Cabinet Office

ESRI Research Note No.96

ESG and Cost of Equity: Evidence from a "Latecomer" Country

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March 2026

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ESG and Cost of Equity: Evidence from a “Latecomer” Country[1]

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Abstract

This paper examines whether strong Environmental, Social, and Governance (ESG) stances reduce the cost of equity for Japanese listed firms, a crucial incentive for ESG adoption. Using data from 2016 to 2023, we find that a one-point improvement in a firm’s Environmental score reduces its cost of equity by at least 0.3 percentage points. This effect may have intensified in more recent years as ESG investment expanded in Japan. To address potential endogeneity in ESG scores stemming from latent managerial quality or firm profitability, we employ a novel instrumental variable: the decade-lagged industry- and country-level average Environmental scores of listed firms of G7 countries excluding Japan, which is a “latecomer” in the ESG movement. Our findings contribute to the ongoing debate on the financial implications of ESG.

JEL Classification: G14, G32, Q55.
Keywords: ESG, Cost of equity, Japan

[1] We are grateful to Hiroshi Nomura, Shuichi Matsuta, Yosuke Tada, Miho Matsushita, and Takafumi Suzuki at the ESRI Seminar. We also extend our gratitude to Takeshi Osada and the participants of the Japan Society of Monetary Economics Seminar, and James Paterson and the staff at the Japan Research Institute, Limited, for their helpful comments and suggestions. The views expressed in this study are those of the authors and do not necessarily reflect the position of the ESRI, the Cabinet Office, or the Government of Japan. Any remaining errors are our own.
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I. Introduction

The global push for sustainable economic growth highlights the importance of integrating Environmental, Social, and Governance (ESG) into ordinary business activities.[2] A growing literature on the impacts of ESG suggests that firms adopting ESG practices are crucial for national development (Zhou et al. 2020; Wang et al. 2023). However, implementing ESG practices often incurs upfront costs (McWilliams and Siegel 2001), which may discourage corporate managers who often focus on short-term profit to adopt ESG practices (Cheng et al. 2014; Bénabou and Tirole 2010). Hence, it is critical for our society to obtain knowledge about effective incentives that prompt many firms to adopt ESG.

Policymakers and business federations in Japan are increasingly viewing ESG-driven investment by institutional investors in Japan such as the Government Pension Investment Fund (GPIF) as a way to promote corporate ESG adoption. Since the mid-2010s, there has been a notable trend of increasing capital flows from these investors to the listed firms in Japan with strong ESG performance. Therefore, we empirically examine whether such firms benefit from lower cost of equity by attracting funds from institutional investors, and if any, quantify this effect.

Our main findings are threefold. First, there is a negative association between Environmental scores (indicating a firm’s environmental policy stance) of Japanese listed firms and their cost of equity. Second, both the statistical significance and the magnitude of this association seem to be intensified in recent years, as ESG investment expanded in Japan. Third, based on our instrumental variable estimate, a one-point improvement in a firm’s Environmental score would lead to at least a 0.3 percentage point reduction in its cost of equity.

This paper makes three contributions. First, with a unique instrument, we provide empirical evidence that, within the broader ESG framework, a firm’s environmental stance causally reduces their cost of equity. This adds new knowledge to a limited body of research on the impacts of ESG adoption. Scholarly opinion is divided: some researchers argue for positive financial impacts, suggesting that strong ESG performance reduces firm-specific risk, and mitigates information asymmetry (Irawan and Okimoto 2022; Yu et al. 2018; Cek and Eyupoglu 2020; Okimoto and Takaoka 2024; Dhaliwal et al. 2011). Others suggest no link or even negative effects on financial performance, pointing to ESG-related costs, managerial discretion, or agency problems that may erode firm value or signal inefficiency (Duque-Grisales and Aguilera-Caracuel 2021; Kim and Cho 2025; Di Giuli and Kostovetsky 2014).

Second, we find that the magnitude of these reducing effects depends on specific ESG pillars and the periods. Our empirical results indicate that the capital-cost reduction effects appear only when institutional investors show interest in ESG investment. This highlights that investors’ preferences are crucial to the effects of ESG on financial performance such as cost of equity.

Out third contribution is a technical one. We propose a novel and robust instrumental

[2] In this study, we treat ESG and Corporate Social Responsibility (CSR) as equivalent. See Gillan et al. (2021) for a discussion on the evolution of ESG from CSR as a broader integration framework for investors.

variable to the research field on ESG impacts. Drawing on the identification strategy of Acemoglu and Restrepo (2020), we instrument Japanese firms' ESG scores using the historical ESG stances of industry peers in the other G7 countries. As early leaders of the ESG movement, these foreign peers' decade-old ESG practices provide exogenous variation in industry-level standards, allowing for a rigorous estimation of the causal impact on financial outcomes.

The rest of this paper is structured as follows. Section II provides background on ESG investment and Japanese listed firms' ESG stances. Section III explains our data and empirical methodology. Section IV provides the estimation results. Section V concludes the paper.

II. Background

The Japanese government has actively championed ESG investment. In February 2014, the Financial Services Agency (FSA) introduced the "Principles for Responsible Institutional Investors (Japan's Stewardship Code)" to foster sustainable corporate growth through investment and dialogue. This initiative was substantiated by a strong commitment to ESG investment by the GPIF, which signed the UN Principles for Responsible Investment (PRI) in September 2015.

Consequently, as depicted in Figure 1, the ESG-related investment assets of Japanese institutional investors normalized as a share of nominal GDP have seen a remarkable surge since 2016. In 2014, these assets were almost nil. In 2022, the ESG-related investment assets of Japanese institutional investors rivaled those in Europe and Canada. Furthermore, Figure 2 illustrates a steady increase in Japanese equity assets as a share of nominal GDP held by these investors, exceeding 25% by 2024. This trend indicates that the financial management of Japanese listed firms in 2024 was significantly more influenced by ESG investment than in the past.

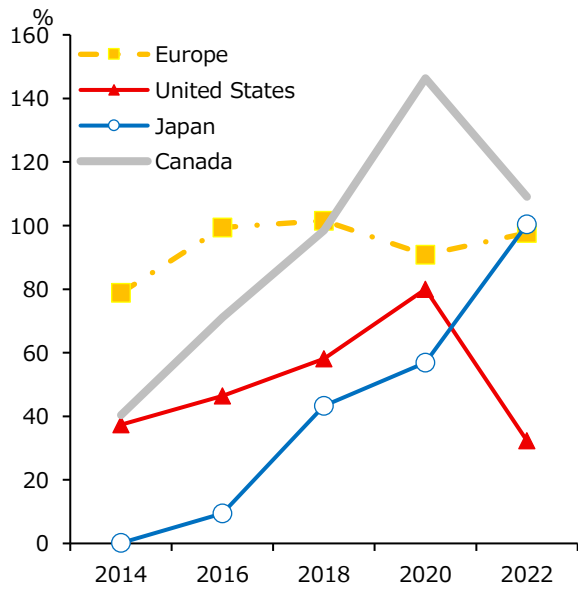

Figure 1 Global Sustainable Investment Assets (% of Nominal GDP)
Source: Global Sustainable Investment Alliance.
Note: In the U.S., there is a discontinuity between 2020 and 2022 due to changes in the aggregation methodology.

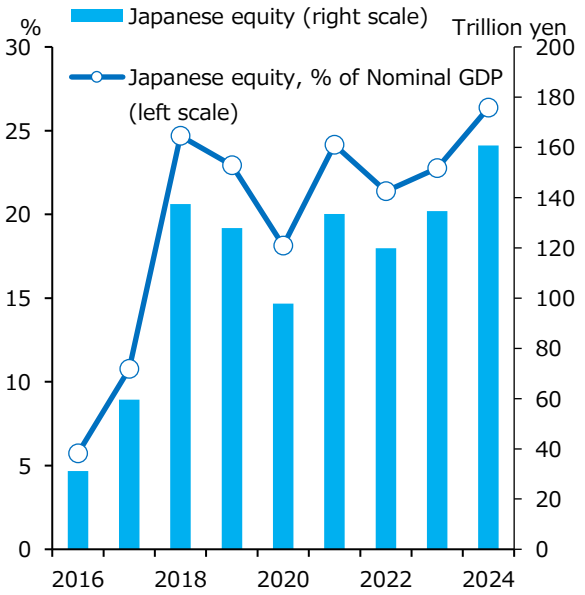

Figure 2 ESG Investment in Japanese Equities by Institutional Investors in Japan
Sources: Cabinet Office in Japan; Japan Sustainable Investment Forum; Authors' calculations.

Under these circumstances, Japanese listed firms have demonstrably improved their ESG stances reflecting ESG scores since 2015. Figure 3A, which tracks the average ESG score of all listed firms across G7 countries, reveals that Japan's ESG performance lagged, ranking second to last among G7 nations until approximately 2014. European countries show sharp increases in their ESG scores during the first half of the 2010s. However, after about five years of stagnation in the early 2010s, the Japanese ESG score began to rise in 2015, climbing by 10 points from 42 points in 2014 to 52 points in 2023. This increase is led by Environmental and Social scores described by Figure 3B and 3C. During this same period, countries like Germany, the UK, the US, and Canada experienced a significant slowdown in their ESG improvement. As a result, by 2023, Japan had ascended to a mid-tier position among the G7 in terms of ESG scores.

III. Empirical Design and Data

Our empirical analysis proceeds in two steps. First, we examine the association between ESG scores and the cost of equity. In the second step, we address the causality of this relationship.

A. Empirical Model

OLS Estimate: Association between ESG Scores and Cost of Equity

To investigate the association between a firm's ESG performance and its cost of equity, we estimate the following empirical model using ordinary least squares (OLS):

$$COE_{i,t} = \beta_{ESG} ESG_{i,t-1} + \phi_t + \theta_i + \boldsymbol{\Lambda}' \boldsymbol{X}_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $COE_{i,t}$ represents the cost of equity for Japanese firm i in year t. $ESG_{i,t-1}$ is the ESG score of firm i in year $t-1$ and ϕ_t captures year fixed effects to absorb macroeconomic shocks, and θ_i accounts for firm fixed effects. $\boldsymbol{X}_{i,t}$ is a vector of control variables, and $\boldsymbol{\Lambda}$ is the corresponding vector of coefficients. $\varepsilon_{i,t}$ is a random error term. Our primary coefficient of interest is β_{ESG}, and if β_{ESG} is negative, then an improvement of the ESG score is associated with a decline in the cost of equity.

We disaggregate the ESG score into its three constituent pillars, Environmental, Social, and Governance score, to examine each individual pillar's association with the cost of equity. Such disaggregation would provide economically useful information because each pillar indicates fundamentally different issues (Honda and Ito 2023).[3] In the disaggregated analyses, we replace $ESG_{i,t-1}$ in Equation (1) with $Env_{i,t-1}$, $Soc_{i,t-1}$, or $Gov_{i,t-1}$ representing firm i's Environmental, Social, and Governance score in year $t-1$, respectively. Their corresponding coefficients are β_{Env}, β_{Soc}, or β_{Gov}.

[3] Honda and Ito (2023) argues that economically, E, S, and G represent fundamentally distinct issues, making their unified discussion groundless. E pertains to international public goods, S to social norms and mechanism design, and G to firm-level issues—each requiring entirely different analytical frameworks and policy implications.

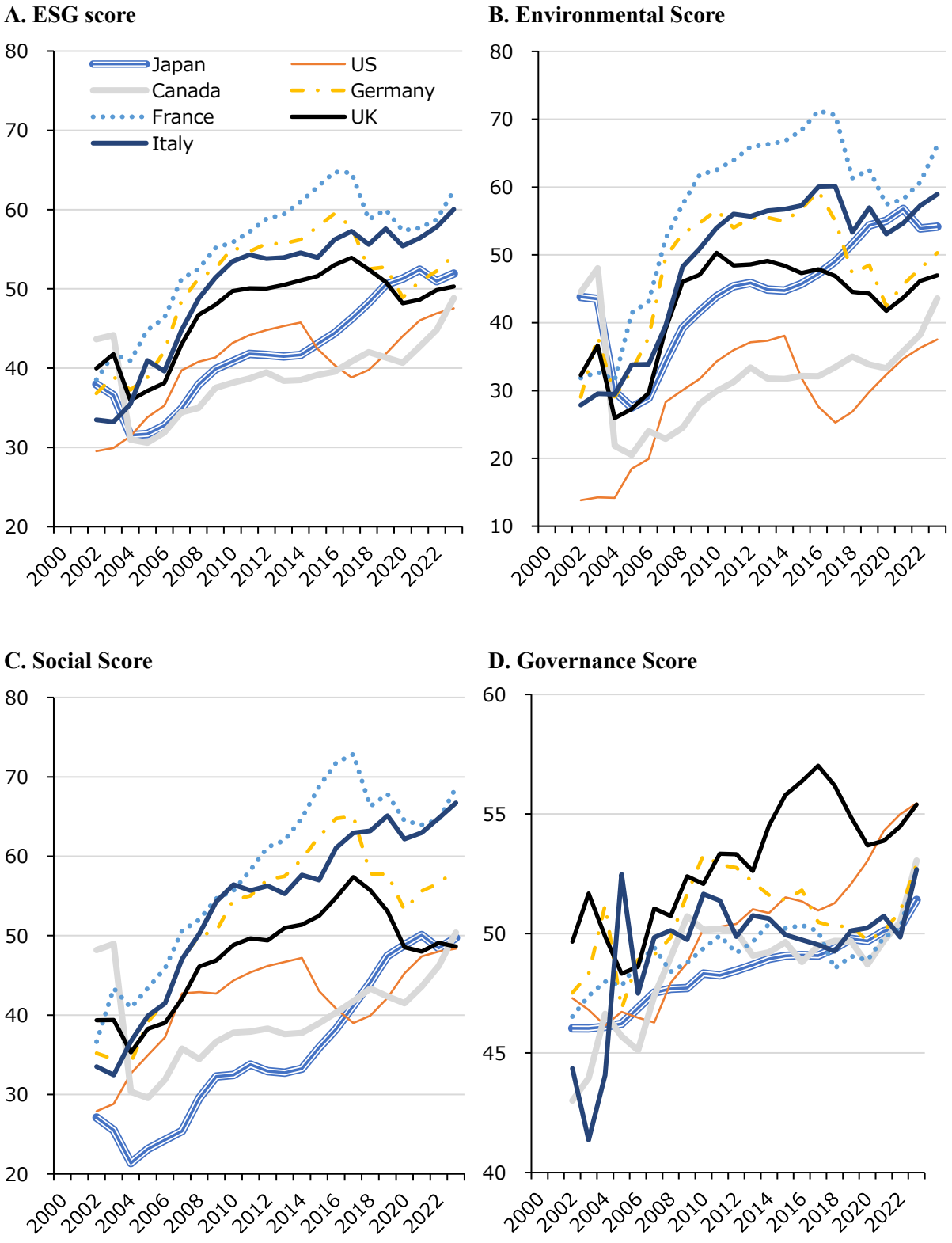

Figure 3 ESG score and its three pillars by G7 country

Source: LSEG.
Note: Average ESG score of all listed firms by country.

IV estimate: Causality

The ESG scores, including their individual pillars, may be endogenous in Equation (1). This endogeneity arises if unobserved factors, such as superior management quality, simultaneously lower the cost of equity through reduced risk premiums and enhance a firm's capacity or willingness to pursue ESG policies. To address this potential endogeneity and establish causality, we estimate Equation (1) using an instrumental variable (IV) for the ESG score and its pillars. Our IV, denoted as Z, is the decade-lagged (i.e., $t-10$), industry- and country-level averaged ESG score across the listed firms in the six G7 countries other than Japan. This is formally expressed as:

$$Z_{i\in s,t}^{ESG} = \frac{1}{6}\sum\nolimits_{c\in C}\left[\frac{1}{|F_{s,c}|}\sum\nolimits_{f\in F_{s,c}} ESG_{f,t-10}\right]$$

where $F_{s,c}$ represents a set of listed foreign firms, f, in industry s and G7 country c other than Japan at time $t-10$. $|F_{s,c}|$ stands for the number of firms in $F_{s,c}$. Note that our instrument for the ESG score and its three pillars are, $Z_{i\in s,t}^{ESG}$, $Z_{i\in s,t}^{Env}$, $Z_{i\in s,t}^{Soc}$, and $Z_{i\in s,t}^{Gov}$, respectively.

An appropriate IV should meet the two fundamental conditions: the exclusion restriction, $Cov\left(Z_{i\in s,t}, \varepsilon_{i,t}\right) = 0$, and the relevance condition, $Cov\left(Z_{i\in s,t}, ESG_{i,t-1}\right) \neq 0$. $Z_{i\in s,t}^{ESG}$, $Z_{i\in s,t}^{Env}$, $Z_{i\in s,t}^{Soc}$, and $Z_{i\in s,t}^{Gov}$ satisfy the exclusion restriction because each score of decade-ago foreign firms is unlikely to directly influence the current cost of equity of the Japanese firms. Fortuitously, slower ESG adoption by Japanese firms relative to the other G7 countries helps satisfy the exclusion restriction.

The relevance condition, however, can be maintained only in the case of $Z_{i\in s,t}^{Env}$ and $Env_{i,t-1}$. To state the result first, as demonstrated by Figure 4 (and Table 6: First-stage regression results), the correlation between Japanese firms' Environmental scores and their corresponding IVs looked strong enough, but all correlations between the ESG, Social, and Governance scores and their corresponding IVs seemed weak. Thus, we admit that only the impact of Environmental score on the cost of equity has a reliable causal interpretation.

B. Data

We collect firm-level financial statements, stock prices, and expected dividend payments from Bloomberg. The cost of equity and the following eight control variables were either directly retrieved or calculated using data from Bloomberg. The control variables are eight firm-specific characteristics, namely BETA, SIGMA, SIZE, BTM, LEV, IOWN, FDISP, and LTG (see Table 1 for definitions), commonly employed in the literature (e.g., El Ghoul et al. 2018; Breuer et al. 2018).

ESG scores and their constituent pillars were obtained from the database of LSEG Data & Analytics, a financial markets data and infrastructure division of the London Stock Exchange Group plc. ESG scores are widely recognized and have been extensively used in prior academic research to analyze firms' ESG stances, along with their predecessors such as Thomson Reuters Asset 4 (e.g., Okimoto and Takaoka 2024; Wang, Yu, and Zhong 2023; Irawan and Okimoto 2022; Zhou et al. 2020; Eccles, Ioannou, and Serafeim 2014; Ioannou and Serafeim 2012).

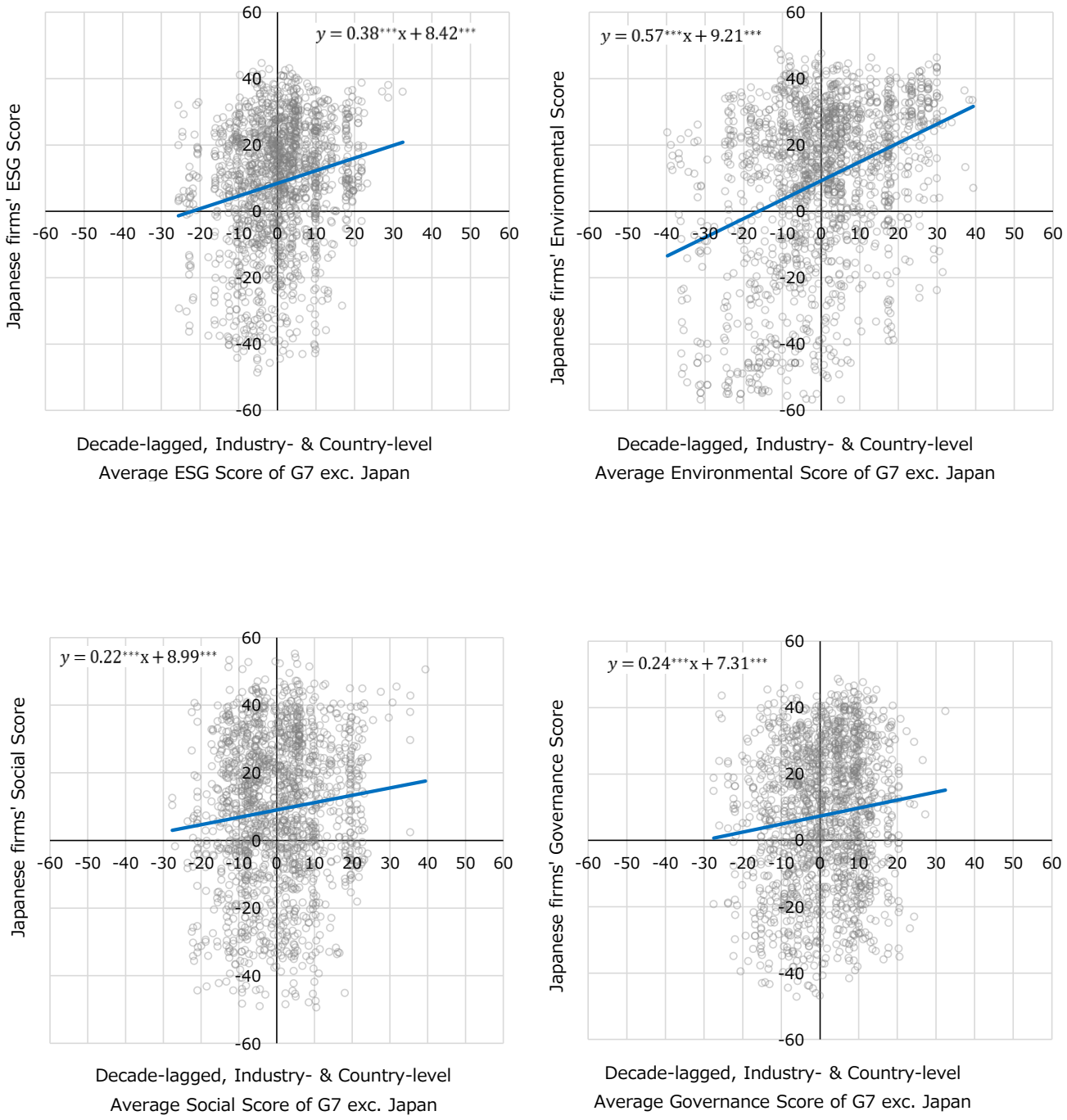

Figure 4 Correlation between Japanese Firms' ESG Scores and the decade-lagged, industry- and country-level average ESG score of listed firms in G7 countries except for Japan.

Source: LSEG.
Note: *** p<0.01.

Table 1 provides detailed definitions of all variables, and Table 2 presents the summary statistics for all the variables used in our estimation. Note that we demean the ESG score by subtracting the annual average of ESG score of all firms to account for an observed upward trend in raw scores. We utilize a one-year lag for the ESG score to reflect the typical one-year reporting and calculation lag inherent in the LSEG data.

Our instrument, the decade-lagged, industry- and country-level averaged ESG score of G7 countries except for Japan, was also from the database of LSEG Data & Analytics. This IV was matched to Japanese firms using industry identifiers. For instance, the IV for Toyota’s Environmental score in 2022 is the 2013 Environmental score of foreign firms within the automobile industry.

Table 1 Variable definitions.

Type	Variable	Definition	Source
Dependent	COE	Ex ante cost of equity implied by the dividend discount model Obtained by summing ex ante dividend yield and expected dividend growth rate. Note that the expected dividend growth rate is proxied by the sustainable growth rate (=ROE×(1-Dividend Payout Ratio)).	Authors' calculations based on Bloomberg data
Independent (endogenous)	ESG	ESG Score	LSEG
	Env	Environmental Score	LSEG
	Soc	Social Score	LSEG
	Gov	Governance Score	LSEG
Controls	BETA	Coefficient obtained from the regression of weekly stock returns on market returns over the past five years	Authors' calculations based on Bloomberg data
	SIGMA	Annualized standard deviation from daily stock returns over the previous 360 days	Bloomberg
	SIZE	Natural logarithm of total assets	Authors' calculations based on Bloomberg data
	BTM	Book value to the market value of equity Obtained by inverting the price-to-book ratio (PBR)	Authors' calculations based on Bloomberg data
	LEV	Ratio of long-term debt to total assets	Authors' calculations based on Bloomberg data
	IOWN	Percentage of closely held shares	Bloomberg
	FDISP	Forecast dispersion measured as the coefficient of variation of 1-year-ahead earnings forecasts Obtained by taking the ratio of the standard deviation to the mean of 1-year-ahead EPS forecasts	Authors' calculations based on Bloomberg data
	LTG	Consensus long-term growth forecast	Bloomberg

Table 2 Summary statistics.

A. 2016-2023.

Variable	N	Mean	Median	SD	Min	Max
COE	1,677	8.5	8.4	10.1	-119	110
ESG	1,677	8.9	11.9	18.8	-49	45
Env	1,677	9.6	15.9	24.5	-57	49
Soc	1,677	9.4	11.5	21.9	-49	55
Gov	1,677	7.7	9.8	21.3	-47	49
BETA	1,677	1.1	1.1	0.5	-1	3
SIGMA	1,677	31.5	30.8	7.3	13	66
SIZE	1,677	14.5	14.3	1.6	10	20
BTM	1,677	0.9	0.8	0.6	0	4
LEV	1,677	0.1	0.1	0.1	0	1
IOWN	1,677	1.0	0.1	3.9	0	46
FDISP	1,677	0.1	0.1	0.4	-5	16
LTG	1,677	10.8	8.5	17.6	-94	182
Instrument for ESG	1,631	0.4	0.4	9.5	-26	32
Instrument for Env	1,631	0.1	-0.4	14.6	-40	39
Instrument for Soc	1,631	0.2	0.0	10.7	-28	39
Instrument for Gov	1,631	1.0	1.5	9.8	-28	32

B. 2010-2015.

Variable	N	Mean	Median	SD	Min	Max
COE	1,218	7.1	7.0	9.6	-161	106
ESG	1,218	5.2	7.4	19.9	-38	51
Env	1,218	5.5	10.1	28.3	-46	55
Soc	1,218	4.7	4.3	22.0	-33	57
Gov	1,218	5.2	6.5	23.1	-43	50
BETA	1,218	1.0	1.0	0.5	-1	3
SIGMA	1,218	32.1	32.0	7.1	13	61
SIZE	1,218	14.1	13.9	1.4	10	19
BTM	1,218	0.9	0.8	0.4	0	3
LEV	1,218	0.1	0.1	0.1	0	1
IOWN	1,218	1.0	0.1	3.8	0	52
FDISP	1,218	0.1	0.1	0.5	-5	11
LTG	1,218	14.3	10.4	24.4	-302	174

Note: ESG, E, S, and G are demeaned by year. “Instrument” is the decade-lagged, industry- and country-level averaged Environmental, Social, or Governance score of listed firms in G7 countries except for Japan.

IV. Estimation Results

Columns (1)–(4) of Table 3 present the results of the OLS regression for Equation (1) over the 2016–2023 with the key variables of $ESG_{i,t-1}$, $Env_{i,t-1}$, $Soc_{i,t-1}$, and $Gov_{i,t-1}$, respectively. These results indicate a negative association solely between the Environmental score and the cost of equity. This implies that a one-point improvement in the Environmental score is correlated with a 0.07 percentage point decline in the cost of equity. No statistically significant associations are observed for the ESG, Social or Governance pillars.

To explore the temporal stability of these relationships, Table 4 presents the OLS regression results, estimated over the 2010–2015 period, when ESG investment of institutional investors in Japan was not active. During this timeframe, the association between the Environmental score and the cost of equity was insignificant[4]. This implies the link between a firm’s environmental policy stance and its equity funding costs have strengthened in more recent periods. This phenomenon could be driven by the increasing awareness and integration of ESG factors into institutional investment in Japan as indicated in Figure 2.

As discussed above, the ESG score in Equation (1) may be an endogenous independent variable. To address this concern, we employ an instrumental variable (IV) estimation. As reported in Table 5, we find that only the Environmental score exerts a significant negative effect on the cost of equity. The estimated coefficient of -0.88 indicates that a one-unit improvement in the Environmental score reduces the cost of equity by approximately 0.9 percentage points—a magnitude more than ten times larger than the corresponding OLS estimate in Table 3.

Furthermore, the regression-based test for endogeneity (Wooldridge 2010, pp. 131–134) strongly rejects the null hypothesis that the Environmental score is exogenous, confirming the presence of significant endogeneity. These findings suggest that exogenous improvements in environmental policies—distinct from general managerial excellence—effectively reduce the cost of equity.

The first-stage regression results, presented in Table 6, reveal a significant positive correlation between the Environmental score and its instrument, providing preliminary support for the relevance condition. Following the diagnostic framework of Andrews et al. (2019), we evaluate the Kleibergen-Paap Wald rk F-statistic to assess instrument strength. For the Environmental score, the F-statistic of 12.88 exceeds the conventional rule-of-thumb threshold of 10 but falls below the stringent Stock and Yogo (2005) critical value of 16.38 required for a 10% maximal IV size. Moreover, under heteroskedasticity, Montiel Olea and Pflueger (2013) suggest a more rigorous threshold of approximately 23 for a single endogenous regressor.

[4] The correlation between the Social score and the cost of equity turns to be significant during 2010–2015, implying the more Japanese firms incorporate social practice into their operations, the higher cost of equity they might face.

Table 3 OLS estimation results.

Dependent variable: COE				
Variables	(1)	(2)	(3)	(4)
ESG	-0.03			
	(0.04)			
Env		-0.07*		
		(0.03)		
Soc			-0.03	
			(0.04)	
Gov				0.01
				(0.03)
BETA	0.54	0.61	0.53	0.47
	(1.67)	(1.69)	(1.67)	(1.64)
SIGMA	0.30**	0.29*	0.30**	0.30**
	(0.15)	(0.15)	(0.15)	(0.15)
SIZE	-0.23	-0.06	-0.18	-0.35
	(4.98)	(4.94)	(4.84)	(4.98)
BTM	-3.61**	-3.55**	-3.58**	-3.64**
	(1.42)	(1.40)	(1.44)	(1.41)
LEV	-47.36***	-47.01***	-47.36***	-47.13***
	(15.22)	(15.13)	(15.18)	(15.19)
IOWN	0.06	0.04	0.05	0.04
	(0.19)	(0.19)	(0.20)	(0.19)
FDISP	-1.93**	-1.93**	-1.96**	-1.96**
	(0.88)	(0.87)	(0.85)	(0.86)
LTG	-0.05	-0.04	-0.05	-0.05
	(0.03)	(0.03)	(0.03)	(0.03)
Observations	1,677	1,677	1,677	1,677
Adjusted R-Squared	0.122	0.125	0.122	0.122
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Notes: The robust standard errors, adjusted for clustering by firm, are shown in parentheses below each coefficient estimate. * p<0.10, ** p<0.05, *** p<0.01. Sample periods: 2016–2023.

Table 4 OLS estimation results by periods.

Dependent variable: COE	Sample periods	
Variables	2010–2015	2016–2023
Env	0.03	-0.07*
	(0.05)	(0.03)
Soc	0.07*	-0.03
	(0.04)	(0.04)
Gov	-0.01	0.01
	(0.02)	(0.03)
Observations	1,218	1,677
Controls	YES	YES
Firm FE	YES	YES
Year FE	YES	YES

Notes: The robust standard errors, adjusted for clustering by firm, are shown in parentheses below each coefficient estimate. * p<0.10, ** p<0.05, *** p<0.01.

Table 5 IV estimation results.

Dependent variable: COE				
Variables	(1)	(2)	(3)	(4)
ESG	56.85			
	(941.10)			
Env		-0.88**		
		(0.34)		
Soc			-0.86	
			(4.68)	
Gov				4.64
				(9.56)
BETA	-121.10	2.40	2.35	-4.19
	(2018.00)	(1.78)	(9.24)	(12.08)
SIGMA	6.80	0.19	0.26	0.85
	(107.75)	(0.13)	(0.26)	(1.19)
SIZE	-197.67	3.09	3.88	-11.26
	(3266.80)	(4.02)	(24.65)	(25.26)
BTM	-94.63	-2.46	-1.02	-2.04
	(1502.52)	(1.59)	(14.54)	(6.85)
LEV	114.91	-44.60***	-50.35**	-5.86
	(2728.98)	(13.68)	(20.01)	(94.75)
IOWN	-10.51	-0.13	0.08	-2.73
	(174.74)	(0.27)	(0.33)	(5.77)
FDISP	-10.88	-1.86***	-2.60	-8.06
	(150.26)	(0.68)	(3.77)	(12.92)
LTG	-1.21	-0.03	-0.04	-0.19
	(19.28)	(0.03)	(0.04)	(0.32)
Regression-based test for endogeneity	5.97**	9.58***	0.05	5.30**
	(0.01)	(0.00)	(0.82)	(0.02)
Kleibergen-Paap Wald rk F statistic	0.00	12.88	0.08	0.24
Observations	1,570	1,570	1,570	1,570
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Notes: Each of the ESG, Environmental, Social, Governance score is instrumented by the decade-lagged, industry- and country-level averaged Environmental, Social, or Governance score of listed firms in G7 countries except for Japan. The robust standard errors, adjusted for clustering by firm, are shown in parentheses below each coefficient estimate. * p<0.10, ** p<0.05, *** p<0.01.

With a potentially weak identification, we conduct the Anderson-Rubin (AR) test to evaluate the statistical significance of our coefficient estimates, following Andrews et al. (2019). The AR test—which remains valid regardless of instrument strength—robustly rejects the null hypothesis that the Environmental score has no impact on the cost of equity. The associated 95% AR confidence set is [-2.1, -0.3], which strictly excludes zero. This indicates that a one-unit increase in the Environmental score leads to a reduction in the cost of equity of at least 0.3 percentage points, confirming the economic significance of our results even under weak identification.

Table 6 First-stage regression results and Anderson-Rubin test.

	Endogenous variable			
	ESG	Env	Soc	Gov
Instrument for ESG	-0.00 (0.06)			
Instrument for Env		0.18*** (0.05)		
Instrument for Soc			0.02 (0.06)	
Instrument for Gov				-0.02 (0.05)
Observations	1,570	1,570	1,570	1,570
Controls	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Kleibergen-Paap Wald rk F statistic	0.00	12.88	0.08	0.24
Anderson-Rubin test (F)		9.77***		
95% Confidence Set		[-2.06,-0.34]		

Notes: “Instrument for ESG,” “Instrument for Env,” “Instrument for Soc,” and “Instrument for Gov” is the decade-lagged, industry- and country-level averaged Environmental, Social, or Governance score of listed firms in G7 countries except for Japan. The robust standard errors, adjusted for clustering by firm, are shown in parentheses below the coefficient of the instrument. * p<0.10, ** p<0.05, *** p<0.01.

V. Discussion and Conclusion

This study investigates whether a firm’s ESG stance is associated with, and moreover causally affects, its cost of equity. Our IV analyses employ the decade-lagged industry- and country-level averaged Environmental scores of G7 countries other than Japan as an instrument for a firm’s Environmental score. The results imply that one point improvement in a firm’s Environmental score reduces its cost of equity by at least 0.3 percentage points, though we can detect no impacts from any other scores.

In addition, the magnitude of this favorable impact appears to be contingent on the level of institutional investors’ interest in ESG investment within Japan. Specifically, the observed equity funding cost-reducing effects of a higher Environmental score is statistically insignificant in the analyses with sub-periods when ESG investment had not gained substantial traction in Japan. This suggests that the financial benefits of active environment-related performance could be more pronounced when there is robust market demand from institutional investors for such considerations. This finding underscores the critical role of institutional investors preferences—and the policies influencing them—in shaping corporate financing outcomes related to sustainability.

Funding: This study received no external funding.

Conflicts of Interest: The authors declare no conflicts of interest.

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