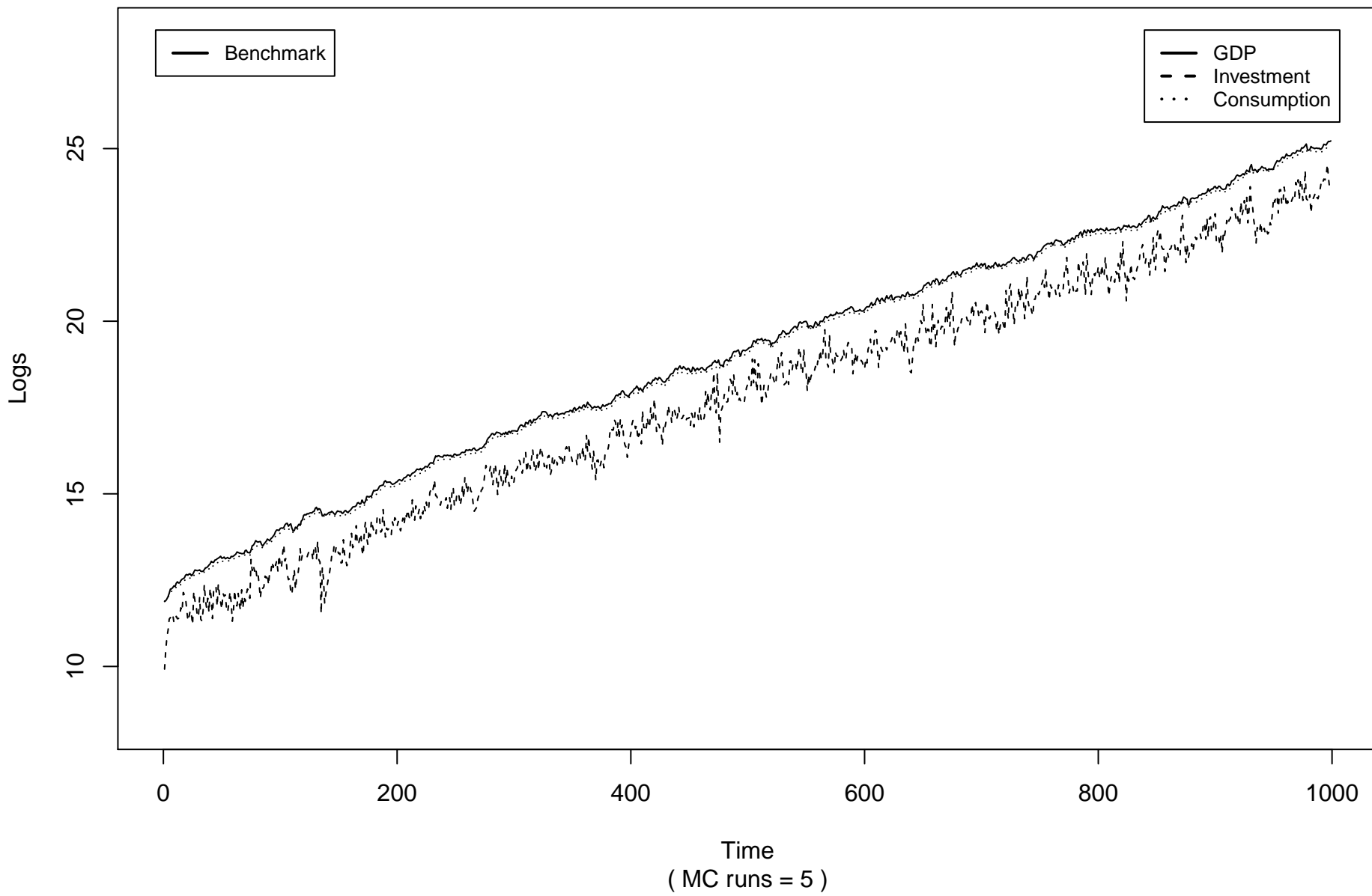
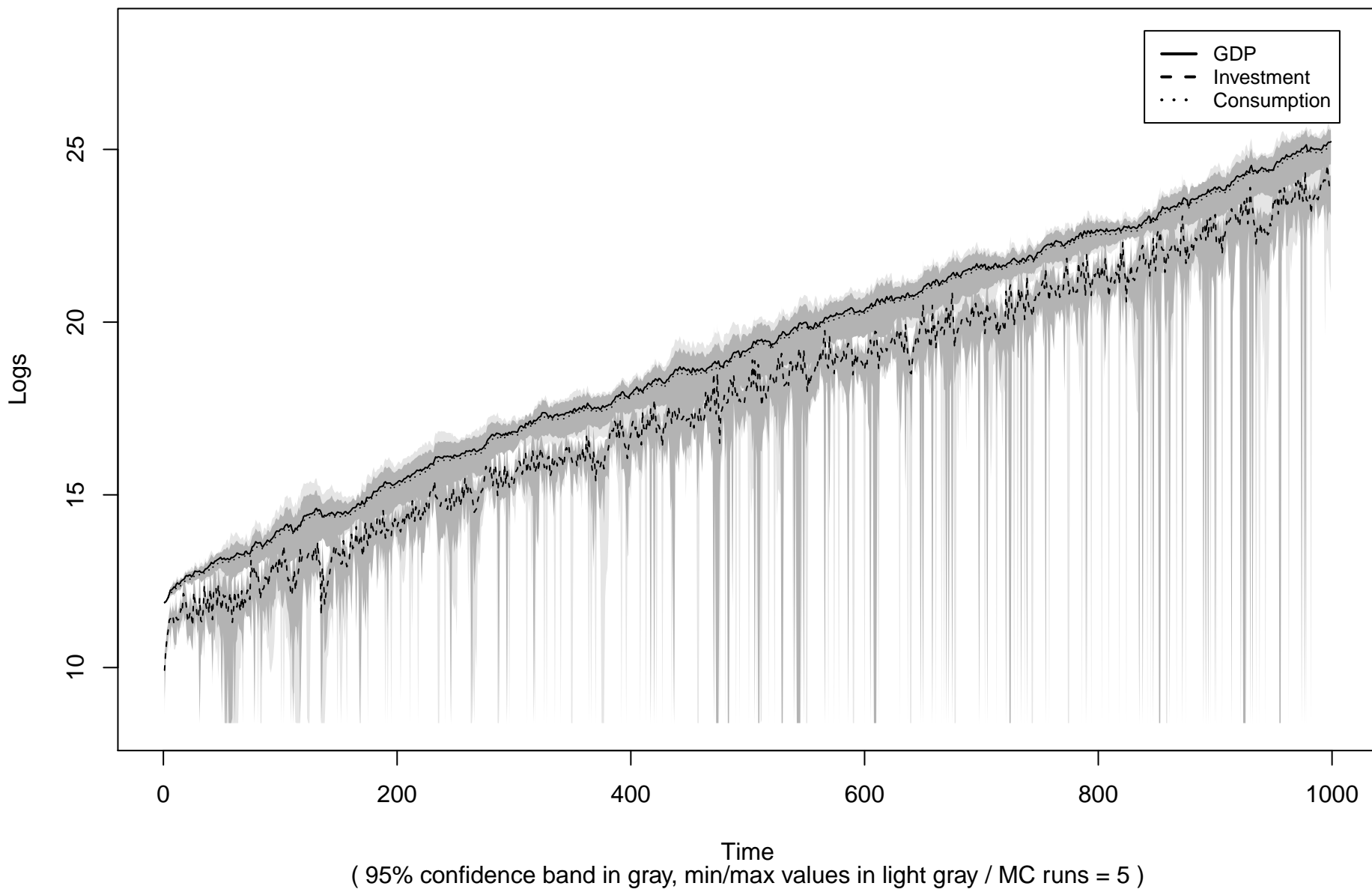


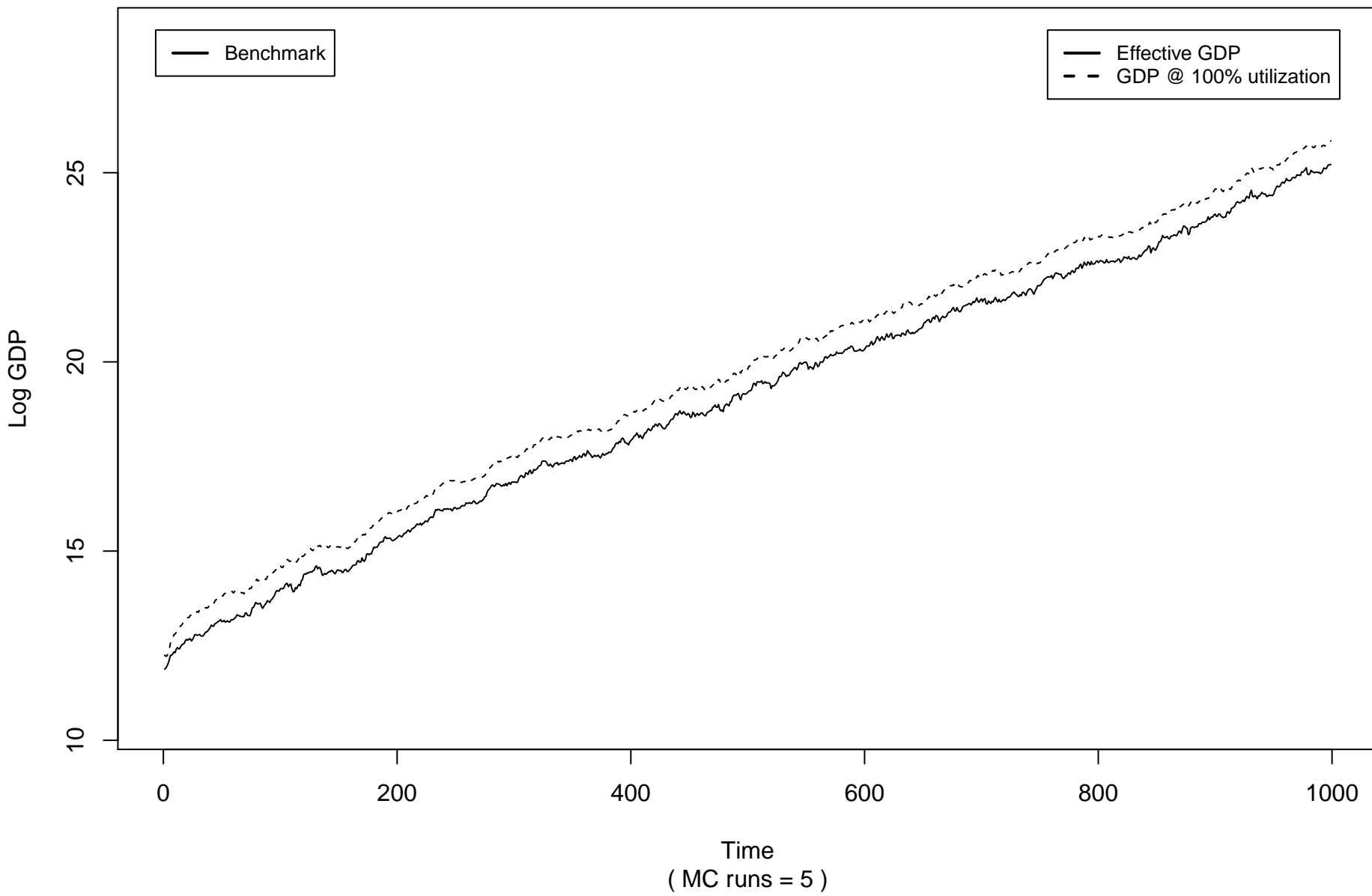
GDP, investment and consumption (all experiments)



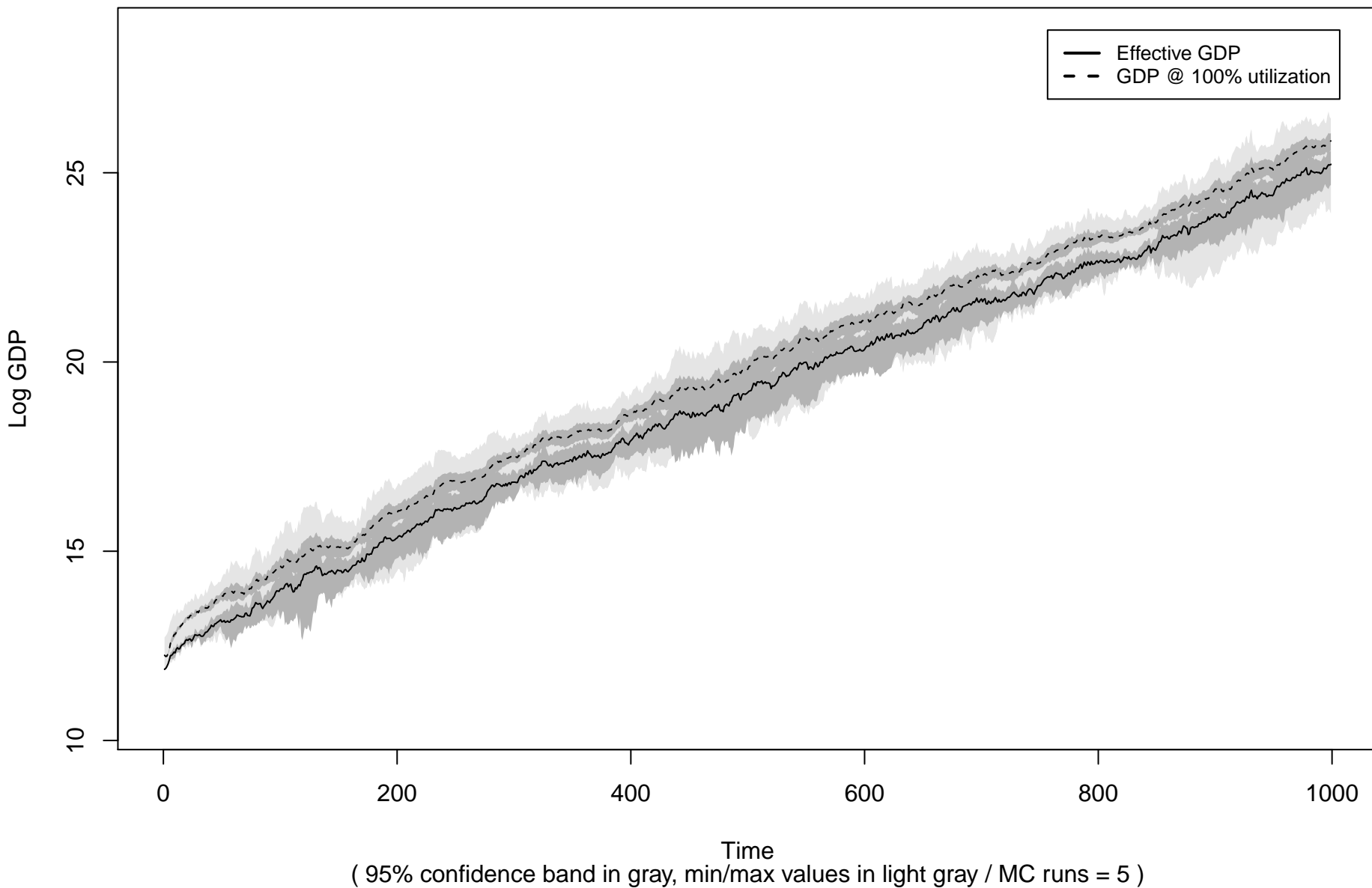
GDP, investment and consumption (Benchmark)



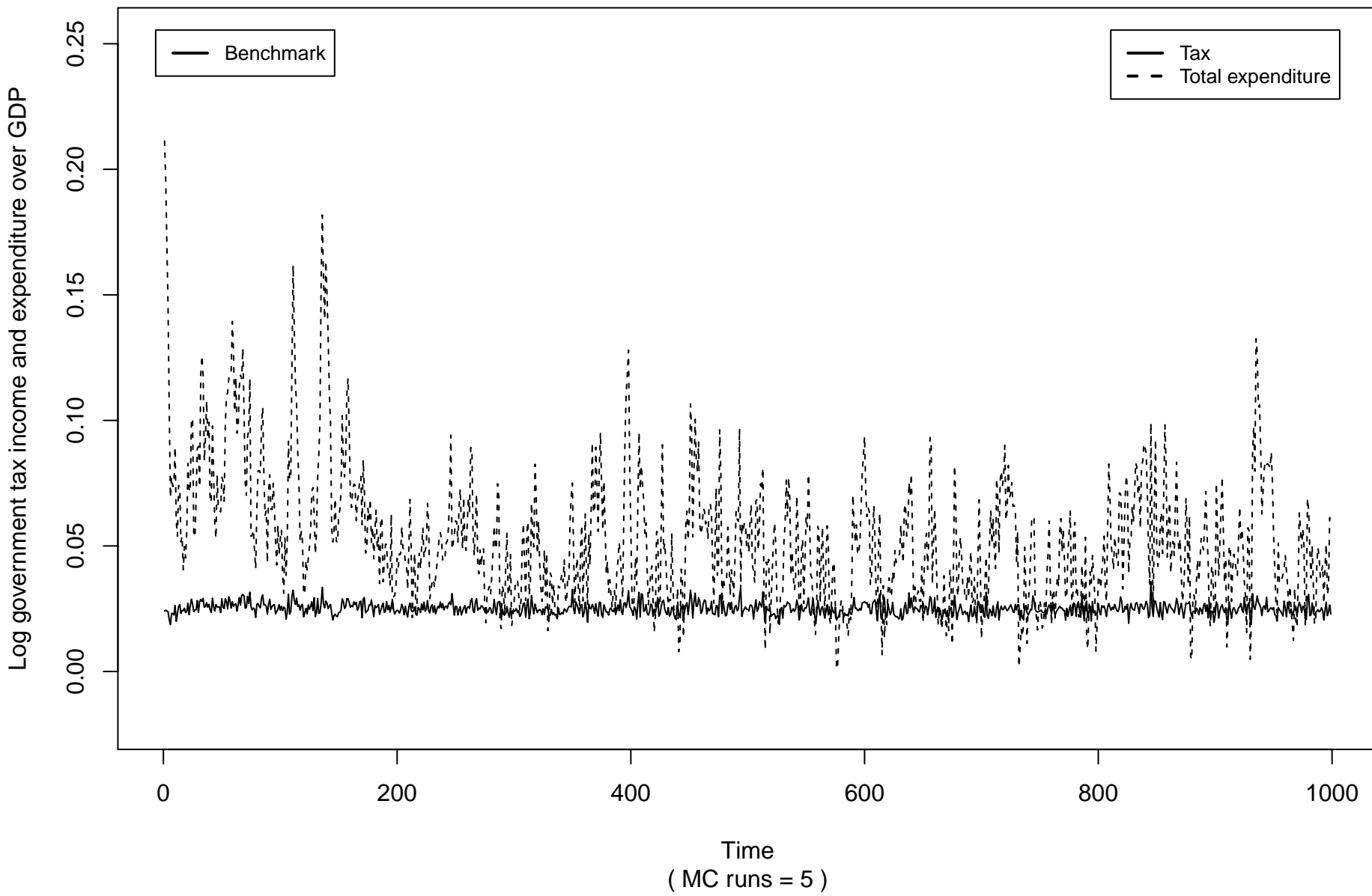
GDP (all experiments)



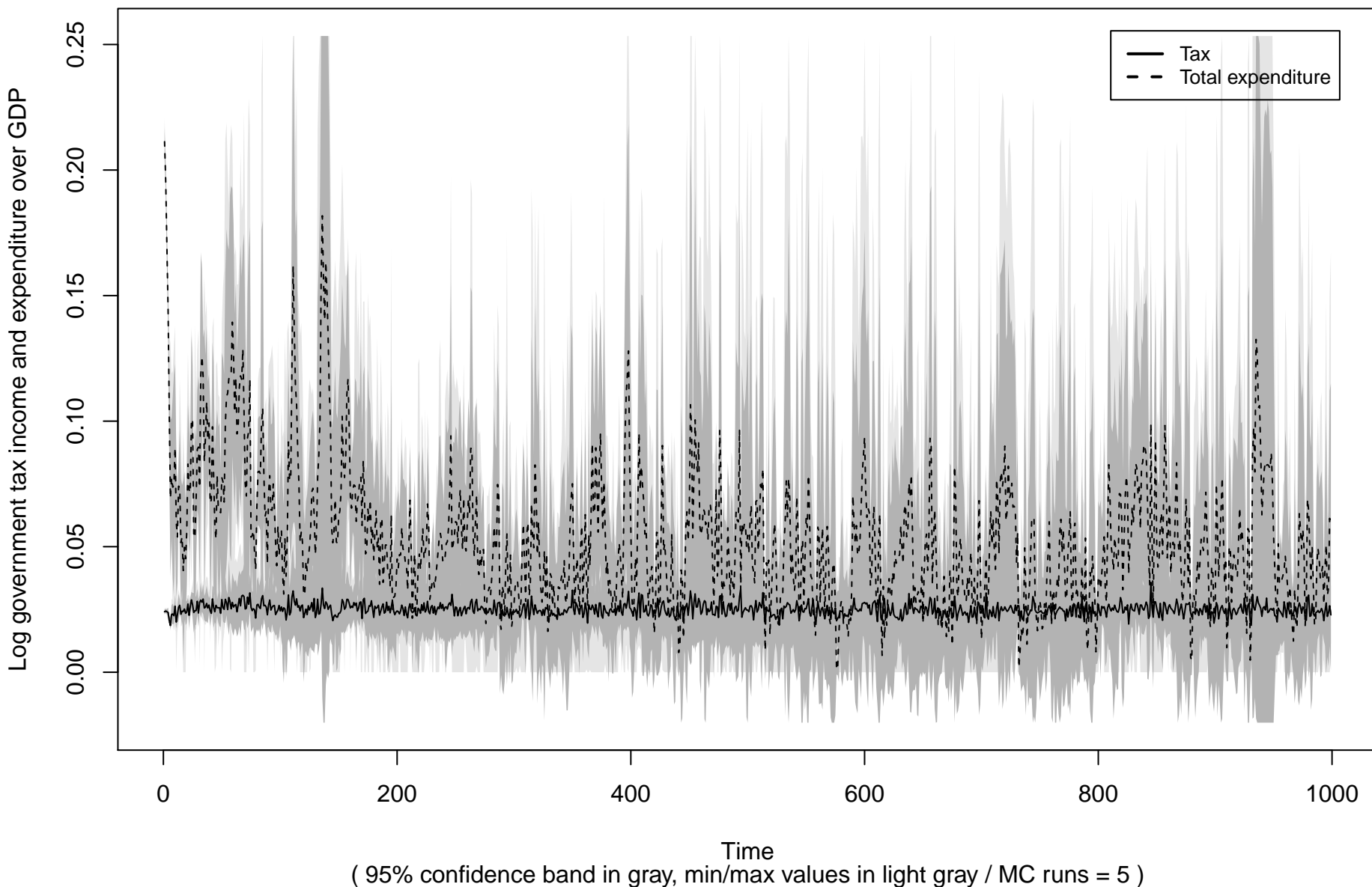
GDP (Benchmark)



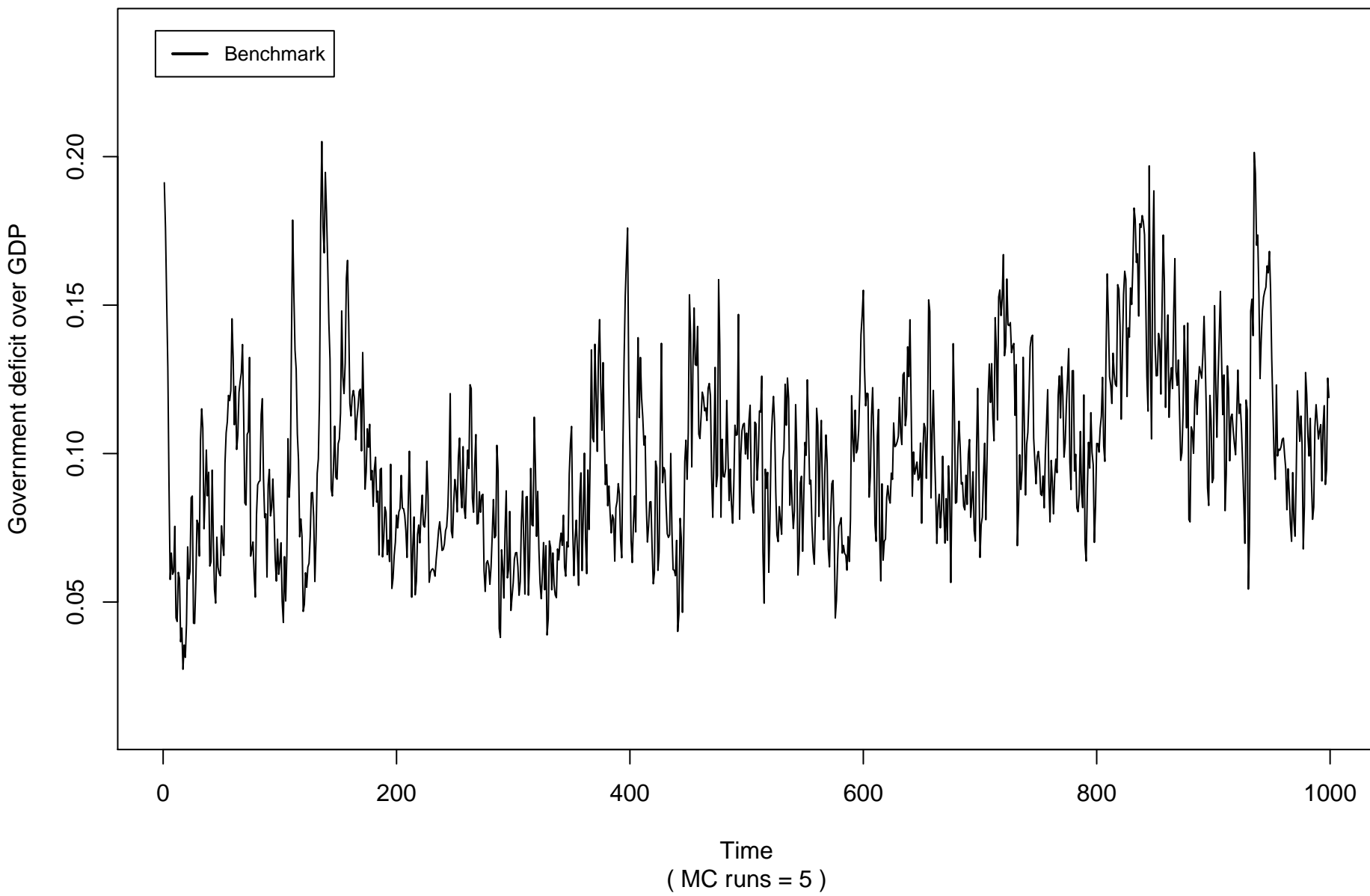
Government income and expenditure on GDP (all experiments)



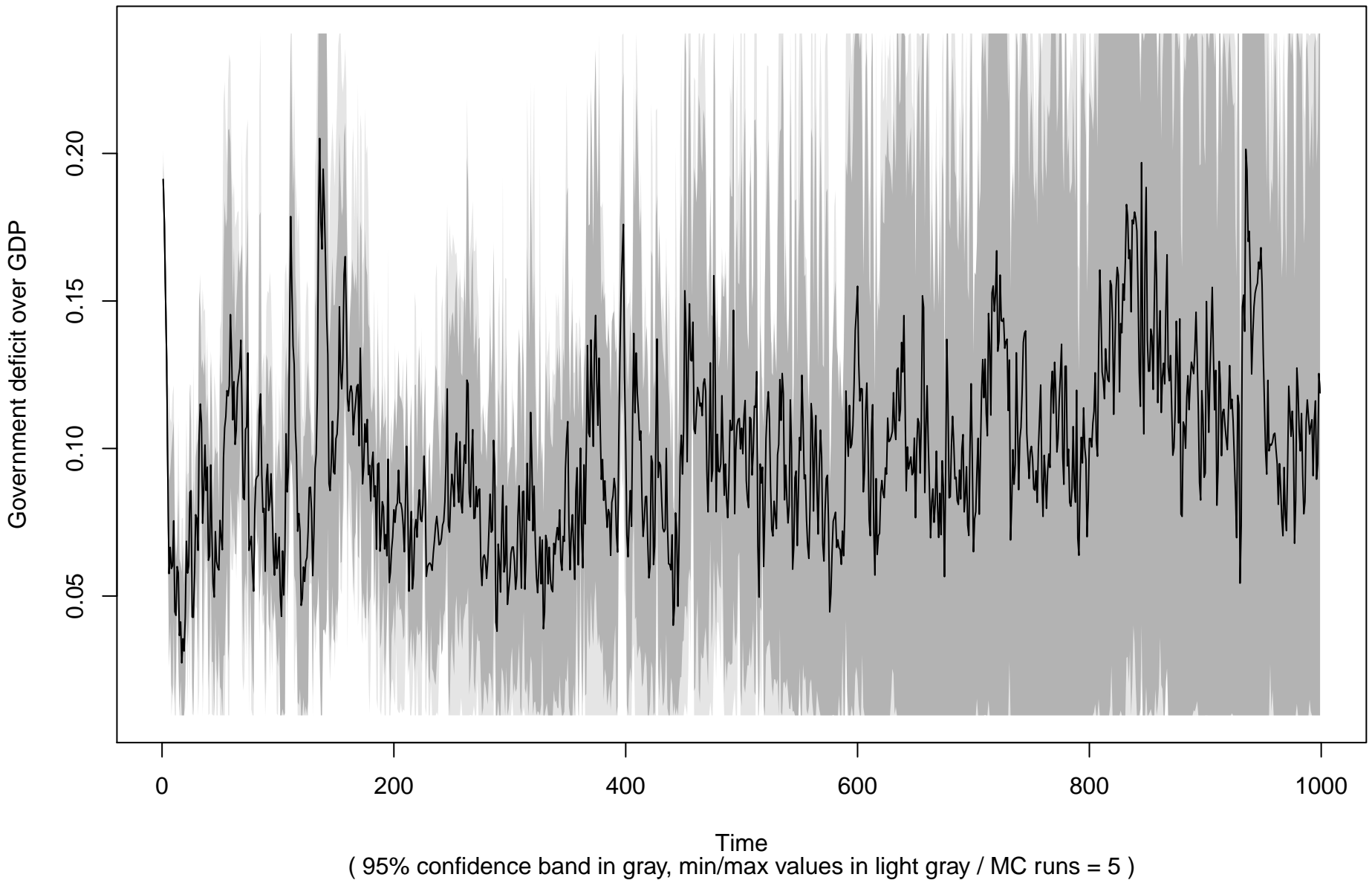
Government income and expenditure on GDP (Benchmark)



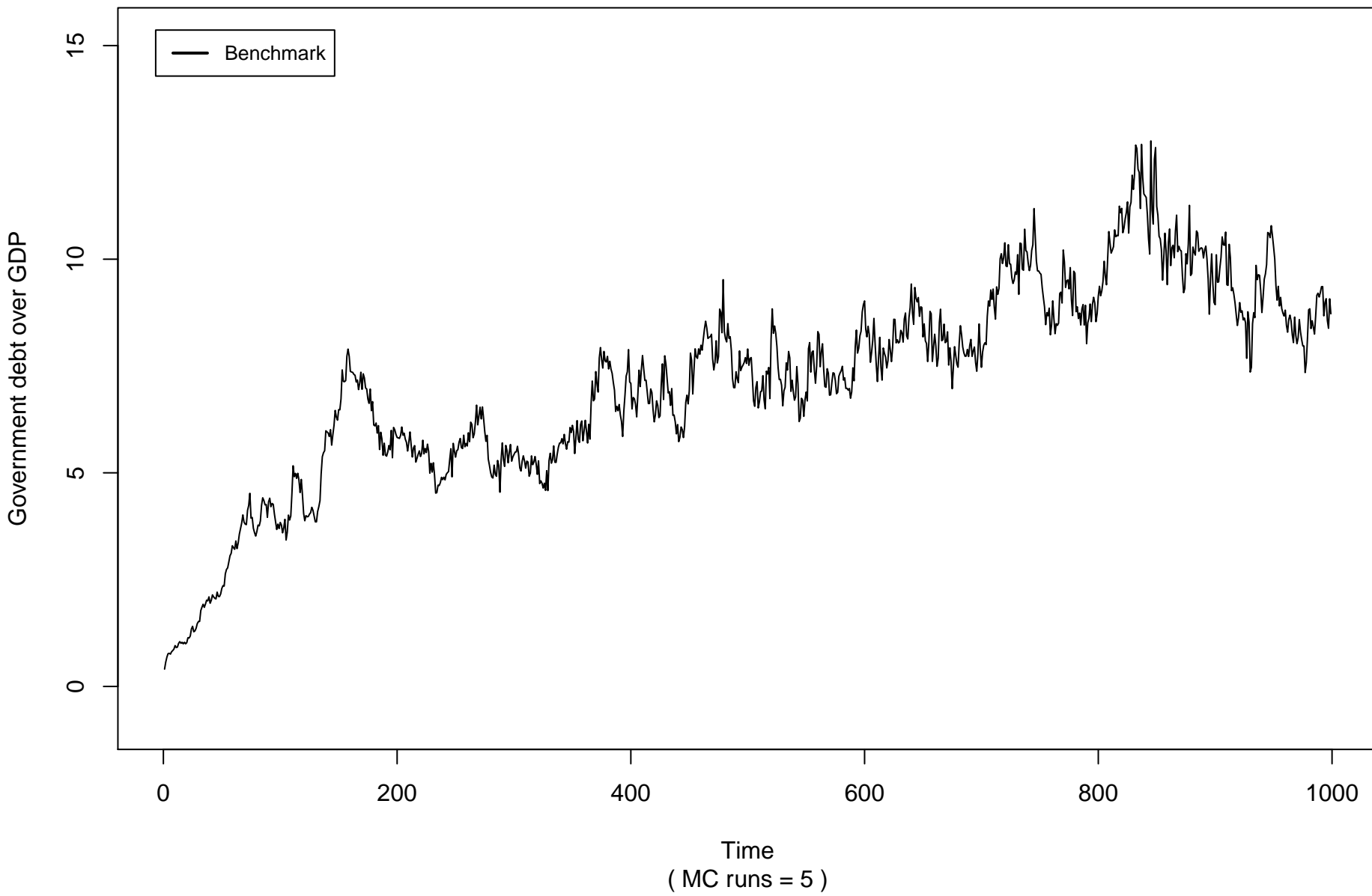
Government deficit on GDP (all experiments)



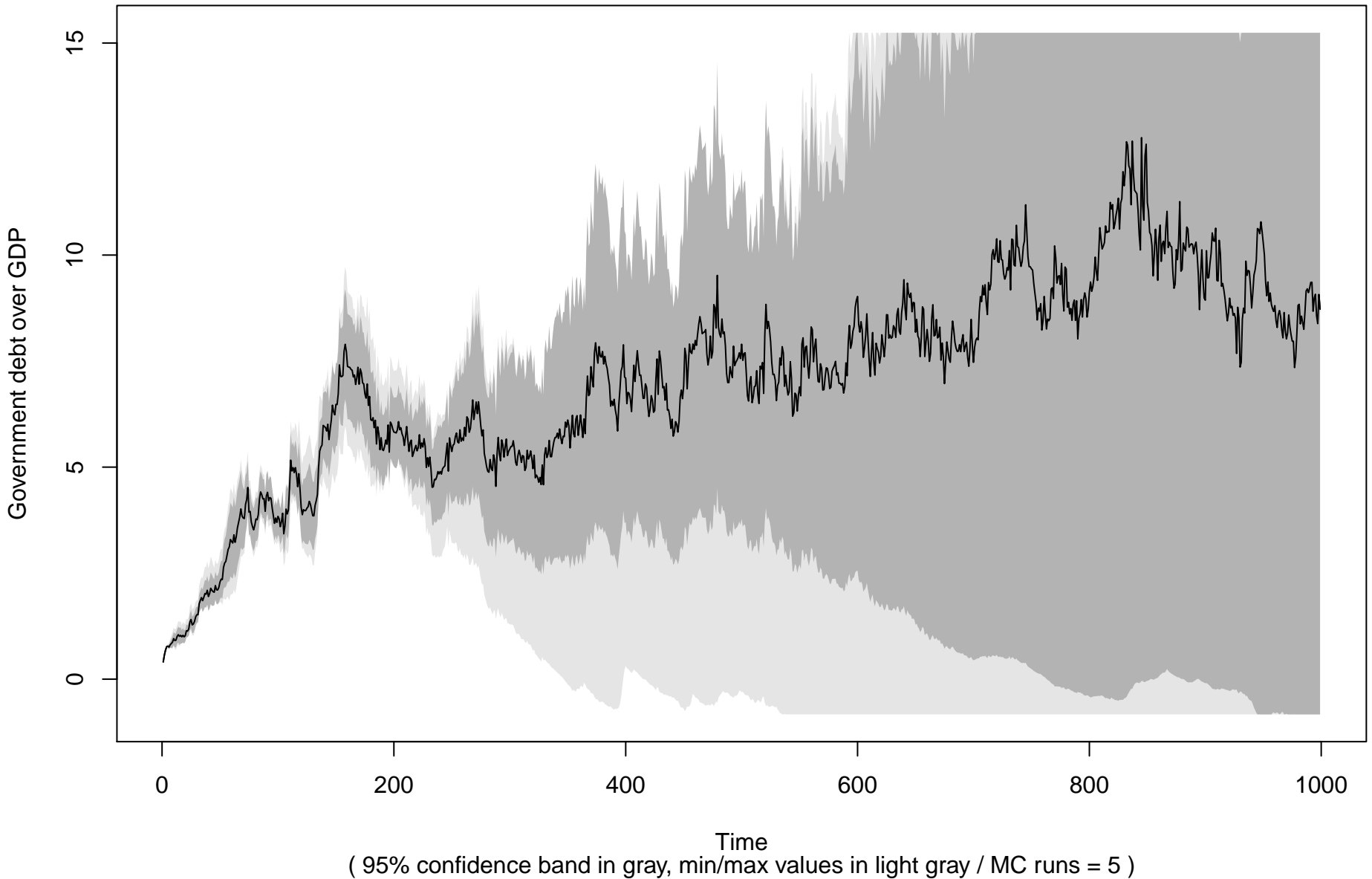
Government deficit on GDP (Benchmark)



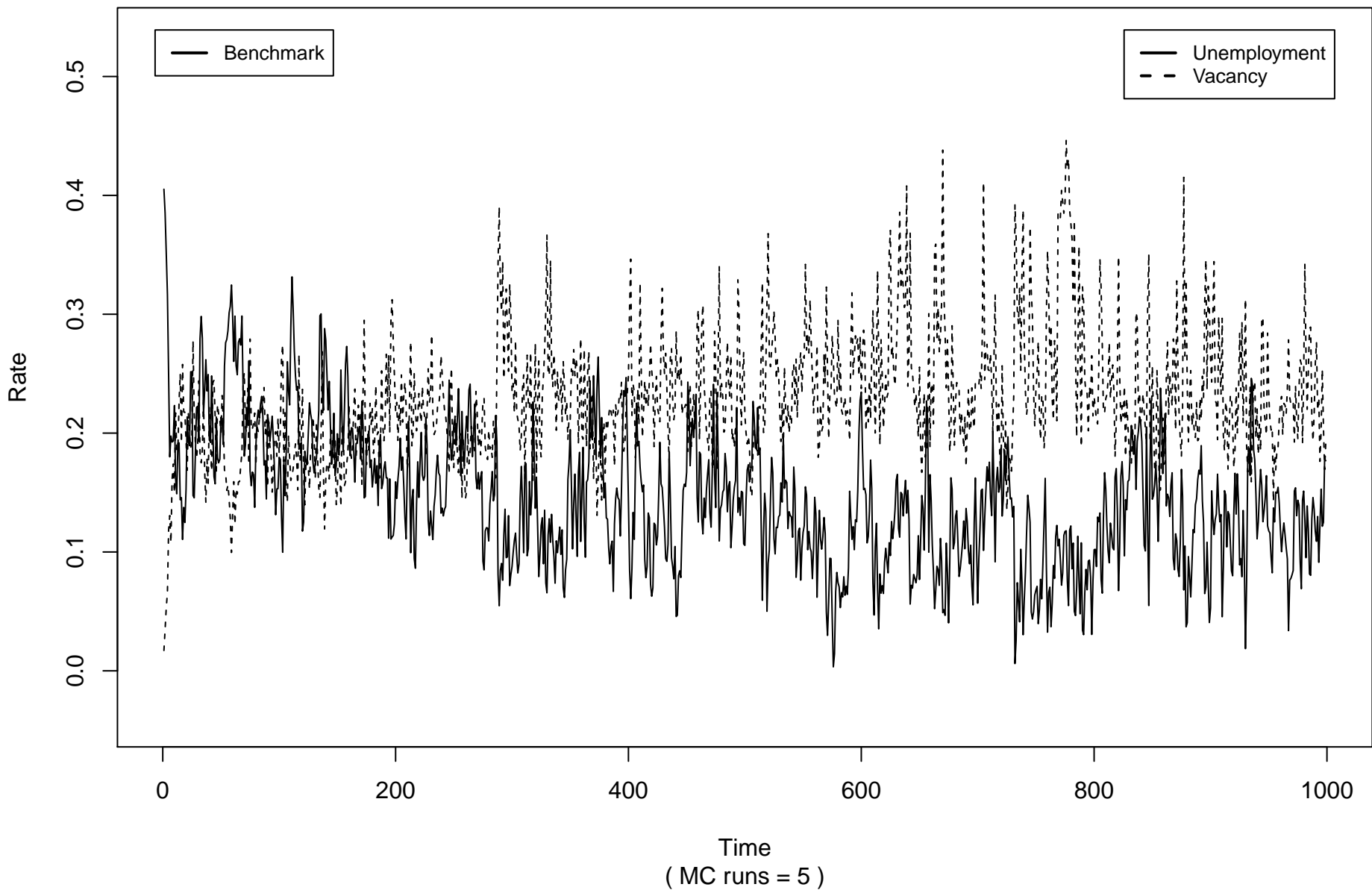
Government debt on GDP (all experiments)



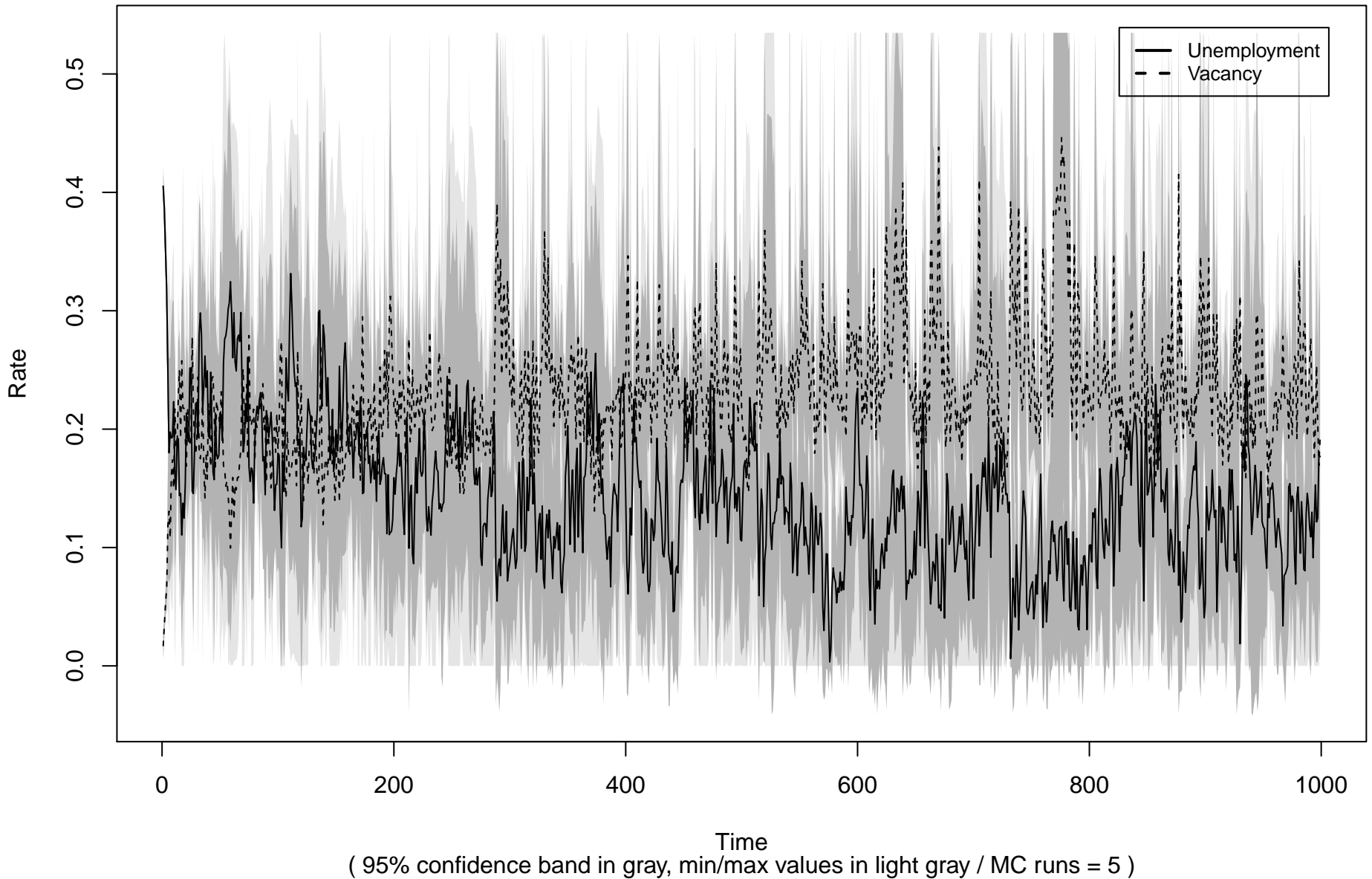
Government debt on GDP (Benchmark)



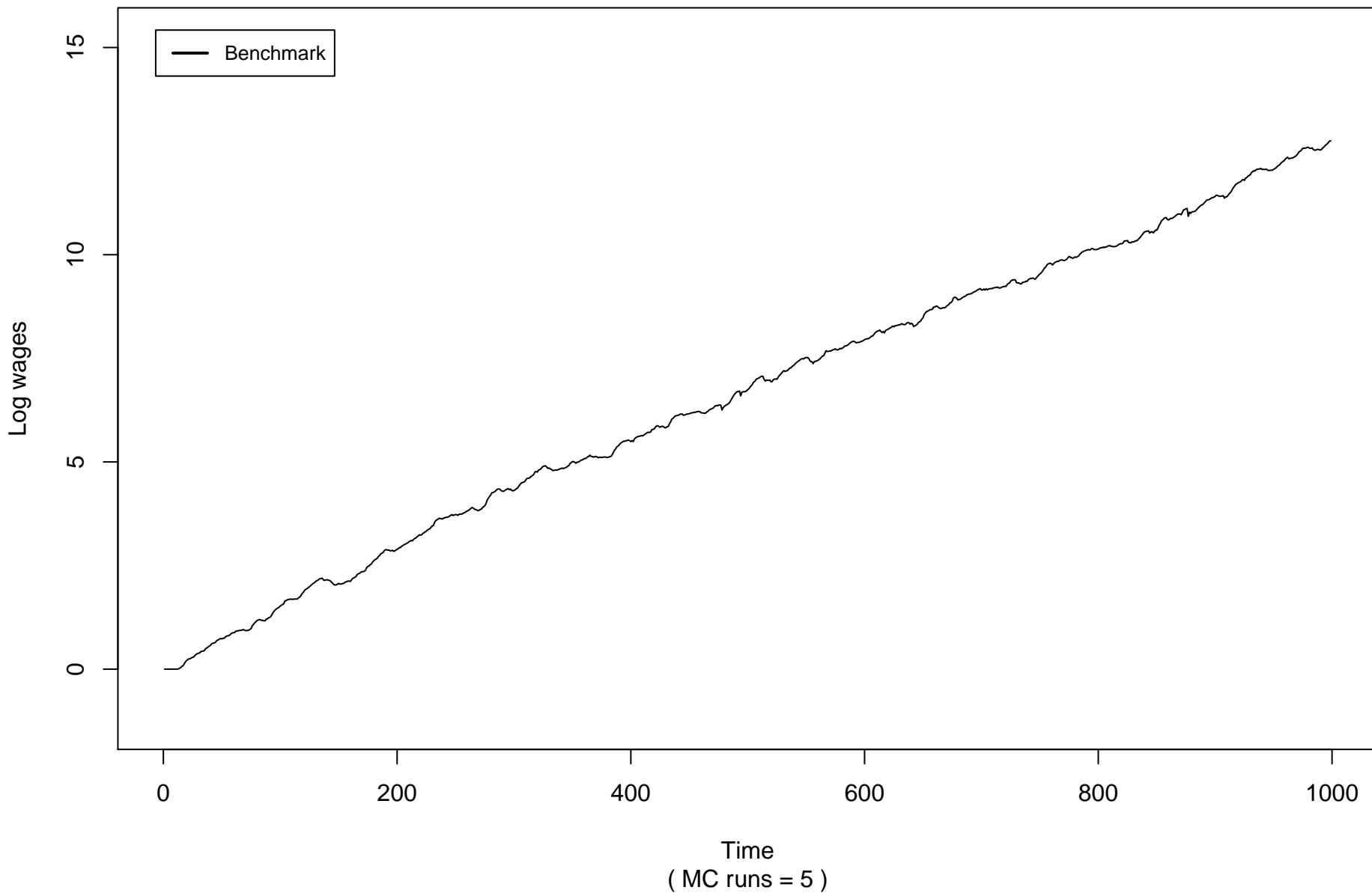
Unemployment and vacancy rates (all experiments)



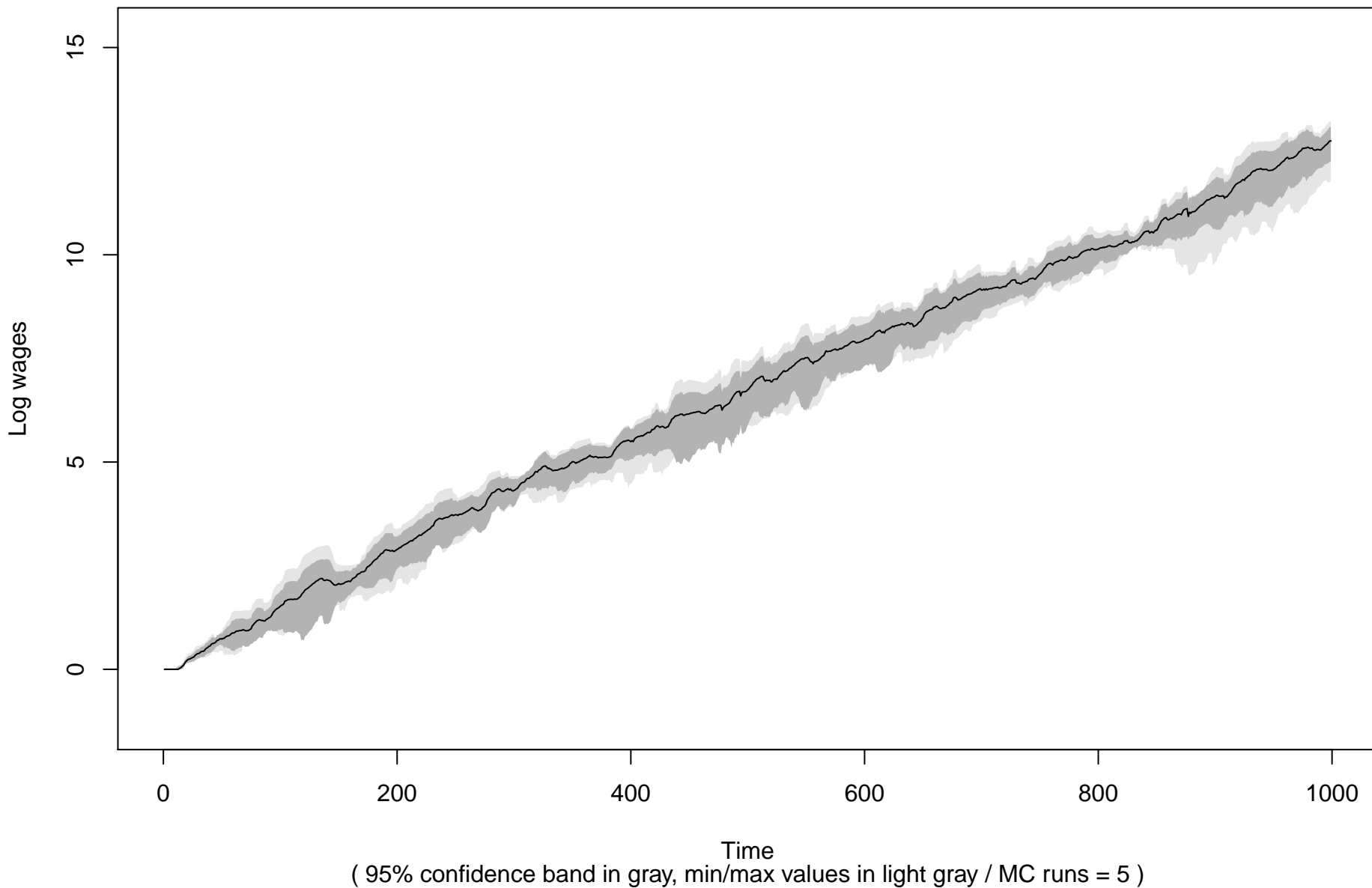
Unemployment and vacancy rates (Benchmark)



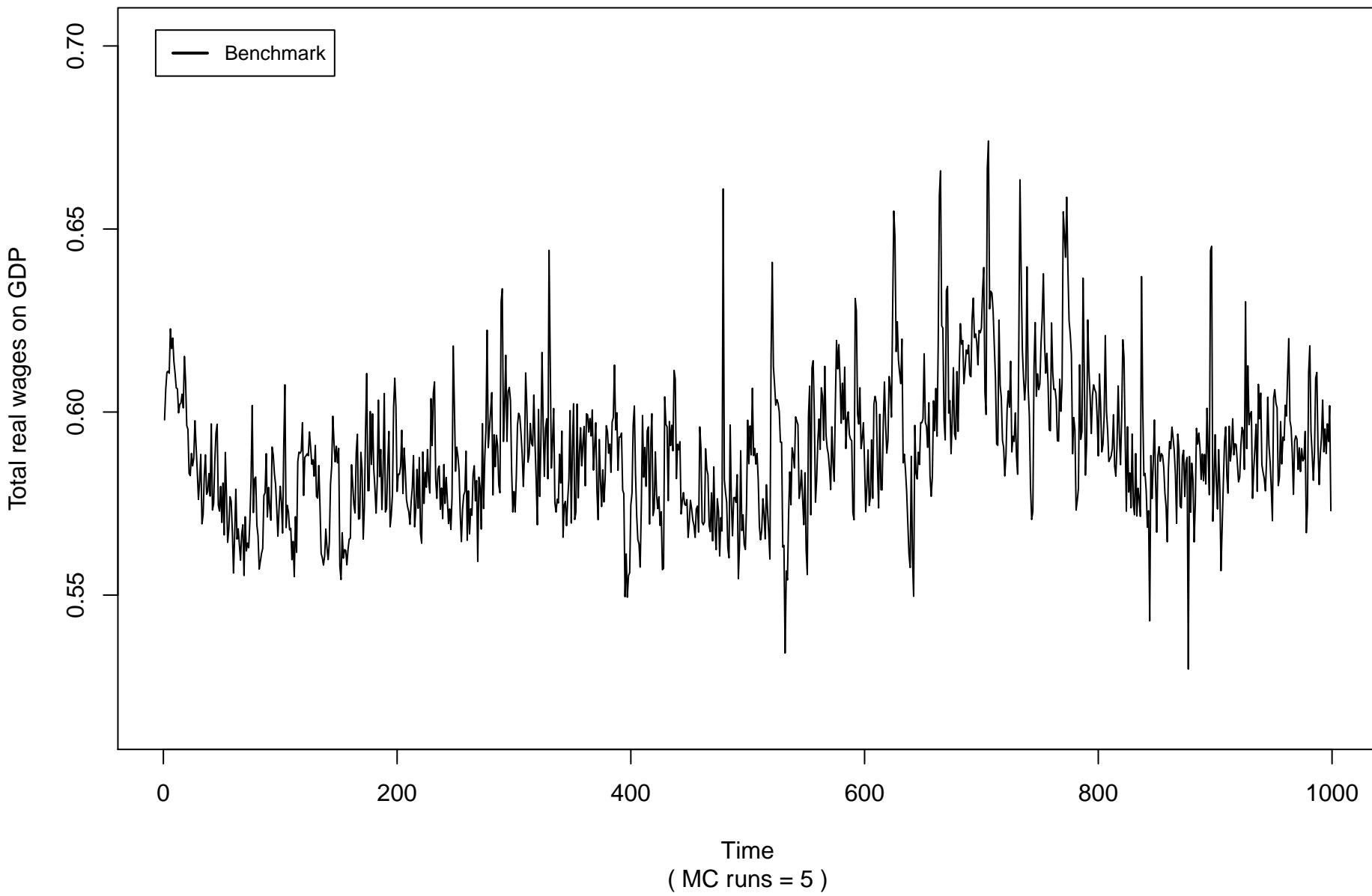
Real wages average (all experiments)



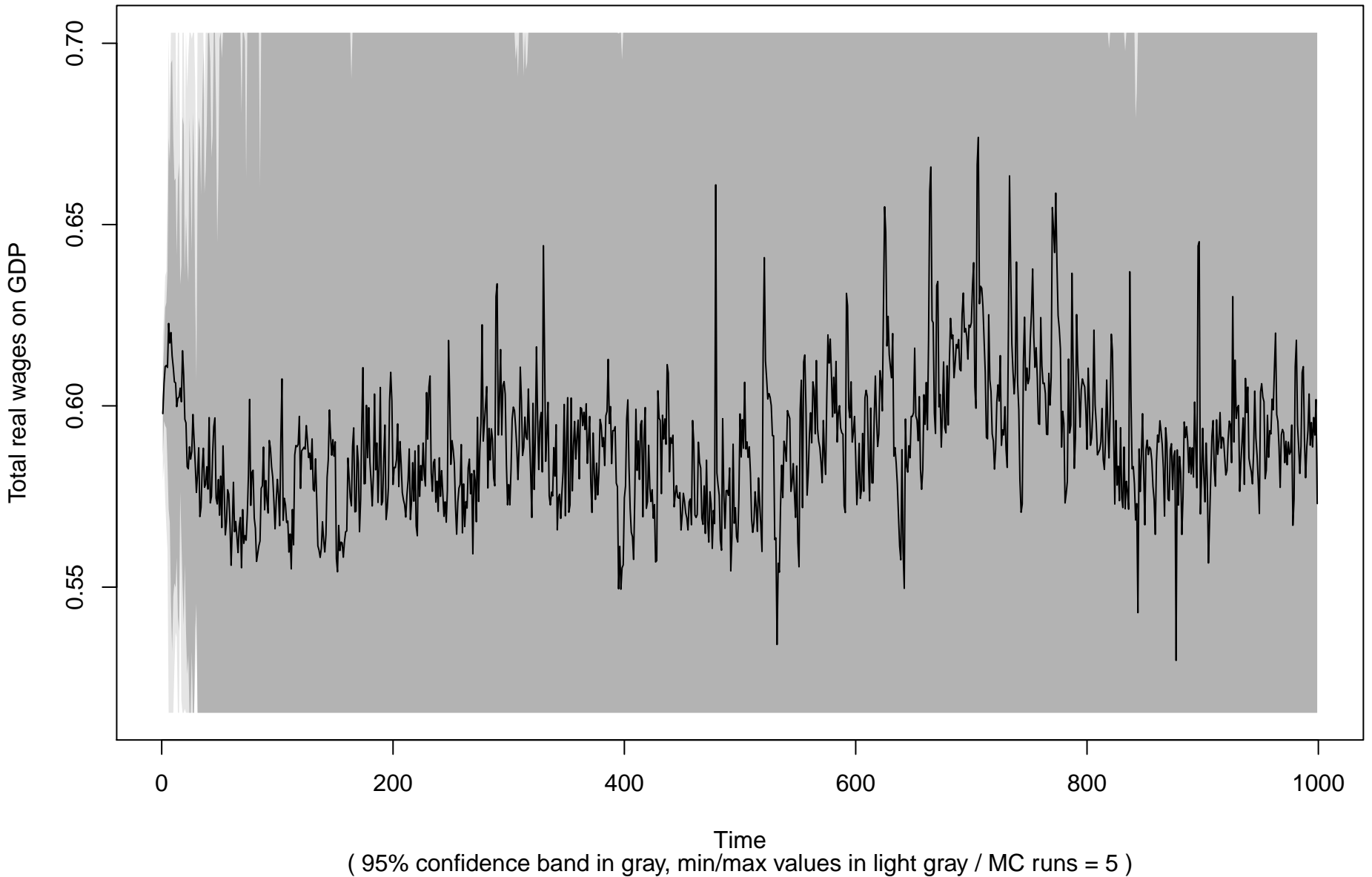
Real wages average (Benchmark)



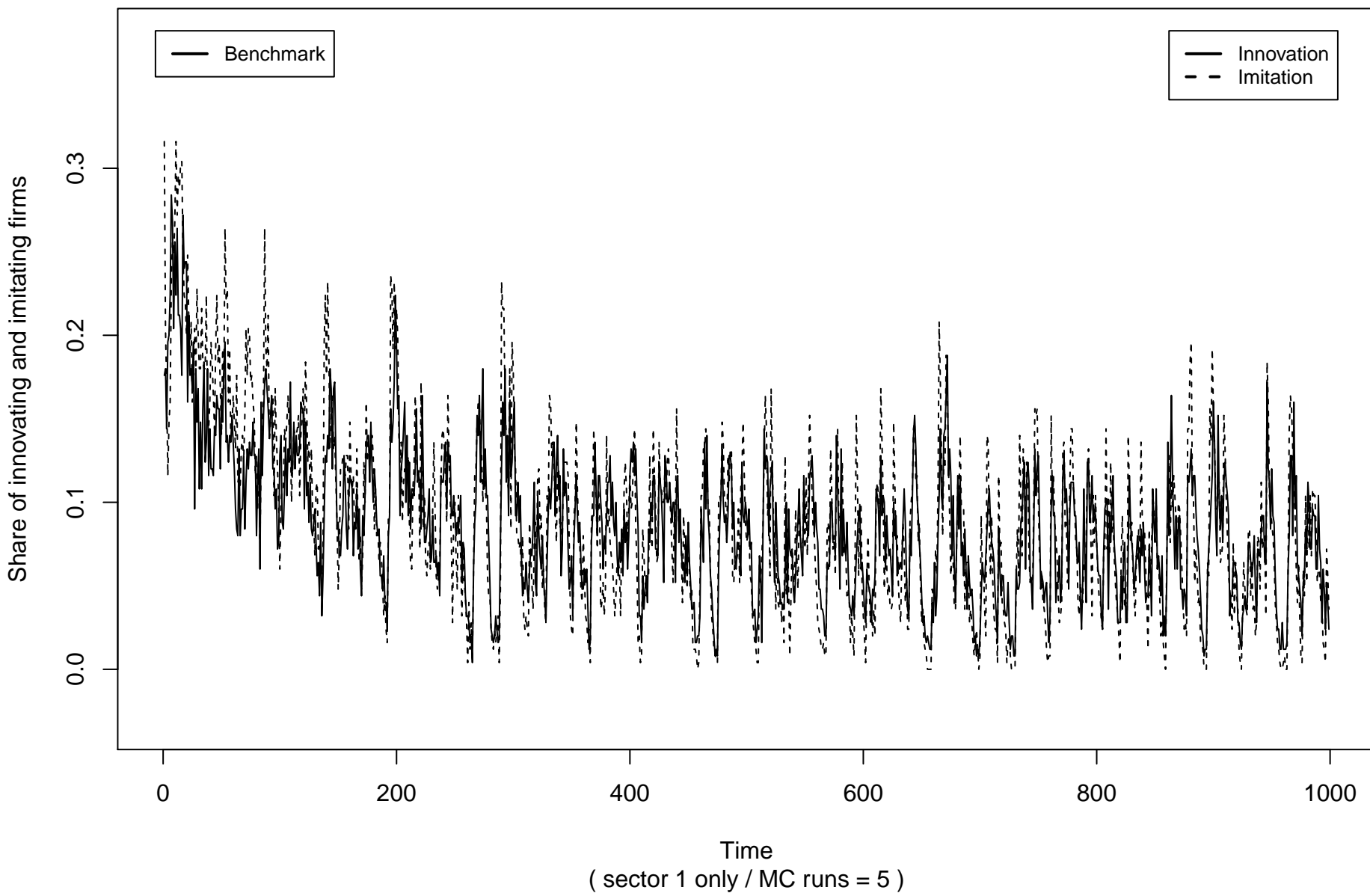
Wage share (all experiments)



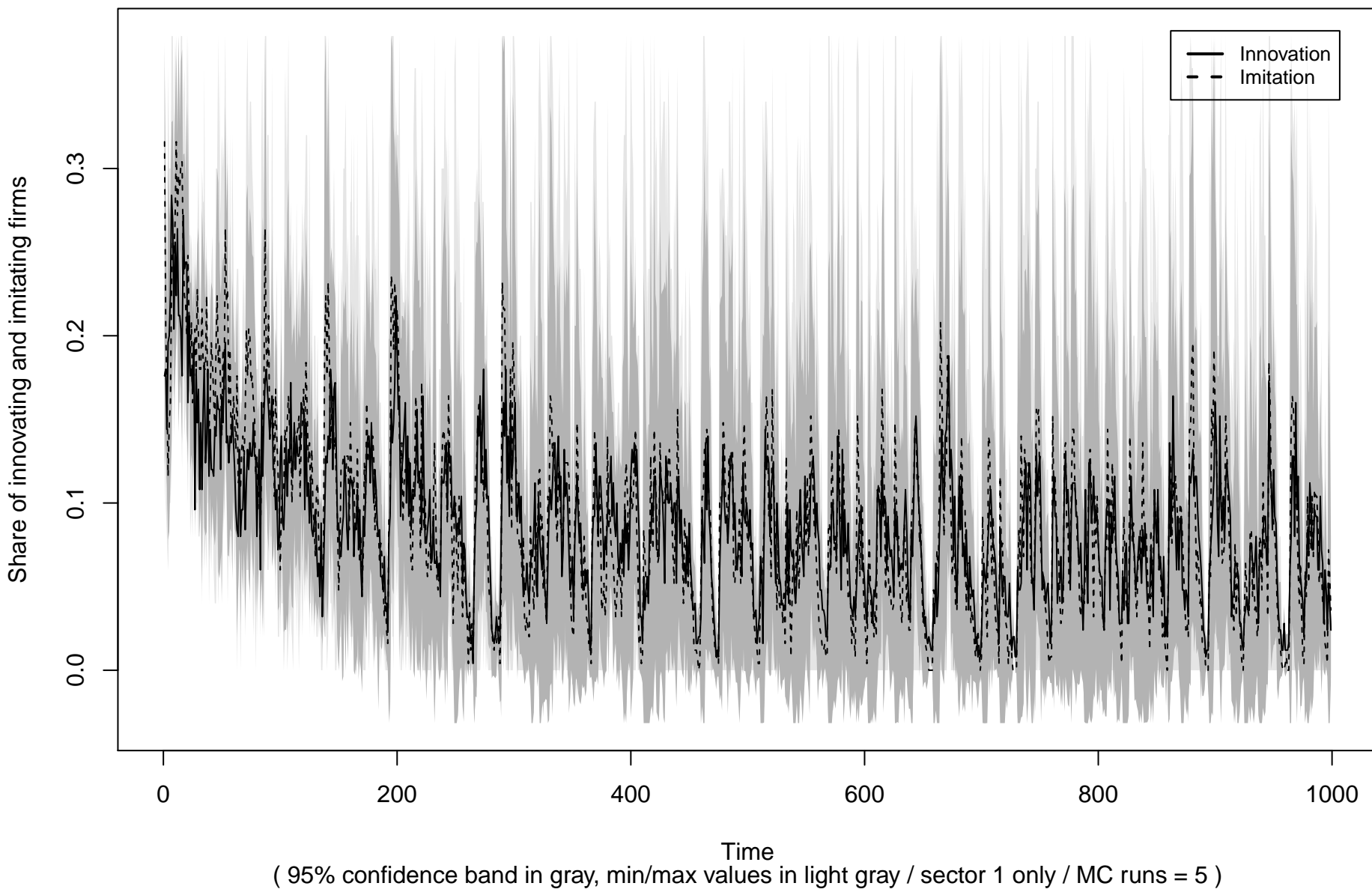
Wage share (Benchmark)



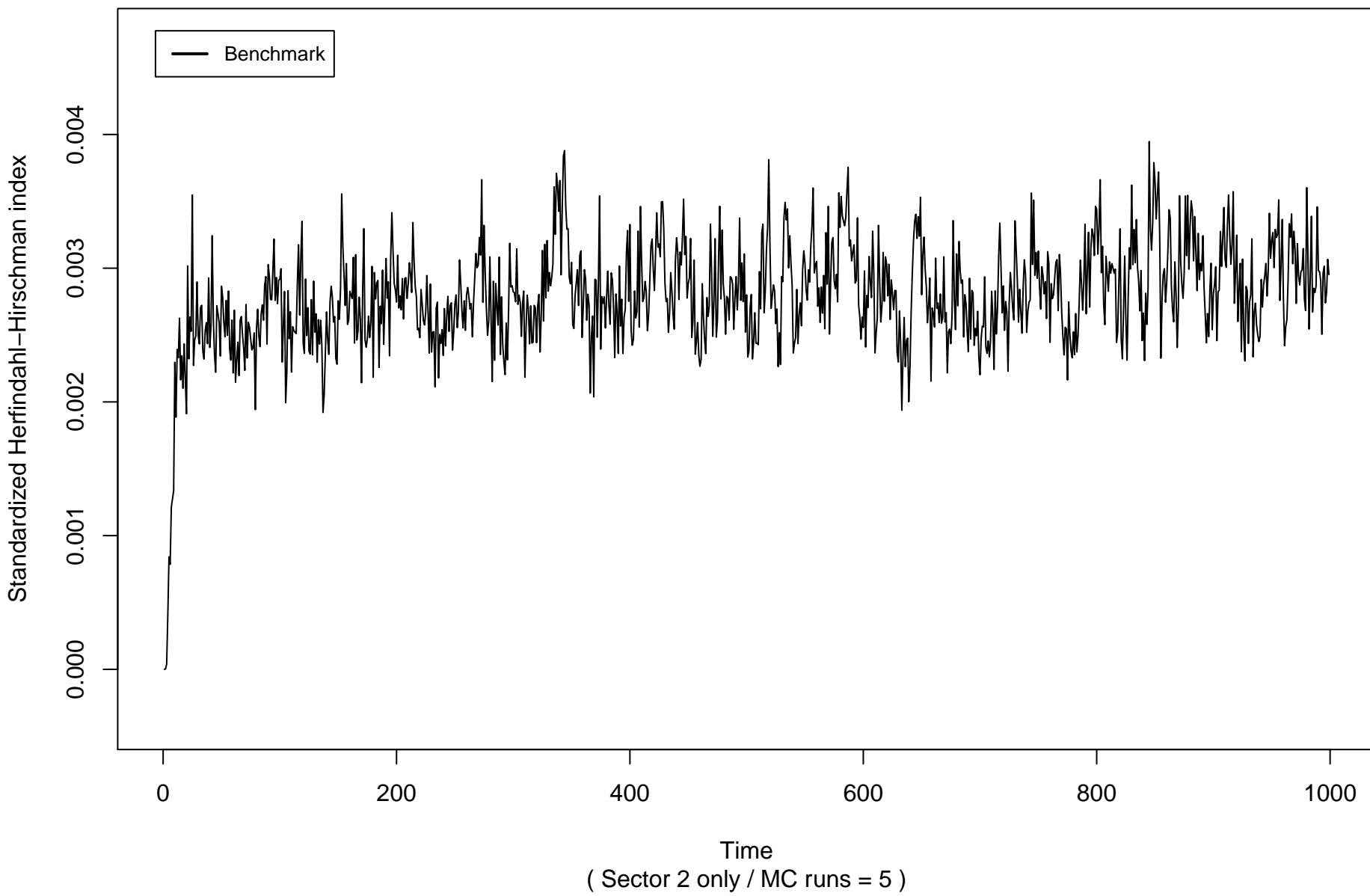
Innovation and imitation (all experiments)



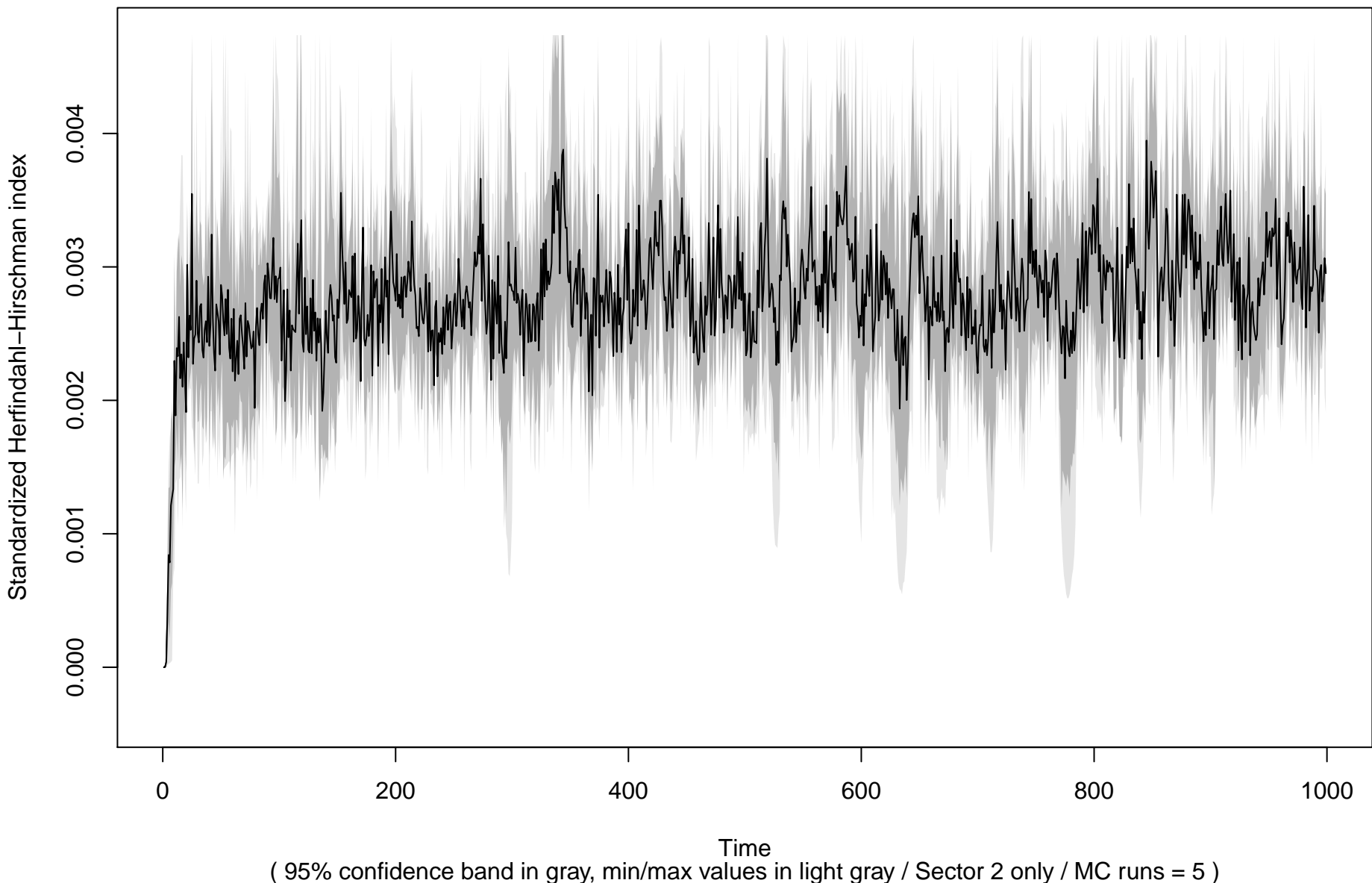
Innovation and imitation (Benchmark)



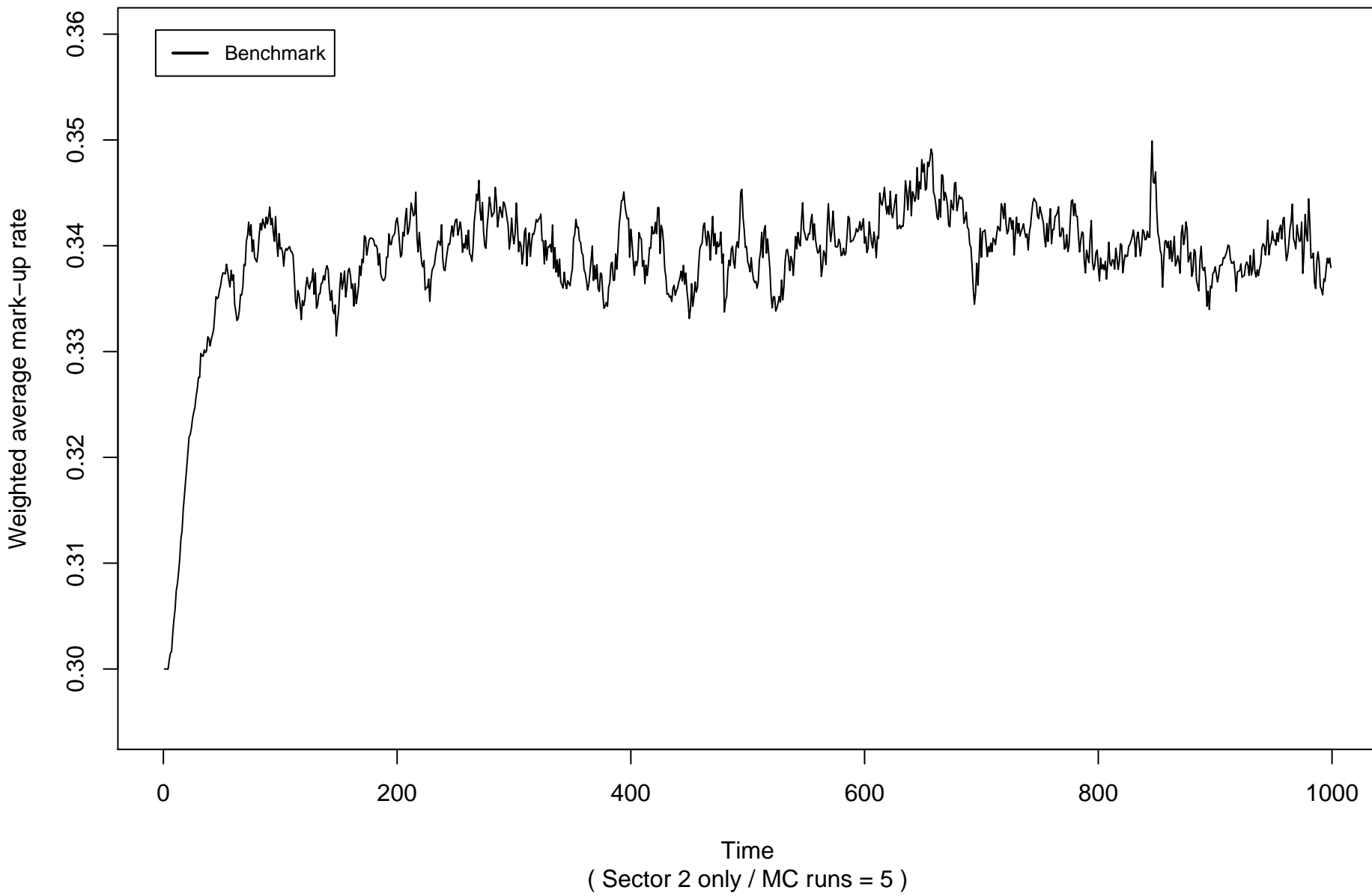
Market concentration (all experiments)



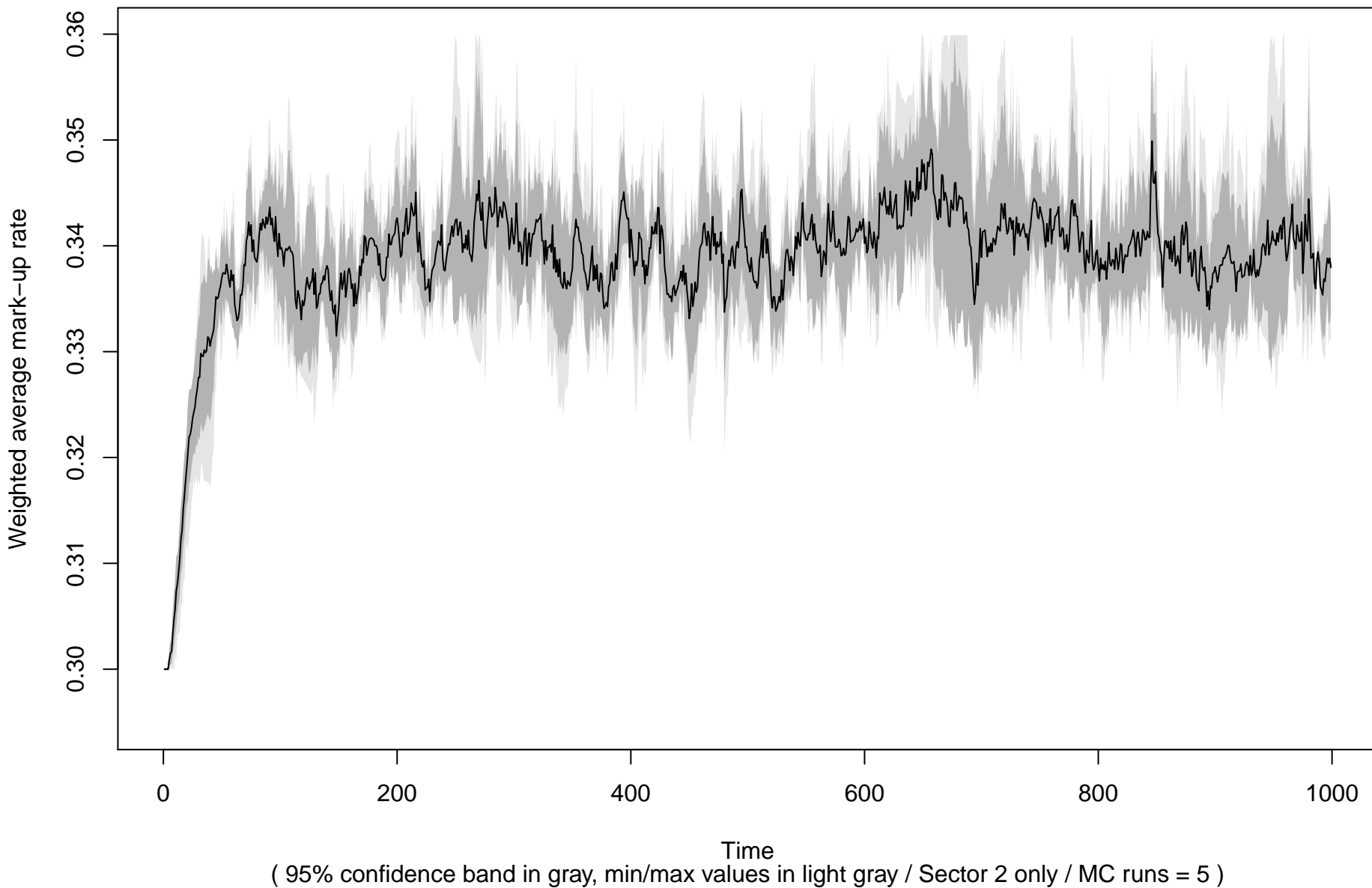
Market concentration (Benchmark)



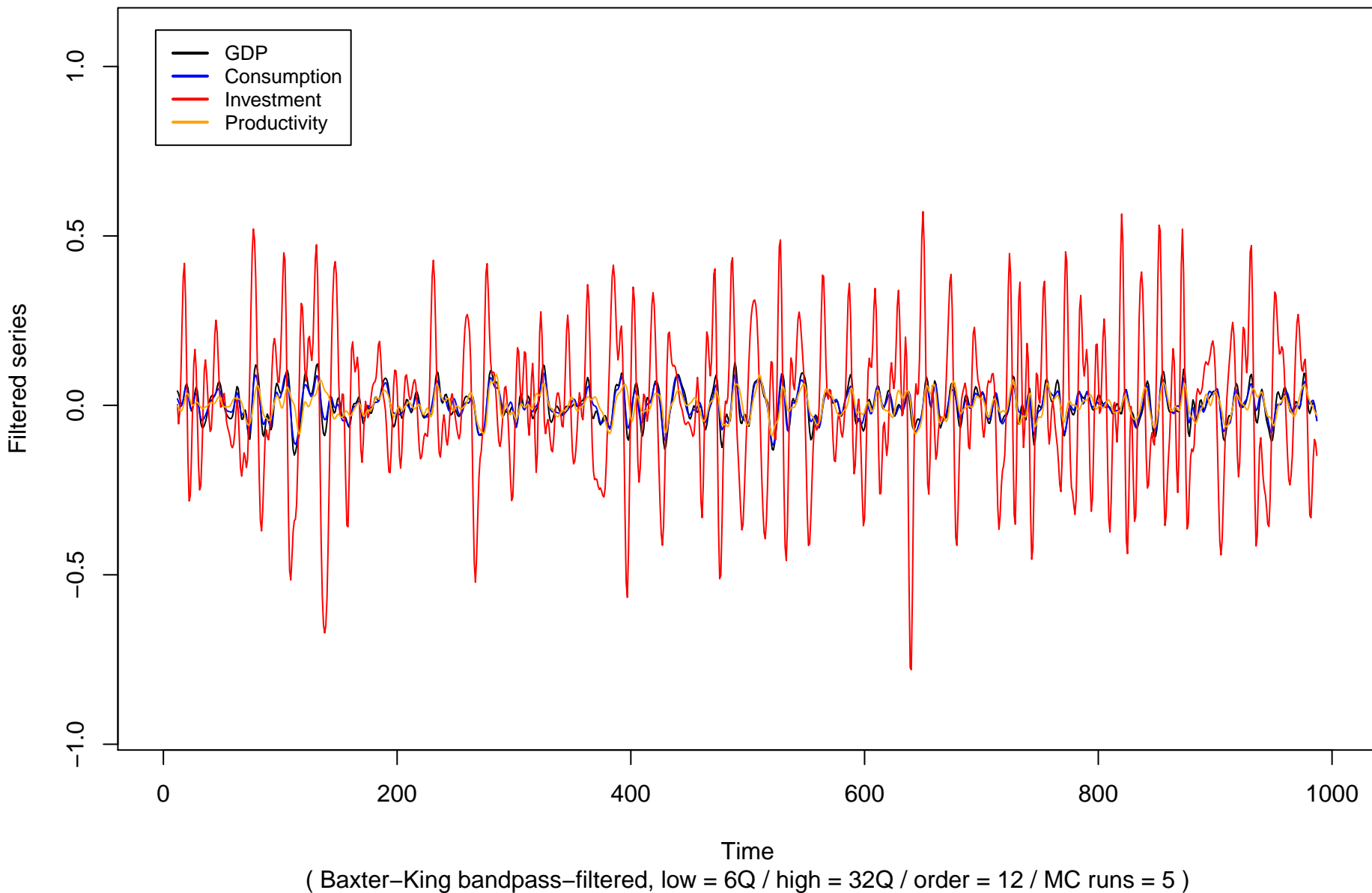
Mark-up average (all experiments)



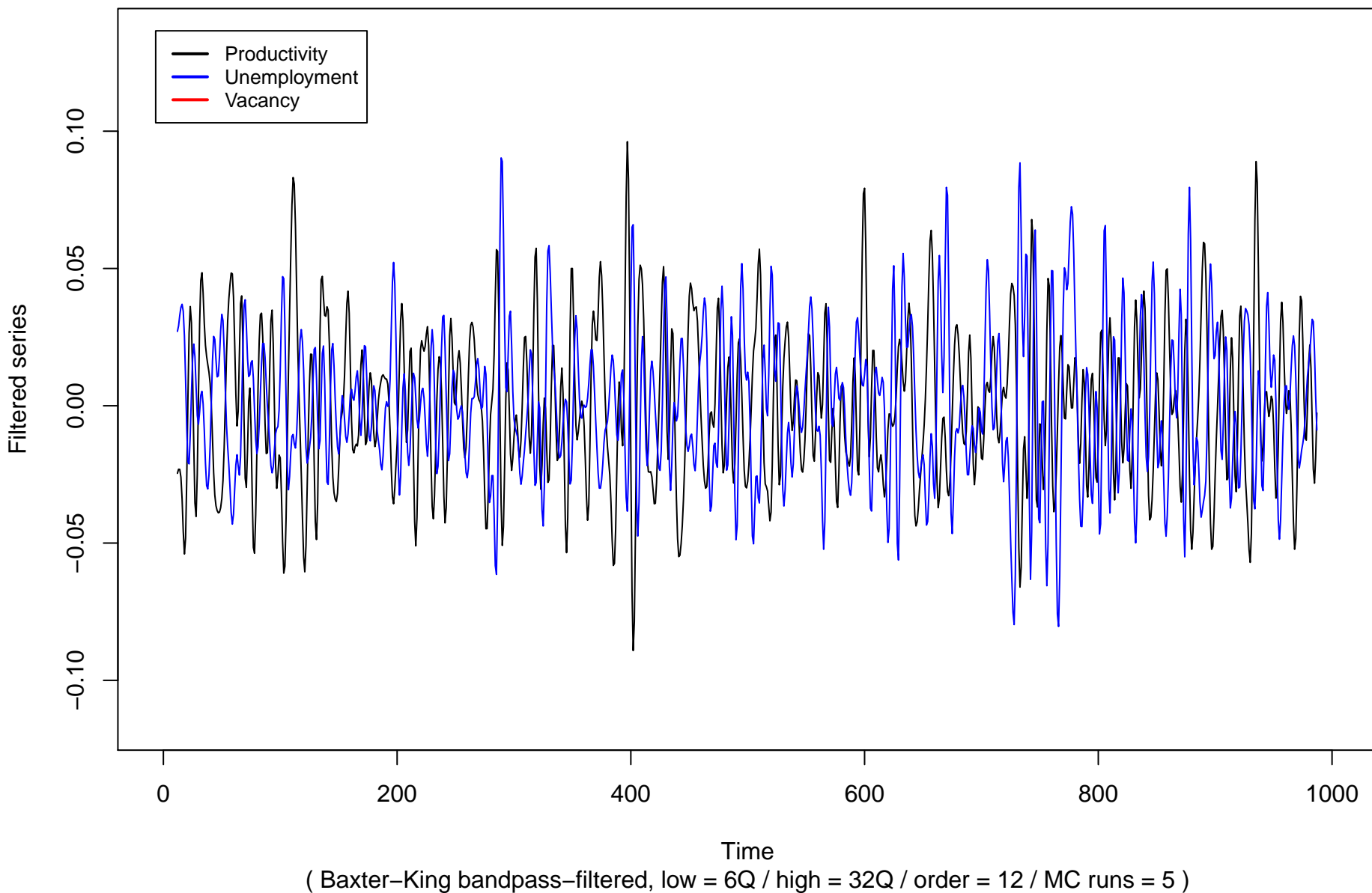
Mark-up average (Benchmark)



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	0.01321	0.01307	0.01369	0.01295	0.01265
(s.e.)	0.0003065	0.0002803	0.0007417	0.0002438	0.0002458
ADF test (logs)	-3.312	-3.096	-10.21	-3.002	-3.041
(s.e.)	0.3917	0.389	0.4542	0.4491	0.3874
(p-val.)	0.1562	0.1925	0.01	0.2357	0.2142
(s.e.)	0.125	0.1369	0	0.1547	0.1294
ADF test (bpf)	-11.35	-10.71	-14.53	-10.61	-10.61
(s.e.)	0.3278	0.1996	0.4581	0.2322	0.2169
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.09421	0.07467	1.668	0.06169	0.0725
(s.e.)	0.002852	0.002589	0.06341	0.001713	0.003948
relative s.d. (GDP)	1	0.7925	17.71	0.6548	0.7695

(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)	0.002247	0.285	0.6185	0.8929	1	0.8929	0.6185	0.285	0.002247
(s.e.)	0.01735	0.01714	0.01102	0.003476	0	0.003476	0.01102	0.01714	0.01735
(p-val.)	0.9819	0.0001006	4.6e-07	9.181e-10	NA	9.181e-10	4.6e-07	0.0001006	0.9819
Consumption	0.1013	0.3366	0.608	0.838	0.9409	0.8689	0.6437	0.3427	0.05798
(s.e.)	0.01137	0.008395	0.007616	0.006018	0.004926	0.004458	0.00951	0.01665	0.0205
(p-val.)	0.01297	2.605e-06	1.134e-07	1.085e-08	2.959e-09	2.795e-09	2.139e-07	3.626e-05	0.5727
Investment	-0.3347	-0.3922	-0.3547	-0.1983	0.04203	0.2832	0.4365	0.4574	0.3674
(s.e.)	0.02235	0.0263	0.02893	0.03393	0.03885	0.03897	0.03196	0.01918	0.01273
(p-val.)	0.0001296	0.0001158	0.0002687	0.00795	0.1484	0.002375	0.0001518	1.635e-05	8.951e-06
Net investment	-0.2511	-0.2934	-0.2529	-0.1139	0.08769	0.2778	0.3843	0.3776	0.2843
(s.e.)	0.02406	0.02688	0.03564	0.04612	0.05234	0.05091	0.04157	0.02632	0.01652
(p-val.)	0.0007082	0.0005003	0.00293	0.1618	0.1179	0.006641	0.0007456	0.0001386	8.809e-05
Change in inventories	-0.2099	-0.142	0.003557	0.158	0.2428	0.2196	0.1179	0.005615	-0.05584
(s.e.)	0.02159	0.01838	0.01208	0.01867	0.02277	0.01704	0.0111	0.01394	0.01244
(p-val.)	0.00119	0.006054	0.9983	0.003387	0.0006815	0.0003795	0.003648	0.9978	0.6761
Unemployment rate	0.2896	0.2645	0.1351	-0.06856	-0.2719	-0.3941	-0.395	-0.2931	-0.1497
(s.e.)	0.01999	0.03728	0.04972	0.05529	0.0534	0.0444	0.033	0.02926	0.03288
(p-val.)	0.0001697	0.002788	0.05233	0.282	0.008539	0.0008536	0.0002713	0.0006948	0.02799
Productivity	0.2538	0.4457	0.6285	0.7465	0.7521	0.6325	0.4217	0.1826	-0.02401
(s.e.)	0.0198	0.01862	0.01286	0.0117	0.01606	0.02044	0.0248	0.02627	0.02308
(p-val.)	0.0003176	1.636e-05	7.93e-07	2.559e-07	8.758e-07	4.901e-06	6.568e-05	0.005052	0.9162
Mark-up (sector 2)	0.2553	0.1873	0.08462	-0.03003	-0.1276	-0.1859	-0.1997	-0.1793	-0.1424
(s.e.)	0.03515	0.01736	0.01738	0.033	0.04442	0.05	0.05159	0.04993	0.04464
(p-val.)	0.002665	0.0009778	0.1313	0.1893	0.02625	0.0342	0.02793	0.03924	0.07288
Total firm debt	0.2336	0.1515	0.05721	-0.03478	-0.114	-0.1766	-0.2223	-0.2521	-0.2654
(s.e.)	0.02941	0.03626	0.04283	0.04451	0.04129	0.03764	0.03687	0.0356	0.02986
(p-val.)	0.002146	0.03456	0.2994	0.02898	0.138	0.01913	0.006086	0.002959	0.001214
Liquidity-to-sales ratio	0.02534	-0.1677	-0.3922	-0.5952	-0.7157	-0.7132	-0.594	-0.4025	-0.199
(s.e.)	0.03368	0.02341	0.02036	0.02038	0.01982	0.02042	0.02105	0.02544	0.03529
(p-val.)	0.5948	0.005349	4.231e-05	6.339e-06	2.521e-06	2.881e-06	7.276e-06	9.005e-05	0.008894
Bankruptcy rate	0.3319	0.3534	0.2987	0.1847	0.05675	-0.0385	-0.0824	-0.08887	-0.08713
(s.e.)	0.03149	0.04755	0.06531	0.07325	0.07279	0.06883	0.06128	0.04785	0.03602
(p-val.)	0.0005086	0.001796	0.01114	0.06076	0.04008	0.09549	0.01565	0.08545	0.1922

(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)	0.002247	0.285	0.6185	0.8929	1	0.8929	0.6185	0.285	0.002247
(s.e.)	0.01735	0.01714	0.01102	0.003476	0	0.003476	0.01102	0.01714	0.01735
(p-val.)	0.9819	0.0001006	4.6e-07	9.181e-10	NA	9.181e-10	4.6e-07	0.0001006	0.9819
Consumption	0.1013	0.3366	0.608	0.838	0.9409	0.8689	0.6437	0.3427	0.05798
(s.e.)	0.01137	0.008395	0.007616	0.006018	0.004926	0.004458	0.00951	0.01665	0.0205
(p-val.)	0.01297	2.605e-06	1.134e-07	1.085e-08	2.959e-09	2.795e-09	2.139e-07	3.626e-05	0.5727
Investment	-0.3347	-0.3922	-0.3547	-0.1983	0.04203	0.2832	0.4365	0.4574	0.3674
(s.e.)	0.02235	0.0263	0.02893	0.03393	0.03885	0.03897	0.03196	0.01918	0.01273
(p-val.)	0.0001296	0.0001158	0.0002687	0.00795	0.1484	0.002375	0.0001518	1.635e-05	8.951e-06
Productivity	0.2538	0.4457	0.6285	0.7465	0.7521	0.6325	0.4217	0.1826	-0.02401
(s.e.)	0.0198	0.01862	0.01286	0.0117	0.01606	0.02044	0.0248	0.02627	0.02308
(p-val.)	0.0003176	1.636e-05	7.93e-07	2.559e-07	8.758e-07	4.901e-06	6.568e-05	0.005052	0.9162
Entry	-0.09733	0.09151	0.2925	0.4515	0.5232	0.4941	0.3879	0.2511	0.1275
(s.e.)	0.03356	0.03376	0.03389	0.03185	0.02531	0.01709	0.01775	0.02333	0.02318
(p-val.)	0.08722	0.2155	0.001221	0.0001283	2.668e-05	7.259e-06	2.589e-05	0.0006292	0.0238
Wage	0.3205	0.5129	0.6686	0.7399	0.6993	0.5549	0.3495	0.138	-0.03611
(s.e.)	0.02968	0.02221	0.01749	0.01984	0.02416	0.02453	0.0202	0.01393	0.01153
(p-val.)	0.0004783	1.736e-05	2.062e-06	2.19e-06	6.136e-06	1.809e-05	7.072e-05	0.002735	0.9572
Unemployment rate	0.2896	0.2645	0.1351	-0.06856	-0.2719	-0.3941	-0.395	-0.2931	-0.1497
(s.e.)	0.01999	0.03728	0.04972	0.05529	0.0534	0.0444	0.033	0.02926	0.03288
(p-val.)	0.0001697	0.002788	0.05233	0.282	0.008539	0.0008536	0.0002713	0.0006948	0.02799
Vacancy rate	0.1679	-0.01336	-0.2071	-0.3328	-0.3401	-0.2409	-0.09948	0.008538	0.04148
(s.e.)	0.05978	0.06058	0.07392	0.09156	0.09937	0.08945	0.06297	0.0296	0.01924
(p-val.)	0.008998	0.334	0.02913	0.02083	0.01985	0.01654	0.03467	0.7248	0.8192

(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)

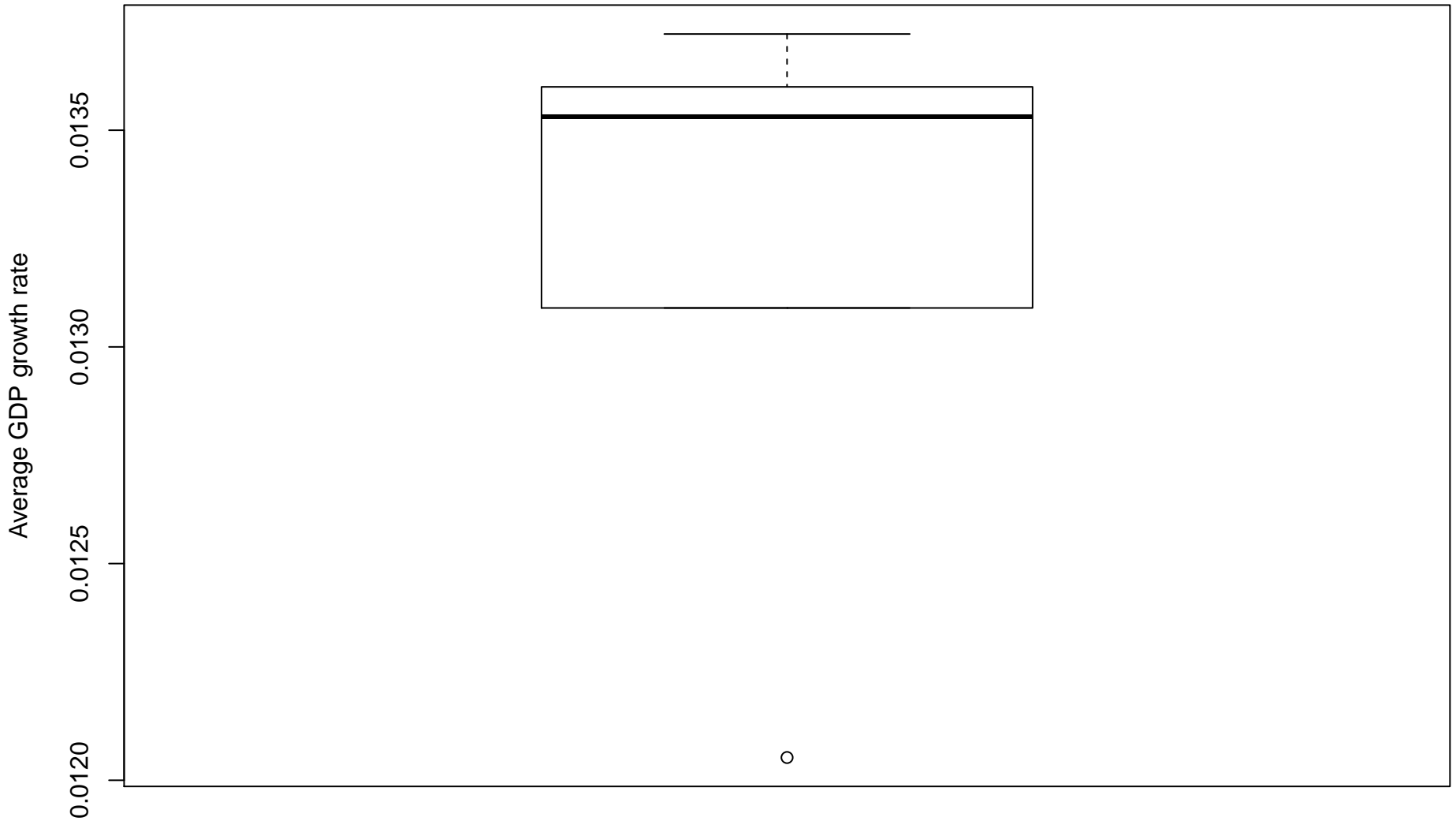
	avg.ADF	rej.ADF	avg.PP	rej.PP	avg.KPSS	rej.KPSS	avg.BDS	rej.BDS	avg.KS	rej.KS	AD	V
dGDP	0.01	1.00	0.01	1.00	0.10	0.00	0.17	0.40	0.29	0.60	0.00	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.19	0.60	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.19	0.60	0.00	C
V	0.01	1.00	0.01	1.00	0.04	0.80	0.00	1.00	0.02	0.90	0.00	C
U	0.01	1.00	0.01	1.00	0.03	0.80	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	0.15	0.70	0.00	C
HH2	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.05	0.80	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)

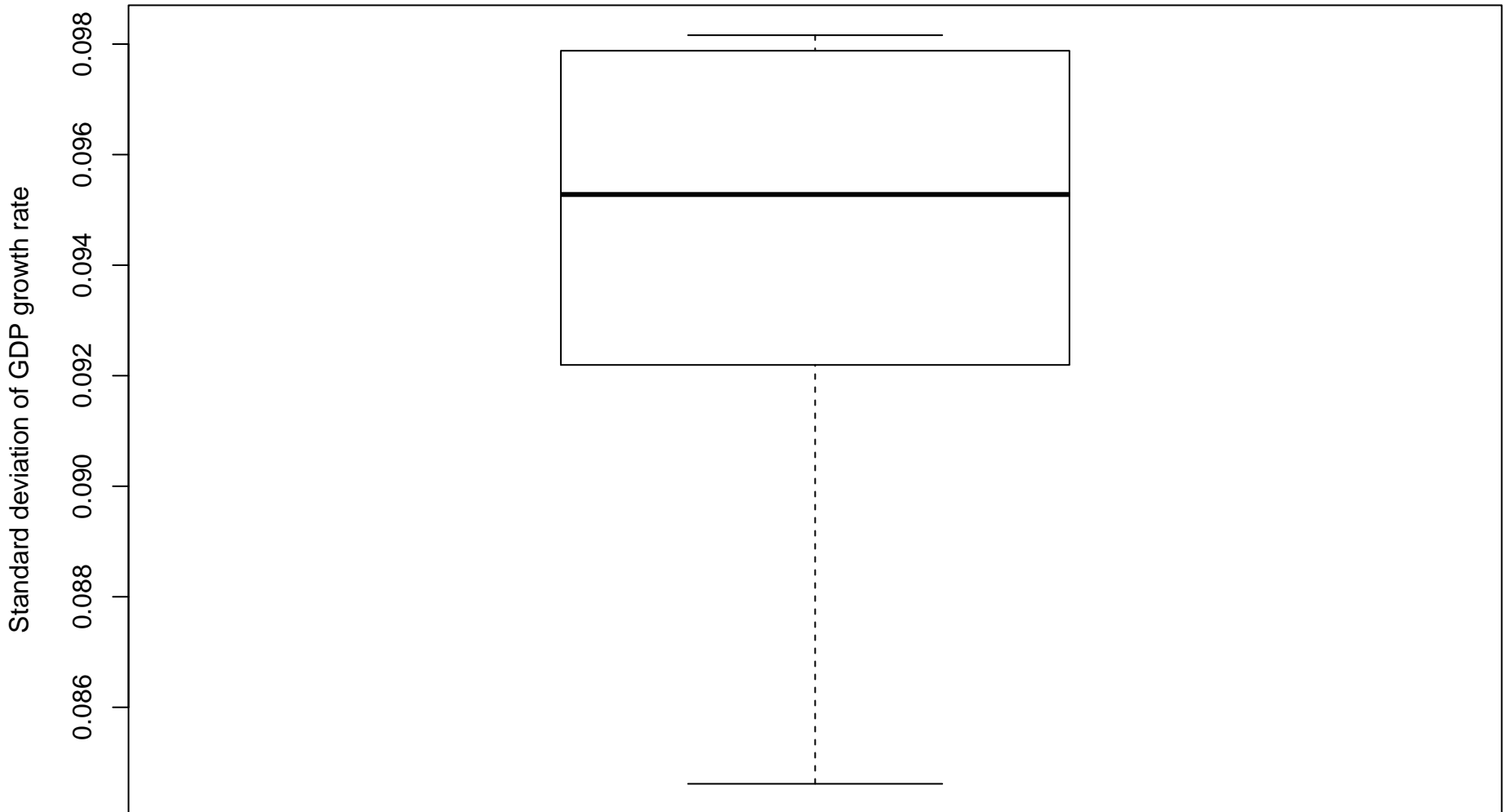
(significance = 0.05)

GDP growth



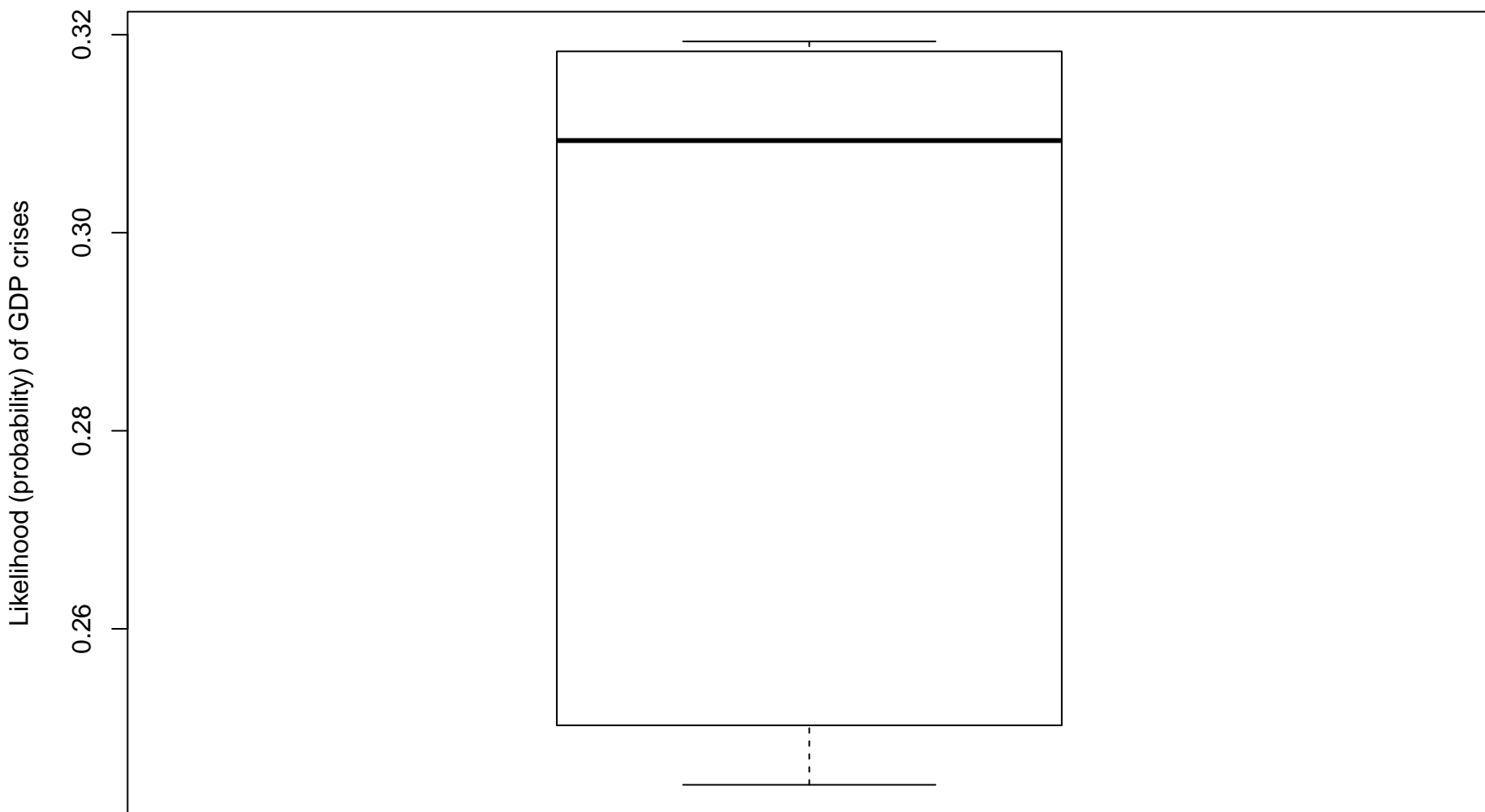
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Volatility of GDP growth



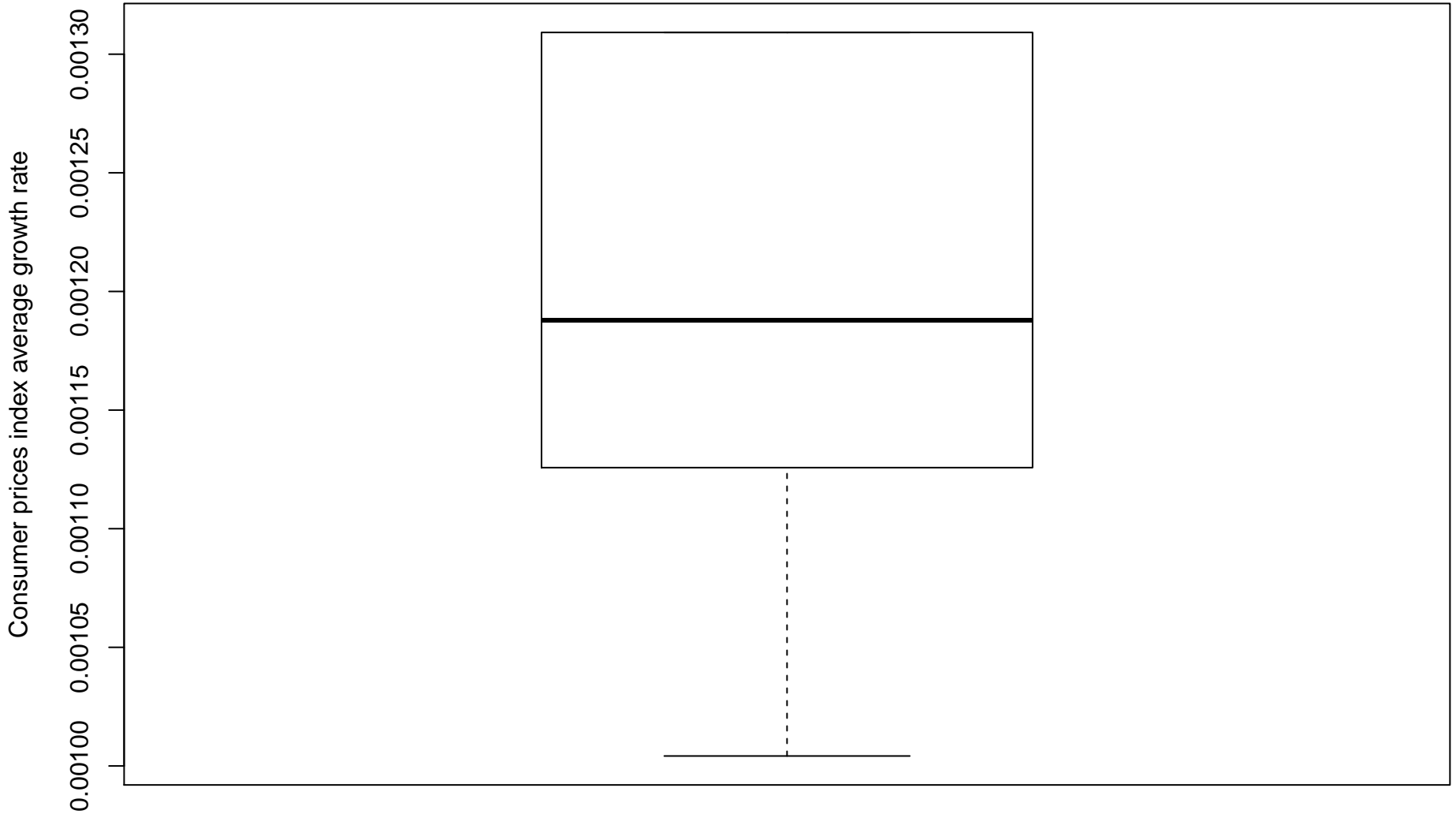
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Likelihood of GDP crises



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

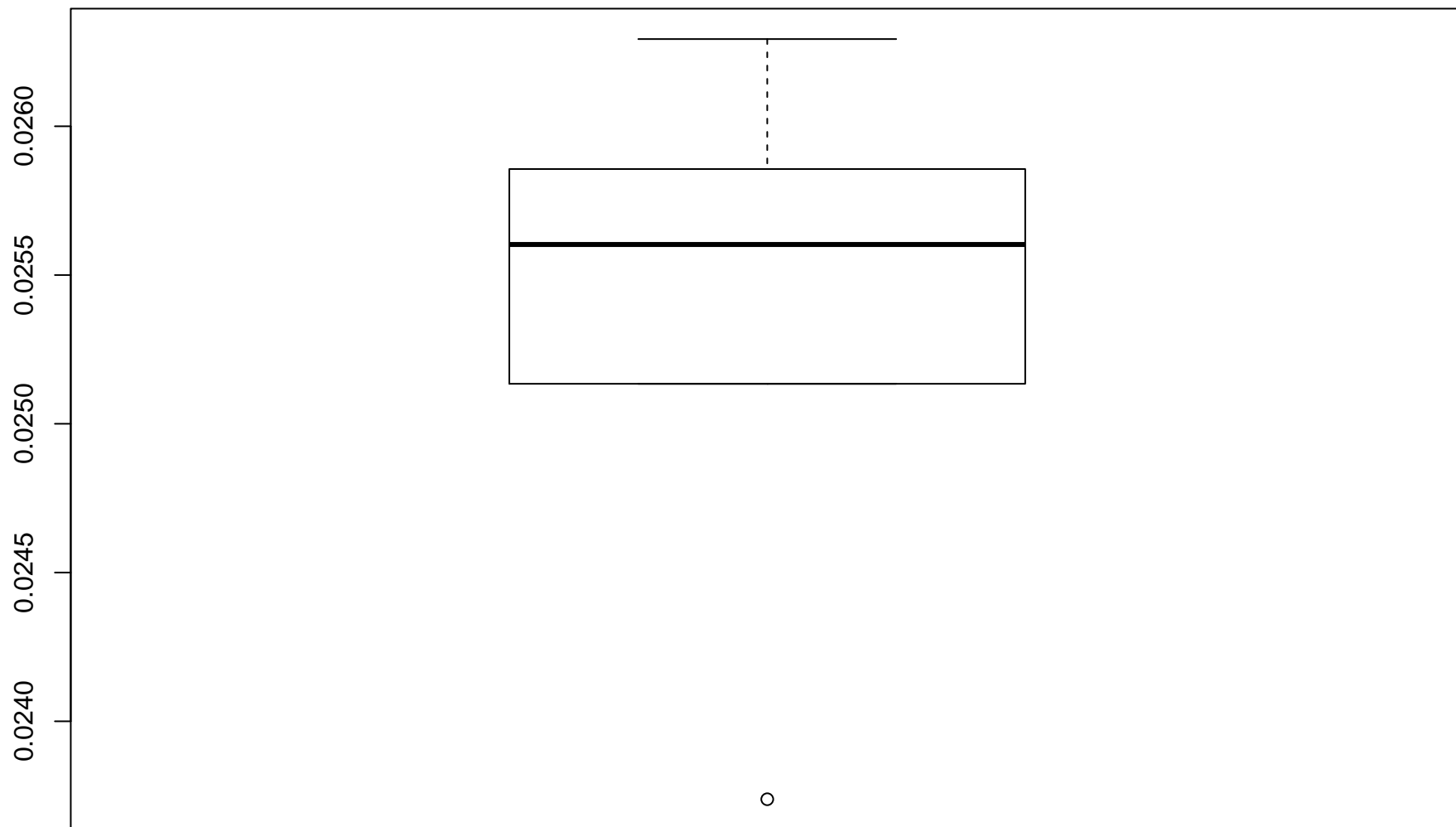
Inflation



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

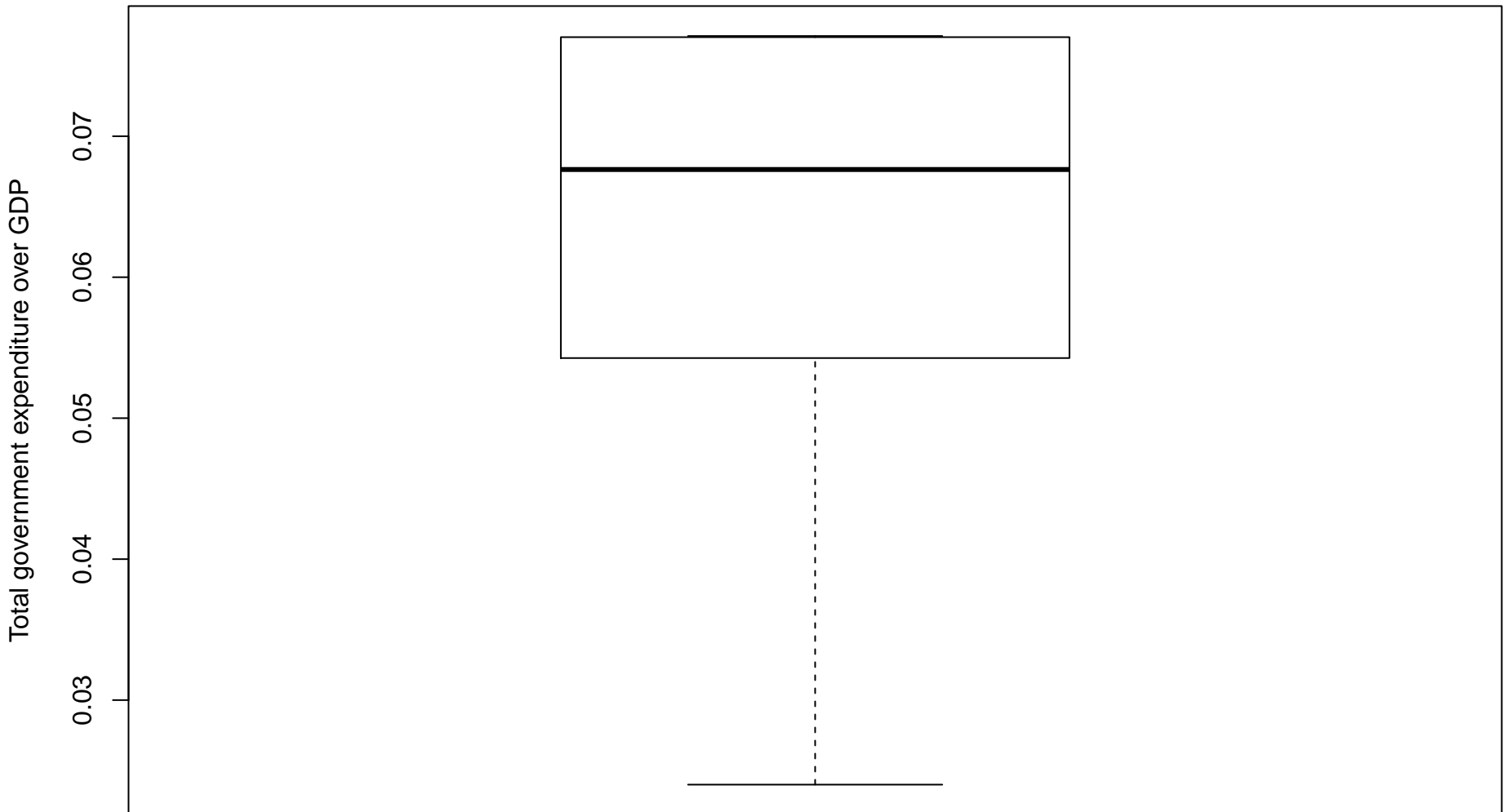
Government tax income over GDP

Tax



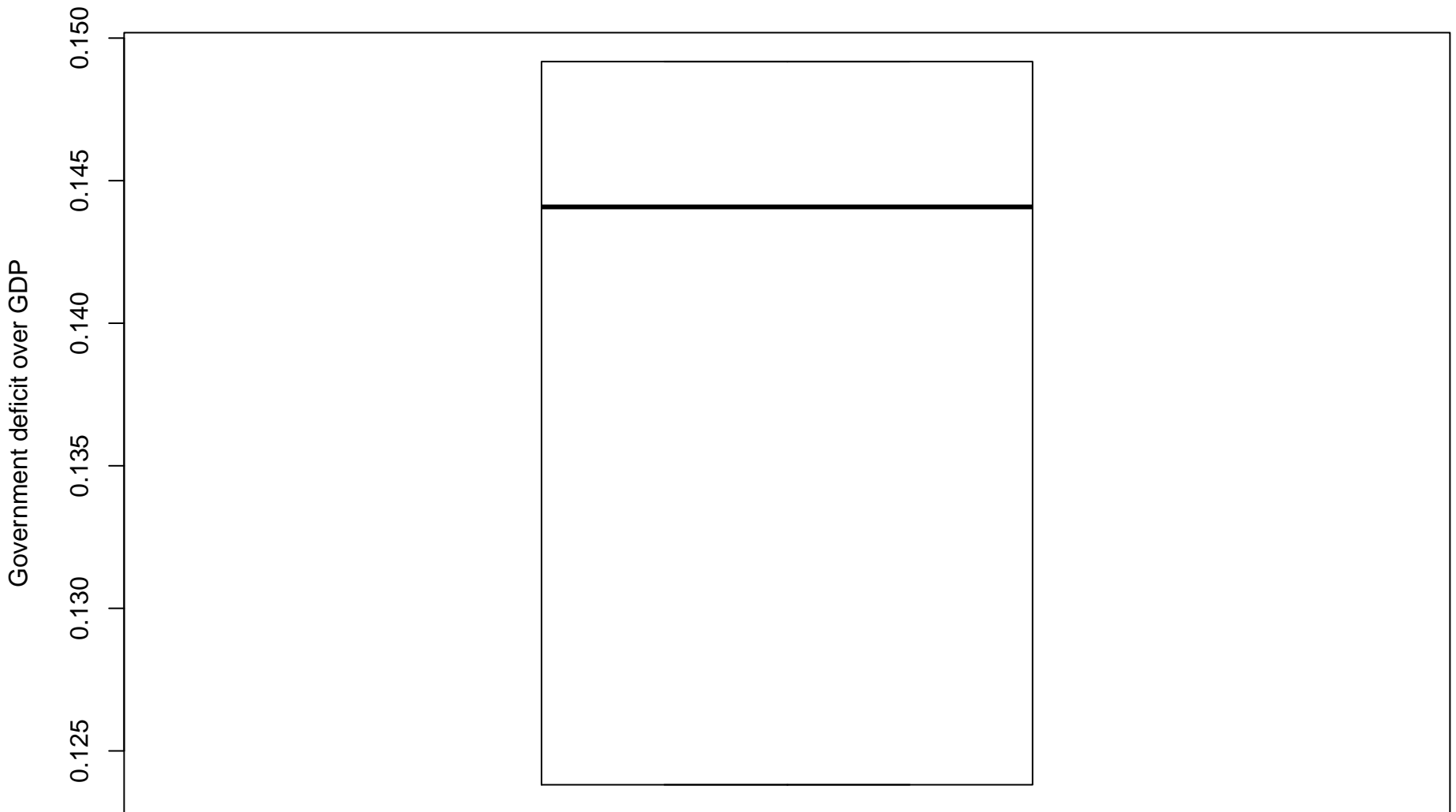
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government total expenditure



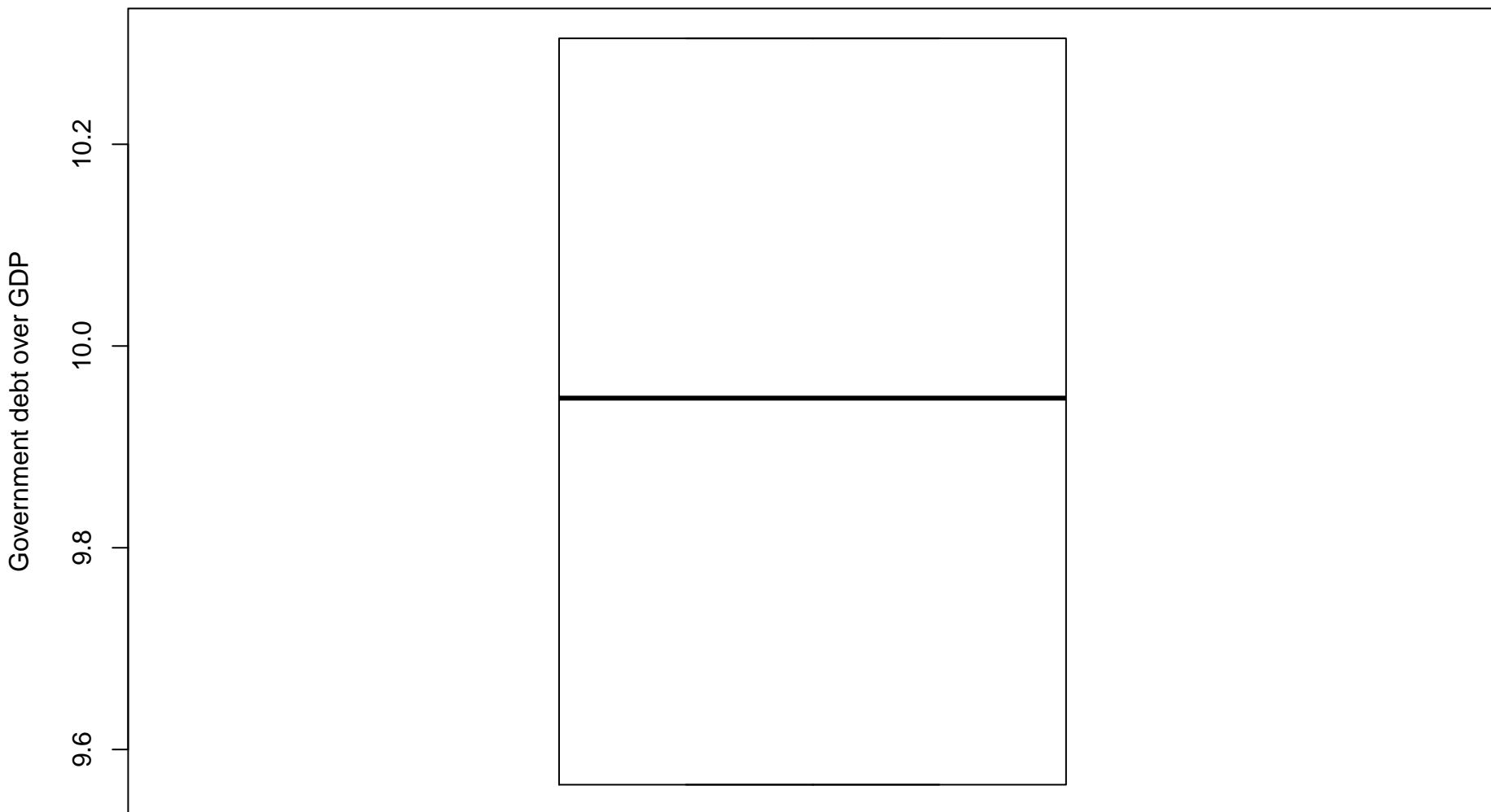
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government deficit



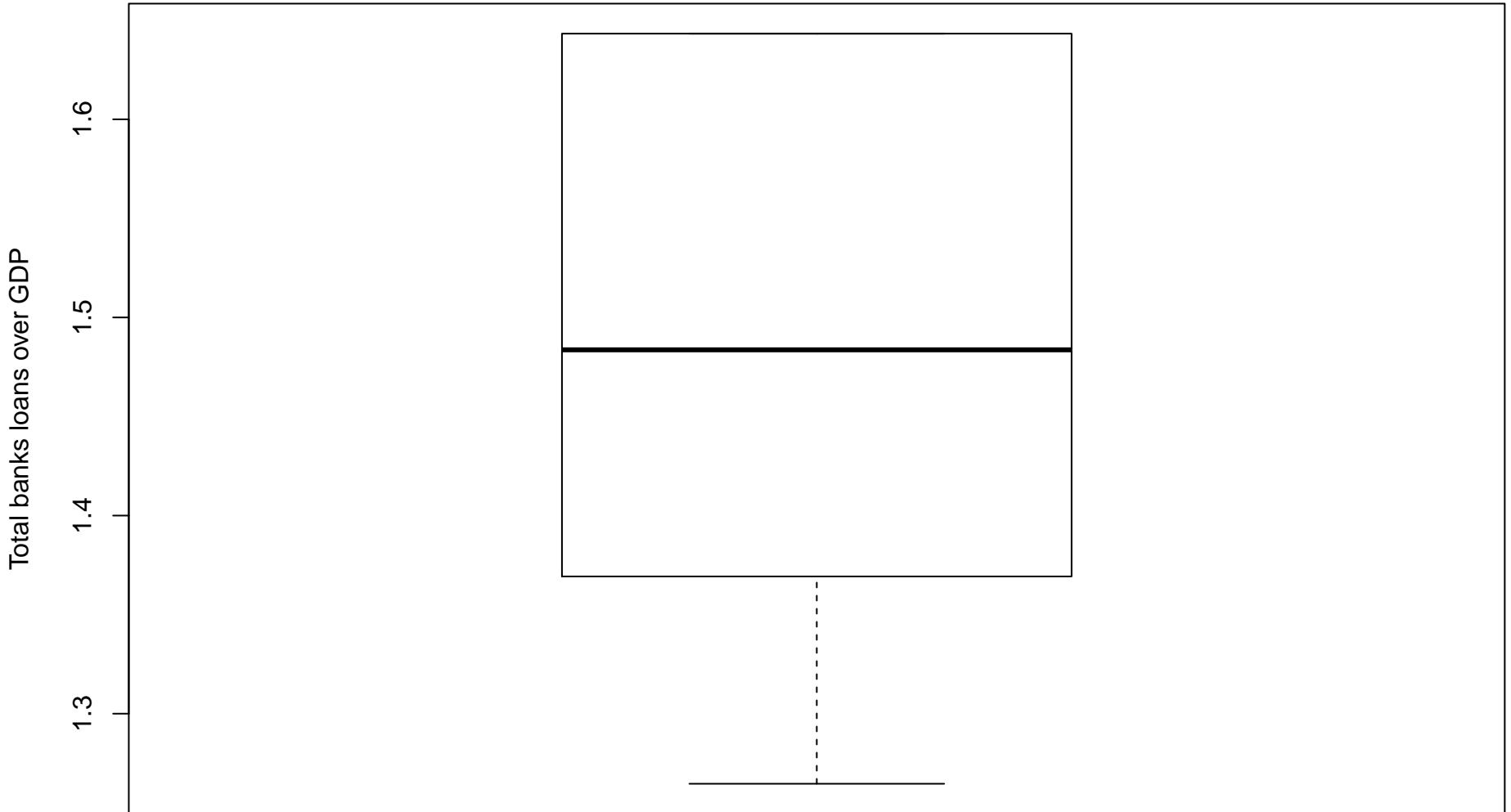
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Government debt



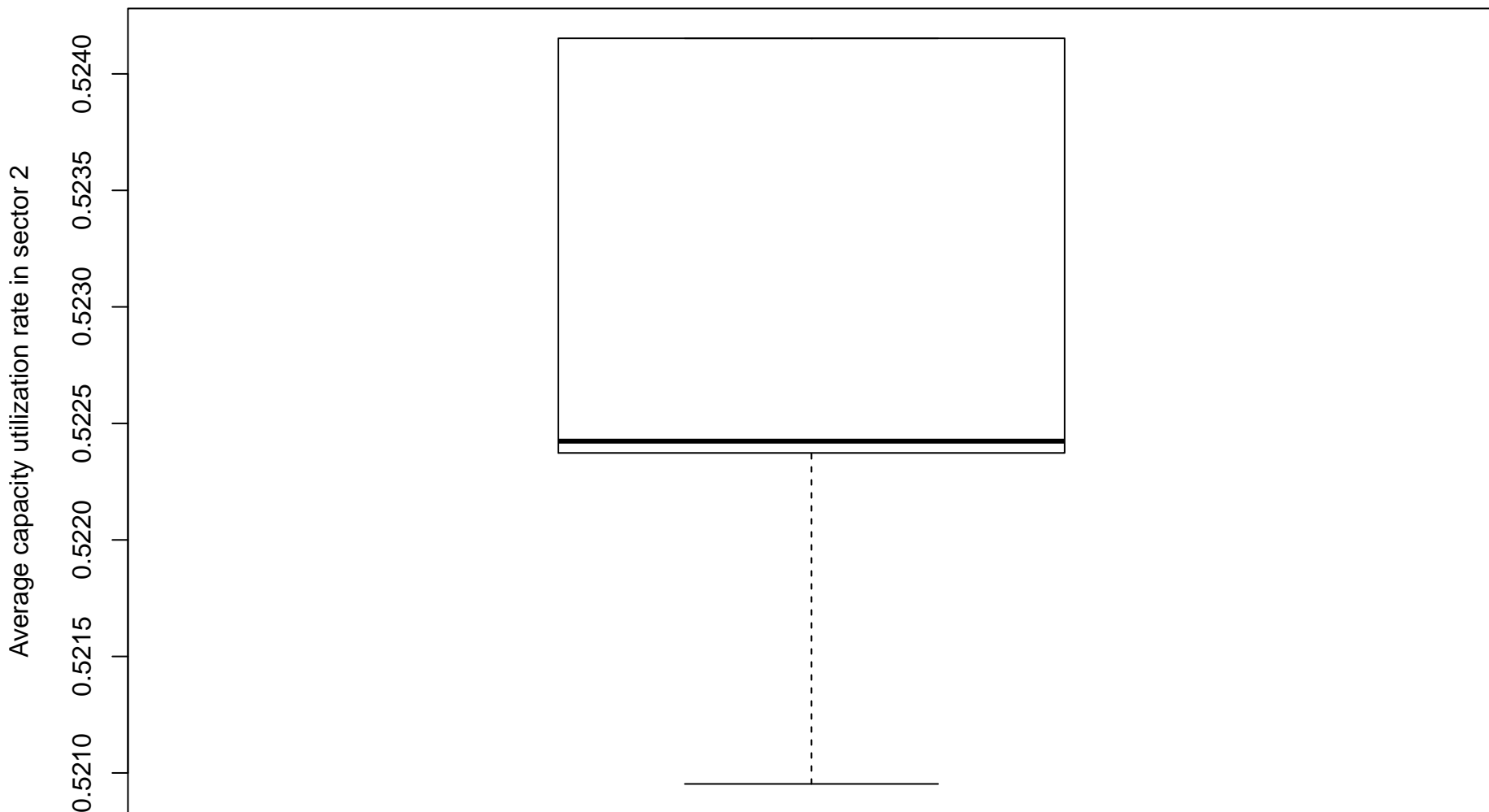
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Loans



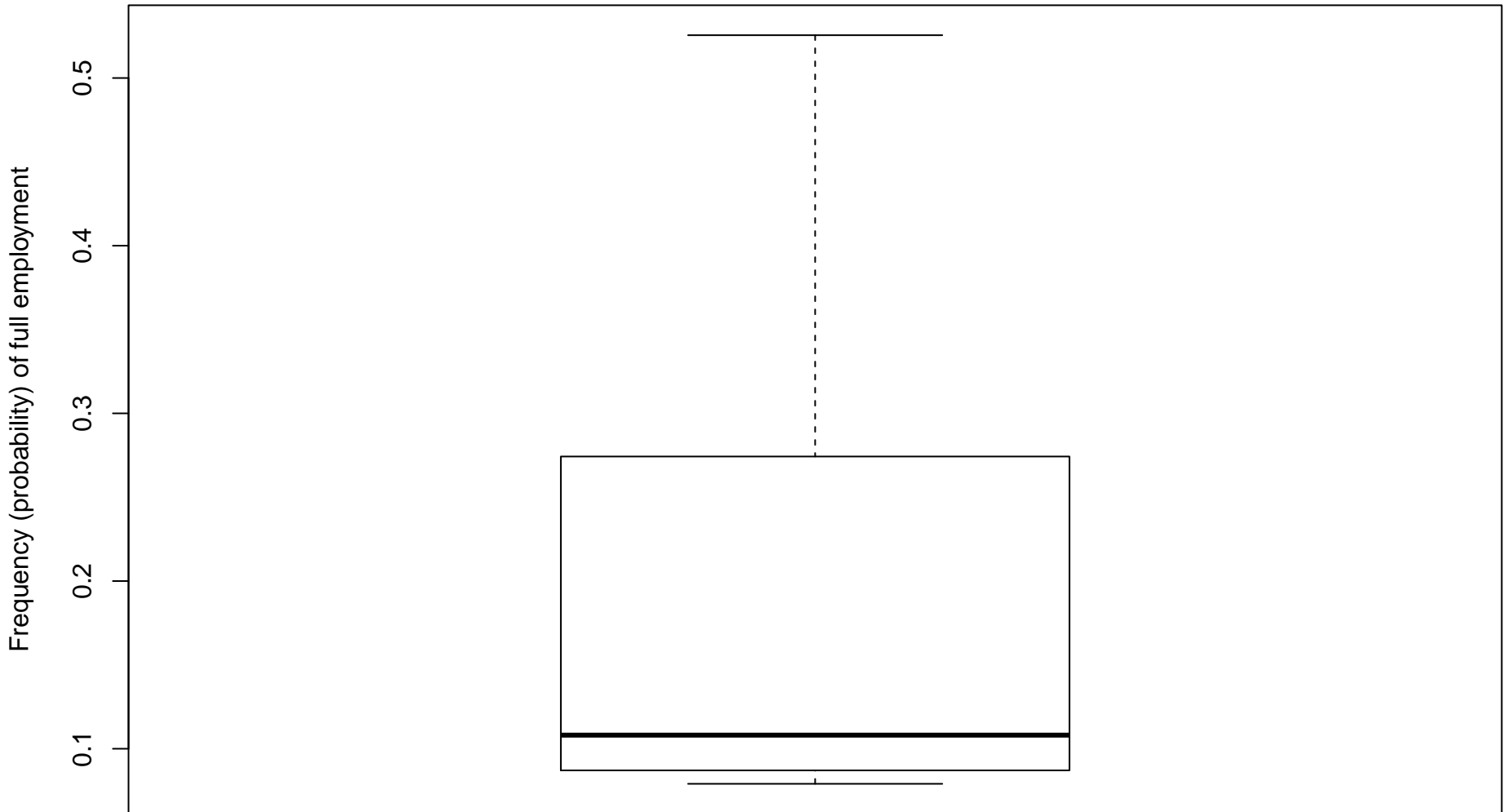
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Capacity utilization



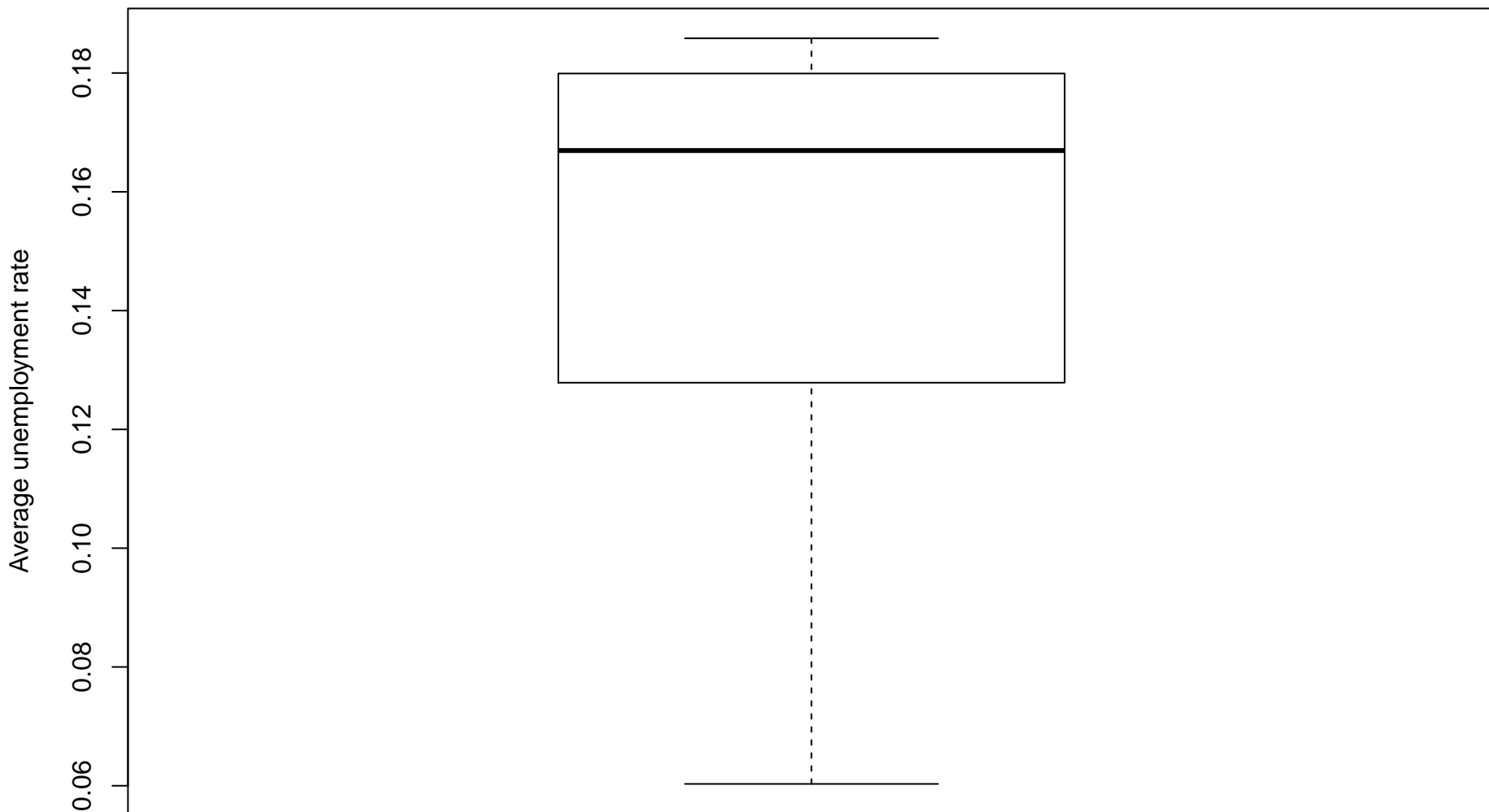
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Full employment frequency



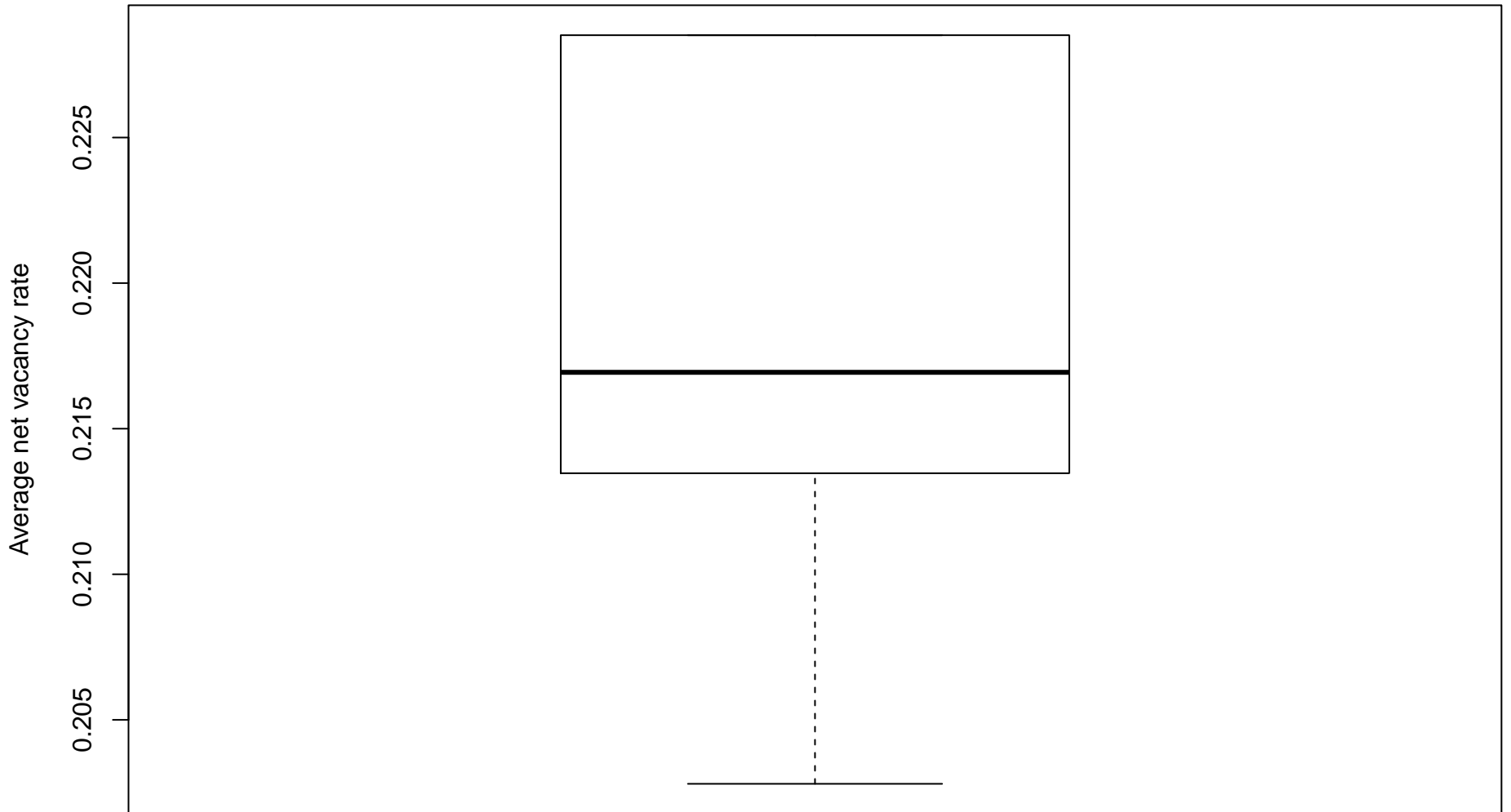
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Unemployment



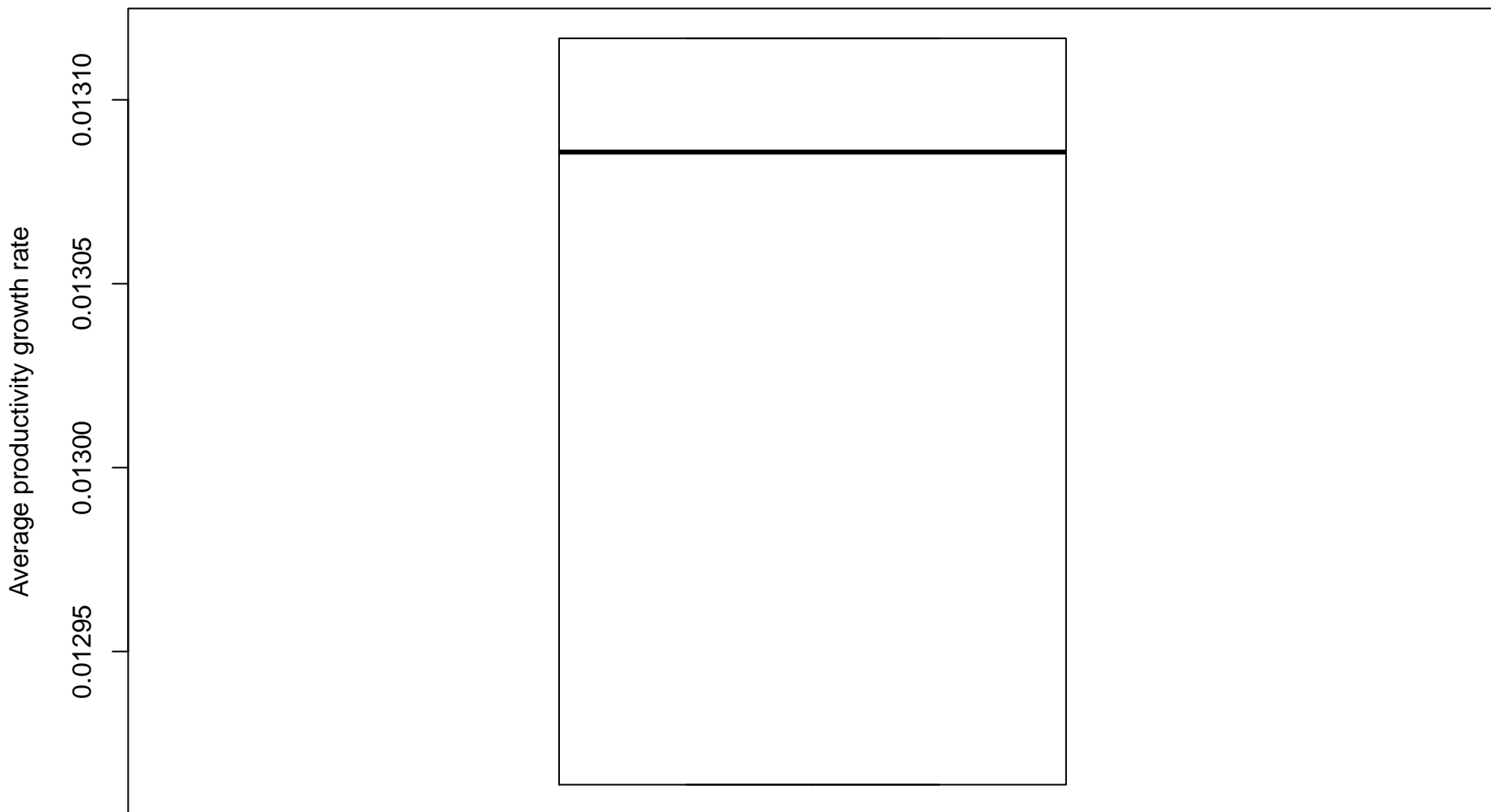
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Vacancy



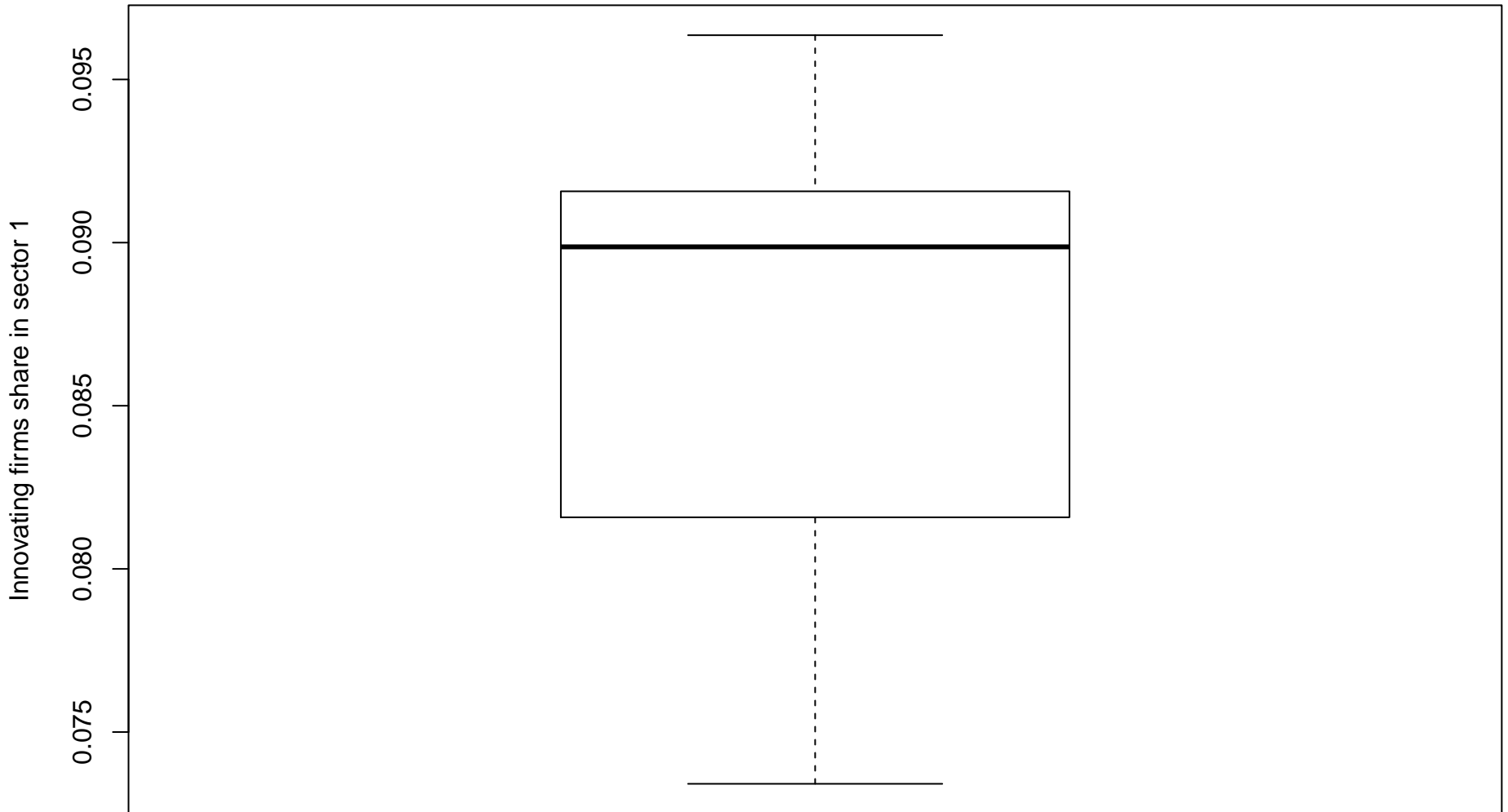
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Productivity growth



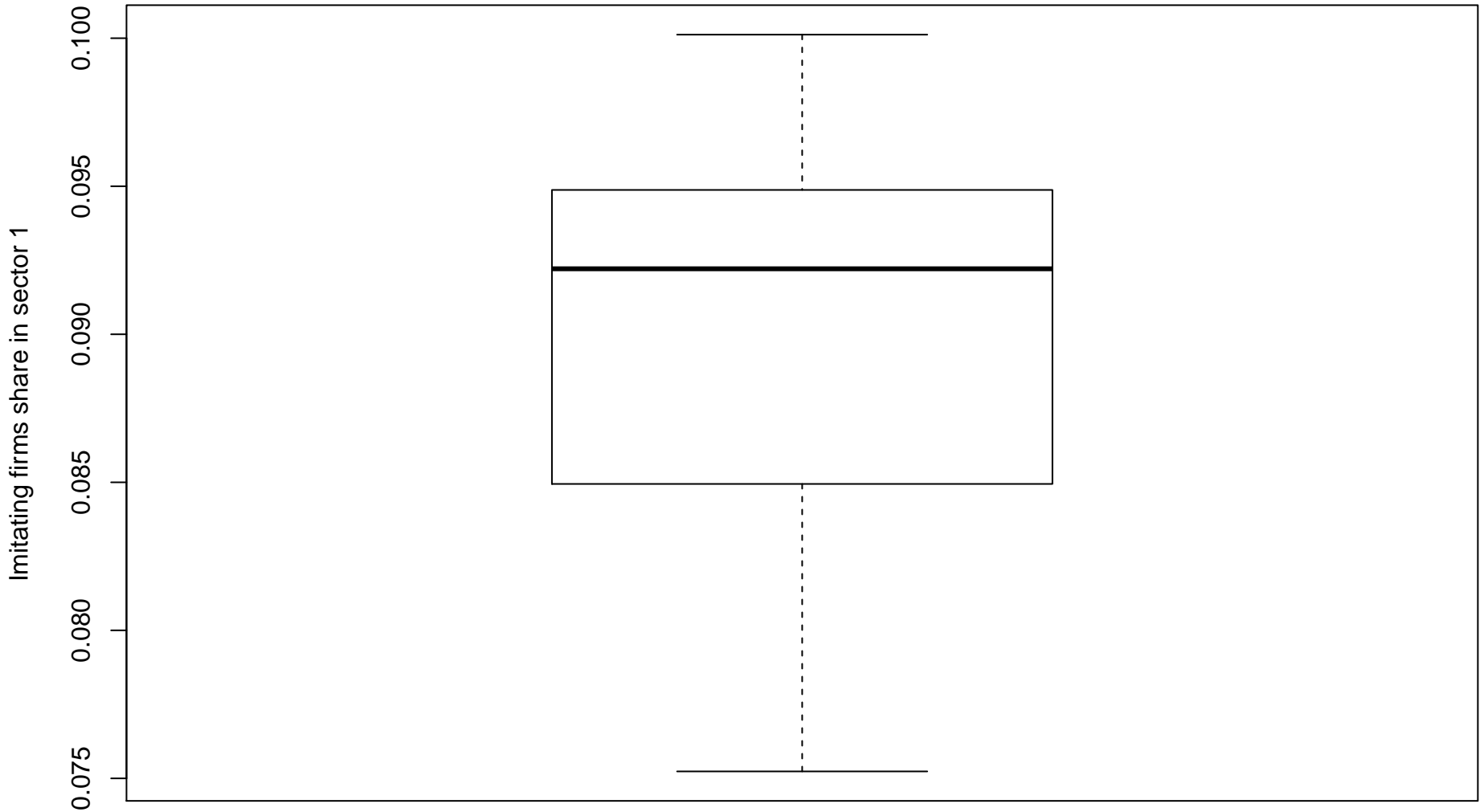
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Innovation



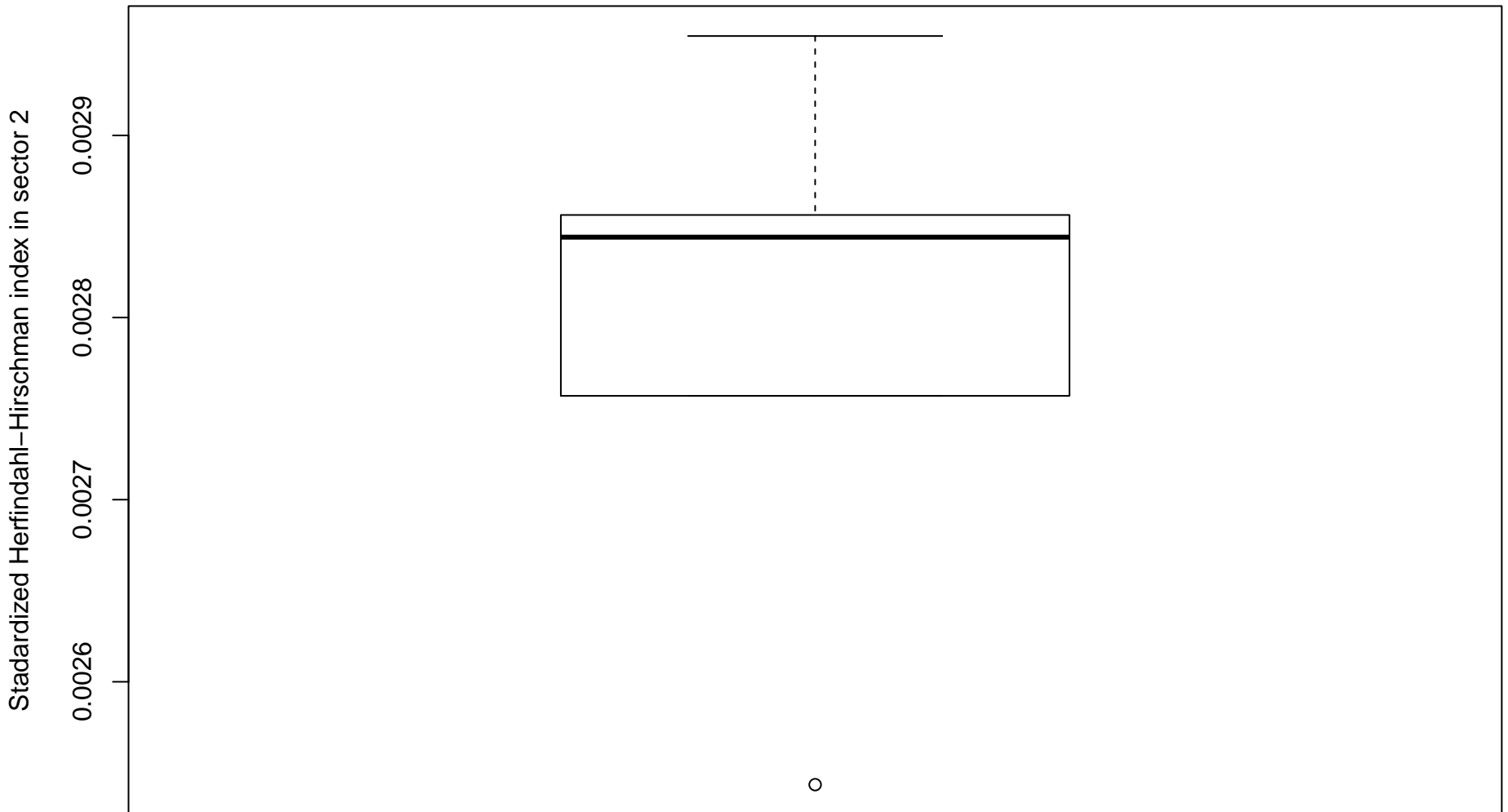
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

Imitation



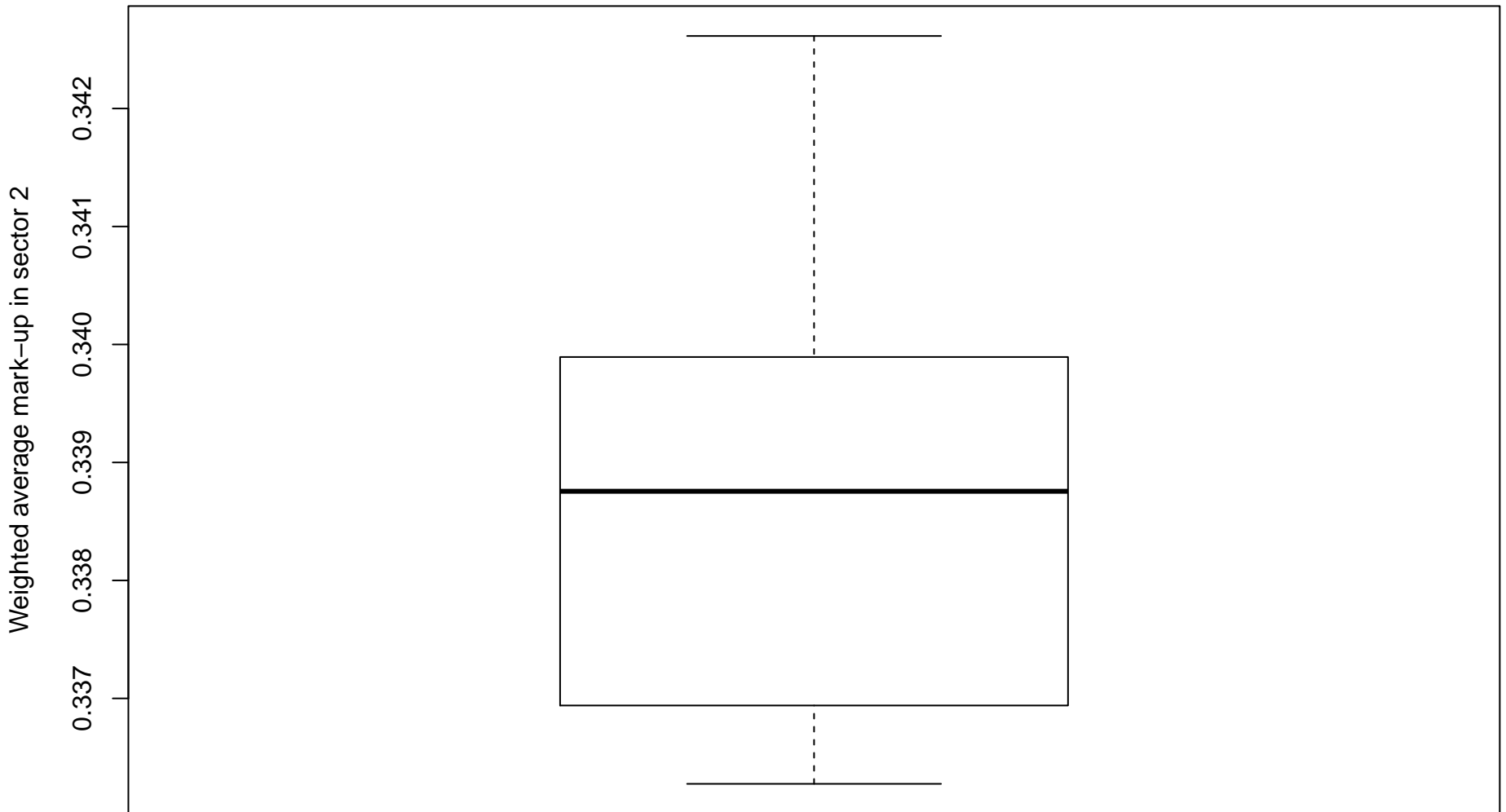
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 5 / period = 2 – 1000)

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	0.0132	0.0006839	0.01205	0.01372
Volatility of GDP growth	0.09363	0.005582	0.08462	0.09816
Likelihood of GDP crises	0.2883	0.03773	0.2442	0.3193
Inflation	0.00135	0.000445	0.001004	0.002121
Tax	0.02532	0.0009812	0.02374	0.02629
Government total expenditure	0.06001	0.02219	0.024	0.07711
Government deficit	0.1233	0.08327	-0.01328	0.2126
Government debt	8.95	6.407	-1.383	16.31
Loans	1.604	0.3932	1.265	2.261
Capacity utilization	0.524	0.003598	0.521	0.5301
Full employment frequency	0.2148	0.1912	0.07908	0.5255
Unemployment	0.1442	0.05204	0.06031	0.1858
Vacancy	0.229	0.0317	0.2028	0.2833
Productivity growth	0.01295	0.0005444	0.01207	0.01356
Innovation	0.08656	0.009078	0.07341	0.09636
Imitation	0.08948	0.00966	0.07524	0.1001
Market concentration	0.002791	0.0001551	0.002544	0.002955
Mark-ups	0.3389	0.002527	0.3363	0.3426

Experiments: [1] Benchmark

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