ETF Ownership and Seasoned Equity Offerings

Online Appendix

Version: 2 March 2023

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TABLE OA.1
Pairwise Correlations (Full Sample)

This table reports pairwise correlations for the main variables in our full sample.

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
SEO_t	V1	1.000									
	p-value										
$SEO_{t \to t+3}$	V2	0.092	1.000								
	p-value	0.000									
ΔETF	V3	0.010	0.006	1.000							
	p-value	0.000	0.002								
ΔETF_CONT	V4	0.011	0.015	0.606	1.000						
	p-value	0.000	0.000	0.000							
ETF	V5	-0.001	-0.020	0.294	0.204	1.000					
	p-value	0.676	0.000	0.000	0.000						
ROA	V6	-0.137	-0.207	0.077	0.028	0.116	1.000				
	p-value	0.000	0.000	0.000	0.000	0.000					
CASH	V7	0.078	0.151	0.012	0.017	-0.064	-0.395	1.000			
	p-value	0.000	0.000	0.000	0.000	0.000	0.000				
RETURN	V8	0.042	0.018	0.022	0.013	-0.001	0.090	0.014	1.000		
	p-value	0.000	0.000	0.000	0.000	0.683	0.000	0.000			
ln(ASSET)	V9	-0.050	-0.086	0.206	0.061	0.357	0.389	-0.406	0.007	1.000	
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
BTM	V10	-0.040	-0.047	-0.115	-0.036	-0.101	0.061	-0.210	-0.171	0.017	1.000
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LEVERAGE	V11	0.022	0.019	0.012	-0.006	0.109	-0.019	-0.281	-0.016	0.230	-0.136
	p-value	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
DIVIDEND	V12	-0.037	-0.058	0.040	0.015	0.116	0.167	-0.222	-0.053	0.307	0.050
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
VOLATILITY	V13	0.074	0.119	-0.141	-0.010	-0.189	-0.403	0.215	-0.031	-0.426	0.206
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ln(AGE)	V14	-0.048	-0.098	0.029	-0.021	0.235	0.226	-0.259	0.016	0.309	0.028
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ΔACTIVE	V15	0.011	0.008	0.138	0.105	0.045	0.046	0.003	0.052	0.060	-0.061
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.086	0.000	0.000	0.000
ΔACTIVE_CONT	V16	0.006	0.009	0.074	0.138	-0.017	0.024	0.005	0.044	0.005	-0.011
	p-value	0.002	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.014	0.000
ACTIVE	V17	-0.011	-0.031	0.271	0.135	0.649	0.197	-0.059	0.031	0.363	-0.160
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ΔINDEX	V18	0.011	0.006	0.202	0.191	0.107	0.051	0.016	0.032	0.101	-0.085
	p-value	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ΔINDEX_CONT	V19	0.007	0.004	0.128	0.240	0.070	0.024	0.004	0.017	0.036	-0.019
	p-value	0.001	0.041	0.000	0.000	0.000	0.000	0.058	0.000	0.000	0.000
INDEX	V20	-0.020	-0.051	0.245	0.126	0.835	0.167	-0.110	0.005	0.448	-0.103
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000

TABLE OA.1 (CONTINUED)

		V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
SEO_t	V1										
	p-value										
$SEO_{t \to t+3}$	V2										
	p-value										
ΔETF	V3										
	p-value										
ΔETF_CONT	V4										
	p-value										
ETF	V5										
	p-value										
ROA	V6										
	p-value										
CASH	V7										
	p-value										
RETURN	V8										
	p-value										
ln(ASSET)	V9										
	p-value										
BTM	V10										
	p-value										
LEVERAGE	V11	1.000									
	p-value										
DIVIDEND	V12	0.022	1.000								
	p-value	0.000									
VOLATILITY	V13	0.055	-0.206	1.000							
	p-value	0.000	0.000								
ln(AGE)	V14	0.054	0.218	-0.204	1.000						
	p-value	0.000	0.000	0.000							
ΔACTIVE	V15	-0.011	0.001	-0.090	-0.011	1.000					
	p-value	0.000	0.574	0.000	0.000						
ΔACTIVE_CONT	V16	-0.015	-0.012	-0.021	-0.021	0.715	1.000				
	p-value	0.000	0.000	0.000	0.000	0.000					
ACTIVE	V17	0.062	0.017	-0.281	0.178	0.194	0.189	1.000			
	p-value	0.000	0.000	0.000	0.000	0.000	0.000				
ΔINDEX	V18	-0.003	0.012	-0.087	-0.009	0.194	0.135	0.138	1.000		
	p-value	0.094	0.000	0.000	0.000	0.000	0.000	0.000			
ΔINDEX_CONT	V19	-0.008	0.003	-0.021	-0.007	0.129	0.230	0.093	0.659	1.000	
	p-value	0.000	0.154	0.000	0.000	0.000	0.000	0.000	0.000		
INDEX	V20	0.090	0.148	-0.246	0.305	0.057	0.009	0.632	0.200	0.215	1.000
	p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

TABLE OA.2
Cross-Sectional Heterogeneity Tests: SEO_t

This table checks the sensitivity of our linear probability model estimates of Table 5 to applying SEO_t as the dependent variable. The model specification and sample period are identical to those of the tests in Table 5. *T*-statistics based on firm-clustered standard errors are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels respectively.

	SEO_t			
	1	2	3	4
ΔETF	0.0012	-0.0008	0.0014	0.0018
	(1.190)	(-0.763)	(1.515)	(1.508)
SMALL	0.0245***			
	(3.357)			
ΔETF × SMALL	0.0025			
	(1.238)			
LOW_PRICE		-0.0134		
		(-1.572)		
ΔETF × LOW_PRICE		0.0074***		
		(3.774)		
HIGH_VOLATILITY			-0.0107	
			(-1.599)	
ΔETF × HIGH_VOLATILITY			0.0037*	
			(1.941)	
LOW_#_SHAREHOLDER				0.0130*
				(1.767)
ΔETF × LOW_#_SHAREHOLDER				0.0023
				(1.110)
Firm controls (including their interaction with the dividing variable)	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes	Yes
Observations	268,831	268,831	268,831	223,997
R^2	0.037	0.037	0.035	0.039

TABLE OA.3
Summary Statistics for the SEO Announcement, SEO Discount, and
Long-Term Performance Tests

Panels A, B, and C report summary statistics for the SEO samples for our tests on the three stages of SEOs: SEO announcements (based on filing dates); SEO discount (based on issue dates), and long-term post-issue performance (based on issue dates).

Panel A. Summary statistics for SEO announcements

	Obs.	Mean	Stdev.	25%	Median	75%
3_DAY_CAR	4,295	-0.027	0.119	-0.075	-0.022	0.019
ETF	4,295	0.037	0.040	0.004	0.024	0.057
ln(ASSET)	4,295	5.544	2.286	3.840	5.230	7.103
BTM	4,295	0.453	0.621	0.107	0.280	0.597
LEVERAGE	4,295	0.247	0.267	0.028	0.163	0.387
MKTRUNUP	4,295	0.039	0.088	0.008	0.044	0.081
RUNUP	4,295	0.206	0.540	-0.081	0.094	0.346
REL_OFFER_SIZE	4,295	0.154	0.113	0.082	0.126	0.191
SECONDARY_SHARE	4,295	0.005	0.024	0.000	0.000	0.000
NASDAQ	4,295	0.722	0.448	0.000	1.000	1.000

Panel B. Summary statistics for SEO discounts

	Obs.	Mean	Stdev.	25%	Median	75%
DISCOUNT	4,756	0.070	0.094	0.017	0.048	0.108
ETF	4,756	0.035	0.039	0.003	0.023	0.055
VOLATILITY_30_11	4,756	0.042	0.030	0.024	0.034	0.050
ln(PRICE)	4,756	2.193	1.363	1.281	2.352	3.222
ln(ME)	4,756	6.052	1.723	4.854	6.037	7.222
REL_OFFER_SIZE	4,756	0.161	0.257	0.083	0.127	0.189
CAR_POS	4,756	0.068	0.226	0.000	0.000	0.052
CAR_NEG	4,756	-0.050	0.083	-0.070	-0.008	0.000
TICK	4,756	0.956	0.204	1.000	1.000	1.000
NASDAQ	4,756	0.720	0.449	0.000	1.000	1.000

Panel C. Summary statistics for long-term post-SEO performance

	Obs.	Mean	Stdev.	25%	Median	75%
BHAR_36M	1,094	-0.134	0.936	-0.709	-0.285	0.231
BHAR_60M	1,094	-0.329	1.301	-1.090	-0.568	0.145

TABLE OA.4
Summary Statistics for SEO Announcement CARs and SEO Discounts Across Years

This table reports the mean 3-day CAR (3_DAY_CAR) surrounding SEO announcements (Panel A) and the mean SEO discount (DISCOUNT) (Panel B) for each year of the sample.

Panel A. Mean SEO announcement 3-day CAR

Year	Mean 3_DAY_CAR	Events
2003	-0.013	224
2004	-0.015	194
2005	-0.005	153
2006	-0.019	174
2007	-0.019	158
2008	-0.047	205
2009	-0.008	480
2010	-0.025	256
2011	-0.026	215
2012	-0.023	209
2013	-0.018	233
2014	-0.014	208
2015	-0.020	155
2016	-0.045	174
2017	-0.035	280
2018	-0.051	278
2019	-0.077	260
2020	-0.028	439
Total	-0.027	4,295

Panel B. Mean SEO discount

Year	Mean DISCOUNT	Events
2003	0.039	216
2004	0.035	228
2005	0.035	174
2006	0.042	173
2007	0.034	142
2008	0.047	123
2009	0.073	474
2010	0.071	331
2011	0.066	218
2012	0.071	243
2013	0.076	279
2014	0.069	223
2015	0.062	259
2016	0.079	280
2017	0.072	344
2018	0.070	291
2019	0.117	271

2020	0.106	487
Total	0.070	4,756