AF6305 Individual Project

Yunlin FENG

December 11, 2023

Table 1: Summary Statistics of FF3 Betas

var	mean	sd	skew	kurtosis	min	5%	25%	median	75%	95%	max	n
$beta_mkt$	0.82	1.72	-0.31	85.01	-23.5	-1.49	0.1	0.8	1.53	3.18	23.49	4838
$beta_smb$	0.65	2.44	0.22	68.32	-33.08	-2.46	-0.36	0.52	1.6	4.14	34.81	4838
$beta_hml$	0.22	2.93	0.27	88.86	-40.47	-3.79	-0.91	0.21	1.37	4.17	40.79	4838
res_std	0.03	0.03	7.13	150.12	0	0.01	0.01	0.02	0.04	0.07	0.63	4838

Table 2: Summary Statistics of Size, BM, and MOM

var	mean	sd	skew	kurtosis	min	5%	25%	median	75%	95%	max	n
size	3938.8	18637.4	13.7	267.4	1.3	16.2	91.5	388.1	1666.9	14994	490981.3	4597
$_{ m bm}$	0.8	0.9	8.7	220.4	0	0.1	0.3	0.6	0.9	2	23.3	4277
mom	6.1	44.2	4.3	78	-91.7	-46	-15.6	1.7	19.9	69.4	824.6	4548

Table 3: Single Portfolio Sort (EW)

Sort Variable	1	2	3	4	5	5-1
Size	1.44 (3.45)	0.93 (2.4)	0.93 (2.24)	0.84 (2.2)	0.8 (2.52)	-0.64 (-2.13)
BM	$0.72^{'}$	0.84	0.96	0.97	$1.44^{'}$	$0.72^{'}$
Momentum	(1.59) 0.48 (1.04)	(2.33) 0.81 (2.42)	(2.85) 0.86 (2.92)	(2.96) 0.82 (2.74)	(3.59) 0.98 (2.56)	(2.64) 0.5 (1.58)

Table 4: Single Portfolio Sort (VW)

Sort Variable	1	2	3	4	5	5-1
Size	0.86	0.95	0.93	0.79	0.67	-0.19
	(2.22)	(2.43)	(2.33)	(2.21)	(2.51)	(-0.66)
$_{ m BM}$	0.78	0.7	0.61	0.59	0.68	-0.1
	(2.71)	(2.66)	(2.15)	(1.94)	(1.9)	(-0.4)
Momentum	0.35	0.62	0.74	0.59	0.85	0.5
	(0.84)	(2.07)	(2.91)	(2.25)	(2.43)	(1.35)

Table 5: Double Portfolio Sort (EW)

Size	1	2	3	4	5	5-1
1	0.93	1.29	1.14	1.64	2.18	1.25
	(1.69)	(3)	(3.2)	(4.37)	(4.64)	(4.09)
2	0.57	0.95	0.97	0.99	1.18	0.6
	(1.02)	(2.39)	(2.85)	(3.01)	(2.7)	(1.58)
3	0.76	0.86	0.89	0.98	1.13	0.36
	(1.39)	(2.1)	(2.41)	(2.59)	(2.38)	(0.93)
4	0.75	0.8	0.84	0.9	0.92	0.17
	(1.51)	(2.05)	(2.4)	(2.56)	(2.08)	(0.47)
5	0.92	0.75	0.78	0.75	0.81	-0.12
	(2.44)	(2.31)	(2.46)	(2.38)	(2.28)	(-0.39)

Table 6: Double Portfolio Sort (VW)

Size	1	2	3	4	5	5-1
1	0.46	0.76	0.85	1.19	1.4	0.93
	(0.91)	(1.86)	(2.58)	(3.52)	(3.08)	(2.8)
2	0.64	1.06	0.91	0.93	1.14	0.5
	(1.18)	(2.65)	(2.77)	(2.82)	(2.83)	(1.26)
3	0.84	0.85	0.87	0.96	1.06	0.22
	(1.59)	(2.17)	(2.49)	(2.63)	(2.48)	(0.57)
4	0.71	0.72	0.79	0.88	0.85	0.15
	(1.54)	(2)	(2.37)	(2.67)	(2.19)	(0.43)
5	0.79	0.76	0.63	0.58	0.53	-0.26
	(2.68)	(2.82)	(2.38)	(2.06)	(1.68)	(-1.08)

Table 7: Fama-MacBeth Regression

factor	1	2	3	4	5	6
(Intercept)	0.884**	1.76***	0.898**	1.08***	1.06**	1.52***
	(2.56)	(2.69)	(2.27)	(3.75)	(2.51)	(3.68)
$_{ m bm}$	0.252**					0.197
	(2.01)					(1.53)
size	, ,	-0.117**				-0.11***
		(-2.15)				(-2.69)
mom		,	0.101			$0.139^{'}$
			(0.25)			(0.41)
ivol			,	-2.79		-11.1*
				(-0.37)		(-1.64)
ret				` /	-2.58***	-2.98***
					(-4.74)	(-5.66)

Table 8: Summary Statistics of Arbitrage Measures

var	mean	sd	skew	kurtosis	min	5%	25%	median	75%	95%	max	n
amihud_illiq	1329.99	62674.04	39.06	1927.06	-7278.39	0.18	0.9	2.81	9.04	71.21	2980725.16	2283
$inst_own$	0.66	0.47	0.72	47.24	0.01	0.2	0.49	0.69	0.83	0.98	12.88	2283
disp	0.03	1.16	-0.97	597.71	-28.36	-0.28	0.01	0.02	0.06	0.32	25.56	2279

Table 9: Fama-MacBeth Regression on Arbitrage Measures

factor	1	2	3	4
(Intercept)	1.73***	1.07	1.62**	1.45**
	(2.62)	(1.27)	(2.54)	(2.32)
size	-0.12**	-0.116	-0.11**	-0.149***
	(-2.09)	(-1.15)	(-2.02)	(-2.66)
$_{ m bm}$	-0.0305	0.264	-0.000626	-0.00484
	(-0.2)	(1.21)	(0)	(-0.03)
mom	0.0206	0.234	0.0826	0.0404
	(0.05)	(0.48)	(0.22)	(0.11)
$\operatorname{amihud_illiq}$	-0.0103**			0.000298
	(-2.37)			(0.77)
bm:amihud_illiq	0.0069***			
, ., ., ., ., ., ., ., ., ., ., ., .,	(2.95)			
$size:amihud_illiq$	0.000633			
.1 1 .11.	(1.19)			
mom:amihud_illiq	0.0141***			
$inst_own$	(2.58)	1.18		0.735***
IIISt_OWII		(1.44)		(3.08)
bm:inst_own		-0.378		(3.00)
om.msc_own		(-1.47)		
size:inst_own		-0.0285		
SIZC.IIISCZOWII		(-0.26)		
$\operatorname{mom:inst_own}$		-0.295		
		(-0.61)		
disp		,	0.176	-0.036
•			(0.91)	(-1.24)
bm:disp			-0.0181	, ,
_			(-0.18)	
size:disp			-0.0399	
			(-1.43)	
mom:disp			-0.125	
			(-0.77)	