

Ljung-Box test for white noise		
H0: Logreturns are uncorrelated upto lag 12		
Chi-Square	df	P-Value
1.500	1	0.221
45.521	2	0.000
46.281	3	0.000
47.244	4	0.000
63.571	5	0.000
77.561	6	0.000
78.001	7	0.000
79.497	8	0.000
79.536	9	0.000
92.866	10	0.000
92.940	11	0.000
99.577	12	0.000

pentru un grad de libertate nu pot sa resping ipoteza nula
insa pentru restul resping ipoteza nula

Breusch-Godfrey test for serial correlation H0: there is no serial correlation of any order up to 12		
Chi-Square	df	P-value
1941.587	12	0.000

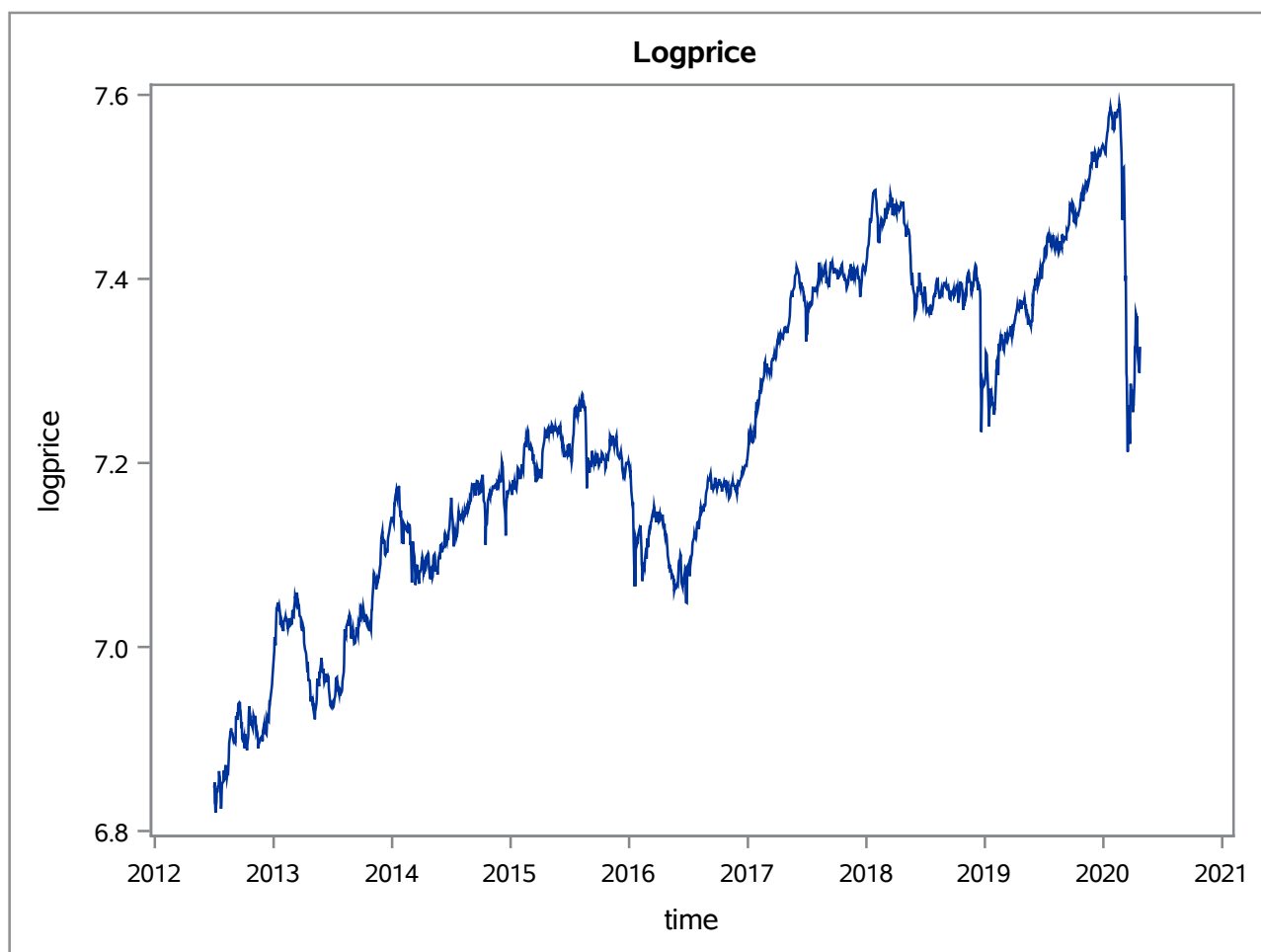
von Neuman rank statistic	Test statistic Z	p-value A	p-value B	p-value C
1.79287	-4.57802	0.000005	0.999998	0.000002

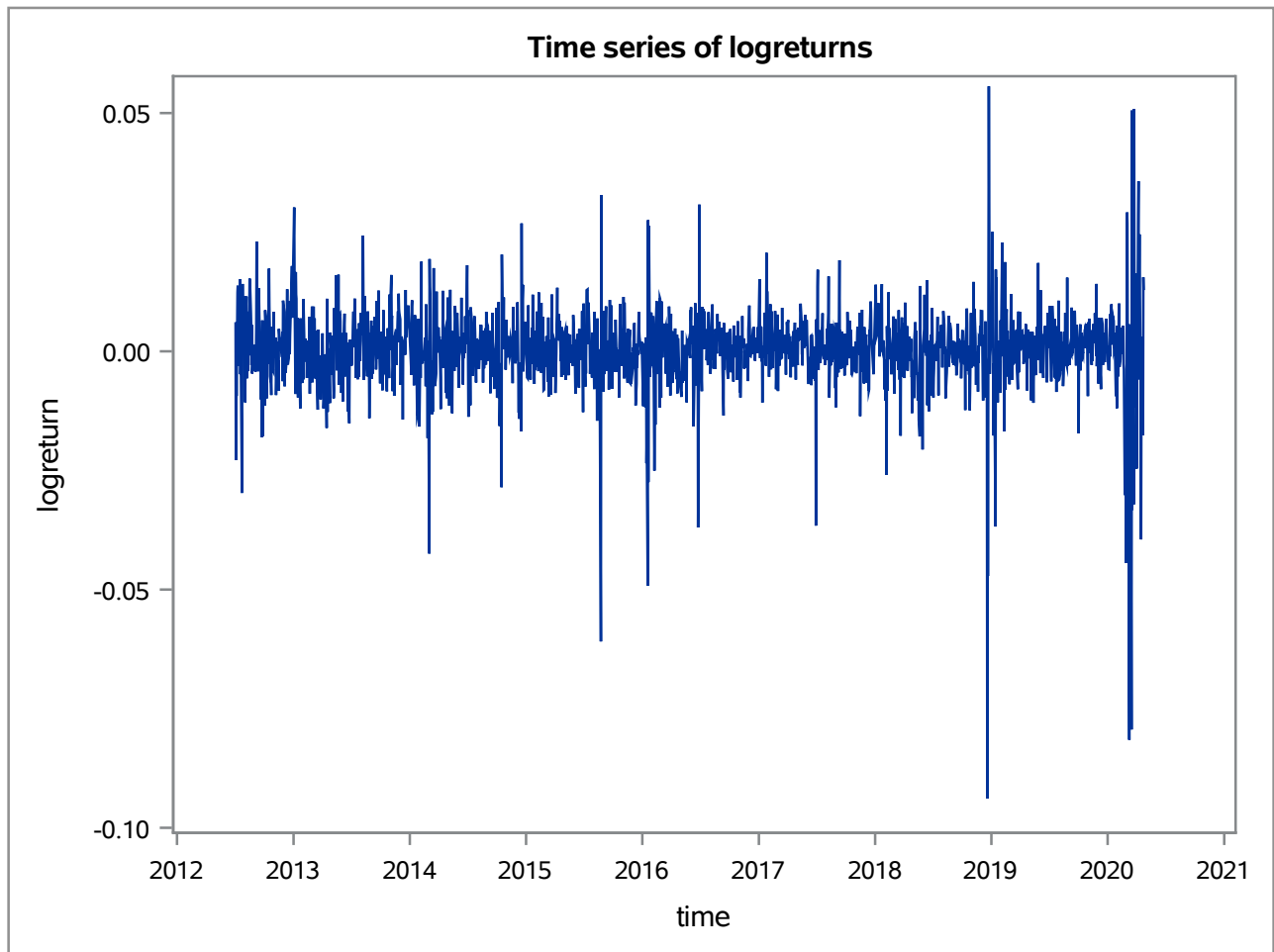
inca nu stiu ipotezele??

Wald-Wolfowitz Test for Randomness
H0: The data are random

Wald-Wolfowitz Z	Pr > Z
-3.92786	<.0001

resping h0





Obs	q	nq	VR	z	z_star	z_crit	Decision	lower_homo	upper_homo	lower_hetero	upper_hetero
1	2	1953	1.02806	1.24005	0.51166	2.57583	Cannot Reject RW	0.96977	1.08635	0.88680	1.16932
2	3	1953	1.13623	4.03865	1.66639	2.57583	Reject Homoskedastic RW	1.04934	1.22312	0.92565	1.34681
3	4	1953	1.20200	4.77174	1.96887	2.57583	Reject Homoskedastic RW	1.09296	1.31105	0.93773	1.46628
4	5	1953	1.23262	4.69229	1.93609	2.57583	Reject Homoskedastic RW	1.10493	1.36032	0.92313	1.54211
5	6	1953	1.28332	5.06481	2.08980	2.57583	Reject Homoskedastic RW	1.13923	1.42740	0.93411	1.63253
6	7	1953	1.29614	4.80164	1.98121	2.57583	Reject Homoskedastic RW	1.13727	1.45500	0.91112	1.68115
7	8	1953	1.30949	4.62382	1.90784	2.57583	Reject Homoskedastic RW	1.13708	1.48191	0.89164	1.72735
8	9	1953	1.31499	4.38573	1.80960	2.57583	Reject Homoskedastic RW	1.12999	1.49999	0.86663	1.76335
9	10	1953	1.32069	4.19748	1.73193	2.57583	Reject Homoskedastic RW	1.12390	1.51749	0.84374	1.79765
10	11	1953	1.34074	4.22095	1.74161	2.57583	Reject Homoskedastic RW	1.13281	1.54868	0.83679	1.84470
11	12	1953	1.35592	4.19546	1.73110	2.57583	Reject Homoskedastic RW	1.13740	1.57444	0.82632	1.88552
12	13	1953	1.37666	4.24387	1.75107	2.57583	Reject Homoskedastic RW	1.14805	1.60528	0.82259	1.93074
13	14	1953	1.39326	4.25095	1.75399	2.57583	Reject Homoskedastic RW	1.15497	1.63155	0.81574	1.97078
14	15	1953	1.41170	4.28316	1.76728	2.57583	Reject Homoskedastic RW	1.16411	1.65930	0.81164	2.01177
15	16	1953	1.43152	4.33240	1.78760	2.57583	Reject Homoskedastic RW	1.17496	1.68808	0.80973	2.05331
16	17	1953	1.44075	4.28055	1.76620	2.57583	Reject Homoskedastic RW	1.17553	1.70598	0.79796	2.08355
17	18	1953	1.44816	4.21901	1.74081	2.57583	Reject Homoskedastic RW	1.17455	1.72178	0.78503	2.11130
18	19	1953	1.45042	4.11771	1.69901	2.57583	Reject Homoskedastic RW	1.16866	1.73218	0.76755	2.13329
19	20	1953	1.45435	4.04014	1.66701	2.57583	Reject Homoskedastic RW	1.16468	1.74403	0.75230	2.15641
20	21	1953	1.45789	3.96604	1.63643	2.57583	Reject Homoskedastic RW	1.16050	1.75527	0.73715	2.17862
21	22	1953	1.45546	3.84781	1.58765	2.57583	Reject Homoskedastic RW	1.15056	1.76036	0.71651	2.19440
22	23	1953	1.45564	3.75894	1.55098	2.57583	Reject Homoskedastic RW	1.14341	1.76787	0.69892	2.21236
23	24	1953	1.45548	3.67335	1.51566	2.57583	Reject Homoskedastic RW	1.13609	1.77488	0.68140	2.22956
24	25	1953	1.45637	3.60146	1.48601	2.57583	Reject Homoskedastic RW	1.12997	1.78277	0.66530	2.24743
25	26	1953	1.45988	3.55446	1.46661	2.57583	Reject Homoskedastic RW	1.12662	1.79314	0.65219	2.26758
26	27	1953	1.45762	3.46704	1.43054	2.57583	Reject Homoskedastic RW	1.11763	1.79761	0.63363	2.28161
27	28	1953	1.45869	3.40905	1.40661	2.57583	Reject Homoskedastic RW	1.11211	1.80527	0.61872	2.29866

Obs	q	nq	VR	z	z_star	z_crit	Decision	lower_homo	upper_homo	lower_hetero	upper_hetero
28	29	1953	1.45749	3.33781	1.37722	2.57583	Reject Homoskedastic RW	1.10444	1.81054	0.60184	2.31314
29	30	1953	1.45593	3.26764	1.34827	2.57583	Reject Homoskedastic RW	1.09653	1.81534	0.58488	2.32698
30	31	1953	1.45162	3.18145	1.31270	2.57583	Reject Homoskedastic RW	1.08597	1.81727	0.56544	2.33780
31	32	1953	1.44495	3.08273	1.27197	2.57583	Reject Homoskedastic RW	1.07317	1.81674	0.54389	2.34602

