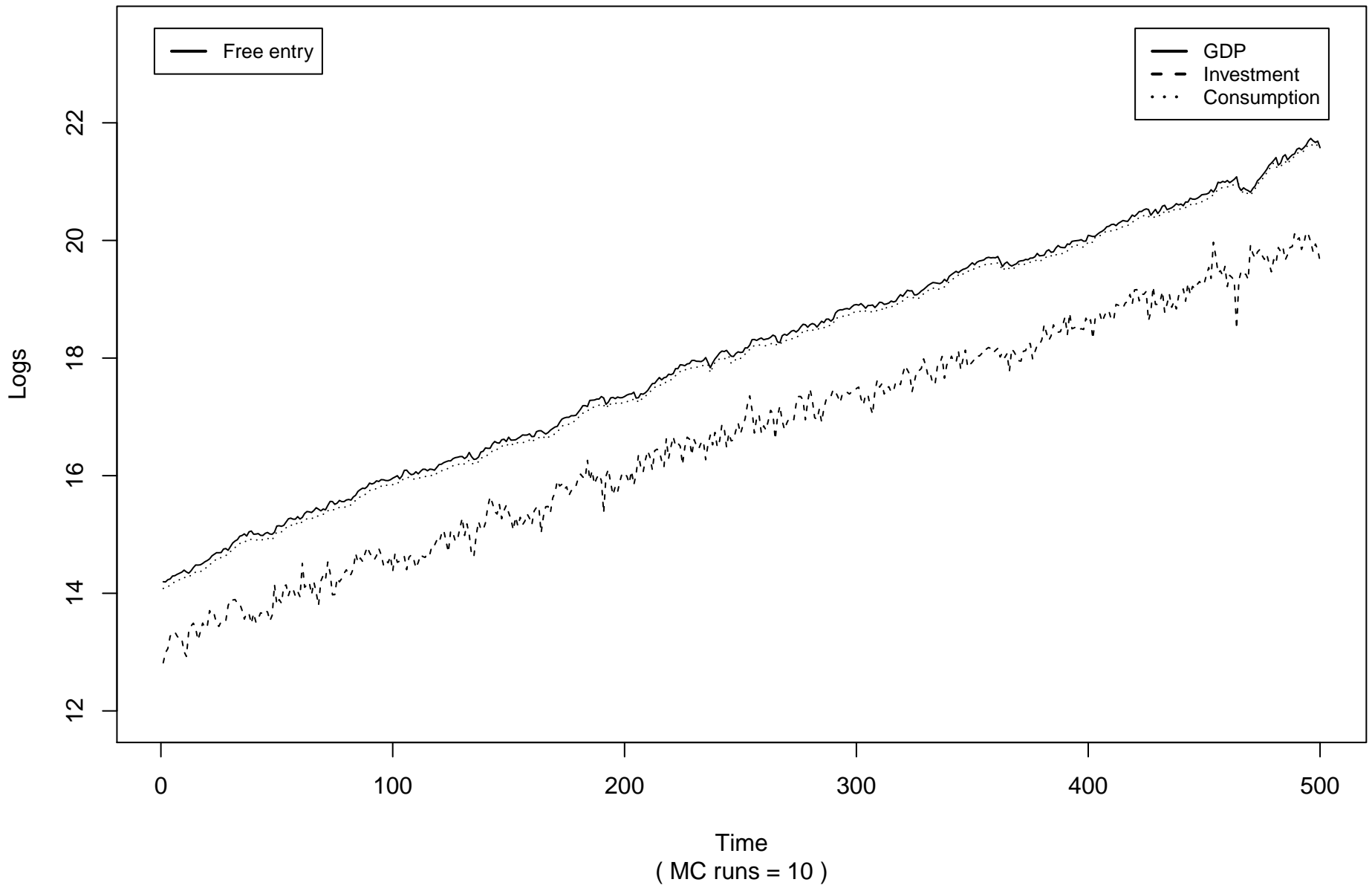
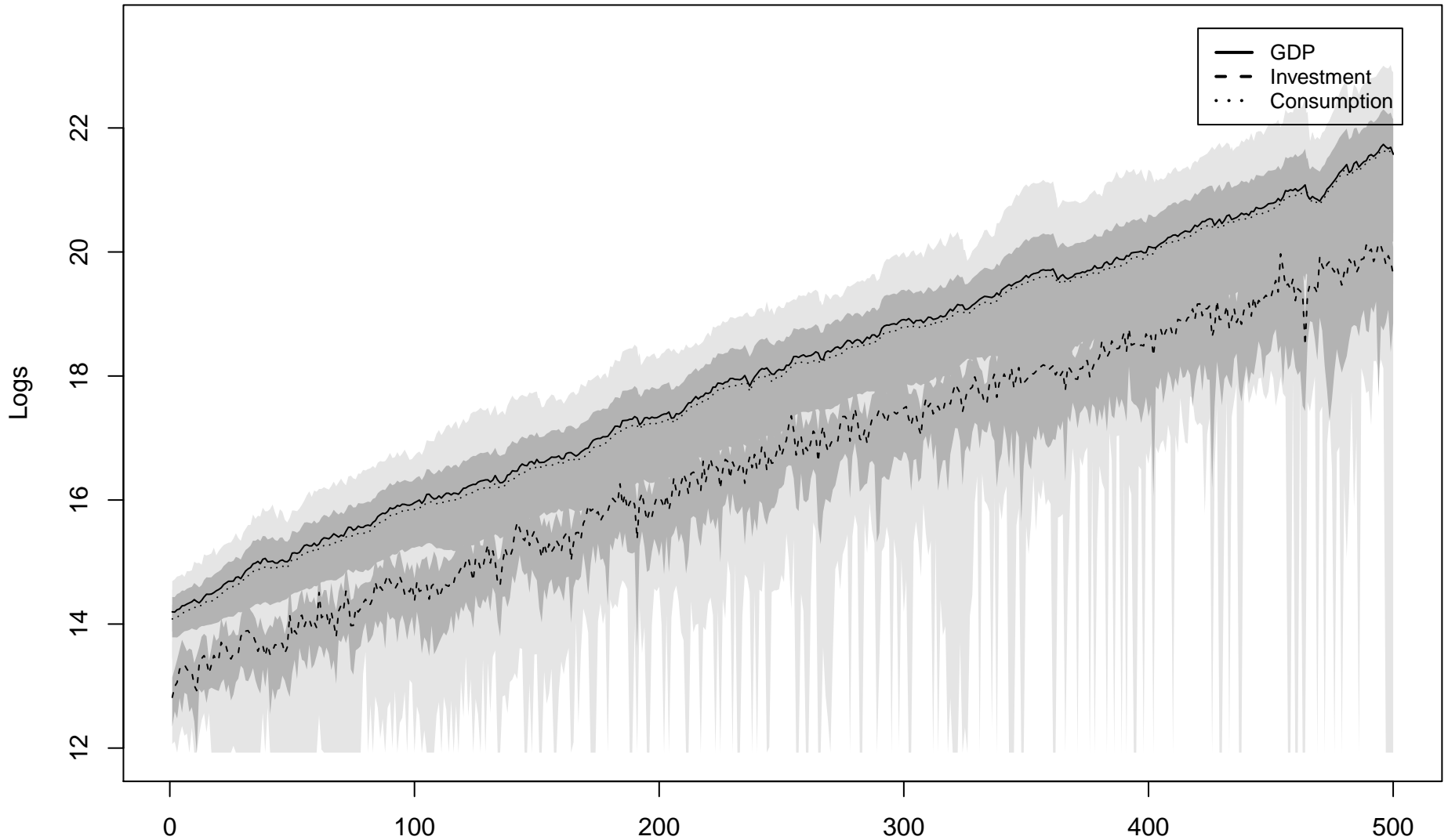


GDP, investment and consumption (all experiments)

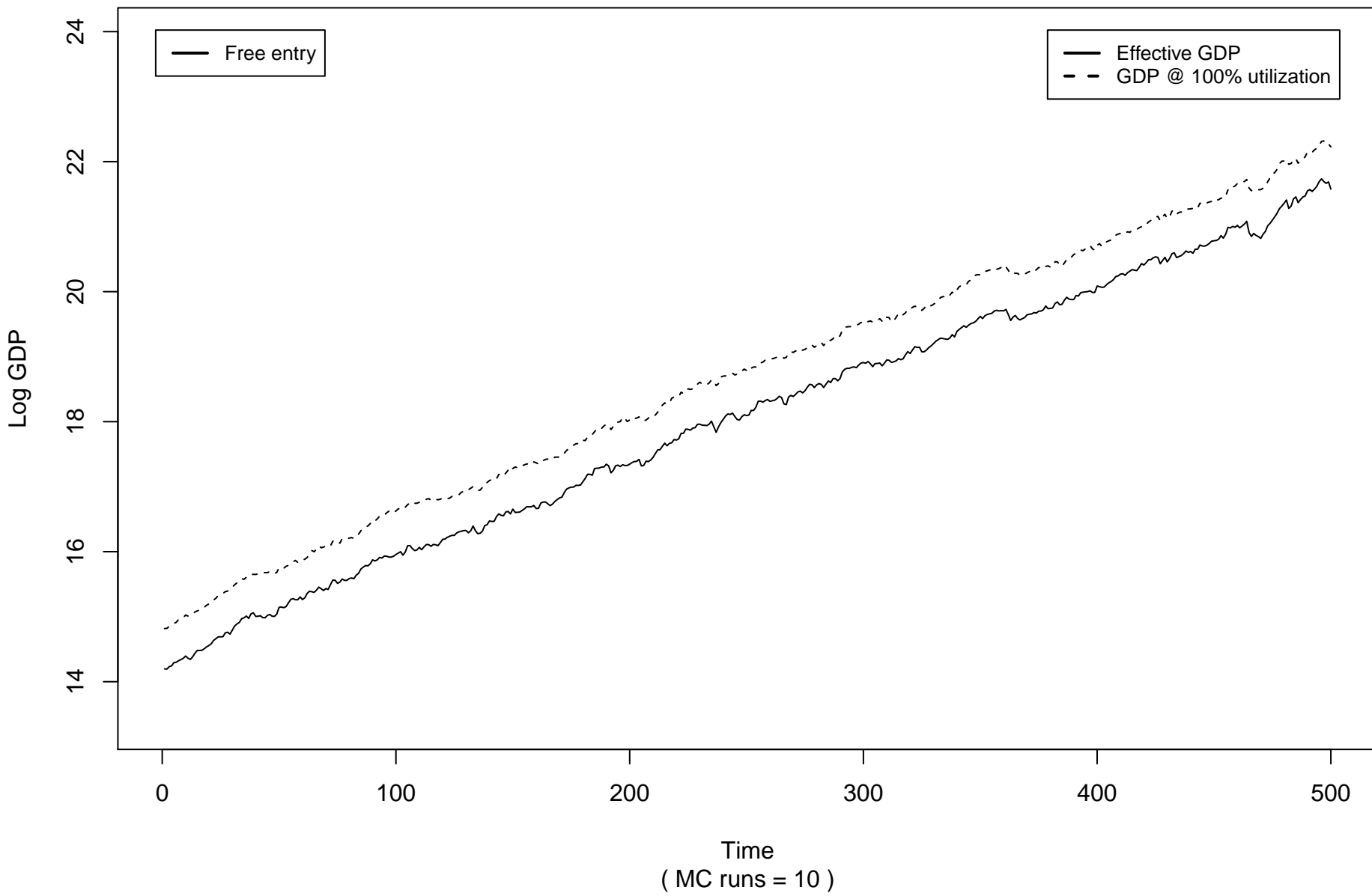


GDP, investment and consumption (Free entry)

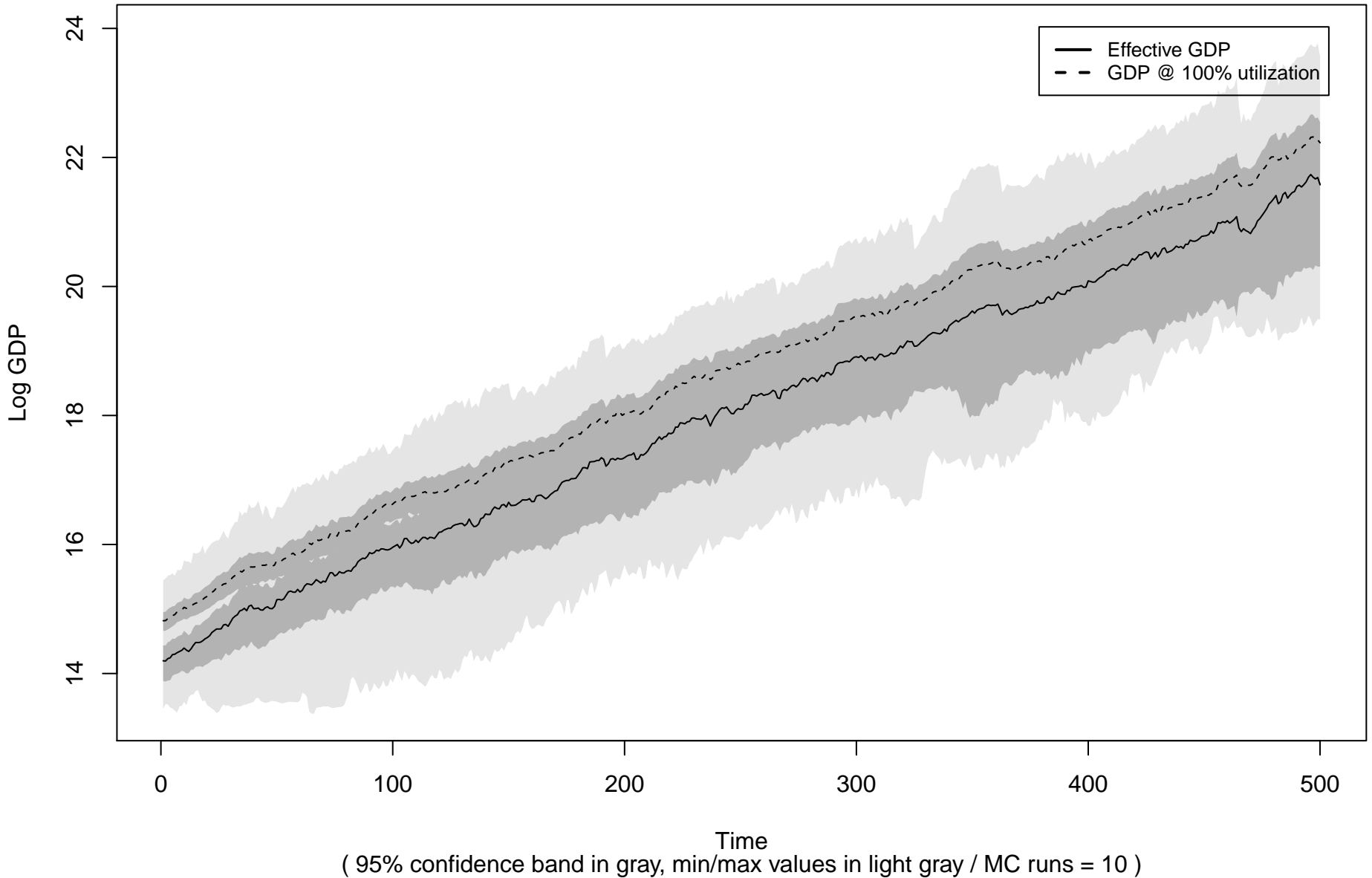


Time
(95% confidence band in gray, min/max values in light gray / MC runs = 10)

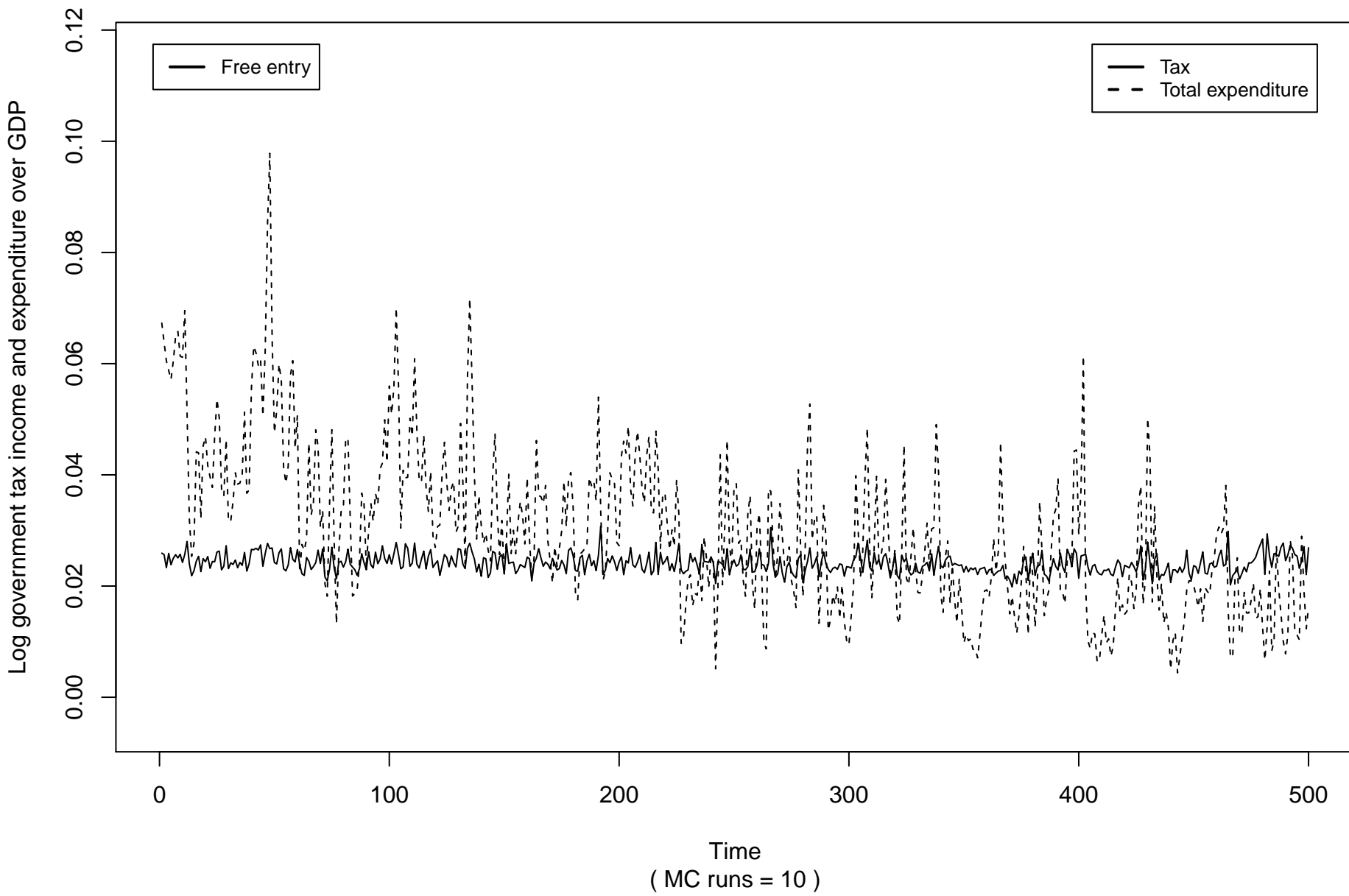
GDP (all experiments)



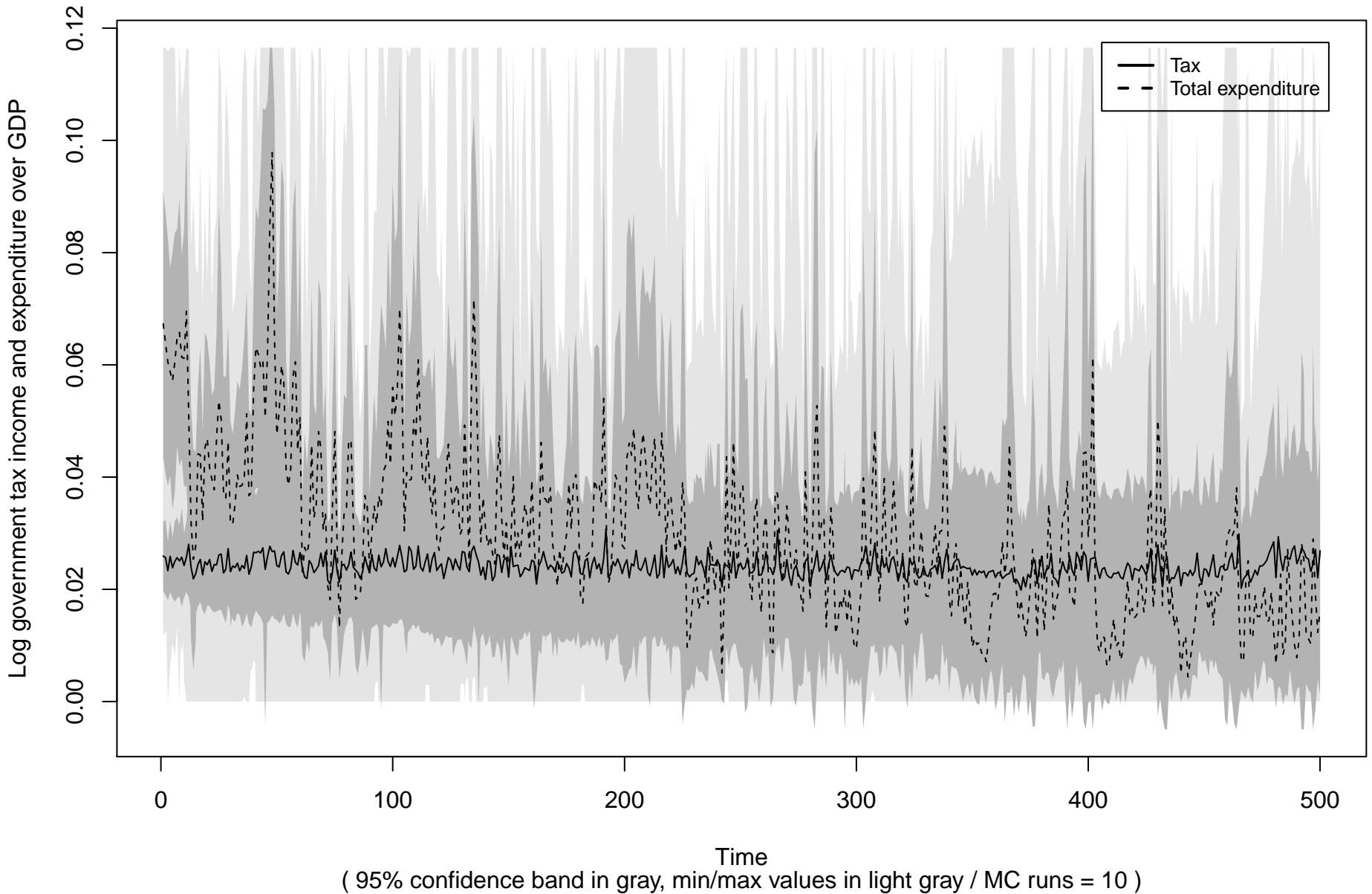
GDP (Free entry)



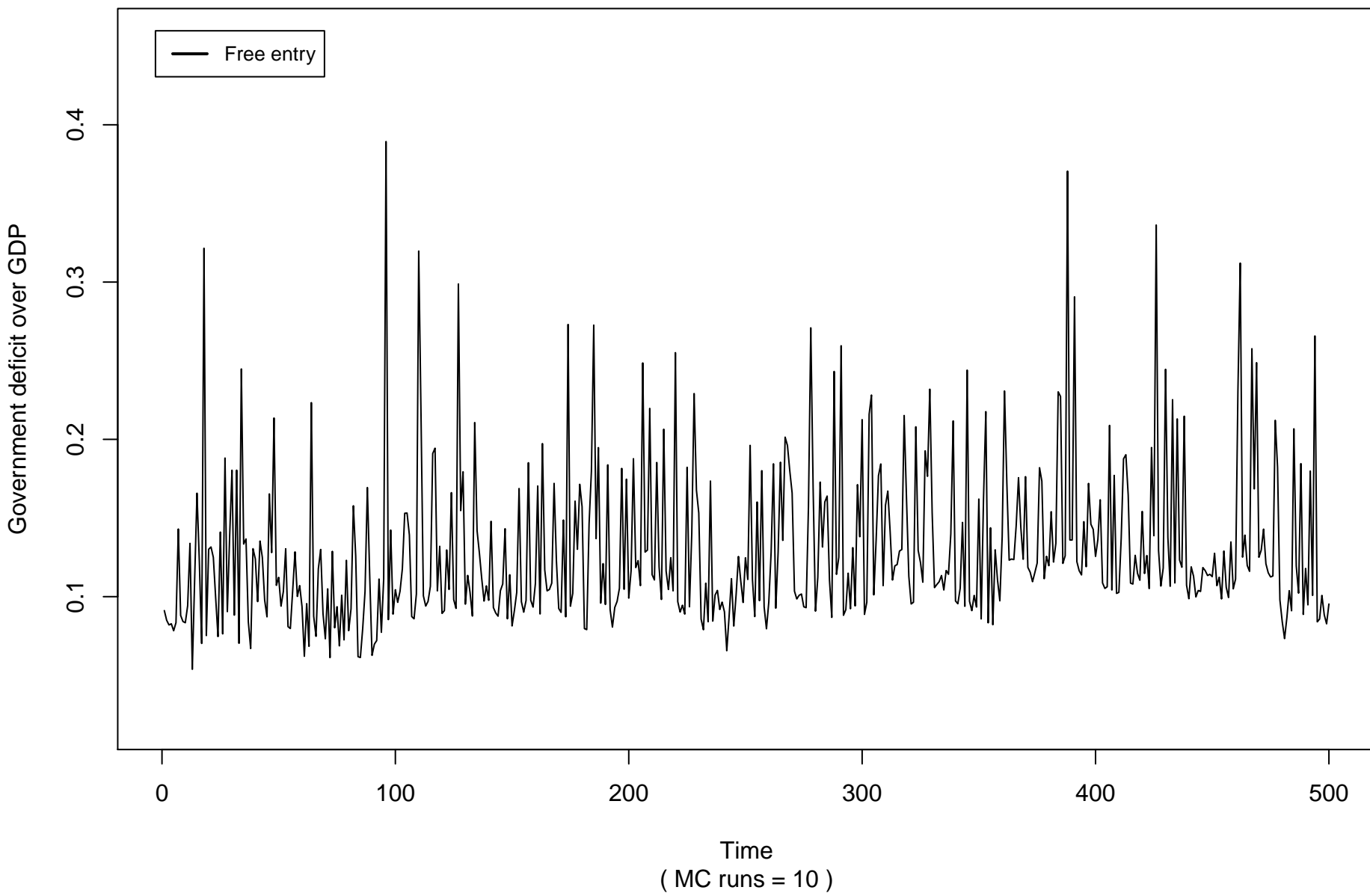
Government income and expenditure on GDP (all experiments)



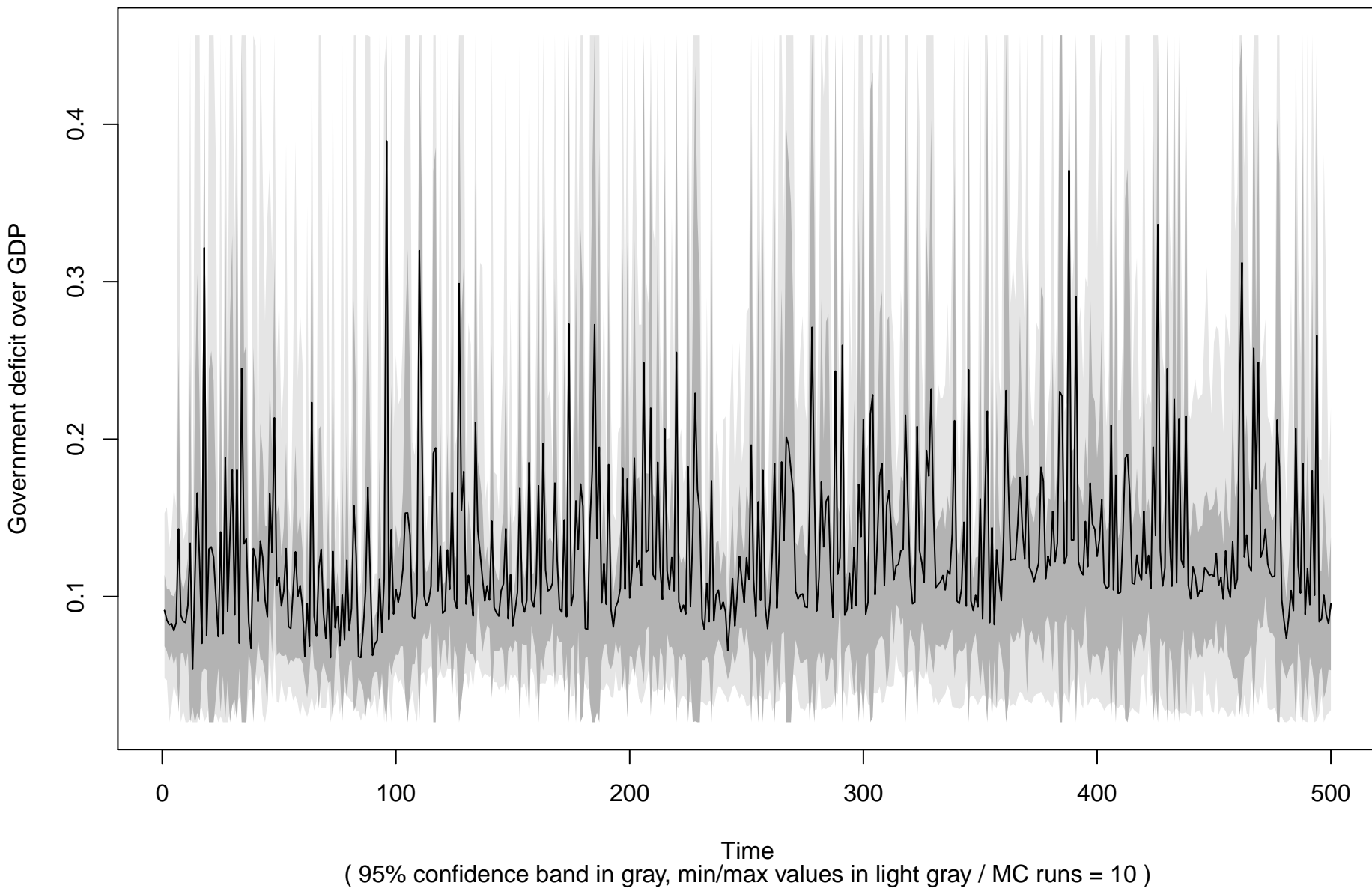
Government income and expenditure on GDP (Free entry)



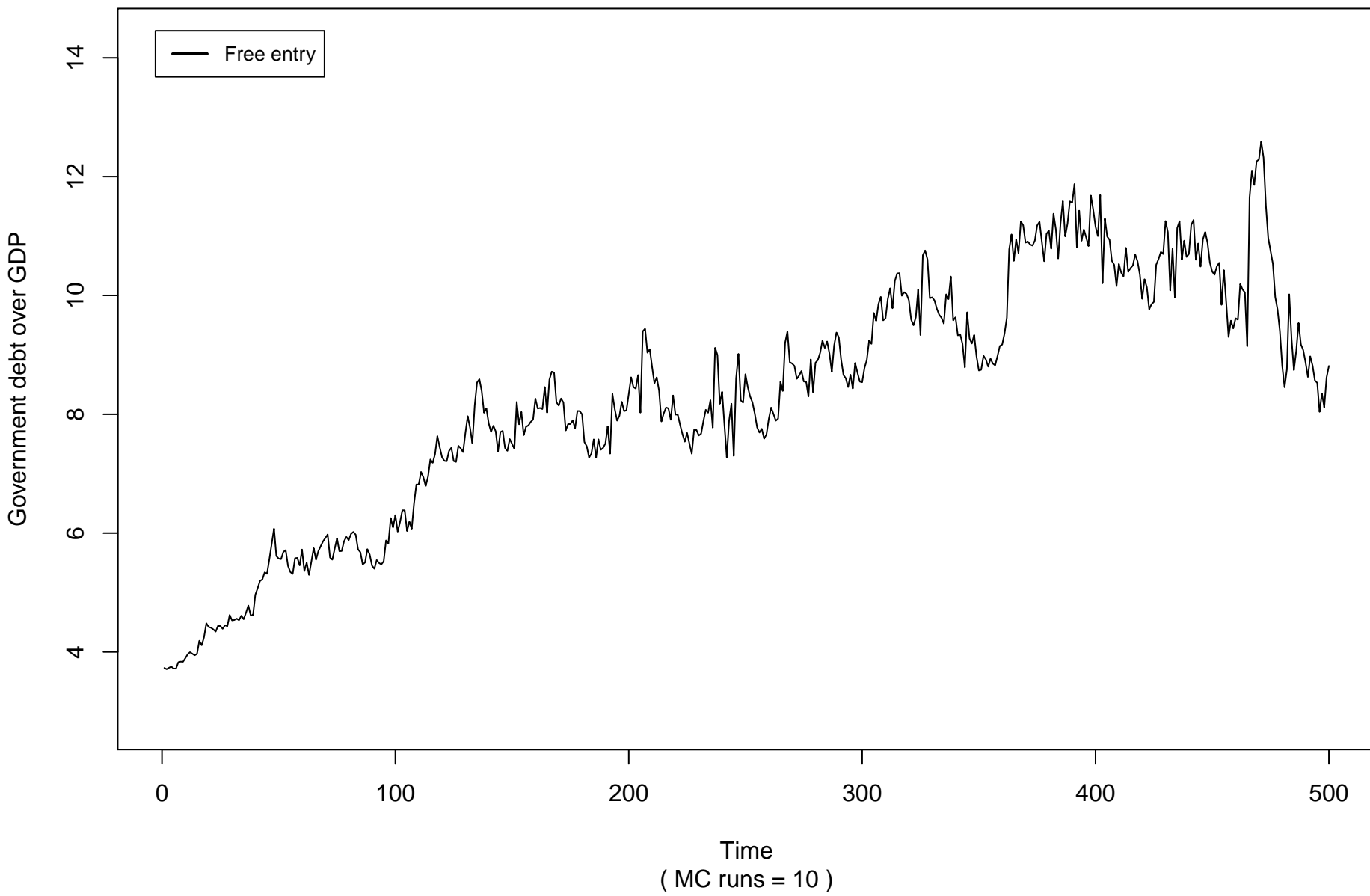
Government deficit on GDP (all experiments)



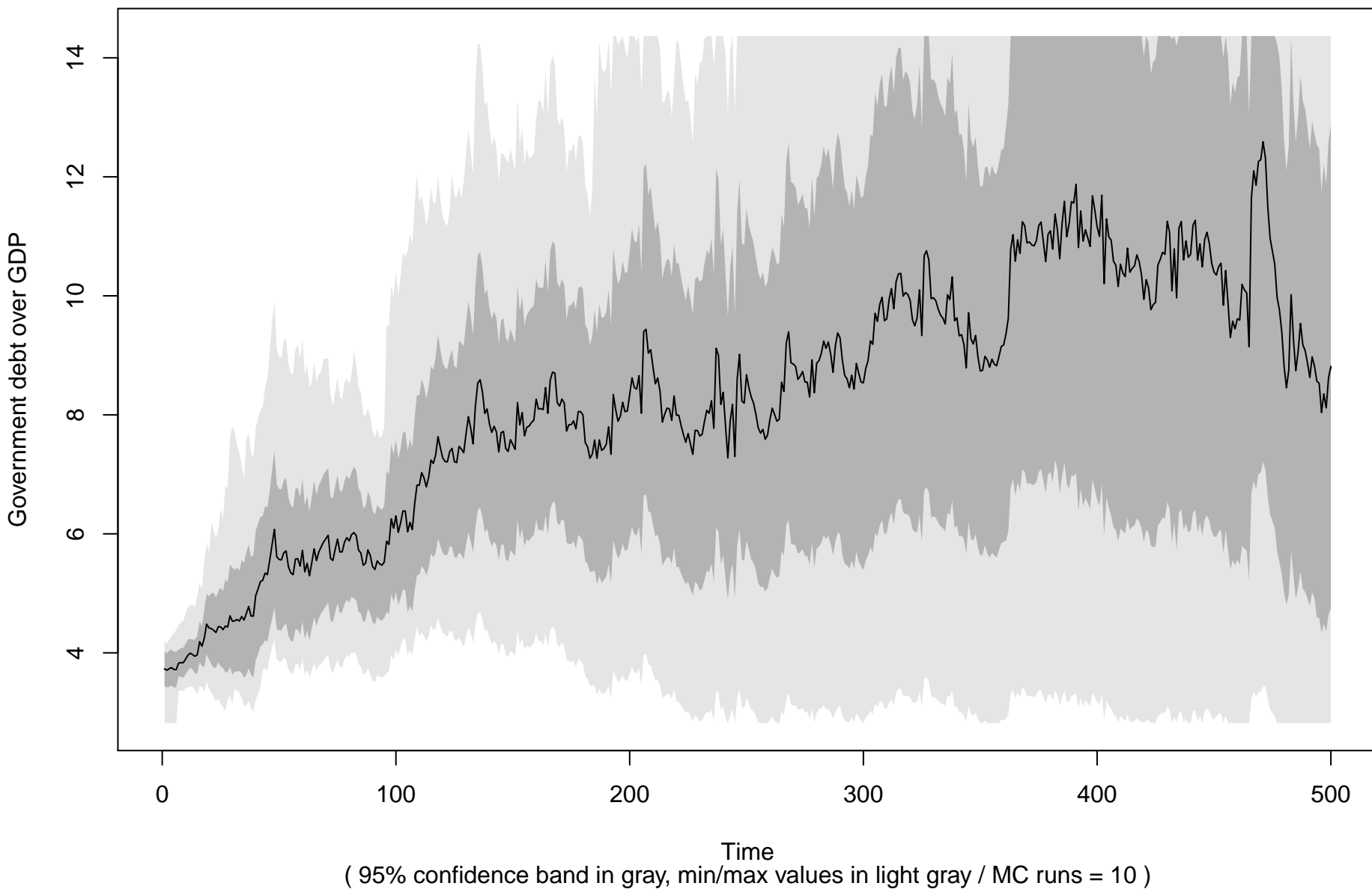
Government deficit on GDP (Free entry)



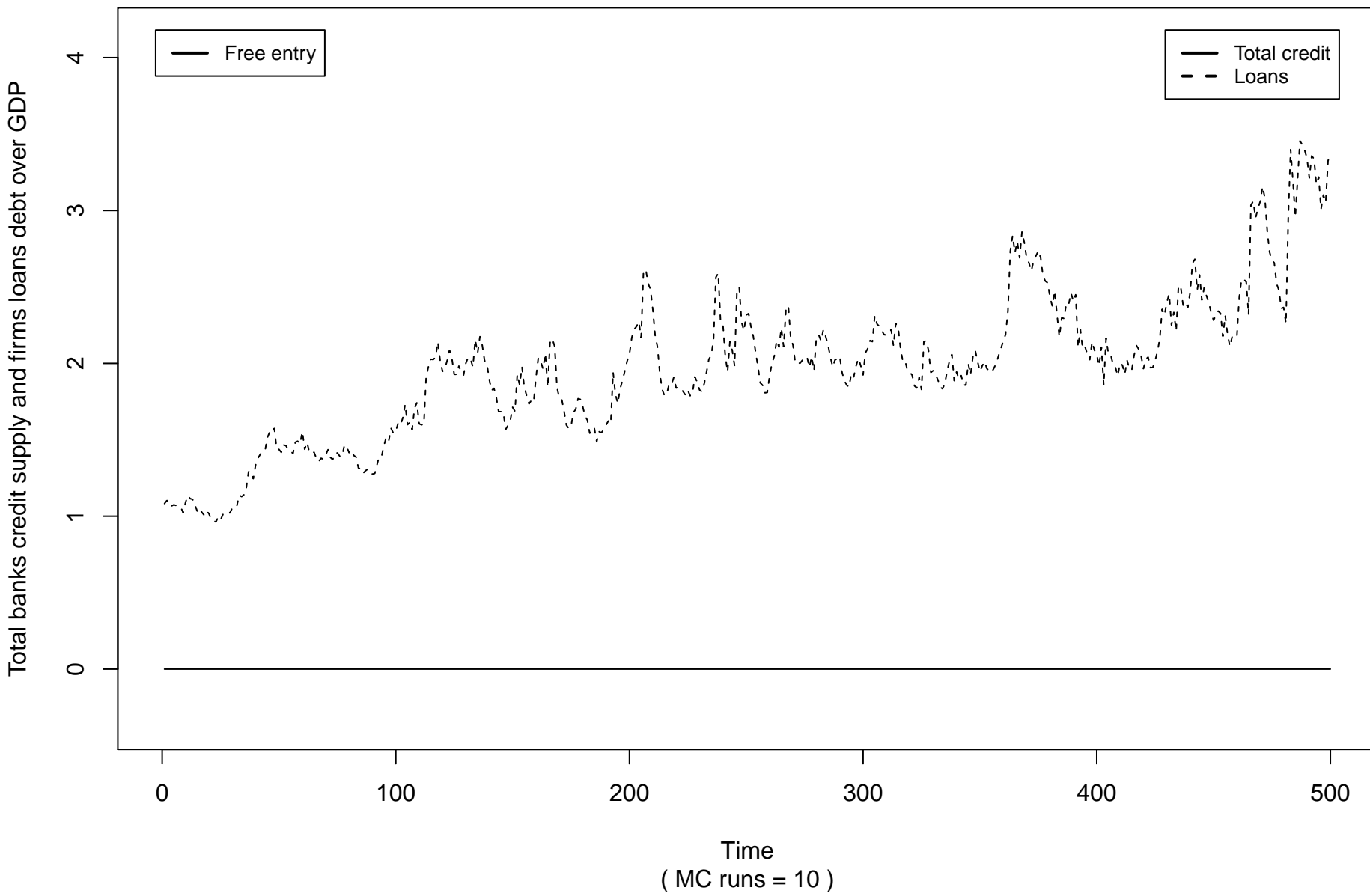
Government debt on GDP (all experiments)



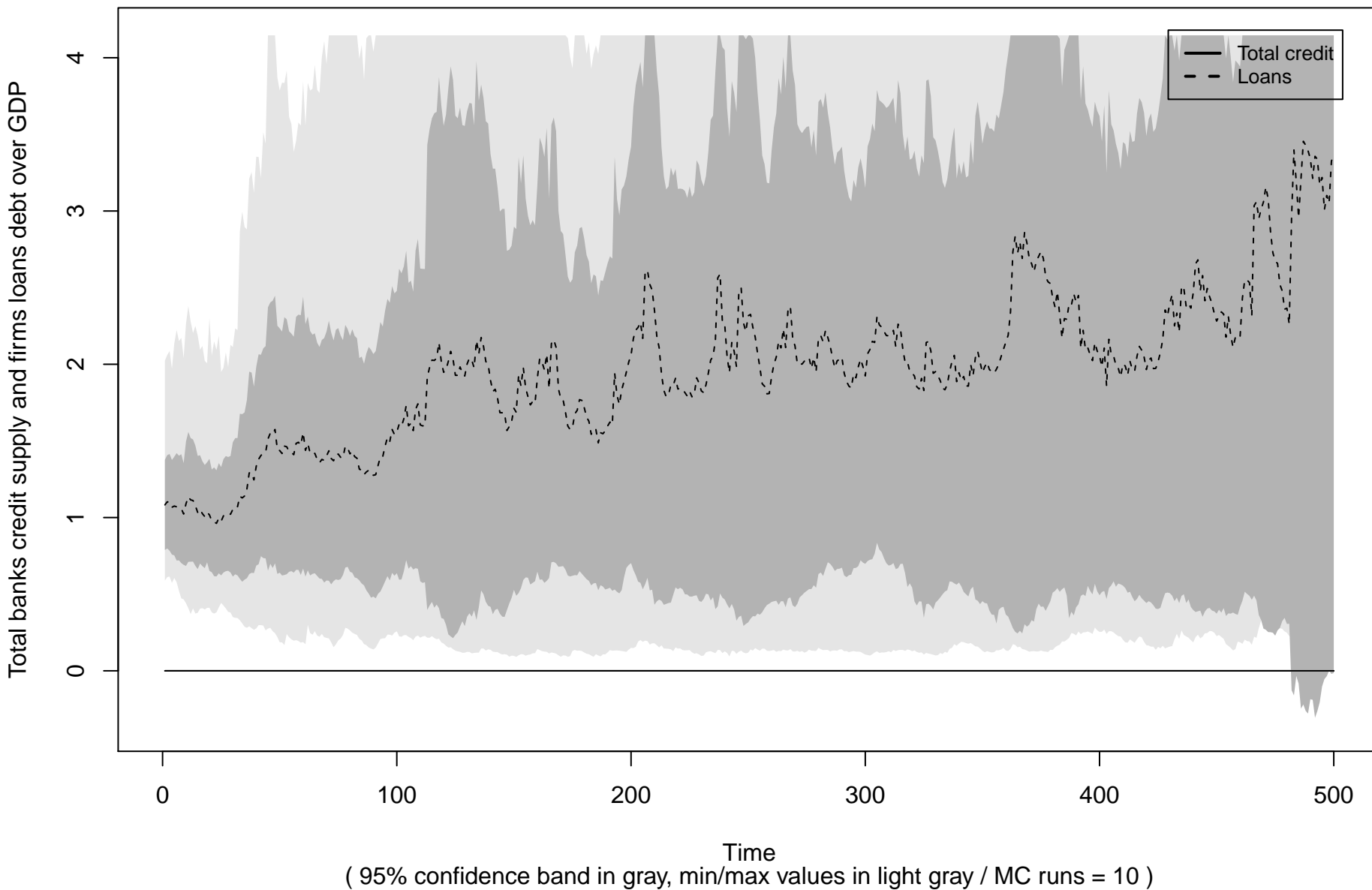
Government debt on GDP (Free entry)



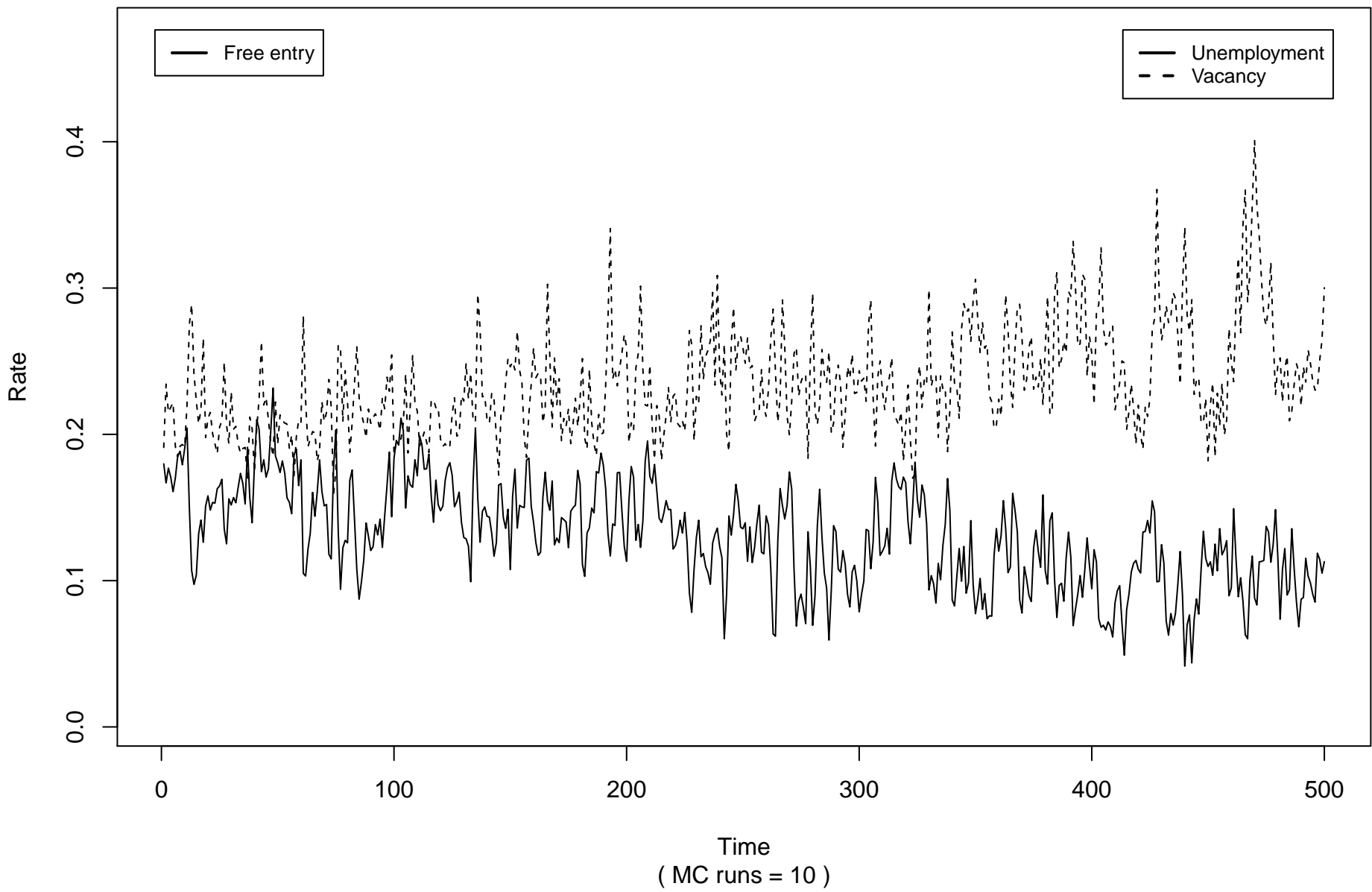
Total credit supply and loans on GDP (all experiments)



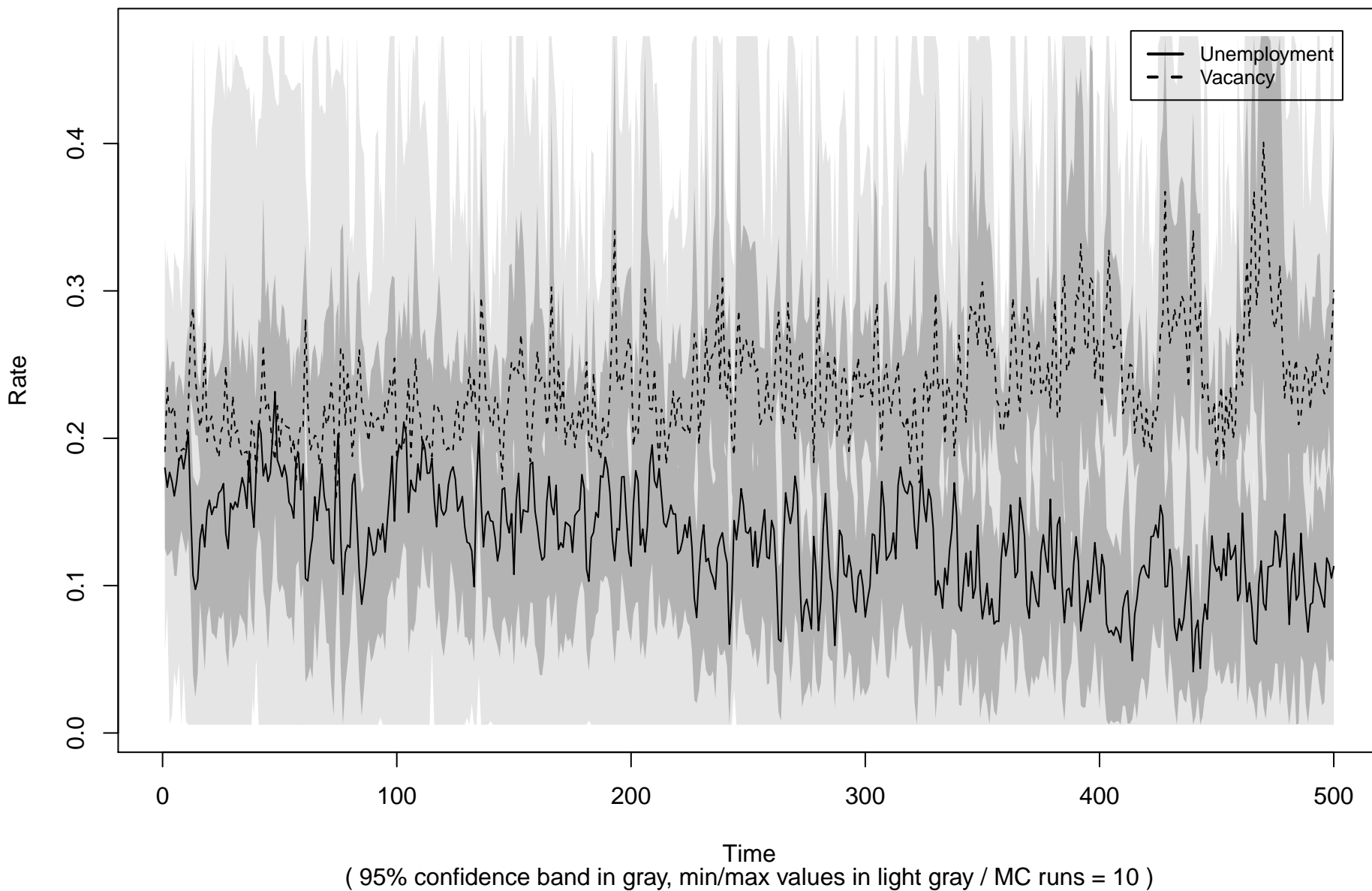
Total credit supply and loans on GDP (Free entry)



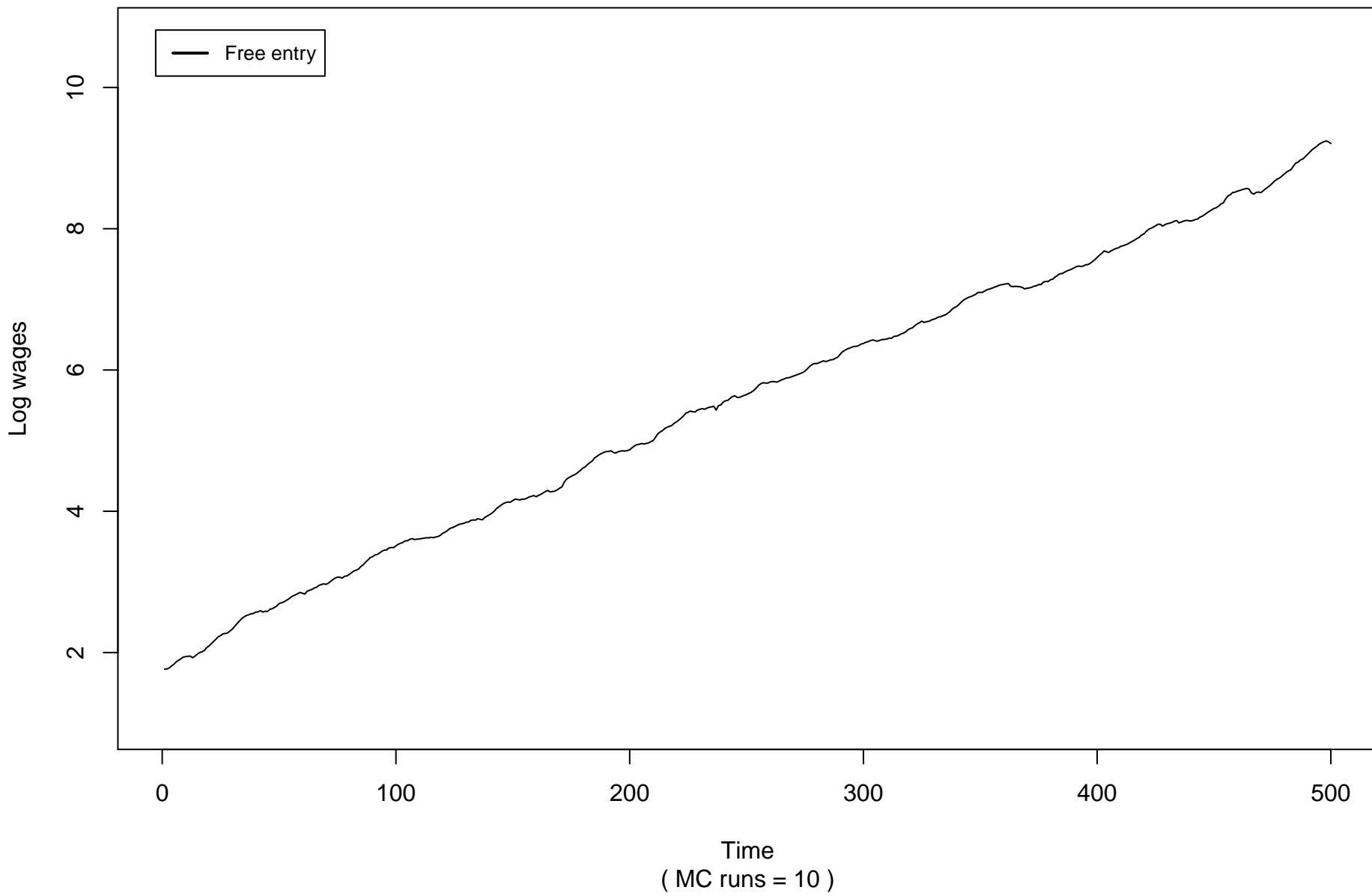
Unemployment and vacancy rates (all experiments)



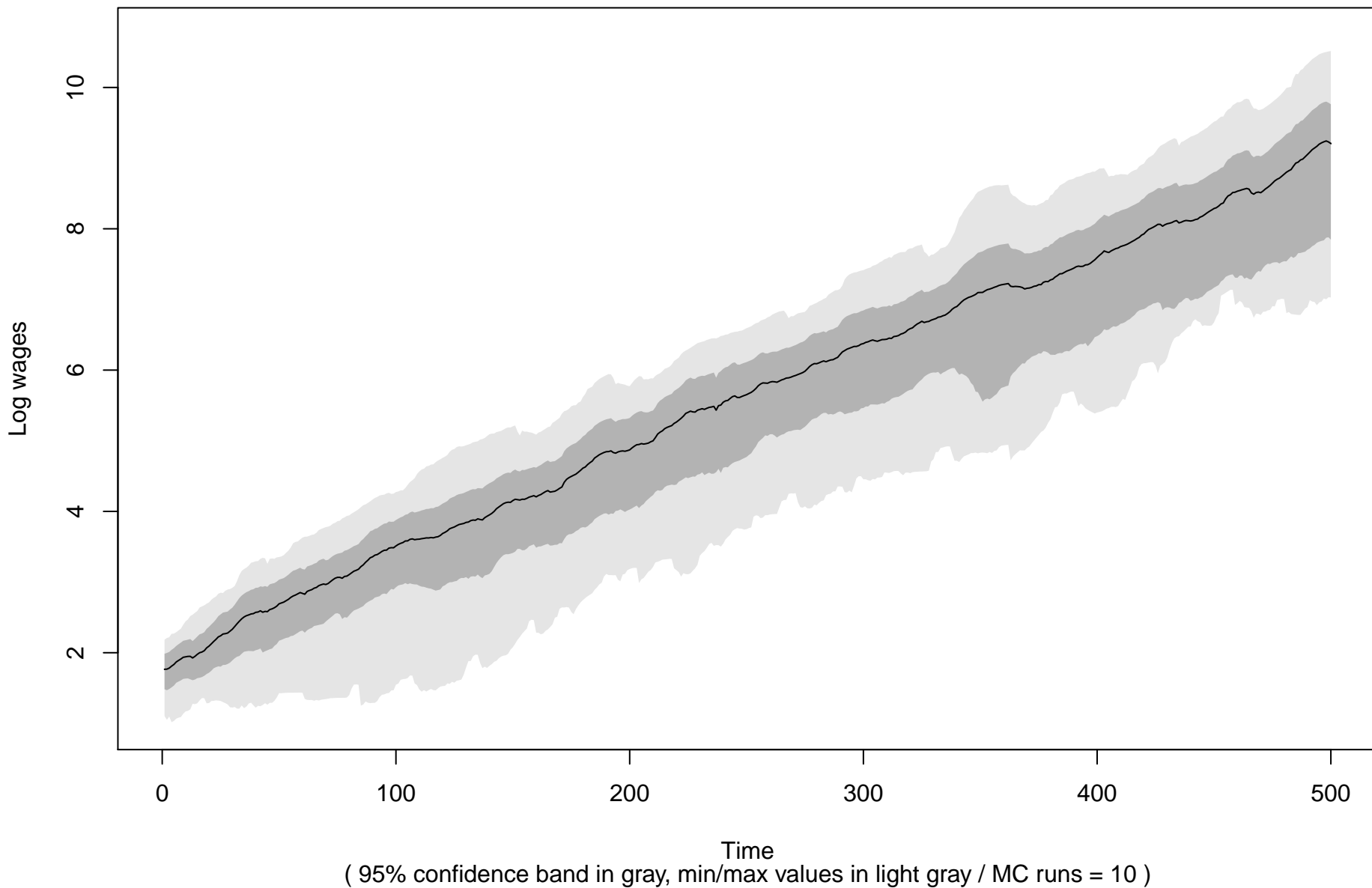
Unemployment and vacancy rates (Free entry)



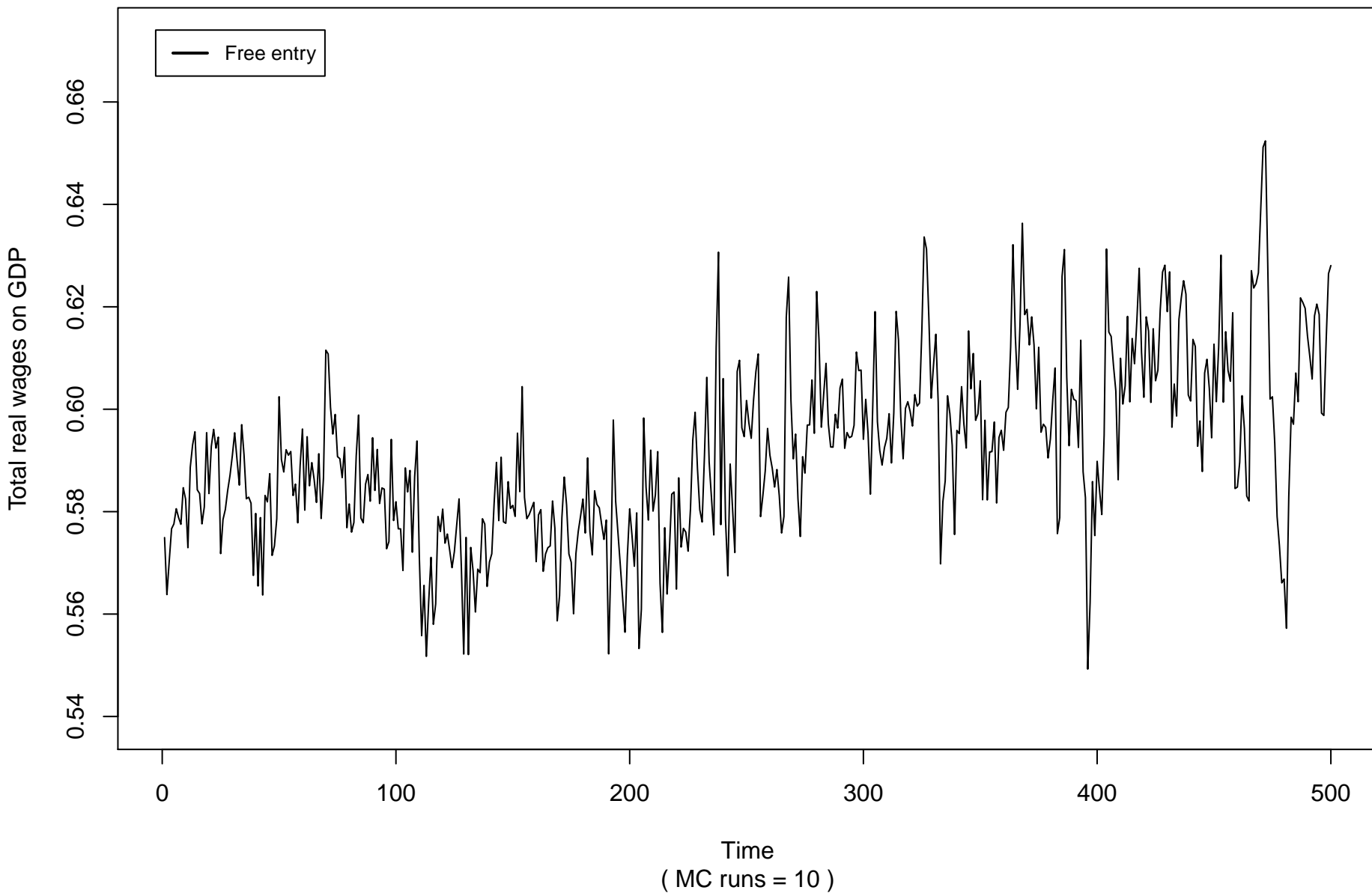
Real wages average (all experiments)



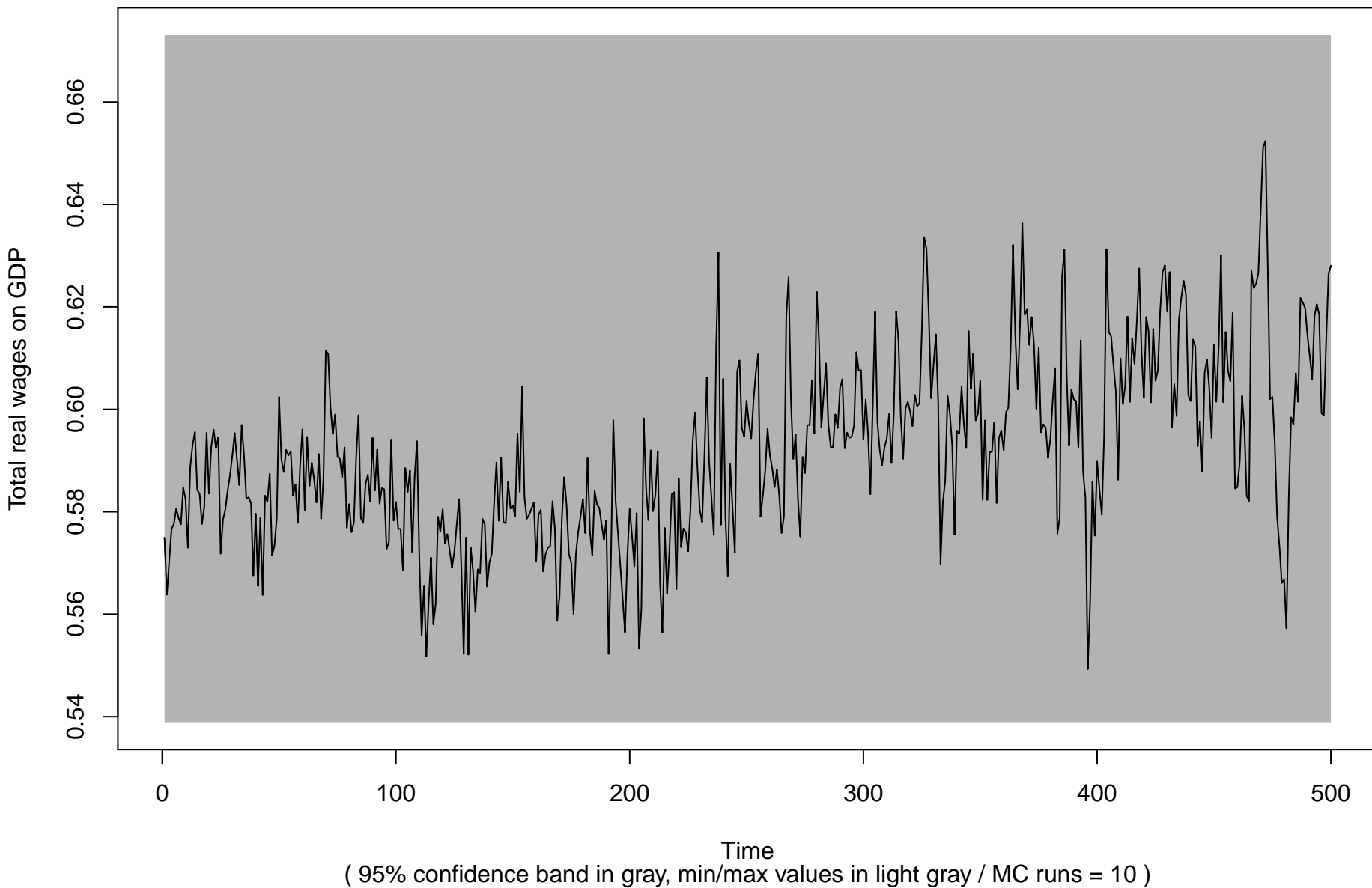
Real wages average (Free entry)



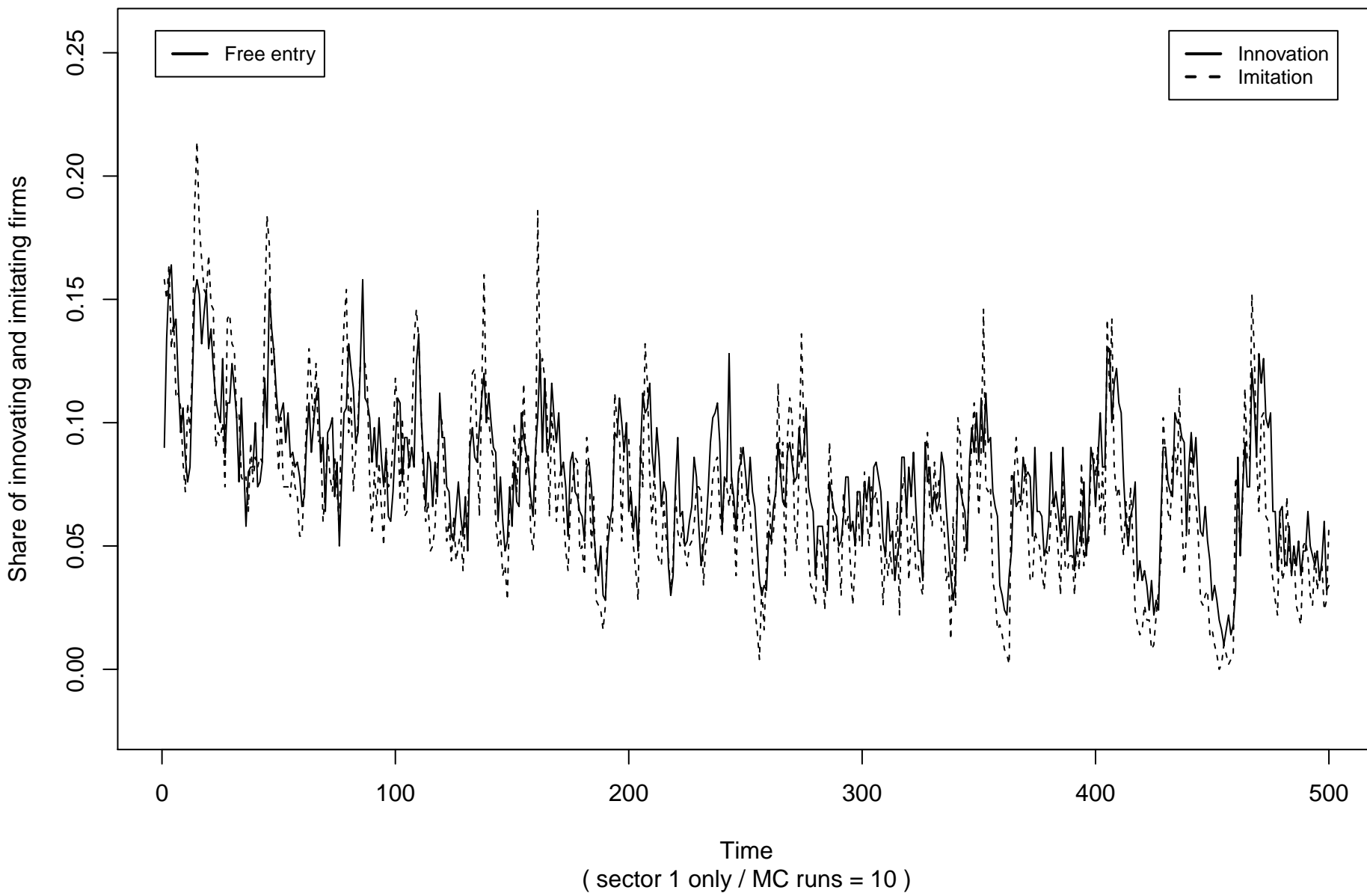
Wage share (all experiments)



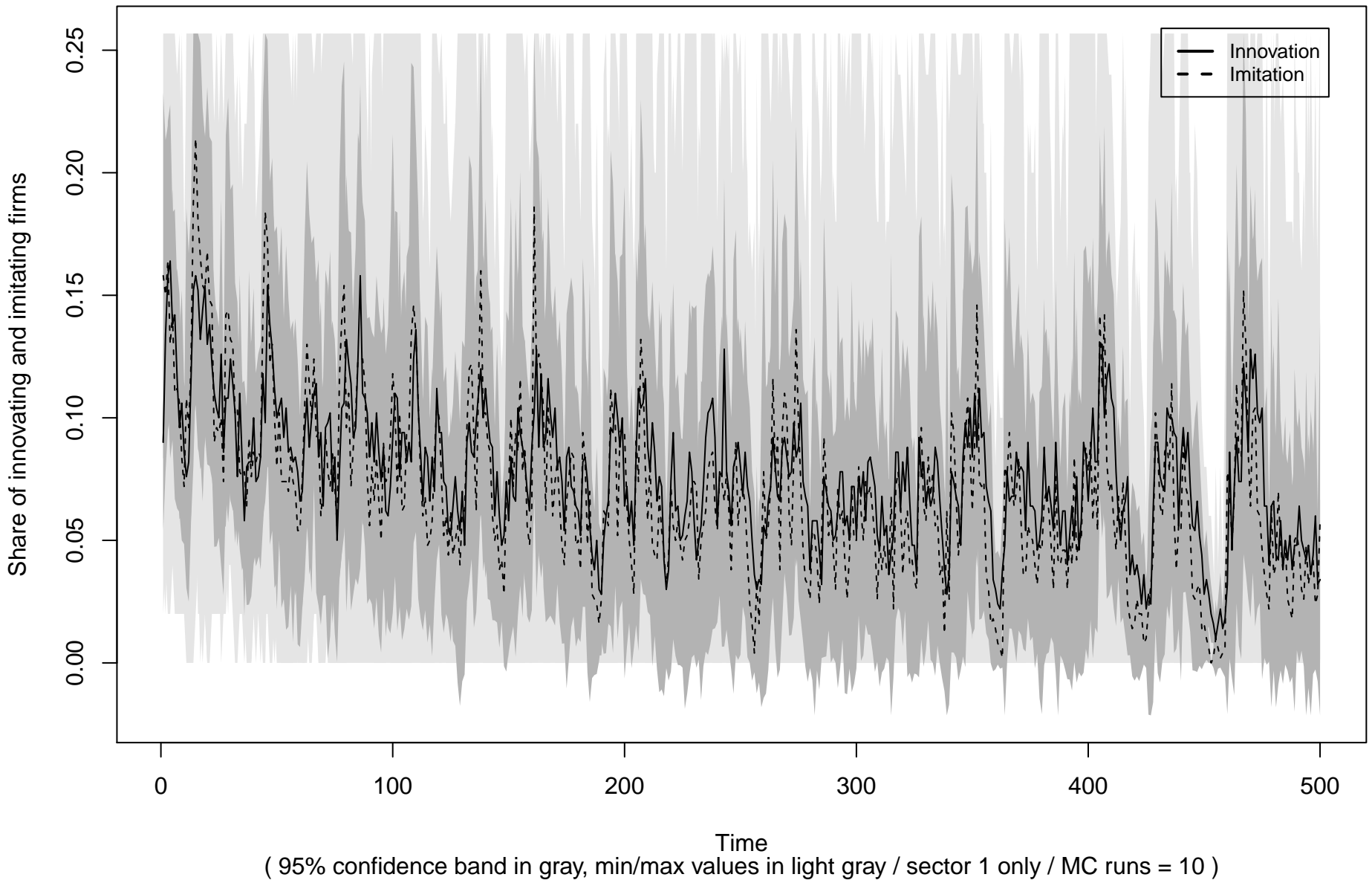
Wage share (Free entry)



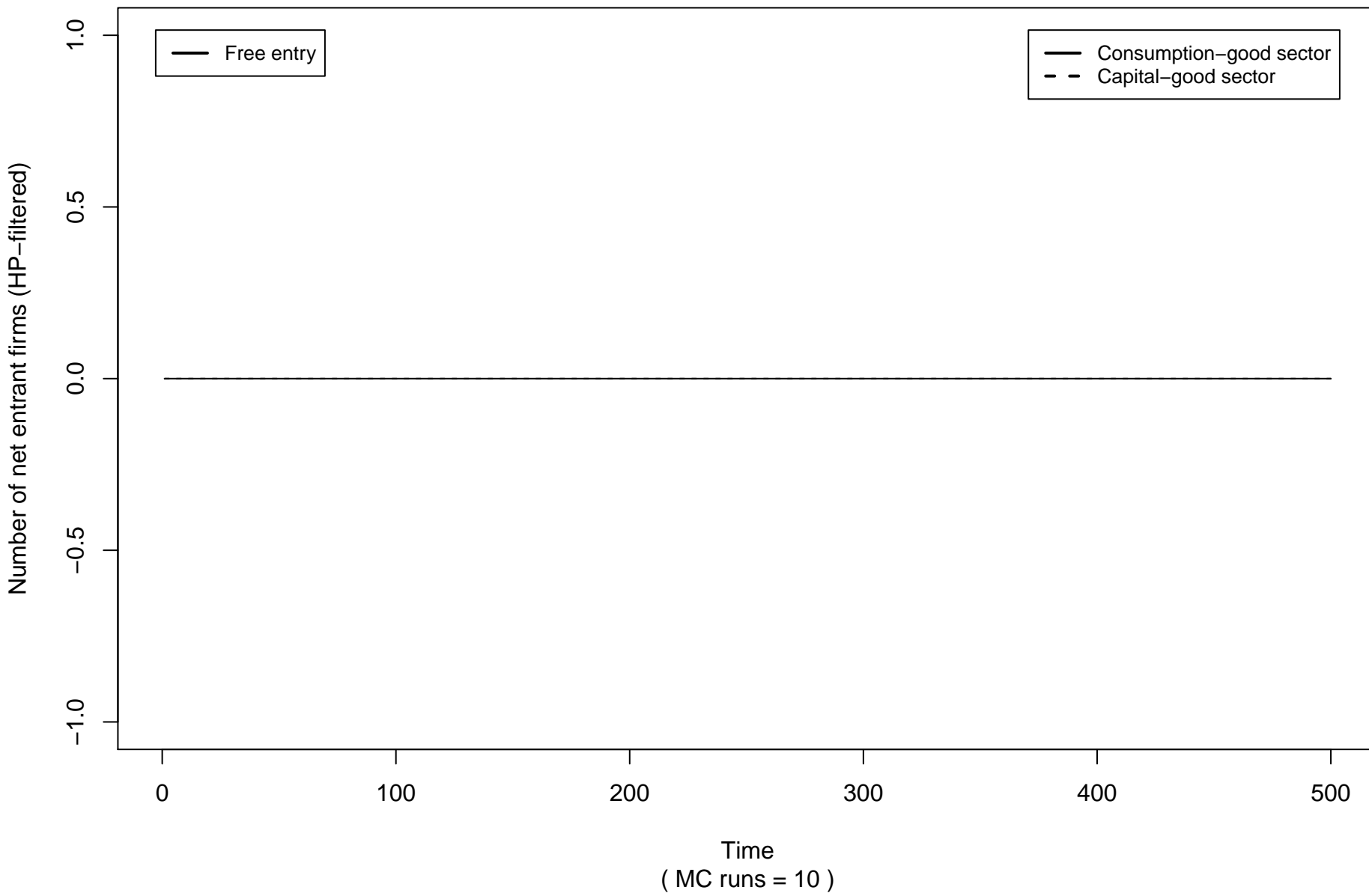
Innovation and imitation (all experiments)



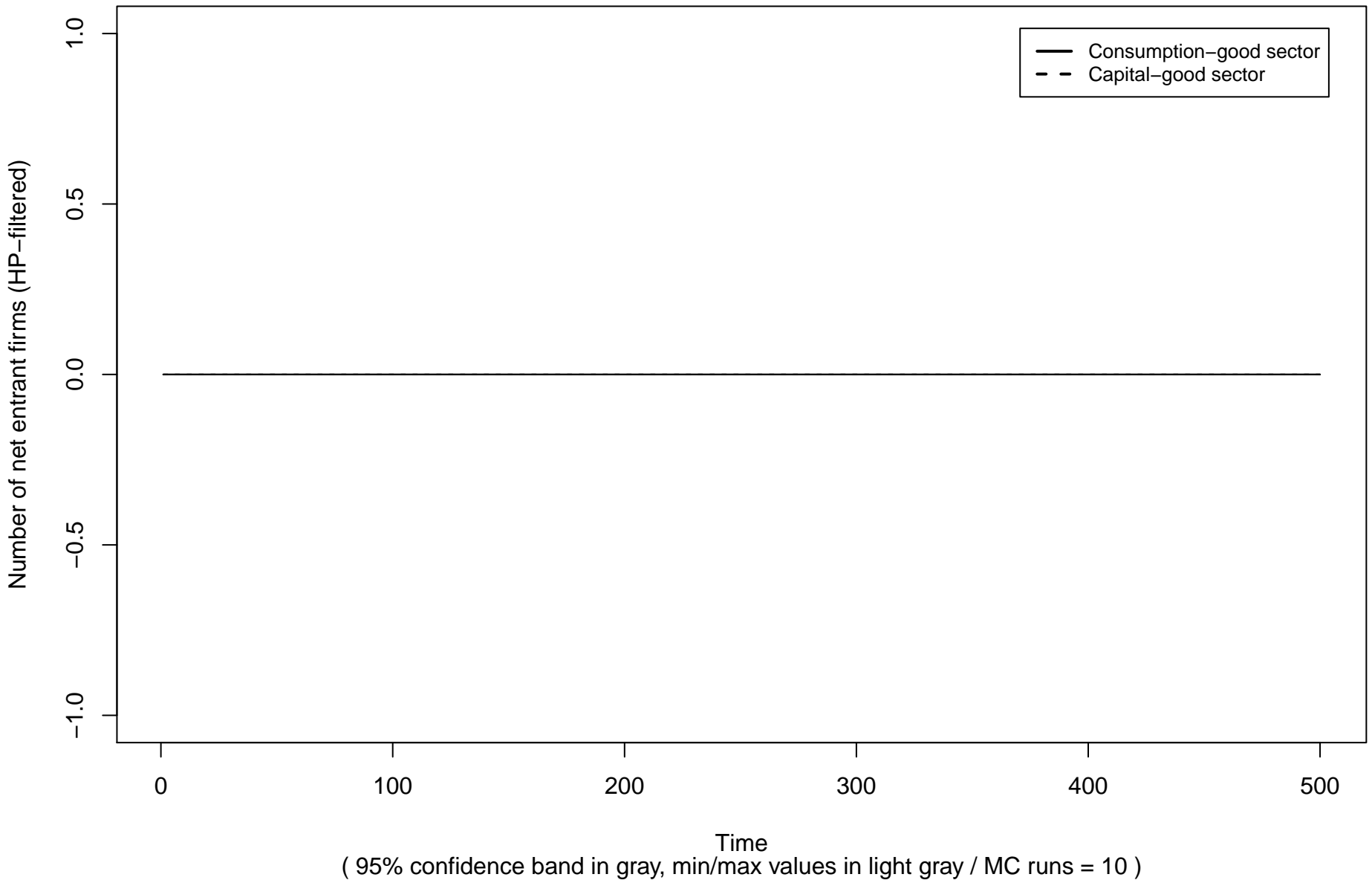
Innovation and imitation (Free entry)



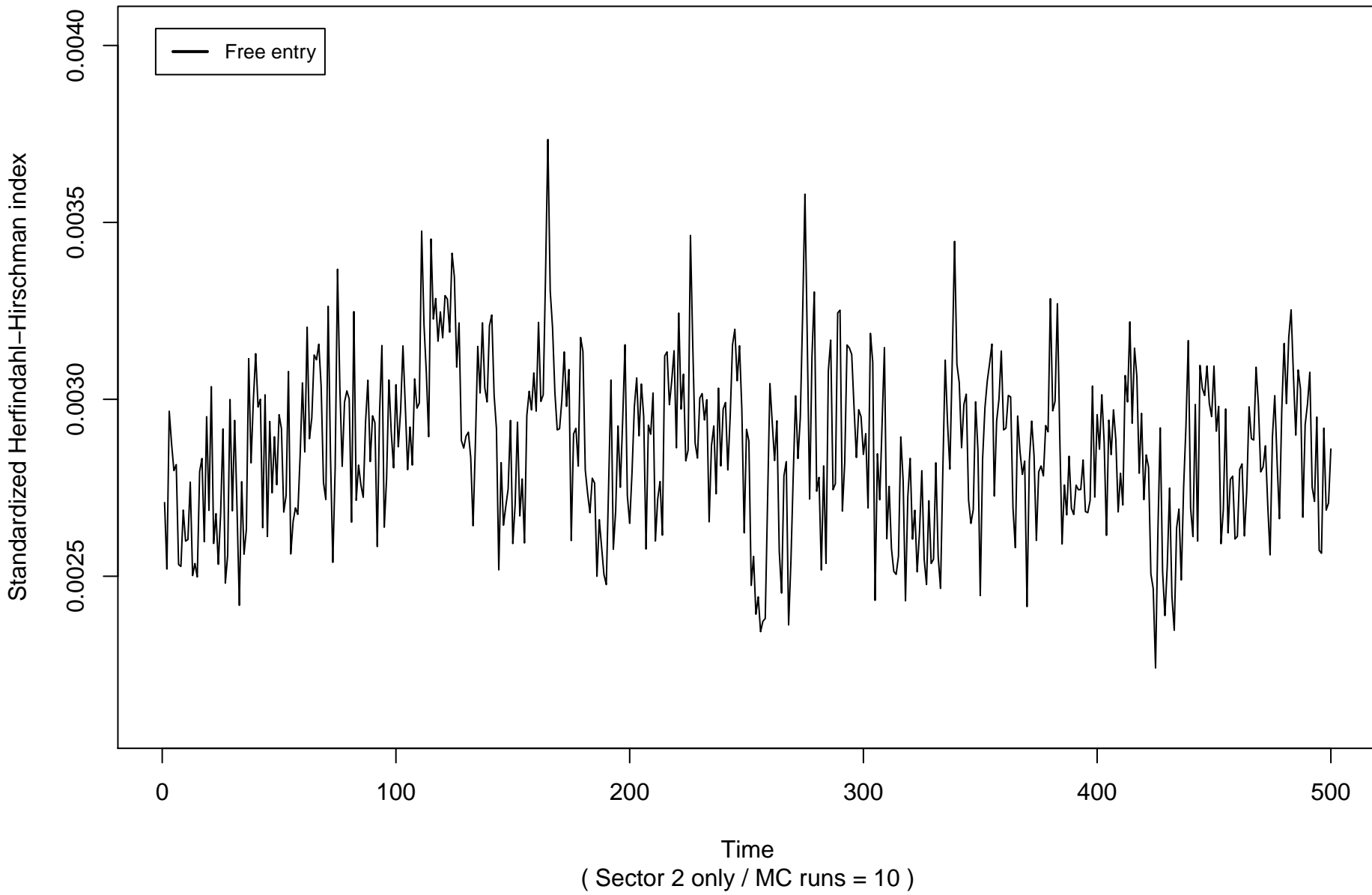
Net entry of firms trend (all experiments)



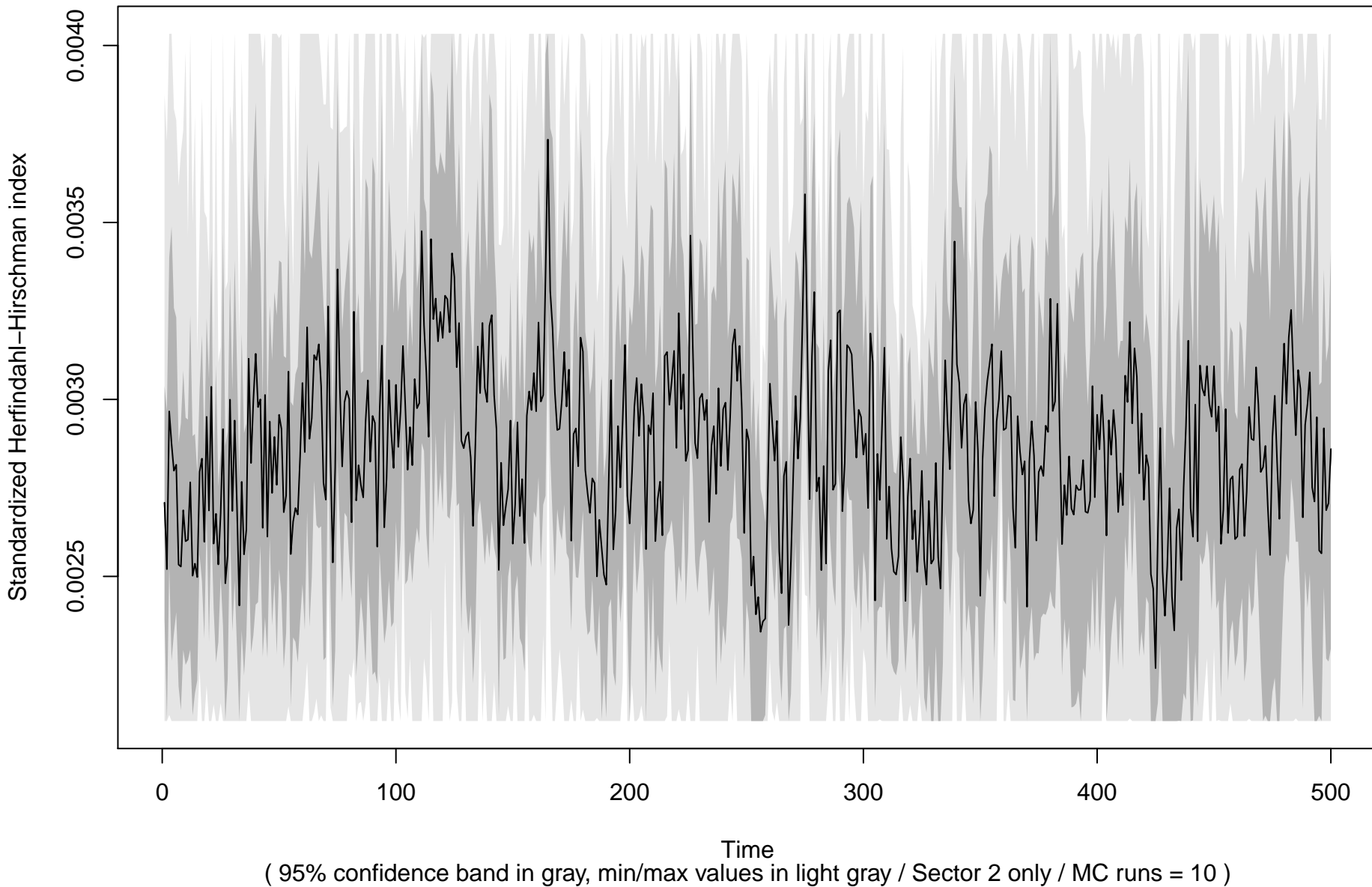
Net entry of firms trend (Free entry)



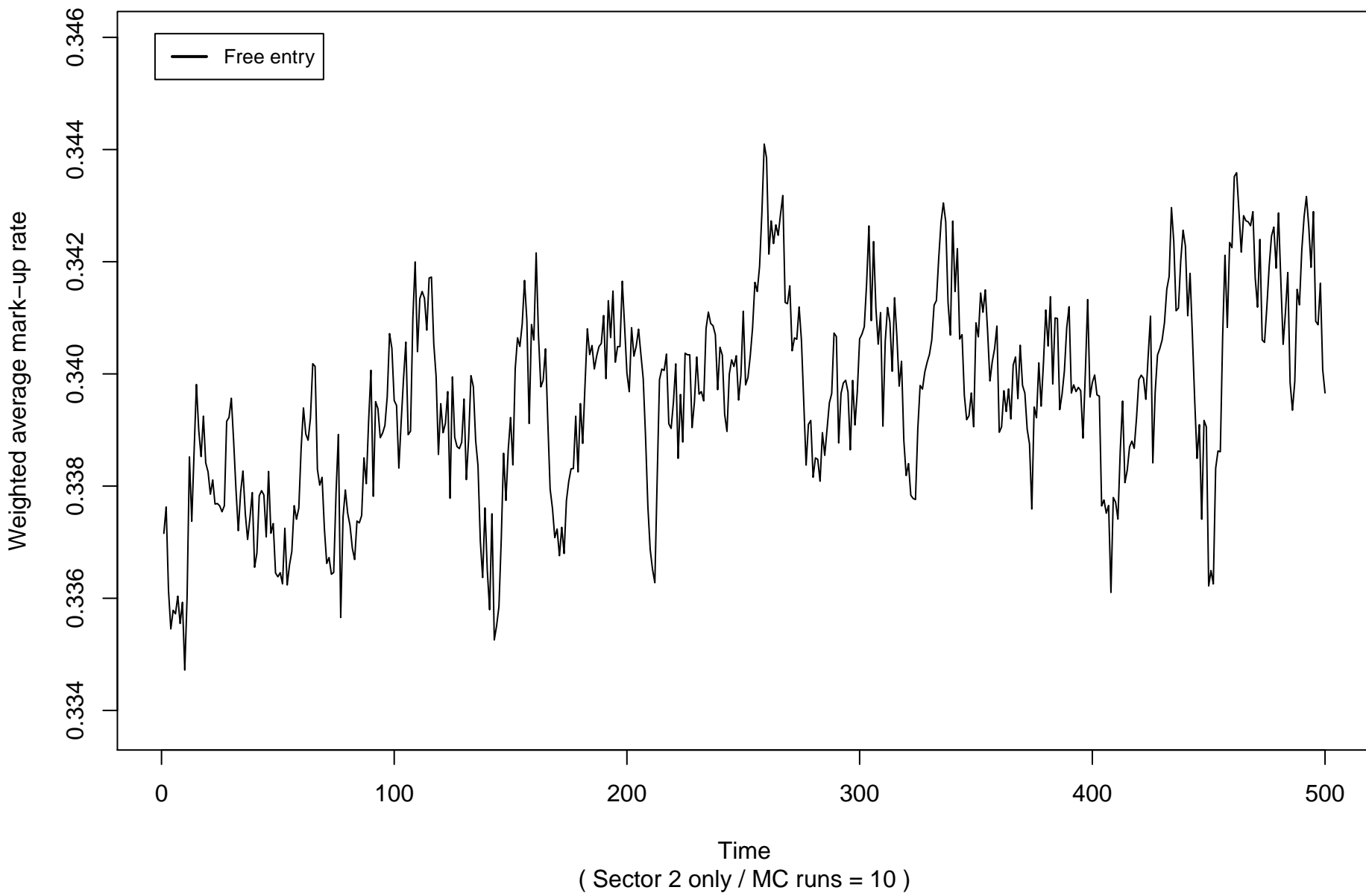
Market concentration (all experiments)



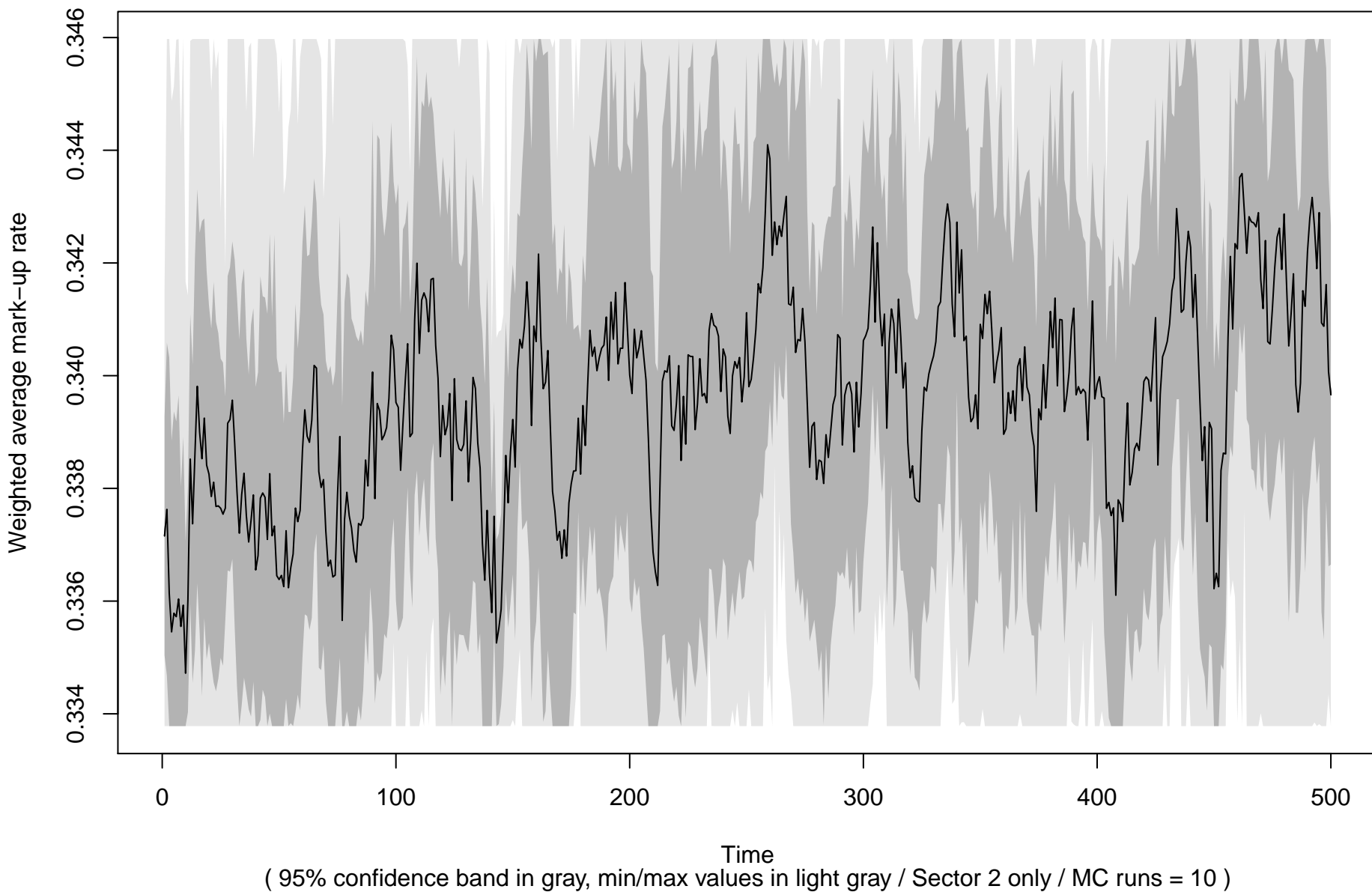
Market concentration (Free entry)



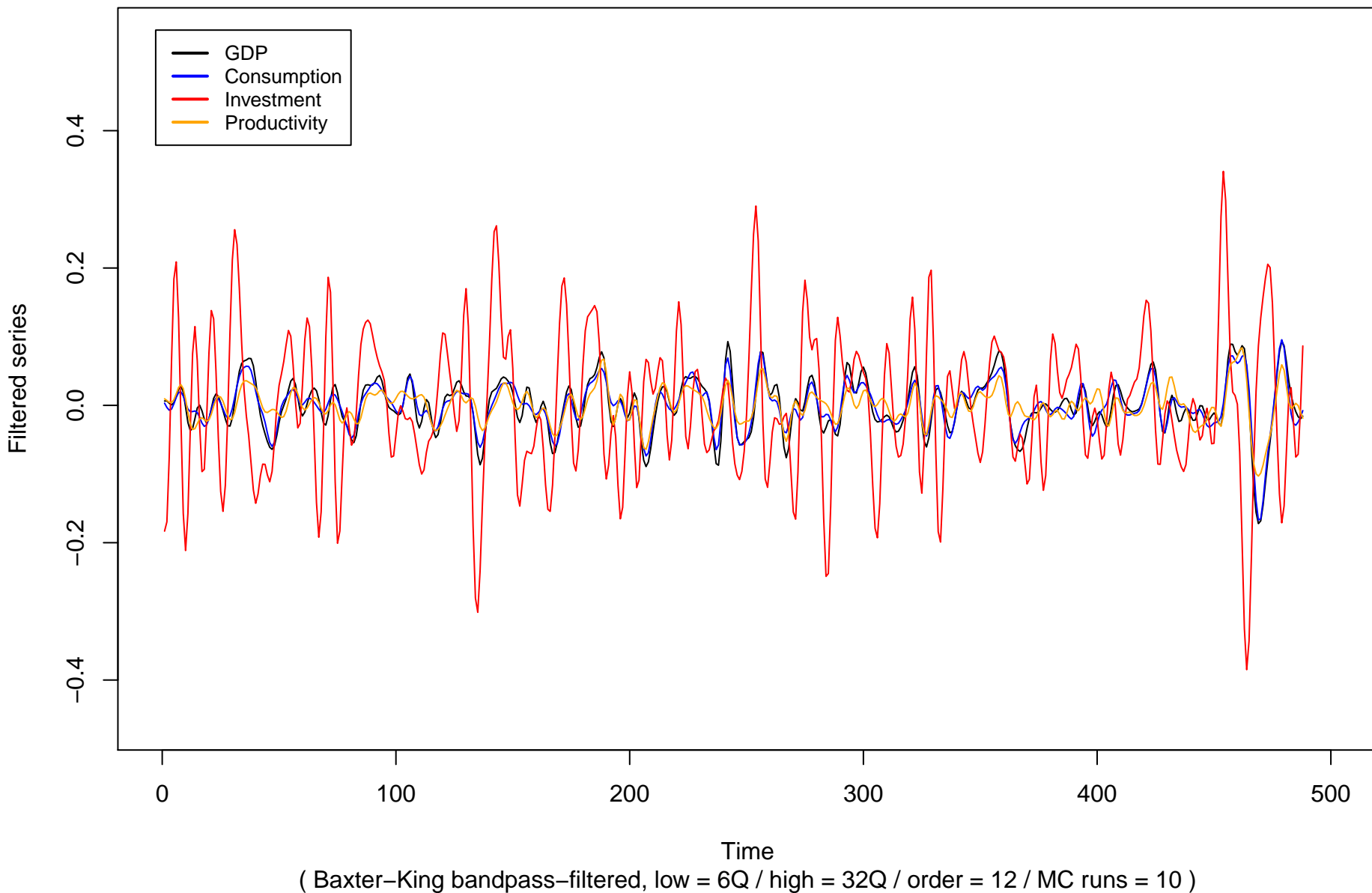
Mark-up average (all experiments)



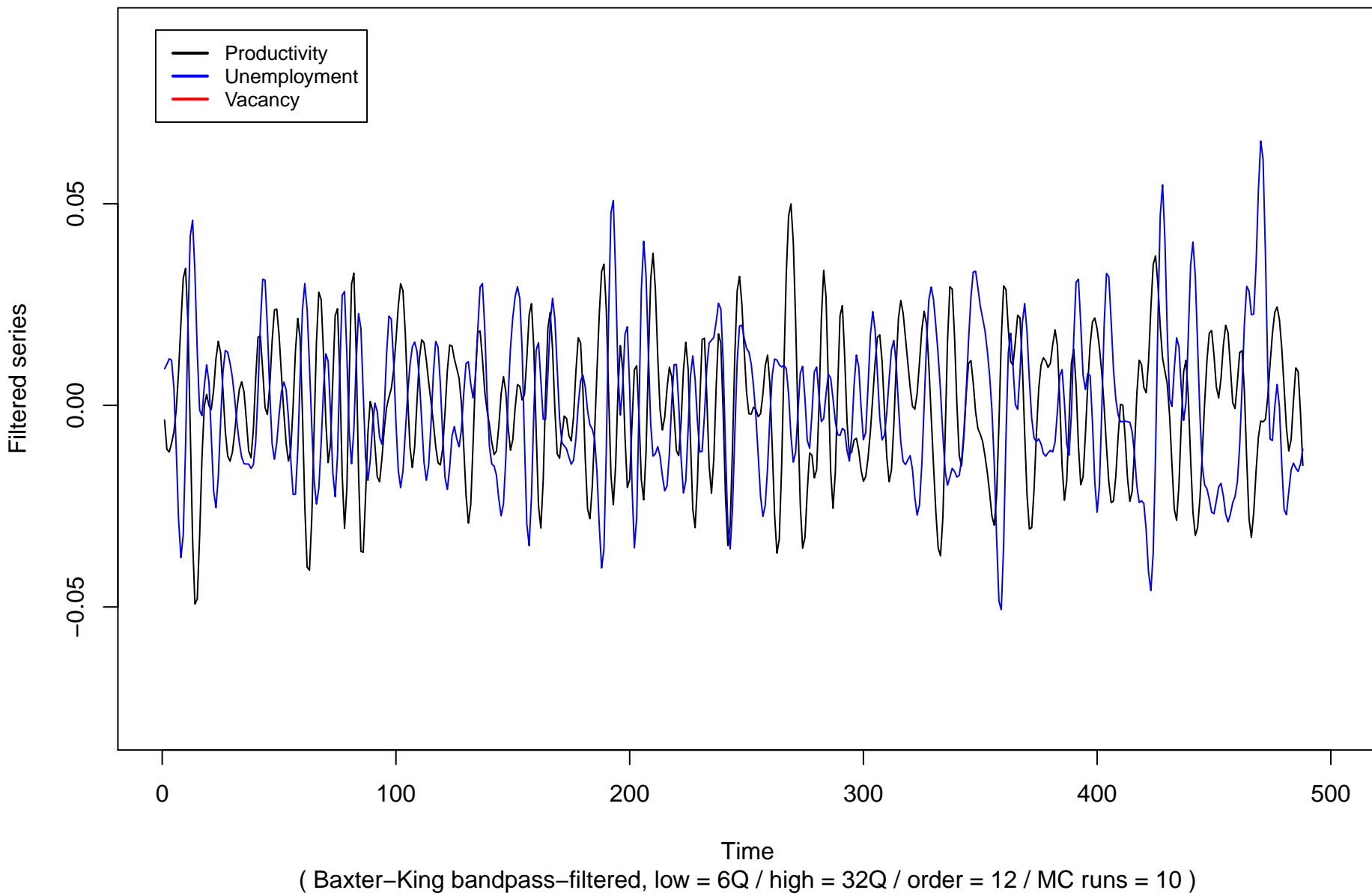
Mark-up average (Free entry)



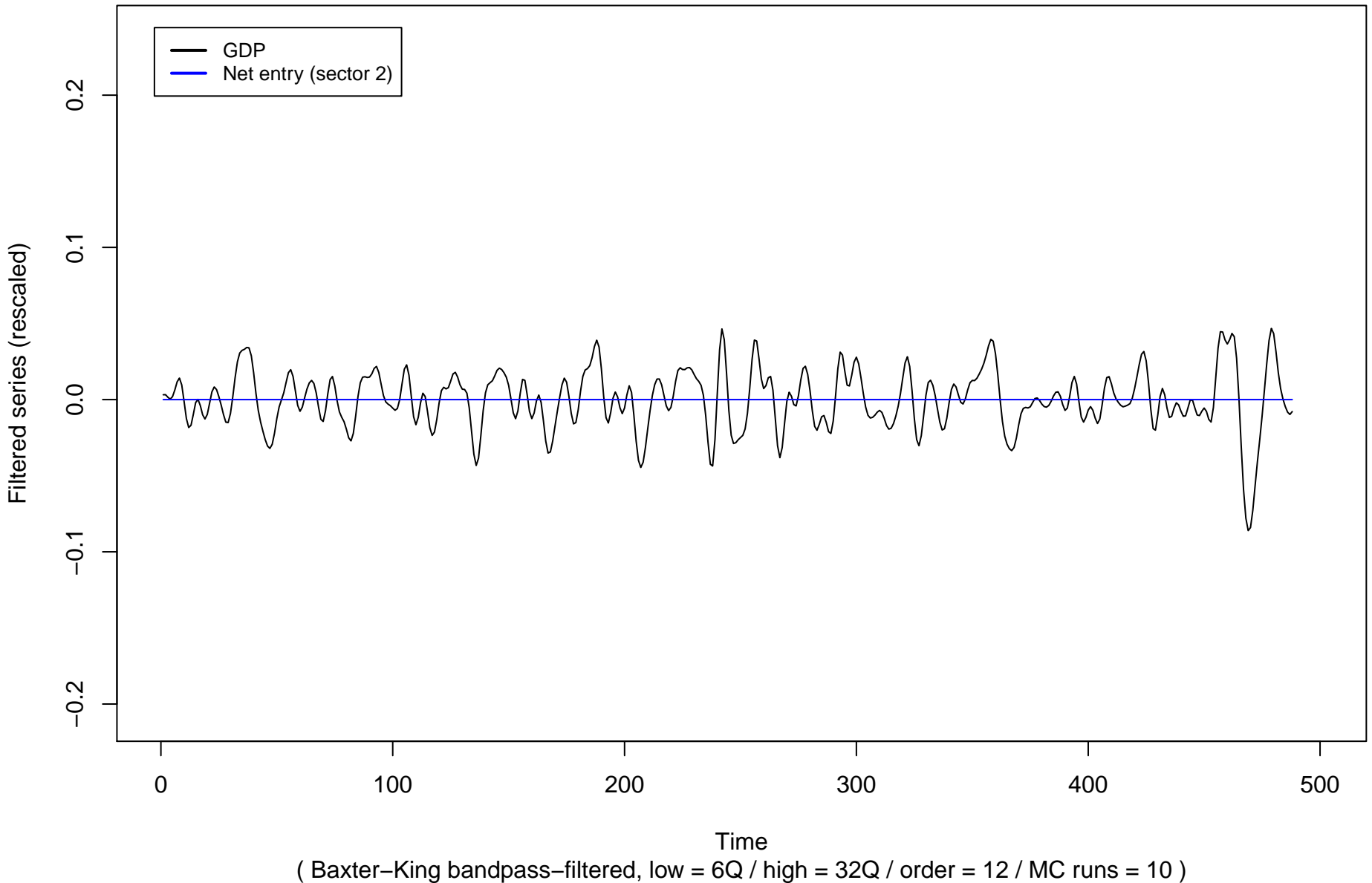
GDP cycles (Free entry)



Shimer puzzle (Free entry)



Net entry dynamics and business cycle (Free entry)



Key statistics and unit roots tests for cycles (Free entry)

	GDP (output)	Consumption	Investment	Product.	Real wage
avg. growth rate	0.01346	0.01363	0.005949	0.01325	0.01357
(s.e.)	0.0006867	0.0006873	0.006223	0.0005486	0.0006011
ADF test (logs)	-2.541	-2.306	-6.694	-2.462	-2.47
(s.e.)	0.1892	0.2185	0.1637	0.2334	0.1955
(p-val.)	0.3715	0.4698	0.01	0.4106	0.3976
(s.e.)	0.06317	0.07538	0	0.08084	0.06928
ADF test (bpf)	-5.659	-5.371	-6.775	-5.865	-6.029
(s.e.)	0.1151	0.1214	0.1248	0.1997	0.2394
(p-val.)	0.01	0.01	0.01	0.01	0.01
(s.e.)	0	0	0	0	0
s.d. (bpf)	0.09009	0.07252	1.498	0.0621	0.06929
(s.e.)	0.002544	0.002775	0.06159	0.002804	0.004369
relative s.d. (GDP)	1	0.805	16.63	0.6893	0.7691

(bpf: Baxter–King bandpass–filtered series, low = 6Q / high = 32Q / order = 12 / MC runs = 10 / period = 301 – 600)

(ADF test H0: there are unit roots / non–stationary at 5% level)

Correlation structure for GDP (Free entry)

	-4	-3	-2	-1	0	1	2	3	4
GDP (output)	-0.01771	0.2495	0.5896	0.8819	1	0.8819	0.5896	0.2495	-0.01771
(s.e.)	0.04158	0.03687	0.02246	0.00675	1.17e-17	0.00675	0.02246	0.03687	0.04158
(p-val.)	0.08245	0.0006487	1.49e-09	5.384e-16	NA	5.384e-16	1.49e-09	0.0006487	0.08245
Consumption	0.09414	0.3119	0.5846	0.8269	0.938	0.8534	0.6085	0.2964	0.02125
(s.e.)	0.0337	0.03226	0.02239	0.01017	0.003932	0.01076	0.02816	0.04466	0.05065
(p-val.)	0.09463	2.573e-05	1.581e-09	4.055e-14	2.269e-18	4.954e-14	7.941e-09	0.000457	0.1019
Investment	-0.3098	-0.3995	-0.3976	-0.259	-0.01023	0.2543	0.4274	0.455	0.3628
(s.e.)	0.02822	0.02627	0.03723	0.04981	0.0518	0.04234	0.03128	0.02782	0.02532
(p-val.)	9.624e-06	3.435e-07	6.617e-06	0.002902	0.0837	0.001305	7.412e-07	1.422e-07	7.072e-07
Net investment	-0.2382	-0.3232	-0.3271	-0.2065	0.01465	0.2477	0.3939	0.405	0.3083
(s.e.)	0.0261	0.02618	0.04216	0.05729	0.0593	0.04837	0.03812	0.03821	0.03658
(p-val.)	9.417e-05	3.297e-06	0.00012	0.005666	0.03545	0.001395	8.777e-06	6.771e-06	7.572e-05
Change in inventories	-0.2955	-0.1926	0.02848	0.268	0.4042	0.3658	0.2047	0.02702	-0.07266
(s.e.)	0.03371	0.03073	0.01691	0.02309	0.0316	0.02413	0.0169	0.02722	0.03071
(p-val.)	6.308e-05	0.002599	0.9972	9.613e-06	1.445e-06	4.308e-07	2.101e-05	0.7796	0.1582
Unemployment rate	0.2696	0.3103	0.2347	0.05352	-0.1593	-0.3034	-0.3261	-0.2419	-0.1182
(s.e.)	0.05341	0.04063	0.04169	0.05385	0.0648	0.071	0.07491	0.07577	0.06979
(p-val.)	7.826e-06	0.0001534	0.001742	0.03052	0.02866	0.0003657	4.607e-06	9.351e-06	0.007717
Productivity	0.2058	0.407	0.6156	0.7631	0.7868	0.6637	0.4398	0.1903	-0.01575
(s.e.)	0.05945	0.05481	0.04145	0.02787	0.03134	0.04499	0.05401	0.05336	0.04238
(p-val.)	0.001032	0.0001057	2.046e-07	7.499e-10	1.569e-09	1.975e-07	4.628e-05	0.01289	0.3611
Mark-up (sector 2)	0.2138	0.1751	0.09456	-0.009931	-0.1084	-0.174	-0.1973	-0.186	-0.1549
(s.e.)	0.04925	0.03569	0.02808	0.02951	0.03333	0.0348	0.03405	0.03376	0.03365
(p-val.)	0.003401	0.004447	0.1787	0.5613	0.1021	0.01219	0.003659	0.005981	0.01074
Total firm debt	0.2654	0.1646	0.04996	-0.05429	-0.1312	-0.1746	-0.1903	-0.1907	-0.1853
(s.e.)	0.03374	0.05055	0.06814	0.07825	0.07579	0.06299	0.0492	0.04379	0.04451
(p-val.)	0.0001912	0.03998	0.007017	0.00707	0.002393	0.001716	0.002582	0.00379	0.01434
Liquidity-to-sales ratio	0.1529	-0.05917	-0.3161	-0.5534	-0.6986	-0.7013	-0.5762	-0.3795	-0.1812
(s.e.)	0.05032	0.04097	0.03141	0.02512	0.0208	0.01937	0.02463	0.03318	0.04037
(p-val.)	0.01389	0.1474	1.812e-05	7.673e-09	1.341e-10	6.838e-11	4.253e-09	4.178e-06	0.01677
Bankruptcy rate	0.367	0.4035	0.3223	0.1485	-0.03955	-0.1591	-0.1788	-0.1309	-0.07657
(s.e.)	0.06293	0.06443	0.0662	0.06723	0.06791	0.06544	0.05592	0.04374	0.04243
(p-val.)	9.891e-05	0.000359	0.002622	0.006186	0.007271	0.006946	0.0002713	0.002163	0.08065

(non-rate/ratio series are Baxter-King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 10 / period = 301 – 600)

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

Correlation structure for GDP (Free entry)

	-4	-3	-2	-1	0	1	2	3	4
GDP (output)	-0.01771	0.2495	0.5896	0.8819	1	0.8819	0.5896	0.2495	-0.01771
(s.e.)	0.04158	0.03687	0.02246	0.00675	1.17e-17	0.00675	0.02246	0.03687	0.04158
(p-val.)	0.08245	0.0006487	1.49e-09	5.384e-16	NA	5.384e-16	1.49e-09	0.0006487	0.08245
Consumption	0.09414	0.3119	0.5846	0.8269	0.938	0.8534	0.6085	0.2964	0.02125
(s.e.)	0.0337	0.03226	0.02239	0.01017	0.003932	0.01076	0.02816	0.04466	0.05065
(p-val.)	0.09463	2.573e-05	1.581e-09	4.055e-14	2.269e-18	4.954e-14	7.941e-09	0.000457	0.1019
Investment	-0.3098	-0.3995	-0.3976	-0.259	-0.01023	0.2543	0.4274	0.455	0.3628
(s.e.)	0.02822	0.02627	0.03723	0.04981	0.0518	0.04234	0.03128	0.02782	0.02532
(p-val.)	9.624e-06	3.435e-07	6.617e-06	0.002902	0.0837	0.001305	7.412e-07	1.422e-07	7.072e-07
Productivity	0.2058	0.407	0.6156	0.7631	0.7868	0.6637	0.4398	0.1903	-0.01575
(s.e.)	0.05945	0.05481	0.04145	0.02787	0.03134	0.04499	0.05401	0.05336	0.04238
(p-val.)	0.001032	0.0001057	2.046e-07	7.499e-10	1.569e-09	1.975e-07	4.628e-05	0.01289	0.3611
Net entry	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
(s.e.)	NA	NA	NA	NA	NA	NA	NA	NA	NA
(p-val.)	1	1	1	1	1	1	1	1	1
Entry	-0.1059	0.09397	0.3072	0.4732	0.5423	0.5009	0.3826	0.2418	0.1247
(s.e.)	0.05134	0.05148	0.04876	0.04368	0.03766	0.03419	0.03443	0.03622	0.03591
(p-val.)	0.1023	0.01713	0.0003381	4.268e-06	3.173e-07	3.099e-07	5.192e-06	0.0007802	0.04063
Wage	0.3467	0.5341	0.685	0.75	0.7015	0.546	0.3377	0.1348	-0.02329
(s.e.)	0.0492	0.03471	0.02121	0.0213	0.03272	0.04311	0.04819	0.04608	0.03689
(p-val.)	0.0001411	1.839e-07	1.945e-10	8.125e-11	7.145e-09	9.341e-07	0.0002318	0.0299	0.1222
Unemployment rate	0.2696	0.3103	0.2347	0.05352	-0.1593	-0.3034	-0.3261	-0.2419	-0.1182
(s.e.)	0.05341	0.04063	0.04169	0.05385	0.0648	0.071	0.07491	0.07577	0.06979
(p-val.)	7.826e-06	0.0001534	0.001742	0.03052	0.02866	0.0003657	4.607e-06	9.351e-06	0.007717
Vacancy rate	0.1923	-0.03031	-0.2811	-0.4562	-0.4846	-0.372	-0.1962	-0.05049	0.01211
(s.e.)	0.05927	0.05105	0.0524	0.06337	0.07285	0.07274	0.06379	0.05565	0.0531
(p-val.)	0.005175	0.1112	0.00199	0.0001094	0.0001772	0.001135	0.002834	0.09354	0.09098

(non-rate/ratio series are Baxter–King bandpass-filtered, low = 6Q / high = 32Q / order = 12 / MC runs = 10 / period = 301 – 600)

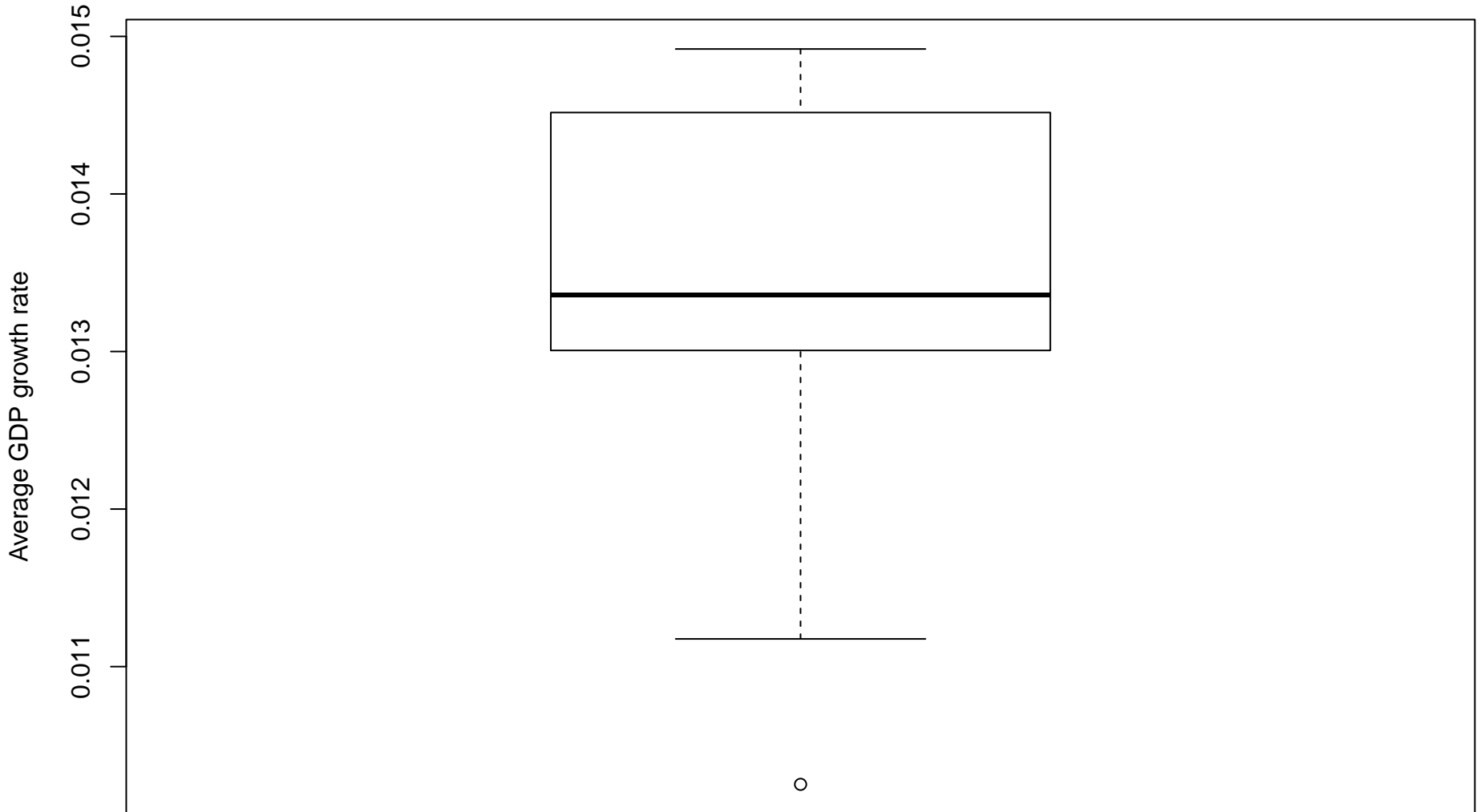
(test H0: lag coefficient is not significant at 5% level)

Stationarity, i.i.d. and ergodicity tests (Free entry)

	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	0.70	0.34	0.20	0.00	C
dA	0.01	1.00	0.01	1.00	0.10	0.00	0.02	0.90	0.18	0.56	0.00	C
dw	0.01	1.00	0.01	1.00	0.10	0.00	0.03	0.80	0.19	0.60	0.00	C
V	0.01	1.00	0.01	1.00	0.07	0.30	0.05	0.80	0.11	0.71	0.00	C
U	0.02	0.90	0.01	1.00	0.02	0.90	0.01	0.90	0.03	0.93	0.00	C
mu2avg	0.04	0.80	0.01	1.00	0.04	0.60	0.00	1.00	0.04	0.87	0.00	C
HH1	0.01	1.00	0.01	1.00	0.10	0.00	0.00	1.00	0.20	0.62	0.00	C
HH2	0.01	1.00	0.01	1.00	0.06	0.50	0.00	1.00	0.11	0.71	0.00	C

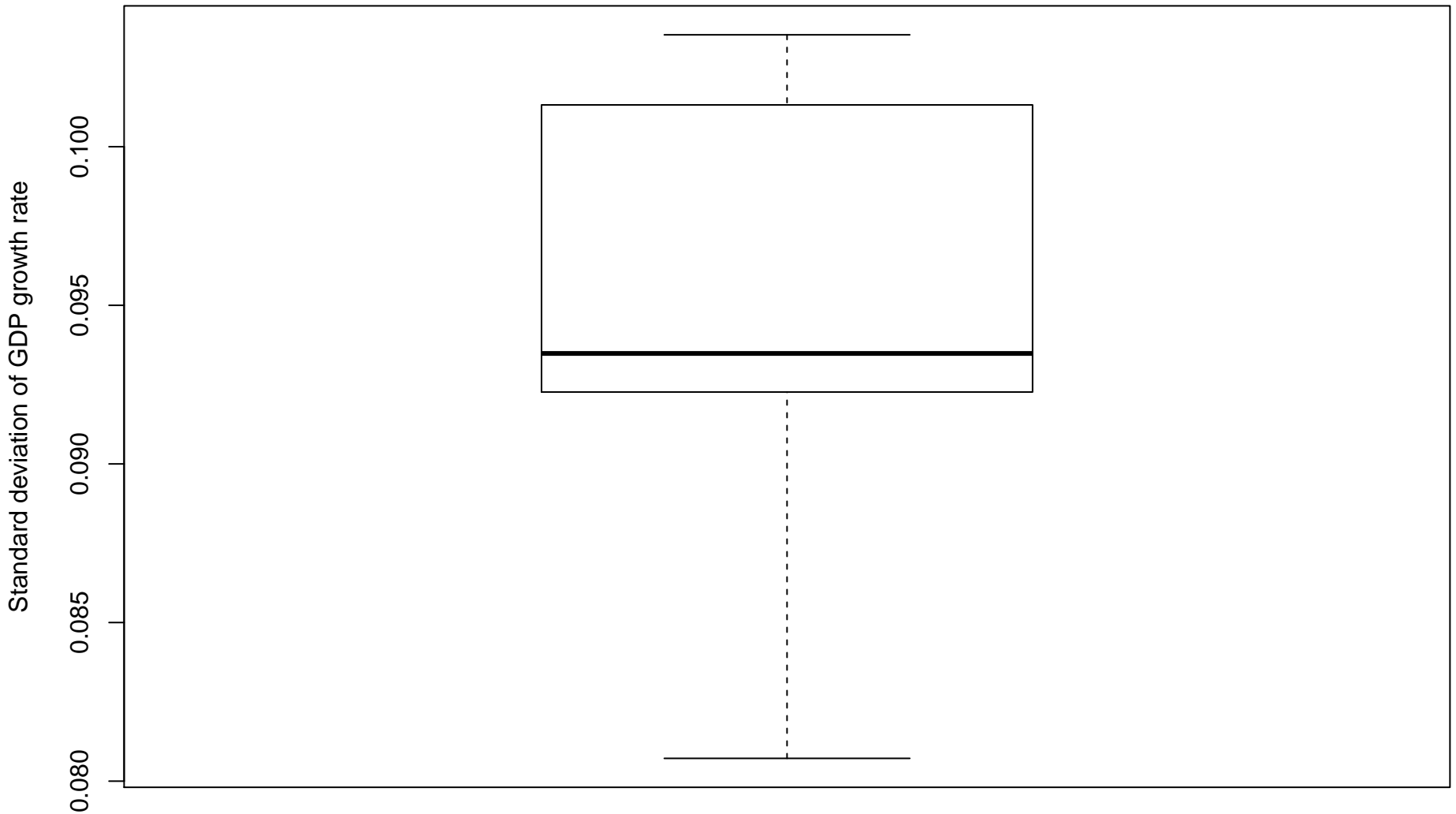
(average p-values for testing H0 and rate of rejection of H0 / MC runs = 10 / period = 301 – 600)
 (ADF/PP H0: non-stationary, KPSS H0: stationary, BDS H0: i.i.d., KS/AD/WW H0: ergodic)
 (significance = 0.05)

GDP growth



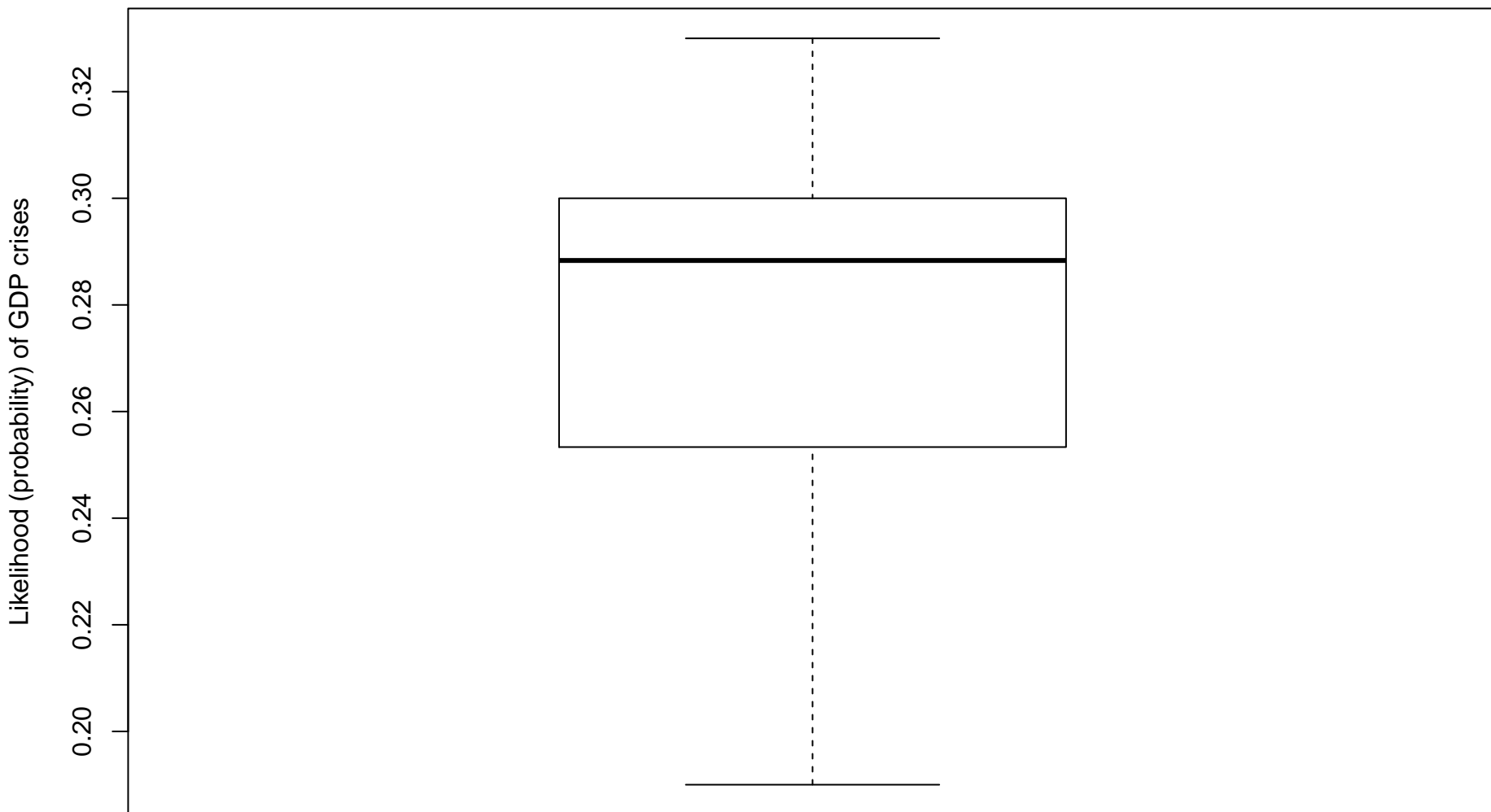
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Volatility of GDP growth



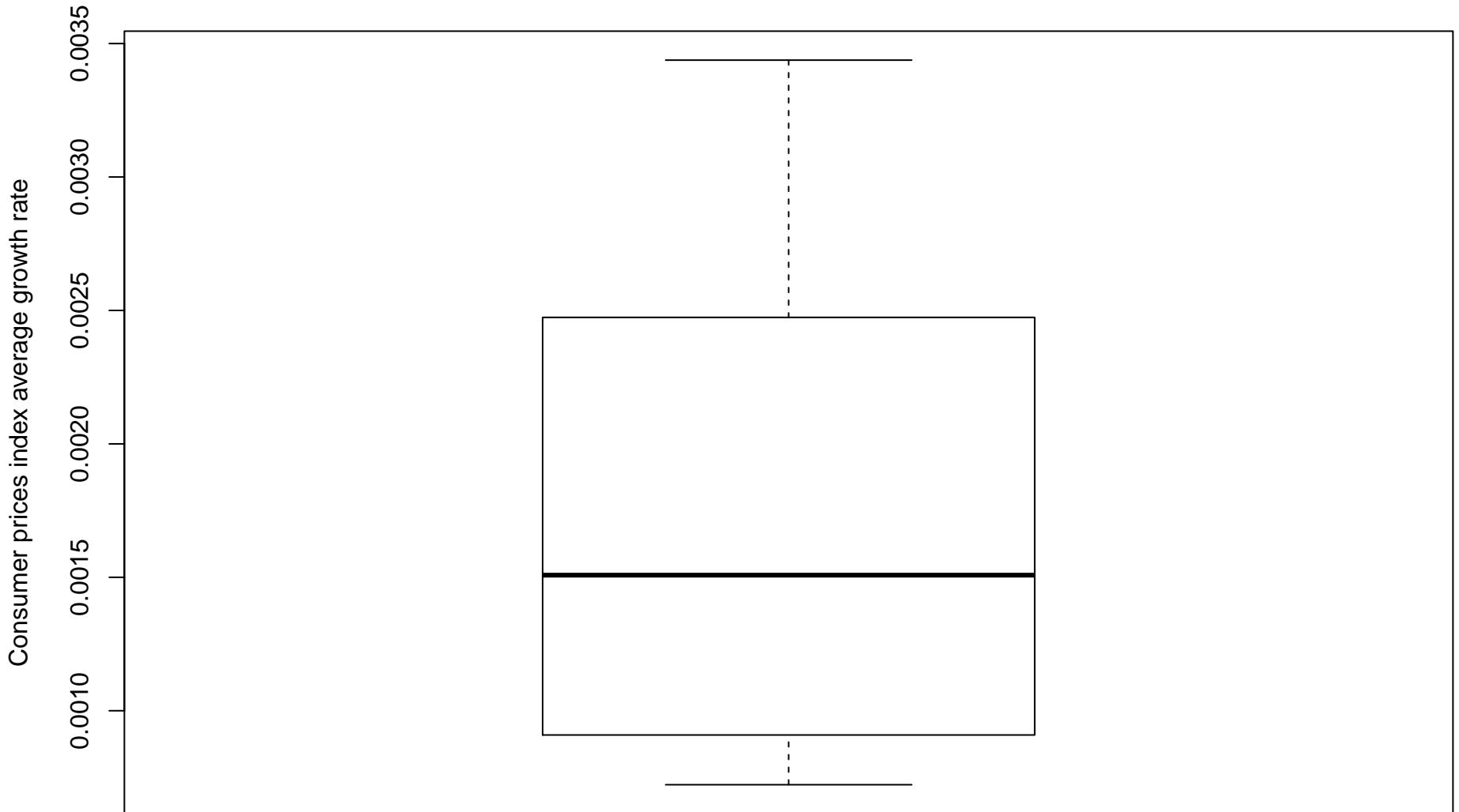
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Likelihood of GDP crises



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

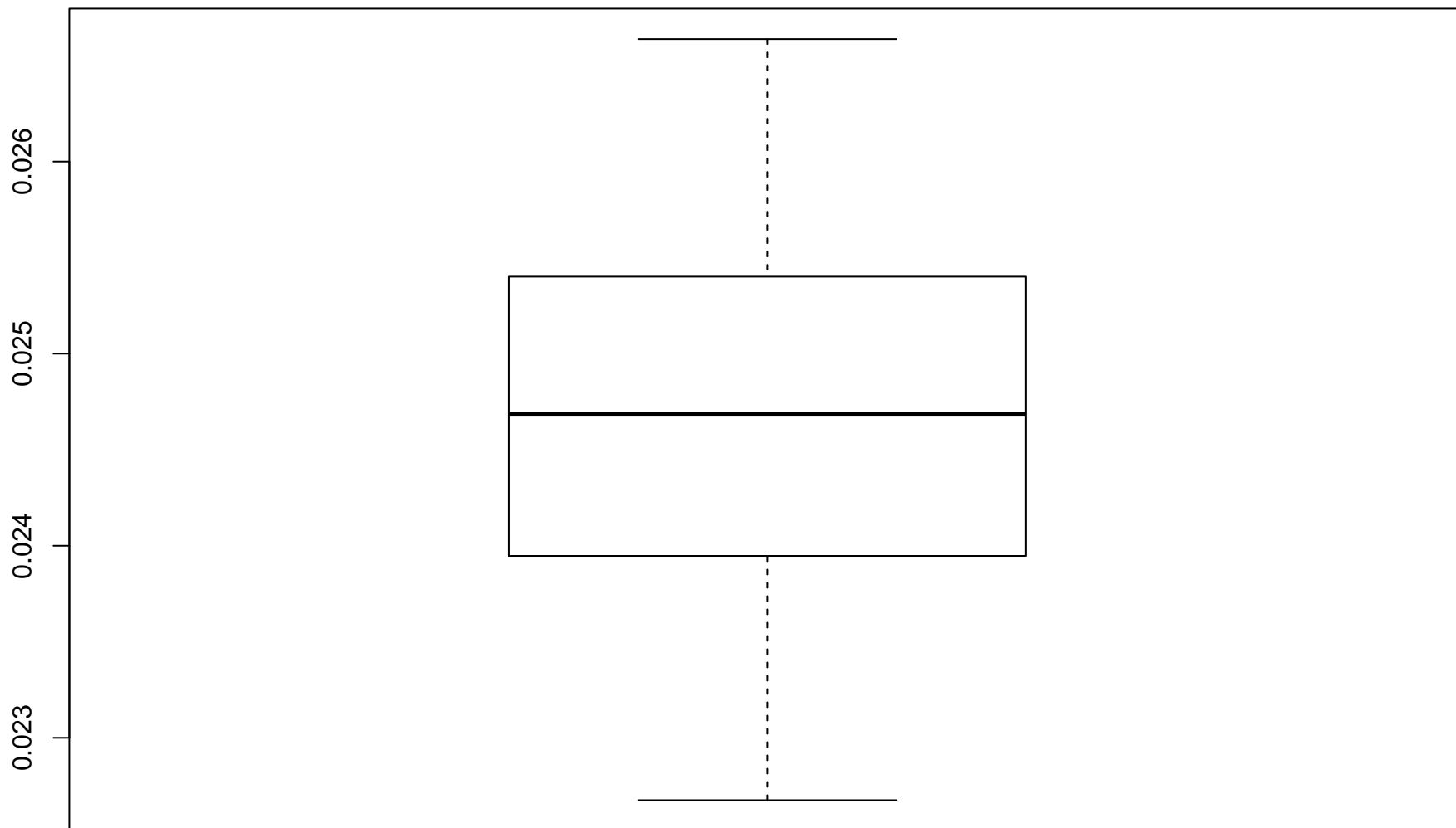
Inflation



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

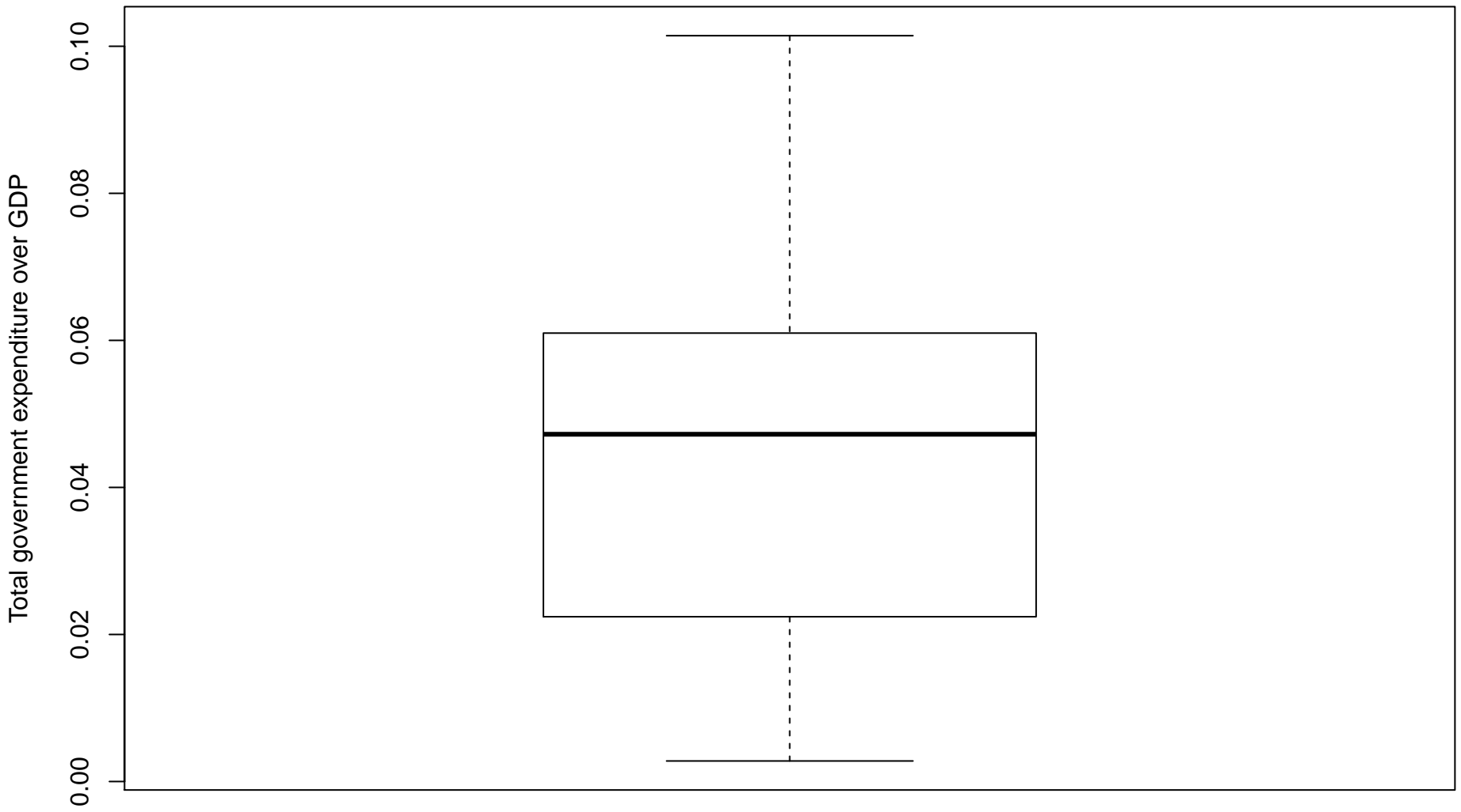
Government tax income over GDP

Tax



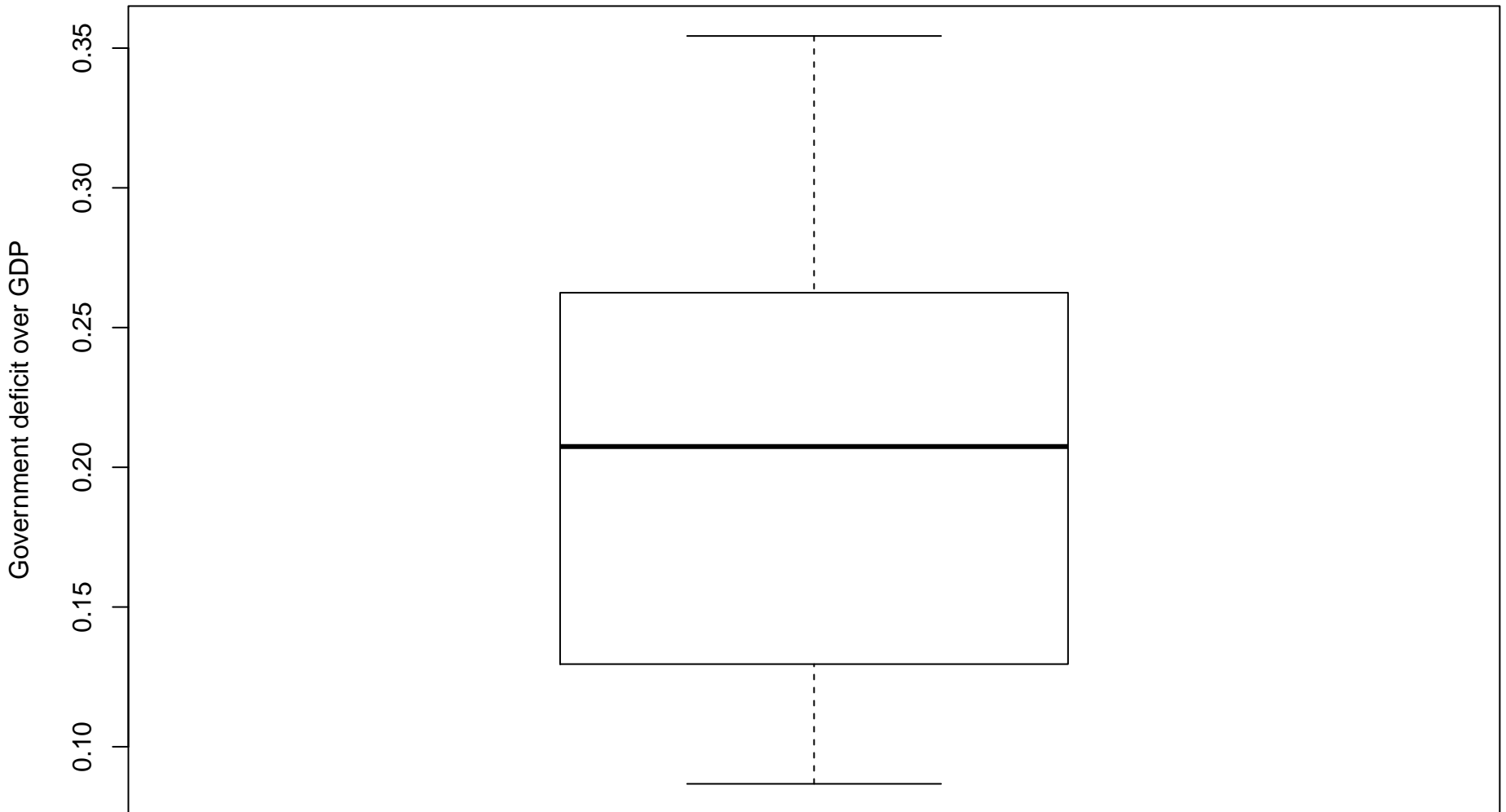
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Government total expenditure



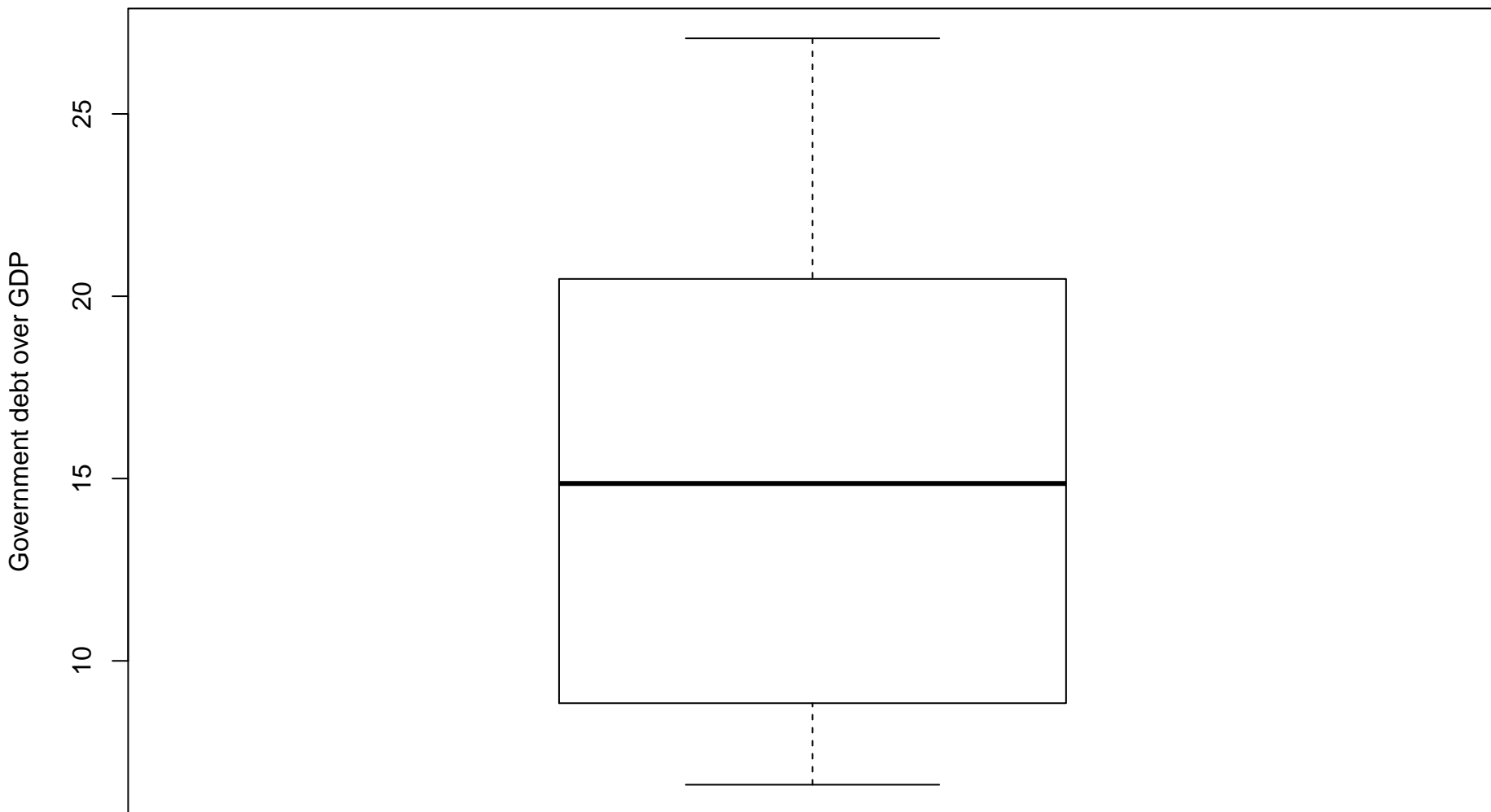
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Government deficit



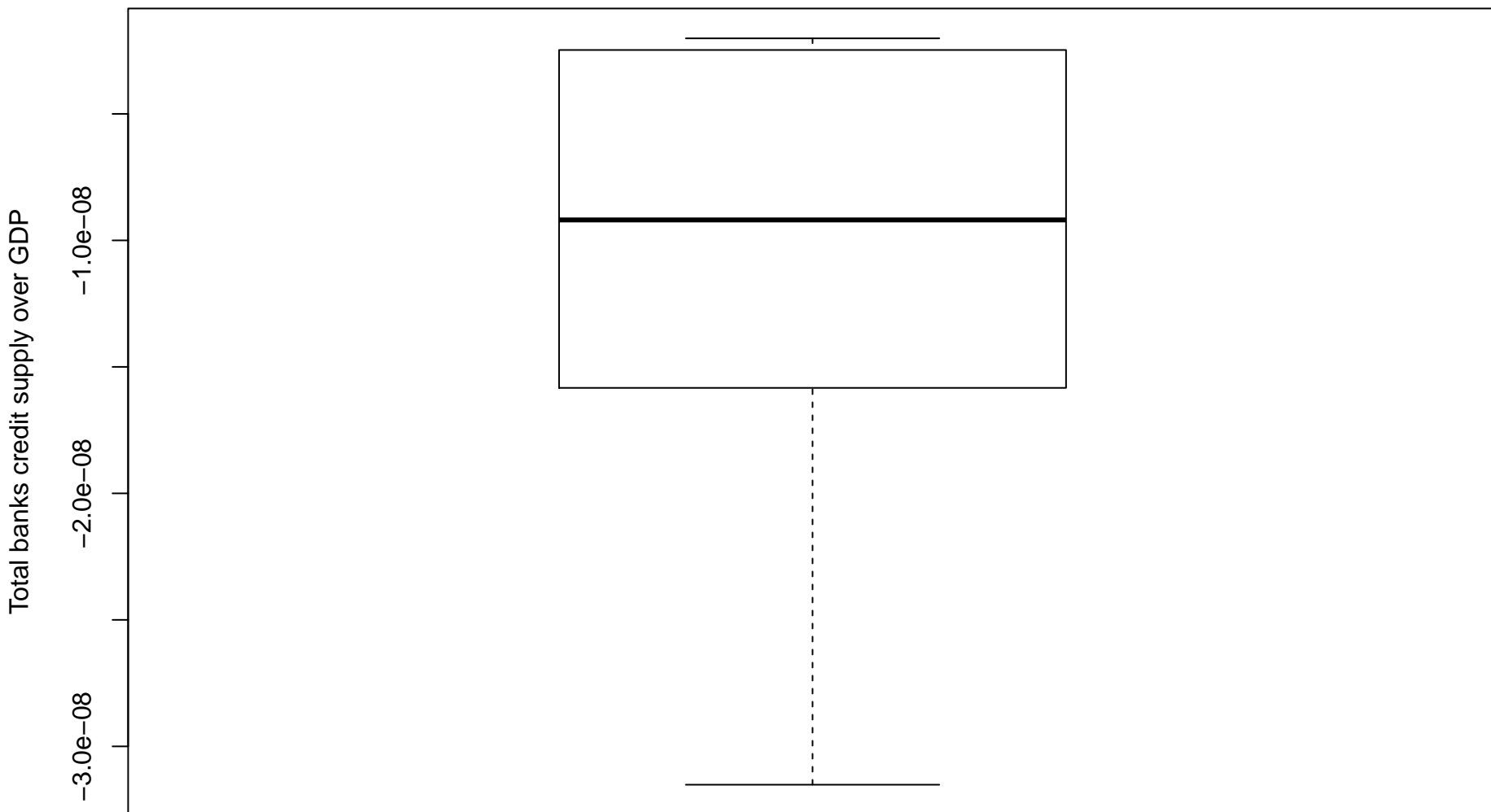
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Government debt



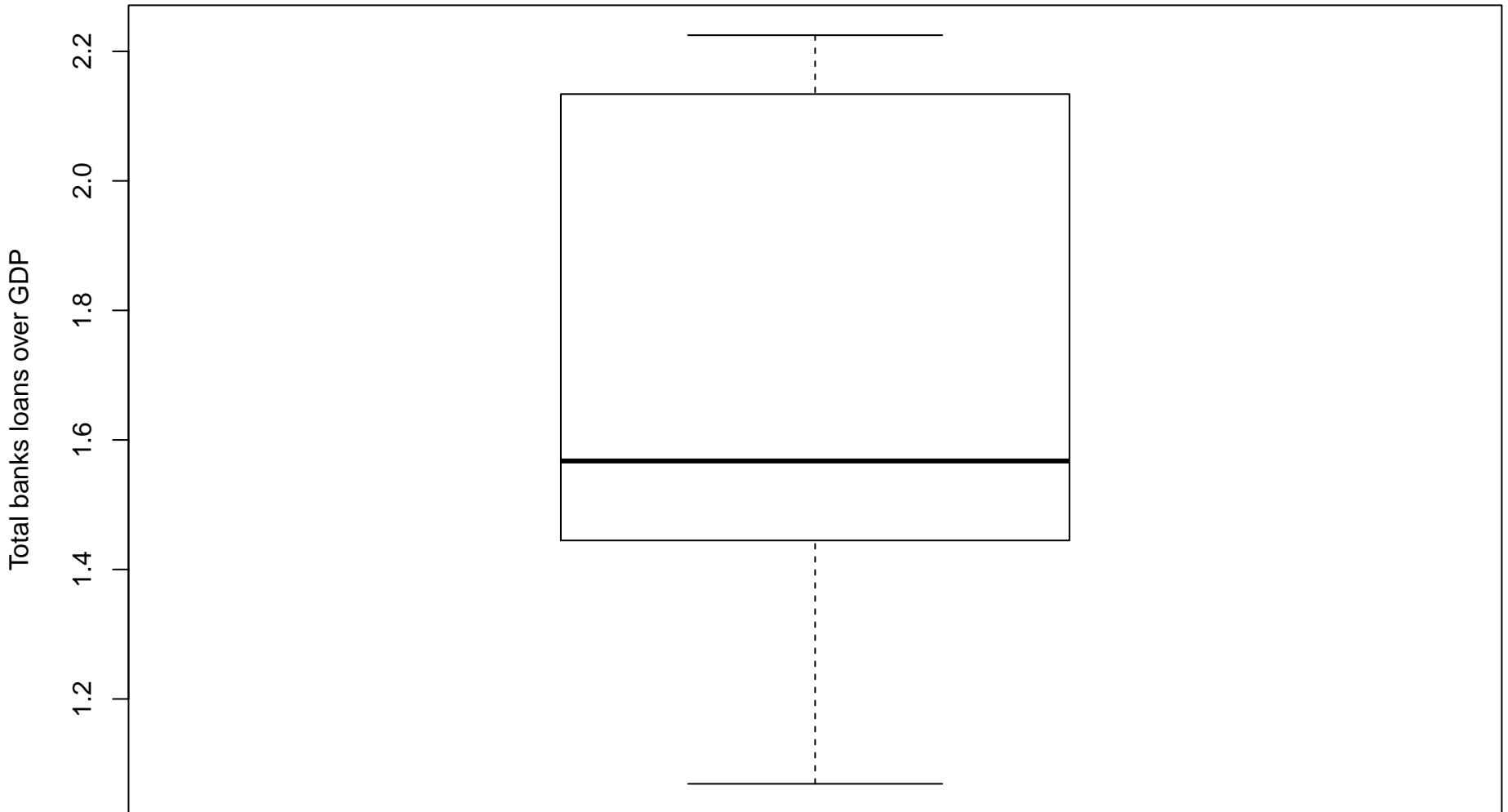
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Credit supply



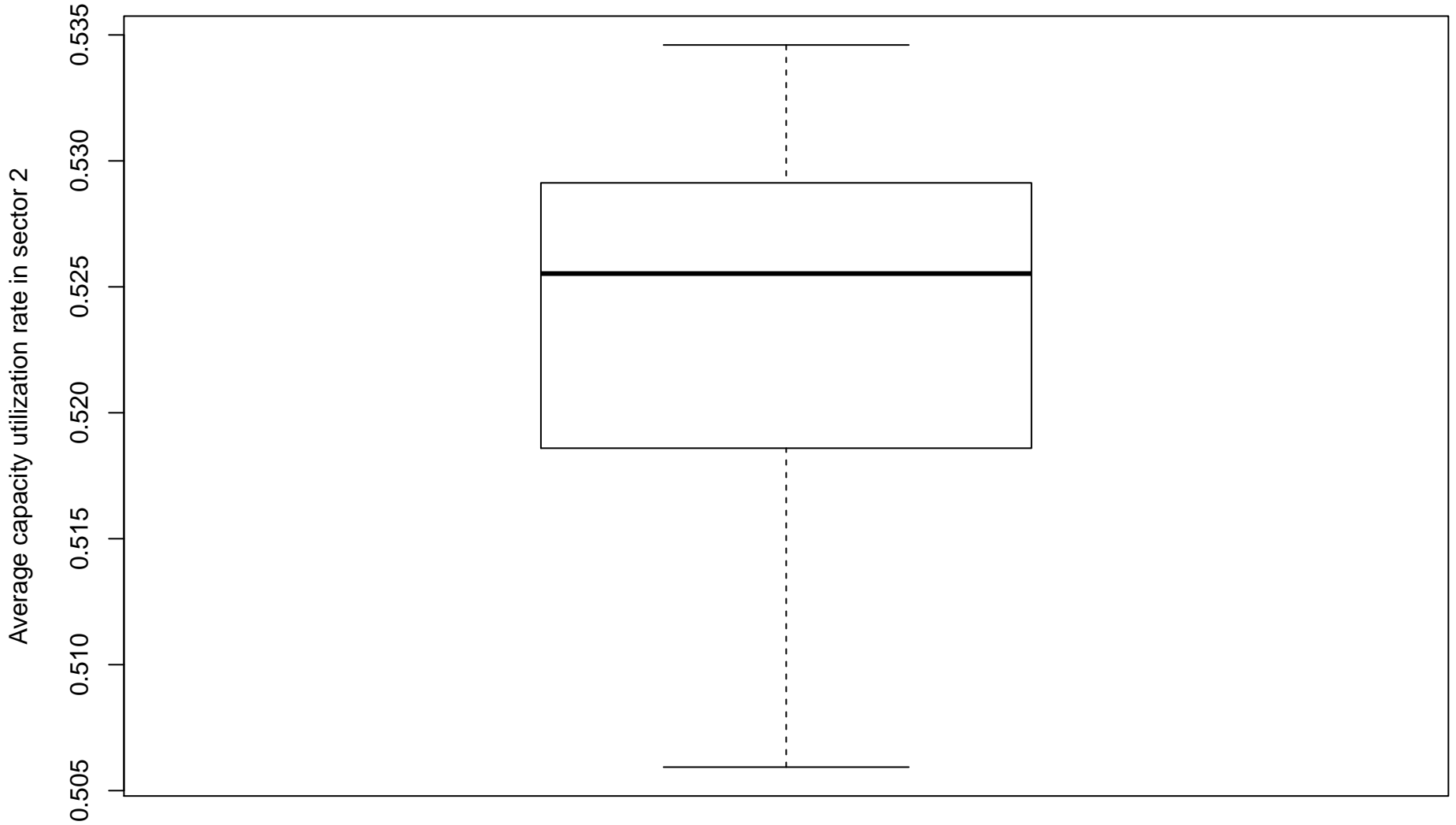
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Loans



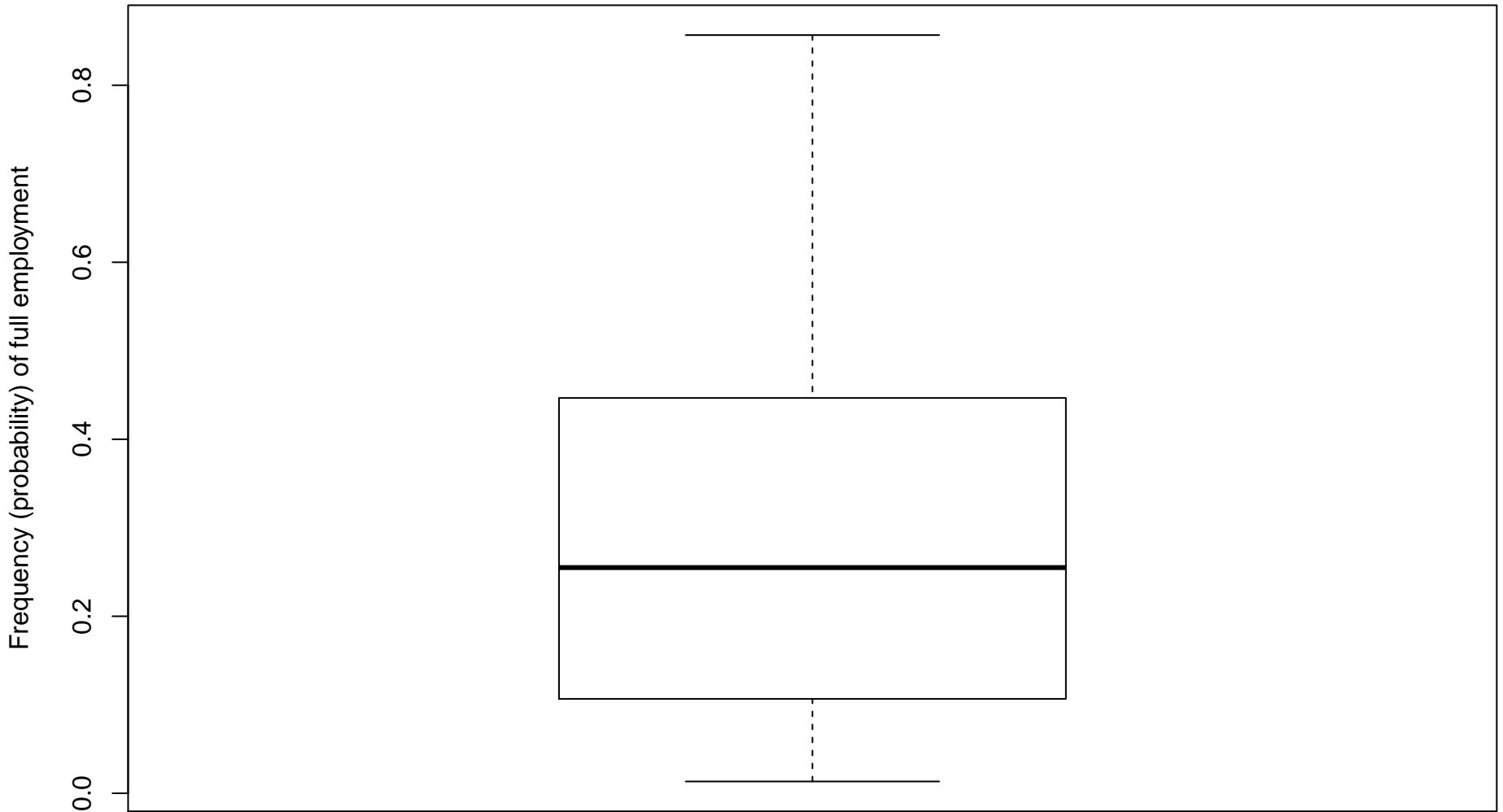
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Capacity utilization



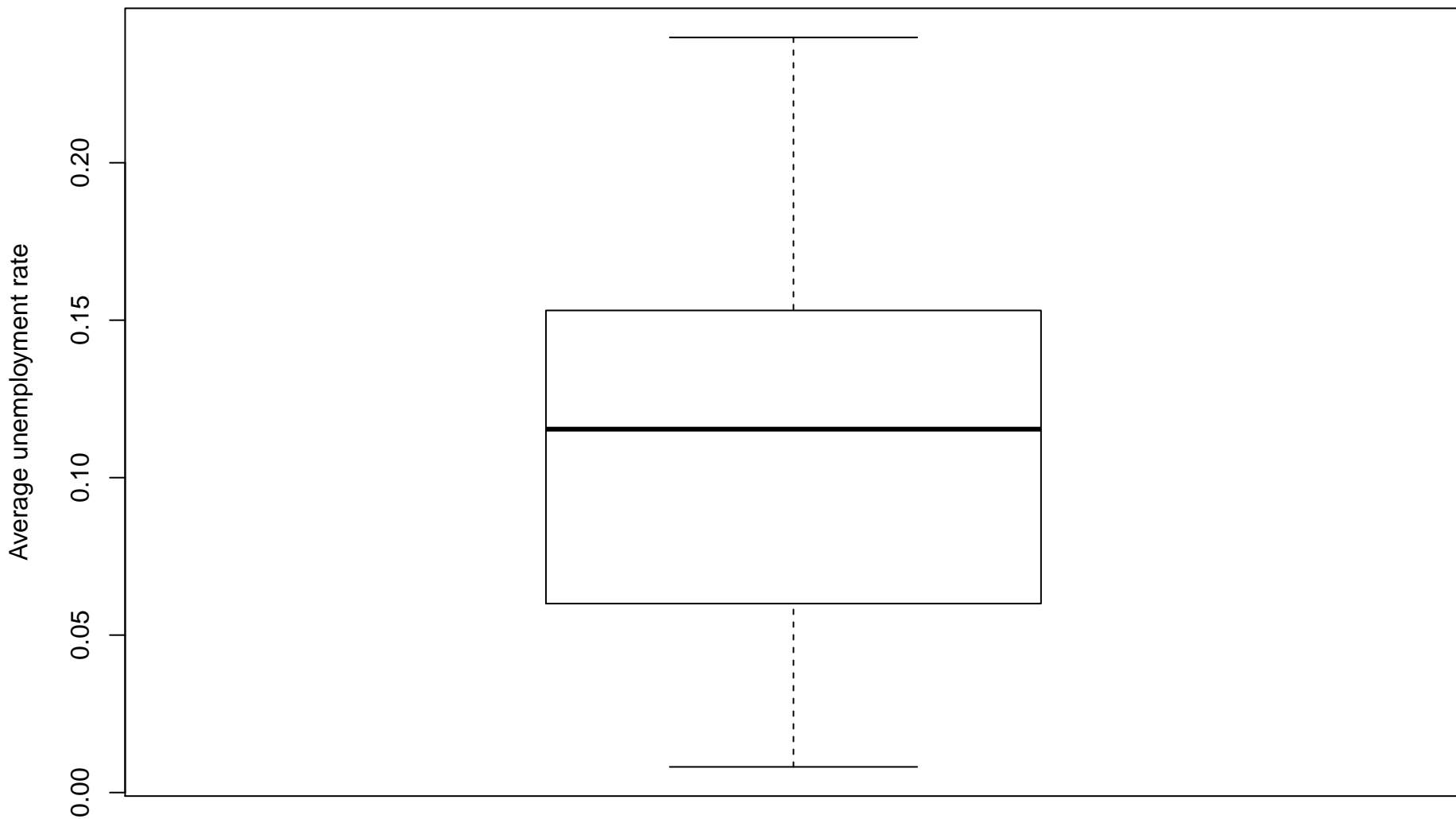
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Full employment frequency



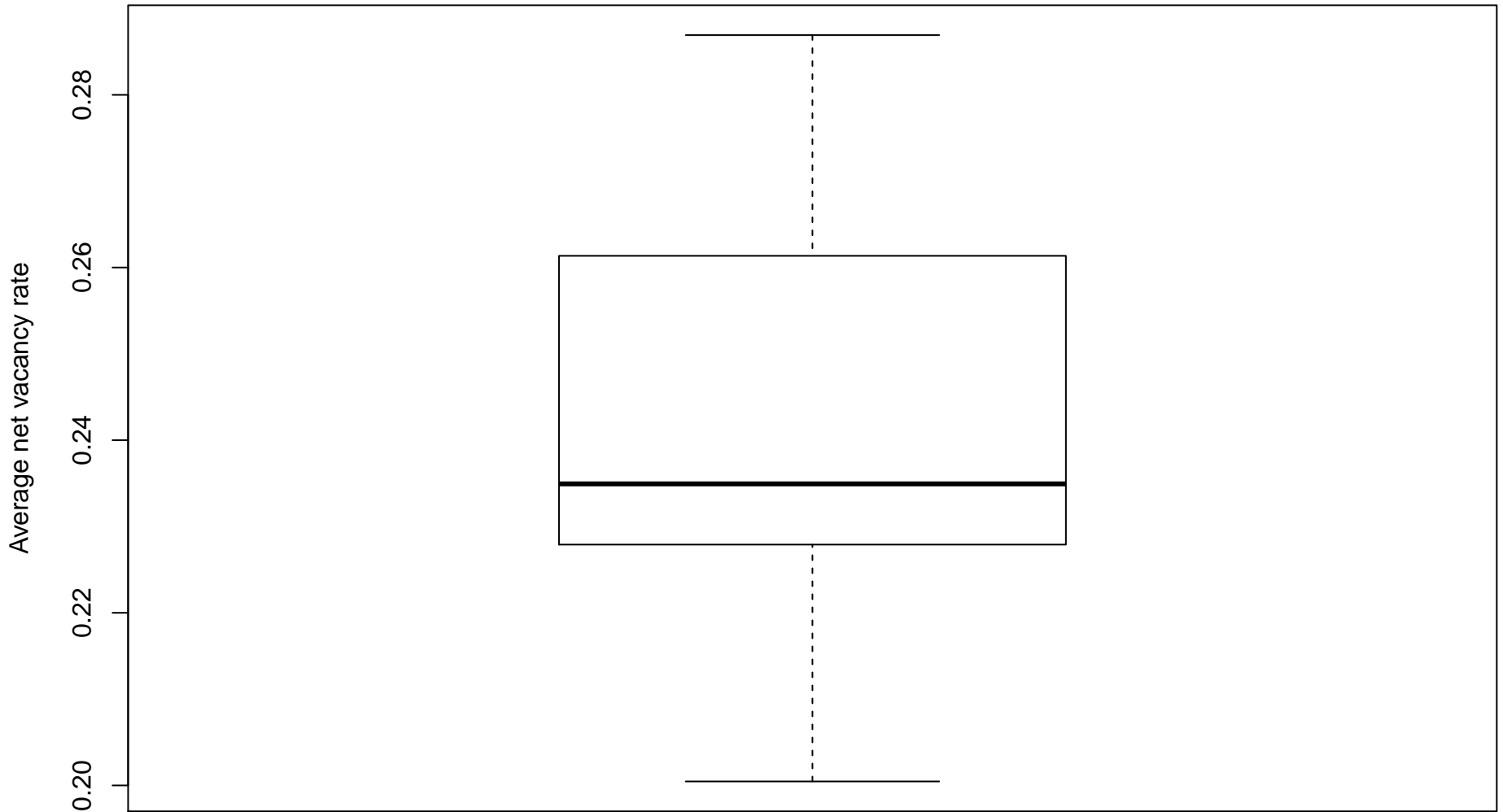
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Unemployment



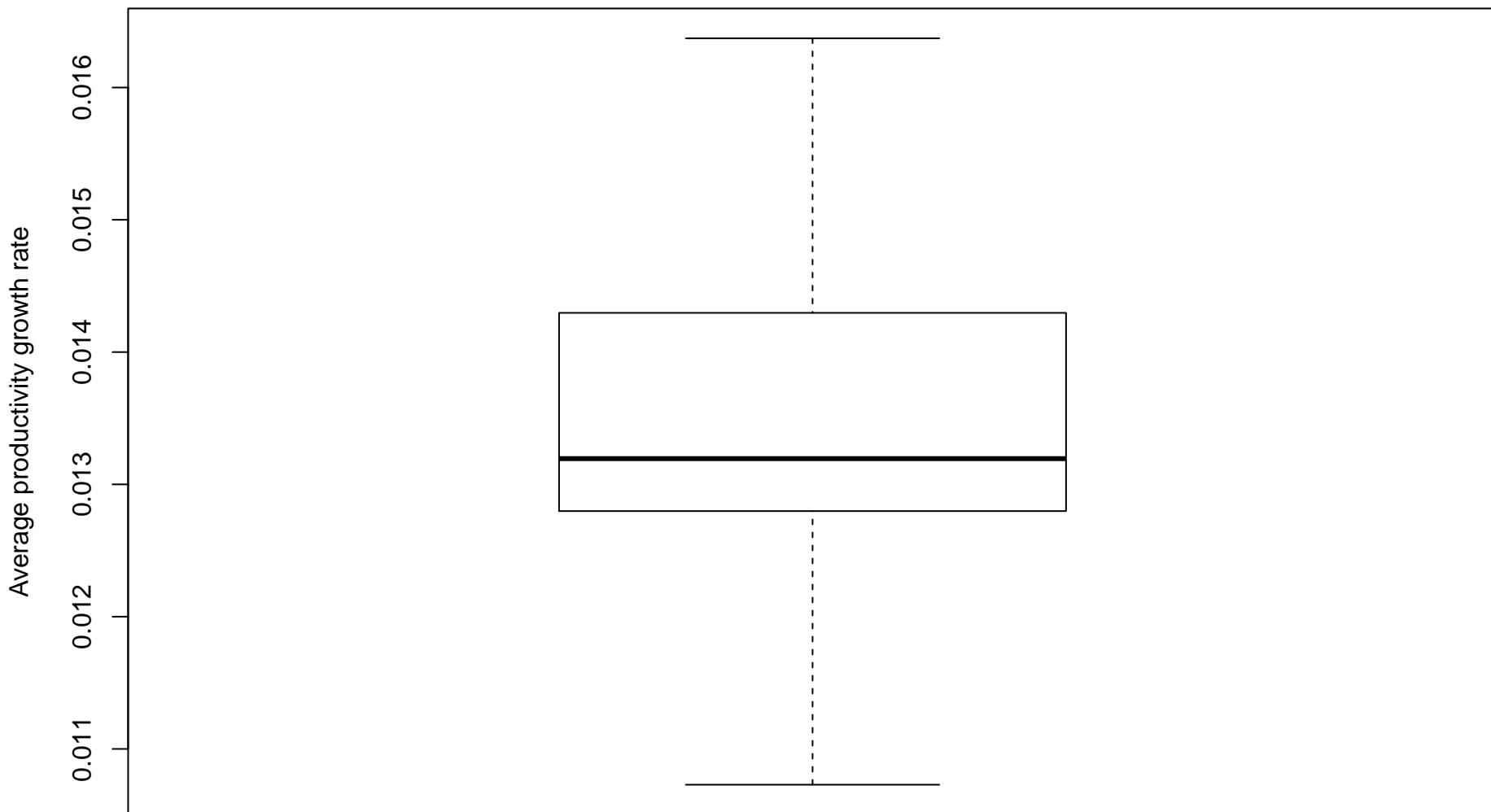
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Vacancy



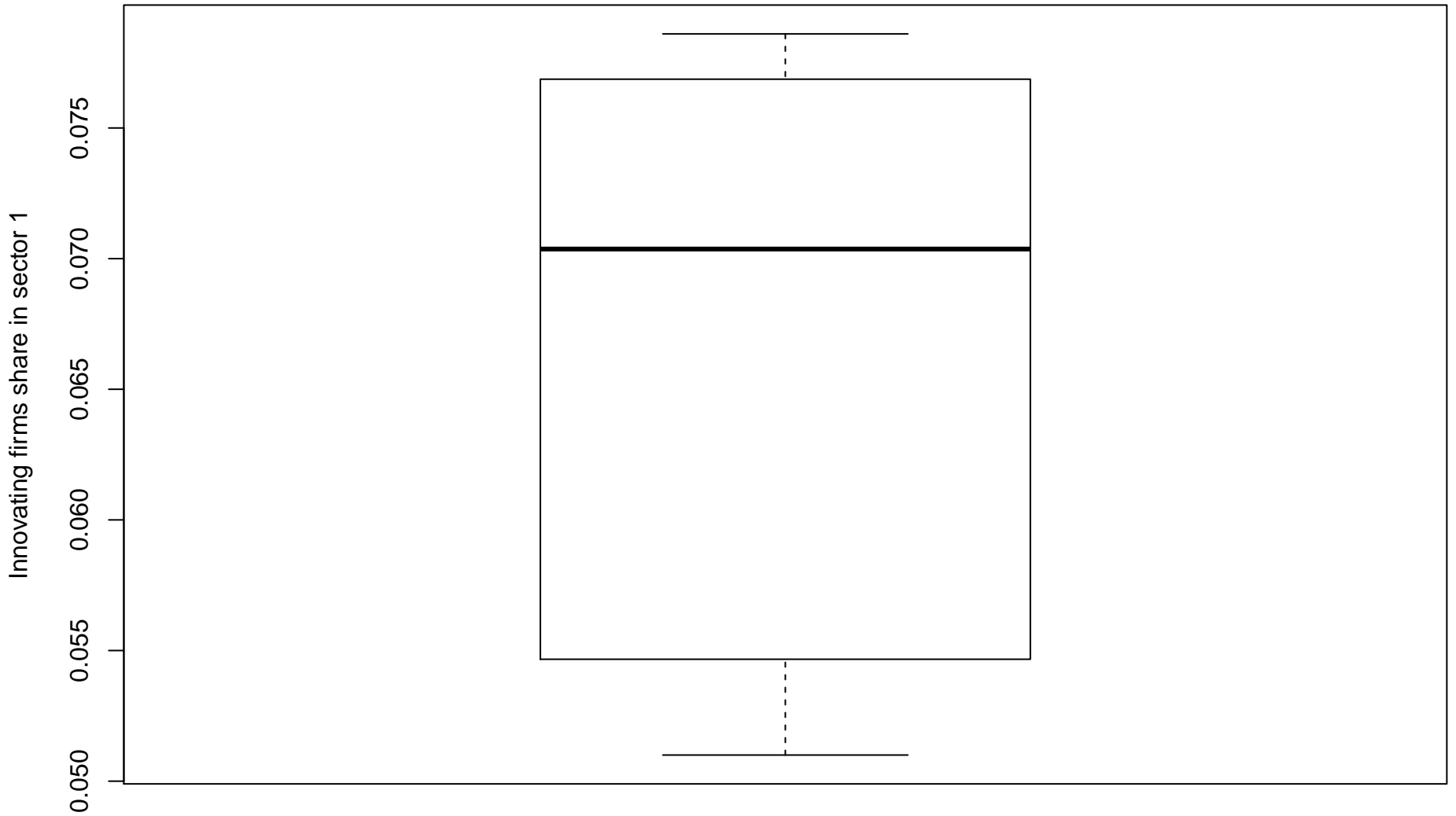
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Productivity growth



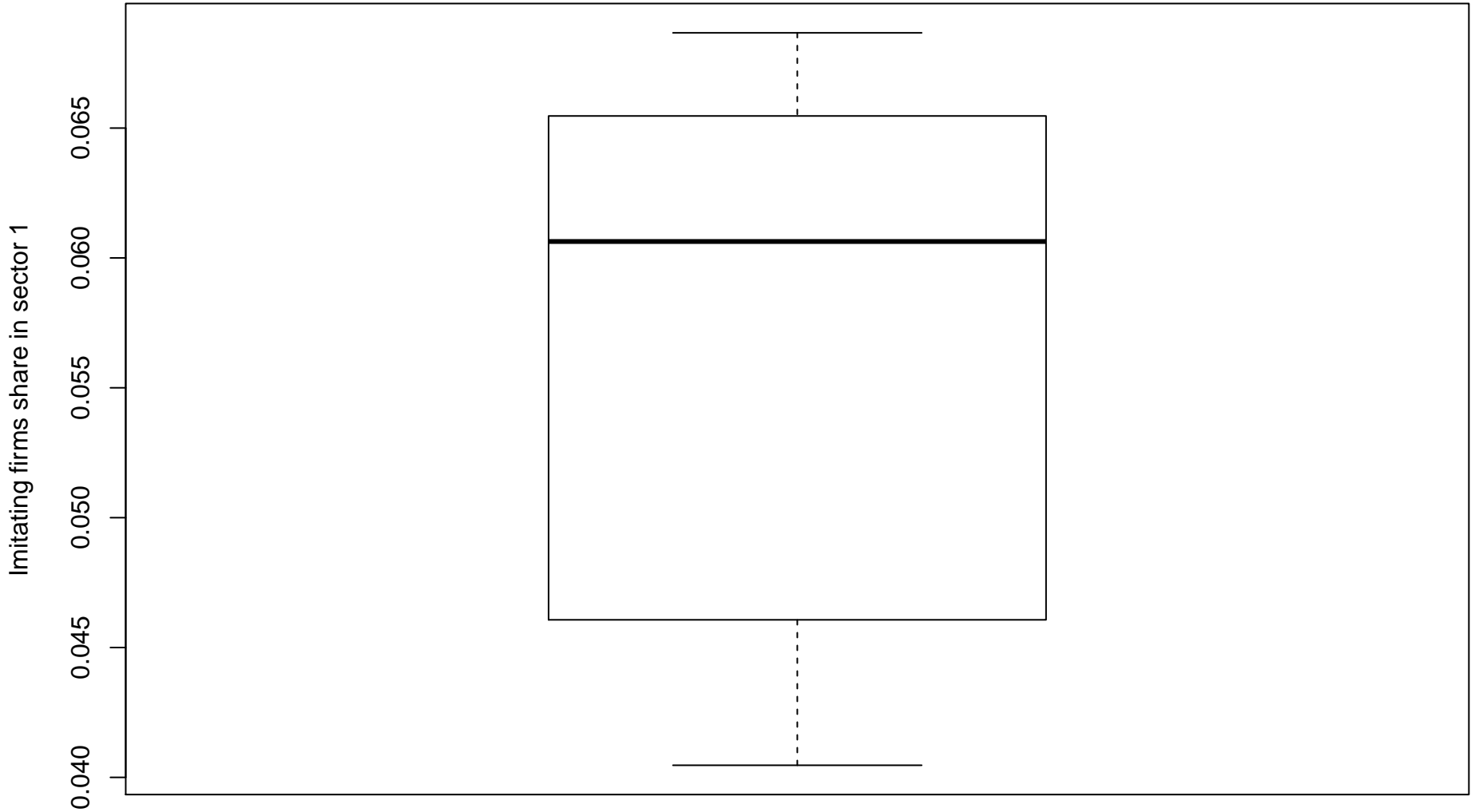
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Innovation



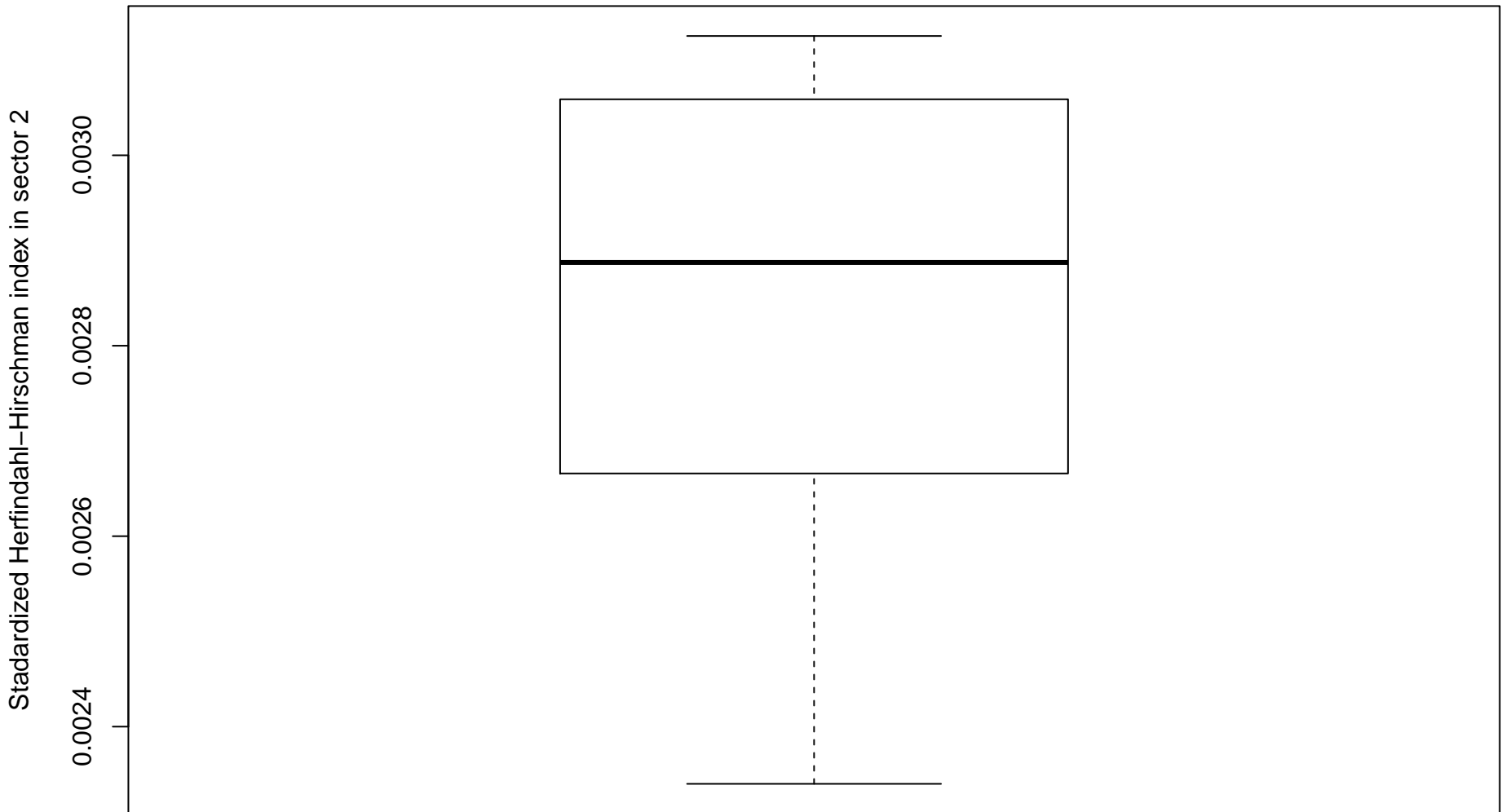
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Imitation



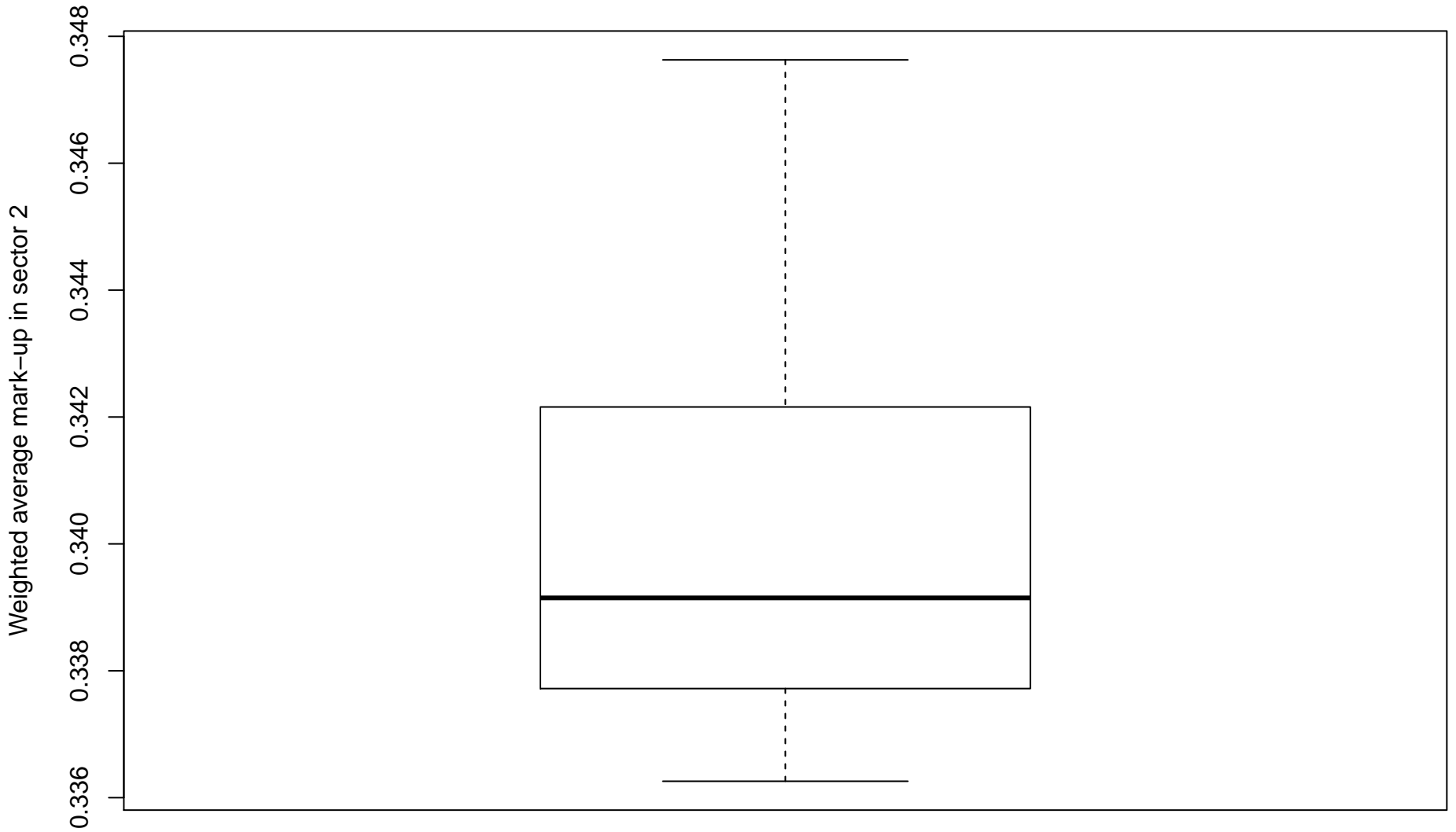
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Market concentration



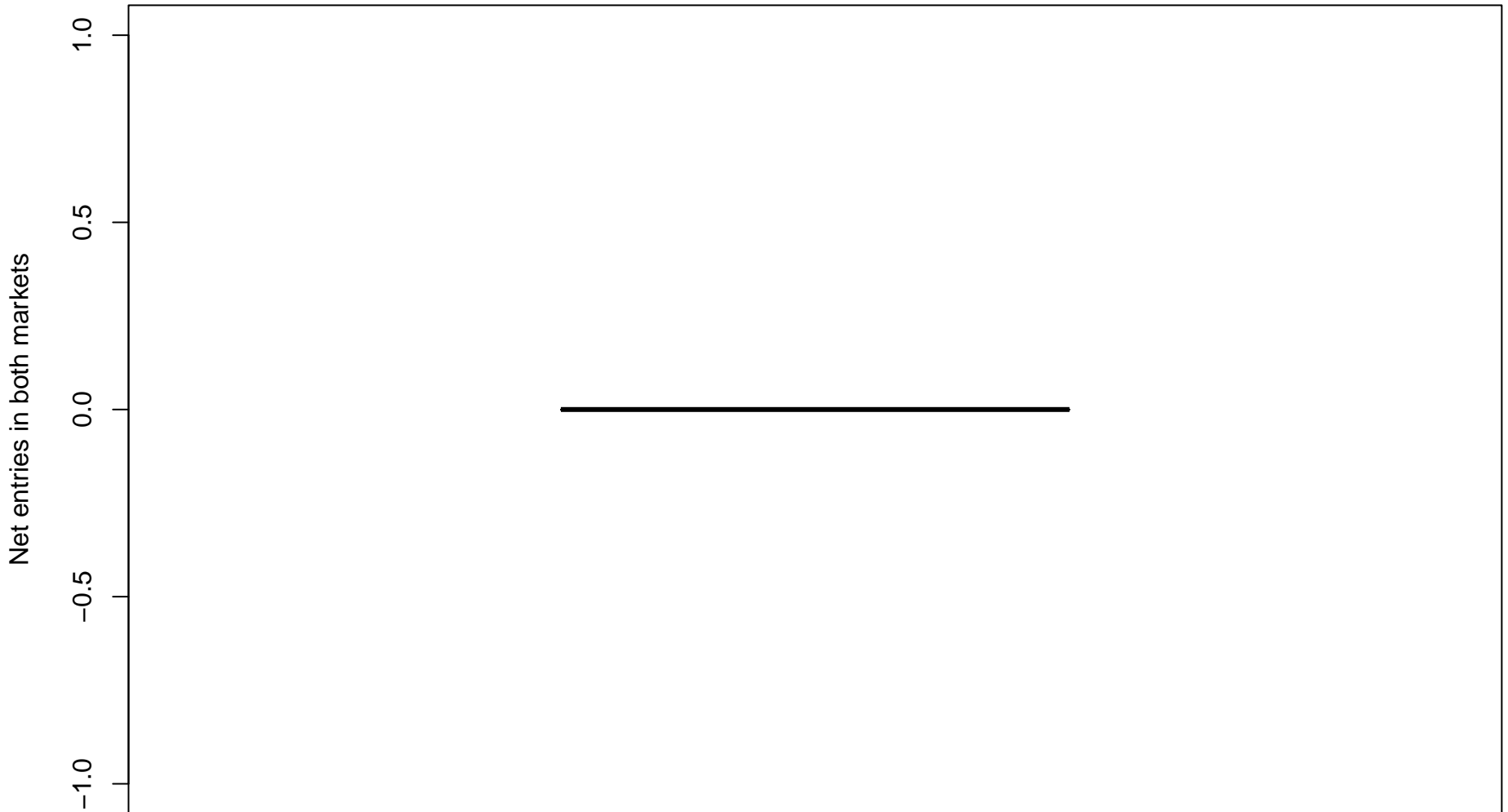
(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Mark-ups



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Net entry of firms



(bar: median / box: 2nd–3rd quartile / whiskers: max–min / points: outliers / MC runs = 10 / period = 301 – 600)

Monte Carlo descriptive statistics (all experiments)

	Avg[1]	SD[1]	Min[1]	Max[1]
GDP growth	0.01344	0.001861	0.01025	0.01689
Volatility of GDP growth	0.09427	0.006898	0.08072	0.1035
Likelihood of GDP crises	0.279	0.04116	0.19	0.33
Inflation	0.001737	0.0009128	0.0007227	0.003438
Tax	0.02462	0.00113	0.02268	0.02664
Government total expenditure	0.0466	0.02982	0.002794	0.1014
Government deficit	0.2109	0.091	0.08672	0.3543
Government debt	15.69	7.43	6.603	27.07
Credit supply	-1.157e-08	1.043e-08	-3.152e-08	-2.014e-09
Loans	1.794	0.6884	1.069	3.398
Capacity utilization	0.5252	0.0107	0.5059	0.5453
Full employment frequency	0.314	0.26	0.01333	0.8567
Unemployment	0.1147	0.07007	0.008145	0.2398
Vacancy	0.2466	0.03901	0.2005	0.3313
Productivity growth	0.01336	0.001691	0.01073	0.01637
Innovation	0.06724	0.01082	0.051	0.0786
Imitation	0.05643	0.01144	0.04047	0.06867
Market concentration	0.002843	0.0002422	0.00234	0.003125
Mark-ups	0.3403	0.003336	0.3363	0.3476
Net entry of firms	0	0	0	0

Experiments: [1] Free entry

(numbers in brackets indicate the experiment number / MC runs = 10 / period = 301 – 600)