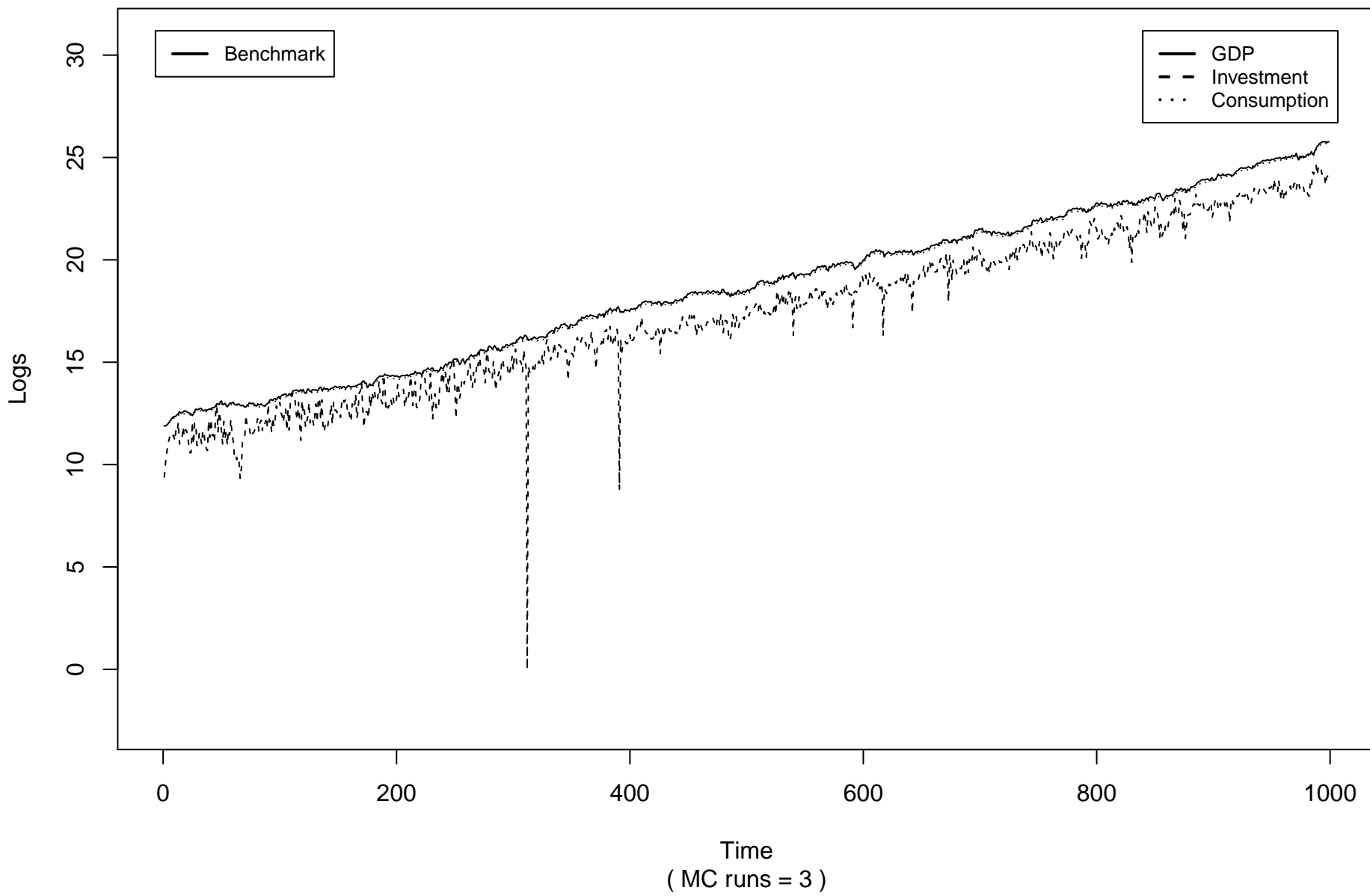
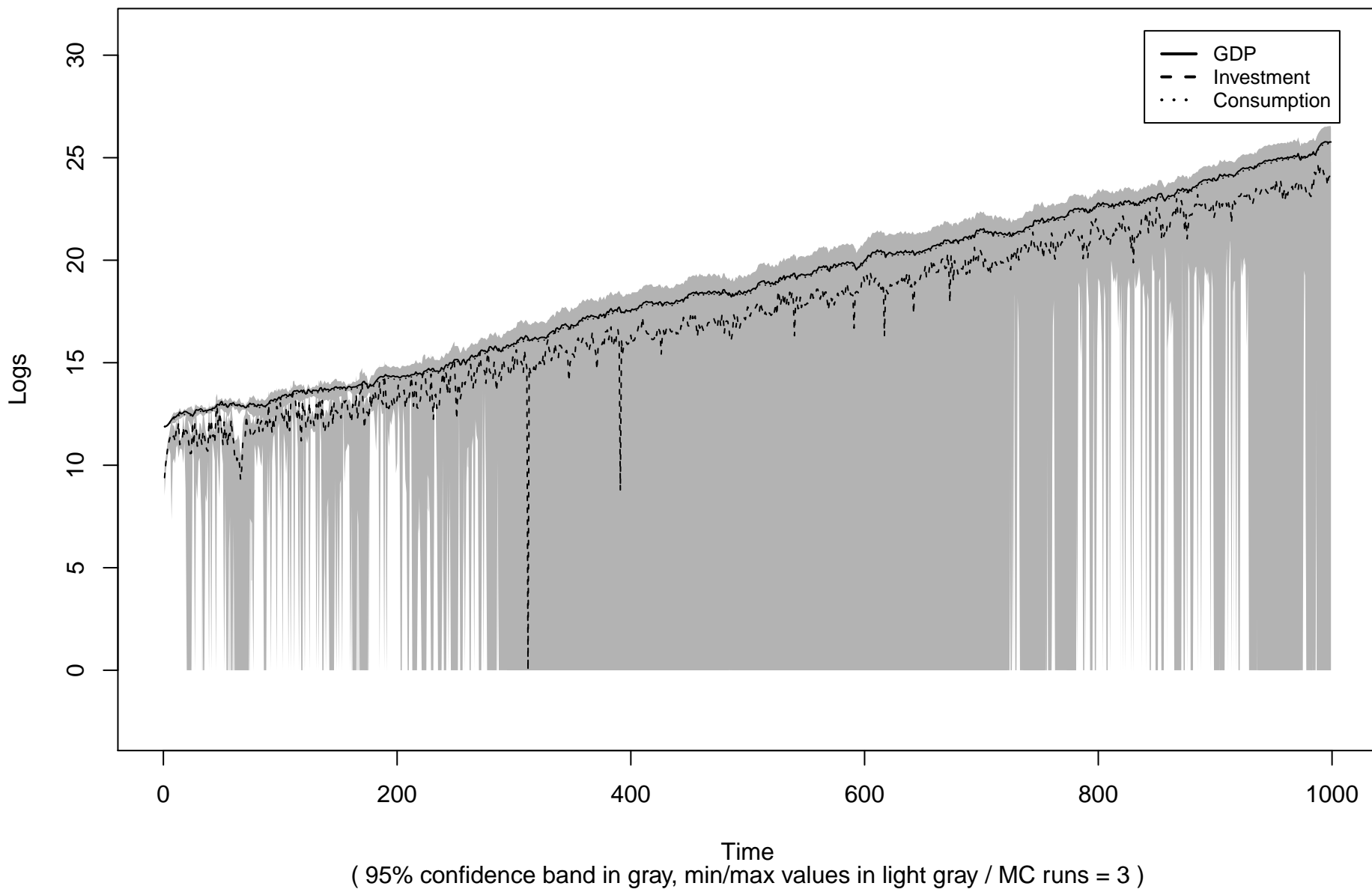


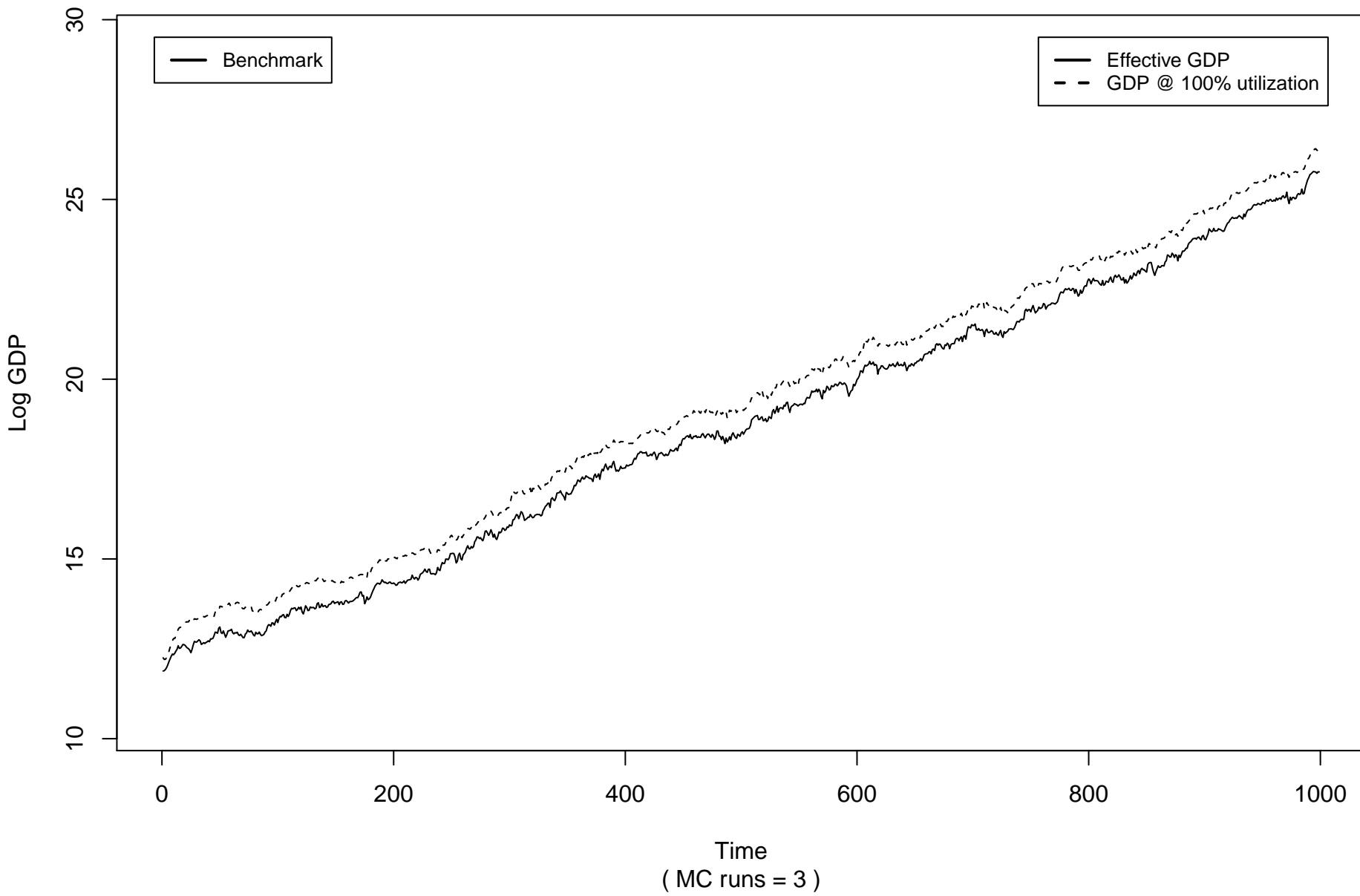
GDP, investment and consumption (all experiments)



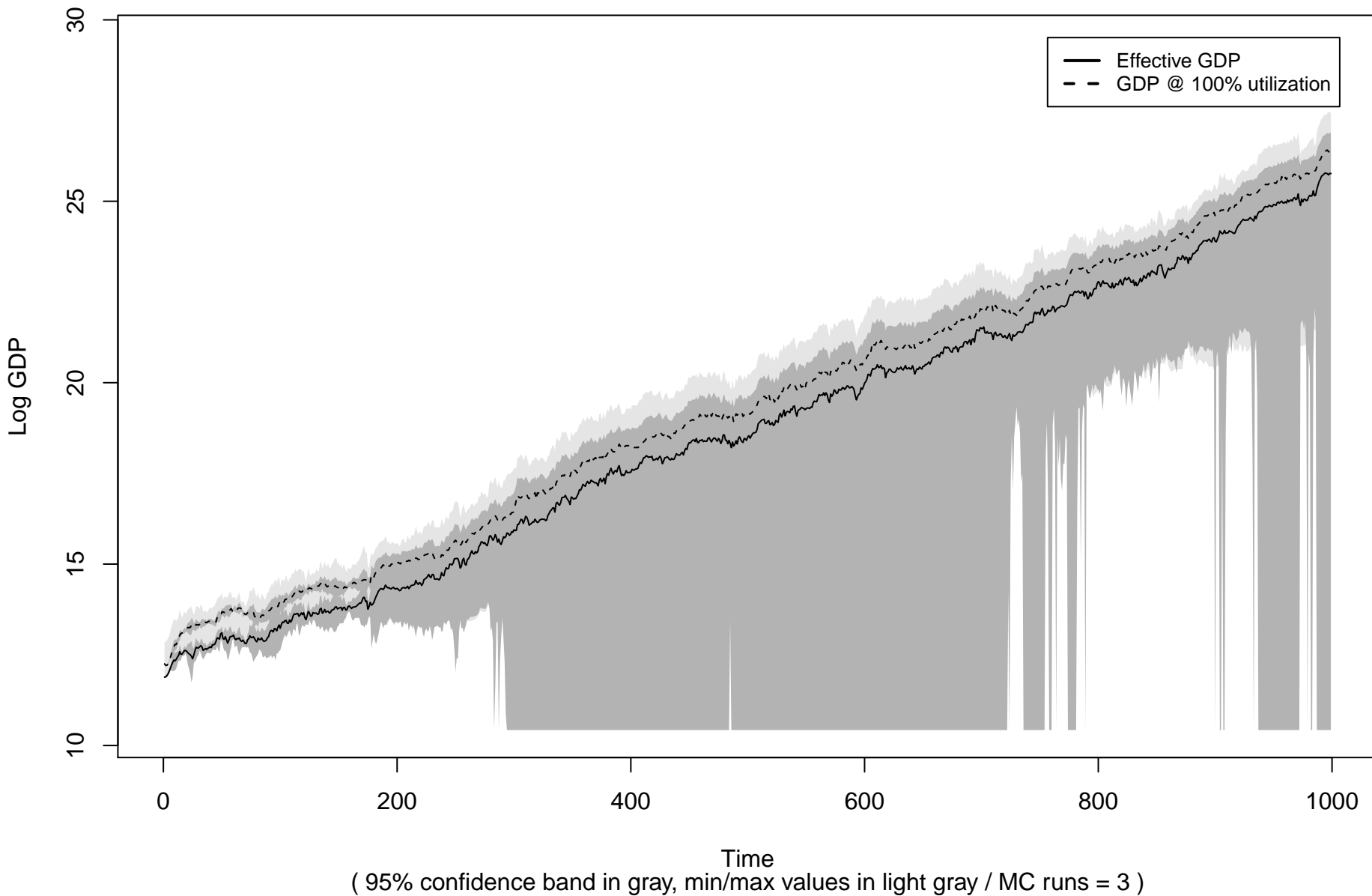
GDP, investment and consumption (Benchmark)



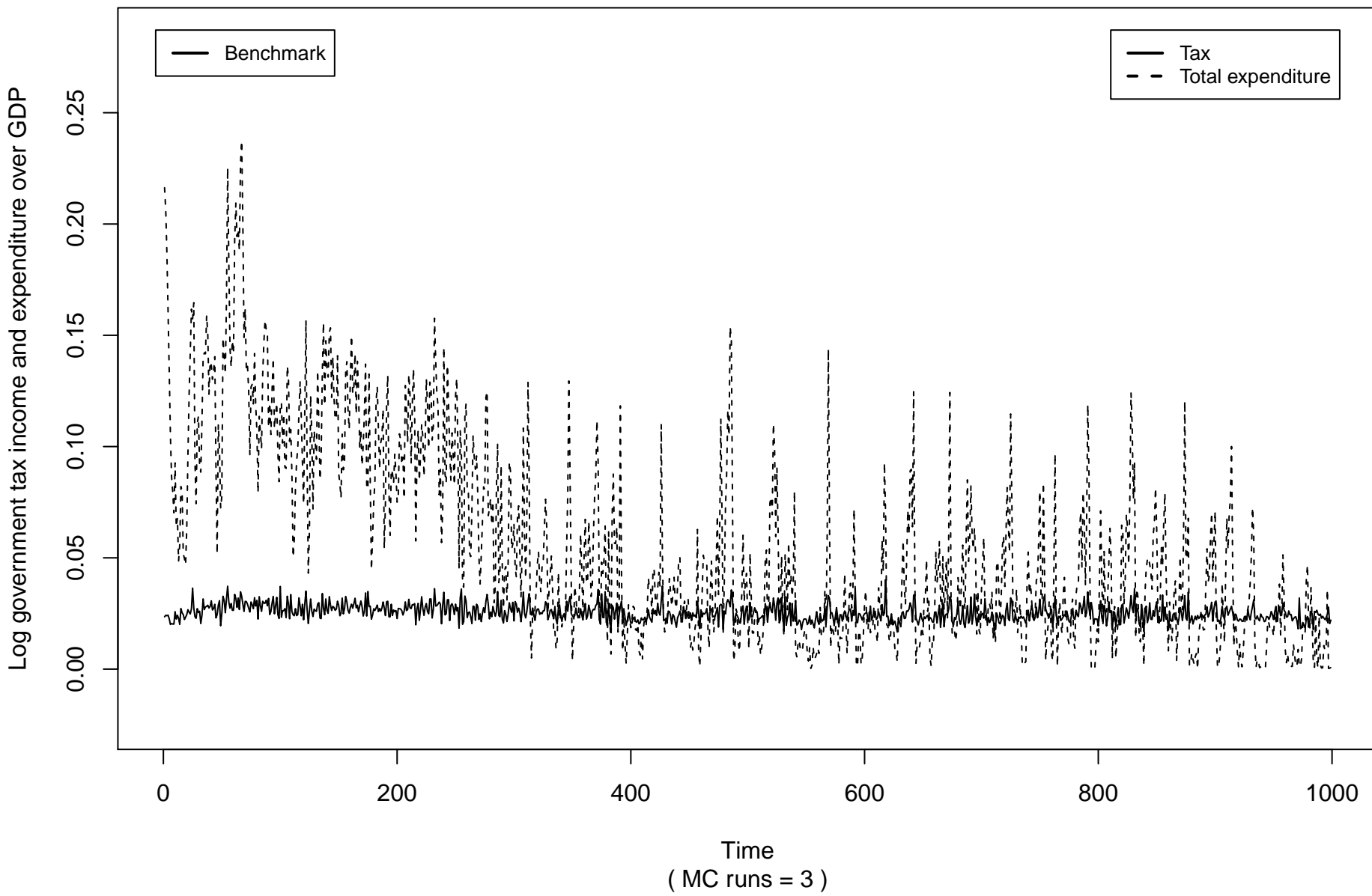
GDP (all experiments)



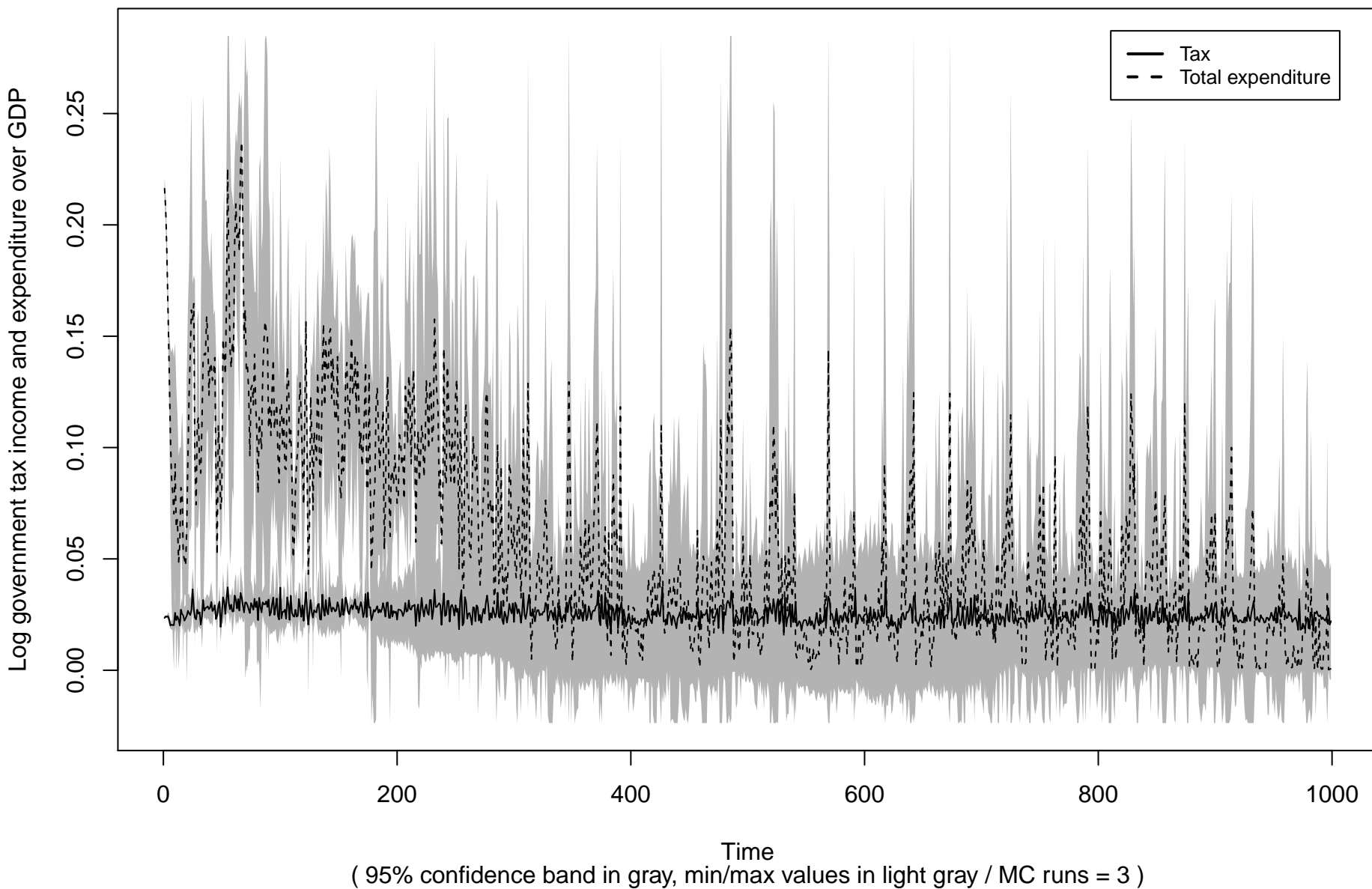
GDP (Benchmark)



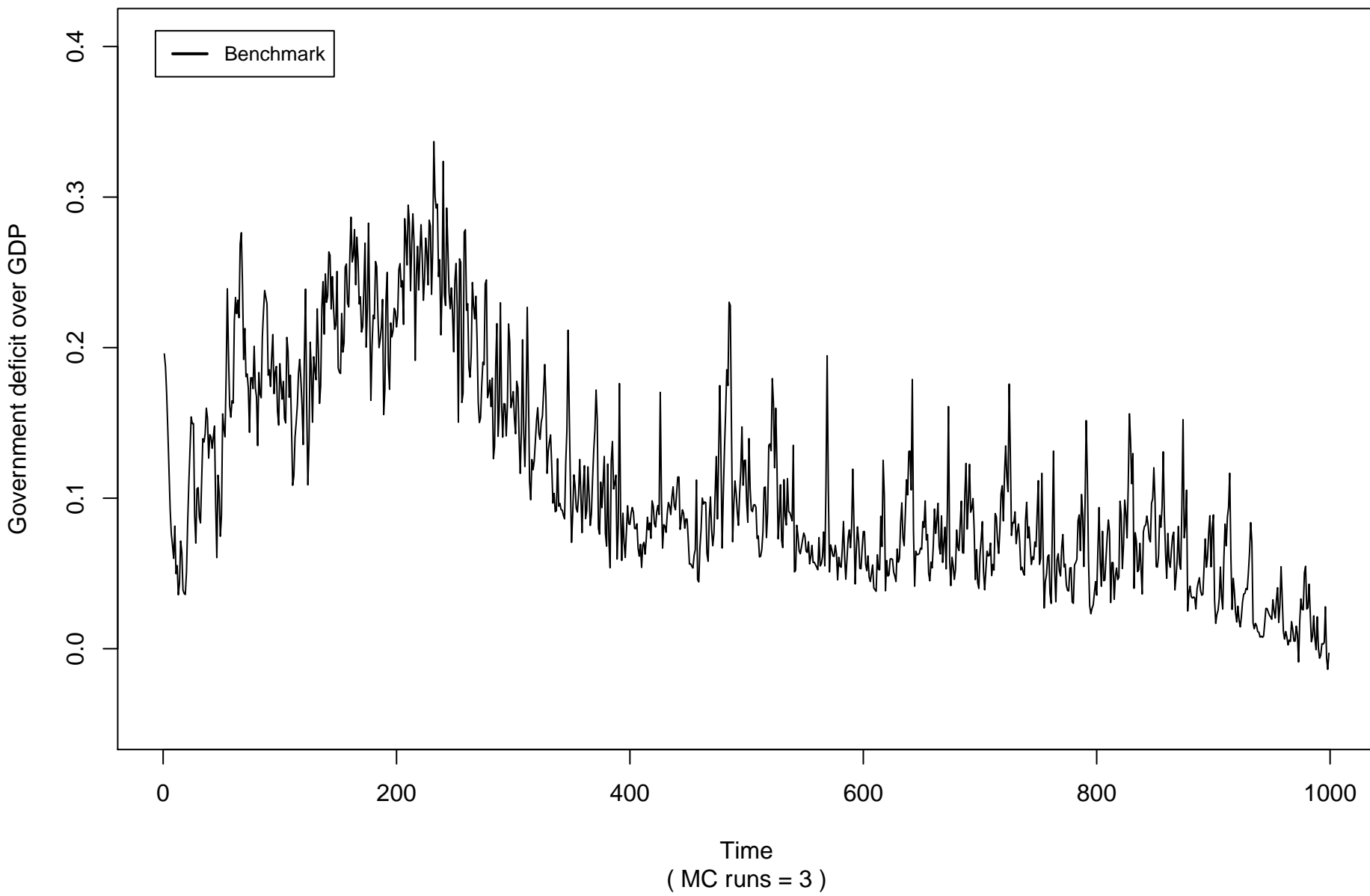
Government income and expenditure on GDP (all experiments)



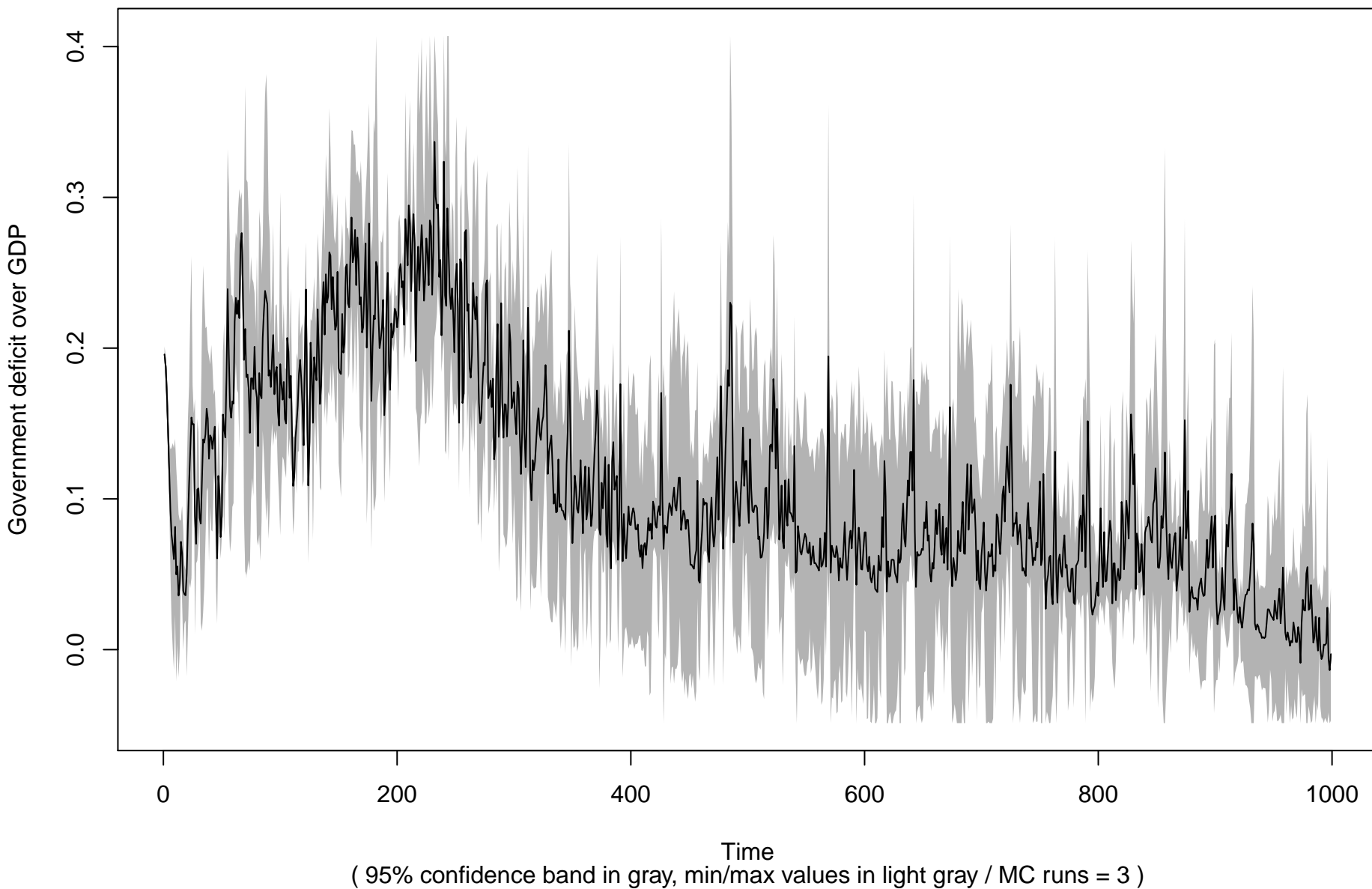
Government income and expenditure on GDP (Benchmark)



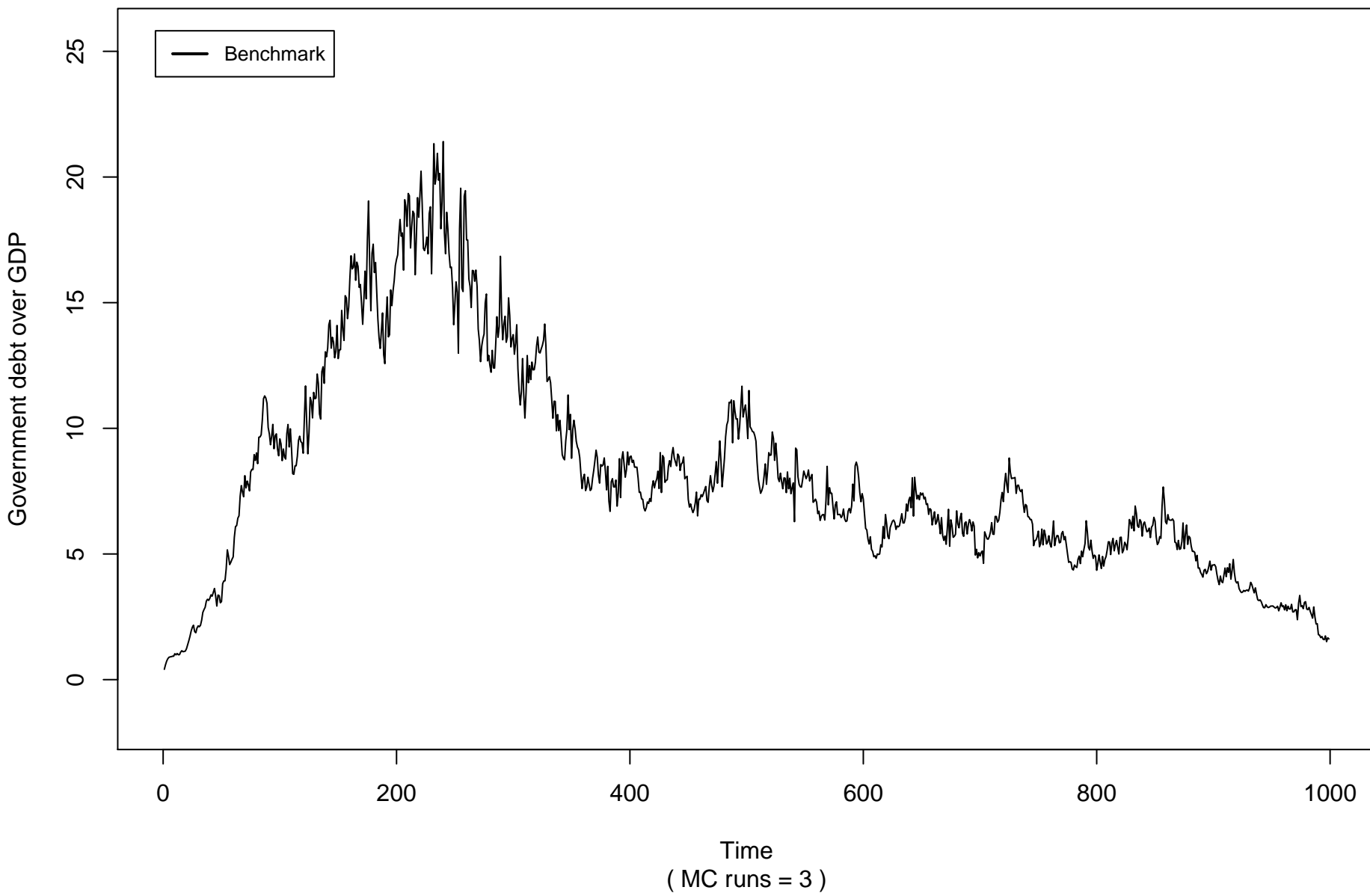
Government deficit on GDP (all experiments)



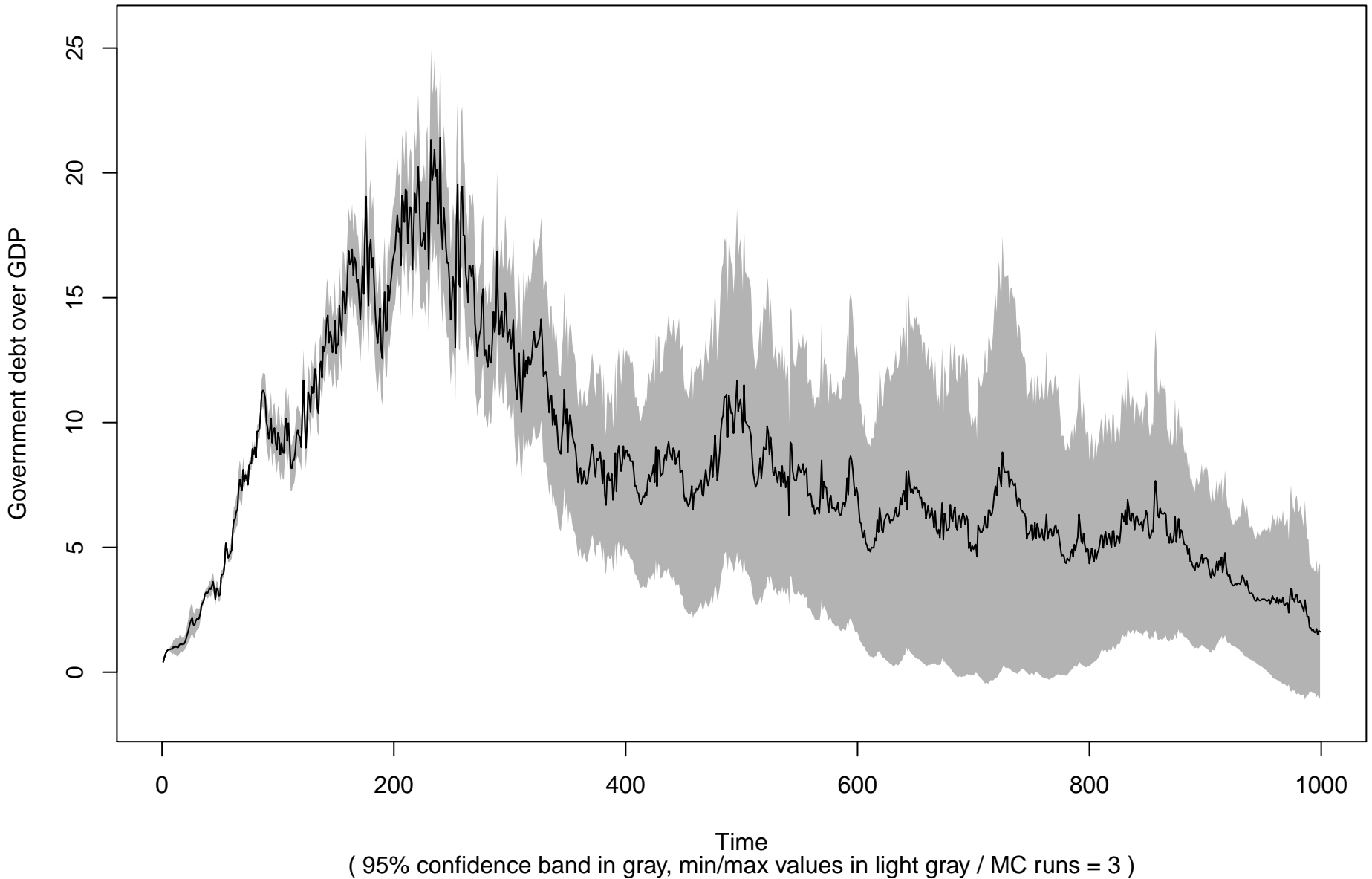
Government deficit on GDP (Benchmark)



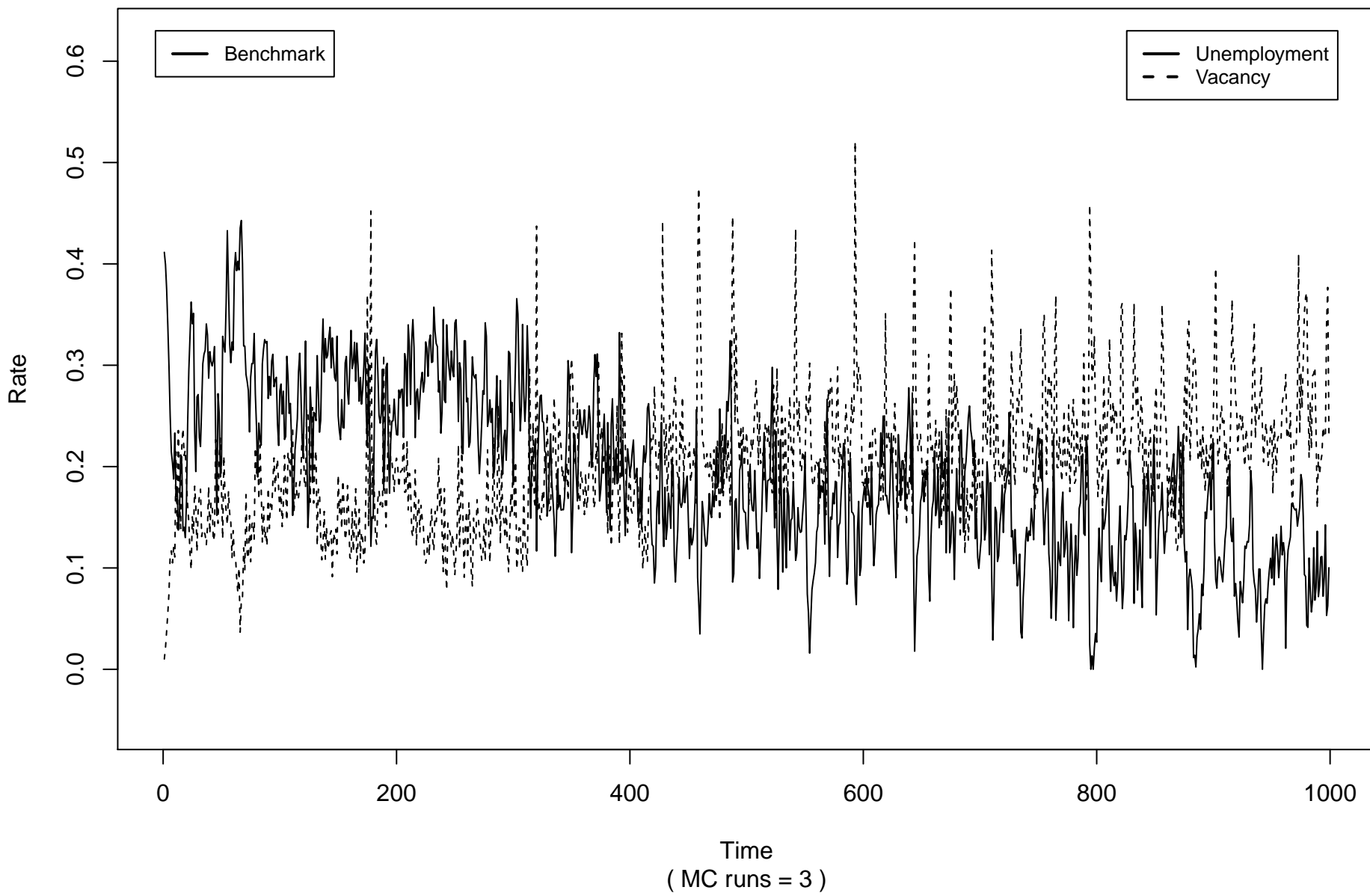
Government debt on GDP (all experiments)



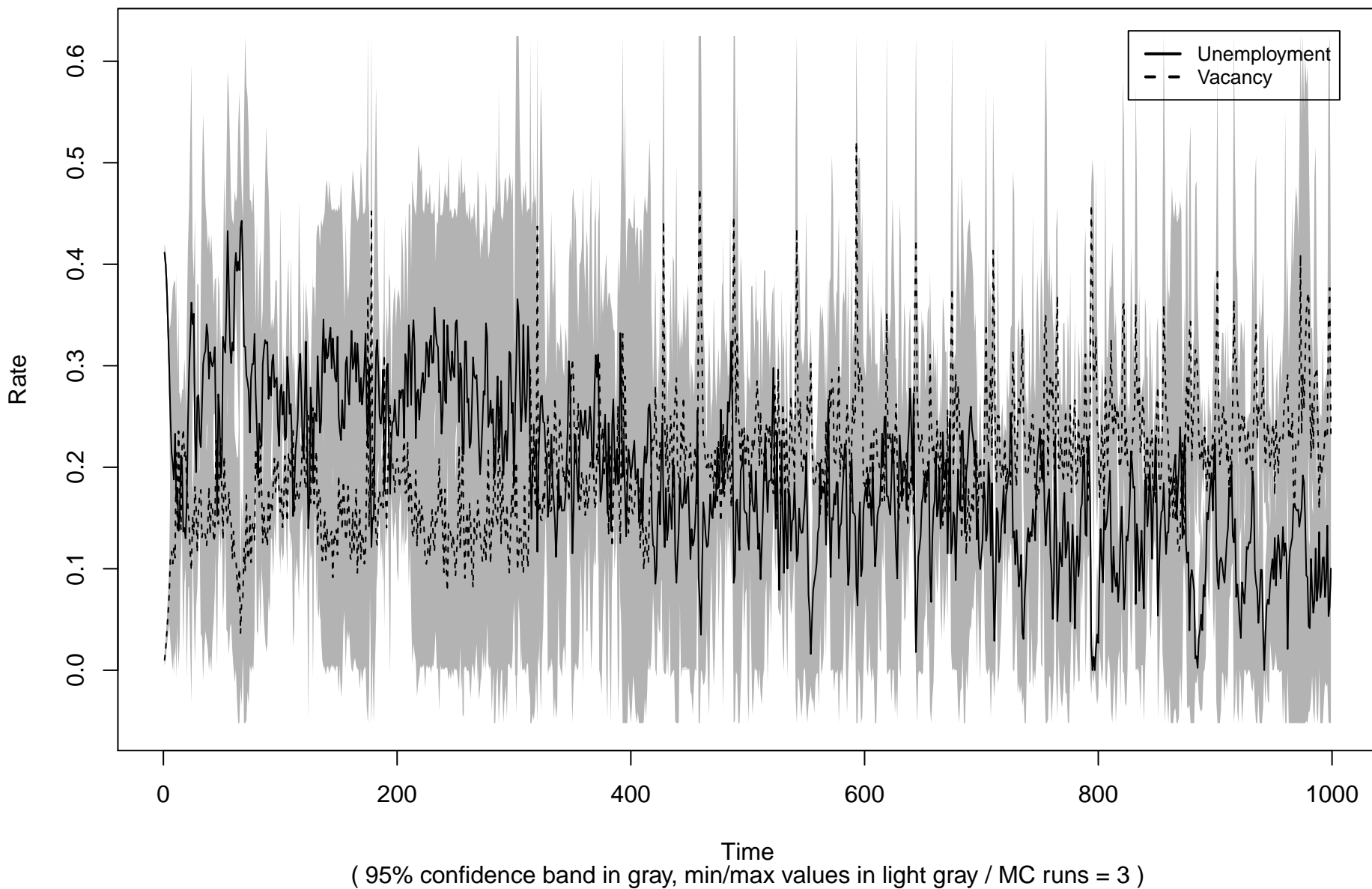
Government debt on GDP (Benchmark)



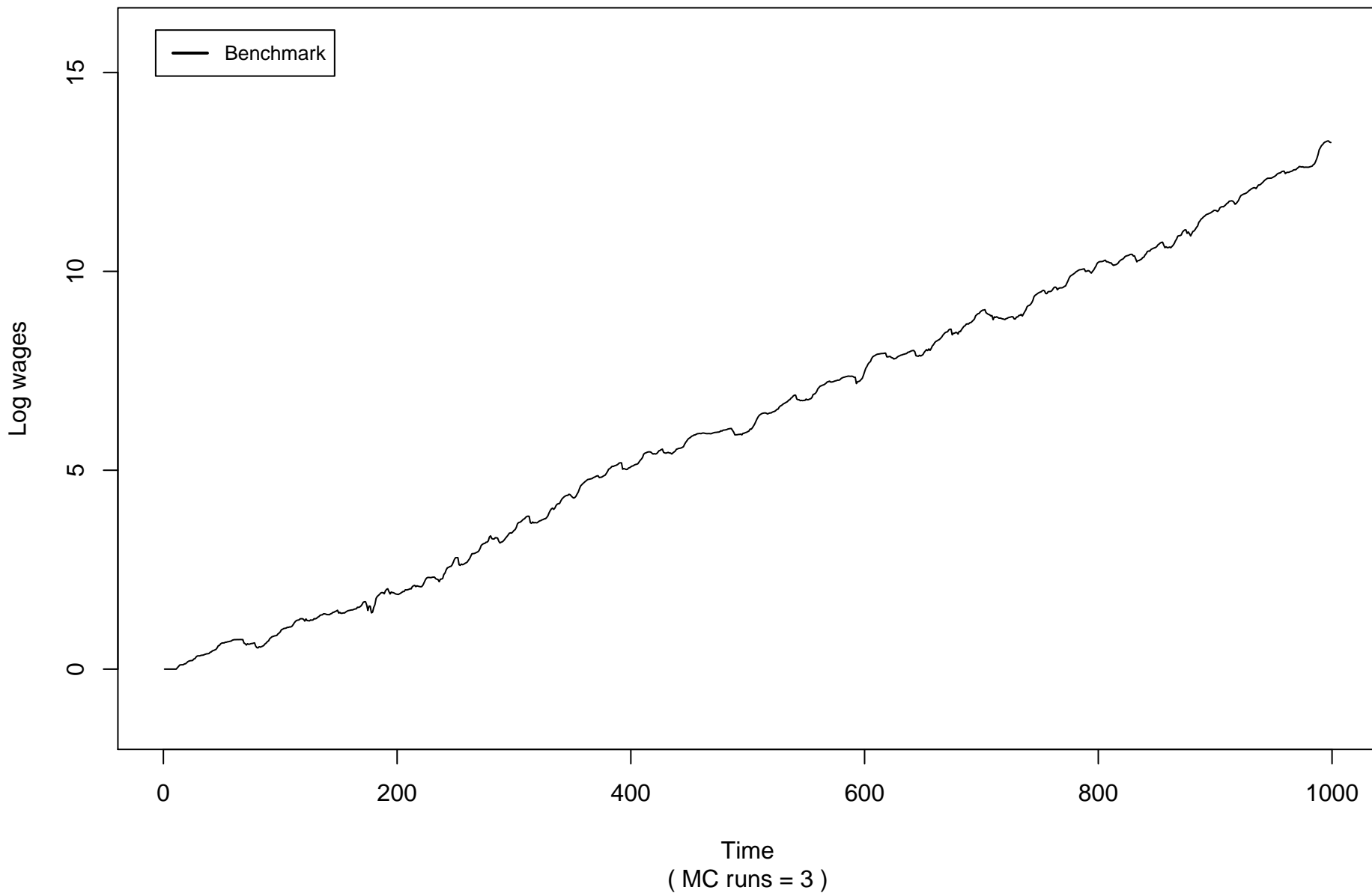
Unemployment and vacancy rates (all experiments)



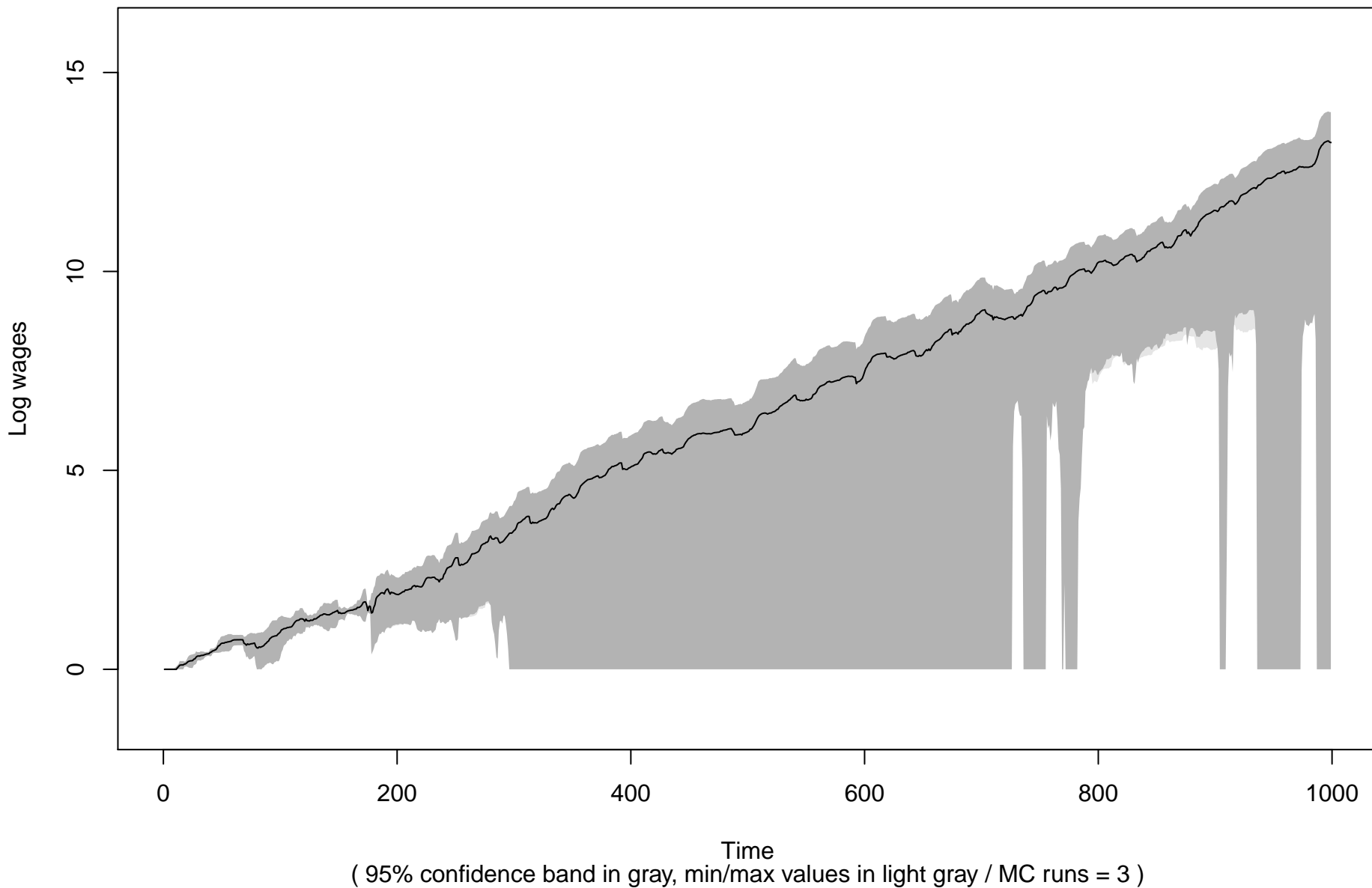
Unemployment and vacancy rates (Benchmark)



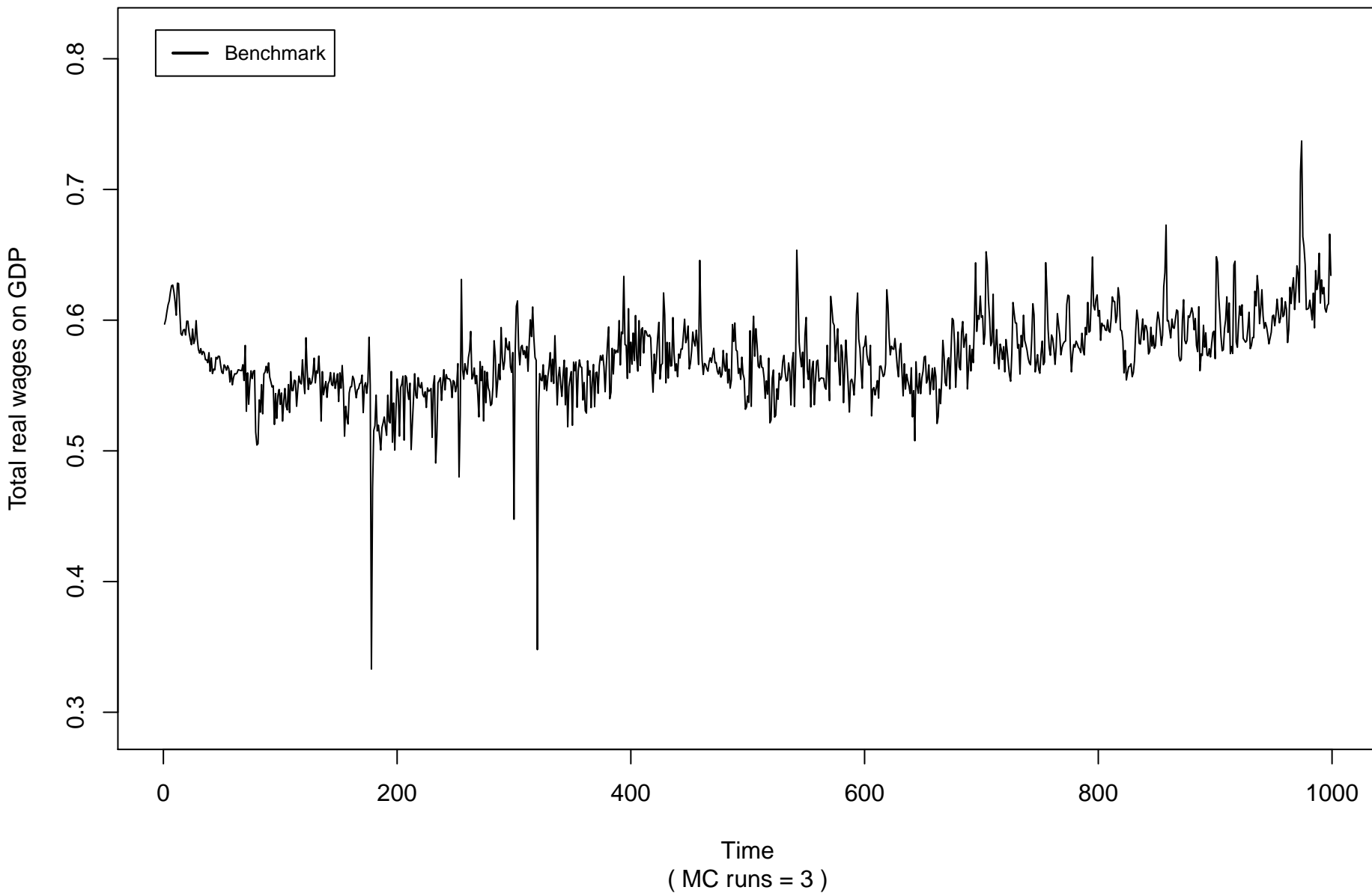
Real wages average (all experiments)



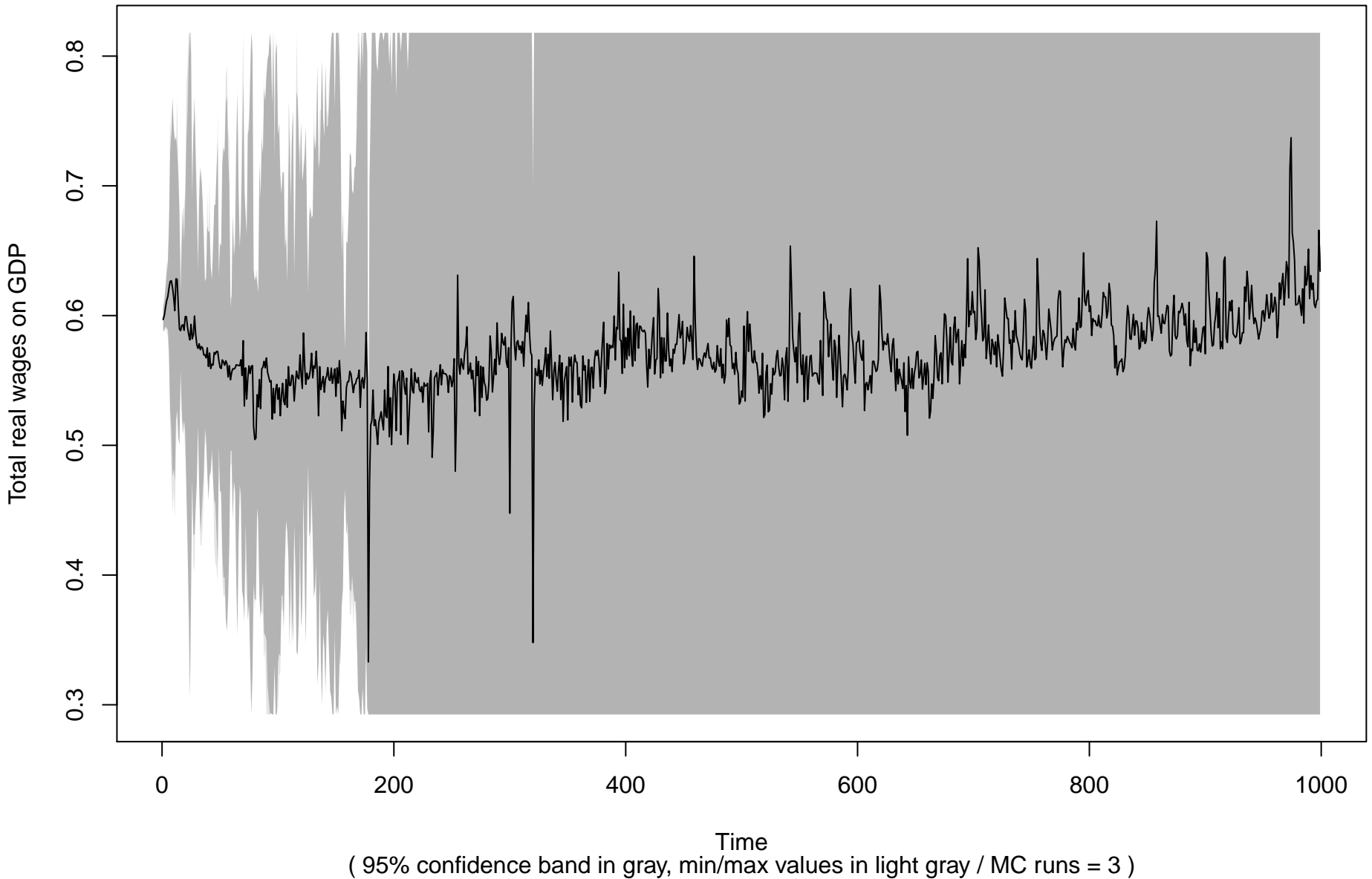
Real wages average (Benchmark)



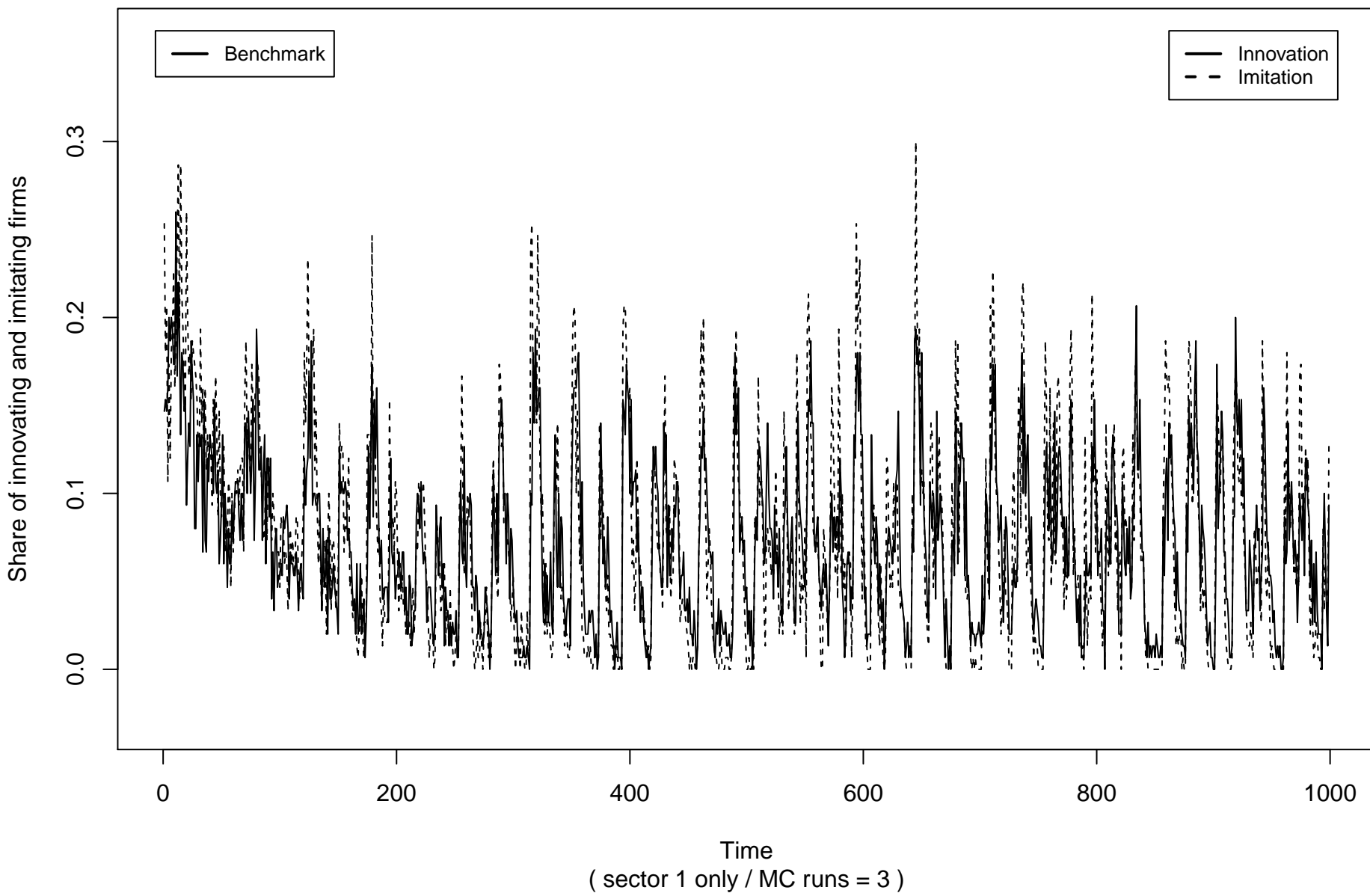
Wage share (all experiments)



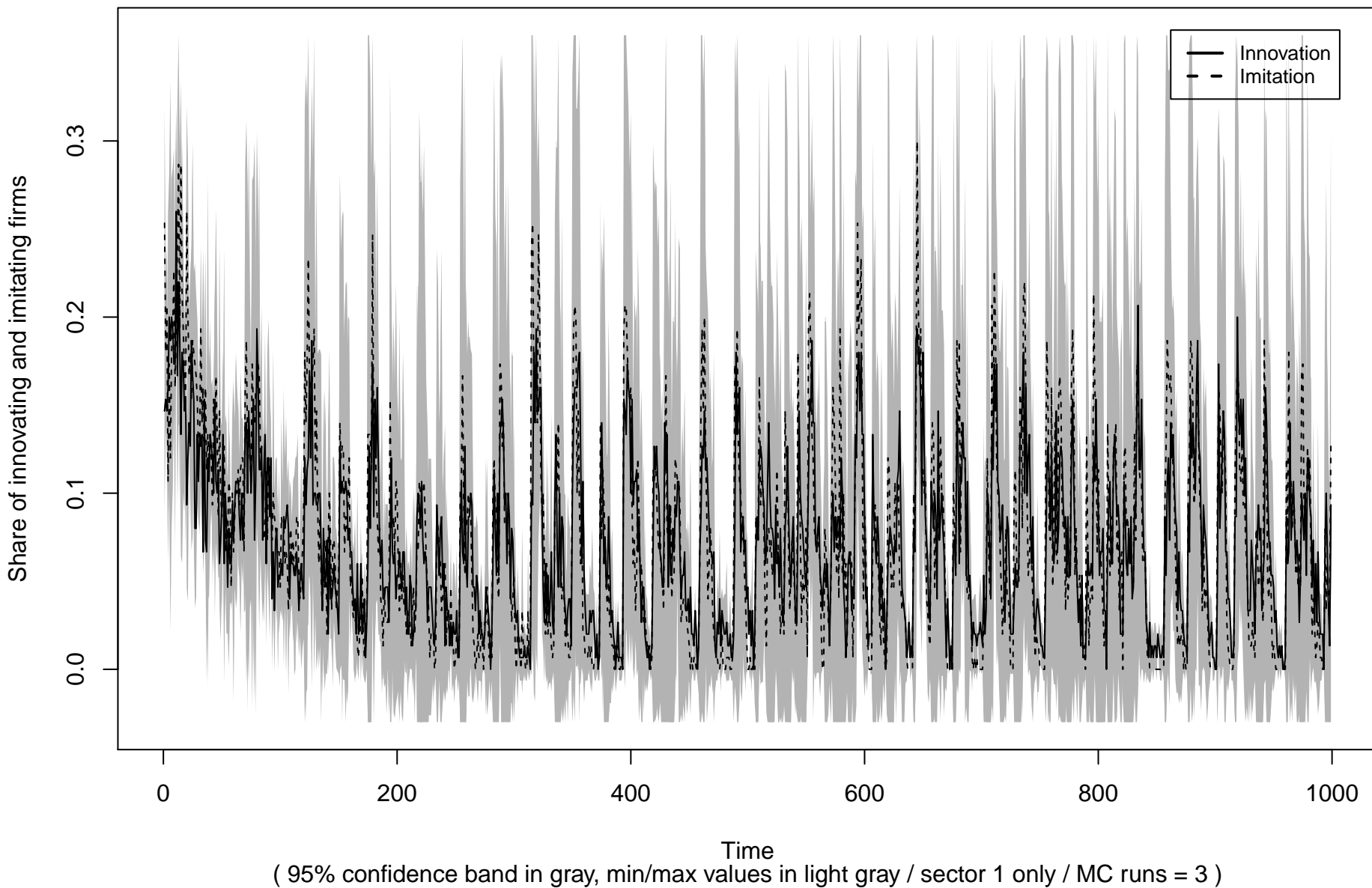
Wage share (Benchmark)



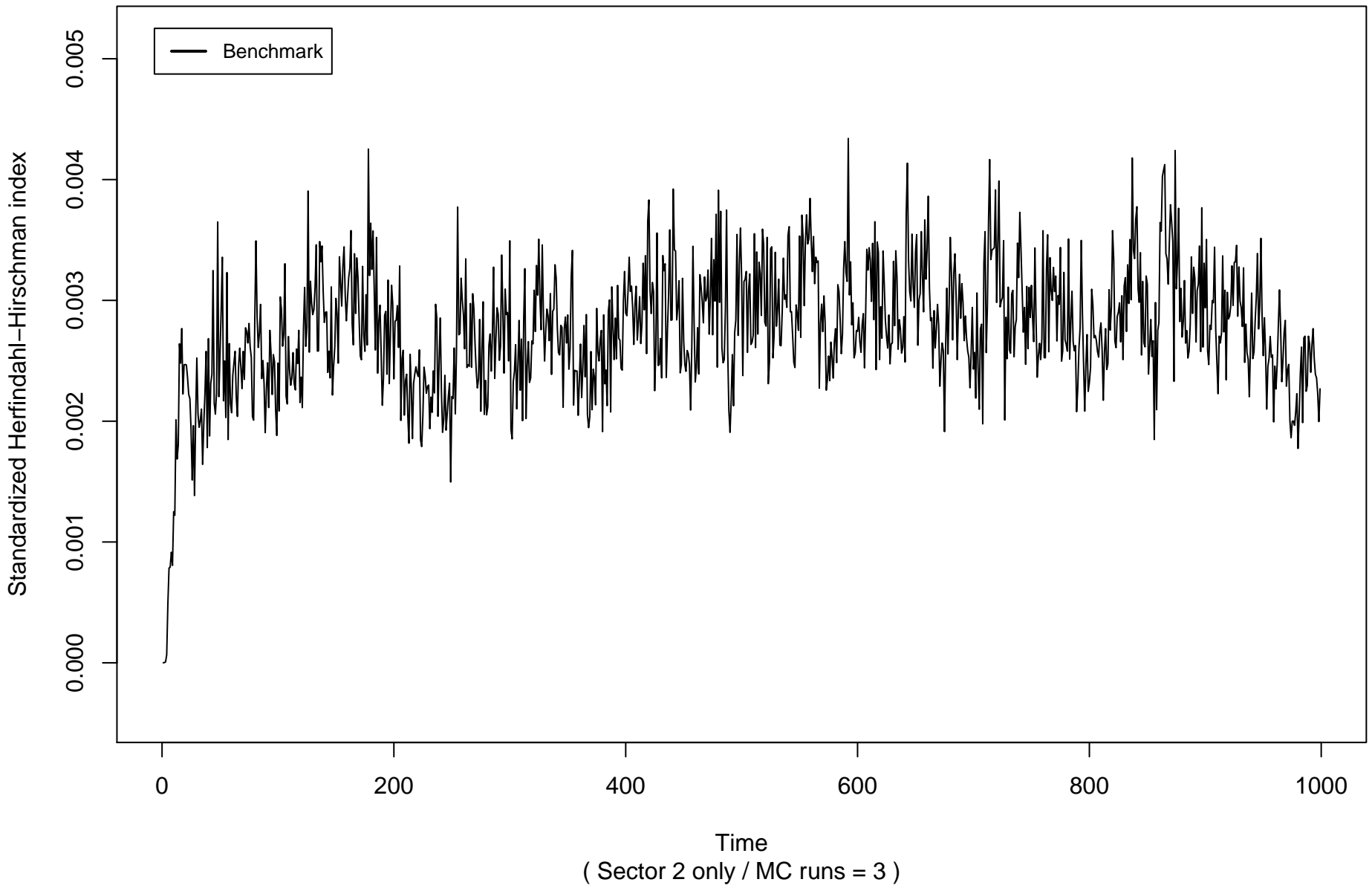
Innovation and imitation (all experiments)



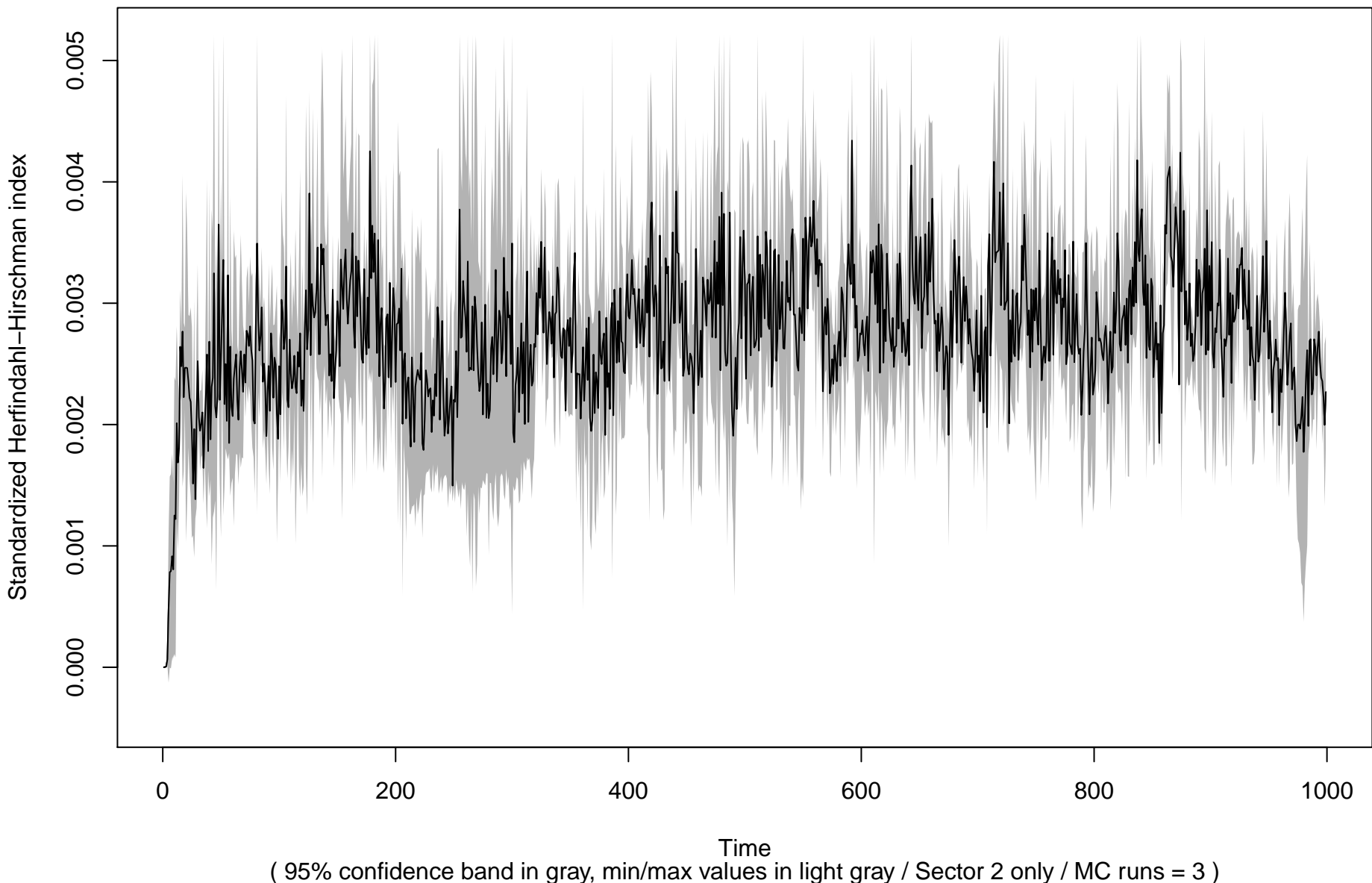
Innovation and imitation (Benchmark)



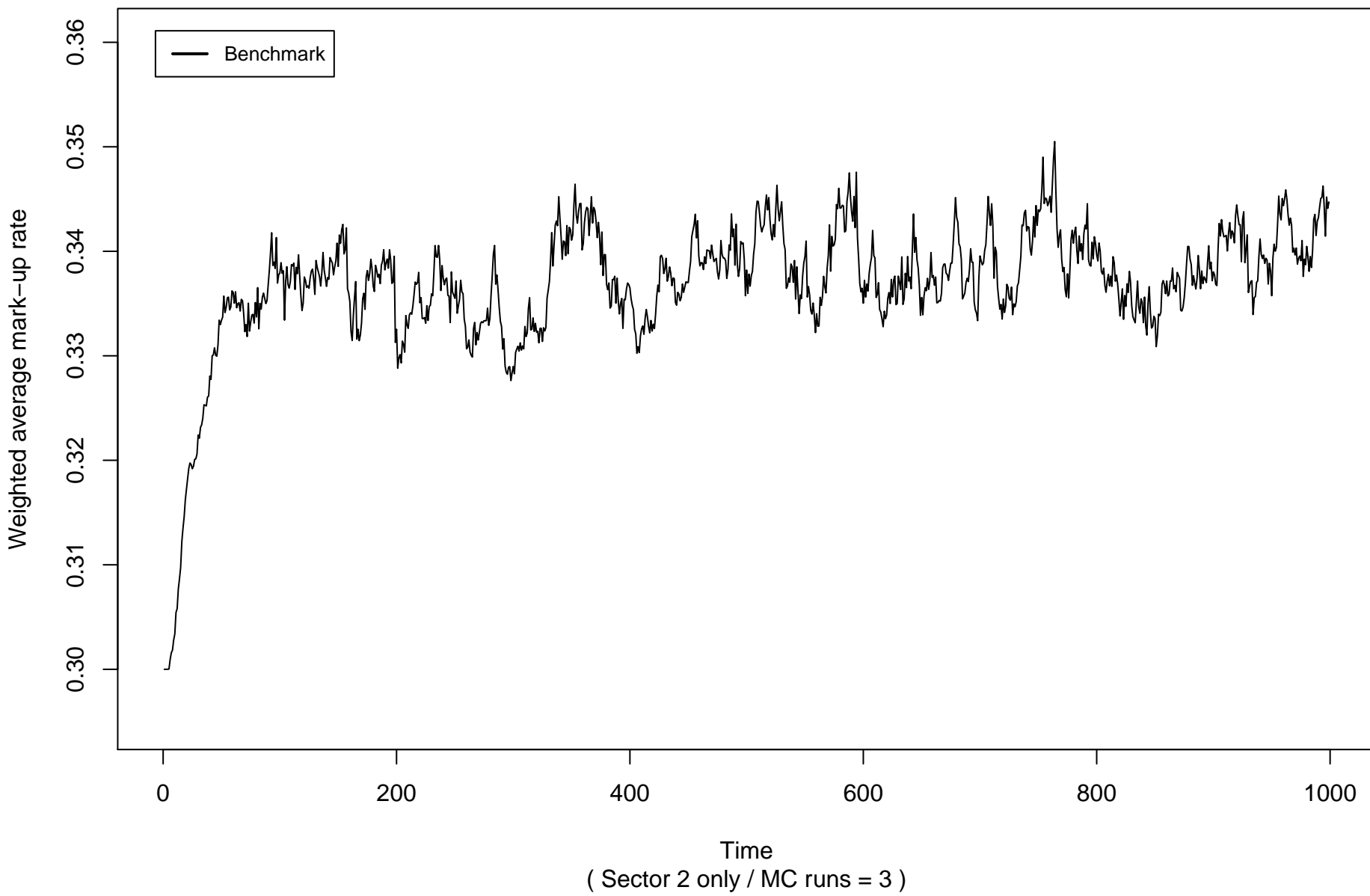
Market concentration (all experiments)



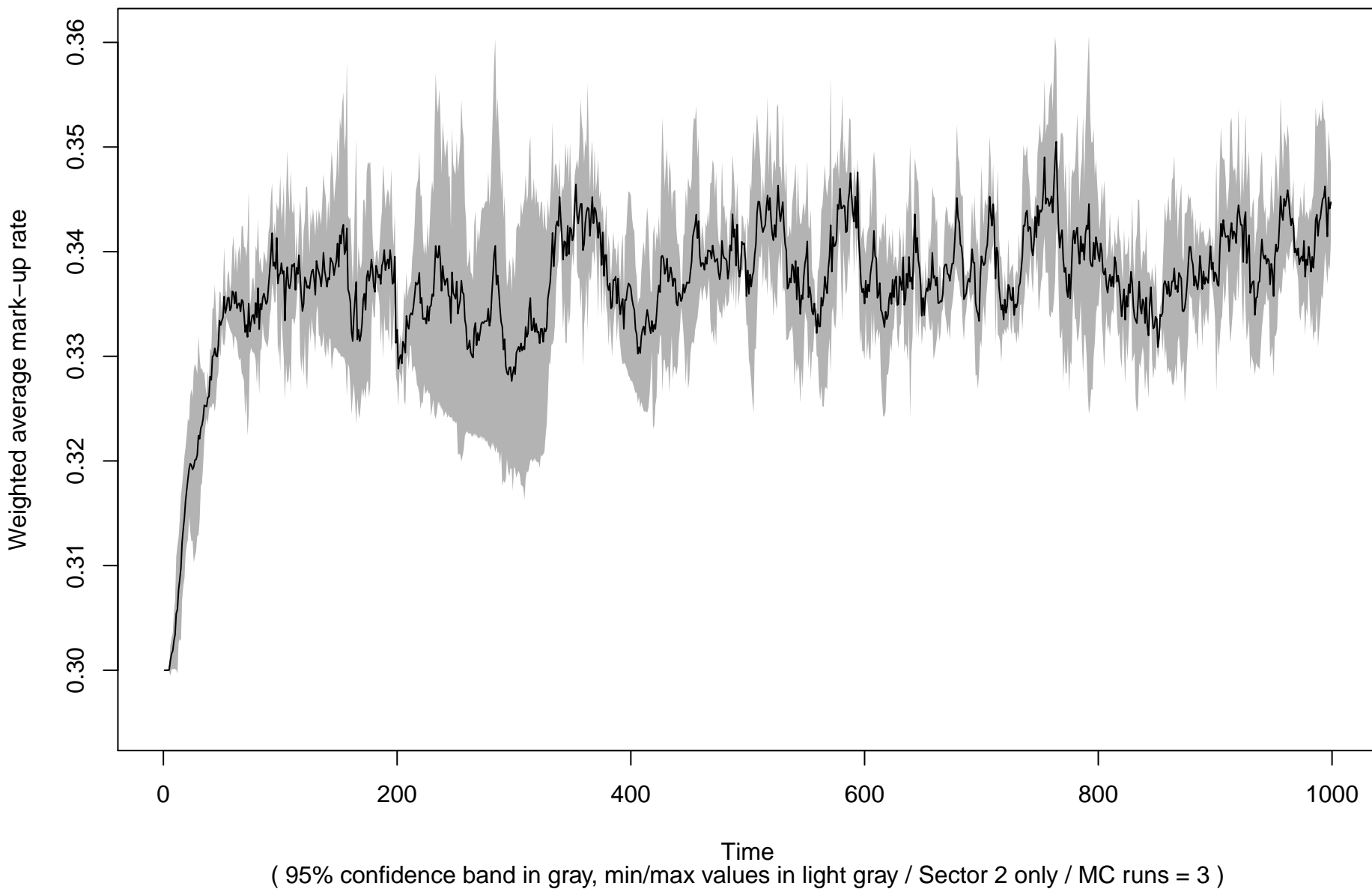
Market concentration (Benchmark)



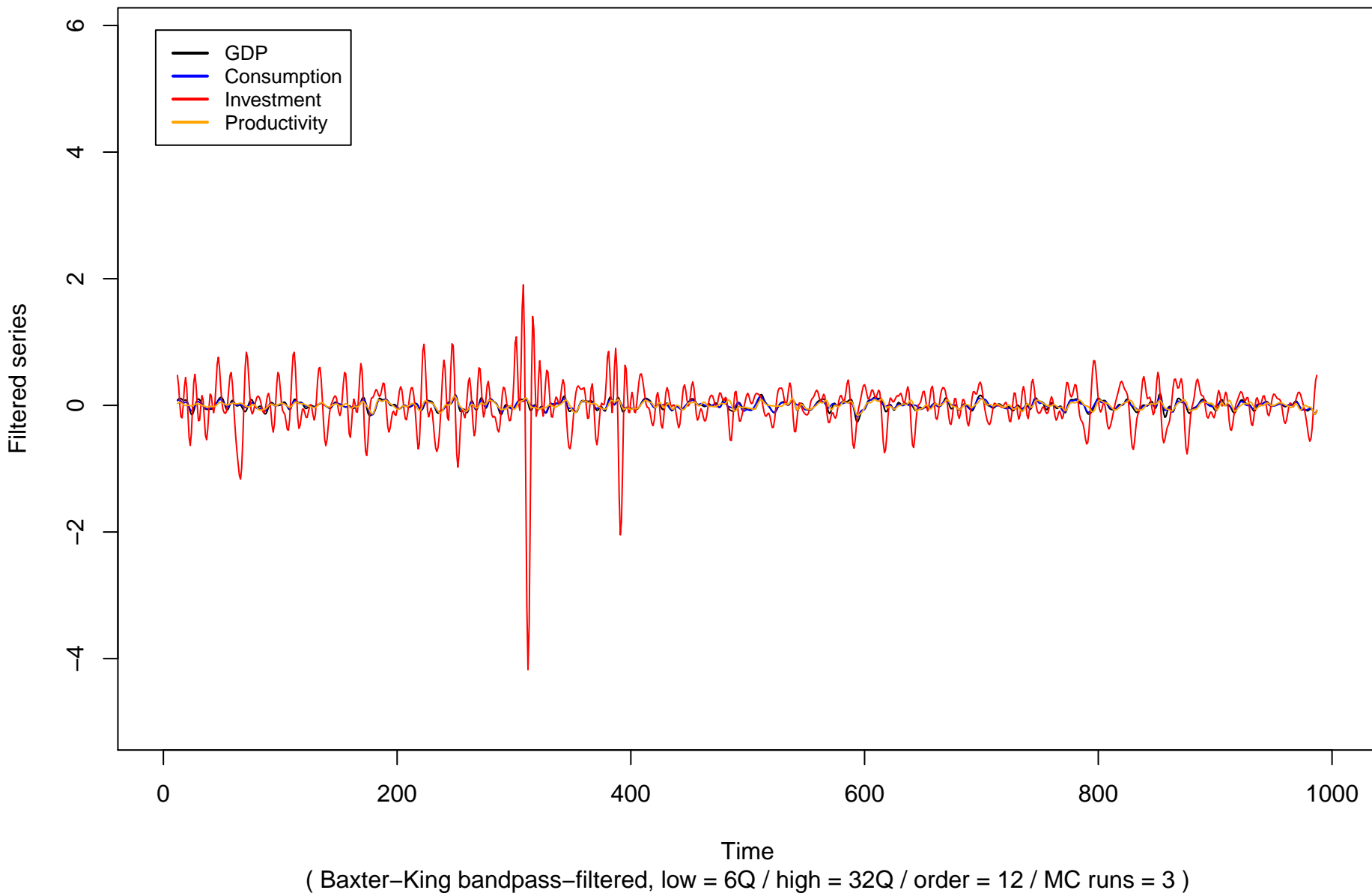
Mark-up average (all experiments)



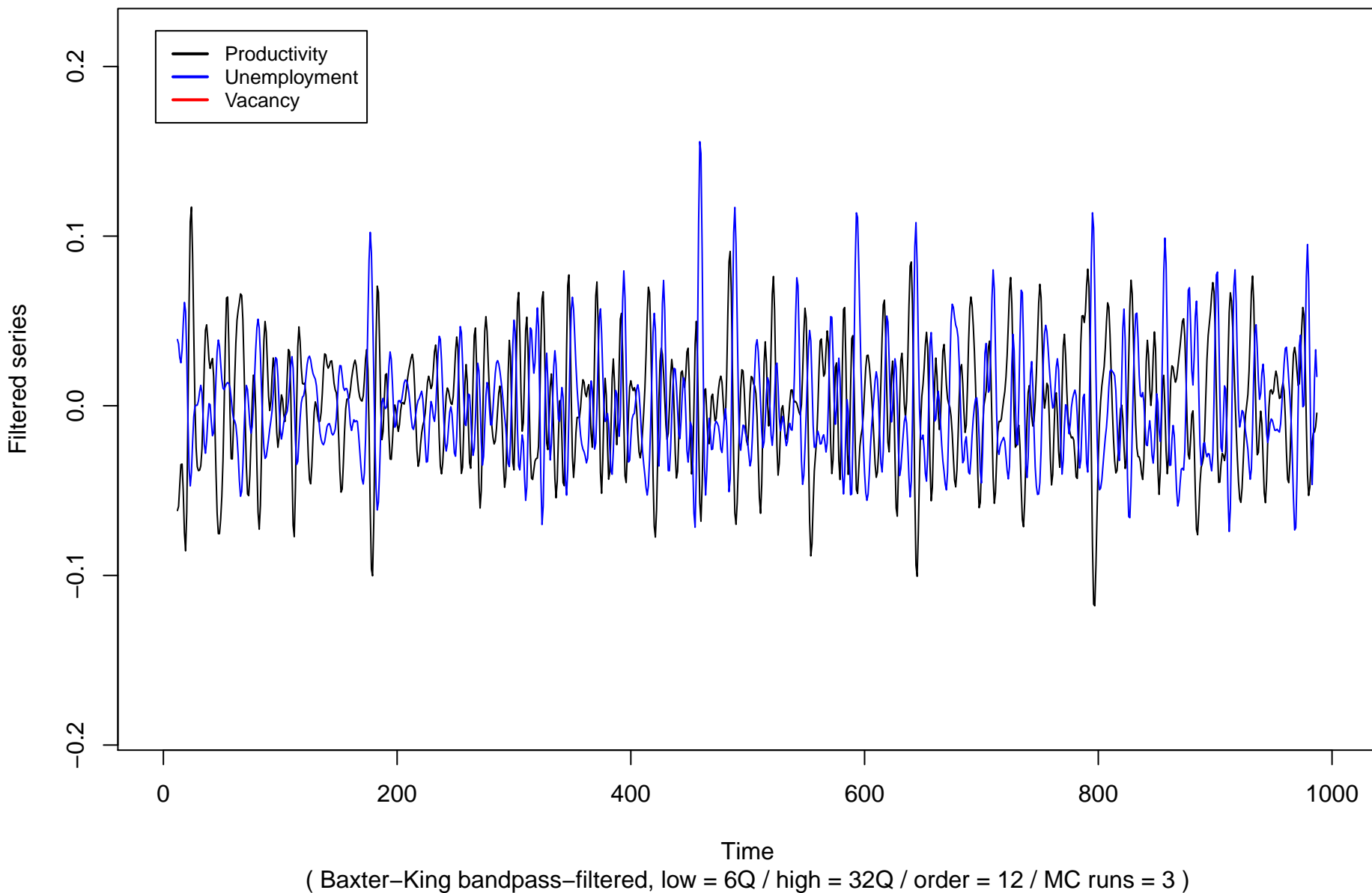
Mark-up average (Benchmark)



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	0.01273	0.01263	0.01349	0.01239	0.01215
(s.e.)	0.001504	0.001509	0.001639	0.001404	0.001445
ADF test (logs)	-2.19	-2.03	-8.692	-2.036	-2.116
(s.e.)	0.1748	0.09626	1.295	0.2373	0.1704
(p-val.)	0.4979	0.5656	0.01	0.5631	0.5293
(s.e.)	0.07401	0.04075	0	0.1005	0.07211
ADF test (bpf)	-11.59	-10.99	-14.05	-11.01	-10.65
(s.e.)	0.4544	0.3421	0.4274	0.3806	0.1228
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.09545	0.07769	1.766	0.06817	0.08013
(s.e.)	0.001708	0.003402	0.1005	0.003404	0.004493
relative s.d. (GDP)	1	0.8139	18.5	0.7142	0.8395

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 3 / 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)	0.02899	0.2995	0.6237	0.8939	1	0.8939	0.6237	0.2995	0.02899
(s.e.)	0.02227	0.01986	0.01222	0.003956	0	0.003956	0.01222	0.01986	0.02227
(p-val.)	0.8721	0.003459	0.0002365	1.131e-05	NA	1.131e-05	0.0002365	0.003459	0.8721
Consumption	0.1242	0.3485	0.6113	0.837	0.9406	0.8739	0.6596	0.3738	0.1043
(s.e.)	0.02807	0.03051	0.02529	0.01603	0.007212	0.00337	0.002993	0.0045	0.007786
(p-val.)	0.07854	0.005573	0.001057	0.0002138	3.368e-05	8.616e-06	1.254e-05	0.0001041	0.0161
Investment	-0.2511	-0.2866	-0.2607	-0.1499	0.02265	0.1932	0.2957	0.302	0.2364
(s.e.)	0.04326	0.05907	0.05563	0.03846	0.04379	0.06808	0.07779	0.06576	0.04055
(p-val.)	0.02429	0.03137	0.03509	0.07473	0.6208	0.09685	0.0476	0.03376	0.02501
Net investment	-0.1581	-0.1483	-0.1004	-0.00441	0.1182	0.2199	0.2584	0.2226	0.1406
(s.e.)	0.02764	0.0435	0.0416	0.02779	0.03583	0.053	0.05268	0.03312	0.005902
(p-val.)	0.03682	0.09277	0.2267	0.9088	0.1286	0.04828	0.03248	0.02	0.002793
Change in inventories	-0.1552	-0.09046	0.03307	0.1666	0.2474	0.2395	0.1574	0.05389	-0.01938
(s.e.)	0.03074	0.03178	0.02847	0.01651	0.01611	0.03155	0.03977	0.03818	0.03017
(p-val.)	0.04691	0.2323	0.7902	0.01199	0.003732	0.01508	0.06927	0.5741	0.9796
Unemployment rate	0.2176	0.1825	0.06006	-0.1143	-0.2682	-0.3322	-0.287	-0.1688	-0.04478
(s.e.)	0.09733	0.09835	0.08684	0.05706	0.01891	0.03758	0.06569	0.07269	0.05939
(p-val.)	0.1255	0.1725	0.09356	0.2278	0.004155	0.009398	0.03784	0.1398	0.3695
Productivity	0.2357	0.4156	0.5948	0.7276	0.7677	0.6929	0.5226	0.3065	0.09995
(s.e.)	0.04165	0.04614	0.04709	0.03665	0.0158	0.02858	0.05484	0.06442	0.05357
(p-val.)	0.02647	0.008298	0.00386	0.001509	0.0002505	0.001023	0.00694	0.03147	0.2405
Mark-up (sector 2)	0.2816	0.2256	0.1304	0.01883	-0.08063	-0.1467	-0.1753	-0.1742	-0.1553
(s.e.)	0.06993	0.06006	0.04937	0.03488	0.01378	0.01368	0.04089	0.0626	0.07522
(p-val.)	0.04409	0.05626	0.15	0.764	0.1544	0.01255	0.05461	0.1074	0.1703
Total firm debt	0.1679	0.1013	0.02528	-0.04523	-0.099	-0.1331	-0.1489	-0.151	-0.1432
(s.e.)	0.04638	0.009767	0.01757	0.03264	0.03863	0.04096	0.04317	0.04705	0.05238
(p-val.)	0.07489	0.0282	0.9283	0.6164	0.2195	0.1124	0.09087	0.09953	0.1306
Liquidity-to-sales ratio	-0.05941	-0.1856	-0.3264	-0.4439	-0.4967	-0.4548	-0.3388	-0.1883	-0.04883
(s.e.)	0.06324	0.07265	0.0716	0.05483	0.02409	0.01957	0.04766	0.06501	0.06683
(p-val.)	0.292	0.1155	0.03307	0.009997	0.001528	0.001237	0.0142	0.09574	0.187
Bankruptcy rate	0.2446	0.2778	0.2494	0.1756	0.09484	0.03563	-0.001749	-0.04113	-0.101
(s.e.)	0.06413	0.05297	0.03962	0.03339	0.03639	0.04301	0.04748	0.0437	0.03159
(p-val.)	0.05219	0.02764	0.02096	0.03826	0.2309	0.5514	0.4556	0.3503	0.1712

(non-rate/ratio series are Baxter-King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 3 / 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)	0.02899	0.2995	0.6237	0.8939	1	0.8939	0.6237	0.2995	0.02899
(s.e.)	0.02227	0.01986	0.01222	0.003956	0	0.003956	0.01222	0.01986	0.02227
(p-val.)	0.8721	0.003459	0.0002365	1.131e-05	NA	1.131e-05	0.0002365	0.003459	0.8721
Consumption	0.1242	0.3485	0.6113	0.837	0.9406	0.8739	0.6596	0.3738	0.1043
(s.e.)	0.02807	0.03051	0.02529	0.01603	0.007212	0.00337	0.002993	0.0045	0.007786
(p-val.)	0.07854	0.005573	0.001057	0.0002138	3.368e-05	8.616e-06	1.254e-05	0.0001041	0.0161
Investment	-0.2511	-0.2866	-0.2607	-0.1499	0.02265	0.1932	0.2957	0.302	0.2364
(s.e.)	0.04326	0.05907	0.05563	0.03846	0.04379	0.06808	0.07779	0.06576	0.04055
(p-val.)	0.02429	0.03137	0.03509	0.07473	0.6208	0.09685	0.0476	0.03376	0.02501
Productivity	0.2357	0.4156	0.5948	0.7276	0.7677	0.6929	0.5226	0.3065	0.09995
(s.e.)	0.04165	0.04614	0.04709	0.03665	0.0158	0.02858	0.05484	0.06442	0.05357
(p-val.)	0.02647	0.008298	0.00386	0.001509	0.0002505	0.001023	0.00694	0.03147	0.2405
Entry	-0.09134	0.0697	0.2509	0.4054	0.4875	0.4757	0.3882	0.2662	0.1513
(s.e.)	0.08223	0.0703	0.05993	0.04754	0.02863	0.01485	0.03129	0.04824	0.05811
(p-val.)	0.08212	0.4035	0.0438	0.009313	0.002248	0.0006426	0.004539	0.02577	0.132
Wage	0.2631	0.4515	0.6222	0.7274	0.7319	0.6324	0.4598	0.2621	0.08087
(s.e.)	0.04897	0.04828	0.04176	0.02704	0.01698	0.03028	0.04078	0.03804	0.02356
(p-val.)	0.02726	0.007509	0.002755	0.0008238	0.000321	0.001403	0.005174	0.01715	0.2534
Unemployment rate	0.2176	0.1825	0.06006	-0.1143	-0.2682	-0.3322	-0.287	-0.1688	-0.04478
(s.e.)	0.09733	0.09835	0.08684	0.05706	0.01891	0.03758	0.06569	0.07269	0.05939
(p-val.)	0.1255	0.1725	0.09356	0.2278	0.004155	0.009398	0.03784	0.1398	0.3695
Vacancy rate	0.1825	0.03626	-0.1231	-0.2328	-0.2561	-0.2061	-0.1311	-0.08095	-0.07346
(s.e.)	0.05244	0.08024	0.1174	0.1363	0.1219	0.07861	0.03654	0.05183	0.06726
(p-val.)	0.07412	0.1429	0.1244	0.1624	0.1262	0.1041	0.09958	0.3747	0.2627

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 3 / period = 2 – 1000)
(test H0: lag coefficient is not significant at 5% level)

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

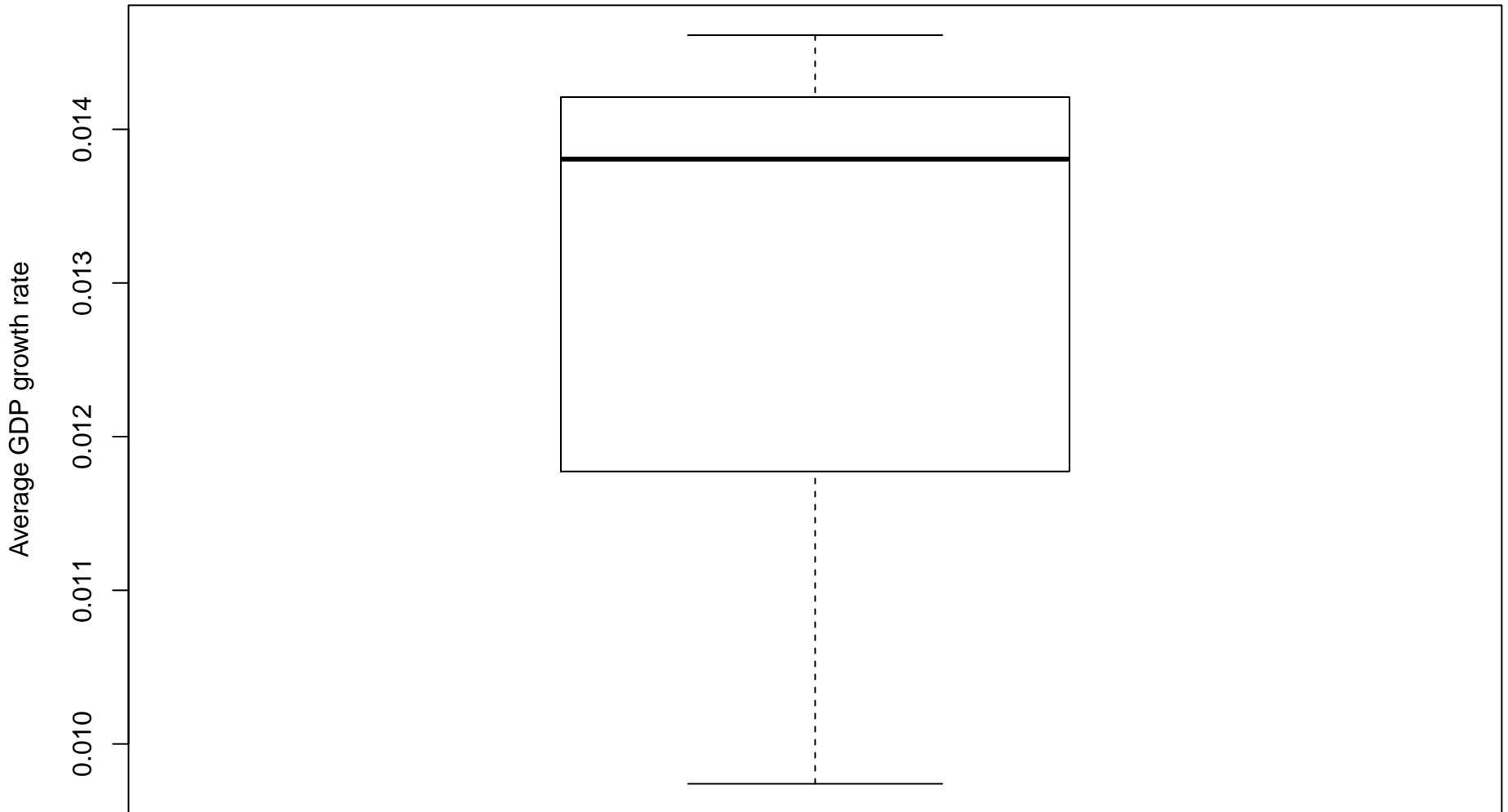
	avg.ADF	rej.ADF	avg.PP	rej.PP	avg.KPSS	rej.KPSS	avg.BDS	rej.BDS	avg.KS	rej.KS	AD	V
dGDP	0.01	1.00	0.01	1.00	0.10	0.00	0.07	0.67	0.22	0.67	0.00	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.00	1.00	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.00	1.00	0.00	C
V	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.00	1.00	0.00	C
U	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.00	1.00	0.00	C
mu2avg	0.01	1.00	0.01	1.00	0.01	1.00	0.00	1.00	0.00	1.00	0.00	C
HH1	0.01	1.00	0.01	1.00	0.07	0.33	0.00	1.00	0.01	1.00	0.00	C
HH2	0.01	1.00	0.01	1.00	0.03	0.67	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 = 3 / period = 2 – 1000)

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

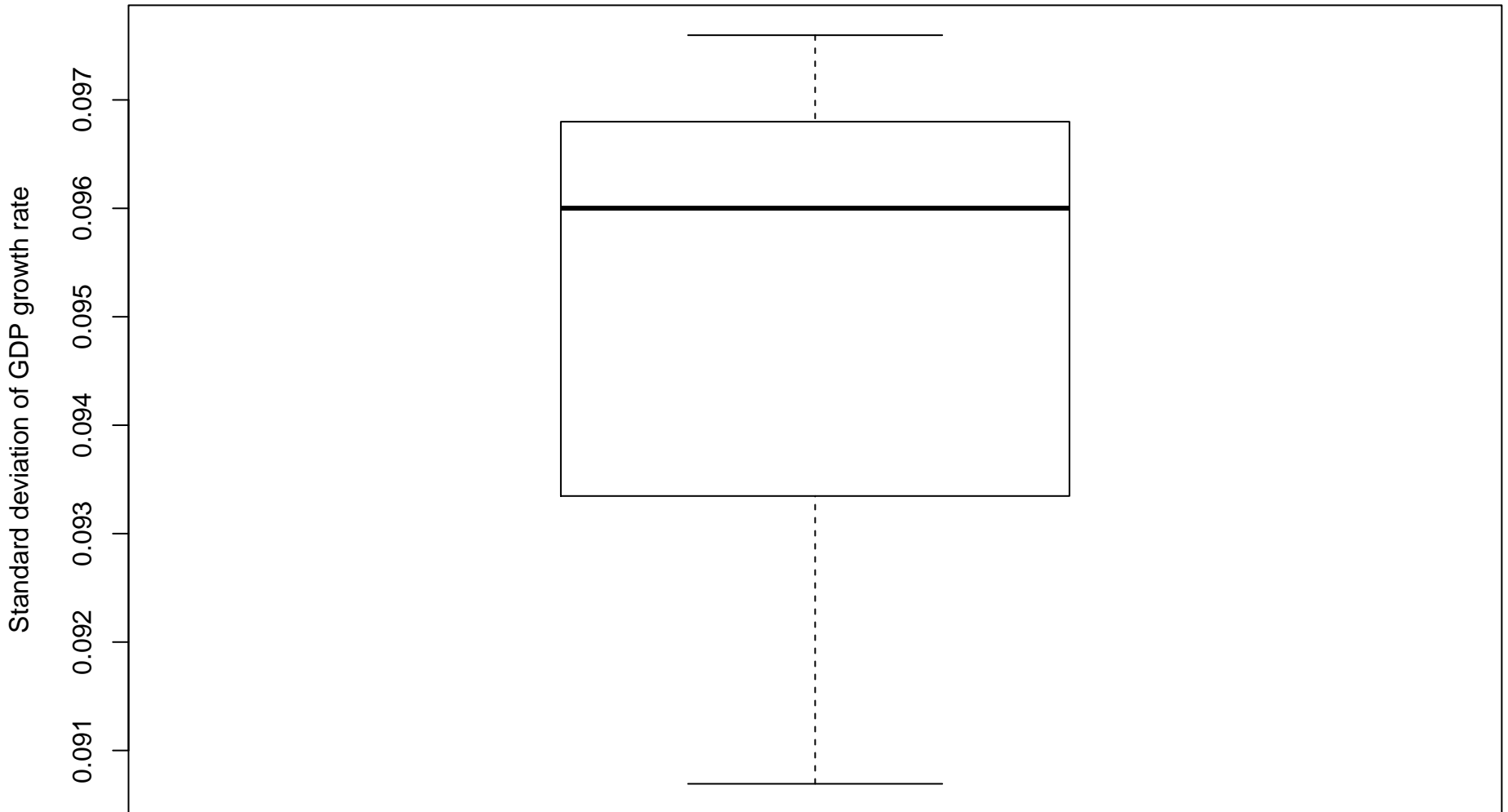
(significance = 0.05)

GDP growth



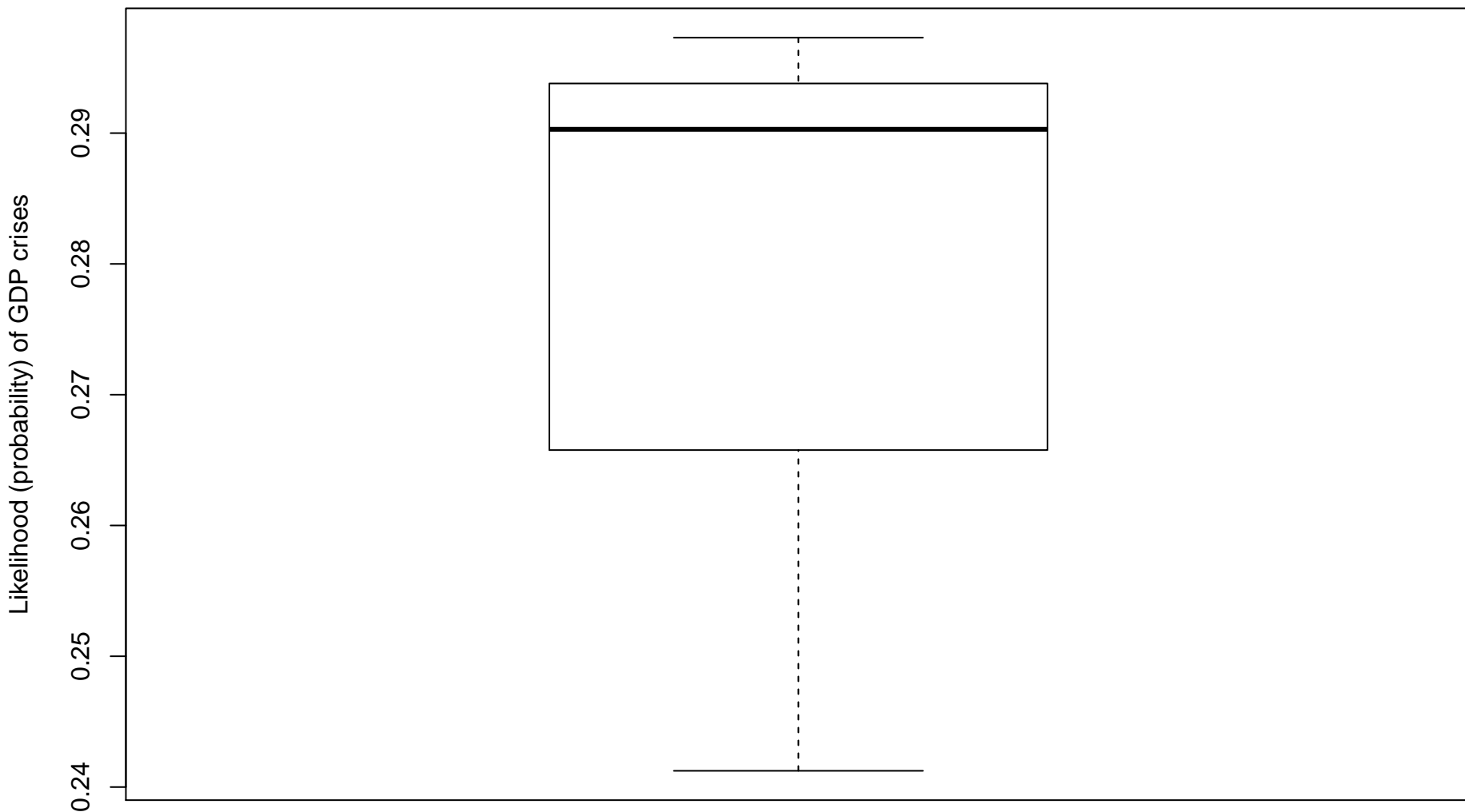
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Volatility of GDP growth



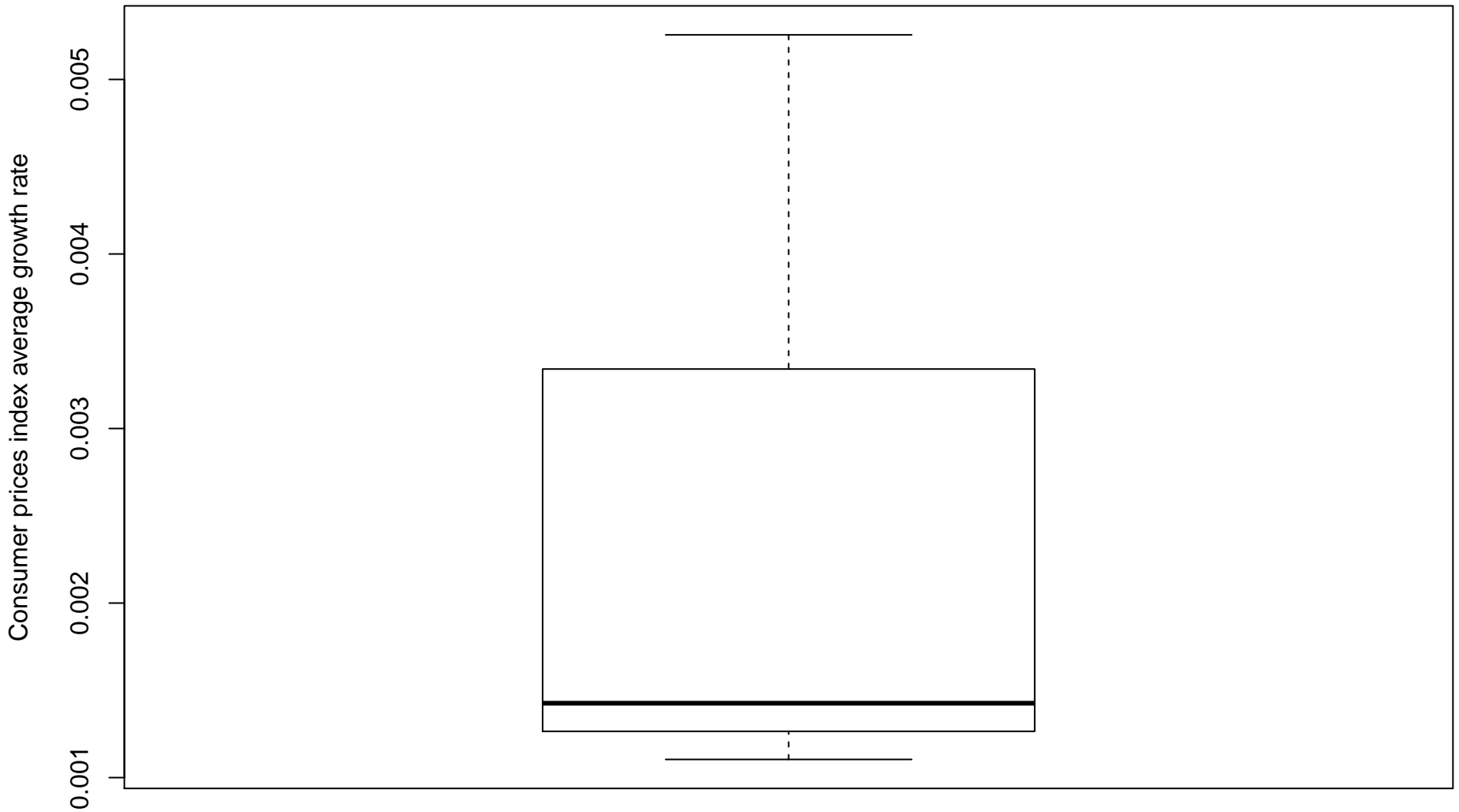
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Likelihood of GDP crises



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

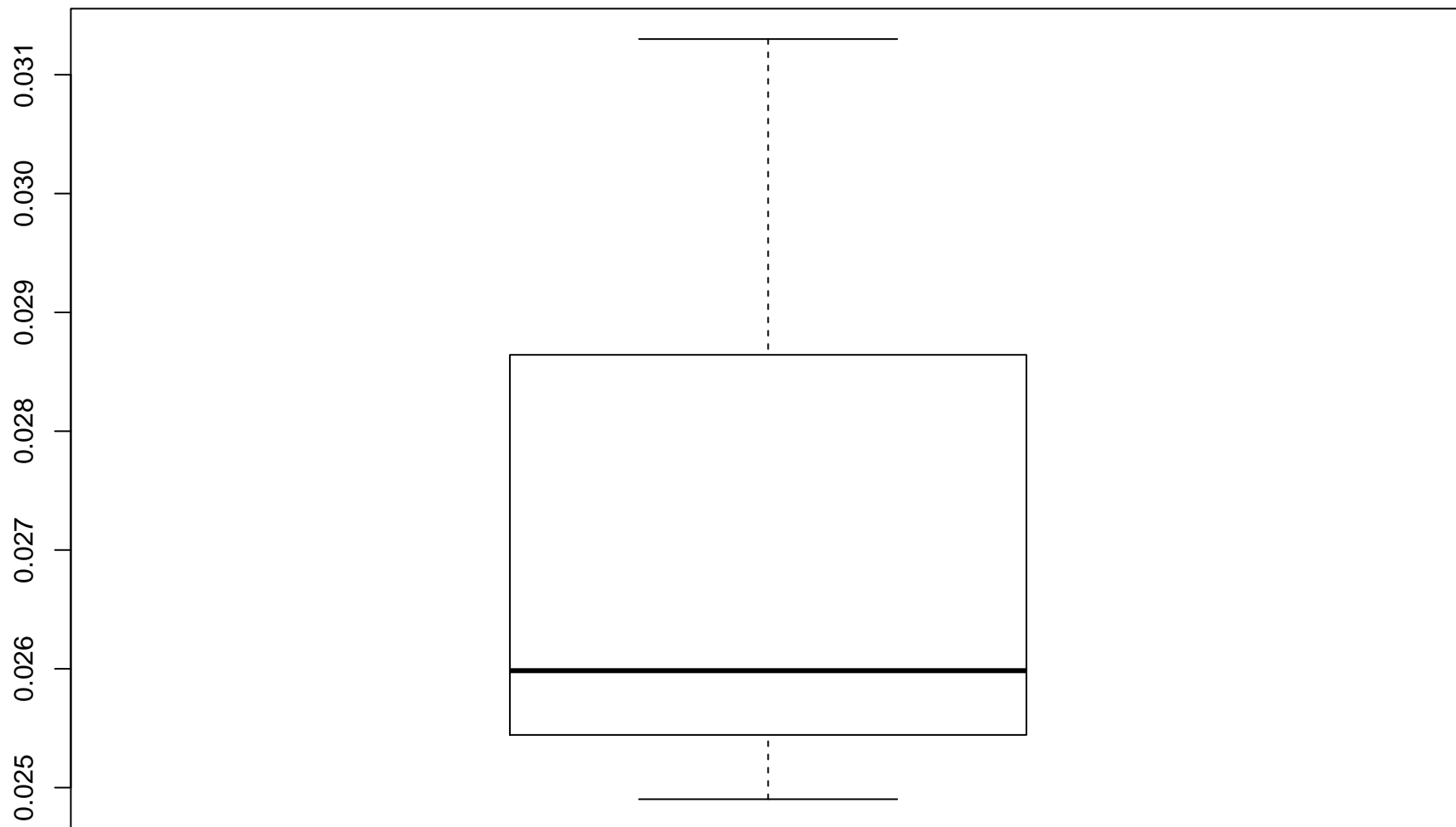
Inflation



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

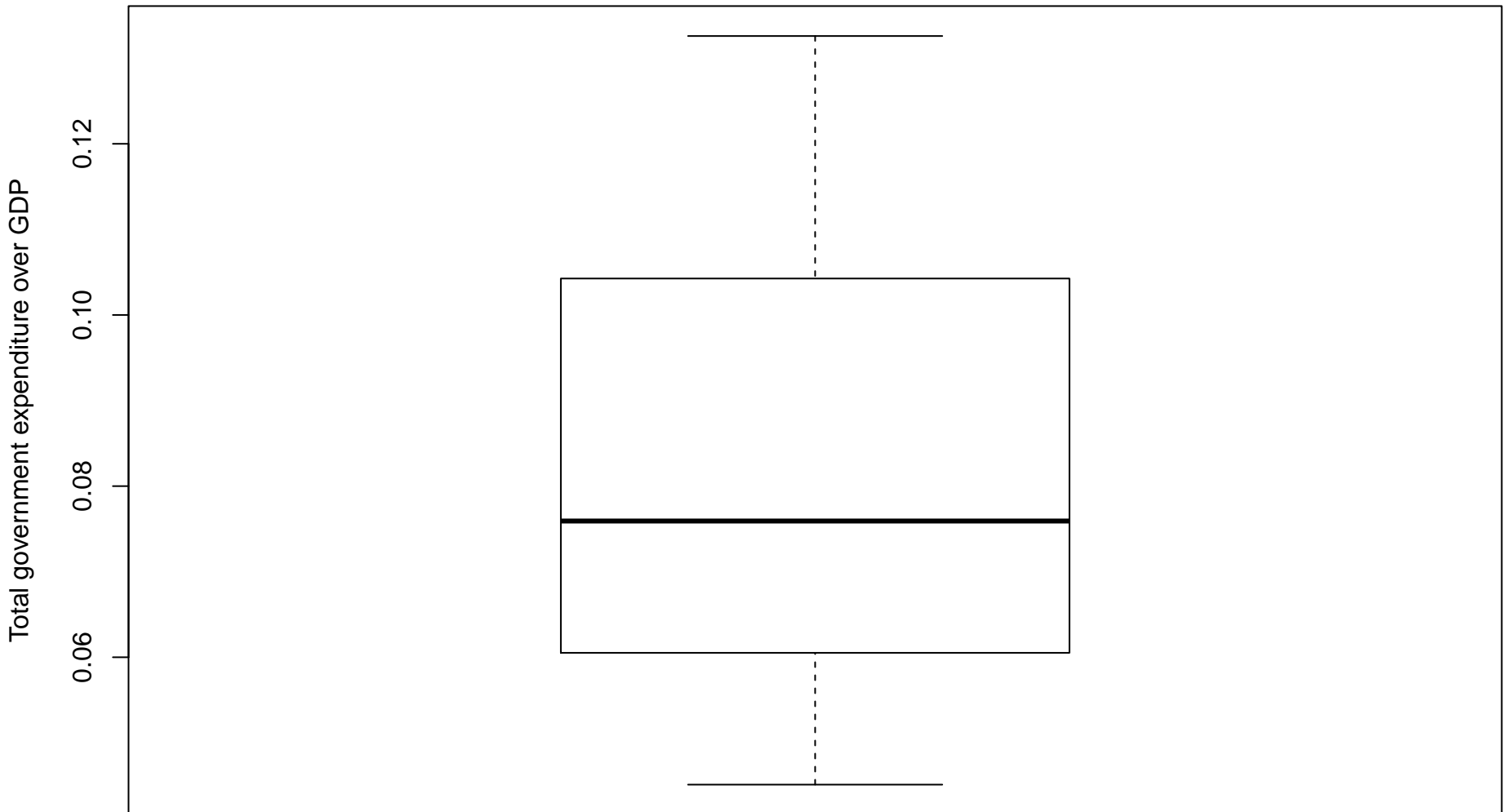
Government tax income over GDP

Tax



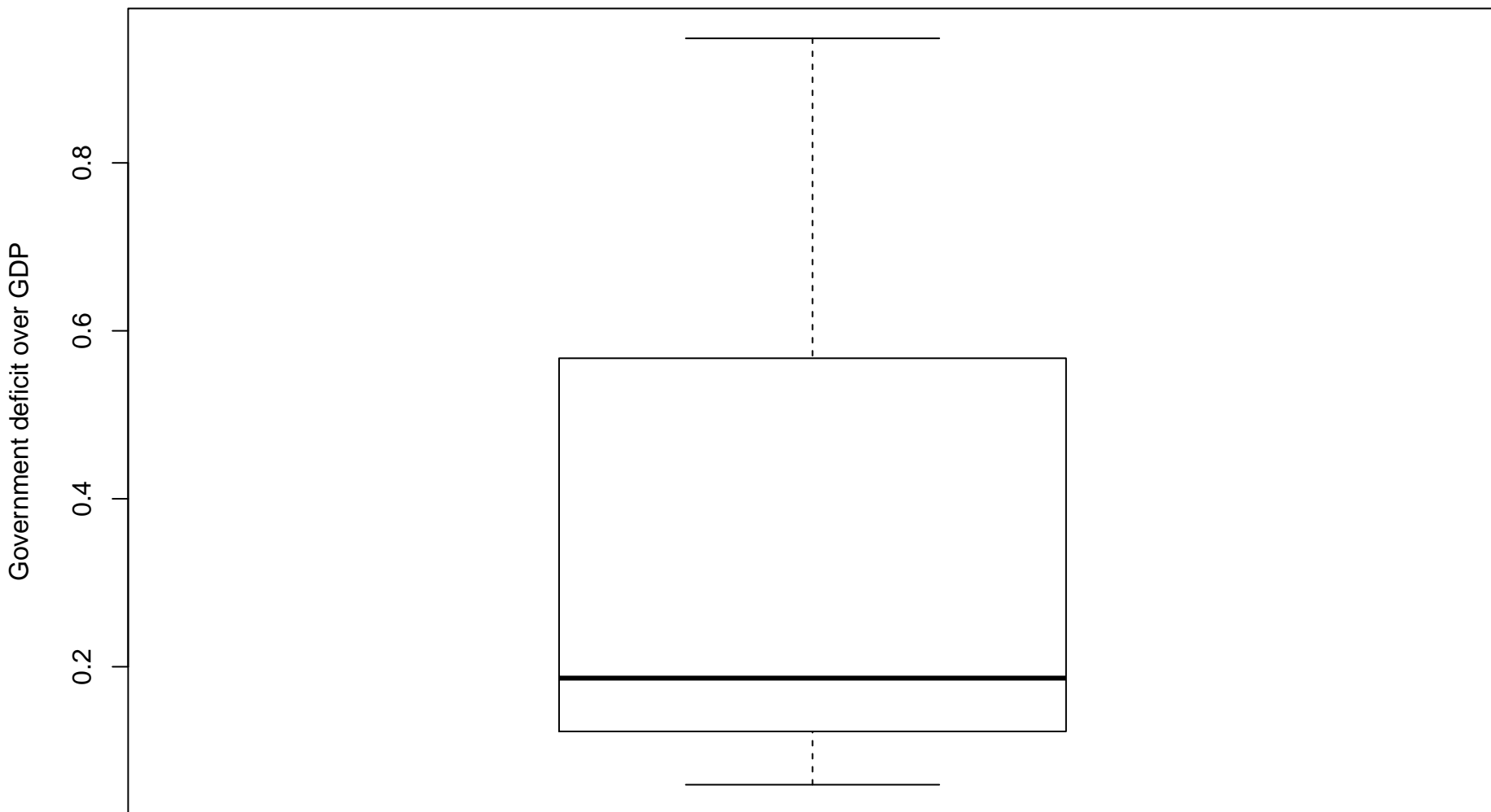
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Government total expenditure



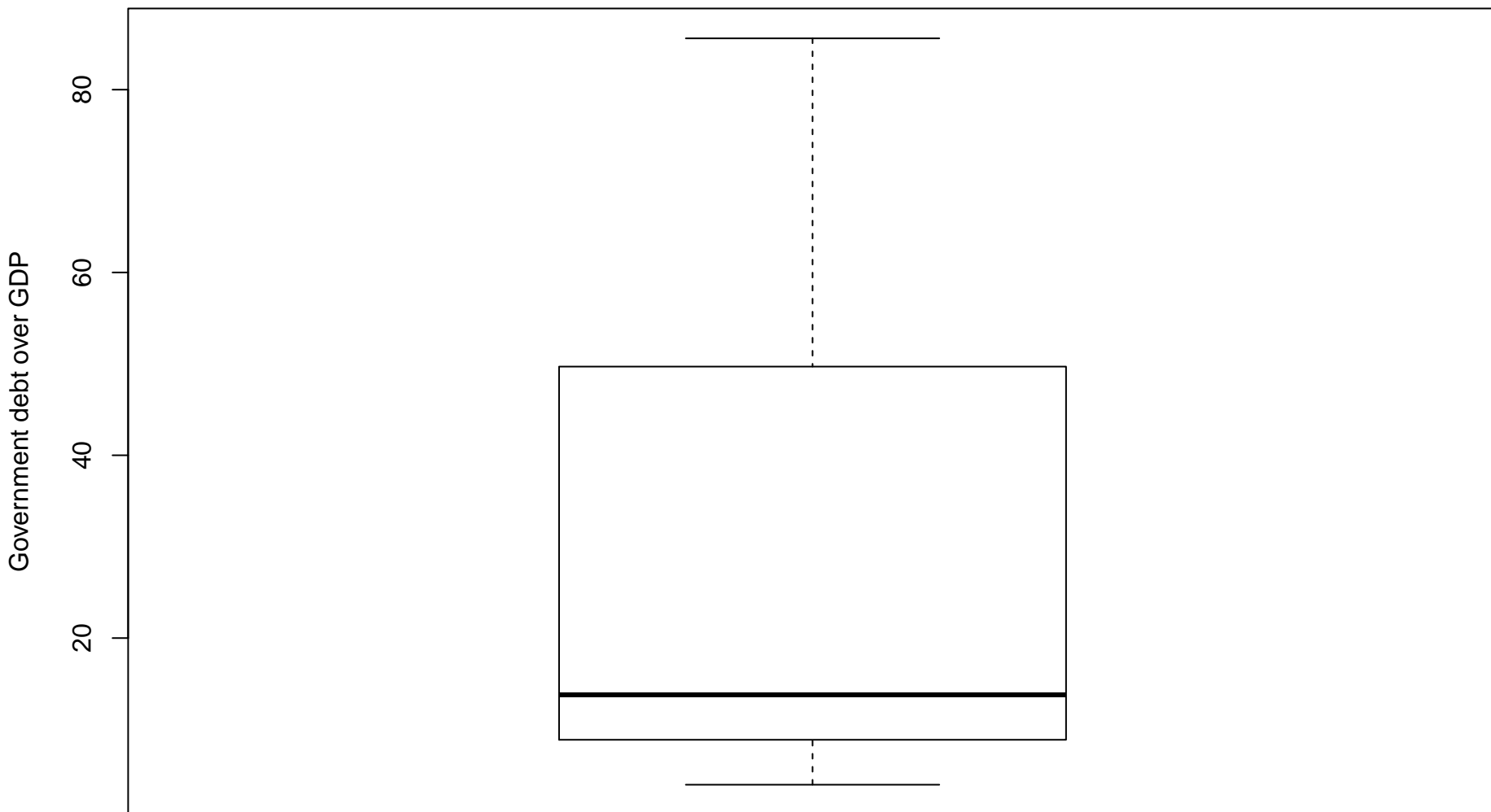
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Government deficit



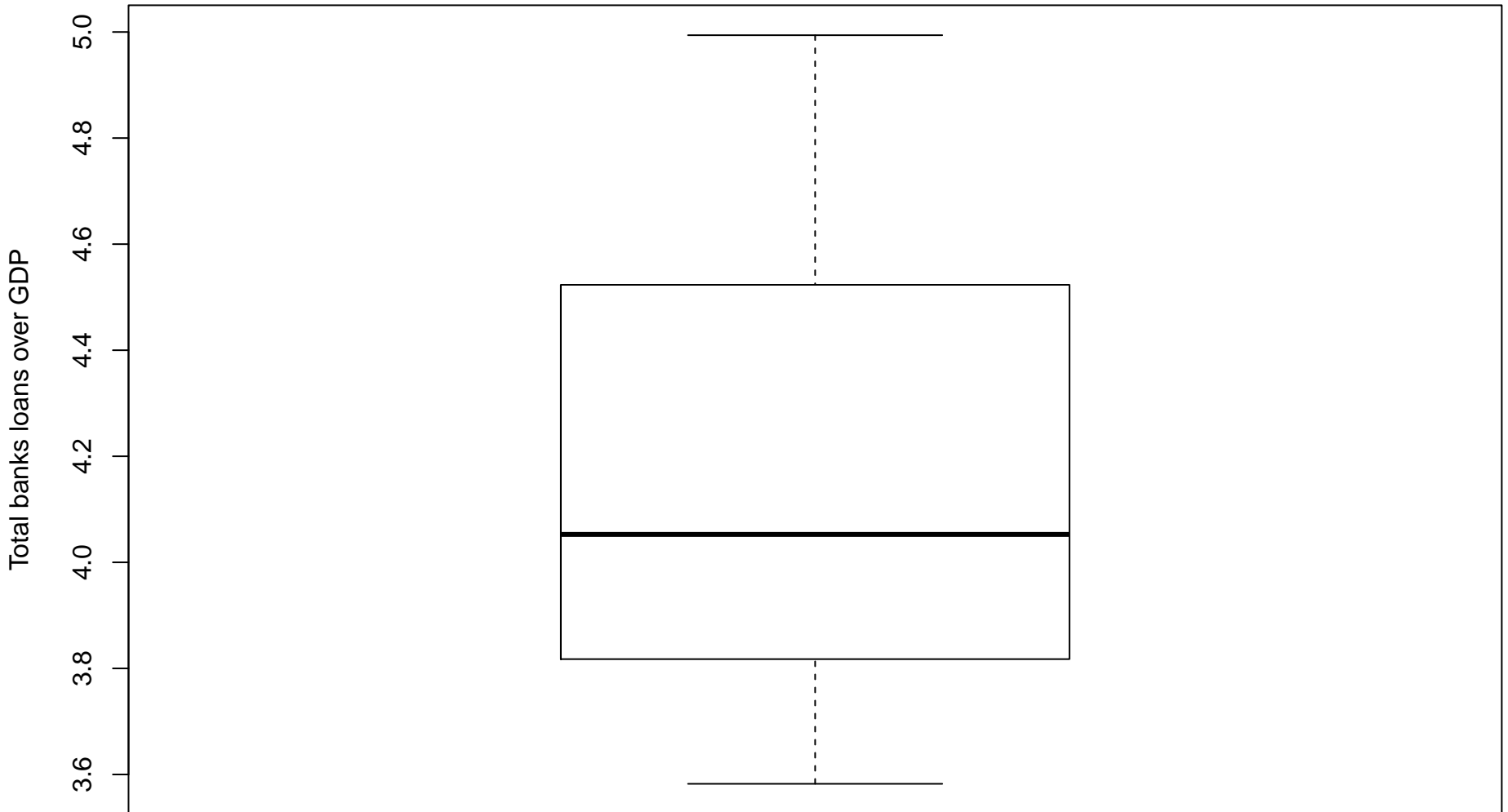
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Government debt



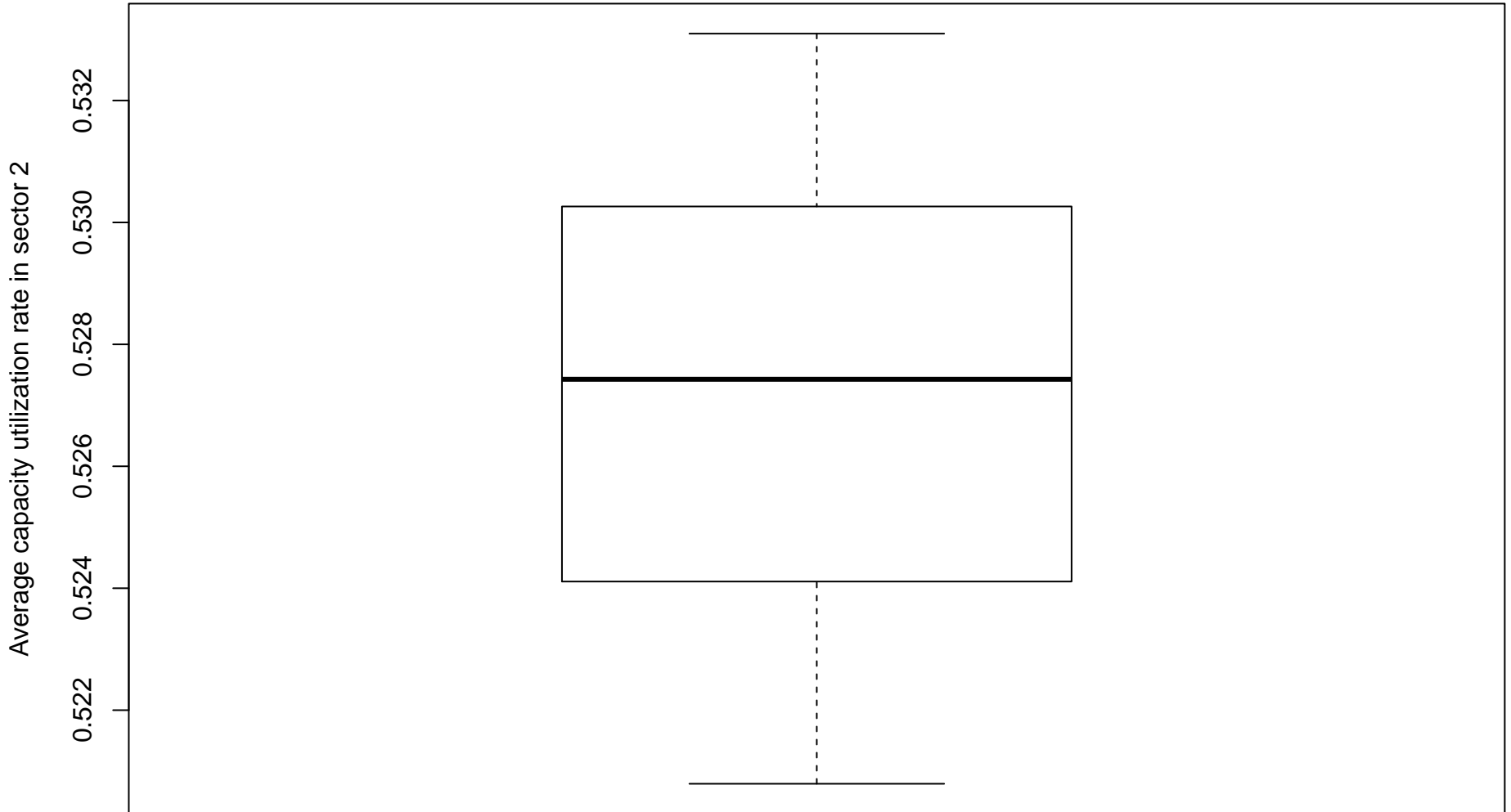
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Loans



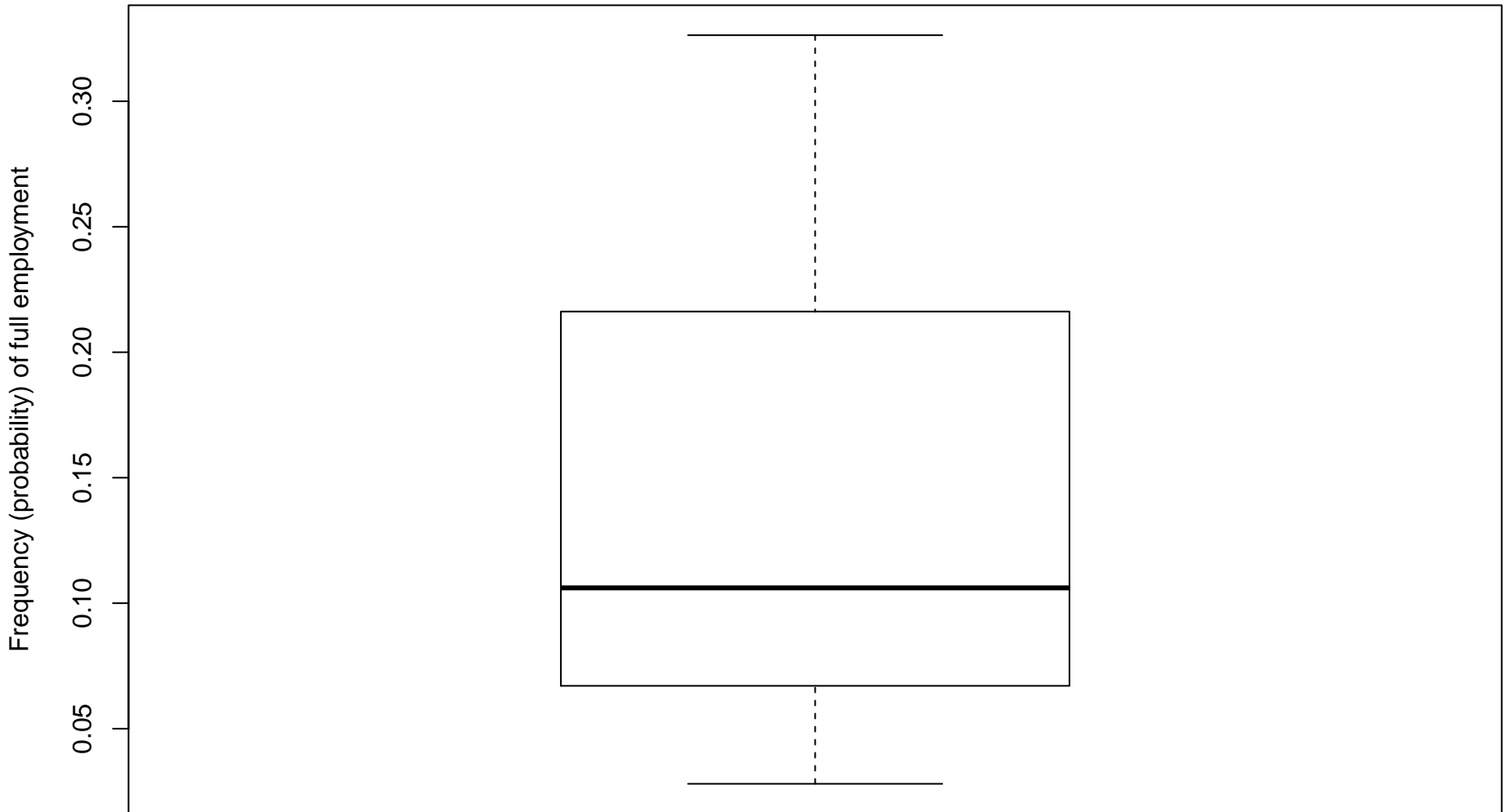
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Capacity utilization



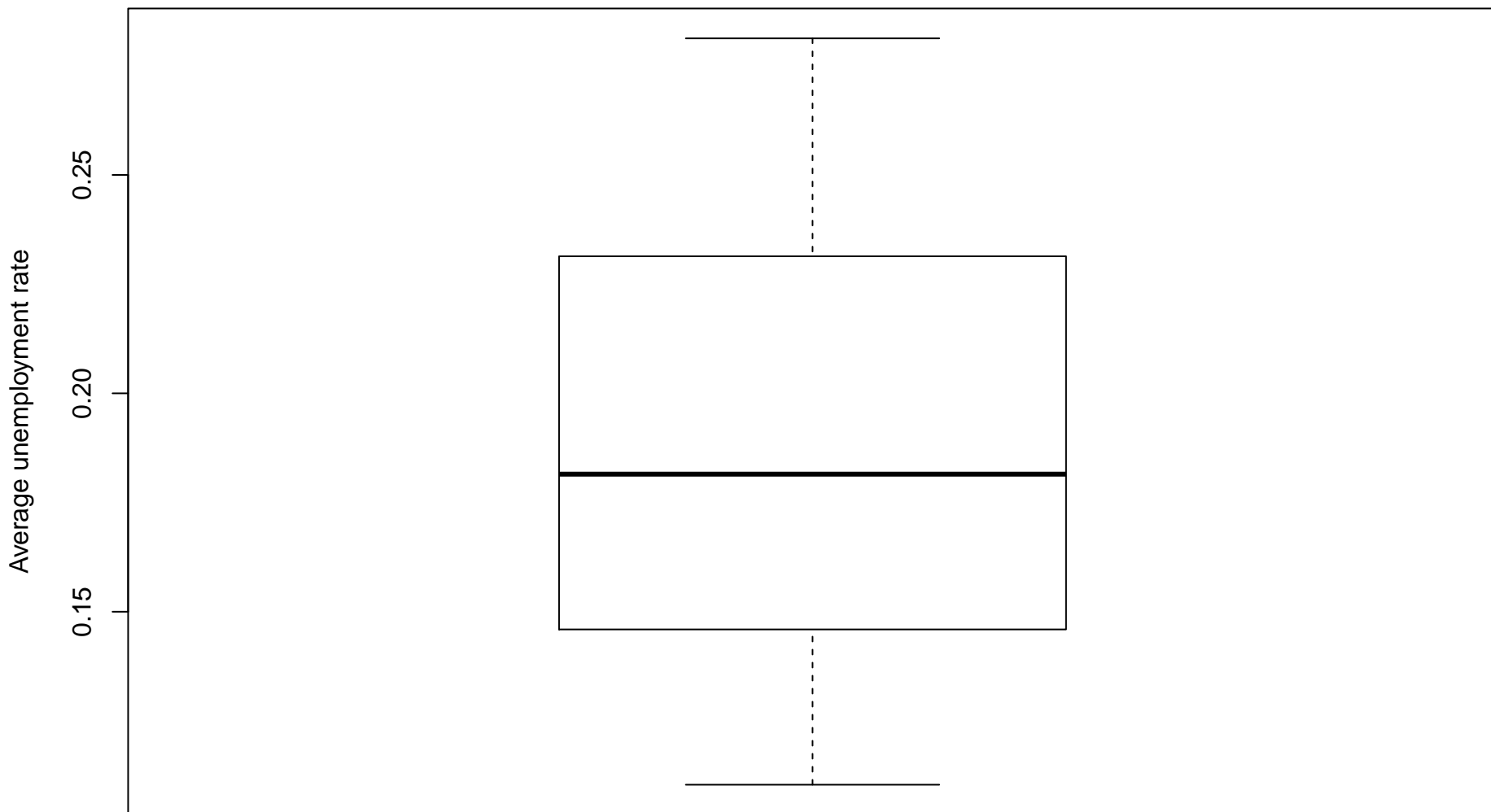
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Full employment frequency



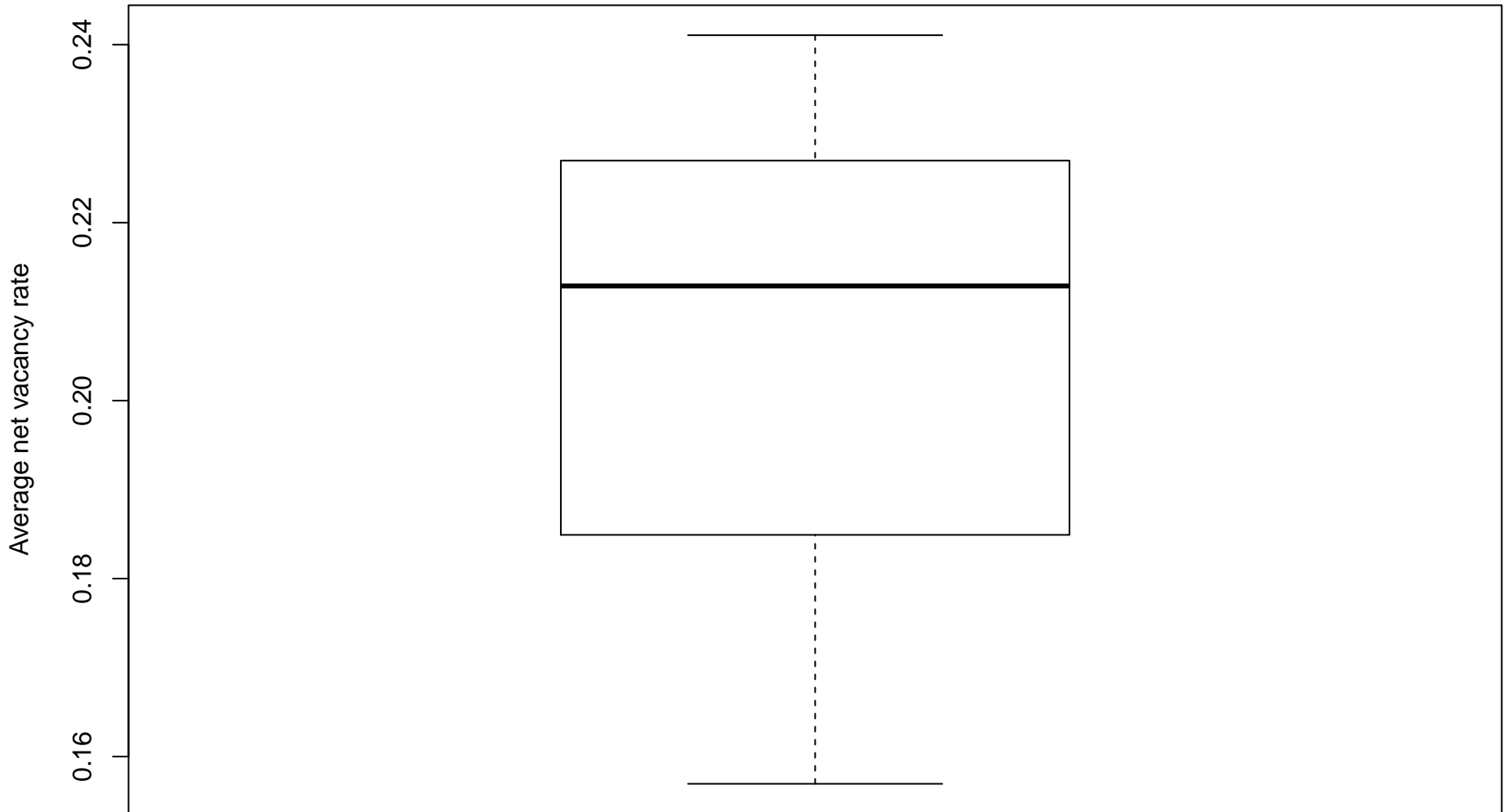
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Unemployment



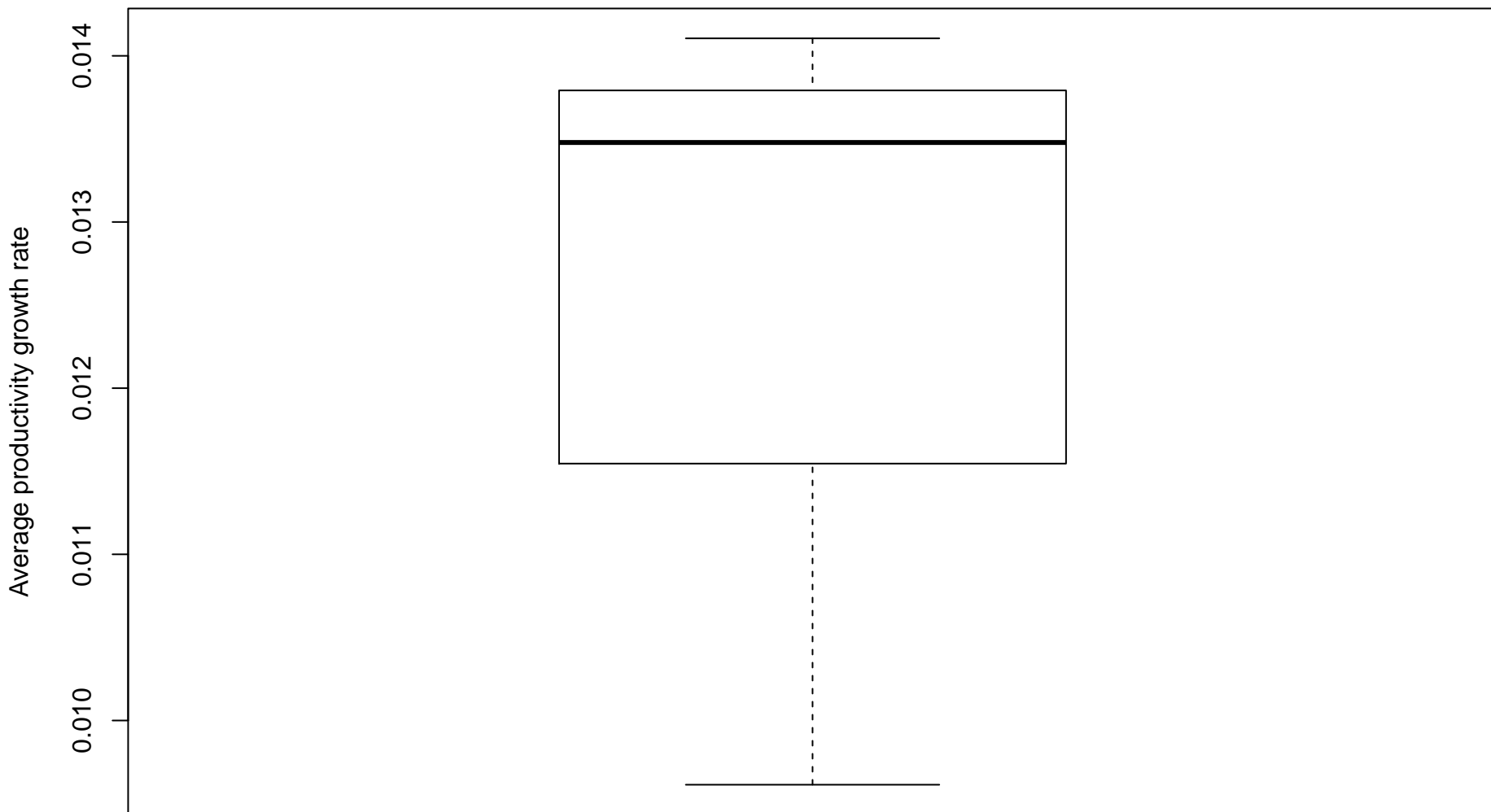
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Vacancy



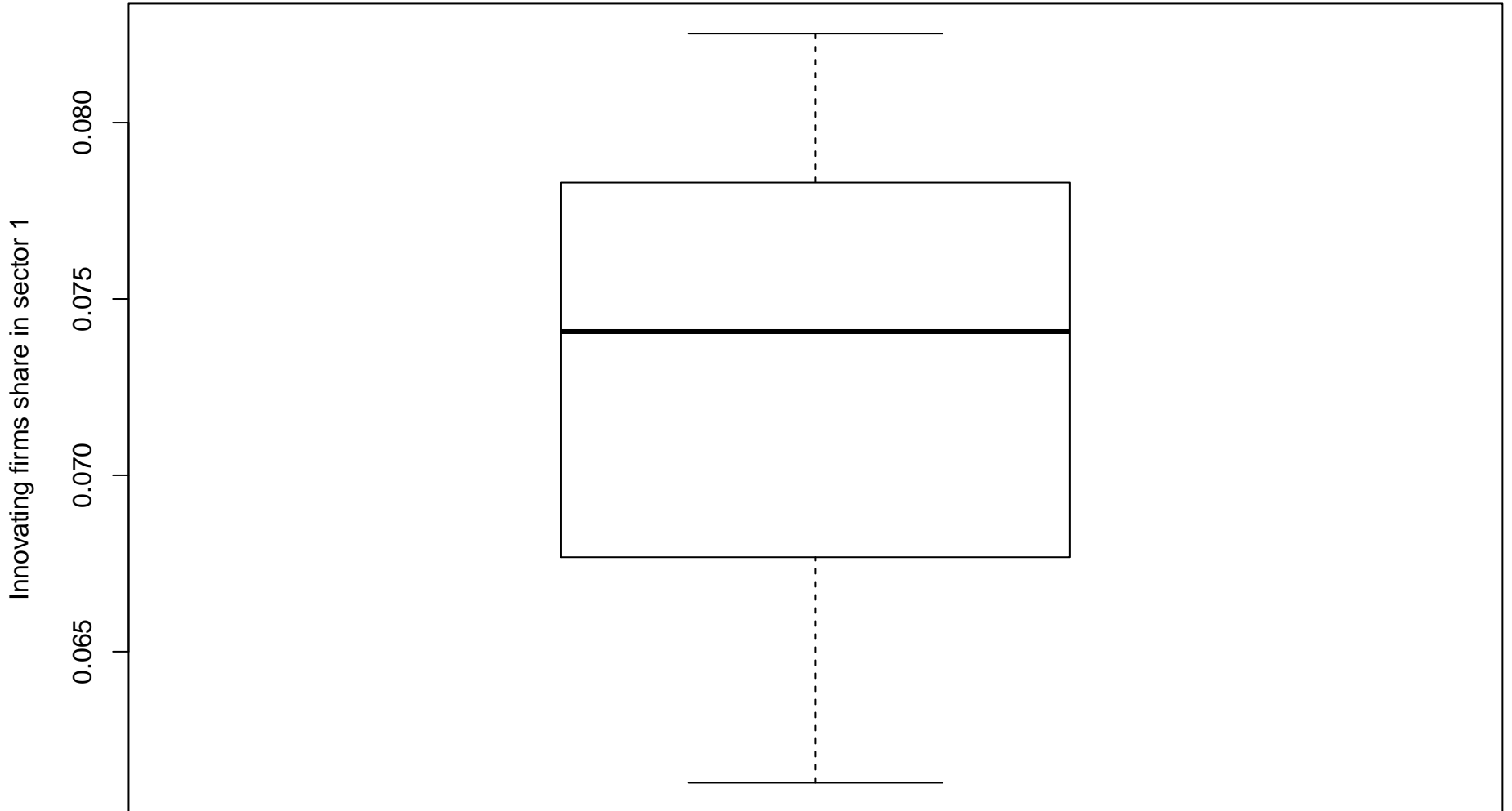
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Productivity growth



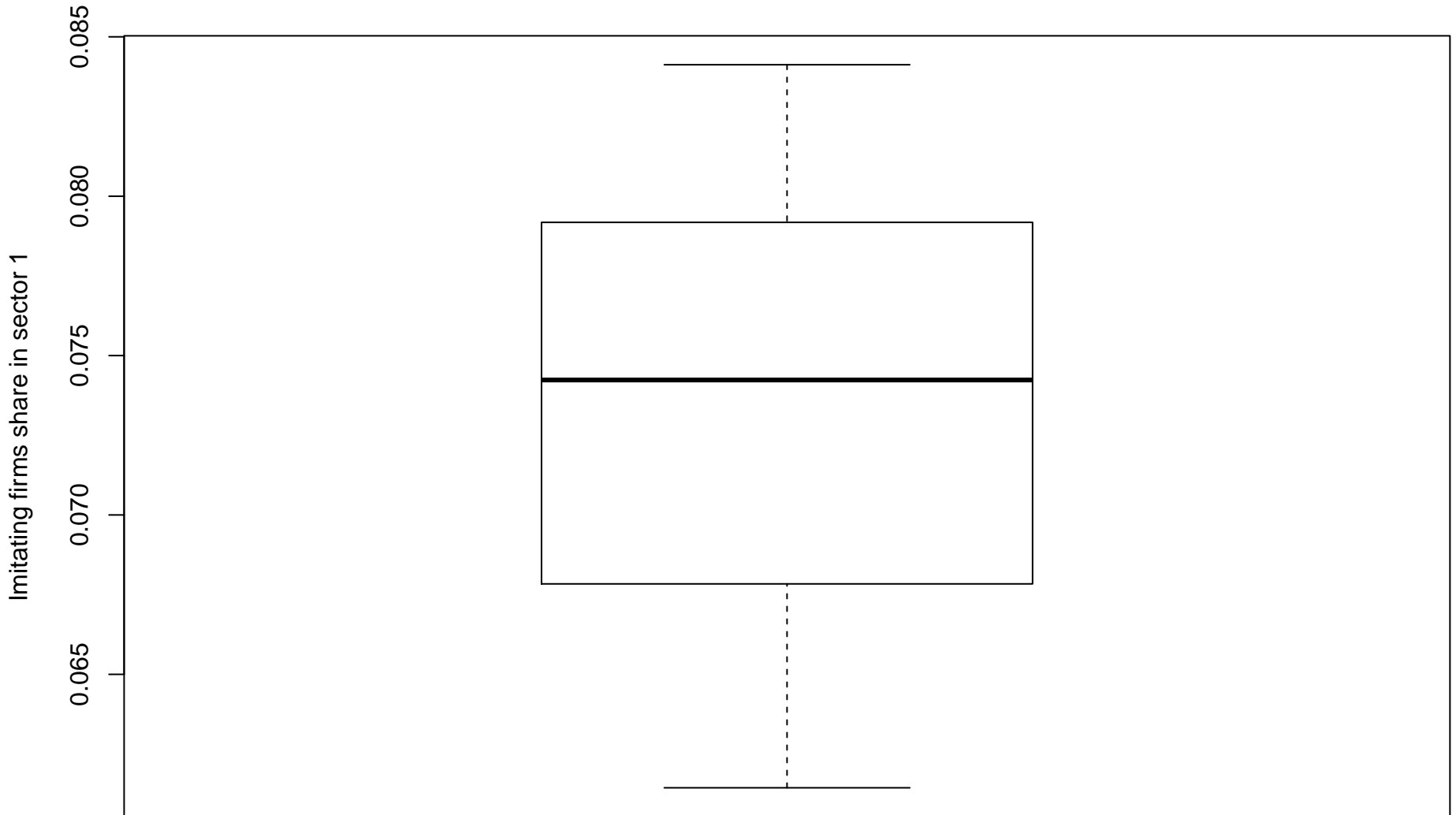
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Innovation



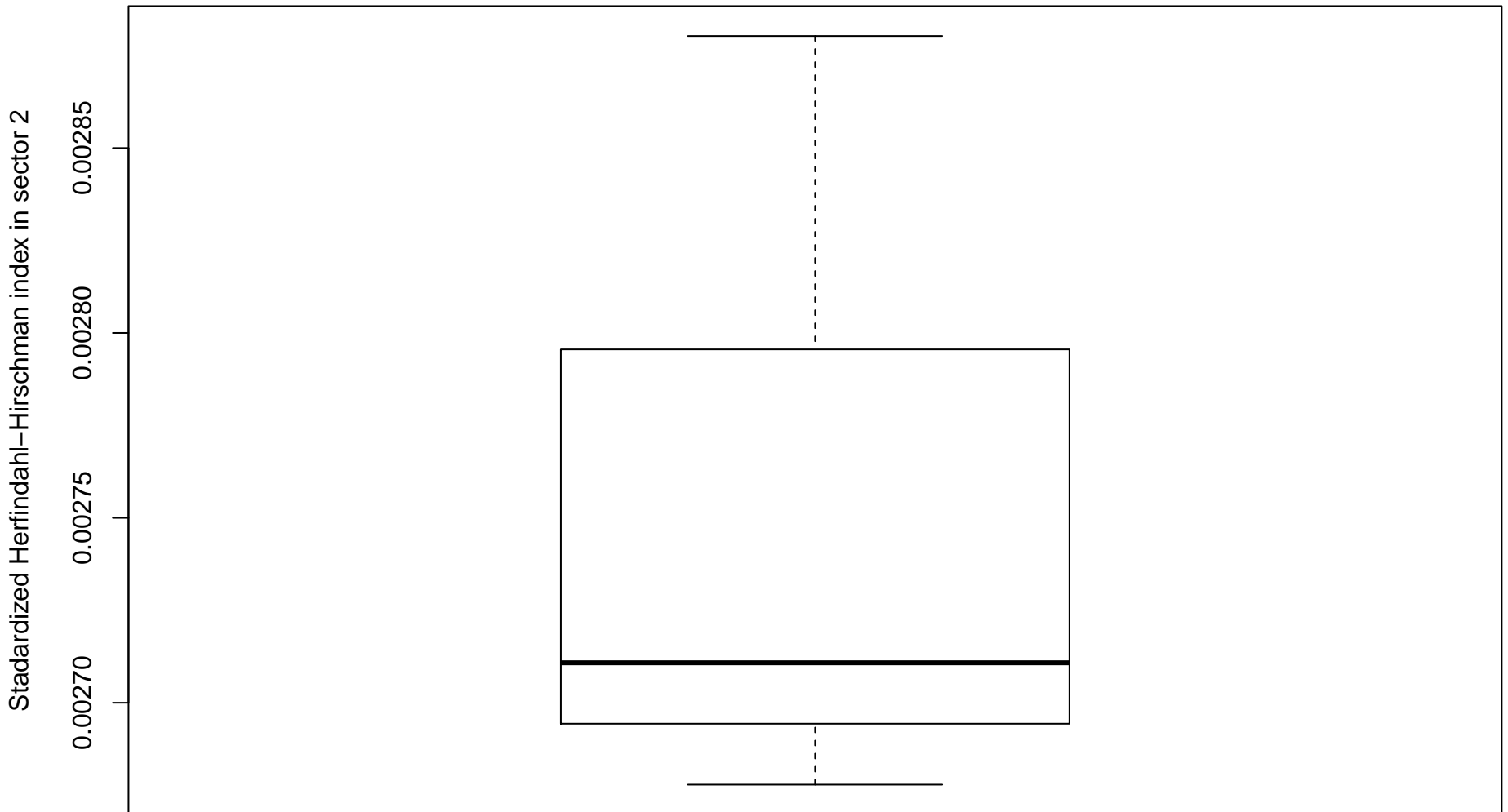
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Imitation



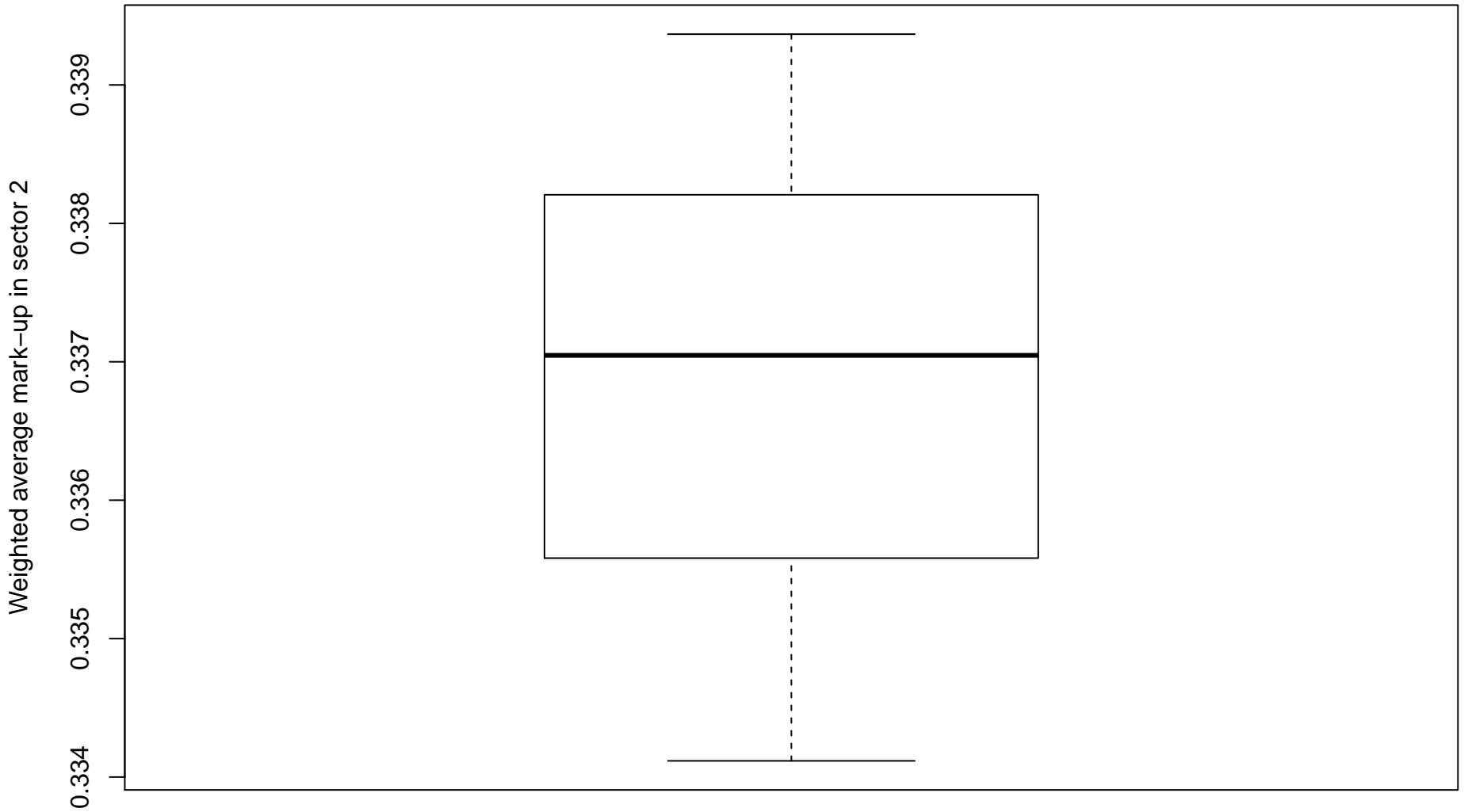
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 3 / period = 2 – 1000)

Market concentration



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

Mark-ups



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

Monte Carlo descriptive statistics (all experiments)

	Avg[1]	SD[1]	Min[1]	Max[1]
GDP growth	0.01272	0.002611	0.009741	0.01461
Volatility of GDP growth	0.09476	0.003615	0.09069	0.0976
Likelihood of GDP crises	0.2763	0.03054	0.2412	0.2973
Inflation	0.002595	0.002309	0.001104	0.005255
Tax	0.0274	0.003424	0.0249	0.0313
Government total expenditure	0.08454	0.04437	0.04512	0.1326
Government deficit	0.3981	0.4807	0.05948	0.9483
Government debt	34.45	44.58	3.956	85.61
Loans	4.21	0.7188	3.582	4.994
Capacity utilization	0.5271	0.006158	0.5208	0.5331
Full employment frequency	0.1535	0.1547	0.02803	0.3263
Unemployment	0.1911	0.08583	0.1104	0.2813
Vacancy	0.2036	0.04282	0.1569	0.2411
Productivity growth	0.0124	0.002433	0.009613	0.01411
Innovation	0.07263	0.01069	0.06128	0.08252
Imitation	0.07327	0.01137	0.06144	0.08412
Market concentration	0.002756	0.0001086	0.002678	0.00288
Mark-ups	0.3368	0.002631	0.3341	0.3394

Experiments: [1] Benchmark

(numbers in brackets indicate the experiment number / MC runs = 3 / period = 2 – 1000)