

Online Appendix

“Institutional Investor Attention, Agency Conflicts, and the Cost of Debt”

April 2022

Table A1. Bond Rating Numerical Conversion

Conversion Number	Moody's Ratings	S&P Ratings
23	Aaa+	AAA+
22	Aaa	AAA
21	Aa1	AA+
20	Aa2	AA
19	Aa3	AA-
18	A1	A+
17	A2	A
16	A3	A-
15	Baa1	BBB+
14	Baa2	BBB
13	Baa3	BBB-
12	Ba1	BB+
11	Ba2	BB
10	Ba3	BB-
9	B1	B+
8	B2	B
7	B3	B-
6	Caa1	CCC+
5	Caa2	CCC
4	Caa3	CCC-
3	Ca	CC
2	C	C
1	D	D

Notes. This table provides bond rating conversion using Moody's and S&P ratings. The data cover the 1993–2015 period.

Table A2. Descriptive Statistics and Robustness*Panel A: Summary Statistics*

	Mean	Median	Standard Deviation	25th Percentile	75th Percentile
Advertising Intensity	0.135	0.076	0.167	0.034	0.169
Analyst Following	13.154	12.000	7.559	7.000	18.000
Big 4 Auditor	0.984	1.000	0.127	1.000	1.000
EIndex	3.954	4.000	1.125	3.000	5.000
CEO Pay Mix	0.572	0.624	0.234	0.418	0.760
Dedicated IO	0.075	0.051	0.091	0.000	0.111
Quasi-Indexer IO	0.465	0.477	0.188	0.320	0.608
Transient IO	0.161	0.144	0.097	0.087	0.214
Long-Term IO	0.184	0.170	0.092	0.117	0.246
Short-Term IO	0.296	0.285	0.131	0.200	0.381

Notes. Panel A provides descriptive statistics for the variables used in Panel B below. The overall sample contains 21,345 firm-quarter observations from 1,094 firms over the 1993–2015 period.

Panel B. Robustness

	Advertising Intensity	Analyst Following	Big 4 Auditor	EIndex	CEO Pay Mix	Hoberg & Phillips	Excluding Crisis	Bushee IO	IO Horizon
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Distraction	0.255*** (3.212)	0.285*** (5.318)	0.255*** (4.813)	0.281*** (3.506)	0.277*** (4.835)	0.265*** (4.600)	0.262*** (4.297)	0.257*** (4.782)	0.246*** (4.638)
Advertising Intensity	-0.214 (-1.568)								
Analyst Following		-0.033* (-1.685)							
Big 4 Auditor			0.048 (0.866)						
EIndex				0.019 (1.146)					
CEO Pay Mix					0.013 (0.362)				
Dedicated IO								-0.186 (-1.458)	
Quasi-Indexer IO								-0.275*** (-2.610)	
Transient IO								-0.469*** (-4.196)	
Long-Term IO									-0.081 (-0.711)
Short-Term IO									-0.405*** (-5.269)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
HP Industry × Quarter FE	No	No	No	No	No	Yes	No	No	No
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,180	18,628	21,319	8,677	16,905	20,953	19,259	21,333	21,333
Adjusted R-Squared	0.744	0.762	0.743	0.665	0.756	0.747	0.743	0.744	0.743

Notes. Variable definitions are provided in the manuscript Table 1. This table provides coefficient estimates from regressing the log of bond yield spreads on shareholder distraction using alternative specifications. The data cover the 1993–2015 period. Except Model 6, all specifications include firm and industry × quarter fixed effects based on Fama–French 12-industry classification codes. HP Industry × Quarter FE is computed based on the Hoberg and Phillips industry classifications. *t*-statistics based on standard errors adjusted for clustering by firm are in parentheses. ****p*<0.01, ***p*<0.05, **p*<0.10

Table A3. Excluding Firm-Quarters with Acquisitions

Dependent Variable = Idiosyncratic Volatility	
Distraction	0.006*** (3.913)
Firm Size	-0.001*** (-2.387)
Leverage	0.010*** (6.059)
Performance	-0.003*** (-4.063)
ROE Volatility	0.000 (0.197)
Market-to-Book	-0.000 (-0.303)
Dividend Dummy	-0.002*** (-4.288)
Firm Age	-0.003*** (-2.728)
Diversification	-0.000 (-0.061)
Tangibility	-0.004* (-1.873)
Industry \times Quarter FE	Yes
Firm FE	Yes
Observations	10,085
Adj. R-squared	0.669

Notes. This table provides coefficient estimates from regressing idiosyncratic risk on institutional shareholder distraction and several controls. ROE volatility is the variance of quarterly return-on-equity over three years, Dividend Dummy is an indicator variable that equals 1 if the firm pays dividend in a given quarter, Firm Age is the number of years since the stock inclusion in the CRSP database, and Diversification is an indicator variable that equals 1 if a firm operates in multiple segments in a given quarter. The data cover the 1993–2015 period. *t*-statistics based on standard errors adjusted for clustering by firm are in parentheses. All specifications include firm and industry \times quarter fixed effects. Industry dummies are based on Fama–French 12-industry classification codes.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table A4. Distraction, Credit Rating Downgrades, and Cost of Debt

Panel A: Rating Downgrades		Panel B: Cost of Debt	
Distraction	0.015 (0.550)	Distraction	0.020*** (4.613)
Firm Size	0.018 (1.145)	Downgrade Dummy	0.102*** (5.317)
Market to Book	-0.001 (-1.409)	Distraction × Downgrade	0.010 (0.917)
Interest Coverage Ratio	-0.000 (-0.309)	Firm Size	-0.056** (-2.202)
Operating Margin	-0.148*** (-2.849)	Leverage	0.518*** (5.319)
Total Debt Leverage	0.058 (0.899)	Performance	-3.169*** (-7.476)
Cash Ratio	-0.522*** (-4.372)	Sales Growth	0.045** (1.962)
Tangibility	0.386*** (3.063)	Cash Flow Volatility	0.285 (0.513)
Dividend Payer	0.029* (1.867)	Market-to-Book	-0.003** (-2.433)
R&D	-0.061 (-0.689)	Credit Rating	-0.035*** (-3.527)
Capex	-0.065 (-0.156)	Bond Maturity	0.009*** (3.327)
Retained Earning	0.023 (0.652)	Bond Age	0.031*** (6.939)
Idiosyncratic Risk	2.267*** (3.972)	High Yield	0.371*** (9.277)
Systemic Risk	-0.004 (-0.415)	Callability	0.134*** (4.419)
		Institutional Ownership	-0.381*** (-5.036)
Industry × Quarter FE	Yes	Industry × Quarter FE	Yes
Firm FE	Yes	Firm FE	Yes
Observations	19,730	Observations	21,345
Adj. R-squared	0.184	Adj. R-squared	0.745

Notes. This table provides coefficient estimates from regressing the rating downgrade indicator on institutional shareholder distraction (Panel A) and from regressing the cost of debt on distraction and its interactions with rating downgrade dummies (Panel B). Downgrade is a dummy variable that equals 1 if the firm's bond rating is downgraded across major rating categories (i.e. AA, A, BBB, BB, B, CCC etc.) in the subsequent four quarters. Motivated by Alp (2013), we include firm size, market-to-book ratio, interest coverage ratio, operating margin, total debt leverage, cash ratio, tangibility, dividend payer indicator, research and development (R&D), capital expenditures, retained earnings, idiosyncratic risk, and systemic risk as control variables.¹ The data cover the 1993–2015 period. *t*-statistics based on standard errors adjusted for clustering by firm are in parentheses. All specifications include firm and industry × quarter fixed effects. Industry dummies are based on Fama–French 12-industry classification codes.

¹ Alp A (2013) Structural shifts in credit rating standards. *Journal of Finance* 68(6): 2435-2470.