AF6305 Individual Project

Yunlin FENG

October 13, 2023

1 Data

- Database access
- Stock price
- \bullet Delisting adjustment for monthly return
- Why no adjustment for daily return
- $\bullet\,$ Dealing with NA values in return

Table 1: Beta Summary Statistics

Months	μ	σ	skew	kurtosis	min	5%	25%	median	75%	95%	max	n
1	0.82	1.72	-0.31	85.01	-23.5	-1.49	0.1	0.8	1.53	3.18	23.49	4838
3	0.83	0.93	-0.37	32.69	-9.81	-0.51	0.35	0.83	1.31	2.24	9.95	4780
6	0.84	0.7	-0.19	18.46	-5.67	-0.21	0.44	0.84	1.24	1.95	6.38	4701
12	0.86	0.57	-0.01	9.06	-3.24	-0.03	0.49	0.86	1.2	1.78	4.47	4537
24	0.87	0.5	0.06	4.64	-1.67	0.07	0.54	0.87	1.18	1.68	3.49	4220

Table 2: Beta Correlation Matrix

	1m	$3\mathrm{m}$	$6\mathrm{m}$	12m	24m
$1 \mathrm{m}$		0.590	0.490	0.430	0.390
$3 \mathrm{m}$	0.530		0.780	0.670	0.600
$6\mathrm{m}$	0.400	0.750		0.840	0.740
12m	0.320	0.610	0.810		0.880
$24 \mathrm{m}$	0.270	0.520	0.700	0.870	

Table 3: Beta Persistence

Lag	β^{1M}	β^{3M}	β^{6M}	β^{12M}	β^{24M}
1	0.14				
3	0.12	0.31			
6	0.12	0.29	0.45		
12	0.1	0.26	0.4	0.56	
24	0.09	0.24	0.36	0.5	0.64
36	0.1	0.24	0.36	0.48	0.59
48	0.1	0.23	0.33	0.45	0.55
60	0.09	0.21	0.31	0.41	0.51
120	0.07	0.17	0.26	0.34	0.41