

Internet Appendix to Assessing Asset Pricing Models
using Revealed Preference

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1 Extreme Returns Analysis at One Year Horizon

Model	Drop Window (in units of standard deviation)				
	0.1	0.25	0.5	0.75	1
Fraction of Data Discarded (%)	13.29	31.63	55.59	71.18	80.58
Market Models (CAPM)					
CRSP Value Weighted	64.57	66.52	69.40	71.71	73.88
S&P 500	63.17	65.66	69.07	71.56	73.75
No Model					
Return	58.12	59.07	62.06	65.51	68.47
Excess Return	58.04	59.22	61.93	65.90	69.12
Return in Excess of the Market	62.85	65.31	68.44	71.01	73.05
Multifactor Models					
FF	64.33	66.70	69.82	72.25	74.39
FFC	64.18	66.41	69.52	71.86	74.10
Dynamic Equilibrium Models					
C-CAPM	57.89	59.00	61.86	65.91	69.18
Habit	57.81	58.91	61.86	65.88	69.11
Long Run Risk – 0% Bonds	61.87	63.10	64.18	65.54	67.20
Long Run Risk – 70% Bonds	59.84	61.37	64.16	66.37	67.94
Long Run Risk – 90% Bonds	59.52	60.86	64.14	67.55	69.91

Table 1: **Flow of Funds Outperformance Relationship for Observations with Extreme Returns at One Year Horizon:** The table re-estimates the regressions reported in Table 7 of the paper at the 1 year horizon.

Panel A: 0.1 Standard Deviation Window

Model	$\beta_{F\varepsilon}$	Univ <i>t</i> -stat	CAPM	FF	FFC	CAPM SP500	Ex. Mkt	LRR 0	LRR 70	LRR 90	Ret	Ex. Ret	C- CAPM	Habit
CAPM	0.291	12.70	0.00	0.35	0.57	3.96	6.10	0.84	3.79	3.14	2.52	3.33	3.20	3.23
FF	0.287	15.50	-0.35	0.00	0.68	1.32	1.86	0.72	3.06	2.75	2.46	3.16	3.14	3.17
FFC	0.284	14.45	-0.57	-0.68	0.00	1.22	1.65	0.69	2.85	2.67	2.45	3.17	3.14	3.17
CAPM SP500	0.263	9.21	-3.96	-1.32	-1.22	0.00	0.48	0.44	2.37	2.23	2.11	2.69	2.62	2.65
Excess Market	0.257	10.27	-6.10	-1.86	-1.65	-0.48	0.00	0.33	2.14	1.71	1.66	2.11	2.07	2.09
LRR 0	0.237	6.48	-0.84	-0.72	-0.69	-0.44	-0.33	0.00	0.88	0.74	1.07	1.26	1.29	1.32
LRR 70	0.197	6.18	-3.79	-3.06	-2.85	-2.37	-2.14	-0.88	0.00	0.20	0.73	1.04	1.05	1.09
LRR 90	0.190	4.82	-3.14	-2.75	-2.67	-2.23	-1.71	-0.74	-0.20	0.00	1.07	1.58	1.61	1.70
Return	0.162	4.36	-2.52	-2.46	-2.45	-2.11	-1.66	-1.07	-0.73	-1.07	0.00	0.09	0.29	0.39
Excess Return	0.161	4.35	-3.33	-3.16	-3.17	-2.69	-2.11	-1.26	-1.04	-1.58	-0.09	0.00	0.56	0.84
C-CAPM	0.158	4.45	-3.20	-3.14	-3.14	-2.62	-2.07	-1.29	-1.05	-1.61	-0.29	-0.56	0.00	1.49
Habit	0.156	4.38	-3.23	-3.17	-3.17	-2.65	-2.09	-1.32	-1.09	-1.70	-0.39	-0.84	-1.49	0.00

Panel B: 0.25 Standard Deviation Window

Model	$\beta_{F\varepsilon}$	Univ <i>t</i> -stat	FF	CAPM	FFC	CAPM SP500	Ex. Mkt	LRR 0	LRR 70	LRR 90	Ex. Ret	Ret	C- CAPM	Habit
FF	0.334	14.52	0.00	0.27	1.60	1.35	1.90	0.96	3.73	3.46	3.82	2.99	3.80	3.82
CAPM	0.330	11.25	-0.27	0.00	0.15	3.73	5.04	0.98	4.15	3.57	3.75	2.90	3.60	3.64
FFC	0.328	13.61	-1.60	-0.15	0.00	1.01	1.42	0.90	3.37	3.32	3.81	2.95	3.77	3.80
CAPM SP500	0.313	9.65	-1.35	-3.73	-1.01	0.00	0.73	0.76	3.15	2.98	3.35	2.67	3.25	3.29
Excess Market	0.306	9.80	-1.90	-5.04	-1.42	-0.73	0.00	0.66	2.86	2.35	2.71	2.18	2.65	2.68
LRR 0	0.262	6.24	-0.96	-0.98	-0.90	-0.76	-0.66	0.00	0.69	0.64	1.19	1.07	1.24	1.27
LRR 70	0.227	6.69	-3.73	-4.15	-3.37	-3.15	-2.86	-0.69	0.00	0.29	1.17	0.92	1.21	1.25
LRR 90	0.217	5.18	-3.46	-3.57	-3.32	-2.98	-2.35	-0.64	-0.29	0.00	1.62	1.35	1.67	1.75
Excess Return	0.184	4.83	-3.82	-3.75	-3.81	-3.35	-2.71	-1.19	-1.17	-1.62	0.00	0.15	0.66	0.96
Return	0.181	4.76	-2.99	-2.90	-2.95	-2.67	-2.18	-1.07	-0.92	-1.35	-0.15	0.00	0.09	0.19
C-CAPM	0.180	5.11	-3.80	-3.60	-3.77	-3.25	-2.65	-1.24	-1.21	-1.67	-0.66	-0.09	0.00	1.46
Habit	0.178	5.03	-3.82	-3.64	-3.80	-3.29	-2.68	-1.27	-1.25	-1.75	-0.96	-0.19	-1.46	0.00

Panel C: 0.5 Standard Deviation Window

Model	$\beta_{F\varepsilon}$	Univ <i>t</i> -stat	FF	FFC	CAPM	CAPM SP500	Ex. Mkt	LRR 0	LRR 70	LRR 90	Ret	Ex. Ret	C- CAPM	Habit
FF	0.396	12.71	0.00	2.27	0.56	0.97	1.79	1.36	3.66	4.47	3.49	4.88	4.71	4.69
FFC	0.390	12.03	-2.27	0.00	0.17	0.60	1.32	1.31	3.29	4.24	3.46	4.85	4.65	4.64
CAPM	0.388	9.63	-0.56	-0.17	0.00	1.95	3.85	1.36	3.75	4.17	3.30	4.37	4.02	4.08
CAPM SP500	0.381	9.09	-0.97	-0.60	-1.95	0.00	1.64	1.28	3.37	3.97	3.25	4.25	3.91	3.96
Excess Market	0.369	8.88	-1.79	-1.32	-3.85	-1.64	0.00	1.11	2.82	2.95	2.52	3.29	3.09	3.11
LRR 0	0.283	5.92	-1.36	-1.31	-1.36	-1.28	-1.11	0.00	0.01	0.01	0.50	0.64	0.64	0.65
LRR 70	0.283	6.61	-3.66	-3.29	-3.75	-3.37	-2.82	-0.01	0.00	0.01	0.76	1.13	1.09	1.09
LRR 90	0.283	5.98	-4.47	-4.24	-4.17	-3.97	-2.95	-0.01	-0.01	0.00	1.40	2.02	1.89	1.88
Return	0.241	5.73	-3.49	-3.46	-3.30	-3.25	-2.52	-0.50	-0.76	-1.40	0.00	0.13	0.21	0.21
Excess Return	0.239	5.95	-4.88	-4.85	-4.37	-4.25	-3.29	-0.64	-1.13	-2.02	-0.13	0.00	0.24	0.26
C-CAPM	0.237	6.46	-4.71	-4.65	-4.02	-3.91	-3.09	-0.64	-1.09	-1.89	-0.21	-0.24	0.00	0.00
Habit	0.237	6.41	-4.69	-4.64	-4.08	-3.96	-3.11	-0.65	-1.09	-1.88	-0.21	-0.26	0.00	0.00

Table continues on following page ...

Panel D: 0.75 Standard Deviation Window

Model	$\beta_{F\varepsilon}$	Univ <i>t</i> -stat	FF	FFC	CAPM	CAPM SP500	Ex. Mkt	LRR 90	LRR 70	C- CAPM	Ex. Ret	Habit	LRR 0	Ret
FF	0.445	11.15	0.00	4.21	0.72	0.88	1.58	5.56	3.55	5.23	5.35	5.22	1.47	3.50
FFC	0.437	10.94	-4.21	0.00	0.18	0.36	0.93	4.73	3.06	5.31	5.33	5.28	1.40	3.46
CAPM	0.434	8.41	-0.72	-0.18	0.00	1.13	5.85	5.36	3.31	3.92	4.55	4.08	1.40	3.33
CAPM SP500	0.431	8.20	-0.88	-0.36	-1.13	0.00	1.94	5.26	3.15	3.85	4.49	4.01	1.38	3.37
Excess Market	0.420	8.02	-1.58	-0.93	-5.85	-1.94	0.00	3.38	2.69	2.94	3.25	2.99	1.25	2.48
LRR 90	0.351	5.87	-5.56	-4.73	-5.36	-5.26	-3.38	0.00	0.58	1.10	1.21	1.12	0.46	1.23
LRR 70	0.327	6.59	-3.55	-3.06	-3.31	-3.15	-2.69	-0.58	0.00	0.22	0.24	0.24	0.29	0.29
C-CAPM	0.318	7.38	-5.23	-5.31	-3.92	-3.85	-2.94	-1.10	-0.22	0.00	0.02	0.30	0.10	0.32
Excess Return	0.318	6.62	-5.35	-5.33	-4.55	-4.49	-3.25	-1.21	-0.24	-0.02	0.00	0.08	0.09	0.31
Habit	0.318	7.33	-5.22	-5.28	-4.08	-4.01	-2.99	-1.12	-0.24	-0.30	-0.08	0.00	0.09	0.30
LRR 0	0.311	6.74	-1.47	-1.40	-1.40	-1.38	-1.25	-0.46	-0.29	-0.10	-0.09	-0.09	0.00	0.01
Return	0.310	6.26	-3.50	-3.46	-3.33	-3.37	-2.48	-1.23	-0.29	-0.32	-0.31	-0.30	-0.01	0.00

Panel E: 1 Standard Deviation Window

Model	$\beta_{F\varepsilon}$	Univ <i>t</i> -stat	FF	FFC	CAPM	CAPM SP500	Ex. Mkt	LRR 90	C- CAPM	Ex. Ret	Habit	Ret	LRR 70	LRR 0
FF	0.488	9.54	0.00	2.64	0.78	0.96	1.98	6.54	4.78	5.01	4.98	3.61	3.90	1.41
FFC	0.482	9.53	-2.64	0.00	0.30	0.46	1.27	5.51	5.07	5.06	5.26	3.64	3.56	1.36
CAPM	0.478	7.57	-0.78	-0.30	0.00	1.54	11.40	6.68	3.48	4.41	3.85	3.49	3.26	1.30
CAPM SP500	0.475	7.46	-0.96	-0.46	-1.54	0.00	8.33	6.56	3.39	4.34	3.76	3.49	3.15	1.28
Excess Market	0.461	7.30	-1.98	-1.27	-11.40	-8.33	0.00	3.56	2.42	2.77	2.54	2.32	2.64	1.14
LRR 90	0.398	5.52	-6.54	-5.51	-6.68	-6.56	-3.56	0.00	0.40	0.48	0.44	0.73	0.96	0.55
C-CAPM	0.384	7.42	-4.78	-5.07	-3.48	-3.39	-2.42	-0.40	0.00	0.13	0.41	0.70	0.57	0.43
Excess Return	0.382	6.50	-5.01	-5.06	-4.41	-4.34	-2.77	-0.48	-0.13	0.00	0.02	0.56	0.60	0.42
Habit	0.382	7.30	-4.98	-5.26	-3.85	-3.76	-2.54	-0.44	-0.41	-0.02	0.00	0.62	0.54	0.42
Return	0.369	6.47	-3.61	-3.64	-3.49	-3.49	-2.32	-0.73	-0.70	-0.56	-0.62	0.00	0.18	0.24
LRR 70	0.359	6.03	-3.90	-3.56	-3.26	-3.15	-2.64	-0.96	-0.57	-0.60	-0.54	-0.18	0.00	0.22
LRR 0	0.344	7.49	-1.41	-1.36	-1.30	-1.28	-1.14	-0.55	-0.43	-0.42	-0.42	-0.24	-0.22	0.00

Table 2: **Tests of Statistical Significance in the Extreme Return Sample at the 1 Year Horizon:** The table re-estimates the regression the paper reported in Table 8 at the 1 year horizon. The first two columns in the table provides the coefficient estimate and double-clustered *t*-statistic of the univariate regression of signed flows on signed outperformance. The rest of the columns provide the statistical significance of the pairwise test, derived in Proposition 5, of whether the models are better approximations of the true asset pricing model.