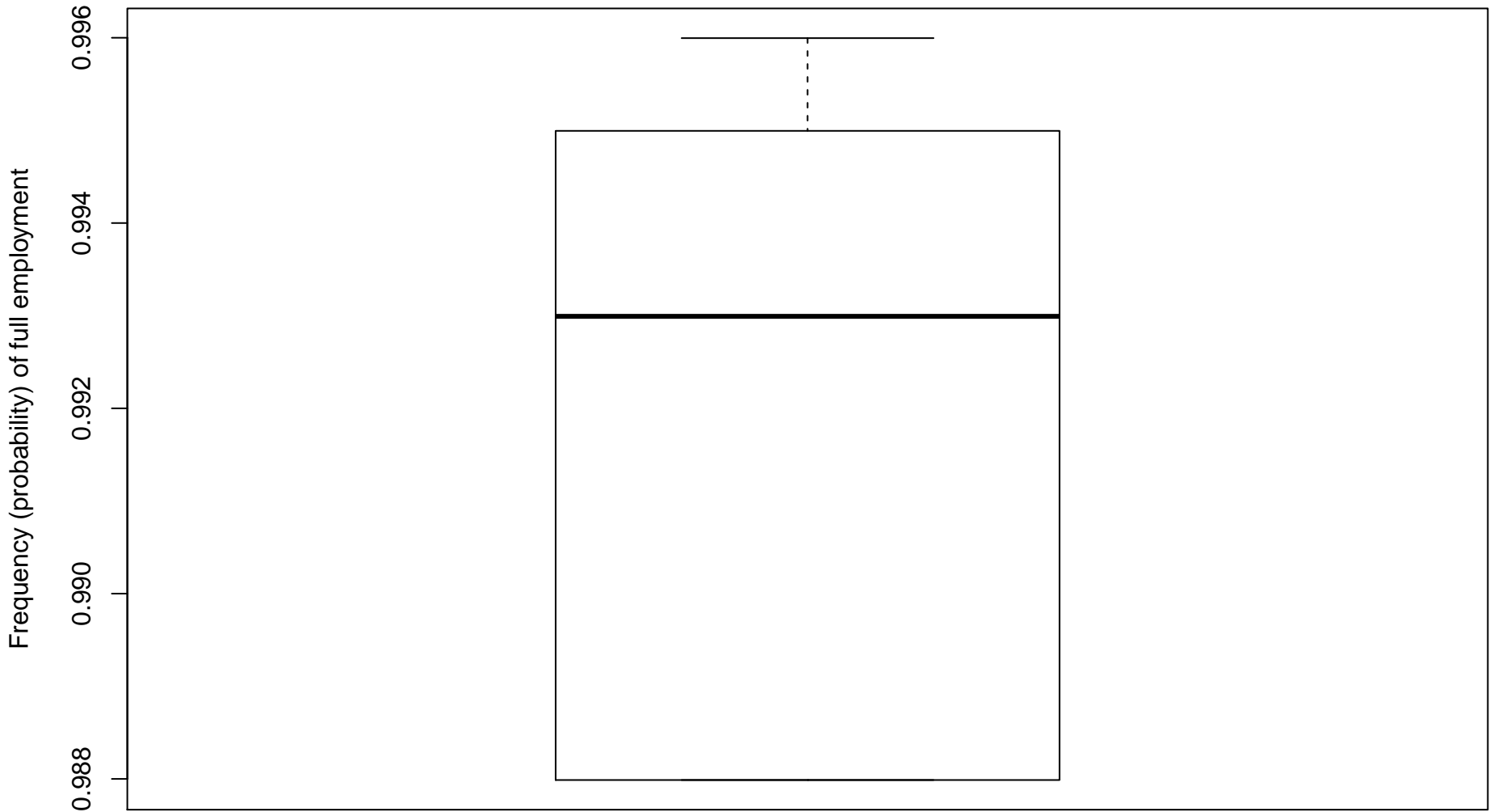
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Capacity utilization



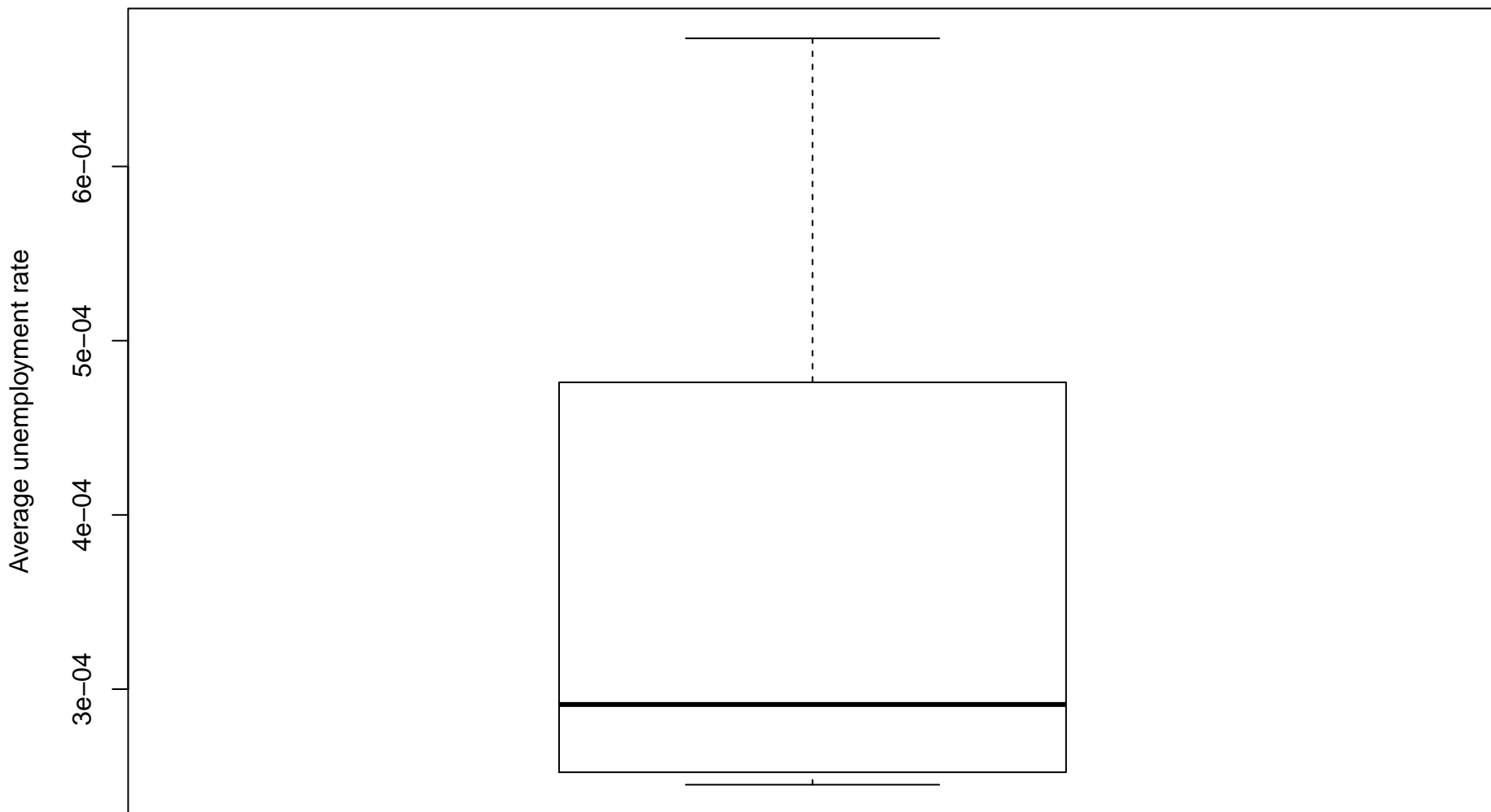
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Full employment frequency



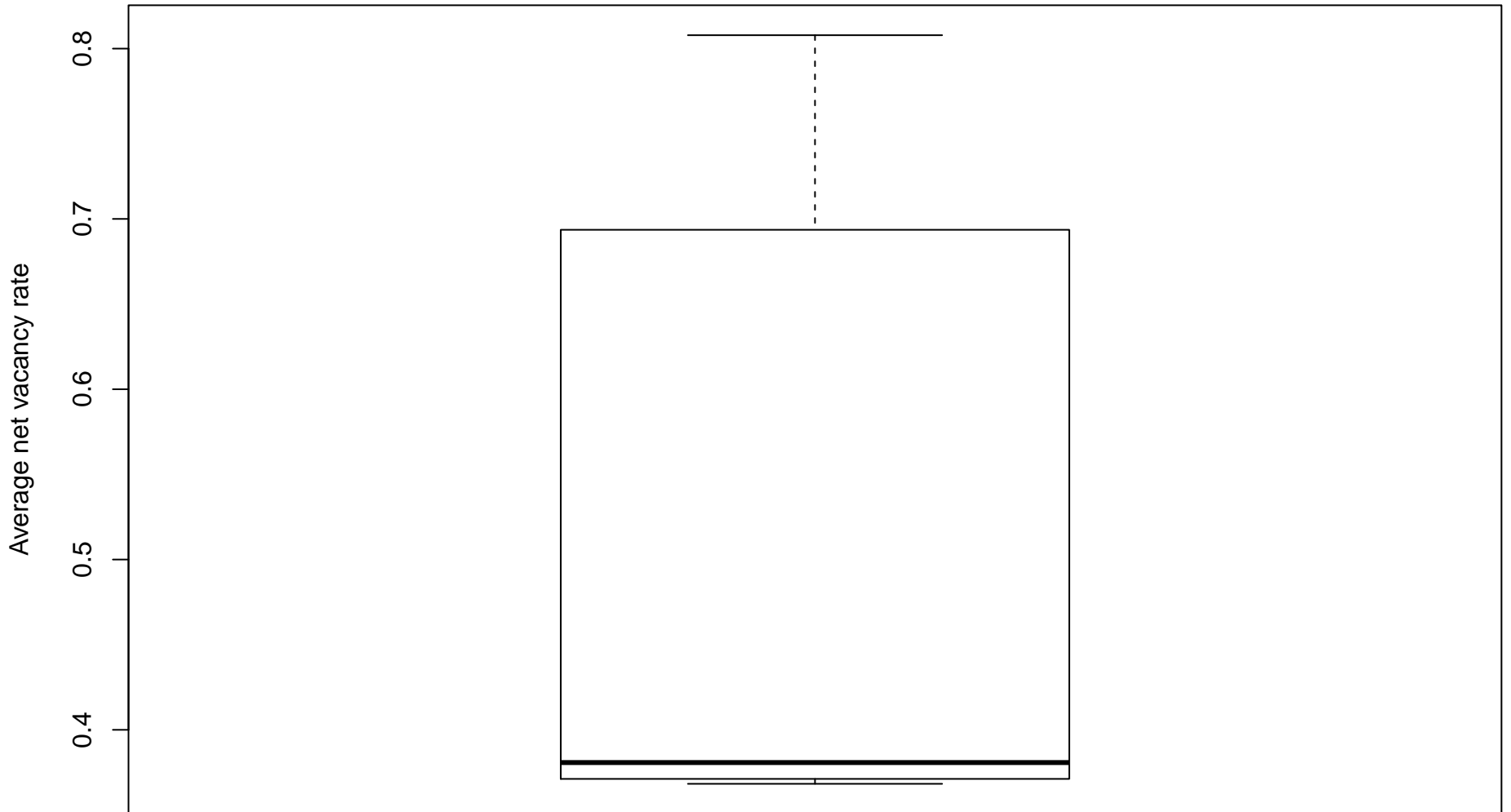
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Unemployment



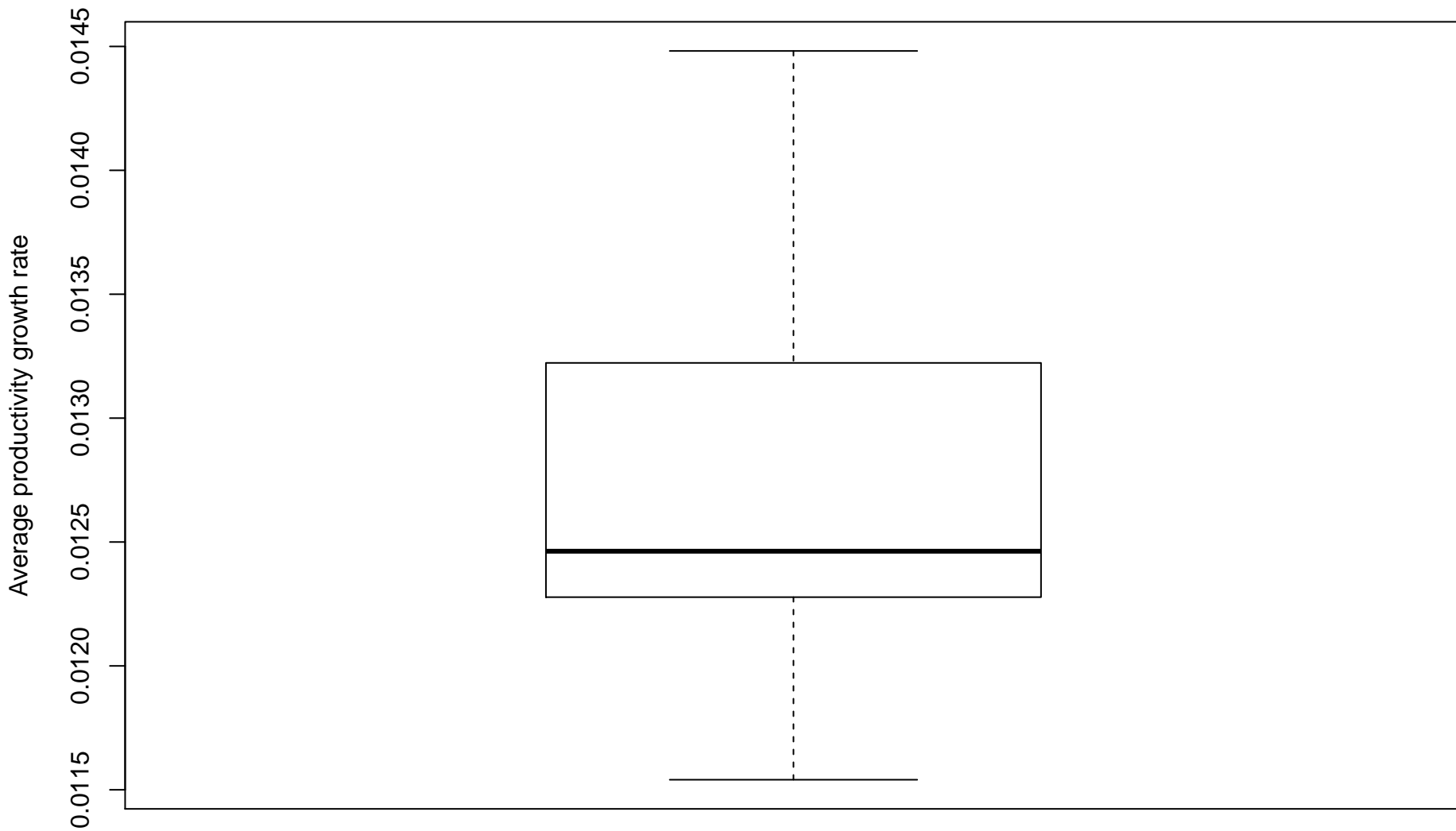
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Vacancy



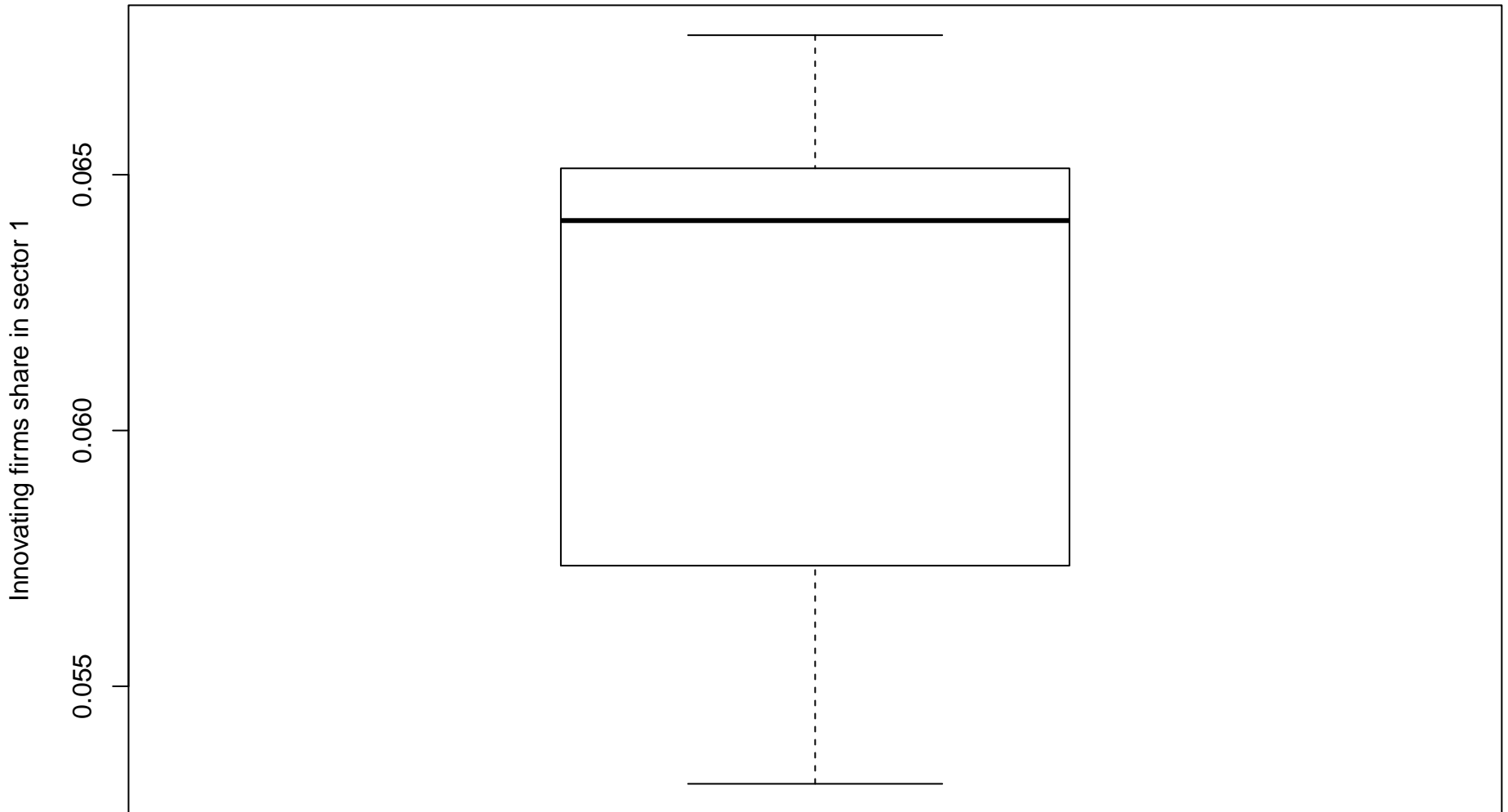
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Productivity growth



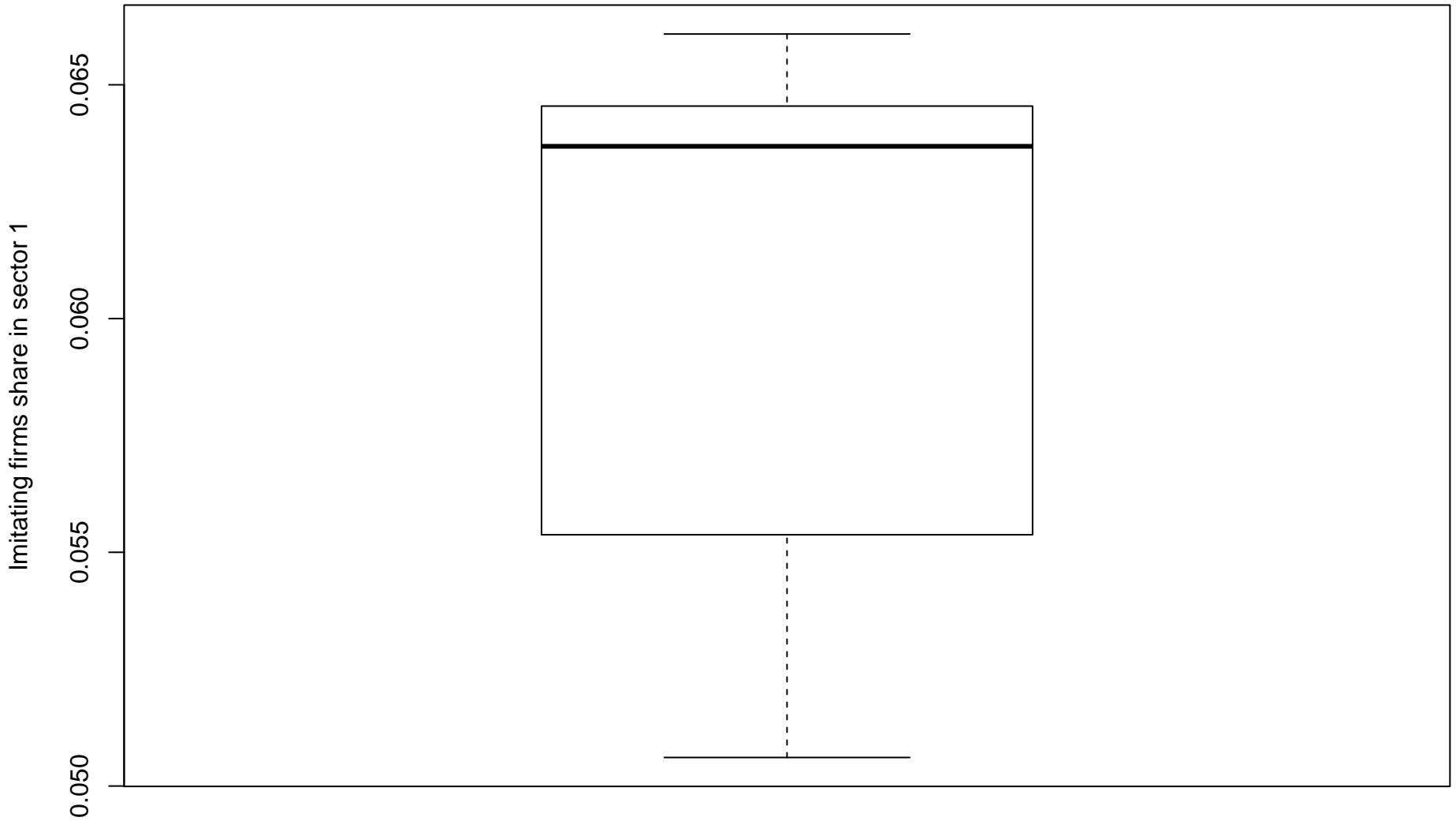
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Innovation



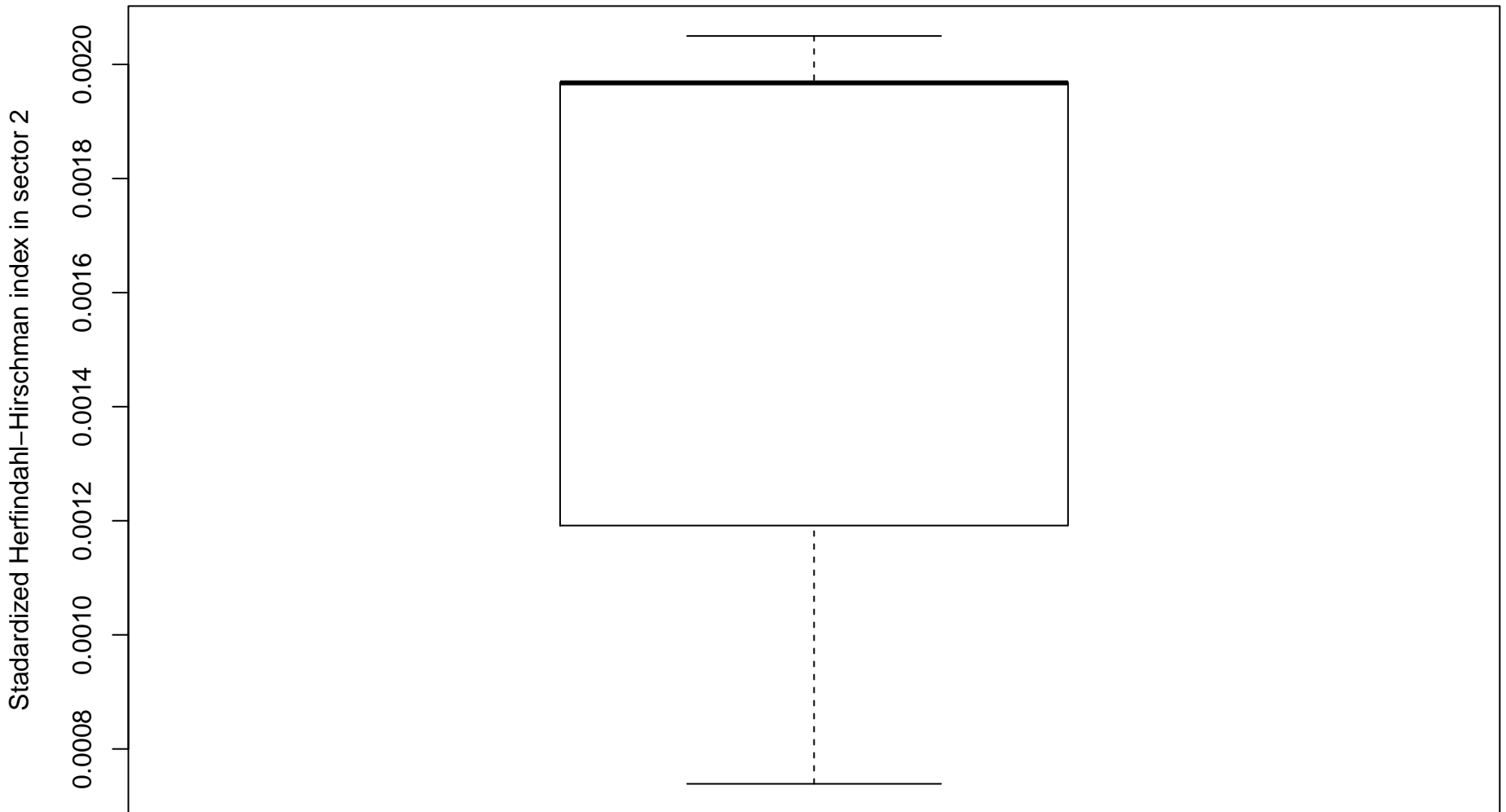
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Imitation



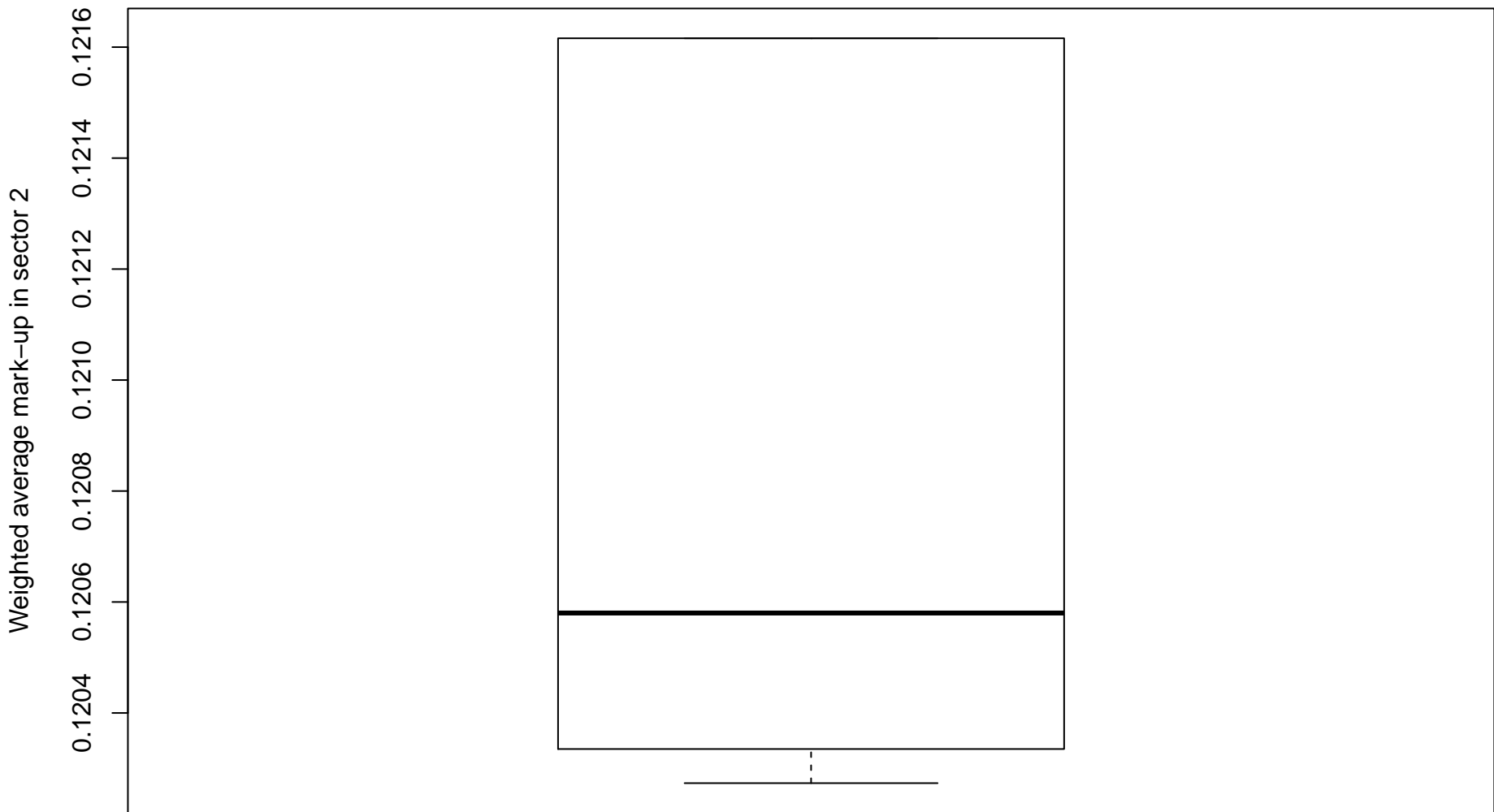
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Market concentration



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Mark-ups



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Monte Carlo descriptive statistics (all experiments)

	Avg[1]	SD[1]	Min[1]	Max[1]
GDP growth	0.01307	0.00127	0.01165	0.01492
Volatility of GDP growth	0.08489	0.009426	0.07503	0.1002
Likelihood of GDP crises	0.1762	0.04491	0.1201	0.2192
Inflation	0.0008319	0.0004126	0.0004094	0.001494
Tax	0.0141	0.003763	0.01167	0.02064
Government total expenditure	0.0001518	7.263e-05	9.558e-05	0.000265
Government deficit	-0.05349	0.009005	-0.06237	-0.0431
Government debt	-4.024	0.8181	-4.888	-2.982
Loans	11.26	12.03	2.452	26.53
Capacity utilization	0.3809	0.1117	0.2579	0.4658
Full employment frequency	0.992	0.003812	0.988	0.996
Unemployment	0.0003877	0.0001854	0.0002451	0.0006735
Vacancy	0.5244	0.2106	0.3683	0.8079
Productivity growth	0.0128	0.001116	0.01154	0.01448
Innovation	0.06148	0.006053	0.05309	0.06773
Imitation	0.06006	0.006723	0.05061	0.06609
Market concentration	0.001583	0.0005874	0.0007388	0.00205
Mark-ups	0.1218	0.002583	0.1203	0.1264

Experiments: [1] Benchmark

(numbers in brackets indicate the experiment number / MC runs = 5 / period = 2 – 1000)