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Economic Freedom and Environmental, Social, Governance Practices: An Analysis of the Financial Sector in the Americas

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ABSTRACT

Through the theory of legitimacy and the theoretical perspective of New Institutional Economics, the purpose of this paper is to analyze the effect of economic freedom over the relationship between Environmental, Social, Governance (ESG) practices and profitability. The sample was finance companies located in the Americas, between 2017 and 2020, using the Refinitiv Eikon® database. The analysis used data modeling in a hierarchical panel. Results demonstrate that ESG practices have a positive and significant impact on profitability. Individually, only the social variable showed a positive and significant relationship over profitability. As for the moderating effect of economic freedom, it was shown that economic freedom enhances the relationship between an ESG index and profitability, and only enhances the relationship between corporate governance and profitability when analyzed individually. Furthermore, findings imply that a country's institutional quality has an important influence on ESG practices and profitability.

KEYWORDS

Economic freedom; ESG practices; finance companies.

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1. INTRODUCTION

The introduction of ethical considerations in investment decisions has received special attention in recent years, as a growing number of investors are concerned with the companies' sustainable policies (Elsayed & Paton, 2005). Socially Responsible Investment (SRI) consists not only considering the financial return, but considering the Environmental, Social, Governance (ESG) indicators that were created to establish additional sides of corporate performance that are not reflected in financial data (Bassen & Kovacs, 2020).

Although companies are constantly evaluated on financial performance, there is increasing attention to sustainability goals (Eccles et al., 2014), while disclosure of these sustainable factors changes across companies and countries (Ioannou & Serafeim, 2017). Investors are concerned about a companies' ESG practices in order to know where they invest their resources, and how the companies conduct their business (Atan et al., 2018). This trend continues as sustainability issues remain relevant in any institution (Hartmann & Uhlenbruck, 2015).

Environmental, social and governance positive activities benefit many stakeholders and create direct shareholder value (Porter & Kramer, 2011). Shakil et al. (2019) explored the effects of the environmental, social and governance performance of banks on their financial performance in the context of emerging markets and found a positive association between environmental, social and financial performance.

Buallay (2019) evidenced a positive impact of ESG practices on performance, however, when measuring the factors individually, itmixed results for each performance indicator were found. While environmental disclosure positively affects operational and market performance, governance practices negatively affect the operational and financial performances and positively affect the market performance. Finally, social practices negatively impact the three models.

Although there is much research on the association of a company's environmental, social and governance concerns with its performance, the literature on this topic focused on the finance sector is still limited. Given that previous studies that analyzed the joint and individual effect of environmental, social and governance practices on the profitability of American financial companies were not found, the first question of this study is: what is the joint and individual effect of ESG practices on profitability of financial sector companies in America?

The corporate scandal and accounting fraud are considered some of the main causes of the global financial turmoil (Dah & Jizi, 2018). Weak corporate governance and the negligence of company's managers in some operations can harm the company's profitability and create volatility in stock prices (Cannella et al., 2008). Also, economic, commercial, and financial freedom, monetary stability, privatization, credit and consumer market expansion are among the many transformations present in different countries (Blau, 2017).

Although there is a great deal of research on the association of a company's environmental, social and governance concerns with its performance, the literature on this topic focused on the financial sector is still limited. Given that no previous studies were found that analyzed the joint and individual effect of environmental, social and governance practices on the profitability of American financial companies, with few studies investigating the specific mechanisms of economic freedom (Sambharya & Rasheed, 2015), the question of this study is: what is the joint and individual effect of ESG practices on the profitability of American financial companies and what is the effect of economic freedom on this relationship?

Although the literature indicates that economic freedom promotes a country's macroeconomic dynamics, its effect on economic units is still an issue to be investigated. Thus, this study, in

addition to verifying the direct effect of ESG practices on profitability, also seeks to investigate the moderating effect of economic freedom on this relationship in American financial companies.

According to the Report on Social, Environmental and Climate Risks and Opportunities of the Central Bank of Brazil (BCB), there is an evolution in the allocation by American countries in the scope of investment of international reserves in the scope of sustainability. In addition, the financial sector was selected due to the risks associated with ESG factors in its statement of the future vision and the explanation of the strategic objective, which must promote sustainable finance and contribute to the reduction of socio-environmental and climate risks in the economy and in the Financial System. Thus, the banking sector plays an important role in the development and growth of the American economy, facilitating financial transactions (BCB, 2021).

This research is justified by the relevance of the theme in the context of the development and changes in the world economic scenario, since it analyzes the macro context of commercial and economic relations of countries that represent developed and emerging markets. Finally, this study helps stakeholders, investors, regulators, policy makers and academics to improve their knowledge of ESG practices in relation to performance.

Economic freedom promotes a country's macroeconomic dynamics (Miller et al., 2020), and the differences between these legal institutions trigger variance in valuing the environment (Christmann & Taylor, 2001), social responsibility (Kinderman, 2012) and corporate governance (Gün, 2019). Therefore, understanding how these changes impact the proposed relationship can present new decision-making processes focused on the SRI, as well as the relevance of understanding the effects of these processes in economically distinct countries.

The paper is organized as follows. Section 2 presents an overview of the literature on the effect of ESG practices over companies' profitability moderated by economic freedom. Section 3 details the method strategy. Section 4 presents and discusses the empirical results. Section 5 concludes the paper.

2. HYPOTHESES DEVELOPMENT

According to the legitimacy theory, management can influence the public perception of the company, as efforts to manage legitimacy can be responsible for changing activities to be consistent with the community's social and environmental perceptions. The existence of ESG disclosures in reports published by the company can be a form of response or concern to the many issues and demands that occur in the community. Therefore, this disclosure would be made to gain legitimacy in its operating environment and allow harmony with the public perception (Melinda & Wardhani, 2020).

Since the institutional environment grants legitimacy to companies when they act in congruence with social expectations about appropriate corporate behavior (Scott, 2013), it is necessary to highlight the New Institutional Economics (NIE) aspect as a possible theoretical support in the approach organizations because of the environment to which it belongs. The premises of this theoretical thought are not limited to considering only material or subjective conditions but prioritize the interrelationship between legal and cultural factors and their reciprocal influences (Ingram & Clay, 2000).

Neoinstitutionalism seeks to understand how institutions interfere and influence social practices and processes (Pierson, 1994). Since the NIE branch uses economic reasons to explain the diversity in the forms of institutional arrangements (Scapens, 2006), it is believed that the Economic Freedom Index can be understood as an indicator of institutional quality able to enhance or minimize ESG practices.

2.1. ESG PRACTICES

ESG measurements aim to capture additional dimensions of corporate performance that are not revealed in accounting data (Bassen & Kovács, 2020). In addition to capturing a broader scope of data that are used to assess management capabilities and support risk management (Godfrey et al., 2009; Galbreath, 2013), recent studies show that a high sustainability profile helps to mitigate any drop in stock prices following announcements of negative environmental events (Godfrey et al., 2009), as well as high sustainability portfolios delivering higher returns (Eccles et al., 2014).

ESG information is essential for management purposes, as managers need to have comprehensive and timely data about their operations (Tarmuji et al., 2016). The development of these practices enhances employee productivity through the efficient use of resources as well as revenue, in addition to improving the reputation of the company in the stakeholders' view (Malik, 2015). Buallay (2019) also evidenced a positive impact of ESG practices on financial, operational, and market performance.

An ESG best practice shows the company's commitment to institutionalized rules of responsible behavior, with matching positive impacts on society, the natural environment, and socially sanctioned interests expressed by shareholders and other stakeholders (Del Bosco & Misani, 2016). Furthermore, the integration of ESG issues into corporate strategies can create shareholder value due to the returns on stakeholder satisfaction (Eccles et al., 2014).

The empirical results of Dahlberg and Wiklund (2018) in relation to the Nordic countries, which lead the world ranking of ESG ratings, show that the environmental component has the greatest impact on financial performance, as ecological issues are relevant to investors in these countries. In addition, they showed a positive and significant relationship between ESG ratings and market performance, although not significantly for accounting performance. In this sense, it is postulated that:

- **H1:** There is an influence between ESG practices and the profitability of the American financial sector.

2.1.1. Environmental practices

Ryszawska (2016) emphasized the changes in the role of finance over time, moving from an exclusive focus on maximizing profits and shareholder wealth to increasing attention to environmental issues such as the green economy, low carbon, and climate change mitigation. In addition, the literature shows that companies with higher pollution indicators have a lower market value (Cormier & Magnan, 2003), since an organization's toxic release announcements would lead to negative reactions in the company's share price (Hamilton, 1995).

Derwall et al. (2005) verified the relationship of corporate environmental performance with stock price between 1995 and 2003 and found that companies with better environmental performance achieved higher returns. Similarly, Liu et al. (2017) conducted a UK-based study, where companies found that corporate carbon emissions had a negative influence over profitability. Therefore, when classifying companies based on the use of resources, their performance is analyzed and their ability to reduce the use of energy, materials, and water, as well as finding more eco-efficient solutions (Dahlberg & Wiklund, 2018).

Tarmuji et al. (2016) investigated the impact of each individual ESG practice on the profitability of Malaysia and Singapore and showed that environmental practices are positively and significantly

correlated with profitability, however, the environmental factor did not significantly influence profitability in both countries. Also, Buallay (2019) showed that environmental disclosure positively affects operational and market performance, but not financial performance. From this context, the following hypothesis was elaborated:

- **H2:** The environmental practices of the American financial sector and its profitability are significantly related.

2.1.2. Social practices

Human rights, equality, workplace diversity and the organization's contribution to society are the most relevant social factors for stakeholders (Atan et al., 2018). About Brazilian companies with corporate governance, the empirical results found by Prudêncio et al. (2021) indicate that gender diversity on the board of directors and the higher average age of the top management team have a favorable effect on practices of Corporate Social Responsibility (CSR). Since investors are more concerned about the company's social activities, they will lead to better financial performance (Velte, 2017).

Pletsch et al. (2015) found positive relationships between social responsibility and the economic and financial performance of companies listed on the Corporate Sustainability Index (CSI). In this study, the variables social charges, health and safety, transportation, and profit sharing showed a directly proportional relationship with the performance variables return on assets (ROA) and general liquidity. Therefore, the higher the corporate performance, the greater the investments destined to the internal public of the organizations and in external social benefits destined for society.

According to Shakil et al. (2019), research on CSI and banking performance is currently limited. Previous investigations have found a significant positive relationship between social practices and bank performance in the context of developed countries, for example, the United States, Canada, Japan, and European countries (Wu & Shen, 2013; Shen et al., 2016; Esteban-Sanchez et al., 2017).

Tarmuji et al. (2016) found that the social practices of companies in Singapore significantly influence economic performance. They justify that the different result for Malaysia is due to cultural differences, despite being neighboring countries, and the potential impacts of stakeholders. On the other hand, Buallay (2019) showed that social practices negatively impact market, financial, and operational performance. Thus, the following hypothesis is postulated:

- **H3:** The social practices of the American financial sector and its profitability are significantly associated.

2.1.3. Corporate governance practices

Corporate governance is defined as the organization's code of conduct to ensure that the actions of directors and executives are compatible with the interests of stakeholders (Esteban-Sanchez et al., 2017). Atan et al. (2018) considers ownership structure, board independence, equitable treatment of shareholders, minority shareholder rights, and transparency as some of the main governance issues.

The Principal-Agent Theory has, as a dilemma, "the tradeoff between the cost of measuring behavior and the cost of measuring results and the transfer of risk to the agent" (Eisenhardt, 2015, p. 11). Therefore, she looks for the "optimal, behavioral versus results contract, between the principal and the agent" (Eisenhardt, 2015, p. 9). The availability of more information provided by Information Systems for example, such as budget systems, reveals the agent behavior to the principal.

Being aware of agency costs, Jensen and Meckling (2008) defend the existence of some tools that serve to control and try to reduce, as much as possible, the entrepreneur's opportunity to obtain individual benefits (such as audits, budgets and formal control systems). However, such tools end up implying costs, which reduce the company's wealth, bringing the responsibility, to the owners to bear. The costs of monitoring or granting contractual guarantees are the result of the existing agency relationship. Nevertheless, such measures are defined by the decision maker himself, who is the main person involved. Therefore, it is clear to see that the will try to minimize them as much as possible.

Esteban-Sanchez et al. (2017) found a significant positive relationship between corporate governance and financial performance in an international sample that mainly includes banks from developed countries. Furthermore, Soana (2011) also found a significant positive effect of corporate governance on the financial performance of Italian banks.

Tarmuji et al. (2016) found that Malaysian companies' corporate governance practices significantly influence economic performance, as corporate transparency and disclosure are closely linked to corporate performance. They justify that the non-significant result for Singapore may be due to differences in the institutional environment, as the corporate control market is weak and share ownership is more concentrated. Buallay (2019), in turn, demonstrated that governance practices negatively affect operational and financial performance and positively affect market performance. Therefore, the third hypothesis of the work is given by:

- **H4:** The corporate governance practices of the American financial sector and its profitability are significantly associated.

2.2. Economic freedom

The institutional setting of a nation can be demonstrated through indices of economic freedom and regulations implemented by citizens (Sambharya & Rasheed, 2015). Economic freedom is given by how much it is possible to perform economic activity with minimal state interference (Chen & Huang, 2009), and can be measured in four pillars: rule of law, government size, regulatory efficiency, and market openness (Miller et al., 2020).

According to Hartmann and Uhlenbruck (2015), there are at least three relevant institutional domains to explain the international variation in Corporate Environmental Responsibility (CER): legal, market, and social institutions. They highlighted that a strong state, with comprehensive policies and regulation on environmental preservation, will possibly turn companies better prepared to meet and even exceed regulatory requirements.

The empirical results of Castillo-Merino and Rodríguez-Pérez (2021) indicate that banks in countries with greater economic freedom are more willing to focus on ESG reporting. Based on institutional differences between common-law and civil-law countries, the authors emphasize that a more regulated environment is associated with higher levels of sustainability performance

in the financial industry. Findings also suggest that size and a healthy financial position are company-level factors in several countries associated with higher levels of ESG disclosure.

- **H5$_a$:** Economic freedom enhances the relationship between ESG practices and profitability.

The differences between the legal institutions of different nations are related to the variance in the value given to environment (Christmann & Taylor, 2001) and the state's strength to enforce compliance with the regulations that resolve environmental improvements (Eiadat et al., 2008). As shown by Hartmann and Uhlenbruck (2015), their study relating general economic freedom in CER and showed a positive influence of economic freedom.

Graanfland (2019) researched the effects of two dimensions of economic freedom (impact of government size and government regulation) on CER. Their results showed that small government and freedom of regulation are responsible for diminishing environmental responsibility, even when they used different types of measurement of economic freedom (robustness check).

Nations that have high economic freedom tend to be more international, as they enforce fewer restrictions on global trade (Gwartney & Lawson, 2003), and, consequently, companies in liberal markets face a greater diversity of customers demanding more terms of environmental behavior responsible (Hartmann & Uhlenbruck, 2015). Therefore, this will be associated with higher levels of CER among companies in liberal economies, as they will rationalize their environmental behavior to the expectations of the most demanding customers for reasons of efficiency and effectiveness (Christmann & Taylor, 2001). Thus, the following work hypothesis is established:

- **H5$_b$:** Economic freedom enhances the relationship between environmental practices and profitability.

Several authors have studied the influence of institutional determinants on CSR (De Geer et al., 2010; Jackson & Apostolakou, 2010; Kinderman, 2012), where there is a consensus on the aptitude of this index or sub-indices to impact on different performances and relationships (Liao, 2018). Based on the neo-institutional strand, Jackson and Apostolakou (2010) compared the influence of different institutional environments on the CSR policies of European companies and found that companies from the more liberal market economies of Anglo-Saxon countries scored higher on most dimensions of CSR.

CSR complements liberalization and replaces institutionalized social solidarity (Kinderman, 2012), that is, the vision of voluntary CSR practices in liberal economies is adopted as a substitute for institutionalized forms of stakeholder participation (Jackson & Apostolakou, 2010). In this context, Kinderman (2012) argues that depending on the broader institutional context, corporations are enabled to share more voluntary or collective forms of social responsibility.

Emerging market companies may benefit more from having a high level of economic freedom than developed market entities due to their growth and financing needs (Liao, 2018). Thus, when examining how economic freedom affects the level of valuation and profitability of companies in 92 countries, between 2000 and 2014, Liao (2018) established that companies working in an environment with a higher level of economic freedom are more likely to improve innovation, technology, and to invest in human and social capital.

Across a sample of 80 countries, Buallay (2020) considered the moderating role of a country's sustainability reporting law over the relationship between ESG practices and company performance. According to this study, there are different legal environments inside the countries about the

disclosure of a company's sustainability (mandatory or voluntary). Therefore, the theory of responsibility was incorporated to the theory of stakeholders, legitimacy, and political economy to meet the objective of the thesis. Thus, the following hypothesis is stated:

- **H5$_c$:** Economic freedom enhances the relationship between social practices and profitability.

Javakhadze et al. (2012) concluded that the characteristics of the country and the company help to explain the process of change in corporate governance structures. The authors addressed measures of economic freedom, increased shareholder rights and impartial judiciaries as possible significant effects for the country. Furthermore, they found that the greater participation of banks in the national economy discourages convergence towards an American style of corporate governance.

In addition to investigating the direct effect of corporate governance on the financial performance of companies in emerging economies, Gün (2019) also considered the moderating effect of economic freedom on the governance-performance relationship. The results showed that economic freedom has a moderating effect on the governance relationship on performance, however, this moderating effect decreases as the level of economic freedom increases. Thus, the following hypothesis is postulated:

- **H5$_d$:** Economic freedom enhances the relationship between corporate governance practices and profitability.

The normal return on stocks is directly linked to social, environmental and governance issues involving the entities. Thus, organizations more engaged in sustainability issues are more transparent in their relationships with stakeholders (Eccles et al., 2014). For this reason, these firms have more incentives to disclose information on the sustainable development practices adopted (ESG), which results in greater liquidity of shares in the market, and, consequently, a decrease in the cost of capital, due to the reduction in the risk (Malta & Camargos, 2016). The relationships between the analyzed variables and the respective hypotheses described above can be seen in Figure 1:
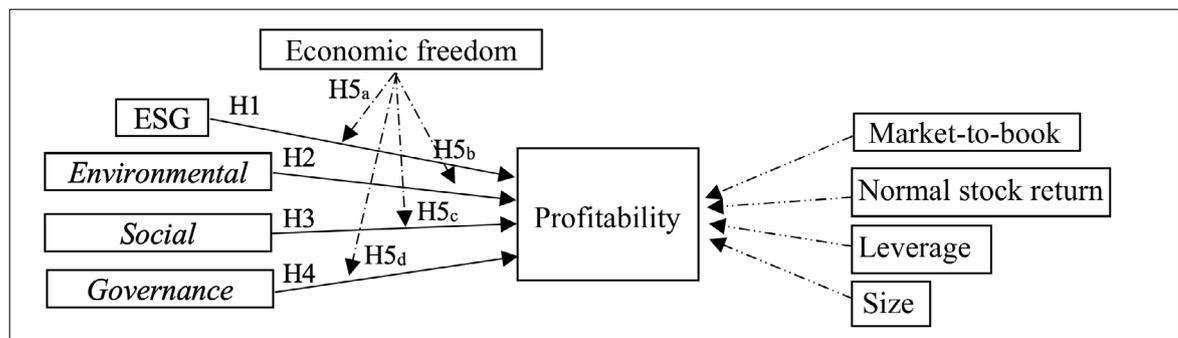
Figure 1. Conceptual structure of the individual model
Source: elaborated by the authors (2023).

3. METODHOLOGY

To investigate the proposed objective, which consists of verifying the direct effect of Environmental, Social, Governance Practices on Economic-Financial Performance, as well as the moderating effect of economic freedom over this relationship in American companies in the financial sector, a quantitative study was carried out. Data referring to economic freedom were collected from The Heritage Foundation database, and other information corresponding to the companies in the sample was collected in the Refinitiv Eikon® database.

The sample of this survey corresponds to some of the financial companies in the American continent, which have their data available in the Refinitiv Eikon® database. In this database, 1,674 companies were available.

Regarding the process sampling, those companies that did not have data for the entire period analyzed (2017-2020) and companies belonging to the territories of Bermuda, the Cayman Islands, and Puerto Rico were removed, as they do not represent countries, and therefore do not have the Economic Freedom Index (EFI). The final sample included 445 companies with 1,780 observations, between 2017 and 2020.

Table 1 presents the final sample according to the number of companies per country, the respective Economic Freedom indexes and the number of observations across the years of analysis.

Among the companies of the sample, the majority (84.9%) corresponds to the USA, with the countries Argentina, Chile, Colombia, and Mexico responsible for the smallest representation of the study population (1.57%). Canada has the second largest representation of the sample (6.29%), which can be justified by being a developed country, unlike Brazil, an emerging country, which had the second smallest representation (2.47%).

Regarding the Economic Freedom Index (EFI), it is shown that Canada had the best score in all years of analysis. In general, there is a slight decrease in the sum of the EFI from 2017 to 2018 (-0.7), a stability in the years 2018 and 2019, and an increase of 7.6 points in the economic freedom of these sample countries in the year 2020.

Given that 1,008 companies were removed from this research sample due to the lack of consecutive information on environmental, social and governance scores, Table 1 shows a difference in the number of companies that have information about these scores, which shows a concentration of these organizations in the US. On the other hand, countries such as Argentina, Chile, Colombia, and Mexico had the lowest number of financial companies that showed scores for these ESG practices.

Table 1
Sample and EFI 2017-2020

Countries	Companies	Observations	Economic Freedom Index			
			2017	**2018**	**2019**	**2020**
Argentina	7	16	50.4	52.3	52.2	53.1
Brazil	11	36	52.9	51.4	51.9	53.7
Canada	28	112	78.5	77.7	77.7	78.2
Chile	7	28	76.5	75.2	75.4	76.8
Colombia	7	24	69.7	68.9	67.3	69.2
Mexico	7	24	63.6	64.8	64.7	66
United States	378	1,512	75.1	75.7	76.8	76.6
Total	**445**	**1,780**	**466.7**	**466**	**466**	**473.6**

Source: Research data (2023).

Variables referring to ESG practices and financial information for calculating the control variables and dependent variable were collected in the Refinitiv Eikon® database. This base shows ESG scores to measure a company's relative performance, effectiveness and commitment transparently and objectively in the following key themes: emissions, product and environmental innovation, human rights, shareholders, etc. (Refinitiv, 2020).

Although investing professionals increasingly focus on the impacts of ESG issues, most studies examine these factors and portfolio returns. Peiris and Evans (2010) analyzed the influence over stock prices increase and on the operational performance of companies listed in the US. Using a multifactorial framework, they provided evidence of a significant positive relationship between specific ESG rating criteria, and both return on assets (ROA) and market-to-book (MTB) measures. Table 2 shows all the variables used in this study.

Regarding the control variables, the literature on the relationship between ESG practices and economic-financial performance was considered as a basis, thus, observable characteristics of the company that may affect its performance were controlled. In this sense, based on research by Peiris and Evans (2010), Eccles et al. (2014), Malta and Camargos (2016), Velte (2017), Buallay (2019) to choose the control variables, if market-to-book (MTB_{it}), leverage (LEV_{it}), company size ($SIZE_{it}$), normal stock return (RT_{it}).

Table 2
Variables of regression model

Variable	Definition	Formula	Source	Related literature
Dependent variable – profitability				
ROA_{it}	Return on assets	$\dfrac{EBIT}{Total\ assets}$	Refinitiv Eikon®	Eccles et al. (2014), Velte (2017).
Independent variables – Environmental, Social, Governance practices (ESG)				
ESG_{it}	ESG	0 to 100: score of combined 3 indices		Godfrey et al. (2009), Eccles et al. (2014), Del Bosco and Misani (2016).
CG_{it}	Corporate governance	0 to 100: score of corporate governance practices	Refinitiv Eikon®	Tarmuji et al. (2016), Bassen and Kovács (2020).
SO_{it}	Social	0 to 100: score of social practices		Pletsch et al. (2015), Shakil et al. (2019).
EN_{it}	Environment	0 to 100: score of environment practices		Tarmuji et al. (2016), Liu et al. (2017), Buallay (2019).
Control variables				
MTB_{it}	Market-to-book	$\dfrac{Market\ capitalization}{Book\ value}$		Peiris and Evans (2010).
LEV_{it}	Financial leverage ratio	$\dfrac{Total\ debt}{Total\ assets}$	Refinitiv Eikon®	Velte (2017).
$SIZE_{it}$	Company size	Total assets logarithm		Eccles et al. (2014).
RT_{it}	Normal stock return	$P_{i,t} - P_{i,t-1} / P_{i,t-1}$		Malta and Camargos (2016).
Moderator variable – Economic freedom				
EFI_{it}	Economic Freedom Index	0 to 100: where 0 is less liberal and 100 more liberal	The Heritage Foundation	Sambharya and Rasheed (2015).

Source: Research data (2021).

For the estimation of the models, multilevel regression models for panel data were used, as it is understood that this modeling allows the consideration of nested data structures which "allow the identification and analysis of individual heterogeneities and between groups to which these individuals belong, making it possible to specify random components at each level of analysis" (Fávero & Belfiore, 2017, p. 855-856).

In this paper, three-level linear hierarchical models with repeated measures, also called HLM3, were used, where there is two-level segmentation for the data set and there is also a temporal evolution. The first level to characterize the model are companies (organizations) and the second level was defined by criteria of the country where the company is located.

The composition of the model is based on the logic defined by Raudenbush and Bryk, 2002) and Fávero and Belfiore (2017, p. 864), where there is a general model with 3 levels of analysis, with nested data. Therefore, the first level presents the explanatory variables $Z_1, \ldots, Z_p$ referring to the units i ($i = 1, \ldots, n$) of level 1, the second level, the explanatory variables $X_1, \ldots, X_Q$ referring to the units j ($j = 1, \ldots, J$) of level 2, and the third level, the explanatory variables $W_1, \ldots, W_S$ referring to units k ($k = 1, \ldots, K$) of level 3.

The structure of the final model, with random intercepts and slopes followed the step-up strategy procedure, which begun with the unconditional model (null model), then evolved to the model with only random intercepts and, finally, the complete model, as per recommended by the literature (Raudenbush & Bryk, 2002; Snijders & Bosker, 2011; Fávero & Belfiore, 2017). The evolution of the model was tested by the likelihood-ratio test (LR test) and the estimations of the models were calculated using the restricted maximum likelihood. The expressions of each level and the final expression are given by:

Equation of level 1:

$$Y_{tjk} = \pi_{0jk} + \pi_{1jk}.\lambda_{jk} + e_{tjk}$$

Equation of level 2:

$$\pi_{0jk} = b_{00k} + b_{01k}.X_{jk} + r_{0jk}$$
$$\pi_{1jk} = b_{10k} + b_{11k}.X_{jk} + r_{1jk}$$

Equation of level 3:

$$b_{00k} = \gamma_{000} + \gamma_{001}.W_k + u_{00k}$$
$$b_{01k} = \gamma_{010} + \gamma_{011}.W_k + u_{01k}$$
$$b_{10k} = \gamma_{100} + \gamma_{101}.W_k + u_{10k}$$
$$b_{11k} = \gamma_{110} + \gamma_{111}.W_k + u_{11k}$$

The expression formed by the two compositions of the model is given by:

$$Y_{tjk} = \Gamma + Z + e_{tjk}$$

Where Γ it's the intercept with random effects and Z its the slope with random effects. Therefore, rewriting the equation:

$$Y_{tjk} = (\gamma_{000} + \gamma_{001}.W_k + \gamma_{010}.X_{jk} + \gamma_{011}.W_k.X_{jk} + u_{00k} + u_{01k}.X_{jk} + r_{0j})$$
$$+ (\gamma_{100} + \gamma_{101}.W_k + \gamma_{110}.X_{jk} + \gamma_{111}.W_k + X_{jk} + u_{10k} + u_{11k}.X_{jk} + r_{1jk}).\lambda_{jk} + e_{tjk}$$

Where λ it is the period/time, γ_{000} it is the general intercept (the expected value of the dependent variable at the beginning, when X and W = 0), γ_{001} it is the change on the intercept (the increment

on the expected value of the dependent variable at the beginning for an specific element j of level 2, which it is contained in an unit k of level 3 when there is one change on the characteristic W of k), γ_{010} it is the increment on the expected value of the dependent variable for an unit jk when there is change in X of j, γ_{011} it is the increment on the expected value of the dependent variable when there is change on the product $W.X$, u_{00k} and u_{01k} are the error terms that show randomness on the intercepts, u_{10k} e u_{11k} are the error terms that show randomness on the slopes, where u_{11k} has impact over the changes on variable X (Fávero & Belfiore, 2017).

From this point, to simplify the visualization of the mathematical expressions, the vector δ_{jk} were established, which will represent the set of control variables inserted in the model, as detailed in Table 3. Therefore, it is said:

$$\delta_{jk} = MTB_{jk} + \text{LEV}_{jk} + SIZE_{jk} + RT_{jk}$$

So, the equations used for analysis, as previously stated on the previous section, are given by:

$$ROA_{tjk} = \pi_{0jk} + \pi_{1jk}.\lambda_{jk} + e_{tjk}$$
$$\pi_{0jk} = b_{00k} + b_{01k}.\left(ESG_{jk} + \delta_{jk}\right) + r_{0jk}$$
$$\pi_{1jk} = b_{10k} + b_{11k}.\left(ESG_{jk} + \delta_{jk}\right) + r_{1jk}$$
$$b_{00k} = \delta_{000} + u_{00k}$$
$$b_{01k} = \gamma_{010}$$
$$b_{10k} = \gamma_{100} + u_{10k}$$
$$b_{11k} = \gamma_{110}$$

Thus, it has been that:

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(ESG_{jk} + \delta_{jk}\right) + \gamma_{110}.\left(ESG_{jk} + \delta_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk} \quad \textbf{(1)}$$

The equation above (1) relates to direct analysis, in which the dependent variable is return on assets (ROA_{tjk}) and the independent variable is the ESG index. In sequence, equation (2) keeps the direct analysis but also recognizes the effect of economic freedom (EFI), as its interaction with the ESG variable. So, it is given by:

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(ESG_{jk} + EFI_{jk} + \delta_{jk}\right) + \gamma_{010}.\left(ESG_{jk}.EFI_{jk}\right) +$$
$$\gamma_{110}.\left(ESG_{jk} + EFI_{jk} + \delta_{jk}\right).\lambda_{jk} + \gamma_{110}.\left(ESG_{jk}.EFI_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk} \quad \textbf{(2)}$$

Equation (3) maintains the dependent variable and uses governance practices as independent variables (CG_{jk}), social (SO_{jk}) and environment (EN_{jk}), which have individual scores as sections of the ESG index. Equation (3) is given by:

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(CG_{jk} + SO_{jk} + EN_{jk} + \delta_{jk}\right)$$
$$+ \gamma_{110}.\left(CG_{jk} + SO_{jk} + EN_{jk} + \delta_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk} \quad \textbf{(3)}$$

It is noteworthy that, unlike the expression above, the next equation (4) recognizes the direct effect of economic freedom, as well as its interaction only with the Corporate Governance variable. It is given by:

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(CG_{jk} + EFI_{jk} + \delta_{jk}\right) + \gamma_{010}.\left(CG_{jk}.EFI_{jk}\right)$$
$$+ \gamma_{110}.\left(CG_{jk} + EFI_{jk} + \delta_{jk}\right).\lambda_{jk} + \gamma_{110}.\left(CG_{jk}.EFI_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk} \quad \textbf{(4)}$$

Likewise, equation (5) tests the direct effect of economic freedom and its interaction with the social variable, and equation 6 performs the same test by interacting with the environment variable. They are given by:

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(SO_{jk} + EFI_{jk} + \delta_{jk}\right) + \gamma_{010}.\left(SO_{jk}.EFI_{jk}\right) +$$
$$\gamma_{110}.\left(SO_{jk} + EFI_{jk} + \delta_{jk}\right).\lambda_{jk} + \gamma_{110}.\left(SO_{jk}.EFI_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk}$$

(5)

$$ROA_{tjk} = \gamma_{000} + \gamma_{100}.\lambda_{jk} + \gamma_{010}.\left(EN_{jk} + EFI_{jk} + \delta_{jk}\right) + \gamma_{010}.\left(EN_{jk}.EFI_{jk}\right) +$$
$$\gamma_{110}.\left(EN_{jk} + EFI_{jk} + \delta_{jk}\right).\lambda_{jk} + \gamma_{110}.\left(EN_{jk}.EFI_{jk}\right).\lambda_{jk} + u_{00k} + u_{10k}.\lambda_{jk} + r_{0jk} + r_{1jk}.\lambda_{jk} + e_{tjk}$$

(6)

4. RESULTS

This section is proposed for the description, analysis, and interpretation of results. STATA® MP 14.0 software was used to obtain descriptive statistics, heteroskedasticity test, variance inflation factor and regression results using panel data. After the data collection and its treatment, descriptive statistics were tabulated to show the composition of the sample. Thus, Table 3 presents, by year, the descriptive statistics of the variables, exhibiting the evolution of their means and standard deviations (SD).

Profitability (measured by ROA) and economic freedom showed a growth trend between 2017 and 2019, followed by a decrease in 2020. All variables that represent ESG practices showed growing averages across the years, where the environmental factor (EN) responsible for the greatest variation in performance (5.651). Next, Table 4 consolidates the following statistical data:

The average ESG score of financial institutions in the Americas is 38.25%, which shows a lower ESG performance than US banks, which, according to a study by Shakil et al. (2019), showed average performances of 52.13%. Nonetheless, the average ESG value of this sample is higher than European ones, which had an average of 34.5% (Buallay, 2019).

Environmental (EN), social (SO) and governance (CG) practices present, respectively, average scores of 13.09%, 40.47% and 46.65%. When comparing these values with the averages of European banks in Buallay (2019), only the social variable had a better performance. The profitability showed an average of 0,025 return on assets, being a value lower than that reported

Table 3
Descriptive statistics of variables by year

Variable	2017		2018		2019		2020	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
ROA_{it}	0.026	0.058	0.027	0.059	0.028	0.05	0.019	0.055
ESG_{it}	36.456	16.335	36.889	16.675	38.465	16.98	41.073	17.441
CG_{it}	44.786	21.916	45.535	21.628	47.224	21.366	48.915	21.167
SO_{it}	38.82	17.573	39.063	18.327	40.339	18.553	43.527	19.114
EN_{it}	10.726	22.971	11.591	23.168	13.480	24.359	16.377	25.488
MTB_{it}	0.561	1.213	0.516	1.593	0.571	1.627	0.566	1.785
LEV_{it}	0.811	0.221	0.8	0.197	0.803	0.165	0.81	0.161
$SIZE_{it}$	24.262	1.846	24.498	1.8	24.624	1.79	24.993	1.787
RT_{it}	0.152	0.285	0.006	0.244	0.2663	0.274	0.212	0.435
EFI_{it}	74.132	4.918	74.57	4.984	75.492	5.196	75.484	4.821

Source: Research data (2023).

by European banks of 0,111 (Buallay, 2019). Finally, Table 5 concludes the descriptive analysis considering the countries researched.

While Brazil was responsible for the highest means in social variables (64.39%), environment (45.37%), ESG (57.47%) and profitability (0.065), Argentina had the highest mean score for the corporate governance (59.36%). Nevertheless, the US had the lowest means for social (37.88%), environmental (9%) and ESG (36.24%) practices, and the countries with the lowest means in governance and performance, respectively, were Colombia (43.18%) and Chile (0.01%).

Starting with the regression analysis, first, the assumptions for the regression were tested and were duly met. Using equations 1 to 6 and multivariate analysis, tables 6 to 8 were drawn up with the separation of fixed effects, random effects, intraclass correlation coefficient (ICC) and LR test components.

According to Maas & Hox (2004), maximum likelihood methods are asymptotic and are more adequate to large samples. In studies where the process of sampling and clustering are often used, the results could be biased. As shown by Van der Leeden et al. (1997) and Browne & Daper (2000), the regression coefficients are "estimated without bias while their standard errors tend to be biased downward with small sample sizes at the group level. Variance components are more susceptible to bias; they tend to be estimated too small with standard errors that may

Table 4
Descriptive statistics of variables

Variable	Mean	Standard Deviation	Minimum	Maximum	Observations
ROA_{it}	0.025	0.056	-0.322	0.87	1,772
ESG_{it}	38.253	16.954	2.117	93.527	1,748
CG_{it}	46.649	21.554	0.239	96.809	1,748
SO_{it}	40.467	18.495	0.632	95.565	1,748
EN_{it}	13.086	24.113	0	95.569	1,748
MTB_{it}	0.553	1.568	0	27.409	1,772
LEV_{it}	0.806	0.189	-1.373	3.462	1,772
$SIZE_{it}$	24.594	1.824	17.828	30.661	1,772
RT_{it}	0.16	0.333	-0.768	3.129	1,749
EFI_{it}	74.92	5.013	50.4	78.5	1,780

Source: Research data (2023).

Table 5
Descriptive statistics of the main variables by countries

Variable/ Countries	SO		EN		CG		ESG		ROA	
	Mean	Obs.	Mean	Obs.	Mean	Obs.	Mean	Obs.	Mean	Obs.
Argentina	50.70	25	24.57	25	59.36	25	50.39	25	0.024	28
Brazil	64.39	43	45.37	43	52.45	43	57.47	43	0.065	44
Canada	57.21	112	39.17	112	44.14	112	49.51	112	0.021	112
Chile	44.71	28	26.32	28	49.29	28	43.46	28	0.01	28
Colombia	54.02	27	41.39	27	43.18	27	47.95	27	0.025	28
EUA	37.88	1485	9.015	1485	46.40	1485	36.24	1485	0.024	1504
Mexico	47.51	28	24.28	28	50.31	28	45.04	28	0.049	28

Notes: SO: Social; EN: Environmental; CG: Corporate Governance; ESG: Environmental, Social, Governance; ROA: Return on assets; Obs.: Observations
Source: Research data (2021).

also be strongly biased downward with mall sample sizes at the group level" (Verbeek, 2000; Haas & Cox, 2004, p. 128-129).

In such a scenario where the asymptotic standard errors results differ from the maximum likelihood method it could be a problem of misspecification (Raudenbush & Bryk, 2002). However, when the robust errors results are similar to the maximum likelihood method results, with little discrepancy, it can be understood that the model is fit (Hass & Cox, 2004).

Therefore, as the data in this paper relies on sampling and there are some cases of few observations, it was simulated both scenarios: maximum likelihood and robust standard errors. There were no such differences between these results. Thus, the maximum likelihood results are shown below, on tables 6 to 8.

Table 6 investigates the direct relationship of ESG on profitability though equation 1, and the moderating effect of economic freedom through equation 2. The first result indicates that ESG practices positively and significantly impact profitability at the 10% level (supporting H1),

Table 6

Regression of equations 1 and 2

Independent variables	Equation 1		Equation 2	
Fixed effects	**Coefficient**	**Z statistics**	**Coefficient**	**Z statistics**
Level 1				
Intercept	0.13158***	3.56	0.271405***	4.25
SIZE	-0.003613**	-2.14	-0.0038**	-2.25
LEV	-0.039928***	-3.11	-0.04011***	-3.12
MTB	0.02786***	13.61	0.02756***	13.45
RT	-0.031168***	-4.95	-0.03082***	-4.87
ESG	0.000294*	1.87	-0.00205**	-2.22
Level 2				
EFI			-0.00189***	-2.71
ESG x EFI			0.000033***	2.56
Level 3				
Temporal variation (l)	-0.011798**	-1.14	0.0032961	0.15
Random effects	**Estimated variance**	**Standard error**	**Estimated variance**	**Standard error**
Level 1				
Firm	1.1332E-3	1.033E-4	1.1048E-3	–
Temporal variation (l)	1.84E-5	8.64E-6	1.77E-5	–
Level 2				
Country	1.28E-5	0.00005	6.6E-21	–
Temporal variation (l)	3.76E-15	8.28E-14	1.62E-20	–
Intraclass Correlation Coefficient (ICC)	**ICC**	**Standard error**	**ICC**	**Standard error**
Level 1 (firm)	0.6332669	0.0271829	0.66235948	0
Level 2 (country)	0.0070683	0.0274493	3.78E-18	0
Verifiability test	**Chi square**	**p-value**	**Chi square**	**p-value**
LR test (HLM3 x Linear)	738.17	0.0001	712.7	0.0001

Note: this table shows regressions for ESG and EFI. Dependent variable: ROA. ***, **, and * denotes significance at the 1%, 5% and 10% levels, respectively.

Source: Research data (2023).

like that reported by Buallay (2019). Also, the regression of equation 2 allows to observe the moderation of economic freedom over the influence between ESG practices and companies' ROA. The result of the interaction between the dependent, independent, moderating variables and the interaction between them, according to the coefficients of equation 2, can be seen in Figure 2.

As shown on Figure 2, it is observed that companies with better ESG practices have, on average, higher ROA and that a higher level of economic freedom enhances this benefit. This difference is statistically significant at the 5% level, as shown in Table 6.

Table 7

Regression of Equations 3 and 4

Independent variables	Equation 3		Equation 4	
Fixed effects	**Coefficient**	**Z statistics**	**Coefficient**	**Z statistics**
Level 1				
Intercept	0.160115***	3.96	0.257531***	4.05
SIZE	-0.0050176***	-2.79	-0.001954	-1.35
LEV	-0.0373336***	-2.9	-0.041854***	-3.27
MTB	0.0271711***	13.21	0.028433***	14.22
RT	-0.0314711***	-5.01	-0.030477***	-4.81
SO	0.0003403*	1.91		
EN	0.0001166	0.78		
CG	-0.0000303	-0.31	-0.00235***	-2.64
Level 2				
EFI			-0.002144***	-2.95
CG x EFI			0.0000324***	2.69
Level 3				
Temporal variation (l)	-0.0253754**	-2.22	0.0041358	0.31
Random effects	**Estimated variance**	**Standard error**	**Estimated variance**	**Standard error**
Level 1				
Firm	0.001136	1.1016E-4	0.001115	–
Temporal variation (l)	1.91E-5	7.93E-6	1.77E-5	–
Level 2				
Country	7.10E-12	–	6.55E-20	–
Temporal variation (l)	2.34E-6	4.58E-6	1.03E-19	–
Intraclass Correlation Coefficient (ICC)	**ICC**	**Standard error**	**ICC**	**Standard error**
Level 1 (firm)	0.633278	0.238423	0.6259821	0
Level 2 (country)	3.96E-9	0	3.68E-17	0
Verifiability test	**Chi square**	**p-value**	**Chi square**	**p-value**
LR test (HLM3 x Linear)	729.57	0.0001	722.68	0.0001

Note: this table shows regressions for ESG individual scores (environment, social and governance) and EFI. Dependent variable: ROA. ***, ** , and * denotes significance at the 1%, 5% and 10% levels, respectively.

Source: Research data (2023).

Table 8
Regression of equations 5 and 6

Independent variables	Equation 5		Equation 6	
Fixed effects	**Coefficient**	**Z statistics**	**Coefficient**	**Z statistics**
Level 1				
Intercept	0.247746***	4.13	0.214722	3.96
SIZE	-0.004836***	-2.93	-0.004427**	-2.54
LEV	-0.03759***	-2.92	-0.039737***	-3.1
MTB	0.026968***	13.19	0.027685***	13.72
RT	-0.031026***	-4.91	-0.031906***	-5.06
SO	-0.0009905	-1.3		
EN			-0.0007738	-1.13
Level 2				
EFI	-0.001332**	-2.08	-0.0007821	-1.51
SO x EFI	0.0000201*	1.91		
EN x EFI			1.44E-5***	1.55
Level 3				
Temporal variation (l)	-0.004431	-0.31	-0.0130413	-0.91
Random effects	**Estimated variance**	**Standard error**	**Estimated variance**	**Standard error**
Level 1				
Firm	0.0011084	9.95E-5	0.0011236	-
Temporal variation (l)	1.85E-4	7.84E-6	1.94E-5	-
Level 2				
Country	13.24E-22	-	1.82E-18	-
Temporal variation (l)	1.78E-21	2.08E-18	2.63E-20	-
Intraclass Correlation Coefficient (ICC)	**ICC**	**Standard error**	**ICC**	**Standard error**
Level 1 (firm)	0.6259464	0.240505	0.630331	0
Level 2 (country)	1.83E-19	0	1.02E-15	0
Verifiability test	**Chi square**	**p-value**	**Chi square**	**p-value**
Teste LR (HLM3 x Linear)	713.98	0.0001	722.55	0.0001

Note: this table shows regressions for ESG individual scores (environment and social) and EFI. Dependent variable: ROA. ***, ** , and * denotes significance at the 1%, 5% and 10% levels, respectively.
Source: Research data (2023).

Equation 3, as shown in Table 7, demonstrates that, among the individualized ESG pillars, only social practices positively and significantly influence, at a 10% level, the profitability of financial companies in the Americas. The lack of significance for the environmental variable (*EN)* is consistent with previous empirical studies (Tarmuji et al., 2016; Buallay, 2019), where the environment did not significantly influence the ROA.

Regarding the moderation of economic freedom over the governance variable, the results were statistically significant at the 1% level, according to the results of equation 4, shown in Table 7. However, despite to what was observed results of equation 2, economic freedom can reverse the influence of the moderate variable (*CG*) on the dependent variable (*ROA*). Through the coefficients, it is observed that. for lower levels of economic freedom, the *CG* variable has a negative relationship, meaning that, in less liberal countries, the greater the corporate governance

practices, the lower the companies' ROA, on average. However, for countries with a higher level of economic freedom, the increase in the *CG* variable is beneficial to the growth of the ROA, according to the model's estimates. The moderation of economic freedom relationship proposed on hypothesis $H5_d$ are shown below, on Figure 3.

Through Figure 3 it is possible to see that the moderation of economic freedom can reverse the relationship and the influence of corporate governance over companies' profitability, measured by the ROA. These results appear to show progress regarding previous divergent evidence: as Buallay (2019) saw negative influence but Esteban-Sanchez et al. (2017) and Tarmuji et al. (2016) found positive relationship.

About the moderations proposed in equations 5 and 6, as shown in Table 8, it was not possible to detect simultaneously a statistically significant difference between the dependent, moderate, moderating variables and their interaction. When analyzing the results of the control variables for the 6 equations, it is highlighted that only *MTB* showed a positive and significant relationship at the level of 1% with the ROA model, while the variables *SIZE*, *LEV* and *RT* showed negative and significant signs at the 1% level, except for the variable *SIZE*, which did not present a significant result (equation 4) or significance at the 5% level (equations 1, 2 and 6).
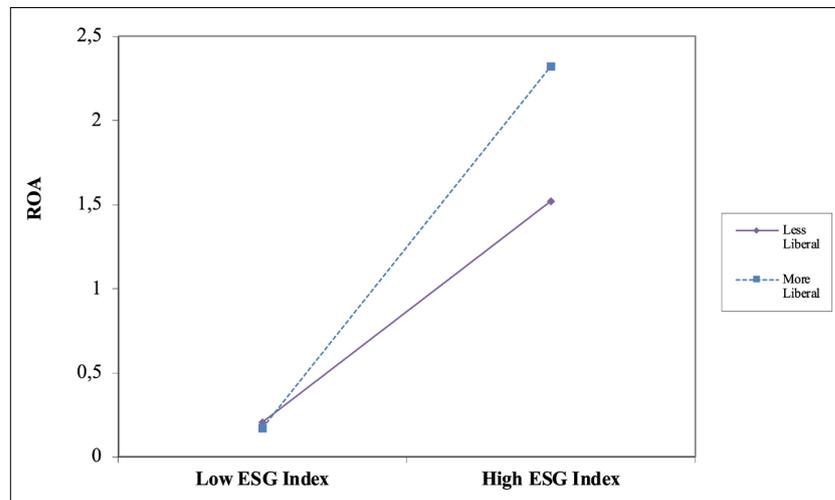
Figure 2. Moderation of economic freedom over ROA and ESG index
Source: Research data (2023).
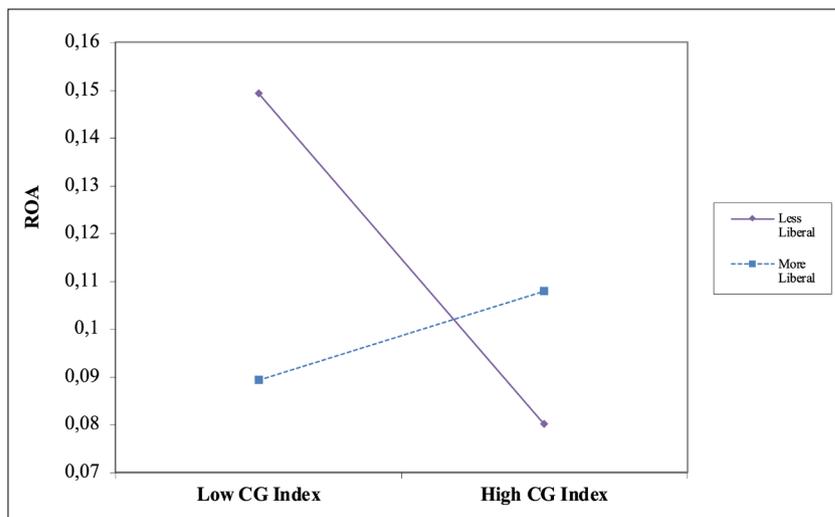
Figure 3. Moderation of economic freedom over ROA and CG index
Source: Research data (2023).

Regarding the intraclass correlation coefficient observed in the tables, the correlation between the economic performance of companies in the financial sector, for the same country, is less than 1%. This result is due to the great heterogeneity of the companies that made up the sample, which was also confirmed in the descriptive statistics shown in tables 3 and 4. However, the correlation between economic performance for the same company in a given country was approximately 63%. That is, while performance is poorly correlated across countries, it is moderately correlated for companies from a particular country.

Still, when analyzing a statistical significance of the variances of random coefficients, it is observed that the relationships are statistically significant in almost all cases at the 5% level. Thus, the need to discard the use of a traditional linear regression model is proven, as the LR test in all models rejected the null hypothesis (H_0: $u_{00k} = r_{0jk} = 0$), as pointed out by Fávero and Belfiore (2017).

Therefore, when analyzing all the hypotheses proposed in section 2, illustrated in Figure 1, the following hypotheses can be confirmed: H1, as there is a positive relationship between ESG practices and profitability (according to equation 1); H3, as there is a positive relationship between the social practices of the financial sector and its profitability (indicator of equation 3); $H5_a$ and $H5_d$, as it was observed the moderation of economic freedom, respectively, on the variables *ESG* and *CG* (assigned from equations 2 and 4, respectively). The other hypotheses (H2, H4, $H5_b$ and $H5_c$) could not confirmed based on the results found.

As previously stated before, the hypotheses H2 and $H5_b$ couldn't be confirmed and these results are related to the environmental variable, it wasn't possible to find any statistically significant relation between the environmental practices and the companies' profitability. These could be an issue related to the sample available on the Refinitiv Eikon® database, where many companies publish their ESG scores, but score value zero to this variable (which aren't missing values).

Regarding corporate governance practices, it wasn't possible to find a relationship between the ROA of companies' and their practices related to this index. Therefore, hypothesis H4 couldn't be confirmed. However, when adding the moderation of economic freedom on the regression, it was possible to see clearer: governance practices in more liberal countries tend to positively influence the ROA of companies but in less liberal countries, the greater the value of variable *CG*, the lower were the ROA. This indicates that economic freedom can reverse the relationship between the independent variable (*CG*) and the dependent variable (ROA).

5. CONCLUDING REMARKS

The main objective of this work was to verify the impact of ESG practices on the profitability of financial companies in the Americas, as well as the moderating effect of economic freedom over this relationship. Through secondary data, information that portrayed the ESG data and the financial information was collected in order to calculate the studied variables. Throughout the paper, seven countries were studied, three from North America and four from South America, within a time frame between 2017 and 2020. Similar to Buallay (2019), the results of this paper are expected to increase the influence of the financial sector and banks sustainability that may affect the sustainable development of Latin America.

Data analysis was performed using multilevel regression models for panel data with fixed effect and random effect components. Through 6 equations, the study reveals that ESG practices positively and significantly impact profitability. Individually, only the social variable showed a positive and significant relationship with profitability. As for the moderating effect of economic freedom, the findings show that, together, economic freedom enhances the relationship between

ESG and profitability, and, individually, economic freedom enhances the relationship between corporate governance and profitability.

These findings imply that the institutional quality of the country's governmental structure, as measured in this study through the Economic Freedom Index, has a major influence on the ESG practices and profitability that a nation can achieve over the years. Also, the findings reveal that, although corporate governance practices do not have a significant relationship with profitability by themselves, this result changes when the moderation of economic freedom is recognized, which allows inferring that, in more liberal countries, corporate transparency and disclosure are closely linked to profitability.

It appears that adding the moderation relationship of economic freedom to the analysis between profitability and corporate governance explains divergent results found in previous studies. As related to the institutional quality of government institutions, it is essential to incite reforms that reduce discretion in public administration areas, like decreasing the number of redundant rules, processes, or regulations. As seen in the results of the paper, more liberal countries are related to a better ROA index when viewing companies with higher ESG indexes. As stated by Graafland (2019), where there are more government expenditures, it is seen that that companies have less freedom to manage in their own manner.

The results of this study should not be oversimplified, as the population is small and covers few countries on a single continent. Future studies are encouraged to use different data sources, larger samples, estimation with other econometric methods, with different time frame, more countries, and the inclusion other indices that can measure economic freedom. Also, it is suggested that the analysis could be replicated only with the companies located in the United States, where the clustering process could be indexed to the American States, with control variables related to political preferences (with the purpose of better analyzing the economic freedom influence).

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