Corporate biodiversity risk exposure, investment, and equity financing

Uyen Nguyen Dinh Hoang[a]

[a] University of Economics Ho Chi Minh City, Viet Nam

*Email correspondence: hoanguyen@ueh.edu.vn

Acknowledgements: This research is funded by University of Economics Ho Chi Minh City, Vietnam (UEH).

Declarations

Conflict of interest: The author has no relevant financial or non-financial interests to disclose.

Corporate biodiversity risk exposure, investment, and equity financing

Abstract

This paper examines the impact of corporate biodiversity risk exposure on investment and financing sensitivities to q. Using a sample of non-financial US listed firms over the period from 2001 to 2023, we find that biodiversity risk exposure stimulates investment sensitivity to q, suggesting firms exposed to biodiversity risk respond more aggressively to growth opportunities signaled by q. Furthermore, strong cash flows suggest that biodiversity risks can be effectively managed under the firm's current operational framework, therefore encouraging equity financing. Our findings suggest that biodiversity risk exposure drive corporate decision-making in response to market expectation of the firm's growth prospect.

Keywords: biodiversity risk; cash flow; equity financing; investment sensitivity.

1. Introduction

Investment and financing sensitivities to Tobin's q is an important topic of investigation in finance and economics as it is directly related to how market valuation drives corporate decision-making (Tobin, 1969). In this paper, we examine the impact of corporate biodiversity risk exposure on investment and financing sensitivities to q. As investors are increasingly factoring environment-related risks in asset pricing (Giglio et al., 2023; Garel et al., 2024; Naffa & Czupy, 2024), biodiversity risk emerges as an embryonic literature in economics and finance that is closely related to United Nations' Sustainable Development Goals (Flammer et al., 2025).

Our empirical investigation centers on two hypotheses. The first hypothesis is that biodiversity risk exposure can increase investment sensitivity to q. This hypothesis stems from the fact that investors are more inclined to consider environment-related risk in determining asset value, higher exposure to biodiversity risk can prompt firms to align investment decisions more closely with market expectations captured by q and drive them to invest more aggressively if q is higher. The second hypothesis is that equity financing become less sensitive to q when the firm is exposed to biodiversity risk. Intuitively, biodiversity risk increases the overall risk of investing in an asset, hence stimulating a discount on the value of growth opportunities of the firm. This reduction limits equity financing via lower valuation of the firm's stock. Using a sample of US firms during 2001-2023, we empirically test the hypotheses using the P-interaction framework proposed by McLean et al. (2012).

Corporate biodiversity risk exposure is an embryonic literature in which existing research has primarily concentrated on the asset pricing aspect of biodiversity risk (Giglio et al., 2023; Garel et al., 2024). However, few have explored the corporate finance aspect of biodiversity risk (Bach et al., 2025). Our study adds new insights into how biodiversity risk, a new risk factor in financial markets, drive corporate decision-making in resources allocation: investment and equity financing in their relations to growth opportunities. To the best of our knowledge, this is the first study to address this literature gap.

2. Research methodology and data

2.1. Research design

We use the following empirical model to investigate how biodiversity risk exposure influences investment sensitivity to q:

$$INV_{i,t} = \alpha_0 + \alpha_1 Q_{i,t-1} + \alpha_2 CF_{i,t-1} + \alpha_3(\boldsymbol{BDR} \times \boldsymbol{Q})_{i,t-1} + \alpha_4(BDR \times CF)_{i,t-1} + \alpha_5 BDR_{i,t} + \theta_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $INV_{i,t}$ is the proxy of corporate investment of firm i in year t; $Q_{i,t-1}$is the Tobin's q of firm i in year t-1; $CF_{i,t-1}$ is proxy of cashflow of of firm i at year t-1; $BDR_{i,t-1}$ stands for biodiversity risk exposure of firm i at year t-1; γ_i , δ_t and $\theta_{i,t}$ stand for the firm-, year-, and industry-year-fixed effects, respectively; $\varepsilon_{i,t}$ is the error term. Following McLean et al. (2012), we also employ a robustness test by augmenting Model (1) with the interactions between real GDP per capita and either Q or CF.

Biodiversity risk exposure may influence investment-q sensitivity via changing market perception of firm-specific risk. As q is a proxy of growth opportunities, investment may become more sensitive to q when firms are exposed to biodiversity risk. Hence, our first hypothesis is: α_3 is positive and significant.

Corporate investment (*INV*) is measured by capital expenditure scaled by lagged total assets (Gulen & Ion, 2016; McLean et al., 2012). We use alternative measures of investment for robustness checks following McLean et al. (2012), which is the sum of change in property, plant and equipment, change in inventory, change in R&D spending, all scaled by total assets. Following Baker et al. (2003), Rauh (2006), Q is the log-transformed ratio of market value of equity minus book value of equity, adding the book value of assets, all divided by book value of assets. Cash flow (*CF*) is the net operating cash flow scaled by lagged total assets.

The biodiversity risk exposure variable, *BDR*, is derived from the measure by Giglio et al. (2023), who introduce a text-based measure of firm-level biodiversity risk constructed by textual analysis of 10-K filings of US firms. *BDR* is an indicator addressing when the firm's 10-K report mentions biodiversity-related terms in at least two sentences, with one of the sentences specifically addressing regulation. For sensitivity testing, alternative measures include *BDR_N*, which represents the difference between the number of negative and positive biodiversity-related sentences; and *BDR_C*, which is recorded when the firm mentions biodiversity-related terms in at least two sentences in the 10-K filings.

Consistent with market perception of a firm's growth opportunities might be driven by investors' perception of the firm's risk, biodiversity risk might reduce equity financing sensitivity to q as it is a new risk factor that increases equity investors' required returns (Garel et al., 2024; Giglio et al., 2023). To empirically test this hypothesis, we re-estimate Model (1) after substituting *INV* with equity finance variable (EQFIN).

$$\mathrm{EQFIN}_{i,t} = \beta_0 + \beta_1 Q_{i,t-1} + \beta_2 CF_{i,t-1} + \beta_3 (\boldsymbol{BDR} \times \boldsymbol{Q})_{i,t-1} + \beta_4 (BDR \times CF)_{i,t-1} + \beta_5 BDR_{i,t-1} + \\ + \delta_t + \theta_{i,t} + \varepsilon_{i,t} \quad (2)$$

Based on the argument, we propose the second hypothesis that biodiversity risk exposure reduces equity financing sensitivity to q, meaning β_3 is negative and significant. Table 1 presents the description of variables used in this study.

<<< Insert Table 1 here>>>

2.2. Data

The data are retrieved from several sources, which we then use to construct variables for U.S. non-financial firms during the 2001–2023 period. More specifically, the corporate biodiversity risk exposure data is provided by Giglio et al. (2023) at https://www.biodiversityrisk.org/. Accounting data are collected from the Bloomberg database. After merging the datasets by firm and year, we exclude all missing values and winsorize the continuous accounting variables at the 1st and the 99th percentile to alleviate the impact of outliers. The final sample consists of 34,858 firm-year observations of 3,967 U.S. non-financial listed firms during 2001-2023. Table 2 presents the summary descriptive statistics of variable in our sample.

<<< Insert Table 2 here>>>

3. Empirical results and discussions

3.1. Baseline findings

Table 3 presents the estimation results of Model (1). In the main regression specification in Column 1, Table 3, α_1 is positive and statistically significant (0.025***), suggesting one standard deviation increase in Q corresponds to a 2.5% increase in INV on average. After controlling for real GDP per capita, Q coefficient has the value of 0.329 and significant at 1% level (Column 2). Similarly, CF's coefficient remains positive and significant at 5% level in both model specifications. The results are consistent with existing literature on investment sensitivities to q and cash flow (Baum, 2010; McLean et al., 2012; Peters & Taylor, 2017; Verona, 2020; Sprenger & Lazareva, 2022). The initial results confirm the findings of McLean et al. (2012) that investment is positively sensitive to Tobin's q and cash flow. This means firms increase investment when they perceive higher growth opportunities (captured by Tobin's q) and when they have more internal liquidity (captured by cash flow). The sensitivity to q indicates that investment decisions are driven by market valuation, while the sensitivity to cash flow suggests potential financing constraints.

<<< Insert Table 3 here>>>

The *BDR-Q* interaction's coefficient remains positive and statistically significant at 1% level, implying that firms exposed to biodiversity risk generally exhibit stronger investment-q sensitivity. This suggests that in firms facing biodiversity risk, market valuation plays a more critical role in guiding investment decisions. One possible explanation is that investors and managers view biodiversity risk as a material factor affecting long-term value, and firms under high biodiversity risk are more inclined to respond to growth opportunities signaled by q. Alternatively, firms with higher biodiversity risk face greater scrutiny from stakeholders, prompting them to align investment decisions more closely with market expectations. As investors are increasingly factoring in environmental risks (Garel et al., 2024), biodiversity-risk-exposed firms are likely to invest more aggressively when q is high.

The impact of biodiversity risk exposure on investment-q sensitivity is economically significant. The Q coefficient in the baseline regression (Column 1, Table 3) is 0.025, whilst that of the *BDR-Q* interaction is 0.057. This means on average, the overall investment sensitivity to q increases by (0.025+0.057-0.25)/0.025 = 228% when firms are exposed to biodiversity risk. The finding suggests a two-way amplification effect of biodiversity risk exposure in which firms either: (i) pursue aggressive investments to mitigate biodiversity risk; or (ii) face stronger market pressure to capitalize on q-driven opportunities when investors prioritize sustainability.

Interestingly, the *BDR-CF* interaction term stays statistically insignificant in both regression specifications, suggesting that biodiversity risk does not seem to influence investment sensitivity to cash flow. In other words, this finding suggests that biodiversity risk exposure does not exacerbate or mitigate financing constraints. A possible interpretation is that firms facing higher biodiversity risks may rely more on external funding sources, making their investment decisions less dependent on internal liquidity.

To sum up, the empirical results support our hypothesis that biodiversity risk exposure increases investment sensitivity to q.

3.2. External financing sensitivity and biodiversity risk exposure

Table 4 reports the estimation results of Model (2). Consistent with our prediction, β_3 is negative and significant in the regressions in Table 4, suggesting that equity financing sensitivity to q is weakened when firms are exposed to biodiversity risk. From the results in Column 1, Table 4, *Q*'s coefficient is 0.282, and *BDR-Q* interaction's coefficient is -0.185. Consequently, the overall equity financing sensitivity to q decreases by 0.185/0.282 = 65.6% on average when firms are exposed to biodiversity risk. A possible interpretation of this result is that biodiversity risk triggers a discount on the firm's growth opportunity value by investors. While high q traditionally signals attractive growth prospects, this newfound effect of biodiversity risk exposure aligns with emerging evidence that biodiversity risks modulate traditional valuation metrics (Giglio et al., 2023; Naffa & Czupy, 2024).

<<< Insert Table 4 about here>>>

In addition, *BDR-CF* interaction's coefficient is positive and statistically significant in both model specifications, suggesting that equity financing respond positively to biodiversity when cash flow increases. Intuitively, investors may interpret cash flow strength as evidence that biodiversity risks are manageable within the firm's existing operations, thus encouraging equity financing by the firm.

3.3. Robustness check

We perform several sensitivity tests to verify the robustness of our findings. Specifically, we employ an alternative measure of corporate investment (*INV_R*), following the approach of McLean et al. (2012); and alternative measures of firm-level biodiversity risk, including *BDR_C* and *BDR_N*. The results of these sensitivity tests are presented in Appendices A1 and A2. To address potential omitted variable biases in the model, we use Entropy Balancing technique to neutralize the differences in groups with different levels of biodiversity risk. After that, we employ the Entropy Balancing weight to re-estimate the models. The estimation results are presented in Appendices A3 and A4. Overall, the robustness test results are mostly in line with our findings.

4. Conclusion

In this paper, we investigate how corporate biodiversity risk exposure affects investment-q and equity financing-q sensitivities. We show the multifaceted impact of biodiversity risk exposure on investment-q sensitivities, suggesting that while biodiversity risk stimulates investment sensitivity to q, it does not influence investment-cash flow sensitivity. Analysis on equity financing sensitivity to q further supports the notion that the biodiversity risk exposure is more on the market perspective (q) than the fundamental perspective. Future research in this emerging biodiversity risk literature can consider explaining the microstructure of biodiversity risk, which refers to the granular mechanisms through which ecological pressures and conservation dynamics influence economic actors, asset values, and market behaviors.

References

Bach, T. N., Hoang, K., & Le, T. (2025). Biodiversity risk and firm performance: Evidence from US firms. *Business Strategy and the Environment*, *34*(1), 1113-1132.

Baker, M., Stein, J. C., & Wurgler, J. (2003). When does the market matter? Stock prices and the investment of equity-dependent firms. *The Quarterly Journal of Economics*, *118*(3), 969-1005.

Baum, C. F., Caglayan, M., & Talavera, O. (2010). On the investment sensitivity of debt under uncertainty. *Economics Letters*, *106*(1), 25-27.

Flammer, C., Giroux, T., & Heal, G. M. (2025). Biodiversity finance. *Journal of Financial Economics*, *164*, 103987.

Garel, A., Romec, A., Sautner, Z., & Wagner, A. F. (2024). Do investors care about biodiversity?. *Review of Finance*, *28*(4), 1151-1186.

Giglio, S., Kuchler, T., Stroebel, J., & Zeng, X. (2023). *Biodiversity risk* (No. w31137). National bureau of economic research.

Gulen, H., & Ion, M. (2016). Policy uncertainty and corporate investment. *The Review of financial studies*, *29*(3), 523-564.

McLean, R. D., Zhang, T., & Zhao, M. (2012). Why does the law matter? Investor protection and its effects on investment, finance, and growth. *The Journal of Finance*, *67*(1), 313-350.

Naffa, H., & Czupy, G. (2024). Biodiversity risk premium. *Available at SSRN 4751958*. https://dx.doi.org/10.2139/ssrn.4751958

Peters, R. H., & Taylor, L. A. (2017). Intangible capital and the investment-q relation. *Journal of Financial Economics*, *123*(2), 251-272.

Rauh, J. D. (2006). Investment and financing constraints: Evidence from the funding of corporate pension plans. *The Journal of Finance*, *61*(1), 33-71.

Sprenger, C., & Lazareva, O. (2022). Corporate governance and investment-cash flow sensitivity: Evidence from Russian unlisted firms. *Journal of Comparative Economics*, *50*(1), 71-100.

Verona, F. (2020). Investment, Tobin's Q, and cash flow across time and frequencies. *Oxford Bulletin of Economics and Statistics*, *82*(2), 331-346.

Table 1. Variable definitions and data sources

Variable	Definition	Sources
INV	Capital expenditure scaled by lagged total assets	Bloomberg
INV_R	The investment sensitivity is calculated as the sum of the yearly growth in property, plant, and equipment, growth in inventory, and R&D spending, all scaled by total assets.	Bloomberg
Q	Tobin's Q (q) is calculated as the market value of equity minus the book value of equity, plus the book value of assets, all divided by the book value of assets. In our regression analyses, we use the lagged log of this q measure.	Bloomberg
CF	Net cash from operations scaled by the book value of assets at the beginning of the year.	Bloomberg
BDR	Dummy variable that equals one if the firm mention biodiversity-related terms in at least two sentences and one of them is about regulation in 10-K filling during the year, zero otherwise.	Giglio et al., (2023)
BDR_C	Dummy variable that equals one if the firm mention biodiversity-related terms in at least two sentences in 10-K filling during the year, zero otherwise.	Giglio et al., (2023)
BDR_N	Firm's biodiversity sentiment score, calculated by subtracting the number of positive sentiment sentences from the number of negative sentiment sentences regarding biodiversity in the 10-K filling during the year.	Giglio et al., (2023)
EQFIN	Equity financing is measured by the change in book equity, plus the change in deferred taxes, minus the change in retained earnings, all scaled by lagged assets.	Bloomberg
GDP	Log of real per capita GDP	Bloomberg

Table 2. Summary statistics full sample

Variable	Mean	Median	Std. Dev.	P25	P75
INV	0.049	0.030	0.065	0.014	0.601
INV_R	0.033	0.011	0.112	-0.006	0.048
Q	0.617	0.500	0.575	0.191	0.934
CF	0.056	0.083	0.203	0.033	0.133
BDR	0.027	0.000	0.162	0.000	0.000
BDR_C	0.038	0.000	0.191	0.000	0.000
BDR_N	0.022	0.000	0.254	0.000	0.000
EQFIN	0.095	0.009	2.612	-0.007	0.041
GDP	10.911	10.886	0.206	10.762	11.071

Table 3. Investment sensitivity test

VARIABLES	(1) INV	(2) INV
Q	0.025***	0.329***
	(0.001)	(0.049)
BDR	-0.019***	-0.020***
	(0.005)	(0.005)
BDR×Q	0.057***	0.060***
	(0.011)	(0.011)
CF	0.007**	0.384**
	(0.004)	(0.180)
BDR×CF	0.010	0.010
	(0.047)	(0.046)
GDP×Q		-0.028***
		(0.004)
GDP×CF		-0.034**
		(0.016)
Constant	0.033***	0.033***
	(0.001)	(0.001)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Industry × Year FE	Yes	Yes
Observations	34,858	34,858
Adjusted R-squared	0.700	0.702

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4. Equity financing sensitivity test

VARIABLES	(1) EQFIN	(2) EQFIN
Q	0.282***	1.590
	(0.051)	(1.913)
BDR	-0.005	-0.001
	(0.014)	(0.014)
BDR×Q	-0.185***	-0.182***
	(0.055)	(0.052)
CF	-0.888***	-11.053
	(0.263)	(11.331)
BDR×CF	0.676***	0.607***
	(0.195)	(0.163)
GDP×Q		-0.120
		(0.171)
GDP×CF		0.934
		(1.019)
Constant	-0.049***	-0.047***
	(0.018)	(0.017)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Industry × Year FE	Yes	Yes
Observations	33,556	33,556
Adjusted R-squared	0.540	0.542

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix A1. Robustness test with an alternative investment measure

VARIABLES	(1) INV_R	(2) INV_R
Q	0.058***	0.139
	(0.003)	(0.105)
BDR	-0.046**	-0.046**
	(0.021)	(0.022)
BDR×Q	0.108***	0.108***
	(0.027)	(0.027)
CF	0.020*	-0.021
	(0.010)	(0.468)
BDR×CF	0.076	0.076
	(0.122)	(0.122)
GDP×Q		-0.007
		(0.010)
GDP×CF		0.004
		(0.042)
Constant	-0.009***	-0.009***
	(0.002)	(0.002)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Industry × Year FE	Yes	Yes
Observations	32,082	32,082
Adjusted R-squared	0.271	0.271

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix 2. Robustness tests with alternatives measurement of biodiversity risk exposure

VARIABLES	(1) INV	(2) INV	(3) INV	(4) INV	(5) EQFIN	(6) EQFIN	(7) EQFIN	(8) EQFIN
Q	0.025***	0.331***	0.025***	0.317***	0.282***	1.595	0.279***	1.600
	(0.001)	(0.048)	(0.001)	(0.048)	(0.052)	(1.912)	(0.051)	(1.905)
CF	0.007**	0.376**	0.008**	0.367**	-0.888***	-11.056	-0.886***	-11.107
	(0.004)	(0.180)	(0.004)	(0.179)	(0.264)	(11.312)	(0.262)	(11.285)
BDR_C	-0.016***	-0.017***			0.024*	0.027**		
	(0.004)	(0.004)			(0.013)	(0.013)		
BDR_C×Q	0.039***	0.041***			-0.107**	-0.099***		
	(0.008)	(0.008)			(0.042)	(0.037)		
BDR_C×CF	0.031	0.032			0.214	0.151		
	(0.027)	(0.027)			(0.203)	(0.168)		
BDR_N			-0.010***	-0.010***			0.007	0.008
			(0.003)	(0.003)			(0.010)	(0.010)
BDR_N×Q			0.028***	0.028***			-0.030	-0.029*
			(0.006)	(0.006)			(0.018)	(0.018)
BDR_N×CF			0.001	-0.000			0.105	0.093
			(0.020)	(0.020)			(0.086)	(0.083)
GDP×Q		-0.028***		-0.027***		-0.121		-0.121
		(0.004)		(0.004)		(0.171)		(0.171)
GDP×CF		-0.034**		-0.033**		0.935		0.940
		(0.016)		(0.016)		(1.018)		(1.015)
Constant	0.033***	0.033***	0.033***	0.033***	-0.049***	-0.047***	-0.048***	-0.046***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.018)	(0.017)	(0.018)	(0.016)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	34,858	34,858	35,124	35,124	33,556	33,556	33,813	33,813
Adjusted R-squared	0.700	0.701	0.699	0.701	0.539	0.541	0.539	0.541

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix A3. Entropy balancing diagnostics

To deal with potential omitted variable bias in panel data, we employ fixed effects at the firm-level, industry-year-level and year-level to capture unobserved confounding factors. However, that practice may not get rid of omitted variable bias completely. Therefore, we further employ the Entropy Balancing technique to facilitate the Ceteris Paribus assumption in hypothesis testing. More specifically, we aim to neutralize the differences in firm-level traits related to investment and cash flows between the two firm groups: firms that are exposed to biodiversity risk (BDR = 1) and firms that are not exposed to biodiversity risk (BDR = 0). The firm-level traits are factors that are related to investment and share issuance, namely: firm size, debt financing, profitability, Tobin's q, operating cash flows, and cash holdings. Firm size is the natural logarithm of total assets. Debt financing is the ratio of long-term debt scaled by total assets. Profitability is the return-on-total assets ratio. Operating cash flows is the ratio of net cash from operations scaled by lagged total assets. Cash holdings is the ratio of cash and cash equivalents in total assets.

By employing this balancing method, we obtain Entropy Balancing weight to use in a robustness test that re-estimates the baseline model. This appendix presents the Entropy Balancing diagnostics. Appendix A4 reports the robustness test's estimation results.

Panel A. Without Entropy Balancing weight

	BDR=1			BDR=0		
	mean	variance	skewness	mean	variance	skewness
Firm size	8.326	2.425	0.016	7.282	3.234	0.216
Debt financing	0.297	0.026	0.781	0.204	0.046	1.721
Profitability	0.138	0.020	-2.708	-0.007	0.088	-34.620
Q	1.470	0.674	4.619	2.401	16.370	40.220
Operating cash flow	0.100	0.009	-0.073	0.056	0.036	-12.230
Cash holdings	0.066	0.009	3.592	0.144	0.029	2.179

Panel B. With Entropy Balancing weight

	BDR=1			BDR=0		
	mean	variance	skewness	mean	variance	skewness
Firm size	8.326	2.425	0.016	8.324	2.821	0.143
Debt financing	0.297	0.026	0.781	0.297	0.049	1.114
Profitability	0.138	0.020	-2.708	0.012	0.414	-13.230
Q	1.470	0.674	4.619	1.473	0.361	2.412
Operating cash flow	0.100	0.009	-0.073	0.100	0.006	0.939
Cash holdings	0.066	0.009	3.592	0.066	0.006	2.573

Appendix A4. Regressions using a matched sample

VARIABLES	(1) INV	(2) INV	(3) EQFIN	(4) EQFIN
Q	0.058***	0.283	0.637***	25.804**
	(0.011)	(0.303)	(0.243)	(10.108)
CF	0.077**	2.671*	-2.889**	-135.427***
	(0.035)	(1.482)	(1.295)	(48.670)
BDR	-0.022**	-0.023***	-0.017	-0.004
	(0.008)	(0.009)	(0.050)	(0.038)
BDR×Q	0.068***	0.070***	-0.384*	-0.187**
	(0.019)	(0.019)	(0.220)	(0.095)
BDR×CF	0.037	0.052	1.526**	0.682*
	(0.076)	(0.078)	(0.772)	(0.356)
GDP×Q		-0.021		-2.314**
		(0.028)		(0.913)
GDP×CF		-0.238*		12.193***
		(0.135)		(4.396)
Constant	0.063***	0.065***	0.084*	0.046*
	(0.004)	(0.004)	(0.048)	(0.025)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes
Observations	32,394	32,394	29,646	29,646
Adjusted R-squared	0.779	0.779	0.335	0.478

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$