



Sustainability Practices in Latin America: Does ESG Reduce the Cost of Capital?

Prácticas de sostenibilidad en América Latina.

¿Reducen los factores ASG el costo de capital?

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Abstract

This article examines the relationship between Environmental, Social, and Governance (ESG) performance and the cost of capital in a sample of public companies from Argentina, Brazil, Chile, Colombia, Mexico, and Peru. The panel data regressions focus on 181 entities from 2015 to 2023. Moreover, an analysis that includes the combined and pillar scores as independent variables explores the dynamics of the ESG dimensions across different capital sources. The regression estimations with economic sector and year fixed effects highlight that ESG performance reduces the cost of capital and its stock component. Specifically, environmental and social categories drive a lower cost for both. The findings confirm that ESG practices are drivers of a lower cost of capital and cost of equity, creating long-term value in the Latin American region.

Resumen

Este artículo estudia la interacción del costo de capital con el desempeño de los factores de la dimensión Ambiental, Social y Gobernanza (ASG) en una muestra de empresas públicas argentinas, brasileñas, chilenas, colombianas, mexicanas y peruanas. Las regresiones de datos panel concentran 181 entidades de 2015 a 2023. Además, se efectuó un análisis que incluye el puntaje combinado y por pilares para explorar las dinámicas de las dimensiones ASG con las diferentes fuentes de capital. Las estimaciones de las regresiones con efectos fijos por sector económico y año indican que el desempeño ASG reduce el costo de capital y su componente accionario. Específicamente, las categorías ambiental y social impulsan un menor costo en ambos. Estos hallazgos confirman las prácticas ASG como impulsoras de un menor costo de capital y de su componente accionario, creando valor en el largo plazo en la región de Latinoamérica.

KEYWORDS / PALABRAS CLAVE

ESG performance, cost of capital, Latin America, ESG pillars, sustainability / Desempeño ASG, costo del capital, América Latina, factores ASG, sostenibilidad.

JEL Classification / Clasificación JEL: C33, C58, G32, G41.

1. Introduction

For years, companies worldwide have been increasingly interested in disclosing sustainability information across three categories: Environmental, Social, and Governance (ESG) (Khanchel & Lassoued, 2022). Latin America is not an exception to this trend, despite its lower sustainable disclosure rate compared to other regions (KPMG, 2023).

The concept of sustainability has evolved over time and is now a strategy that integrates Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) metrics (Van Holt & Whelan, 2021). Moreover, CSR has still different approaches (Javed et al., 2020). However, in 2021, it was defined “as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (EC, 2001, p. 6).

Regarding the ESG metrics, the United Nations’ initiatives influenced their development. For example, the initiation of the Who Cares Wins conference in 2015 helped align enterprises and financial actors with ESG investment principles to promote value creation over time (UNGC, 2004).

The relationship between sustainability performance and financial performance is a significant academic area with numerous studies (Huang, 2021; Orlitzky et al., 2003). More specifically, the impact of sustainability on the cost of capital, as measured by ESG or pillar performance, is relevant for researchers due to the interest of public companies in raising capital at lower interest and return rates. Few studies have analyzed this relationship in the region or in specific countries and show an adverse effect.

The study in the Latin American context is fourfold relevant. First, regional characteristics such as social inequality, poverty, deforestation, water pollution, and greenhouse gas emissions (De Souza et al., 2024) require urgent attention, and public companies play an irreplaceable role in addressing these challenges through sustainability practices. Second, public companies for emerging economies require capital funds to gain worldwide competitiveness, and a lower risk is relevant for investment decisions. Third, the ownership concentration of Latin American public companies and institutional factors (Lavin & Montecinos-Pearce, 2022) provide a specific context for studying this relationship. Furthermore, since the recent introduction of related ESG regulations in the region, new studies with additional data will contribute to this academic vein (Possebon et al., 2024).

This research analyzes the performance of ESG and pillar dimensions as drivers to decrease the cost of raising funds, with the aim of understanding the sustainability dynamics in Latin America. The actual gap is to identify, in a pillar-based approach, the effect of sustainability on the cost of raising funds and on each of its components in recent years (Ramirez et al., 2022). Moreover, the article identifies different impacts on each component. The study contributes valuable insights to the literature, specifically for emerging markets.

The sample comprises public companies from Argentina, Brazil, Chile, Colombia, Mexico, and Peru, encompassing a dataset of 181 entities from 2014 to 2023. The econometric models are economic sector-year fixed effects panel data regressions, pooled or with firm random-effects. Their outcomes highlight the ESG, environmental, and social scores as drivers for decreasing the cost of raising overall funds, specifically the equity component. These conclusions support the legitimacy and signaling theories because a better sustainability performance, specifically the social and environmental pillar performance, is linked to lower information asymmetries and risk for investors. In this way, investors expect lower returns (Pástor et al., 2022). Nonetheless, the governance dimension increases the cost of external funds, which aligns with the trade-off theory.

The results have numerous practical implications for managers, shareholders, stakeholders, the government, institutional investors, financial institutions, and academia. The improvement of sustainable practices by all these groups results in a lower cost of equity and increased corporate value creation (Rojo-Suárez et al., 2024).

The following sections present the literature review that sets the hypotheses, followed by an explanation of the database and methodology. The final sections of the paper present a thorough analysis of the results and draw general conclusions.

2. Literature Review

This section has four stages. First, the theoretical framework regarding the linkage between sustainability and financial indicators. Second, the Latin American challenges around the ESG pillars. Third, the previous findings regarding the study motivation and the definition of hypotheses. Finally, how the hypotheses were formulated based on the theories and previous empirical studies.

2.1 Theoretical Framework

In 1970, Friedman posited the shareholders' interest as the principal objective for business success (Friedman, 2007). From the perspective of the trade-off theory, the costs associated with ESG initiatives can negatively impact firms' profitability (Dua & Sharma, 2024). Subsequently, other theories reshaped the understanding of business purpose and the approach to ESG initiatives.

The first one, stakeholder theory, integrates all groups with an interest in the company into its corporate strategy to create company's long-term value (Freeman, 2004). The legitimacy theory indicates that companies must understand and fulfill societal expectations through specific firm strategies and disclosures to validate their operations. This notion is relevant to business success over time, and sustainable disclosure validates the business' operations (Velte, 2022). Finally, the signaling theory refers to the linkage between the signs sent to the market and investment decisions (Wahl et al., 2020).

In summary, the stakeholder, legitimacy, and signaling theoretical frameworks support the notion that sustainable performance in business yields financial benefits, primarily in the long term (Schoenmaker & Schramade, 2019).

From another perspective, agency theory posits that information asymmetries between managers and shareholders necessitate monitoring and bonding costs (Jensen & Meckling, 1976), which ultimately decrease firm value. Conversely, sustainable performance enhances transparency and reduces agency costs (Arévalo et al., 2024).

2.2 Challenges in Latin America Regarding the ESG Pillars

Latin America is a region facing diverse challenges across the ESG dimensions. The 2025 Regional Human Development Report highlights several of them. In the environmental pillar, the region is experiencing rising temperatures, an increase in natural disasters linked to climate change, and a growing pressure on the water supply. In the social pillar, issues include social fragmentation driven by inequality and the presence of organized crime. In the governance pillar, the erosion of public trust remains a critical concern (UNDP, 2025).

The Organization for Economic Cooperation and Development (OECD) highlights poverty, informal work, and lower productivity. Additionally, it notes that the advancement towards the Sustainable Development Goals in Latin America is

insufficient to achieve them by 2030, requiring more sustainable investment (OECD et al., 2024; UN DESA, n.d.).

Sustainability dimensions may help alleviate these urgent challenges.

2.3 ESG and Cost of Capital

Public companies raise funds through stock issues, bond issues, or bank loans. Each of these sources has a specific cost and may be proportionally weighted. The stock's return is related to investors' expectations and future flow estimations. The cost of external funds depends on the interest payments to banks and bondholders. In both cases, a lower risk profile plays a crucial role in lower rates (Atan et al., 2018).

Firm market value drivers are a lower cost of raising funds and higher dividend flows (Rojo-Suárez et al., 2024). Green stocks may exhibit higher ex post returns due to increased demand for green assets or products, but potentially lower rates in the future (Pástor et al., 2022). Another study confirms that shareholders receive lower earnings, while companies and society benefit (Cornell, 2021).

Numerous articles in various contexts provide valuable insights into the relationship of interest, yielding divergent results: positive, negative, or indeterminate impact (Postiglione et al., 2024).

An article suggests that the CSR disclosure effect varies across different time periods in S&P 500 companies. In the long term, social and governance reporting increases the overall rate of raising funds, and environmental disclosure has no effect on it (Khanchel & Lassoued, 2022). The environmental and governance categories have a negative impact on the cost of equity in a dataset of 3000 companies (Ng & Rezaee, 2015).

In Europe, ESG indicators, except for the governance dimension, are associated with a lower cost of capital, but only in places with low regulatory frameworks (Priem & Gabellone, 2024). In the United Arab Emirates, ESG reporting and the environmental and governance dimensions decrease it (Ellili, 2020). In Italy, environmental disclosure by low- and medium-capitalization companies increases the cost of capital, except in the case of family enterprises (Gjergji et al., 2021).

Beyond developed economies, ESG certification decreases the cost of capital in Malaysia (Wong et al., 2021). Additionally, in India, sustainability performance decreases the cost of capital (Gupta & Aggarwal, 2024). Conversely, in ASEAN countries, ESG practices drive higher rates (Atan et al., 2018).

In Latin America, although the academic literature remains scarce, studies confirm that ESG performance decreases the cost of raising overall funds. One regional study finds this to be the case, with ESG and governance performance indicating the importance of transparency in businesses' activities (Ramirez et al., 2022). Additionally, empirical evidence indicates a decrease in stocks' costs when companies enhance their ESG disclosure and verify the data with external providers, particularly in the Latin American Integrated Market (MILA). These findings promote access to SRI funds and reduce negative externalities (Garzón Jiménez & Zorio-Grima, 2021).

In studies by country, a Chilean article shows a negative relationship with the cost of debt in a direct channel, but, in interaction with the proxy of growth opportunities, states a positive effect (Lavin & Montecinos-Pearce, 2022). In Brazil, the performance of the ESG and environmental pillars decreases the rates of raising overall funds (Possebon et al., 2024).

2.4 Hypotheses Statement

Divergences among the different studies are evident; therefore, further analysis is relevant. Specifically, in Latin America, the research gap lies in identifying the positive or negative interactions between sustainability's dimensions and the cost associated with raising funds. A previous study in the region analyzed the period from 2017 to 2019 due to data unavailability in previous years and the growing interest in sustainable reporting (Ramirez et al., 2022). Therefore, more studies of the past few years are necessary.

The research questions for the study motivation are:

1. Does ESG performance reduce the cost of raising funds in Latin America?
2. Do the individual ESG dimensions have different impacts on the cost of raising funds in this region?

The stakeholder, the legitimacy and signaling theoretical framework suggest that ESG performance may negatively impact the cost of capital. Consistent with these theories and previous results in the region, the hypotheses for this paper are the following:

- *H1*: ESG performance reduces the cost of capital.
 - The environmental category (*H1.a*), social category (*H1.b*), and governance category (*H1.c*) reduce the cost of capital.

- *H2*: ESG performance reduces the cost of equity.
 - The environmental category (H2.a), social category (H2.b), and governance category (H2.c) reduce the cost of equity.
- *H3*: ESG performance reduces the cost of debt.
 - The environmental category (H3.a), social category (H3.b), and governance category (H3.c) reduce the cost of debt.

3. Data and Methodology

3.1 Dataset

The sample includes Argentinean, Brazilian, Chilean, Colombian, Mexican, and Peruvian public companies, as used in other studies (Hluszko et al., 2024; De Souza et al., 2024). The database was obtained from LSEG, formerly Refinitiv, an international data provider (LSEG Data & Analytics, n.d.). The selection of public companies began with a filter of stock issuers with an address in the six Latin American countries, excluding the Financials sector—based on TRBC (The Refinitiv Business Classification)—, and resulted in 851 public companies in an unbalanced panel. Financial companies have different financial reporting and firm characteristics (Tawfiq et al., 2024).

The final sample was obtained in three stages. First, we selected 196 public companies with available yearly ESG data from 2018 to 2022 and yearly cost of capital data from 2019 to 2023. This period extends the analysis conducted in a previous study (Ramirez et al., 2022). The time frame is characterized by a growing trend in the annual ESG data while also encompassing the impact of the pandemic. Second, entities with negative equity were excluded (De Souza et al., 2024), and also those without price-to-book value ratio over the time span, resulting in a sample of 181 public companies. Third, as cost of capital data became available in 2015, the time series were extended from 2014 to 2023 to include all available data for the selected firms. Due to the sustainability indicator lagged, the regression analysis is from 2015 to 2023.

Table 1 summarizes The Refinitiv Business Classification economic sectors and countries in the sample (see Table 1).

Table 1. TRBC Economic Sectors of the Sample Distribution

Country	Academic / Educational Services	Basic Materials	Consumer Cyclicals	Consumer Non-Cyclicals	Energy	Health-Care	Industrials	Real Estate	Tech-nology	Utilities	Total
Argentina	0	4	3	7	3	1	5	2	3	8	36
Brazil	2	9	4	9	3	4	5	5	2	11	54
Chile	0	4	2	6	2	0	4	2	2	7	29
Colombia	0	1	0	2	1	0	2	0	1	3	10
Mexico	0	7	5	10	0	1	6	0	2	0	31
Peru	0	11	0	4	0	0	3	0	0	3	21
Total	2	36	14	38	9	6	25	9	10	32	181

Source: Prepared by the authors.

Brazilian public companies represent 30% of the sample, as the country has implemented more ESG regulations than the others in the region (Stolper et al., 2024). Consumer non-cyclicals, basic materials, and industrials sectors represent the dominant economic activities in Latin America, accounting for 55% of the sample.

3.2 Description of Variables

Table 2 describes the model's variables (see Table 2).

Table 2. Description of Variables

Variable	Description
Cost of capital (%)	<i>Dependent variable.</i> The weighted average cost of equity stock, preferred stock, and debt (Ramirez et al., 2022).
Cost of equity (%)	<i>Dependent variable.</i> "It is calculated by multiplying the equity risk premium of the market with the beta of the stock plus the information-adjusted risk-free rate. The equity risk premium is the expected market return minus the inflation-adjusted risk-free rate."
Cost of debt (%)	<i>Dependent variable.</i> It is the "weighted cost of short-term debt and the weighted cost of long-term debt based on the 1-year and 10-year points of an appropriate credit curve."
ESG score	<i>Independent variable.</i> "Is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars."
Environmental score	<i>Independent variable.</i> Indicator of the "company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems."
Social score	<i>Independent variable.</i> Indicator of the "company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management."
Governance score	<i>Independent variable.</i> An indicator of a "company's systems and processes, which ensure that its board members and executives act in the best interests of its long-term shareholders."
Total Assets	<i>Control variable.</i> Used in equations in log form.
Debt-to-equity ratio	<i>Control variable.</i> A leverage indicator. Source: Gupta & Aggarwal, 2024.

Variable	Description
Market capitalization	<i>Control variable.</i> Is “the sum of market value for all relevant instrument level share types.”
Price-to-book ratio	<i>Control variable.</i> Market price divided by book value per stock. Source: Priem & Gabellone, 2024.
Economic growth	<i>Country level - control variable.</i> Is the variation in Gross Domestic Product at constant prices over time. Source: IMF (n.d.).

Source: LSEG Data & Analytics (n.d.), except otherwise noted.

The cost of capital is widely used in research (Ellili, 2020; Khanchel & Lassoued, 2022; Possebon et al., 2024; Ramirez et al., 2022). This variable is an ex post measure calculated using historical data. In other studies, the cost of equity is obtained using the ex ante approach based on expected returns (Garzón Jiménez & Zorio-Grima, 2021; Henry et al., 2024). However, the analysis of the cost of equity with an ex post approach is still underexplored in the region.

LSEG calculates the ESG scores through a rigorous process. The data are obtained from publicly available information and evaluated across 186 comparable metrics, which are grouped into ten categories to generate scores for each category and the combined ESG (LSEG Data & Analytics, 2024).

Scores are classified into four categories based on relative ESG performance and the level of transparency in reporting material ESG data publicly:

- A. Excellent Performance and High Transparency** (75-100)
- B. Good Performance and Above-Average Transparency** (50-75)
- C. Satisfactory Performance and Moderate Transparency** (25-50)
- D. Poor Performance and Insufficient Transparency** (0-25) (LSEG Data & Analytics, 2024).

The control variables are the same as the ones included in other studies (Gupta & Aggarwal, 2024). The total assets represent the company's size. Large firms have lower firm risk (Khanchel & Lassoued, 2022) and disclose more sustainable information than smaller firms (Drempetic et al., 2020).

The debt-to-equity ratio reflects capital structure definitions that aim to achieve the optimal proportion of both components to obtain a lower rate (Ellili, 2020). A meta-study suggests that tangible assets have a positive influence on the level

of corporate debt. At the same time, the price-to-book ratio and profitability are associated with lower levels of corporate debt (Hang et al., 2018).

Market capitalization refers to the stage of a company's development, and the price-to-book ratio controls the company's potential for growth (Gupta & Aggarwal, 2024). Growth opportunities are associated with increased risk and higher cost of debt (Lavin & Montecinos-Pearce, 2022).

This study encompasses various countries from the same region, each with a distinct economic dynamic that may influence capital fund-raising decisions. In this way, the growth of Gross Domestic Product at constant prices controls for this dynamic (Gupta & Aggarwal, 2024).

3.3 Methodology

As numerous studies (Atan et al., 2018; Lavin & Montecinos-Pearce, 2022; Ramirez et al., 2022) have shown, the panel data model is suitable for this sample, which includes the same public companies across years. Over time, unobserved factors, such as company heterogeneity, may influence the regressions. Fixed effects are applied when there is correlation between them and the other variables, except for the dependent variable. The Hausman test result validates the use of fixed effects (Wooldridge, 2013). Nonetheless, firm fixed effects could present constraints and pooled regressions with categorical and year fixed effects could be used to control for specific heterogeneity (Mertzanis et al., 2024).

The dependent variables are stationary, according to the Fisher type unit-root test based on augmented Dickey-Fuller tests, which have a p-value of 0.000 in the P statistics. The Variance Inflation Factor (VIF) does not indicate multicollinearity in pooled regressions. The error variance is expected to be constant, meaning it is homoscedastic. Robust standard errors clustered by unit are used to verify the validity of ordinary least squares regressions, even in the presence of heteroscedasticity concerns (Wooldridge, 2013). Additionally, the number of observations relax the normality assumption and these assumptions allow the use of panel data regressions (De Souza et al., 2024).

The descriptive statistics reveal the inner characteristics of the data set, and Pearson correlation matrices are also employed.

The general model for the hypotheses analysis is the following:

$$\text{Cost}_{it} = \beta_0 + \beta_{it-1}\text{Sustainabilityindicator} + \beta_{it}\ln(\text{TotalAssets}) + \beta_{it}\text{Debttoequityratio} + \beta_{it}\text{Marketcapitalization} + \beta_{it}\text{Pricetobookratio} + \beta_{it}\text{Economicgrowth} + \sum_{i=1}^n \beta \text{Economicsector}_i + \sum_{t=1}^n \beta \text{Year}_t + \varepsilon \quad (1)$$

Cost is the dependent variable according to hypotheses H1, H2, and H3.

Sustainability indicator is the independent variable according to the combined score and the pillars' score ("a", "b" or "c").

This indicator is one year lagged. In this way, the model measures the ex post effect of scores disclosure and alleviates the possible influence of the dependent variables on the sustainability indicator.

The equation includes economic sector and year fixed effects. The pandemic and other events may affect the cost of raising funds over time. Lastly, the error term is included.

4. Results

The descriptive statistics summarized in Table 3, show that Latin American public companies have an average cost of capital of 10.095% (see Table 3). The mean cost of internal funds exceeds the rates of external ones; however, the latter exhibit greater variability. The mean ESG score is close to the threshold for good relative performance, and Latin American public companies range from laggards to leaders in sustainability performance. The minimum and maximum levels of total assets reflect heterogeneity in company size. The debt-to-equity average highlights a balanced capital structure.

Interestingly, Table 4 indicates that the overall cost of raising funds has a negative and significant correlation with ESG score and all the pillar dimensions (see Table 4). Conversely, the cost of debt is directly correlated with those scores. The results between the ESG and its categories are not a problem because the study's regression models differentiate the combined and pillar scores. Total assets are significantly associated with lower rates when raising overall funds and equity. Moreover, the total assets, debt-to-equity ratio, and market capitalization have a positive correlation with ESG and its dimensions' scores. This means that larger size, higher leverage, and increased market prices are associated with better ESG scores. Finally, the price-to-book ratio has an inverse correlation with ESG, environmental, and social scores, indicating that higher multiples are associated with lower scores.

Table 3. Descriptive Statistic Summary

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Cost of capital (%)	1597	10.095	6.999	1.216	91.738
Cost of equity (%)	1568	13.049	7.423	2.653	39.248
Cost of debt (%)	1568	3.427	5.104	-.161	161.375
ESG score	1551	49.143	21.776	.717	93.865
Environmental	1551	44.403	26.349	0.000	96.650
Social	1551	51.328	25.696	.213	96.589
Governance	1551	51.733	22.699	.055	96.984
Total Assets (millions)	1801	7386.892	12446.978	18.122	116452.970
Debt-to-equity ratio	1801	1.040	3.844	0.000	151.27
Market cap. (millions)	1769	4481.115	9705.351	3.427	147776.760
Price-to-book ratio	1763	3.636	18.849	.028	424.577
Economic growth (%)	1810	1.180	4.260	-10.869	13.361

Source: Prepared by the authors.

Table 4. Pearson Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1	1.000											
2	0.843*	1.000										
3	0.418*	0.172*	1.000									
4	-0.135*	-0.062*	0.074*	1.000								
5	-0.130*	-0.072*	0.059*	0.905*	1.000							
6	-0.145*	-0.081*	0.053*	0.935*	0.815*	1.000						
7	-0.046*	0.011	0.095*	0.679*	0.423*	0.485*	1.000					
8	-0.106*	-0.043*	0.066*	0.282*	0.283*	0.230*	0.201*	1.000				
9	-0.069*	-0.009	0.026	0.083*	0.078*	0.070*	0.066*	0.017	1.000			
10	-0.046*	-0.075*	-0.017	0.232*	0.249*	0.186*	0.141*	0.574*	-0.017	1.000		
11	0.037	0.012	-0.026	-0.058*	-0.051*	-0.065*	-0.032	-0.053*	0.153*	-0.002	1.000	
12	0.074*	0.131*	0.008	0.045*	0.045*	0.042*	0.028	0.017	-0.038	0.033	-0.031	1.000

* $p < 0.1$ (1) Cost of capital (2) Cost of equity (3) Cost of debt (4) ESG score (5) Environmental (6) Social (7) Governance (8) Total Assets (9) Debt-to-equity ratio (10) Market capitalization (11) Price-to-book ratio (12) Economic growth.

Source: Prepared by the authors.

According to the Hausman test results, the fixed effects are appropriate for the cost of capital and cost of equity equations, implying that the unobserved effects, which are constant over time, are correlated with the explanatory variables. Conversely, random effects may be used in the cost of debt equations, meaning that unobserved effects are not correlated with the explanatory variables. Mathematically, in fixed effects regressions, the unobserved factors are eliminated by subtracting the average over time from both the dependent and explanatory variables. In the random effects model, a fraction of the average is subtracted for each variable, depending on the variances of the unobserved factors and the error (Wooldridge, 2013). These fixed effects indicate that the specific and constant characteristics of public companies, not included in the control variables, may potentially influence the cost of capital and cost of equity due to the relevance of the company's profile for future cash flows. In the case of the cost of debt, such characteristics are random, possibly because this cost is based on governmental interest rates and macroeconomic factors.

The firm fixed effects regressions present multicollinearity problems and to address them this article applies pooled regressions with economic sector-year fixed effects to capture specific heterogeneity. This method is similarly used in other studies (Gupta & Aggarwal, 2024; Mertzanis et al., 2024). Additionally, the coefficients of the variables of interest drive the same conclusions in both methods. The outcomes of the estimations of the impact of ESG and the scores attained by its pillars on the cost of capital can be seen in Table 5. The empirical results correspond to hypothesis 1 and from 1.a to 1.c (see Table 5).

All sustainability indicators, except for the governance dimension, reduce the overall cost of raising funds: a positive change "x" in the ESG score will reduce it by 0.034(x), a positive change "x" in the environmental score will influence it negatively by 0.027(x) and a positive change "x" in the social score will decrease it by 0.037(x). Meanwhile, the governance category is not relevant to the cost of capital.

Regarding the relevant results of control variables, company size, debt-to-equity indicator and economic growth have a negative coefficient. For example, in hypothesis 1, a positive "x" % change in total assets reduces 0.017(x) the percentage of the cost of capital. The negative impact of debt-to-equity indicator and economic growth is explained, for example, in the estimations of hypothesis 1, as a positive change "x" in the variable's unit drives a respectively decrease of 0.121(x) and 0.672(x) in the percentage of the cost of capital. Lastly, market capitalization increases the stocks' cost, albeit with the smallest coefficient, close to 0.

These findings support hypotheses 1, 1.a and 1.b, and reject 1.c.

Table 5. Cost of Capital Regressions

Cost of capital								
	<i>ESG (1)</i>		<i>Environmental (1.a)</i>		<i>Social (1.b)</i>		<i>Governance (1.c)</i>	
ESG score	-0.034	**						
Environmental			-0.027	**				
Social					-0.037	***		
Governance							0.003	
Ln(TotalAssets)	-1.673	***	-1.702	***	-1.612	***	-1.901	***
Debt-to-equity	-0.121	*	-0.121		-0.123	*	-0.135	*
Market capitalization	0.000	***	0.000	***	0.000	***	0.000	***
Price-to-book	0.104		0.103		0.106		0.103	
Economic growth	-0.672	***	-0.672	***	-0.681	***	-0.663	***
Economic sector effects	Yes		Yes		Yes		Yes	
Year effects	Yes		Yes		Yes		Yes	
Observations	1389		1389		1389		1389	
R2 within	0.328		0.327		0.333		0.320	
*** p<.01, ** p<.05, * p<.1								

Source: Prepared by the authors.

In a breakdown, Table 6 presents the regression results of the cost of equity as the dependent variable, according to hypotheses 2 and from 2.a to 2.c (see Table 6).

Table 6. Cost of Equity Regressions

Cost of equity								
	<i>ESG (2)</i>		<i>Environmental (2.a)</i>		<i>Social (2.b)</i>		<i>Governance (2.c)</i>	
ESG score	-0.032	*						
Environmental			-0.028	**				
Social					-0.039	***		
Governance							0.012	
Ln (Total Assets)	-0.940	**	-0.956	***	-0.849	**	-1.201	***
Debt-to-equity	-0.019		-0.016		-0.019		-0.031	

Cost of equity								
Market capitalization	0.000		-0.000		0.000		0.000	
Price-to-book	0.061		0.061		0.065		0.058	
Economic growth	-0.781	***	-0.782	***	-0.791	***	-0.772	***
Economic sector effects	Yes		Yes		Yes		Yes	
Year effects	Yes		Yes		Yes		Yes	
Observations	1360		1360		1360		1360	
R2 within	0.330		0.330		0.337		0.325	
*** p<.01, ** p<.05, * p<.1								

Source: Prepared by the authors.

As in cost of capital, the scores of estimations 2, 2.a and 2.b reduce the percentage of the cost of equity: a positive change “x” in the ESG score will reduce it by 0.032(x), a positive change “x” in the environmental score will influence it negatively by 0.028(x) and a positive change “x” in the social score will decrease it by 0.039(x). The last pillar is not relevant.

Regarding the significant results of control variables, an increase in total assets and a change in the percentage of economic growth has a negative impact on the percentage of the cost of equity. In the estimations of hypothesis 2, a positive “x”% change in total assets reduces 0.009(x) the percentage of the cost of equity. Moreover, a positive change “x” in the percentage unit of the economic growth drives a decrease of 0.781(x) in the percentage of the cost of equity. The results support hypotheses 2, 2.a, and 2.b and reject 2.c.

Finally, Table 7 outlines the last estimations (see Table 7). In this case, we follow the Hausman test results and use random effects regressions with two important points to be noted. First, in the random effects transformation, the unobserved factors are partially subtracted and could produce multicollinearity. Second, the pooled regressions with economic sector-year fixed effects have similar outcomes than these random effects regressions. The ESG, environmental, and social dimensions have no significant coefficients, and the results reject hypotheses 3, 3.a, and 3.b. Moreover, the governance pillar increases the cost of the debt and hypothesis 3.c is also rejected. It is important to note the lower significant coefficients compared to the previous estimations. In this case, a change “x” in the governance score

will change 0.010(x) the cost of debt. Another study states that, although these ultimate results are unexpected, country conditions influence this relationship, as companies in countries with lower institutional quality do not experience a decrease in their cost of external funds (Boccaletti & Gucciardi, 2025).

Regarding control variables with significant results, total assets and the debt-to-equity indicator increase the percentage of the cost of debt; therefore, growing size and leverage lead to an increase in borrowing costs. Based on the estimations for hypothesis 3.c, a positive change “x”% in total assets increases 0.004(x) the percentage of the cost of debt, and a positive unit change “x” in the debt-to-equity indicator increases it 0.026(x). Additionally, market capitalization and economic growth reduce the percentage of cost of debt, even though market capitalization has the smallest coefficient, close to 0. According to the results of hypothesis 3.c, a positive change “x” in the percentage unit of economic growth drives a decrease of 0.076(x) in the percentage of the cost of debt. Consequently, expanding economies imply lower interest rates.

Table 7. Cost of Debt Regressions

Cost of debt								
	<i>ESG (3)</i>		<i>Environmental (3.a)</i>		<i>Social (3.b)</i>		<i>Governance (3.c)</i>	
ESG score	0.001							
Environmental			0.000					
Social					-0.004			
Governance							0.010	**
ln(TotalAssets)	0.406	***	0.414	***	0.446	***	0.370	***
Debt-to-equity	0.027	**	0.027	**	0.028	***	0.026	**
Market capitalization	-0.000	***	-0.000	***	-0.000	***	-0.000	***
Price-to-book	-0.005		-0.005		-0.004		-0.005	
Economic growth	-0.074	**	-0.075	**	-0.077	**	-0.076	**
Economic sector effects	Yes		Yes		Yes		Yes	
Year effects	Yes		Yes		Yes		Yes	
Observations	1360		1360		1360		1360	
*** p<.01, ** p<.05, * p<.1								

Source: Prepared by the authors.

Summarizing, the ESG, environmental, and social scores reduce the cost of capital and the cost of equity in Latin American public companies; this aligns with the Global Corporate Sustainability Report, which identifies climate change and human capital as the most financially material risks for investors, particularly in Latin America (OECD, 2024). Nevertheless, the governance category increases the cost of debt, possibly due to institutional factors.

The cost of capital and equity estimations align with previous regional results (Garzón Jiménez & Zorio-Grima, 2021; Ramirez et al., 2022). However, conversely with other studies (Ramirez et al., 2022), the governance category increases the cost of debt. In contrast, the other dimensions reduce the overall cost of raising funds and the stock's cost. The relationship under study is a dynamic one (Khanchel & Lassoued, 2022); consequently, more research is needed to continue analyzing the sustainability effect over different time spans and with broader score coverage.

The study's limitations are threefold. First, the still poor availability of sustainability scores drives the exclusion of numerous Latin American public companies from the sample. Second, the divergence between data providers (Berg et al., 2022) may affect the consistency of the findings. Third, robustness tests are necessary to evaluate the empirical results and to consider other control variables.

This field offers many alternatives for future study. Due to ESG metric divergences, ESG data from other providers could be used in the models to identify variations and parallels with the results of this paper. Moreover, a deeper analysis to find out how to standardize ESG metrics for different providers could be relevant for this vein. In addition to extending this line of research with more data and different time frames, future studies may analyze this relationship in sectors with relevant environmental or social concerns (Garzón Jiménez & Zorio-Grima, 2021). Furthermore, a breakdown of the metrics that conform to the sustainability dimensions could provide deeper insights, for example, how the board structure policy, audit board committee and compensation board committee increase the cost of debt according to estimations of hypothesis 3.c. Finally, case studies could help expand and contextualize the current findings, especially in Latin American private companies.

5. Conclusions

As stated in the conference Who Cares Wins in 2005 (UNGC, 2004), public companies that address ESG issues increase their company value due to diverse reasons such as better risk management, compliance, or reputation. Moreover, these public companies contribute to the development of a sustainable society. In Latin America, the ESG dimensions are essential to address major constraints such as “vulnerability to external economic shocks, the need to transition to a green economy, persistent inequality, and governance issues” (OECD et al., 2024, p. 35).

The region is making progress in ESG initiatives; however, studies on the dynamics between sustainability and the cost of raising funds are scarce. This article aims to shed light on the recent performance of ESG and its pillar dimensions as drivers of a lower cost of capital and its components. The research includes public companies from Argentina, Brazil, Chile, Colombia, Mexico, and Peru in a panel dataset with 181 entities from 2014 to 2023. This study builds upon previous work and takes into account the period of the pandemic.

The results show that ESG performance, including its environmental and social dimensions, reduces the cost of capital and its stock component. These findings align with the stakeholders, legitimacy, and signaling theoretical framework, supporting the notion that corporate sustainable practices can reduce capital costs and provide a taste premium to investors (Pástor et al., 2022). Regarding the cost of debt, only the governance score has a positive influence on this cost. This aligns with the trade-off theory. ESG performance decreases the weighted average cost of capital, except for cost estimations of external funds.

The article confirms that sustainable practices are promoters of firm value creation, even during the pandemic, and help bridge the gap in sustainability dynamics in Latin America and emerging markets.

The conclusions may serve as a call to action for managers, shareholders, stakeholders, government officials, institutional investors, financial institutions, and academia.

Managers should prioritize sustainability disclosure as essential information to obtain a better ESG score and identify strategic actions and performance indicators. Following the LSEG categories (LSEG Data & Analytics, 2024), in the environmental pillar, managers should establish emission reduction targets and protocols for managing waste, water, and energy. In the social pillar, managers can improve

community welfare, customer rights, product quality, and responsible labor practices, with the support of corporate policies.

In the financial system as a whole, for example, shareholders, institutional investors, and financial institutions may demand that Latin American public companies improve their sustainable performance, specifically their environmental and social scores, to achieve better financial results. Stakeholders may also benefit from the public companies' impact on societal development in the long term.

Latin American governments might follow the implementation of laws and policies that guarantee the sustainable operations of public companies, especially in sectors with environmental or social risks, including energy, industrial, and basic materials. Governments should adopt various tools to promote the adoption of sustainable practices, including an appropriate taxonomy for companies' sustainable reporting and compliance, environmental reduction targets, adequate labor standards, tax incentives, and alliances with financial institutions to align priority sustainable actions.

Finally, the results encourage academia to continue gaining valuable insights to reinforce sustainable practices.

In summary, sustainability practices are a win-win strategy: they improve environmental and societal development while driving a lower cost of raising overall funds due to a decrease in the cost of equity.



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