How ESG Scores Impact Dividend Policy: Emerging Markets Evidence

Joana Rita Santos Lucas

Dissertation
Master in Finance

Supervised by
Jorge Bento Farinha
Natércia Fortuna

2020
Bibliographic Note

Joana Lucas was born on September 30, 1995, in Porto. Her interest towards the financial area goes back to high school when she enrolled in the Accounting and Management course. It was during this course, that she had the first contact also with financial markets, by participating in a stock market contest.

Later, in 2013, she joined the Bachelor in Management, at School of Economics and Management of the University of Porto. During that time, her ambition for a financial career grew while attending courses such as Financial Calculations, Corporate Finance and Financial Markets.

Consequently, she started an internship in Golden Wealth Management, as a Junior Analyst, which confirmed her will to proceed with the Master in Finance, at the same school. During the Master, she also joined the Erasmus + Program, in the Kozminski University, in Warsaw, Poland.

While developing this dissertation, she was working as an Analyst at Revolut.
Acknowledgments

“Education is the passport to the future,
for tomorrow belongs to those who prepare for it today.”
- Malcolm X

I am glad to have an opportunity to show my deepest appreciation for this school, *nobre Faculdade de Economia do Porto*, for welcoming me in this incredible journey that started with my Bachelor’s degree in Management and now ends with my Master’s degree in Finance. This 5-year journey had a vital role in my academic and interpersonal development, by providing me not only hard, but also soft-skills, important friendships for life and an international, and fulfilling, international experience.

My first personal acknowledge goes to my supervisors, Professor Jorge Farinha and Professor Natércia Fortuna. The challenge began with the choice of the topic of study, which I had to change due to data constraints, and Professor Jorge Farinha’s help was very valuable for me to get back on course. Also, his wisdom and deep knowledge in the financial theory provided me with important insights to complete this dissertation, which I really appreciate. Professor Natércia was fundamental in the development of the methodology, by patiently and studiously guiding me during long hours videocalls. Her econometric and theoretical knowledge were key to the success of this dissertation. For that, I will be forever grateful.

I also express my gratitude to Professor Cláudia Ribeiro, for organizing our Seminars sessions, namely the one called “Sustainable Finance as Sound Finance”, presented by Rodrigo Tavares. This presentation grabbed my attention to the growing trend of sustainable finance, which inspired me for this dissertation and my future career. Therefore, this acknowledgment is extended to Rodrigo, not only for the presentation, but also for the help and enlightenment regarding this topic afterwards.

Plus, I believe that Paulina Preto’s role should be also highlighted, by tirelessly helping me with the data collection process.

Finally, I would like to say thank you to all my friends and family that supported me during all this time, by giving me positive words and motivation every time I needed it. Without them, nothing would be possible.

I dedicate this work to my two older sisters, for being my role models, and to my two younger brothers, hoping to inspire them to always follow their dreams.
Abstract
Dividend policy is one of the topics of finance literature most under discussion, due to its controversy. Even though it has been widely studied, it keeps receiving attention from different authors. Related to the trending topic of Sustainable Finance, ESG Firm’s Performance, and its relationship with dividend policy has been recently explored in developed markets, bringing to the conclusion that the most sustainable companies pay more dividends than less sustainable ones.

The aim of this dissertation is to study how the ESG Scores impact the dividend policy, now in emerging markets. It is intended to understand if the positive relationship found in developed markets such as the United States and Europe is still valid.

By performing a regression analysis using panel data from 320 listed firms from the top 10 emerging countries, during the last five years (2015-2019), it is expected to be possible to study the ESG Performance implications on the dividends received by the shareholders.

The results support the positive relationship, confirming that there is a positive impact of the sustainability on dividends, which is an indicator that all stakeholders’ and shareholders’ interests can be aligned.

Keywords: Dividend Policy, ESG, Sustainable Finance, Sustainability

JEL-Codes: G35, M14
Resumo

A política de dividendos é um dos tópicos mais controversos da literatura financeira. Embora amplamente estudado, continua a ser alvo de atenção de diversos autores. A nova tendência de Finanças Sustentáveis traz-nos uma nova métrica: o desempenho das empresas em termos de ESG (Ambiental, Social e de Governança). A sua respectiva relação com a política de dividendos foi recentemente explorada em mercados desenvolvidos, concluindo que as empresas mais sustentáveis pagam mais dividendos do que as menos sustentáveis.

O objetivo desta dissertação é estudar como os scores ESG impactam o pagamento de dividendos, sendo que, desta vez, com foco nos mercados emergentes. Pretende-se entender se a relação positiva encontrada em mercados desenvolvidos como Estados Unidos e Europa se mantém válida. Ao realizar uma análise de regressão usando dados em painel de 320 empresas listadas em bolsa, dos 10 principais países emergentes, durante os últimos cinco anos (2015-2019), espera-se que seja possível estudar as implicações do desempenho ESG sobre os dividendos recebidos pelos acionistas.

Os resultados sugerem uma relação positiva, confirmando que há um impacto positivo da sustentabilidade nos dividendos, o que é um indicador de que os interesses de todos intervenientes relevantes e dos acionistas podem estar alinhados.

Palavras-Chave: Política de Dividendos, ESG, Finanças Sustentáveis, Sustentabilidade
Códigos JEL: G35, M14
# Table of Contents

1. Introduction .................................................................................................................. 1

2. Literature Review ........................................................................................................ 4
   2.1 Sustainable Finance ................................................................................................. 4
       2.1.1 Environmental, Social and Governance (ESG) .............................................. 5
   2.2 Dividend Policy ...................................................................................................... 6
       2.2.1 Dividend Puzzle ............................................................................................. 6
   2.3 Shareholder versus Stakeholder ............................................................................. 9
   2.4 Similar Studies ....................................................................................................... 10
       2.4.1 ESG scores versus CSR scores ..................................................................... 12

3. Research Hypothesis .................................................................................................... 14

4. Methodology and Data ............................................................................................... 15
   4.1 Empirical Model ..................................................................................................... 15
   4.2 Empirical Variables ............................................................................................... 16
   4.3 Data Collection and Sample ................................................................................. 17
   4.4 Descriptive Statistics ............................................................................................. 19

5. Results .......................................................................................................................... 22

6. Conclusion ..................................................................................................................... 26

Appendices ...................................................................................................................... 27

References ....................................................................................................................... 30
Table Index

Table 1 - Similar Studies.................................................................................................................................. 12
Table 2 - Descriptive Statistics to DIV........................................................................................................ 20
Table 3 - Descriptive Statistics of SCORE.................................................................................................... 21
Table 4 - Descriptive Statistics of Control Variables .................................................................................... 21
Table 5 - Panel Data with 1166 observations: 5 periods (2015-2019) ......................................................... 23
Table 6 - 10 Measures of ESG Scores ............................................................................................................. 27
Table 7 – Data Collected ................................................................................................................................ 28
Table 8 – Variables Definition ....................................................................................................................... 29
Figure Index

Figure 1 - ESG Scores Index Inclusion Timeline................................................................. 18
Figure 2 - ESG Scores Measures ....................................................................................... 19
Figure 3 - Evolution of the Ratio of Dividends to Total Assets (2015-2019)............... 19
Figure 4 - Average of the Variable DIV per Country ......................................................... 20
List of Abbreviations

- ESG: Environmental, Social and Governance
- CEO: Chief Executive Officer
- CSR: Corporate Social Responsibility
- MSCI: Morgan Stanley Capital International, formerly KLD Research & Analytics (database)
- US: United States
- WCED: World Commission on Environment and Development
- UNPRI: United Nations’ Principles for Responsible Investment
- CFP: Corporate Financial Performance
- SRI: Socially Responsible Investing
- USD: United States Dollars
- ROA: Return on Assets
1. Introduction

Nowadays, the transition to a low-carbon economy, among other environmentally friendly initiatives, is concerning investors globally. The sustainable finance market has grown with the investors' awareness around climate and social risks. Sustainable finance is any financial service that integrates environmental, social or governance (ESG) criteria into business or investment decisions.

In fact, we are witnessing a shift in the paradigm. For instance, in September, 130 banks with more than $47 trillion in assets, representing a third of the global industry, – including Deutsche Bank, Citi Group and Barclays – adopted new UN-backed “responsible banking” principles1 to fight climate change.

Furthermore, in August, for the first time, CEOs of nearly 200 multinational corporations (Apple, Deloitte, Amazon, JP Morgan are some examples) publicly declared that the purpose of a corporation is to serve not only shareholders, but employees and society. 2

In literature, there is a great discussion regarding the main objective of a firm: create value. But to whom? Create value to shareholders or to all stakeholders?

“Briefly put, value maximization says that managers should make all decisions so as to increase the total long-run market value of the firm. (...) Stakeholder theory, on the other hand, says that managers should make decisions so as to take account of the interests of all the stakeholders in a firm. And stakeholders include all individuals or groups who can substantially affect the welfare of the firm: not only the financial claimants but also employees, customers, communities, and governmental officials—and under some interpretations, the environment, terrorists, blackmaillers, and thieves.” (M. C. Jensen, 2002)

According to this recent trend, we can affirm that we are getting increasingly close to have a common goal of maximizing value to all stakeholders, which might also maximize the value to the shareholders in the long run.

Standard Life Aberdeen’s vice-chairman stated that “Managers will not win mandates if they do not integrate ESG into their investment processes”, during a panel discussion. 40% of

---

1 UN Principles for Responsible Banking are a guide for the global banking industry to respond to, drive and benefit from a sustainable development economy.

the MSCI conference audience poll, in London this year, said demand from clients was the primary driver of ESG adoption.\(^3\)

Also, Forbes states that “To be a smart Investor, be an ESG investor”, providing the readers with some tips for getting started.\(^4\)

Having this said, the relevance of this topic is undeniable. Driven by the relevance of dividend policy in corporate finance, as well as the rising interest in sustainable finance, this research aims to understand how the shareholder’s interests can be affected with this increasing awareness of the firms of the importance of becoming a sustainable business.

The shareholders receive a dividend as a distribution of a company’s earnings, as determined by the company’s board of directors. Academic literature has addressed widely dividend policy, to determine if dividends are relevant to investors and what is the rationale behind the decisions regarding dividend payouts. This research was eventually named as “Dividend Puzzle” by Fischer Black (1976), describing the lack of consensus in the extensive research regarding dividends, essentially because we find contradictory theories and conclusions. Also, a lot of different variables were used to explain how and why the payment of dividends varies. It is worth to highlight that the studies including ESG scores as an explainable variable of the dividend policy are very recent. As Rakotomavo Michel (2012) states in the first article that explicitly studies this relationship, a lot has been addressed regarding Corporate Social Responsibility (CSR) and firm performance, but the same is not observed for dividends. The author, in this innovative research, found out that CSR investments do not harm the expected dividends which was an important finding to trigger attention to the topic.

The following studies, that took place during the last eight years, conclude that there is indeed a positive relationship between CSR or ESG performance and dividend payouts. They conducted the studies focusing mainly on American or European listed firms, by using CSR or ESG scores, with data up to 2014. It is worth to highlight the most recent study, where Benlemlih (2019) finds that, in the United States, high CSR firms pay more dividends than low CSR firms, what is consistent with the expectation that high CSR firms may use dividend policy to manage the agency problems related to overinvestment in CSR.

---

\(^3\) ESG accelerates into the investment mainstream. (2020). Retrieved 6 November 2019, from https://www.ft.com/content/195232e7-07b7-36e3-a768-b8e63b6eccfc

On this dissertation, the main goal is to verify if these conclusions are also valid for emerging markets. This kind of study is potentially interesting not only because this geography was not explored yet, but also because the previous research on this relationship is conducted using mainly US and European data, where most of the CSR or ESG disclosures are, in fact, voluntarily, and the level of disclosure is higher than developing countries (Bhatia & Makkar, 2019).

Having these differences considered, this empirical study aims to analyse if there is a relationship between ESG firm performance and dividend policy and, if so, if it is also a positive relationship or not, which brings us to the following research questions:

- Does firms’ ESG performance impact its dividend policy? How?

For that purpose, a regression analysis will be performed with panel data from listed firms from the top 10 emerging countries, for the period between 2015 and 2019.

This report is structured as follows: In chapter 2 it is presented a review of the main concepts regarding sustainable finance and theories of dividend policy, and the studies that merge the two topics. In chapter 3 it is presented the research hypothesis. In Chapter 4 it is exposed the methodology employed in this study and assess the sample used. Finally, chapter 5 presents the main results of the study and chapter 6 the conclusions.
2. Literature Review

In this section, it will be presented the relevant literature about the topics under study. First, we define several concepts of sustainable finance and dividend policy. Secondly, the main theories regarding dividend policy will be addressed, as well as the shareholder versus stakeholders’ view. And, finally, the main results of similar studies will be discussed.

2.1 Sustainable Finance

Soppe (2004) argues that sustainability as a phenomenon is quickly rising into the economic and financial literature. The concept was initially launched throughout United Nations conferences in the 1970s and 1980s. The best-known general definition of sustainable growth, for instance, is the one given by the WCDE in Our Common Future (1987): “Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Institutional investors, specifically, may be including ESG performance as a factor in their investment decisions. It can be illustrated by the signatures made by many institutional investors to the United Nations’ Principles for Responsible Investment, that states, “As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that ESG issues can affect the performance of investment portfolios.” In the UNPRI’s website, over 800 signatories are reported, including investment managers and both private and public pension funds.

Simplistically, sustainable finance adds to the traditional finance the ESG criteria. We have been observing, during the last decade, an increasing scrutiny of corporate performance on dimensions other than the stock price. We can say that we are observing a shift in the paradigm. And so it says the article published by Fatemi and Fooladi (2013), arguing that the existing approach to shareholder wealth maximization is no longer a valid guide to the creation of sustainable wealth. This is because, as they state, by emphasizing the short-term results, consequently the social and environmental costs are externalized. Considering this, a sustainable value creation framework is proposed. Furthermore, this paper suggests that

---


good environmental, social and governance performance will become the new norm in a matter of time. Having this said, as verified by empirical evidence, companies that fail to recognize their environmental and social responsibilities will be valued at a discount relative to their peers.

2.1.1 Environmental, Social and Governance (ESG)

To provide a highlight on these criteria, a brief explanation of each concept will be given. ESG criteria is used by socially conscious investors to screen potential investments as a set of standards for a company’s operations. This means that investors are using also nonfinancial data to decide whether to invest in a firm, as both institutional and individual investors now recognize that ESG represents opportunities and risks facing the firm (Coleman, Maheswaran, & Pinder, 2010).

The rationale behind ESG activities undertaken by a firm has been receiving increasing research (Koh, Limkriangkrai, & Durand, 2016). In this same paper, each component is described as followed:

“Environmental (E) activities involve a firm’s efforts to make a positive impact on the environment, through compliance with existing regulations and recognition of future impacts. Social (S) activities refer to equitable treatment of close stakeholders and protection of the social ecosystem in which the firm operates. Governance (G) incorporates firm ethics and integrity, including principles such as transparency and fair dealing, and effective functioning of the board of directors.” (Koh et al., 2016)

Environmental standards include natural resources conservation, pollution, energy use, natural resource conservation, treatment of animals and waste. Also evaluates the exposure of the firm to any environmental risks and how those risks are being managed. For instance, it is evaluated if there are any issues related to the disposal of hazardous waste, ownership of contaminated land, its compliance with government environmental regulations or management of toxic emissions.

Social criteria focus on the kind of impact the company has in society. Some hypothesis might be, for instance, donating a percentage of its profits to the local community, working with partners with compatible values, encouraging employees to perform volunteer work, prioritizing its employees’ health and safety.

Regarding governance, investors might want to make sure that a company uses transparent and accurate accounting methods, and that it is given the opportunity to stockholders to vote on relevant issues. It is important to be sure that firms do not use political contributions to
obtain unduly favourable treatment, avoid conflicts of interest in the election of board members, and, of course, do not engage in illegal practices.

Material business risks and opportunities are increasingly imposed on issuers and investors by these structural and systemic shifts, such as resource scarcity, climate change, the importance of human capital and diversity and regulatory pressures. For these reasons, databases like Bloomberg and Thomson Reuters Eikon provide ESG Scores for firms. It might be relevant to point out that this acronym ESG is recent. Previously, the term Corporate Social Responsibility (CSR) was more common, as it is often referred in the first academic research regarding this topic directly related to corporate governance practices. CSR can be described in several ways, but in this case we refer generally to it as the inclusion of environmental, social and governance concerns in corporate decision making, an approach that is also consistent with the frameworks on which similar studies’ data are based (Cheung, Hu, & Schwiebert, 2018).

The search for a relationship between ESG criteria and corporate financial performance (CFP) is dated back to the early 1970s. Since then, investors and scholars have published more than 2000 empirical studies and several review studies on this relationship. The great majority of studies reports positive findings (Friede, Busch, & Bassen, 2015).

2.2 Dividend Policy

Not only to the policy makers, but also to economists wishing to understand and appraise the functioning of the capital markets and for the investors planning portfolios, the impact of a firm’s dividend policy in its long-term value is a matter of considerable importance.

2.2.1 Dividend Puzzle

“The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don’t fit together” (Fischer Black, 1976). This is how Fisher Black, four decades ago, described the lack of consensus in the extensive research regarding dividends.

Analysing the previous literature, it is possible to identify three main contradictory concepts, regarding the relationship between dividends and firm value: no relationship, positive relationship, and negative relationship.

“Dividend Irrelevance Theory” – No relationship

Starting from the beginning of contemporary theoretical attempts to explain the role of dividend policy, Miller and Modigliani (1961) present the “Dividend Irrelevance Theory”. This theory posits that dividend payouts do not affect firm value, assuming rational investors,
competitive markets, perfect capital markets, full and costless information, no taxes, and no transaction costs.

This theory had support from F. Black and Scholes (1974), Miller (1986) and Miller and Scholes (1982). By contrast, it also faced a remarkable criticism from DeAngelo and DeAngelo (2006), suggesting that the payout policy is relevant for firm value, even in frictionless markets. These authors additionally challenge the dividend puzzle, stating that “it is a non-puzzle because it is rooted in the mistaken idea that MM’s irrelevance theorem applies to payout/retention decisions, which it does not”.

Positive Relationship

In this perspective, it is suggested that dividend payments can increase firm value and shareholder value. Regarding investors’ preferences, the “Bird in the Hand Hypothesis” suggests that the certainty of dividend payments is preferred over the possibility of substantially higher future capital gains. Therefore, by offering higher dividend payouts, the companies maximize their share prices, enhancing the firm value (Gordon (1959, 1963); Gordon and Shapiro (1956)).

One of the most identified market imperfections is information asymmetry. Along with this, the “Signalling Theory” emerges. The signalling models, developed by Bhattacharya (1979), John and Williams (1985) and Miller and Rock (1985), argue that the managers, when deciding the dividend payout, are sending a signal to investors, considering that they have inside information regarding the future of the company. Having this said, an increase in the cash dividend should cause a rise in the market price of the stock and, consequently, an increase of the firm value, and vice-versa.

Another identified market imperfection is agency costs. Regarding the dividend decisions, the “Agency Cost Theory” is related to the relationship between shareholders and managers. For instance, Easterbrook (1984) suggests that the payment of dividends reduces the agency costs between those two different agents, mainly because if the managers need to raise funds in the capital markets, they will have more external and professional monitoring. Moreover, M. C. Jensen (1986) addresses this argument in the free cash flow perspective,

---

7 As cited in Baker, Powell, and Veit (2002), Lease et al. (2000) defines in this book the “big three imperfections” – taxes, asymmetric information and agency costs – and the “little three frictions” – transaction costs, flotation expenses and behavioral considerations – which are all the keys to the relevance of dividend policy.
which means that, by paying dividends, the cash flow available for investments reduces, what will reduce the managers’ flexibility when choosing the investments, forcing them to select only optimal investments, which benefits shareholders’ wealth. Finally, also Rozeff (1982) develops a model of optimal dividend payout in which increasing dividends decrease agency costs but increase the cost of the transaction associated to external financing, as it will be addressed in the next topic. The sum of these two costs would be minimized by the optimal dividend payout. In conclusion, paying dividends enhances firm value by reducing agency costs.

Negative Relationship
In turn, this approach proposes that dividend payments may decrease firm value and shareholder value. The third market imperfection is taxes, which raises the “Tax Preference Theory”. It was developed by Brennan (1970) and Litzenberger and Ramaswamy (1979) and states that investors with favourable tax treatment on capital gains may prefer stocks with low or none dividend payout. Therefore, paying dividends might negatively affect the stock price (and thus, the firm value of the company), since there will be a preference for other firms. On the other hand, F. Black and Scholes (1974) and Miller and Scholes (1982) developed the “Tax Clientele Hypothesis” arguing that there are enough companies to satisfy both investors that prefer high and low dividends and, therefore, in equilibrium, the firm value will not be affected by those tax preferences. This supports the “Dividend Irrelevance Theory”.

Still in this line of reasoning and addressing one of the “little three frictions” – transaction costs –, there is the “Transaction Cost Theory”, also developed by Bhattacharya (1979) and Rozeff (1982). This theory suggests that paying dividends increases the need for external financing, which implies more costs related to this financing, while the cheap internal funds are used to distribute profits instead of possible investments in projects. These raise in the costs implies a lower firm value.

However, the presented three contradictory arguments do not summarize, neither limit, the dividend debate. It might be worth to mention two additional theories.

The “Pecking Order Theory”, by its turn, states that the investments opportunities have an impact on the dividend policy (Myers, 1984; Myers & Majluf, 1984). If a firm is looking for financing to new investments, it will obey the following hierarchy of funds: internal funds,
debt issues and, as last option, equity issues. To prevent external financing, reducing the amount of dividends distributed is an easy solution.

Furthermore, a more recent theory is presented by Wurgler and Baker (2004): “Catering Theory of Dividends”. Managers must understand that dividends are significantly relevant to the share value, but not always at the same time, neither in the same direction, indicating that investors preferences change over time. The dividend payments must be constantly adjusted to the premium associated with dividend (non-) payers.

2.3 Shareholder versus Stakeholder

There is a lot of discussion about whether stakeholders truly have any divergence of interests relative to long term shareholder wealth.

As cited in Rakotomavo Michel (2012), the Freeman’s stakeholder theory from 1984 suggests that a firm should satisfy not only its stock shareholders but also all of its stakeholders. A way to (in)directly benefit several stakeholders is an investment in CSR, like charitable giving, volunteer programs, support for local housing, or other to repay to the local community. Some more examples are cash profit-sharing plans to the employees or environmentally friendly policies. The main question is if the shareholder wealth is affected by the ESG performance of a firm, that intends to favour all the stakeholders.

Deng, Kang, and Low (2013) present the two opposite points of view very clearly: the stakeholder value maximization view and shareholder expense view. The stakeholder value maximization supports the interests of both groups in high CSR firms are in greater alignment than those in low CSR firms. On the opposite, shareholder expense view suggests that socially responsible activities engaged by managers help other stakeholders at the expense of shareholders, through a transfer of wealth from shareholders to other stakeholders. For instance, one given firm might be at a competitive disadvantage by adopting pollution control standards too strict when compared with competitors, forcing them to speed additional resources on this non-productive CSR project. Admiringly, the results of this study support the stakeholder value maximization view, by suggesting that firms integrating various stakeholders’ interests in their business operation enhance their long-term profitability and efficiency, which ultimately increases shareholder wealth and corporate value.

M. C. Jensen (2002) also presents two opposite views: from one side, a firm cannot maximize its while ignoring stakeholders’ interests; however, the stakeholder theory by itself is not clear about the purpose or objective function. In other words, while a value maximization provides
a single objective, the stakeholder theory can represent multiple objectives. Having this in mind, the author proposes a new corporate objective function by creating a proper relationship between value maximization and stakeholder theory called enlightened value maximization, identical to his other concept called enlightened stakeholder theory. Overall, the structure of the stakeholder theory is still used but the goal of maximizing the value of the firm in the long run is accepted. Note that if this happens, we are still looking at maximizing shareholder wealth (in the long run), so it is not a great change of paradigm, but more a shift to a more adequate time horizon (going from short-term, non-value-maximizing perspective, to a long-term sustainable and value-maximizing perspective). Some authors argue that if we look at long term and sustainability, ultimately all the stakeholders will be rewarded (including, of course, the shareholders).

To illustrate this last argument, for example, there is evidence that high levels of employees' satisfaction causes higher long-horizon returns (Edmans, 2011). This means that a socially responsible investing (SRI) screen based on employee wellbeing may enhance investment performance, in contrast with other views that argue that SRI screen reduces investors returns. Another example is the evidence found for firms with high CSR ratings, that outperform firms with low CSR ratings, during the financial crisis, suggesting that building firm-specific social capital may work as an insurance policy that pays off when faced with a severe crisis of confidence (Lins, Servaes, & Tamayo, 2017).

### 2.4 Similar Studies

The academic curiosity regarding the relationship between CSR and dividends is surprisingly very recent. As Rakotomavo Michel (2012) states in the first article that explicitly studies this relationship, a lot has been addressed regarding CSR and firm performance, but the same is not observed for dividends. In this innovative research, the most relevant conclusion is that CSR investments do not have a negative impact on the expected dividends, even after controlling for firm characteristics. Undoubtedly, this was an important finding to trigger attention to the topic.

However, contrary to what could be expected, the next similar study is only published in 2017, five years later. Samet and Jarboui (2017), by their turn, focus on the impact of CSR performance on the payout policy, not only on the dividend payment but also on the share repurchases. Complementing the literature review of the first study, these authors affirm that the research on CSR has been evolving from its impact on firm value, to the capital structure,
agency conflicts, information asymmetry, financial constraints, and investment efficiency. That being so, the authors intend to extend those studies by exploring the connection between payout policy and CSR performance. The main finding is that CSR performance has a positive impact on the level of dividend payments and in the share repurchases in a statistically significant way. Samet and Jarboui (2017) even affirm that their results are in line with Rakotomavo Michel (2012), the first study above referred. In conclusion, the most relevant practical implication of this article is that successful firms in CSR strategies, in other words, with high CSR performance, can add to their shareholders’ tangible benefits in the form of high payout levels. This means that an increase in CSR investments does not eliminate or minimize the cash flow received by the shareholders, as the shareholder expense view suggests. These implications would be expected considering that this study also confirms that mature firms and more profitable, larger, and with greater earned equity firms tend to invest more in CSR. These are all firm characteristics associated to dividend payers, which can lead to an empirical research problem of what is called endogeneity. This might be a limitation of the analysis, by assuming just a one-way causal relationship.

Even more recently, Cheung et al. (2018) simply test if firms with a stronger involvement in CSR activities should be associated with higher dividend payouts, concluding that firms with higher CSR scores tendentially have a higher dividend payout ratio. Thus, CSR performance is positively correlated with dividend payouts.

Also, in 2018, but for an emerging market – Indonesia – a study presents the same conclusions. Here, Trihermanto and Nainggolan (2018), found strong evidence supporting the hypothesis that firms’ CSR expenses positively affect dividend policy.

Taking the analysis to sector level, Kevin M. Casey (2019), also conclude that the positive relationship between ESG rating and dividend yield suggests that firms with higher ESG percentile rankings have higher dividend yields.

Finally, and aligned with all the previous studies, Benlemlih (2019) finds that high CSR firms pay more dividends than low CSR firms, what is consistent with the expectation that high CSR firms may use dividend policy to manage the agency problems related to overinvestment in CSR.

Considering these similar studies, this dissertation is oriented to extend this topic to the reality of the emerging markets, for a most recent data period with the most recent ESG scores, connecting directly the ESG performance with the dividend payout.
2.4.1 ESG scores versus CSR scores

As already stated previously, the acronym ESG is recent. Previously, the term CSR was more common and it can be described in several ways, but in this case we refer generally to it as the inclusion of environmental, social and governance concerns in corporate decision making, an approach that is also consistent with the frameworks on which similar studies’ data are based (Cheung et al., 2018), which means that we consider them as equivalents. This may be also supported by the fact that the signs of the above similar studies are all equal, even though some refer CSR and other ESG performances.

In fact, Thomson Reuters no longer provides CSR scores, as some previous studies refer. Instead, we can only find ESG scores, that incorporate CSR performance.
For instance, Samet and Jarboui (2017) build to what they call an aggregated CSR index, by using the annual environmental, social and corporate governance scores collected from Thomson Reuters, assigning equal importance to each of the three pillars. So, CSR performance is the equally weighted average of the environmental, the social and the governance score, which is the same as ESG Score that we will use in this study.

Also, to study the relationship between CSR and dividend policy, Benlemlih (2019) uses a sample drawn from two data sets, one of them being MSCI ESG STATS (formerly known as KLD STATS).
3. *Research Hypothesis*

The main goal of this study is to test whether ESG Firm’s Performance represents an influence in the dividend policy decisions, measured by the ratio of dividends to total assets, and if that influence is positive or negative.

Even though the literature that studies the relationship between ESG criteria and dividend policy is very recent, the studies relating ESG criteria and a firm’s financial performance can be traced back to the beginning of the 1970s. More than 2000 empirical studies report mainly positive findings (Friede et al., 2015). In this dissertation, it is intended to contribute to the investigation regarding dividends, especially considering the remarkable growth of Sustainable Finance. Having this said, the first hypothesis to be tested is if the ESG Performance can have an impact on another domain of corporate finance:

**Hypothesis 1 (H1): Among the firms that pay dividends, the ones with higher ESG scores tend to have a higher dividend payout.**

The recent literature on this field suggests that there is a positive relationship between CSR/ESG Performance and dividend payout, in other words, firms with higher CSR/ESG scores tend to have a higher dividend payout ratio (Benlemlih, 2019; Cheung et al., 2018; Samet & Jarboui, 2017).
4. Methodology and Data

In this section, it will be addressed the methodology of this dissertation. Starting with the presentation of the empirical model and variables, without forgetting to mention the collection of data process and sample.

4.1 Empirical Model

To study the relationship between ESG scores and dividend policy in the firms of the top 10 emerging economies, from 2015 to 2019, this research uses multivariate panel data-based approach on the following regression model, which is consistent with the similar studies cited on the literature review:

\[
DIV_{i,t} = \alpha + \beta_1 \text{SCORE}_{i,t} + \beta_2 \ln(SIZE_{i,t}) + \beta_3 \ln(SIZE_{i,t})^2 + \beta_4 \text{CASH}_{i,t} \\
+ \beta_5 \text{GROWTH}_{i,t} + \beta_6 \text{ROA}_{i,t} + \beta_7 \ln(\text{LEV}_{i,t}) + \beta_8 \ln(\text{AGE}_{i,t}) \\
+ \beta_9 \ln(\text{AGE}_{i,t})^2 + \sum_{k=1}^{9} \delta_k \text{IND}_{k_i} + \sum_{l=1}^{9} \theta_k \text{COUNTRY}_{l_i} + \epsilon_{i,t}
\]

Where \(DIV_{i,t}\) is the dependent variable that represents the dividend payments in a given year by a given firm and \(\text{SCORE}_{i,t}\) is the independent variable that represents the ESG Score of a given firm in a given year.

The remaining variables are control variables, where \(\text{SIZE}_{i,t}\) represents the firm size; \(\text{CASH}_{i,t}\) represents the cash holdings; \(\text{GROWTH}_{i,t}\) represents the revenues’ yearly growth; \(\text{ROA}_{i,t}\) is the return on assets, a profitability measure; \(\text{LEV}_{i,t}\) represents the level of debt; \(\text{AGE}_{i,t}\) represents the number of years since the foundation of the firm; all of them in a given year for a given firm. \(\text{IND}_{k_i}\), representing the firm’s industry, and \(\text{COUNTRY}_{l_i}\), representing the firm’s headquarters country, are dummy variables.

At last, \(\epsilon_{i,t}\) is the error term, which is assumed to be independently and identically distributed. This set of control variables is used to capture firm characteristics that may affect dividend policy (Benlemlih, 2019; Fama, 2001). The definition of these variables is illustrated in Table 8, that can be found in the Appendices section.
4.2 Empirical Variables

For a better understanding of the empirical model, this subsection describes the variables of the analysis.

Following Florackis, Kanas, and Kostakis (2015), the dependent variable will be dividends, defined as the ratio of total dividends to total assets, as a proxy to measure dividend payout (e.g. Aivazian, Booth, and Cleary (2003)). The main explanatory variable will be ESG Score. Additionally, we used a set of controls in the empirical models to investigate their effect on dividend payments. The control factors selected for this study are identified in the academic literature as potentially influential to dividend policy (e.g., Smith and Watts (1992); Fama (2001); von Eije and Megginson (2008)).

Therefore, in this study we will include the following measures as control variables:

- **Firm size**: measured by the market capitalization. Dividends can be expected to be higher in larger firms, reason why size may be an important factor. In fact, size may be an important factor and dividends can be expected to be higher in larger firms. Nonetheless, a different point of view is sustained by other authors, arguing that this impact is not strong from a theoretical basis perspective. For this reason, there are authors with a different point of view, arguing that the theoretical basis for an impact of firm size on dividend policy is not strong, and in truth, some negative relationships have been observed. Hence, a particular sign in this variable is not expected.

- **Cash holdings**: represented by cash and short-term investments scaled by total assets. From an agency conflicts perspective, managers may increase the cash holdings, reducing dividend payments. Thus, it is expected a negative relationship. From another view, managers might mitigate the agency costs of free cash flows by using dividends. Consequently, it should be expected a positive relationship. In conclusion, we can expect either a positive or negative relationship.

- **Growth**: measured by the yearly revenues’ growth. According to the life-cycle theory suggests (Bulan & Subramanian, 2011), firms with high investment opportunities will preserve earnings to finance growth opportunities, while firms with low investment opportunities tend to pay more dividends, considering the access to high cash flow. Having this said, a negative relationship is expected.

- **Return on Assets**: as a profitability measure, ROA is defined as the ratio of net income to total assets. The firms’ capacity to pay dividends is related to its. G. Jensen,
Solberg, and Zorn (1992) find evidence of a positive association between ROA and dividend payouts, in accordance with the fact that dividend payouts may be positively related with measures of profitability (Miller & Rock, 1985). As this variable is seen as an important factor of dividend policy decisions, we expect a positive impact.

- **Leverage**: is defined as the ratio of the book value of debt to total assets. Financial leverage is a known monitoring mechanism to reduce agency costs, caused by the conflicts between managers and shareholders, according to Michael C. Jensen and Meckling (1976) and M. C. Jensen (1986), which potential is to monitor the role of managers. Supposing that debt is a substitute for the payment of dividends, a negative impact is expected.

- **Age**: the years since the foundation until the year of the observation. It is used as a proxy for maturity (Turner, Ye, & Zhan, 2013). The life-cycle theory (Bulan & Subramanian, 2011) suggests that firms in the early stages of their life cycle pay less dividends than firms in the mature stage. A positive association between this proxy and dividend payout is expected.

### 4.3 Data Collection and Sample

The geographical focus of this study is the Emerging Markets, considering that the US and European markets were already object of research on this topic. For this purpose, the top 10 emerging economies were considered in the process of data collection: Argentina, Brazil, China, India, Indonesia, Mexico, Poland, South Africa, South Korea, and Turkey. The firms selected are listed firms of the MSCI Emerging Markets Index, including only firms from the 10 countries above listed. Also, some listed firms were added via national stock indexes: BOVESPA, IPC 35, MERVAL, COLCAP and PERU General Index. All data was collected using Thomson Reuters Eikon, which resulted in 2,425 firm-year observations. The period under analysis is from 2015 until 2019 and includes 493 listed firms. However, the final sample considered is lower. We excluded firms from the financial sector, as they are subject to different regulations and follow different investment and dividend policies. For estimation purposes, the observations also excluded non-dividend payers and non-positive leverage values. This resulted in 1,166 firm-year observations and 320 listed firms.

---

Aside from the firms’ common financial data, such as, for instance, dividends, market capitalization and return-on-assets, already presented as control variables in the model, it is worth to highlight the ESG Scores.

ESG Scores from Refinitiv\(^9\) (previously Thomson Reuters) are designed to measure a company’s relative ESG performance across 10 main themes (emissions, environmental product innovation, human rights, shareholders, etc.) based on company-reported data. The ratings are available on over 9,000 companies globally with time series data going back to 2002. They are simple to understand percentile rank scores from 0 to 100.

The coverage has evolved over time, it is continuously expanding as more indices are included and the constituents are reviewed quarterly. Figure 1 shows a timeline of the index inclusion in the ESG universe.

![Figure 1 - ESG Scores Index Inclusion Timeline.\(^{10}\)](https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/esg-scores-methodology.pdf)

Refinitiv captures and calculates over 400 company-level ESG measures, based on considerations around comparability, data availability and industry relevance. They are grouped into 10 categories. A combination of the 10 categories, weighted proportionately to the count of measures within each category, formulates the three Pillar Scores and the final ESG Score, which reflects the company’s ESG performance, commitment and effectiveness based on publicly reported information. The category scores are rolled up into three-pillar scores – environmental, social, and corporate governance, as described in Figure 2.

---


Category definitions are available in Table 2 of the Appendices.

### 4.4 Descriptive Statistics

With all the relevant variables in the scope of this research already defined, the respective data will be organized and summarized in this section. The descriptive statistics will be presented for both dependent and independent variables, considering the period between 2015 and 2019 and the sample above described.

#### Dependent variable: Ratio of Dividends to Total Assets

Firstly, Figure 3 presents a graph with the evolution of the average of the independent variable $DIV$, defined as the ratio of dividends over total assets, for our sample. We can observe that, on average, the firms pay dividends of 2.65% of the total assets in 2015, increasing up to 3.09% in 2019. Even though it was registered a decrease in 2017, the trend is positive.

---

Overall, the mean of our dependent variable is 2.78, as it is possible to observe on Table 2, which means that, on average, firms paid dividends of 2.78% of total assets from 2015 until 2019. However, we can observe a variation in this variable across firms over the period as shown by the standard deviation of 4.39, approximately. The maximum value is 44.43 and the minimum value is almost zero (0.0000114).

**Table 2 - Descriptive Statistics to DIV**

<table>
<thead>
<tr>
<th>DIV</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.7829</td>
</tr>
<tr>
<td>Median</td>
<td>1.2119</td>
</tr>
<tr>
<td>Maximum</td>
<td>44.4392</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.0000</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>4.3977</td>
</tr>
</tbody>
</table>

**Figure 4 - Average of the Variable DIV per Country**

At last, by observing Figure 4, we can conclude that there is quite a variance between the averages registered in the 10 countries of the sample. The country where the firms pay, on average, less dividends is South Korea and the country where the firms pay, on average, more dividends is Indonesia.

**Independent variable: ESG Score**

With respect to our dependent variable ESG Score, especially highlighted considering that it the focus of this study, we can find its descriptive statistics on the following Table 3. This score can vary between 0 and 100. On the sample used, the average score is 49.69, with a
maximum of 94.88 and a minimum of 1.27. Overall, we can conclude that the firms included in the sample, from the 10 emerging countries already mentioned, are not very well positioned on the Environmental, Social and Governance ranking measured by Thomson Reuters.

**Table 3 - Descriptive Statistics of SCORE**

<table>
<thead>
<tr>
<th>SCORE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>49.6919</td>
</tr>
<tr>
<td>Median</td>
<td>51.9837</td>
</tr>
<tr>
<td>Maximum</td>
<td>94.8839</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.2663</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>20.6853</td>
</tr>
</tbody>
</table>

**Control Variables: Market Capitalization, Cash and Short-Term Investments to Total Assets, Revenues Growth, Return-On-Assets, Leverage, Age**

At last, the descriptive statistics of our six control variables are presented in Table 3. On average, the firms on the sample have a market capitalization of 18.2 million US dollars and 34 years old. The average revenues’ yearly growth is 9.46%. Regarding profitability, per each 100 US dollars invested in assets, it is generated, approximately and on average, 6.089 US dollars. In terms of liquidity, the cash varies 10.81% and 100.82% of the total assets, being 15% on average. In terms of leverage, the firms present around 119.55% of debt over equity.

**Table 4 - Descriptive Statistics of Control Variables**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>CASH</th>
<th>GROWTH</th>
<th>ROA</th>
<th>LEV</th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$    18 200 000 000 000</td>
<td>0.1500</td>
<td>9.4595</td>
<td>6.0878</td>
<td>119.5457</td>
</tr>
<tr>
<td>Median</td>
<td>$    6 630 000 000</td>
<td>0.1081</td>
<td>4.3700</td>
<td>4.5386</td>
<td>61.0366</td>
</tr>
<tr>
<td>Maximum</td>
<td>$    569 000 000 000 000</td>
<td>1.0082</td>
<td>1 387.1800</td>
<td>75.4151</td>
<td>6 135.8040</td>
</tr>
<tr>
<td>Minimum</td>
<td>$    49 367 458</td>
<td>0.0002</td>
<td>-100.0000</td>
<td>-113.0643</td>
<td>0.0097</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>$    42 100 000 000</td>
<td>0.1495</td>
<td>51.1673</td>
<td>8.0942</td>
<td>235.0614</td>
</tr>
</tbody>
</table>
5. Results

In this section, the results of the empirical model used will be presented and the conclusions concerning the relationship between dividends and our independent variables will be described, focusing mainly on the ESG Score.

The panel data used allows us to estimate three different models: pooled Ordinary Least Squares (OLS), fixed effects and random effects model.

Three diagnostic tests are used to assess which of the three specifications mentioned above is more suitable, namely the fixed effects F-test, which selects pooled OLS models versus fixed effects models, the Hausman test, which decides between the use of fixed effects models and random effects models and, finally, the Breusch-Pagan test, which measures whether the random effects model is more suitable than the OLS pooled model. The fixed effects F-test carried out within the scope of this investigation, whose values observed in the test statistics are reported in Table 1, allows to reject the absence of fixed effects for the period, therefore, given the above, the most suitable model is fixed effects for the period, in this case.

Furthermore, the Hausman tests were carried out and the null hypothesis was rejected, allowing us to choose year fixed effects. The Breusch-Pagan tests were also performed, reaching the same conclusion.

According to Clark and Linzer (2014) the choice between fixed effects and random effects consists of a trade-off between variance and bias: variance is associated with fixed effects and bias is linked to random effects. Under fixed effects the estimates are highly dependent on the sample selection, i.e., there is an error inherent in the randomness of the data. In this research, the option for fixed effects minimizes the referred error and avoids bias problems that arise from random effects. Therefore, the models presented in Table 4 are estimated by fixed effects for the period. The model estimation also uses the Panel Corrected Standard Error (PCSE) estimator, which validates the statistical inference and guarantees that standard deviations are obtained based on estimators consistent with heteroscedasticity and/or autocorrelation.
Table 5 - Panel Data with 1166 observations: 5 periods (2015-2019)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable: DIV</th>
<th>Pooled OLS</th>
<th>Period Fixed Effects</th>
<th>Initial Model</th>
<th>Final Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCORE</td>
<td>0.0205 **</td>
<td>0.0202 *</td>
<td>0.0203 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESG Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln (SIZE)</td>
<td>-4.8033 *</td>
<td>-4.4002 **</td>
<td>-4.4074 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Logarithm of Market Capitalization</td>
<td>(2.215)</td>
<td>(2.277)</td>
<td>(2.225)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln (SIZE)^2</td>
<td>0.0967 **</td>
<td>0.0884 ***</td>
<td>0.0887 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Logarithm of Market Capitalization to the power of 2</td>
<td>(0.048)</td>
<td>(0.048)</td>
<td>(0.048)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASH</td>
<td>-1.7942 ***</td>
<td>-1.8420 **</td>
<td>-1.8264 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio Cash Dividends to Total Assets</td>
<td>(0.929)</td>
<td>(0.929)</td>
<td>(0.926)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.0056 *</td>
<td>-0.0054 *</td>
<td>-0.0054 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly Revenues’ Growth (%)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.3850 *</td>
<td>0.3875 *</td>
<td>0.3873 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio Return-on-Assets</td>
<td>(0.017)</td>
<td>(0.017)</td>
<td>(0.017)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln (LEV)^2</td>
<td>-0.2186 *</td>
<td>-0.2211 *</td>
<td>-0.2197 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Logarithm of Ratio Debt to Equity</td>
<td>(0.065)</td>
<td>(0.065)</td>
<td>(0.065)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln (AGE)</td>
<td>-0.0545</td>
<td>-0.0070</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Logarithm of Age</td>
<td>(0.786)</td>
<td>(0.784)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln (AGE)^2</td>
<td>0.0159</td>
<td>0.0074</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Logarithm of Age to the power of 2</td>
<td>(0.121)</td>
<td>(0.121)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country Dummy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Dummy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.5295</td>
<td>0.5205</td>
<td>0.5212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald F-test</td>
<td>47.4414</td>
<td>41.7863</td>
<td>44.7353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-test for fixed effects</td>
<td>-</td>
<td>2.2268</td>
<td>2.2385</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.064)</td>
<td>(0.063)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: (i) in brackets and below each estimate, the value of the respective robust standard deviation, using the cross-section weights (Panel Corrected Standard Error) method; (ii) the symbols *, ** and *** indicate the individual significance of the explanatory variable for the significance level of 1%, 5% and 10%, respectively; (iii) Adjusted R-squared corresponds to the adjusted determination coefficient; (iv) Wald-F corresponds to the global significance test of the regression, and, in parentheses and below the observed value of the test statistic, there is the respective p-value; (v) In the F-test for fixed effects, in parentheses, the p-value is indicated.

Table 5 reports our estimations output. Starting by the overall significance of the regression, we can conclude, by looking to the Wald F-test values, that null hypothesis is always rejected for a level of significance of 1%.
Even though it is not represented in the table, it is also important to highlight that, by comparing the initial model with the final model, we get a Wald F-statistic value of 0.0395 with p-value 0.9612. Thus, the null hypothesis is not rejected, allowing us to conclude that the final model provides a better fit for the sample than the initial model that contains \( \ln (\text{AGE}) \) and \( \ln (\text{AGE})^2 \).

So, it is valid to observe that all variables are statistically significant, with the exception for the age. The score, ROA, growth, and the natural logarithm of leverage are statistically significant for the significance level of 1%. The natural logarithm of size and cash holdings are statistically significant for the significance level of 5%. Finally, the natural logarithm of size, to the power of two, is statistically significant for the significance level of 10%.

Starting by the variable on which our study focuses on, if the ESG score increases by 1 point, it is estimated that the ratio of cash dividends to total assets increases by, approximately, 0.0203 percentage points, ceteris paribus. Therefore, this model confirms the positive relationship between ESG score and dividends.

It is also important to interpret the coefficients of our control variables, to verify if the signs are in line with the literature.

If the firm size, given by the market capitalization in US dollars, increases by 1%, it is estimated that the ratio of cash dividends to total assets decreases by, approximately, 0.0022 percentage points, ceteris paribus, and assuming the average value for market capitalization. Up to 61,630,295,164.39 US dollars, the estimated effect is negative and above that value is positive. This result is in accordance with the discussion that the theoretical basis for an impact of firm size on dividend policy is not strong, and indeed some negative relationships have been observed.

Regarding the cash holdings, considering that it increases by 1 percentage point, it is estimated that our dependent variable decreases by, approximately, 1.8264 percentage points, ceteris paribus. In the presence of agency conflicts, managers increase the cash in place and short-term investments, which reduces dividend payment.

Looking to the growth perspective, it is estimated that, per each increase of 1 percentage point in the yearly revenues’ growth, the dependent variable decreases by, approximately, 0.0054 percentage points, ceteris paribus. Firms with high investment opportunities will retain earnings to finance growth opportunities, whereas firms with low investment opportunities will have access to high cash flow and tend to pay more in dividends.
Assuming that, ROA increases by 1 percentage point, it is estimated that the ratio of cash dividends to total assets increases by, approximately, 0.3873 percentage points, ceteris paribus. This result favours the fact that profitability is considered as an indicator of the firm’s capacity to pay dividends.

When the leverage of a firm, given by the ratio between debt and equity, increases by 1%, it is estimated that the ratio of cash dividends to total assets decreases by, approximately 0.002197 percentage points, ceteris paribus. Assuming that debt is a substitute to dividend payments in terms of agency costs mechanisms, it is expected that higher leverage implies lower dividends.
6. Conclusion
This study examined the relationship between dividend policy and ESG Scores on a sample of 320 firms from the top 10 emerging countries, for the period between 2015 and 2019, using a panel data estimation methodology.

By using a regression model including also control variables, we found evidence of a positive relationship between dividends and ESG scores, which confirms our research hypothesis: among the firms that pay dividends, the ones with higher ESG scores tend to have a higher dividend payout.

This conclusion is in line with the similar studies presented, which confirms this positive effect of ESG Score in the dividend policy in the emerging markets, besides the United States of America and Europe.

Assuming that dividends are one of the sources of shareholders wealth, we can conclude that the maximization of the value of the firm for all kinds of stakeholders, does not negatively affect the value for the shareholders. This conclusion is also in line with studies that suggest that ESG Performance has a positive impact on the financial performance of a firm, which also contributes to the shareholders’ wealth.

Limitations
This study has some limitations such as the size of the sample, that could be bigger. However, the ESG Scores provided by Thomson Reuters for the emerging countries firms are also recent. Besides that, adding a control variable representing the shares repurchases could improve the model used. But, once again, that data was not available on Thomson Reuters.

Further research
One interesting additional hypothesis to test is if the ESG Performance affects the propensity to pay dividends. Also, future research could focus on the impact of ESG ratings on other managerial decision variables and performance metrics. Other geographies may also show different results, reason why it might be interesting to conduct the same study in other countries.
### Table 6 - 10 Measures of ESG Scores

<table>
<thead>
<tr>
<th>Score</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Use</td>
<td>Reflects a company’s performance and capacity to reduce the use of materials, energy, or water, and to find more eco-efficient solutions by improving supply chain management.</td>
</tr>
<tr>
<td>Emissions Reduction</td>
<td>Measures a company’s commitment and effectiveness towards reducing environmental emissions in the production and operational processes.</td>
</tr>
<tr>
<td>Innovation</td>
<td>Reflects a company’s capacity to reduce the environmental costs and burdens for its customers, thereby creating new market opportunities through new environmental technologies and processes or eco-designed products.</td>
</tr>
<tr>
<td>Workforce</td>
<td>Measures a company’s effectiveness towards job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities and development opportunities for its workforce.</td>
</tr>
<tr>
<td>Human Rights</td>
<td>Measures a company’s effectiveness towards respecting the fundamental human rights conventions.</td>
</tr>
<tr>
<td>Community</td>
<td>Measures the company’s commitment towards being a good citizen, protecting public health and respecting business ethics.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Reflects a company’s capacity to produce quality goods and services integrating the customer’s health and safety, integrity, and data privacy.</td>
</tr>
<tr>
<td>Management</td>
<td>Measures a company’s commitment and effectiveness towards following best practice corporate governance principles.</td>
</tr>
<tr>
<td>Shareholders</td>
<td>Measures a company’s effectiveness towards equal treatment of shareholders and the use of anti-takeover devices.</td>
</tr>
<tr>
<td>CSR Strategy</td>
<td>Reflects a company’s practices to communicate that it integrates the economic (financial), social and environmental dimensions into its day-to-day decision-making processes.</td>
</tr>
<tr>
<td>Data</td>
<td>Thomson Reuters Code</td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Cash Dividends, in USD</td>
<td>TR.CashDividendsPaid</td>
</tr>
<tr>
<td>Total Assets, in USD</td>
<td>TR.TotalAssetsReported</td>
</tr>
<tr>
<td>ESG Score</td>
<td>TR.TRESGScore</td>
</tr>
<tr>
<td>Market Capitalization, in USD</td>
<td>TR.CompanyMarketCapital~(ShType =OUT)</td>
</tr>
<tr>
<td>Cash and Short-Term Investments, in USD</td>
<td>TR.CashAndSTInvestments</td>
</tr>
<tr>
<td>Revenues, in USD</td>
<td>TR.RevenueActValue</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>TR.F ReturnAvgTotAssetsPct</td>
</tr>
<tr>
<td>Leverage</td>
<td>TR.TotDebtToTotEquityPct</td>
</tr>
<tr>
<td>Year of Foundation</td>
<td>(TR.OriginFoundedYear)</td>
</tr>
<tr>
<td>Industry</td>
<td>TR.GICSIndustry</td>
</tr>
<tr>
<td>Country</td>
<td>TR.HeadquartersCountry</td>
</tr>
<tr>
<td>Variables</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>DIV</td>
<td>The ratio of total dividends to total assets.</td>
</tr>
<tr>
<td>SCORE</td>
<td>Environmental, social and governance Score.</td>
</tr>
<tr>
<td>SIZE</td>
<td>Market capitalization, in USD.</td>
</tr>
<tr>
<td>CASH</td>
<td>The ratio of cash holdings to total assets.</td>
</tr>
<tr>
<td>GROWTH</td>
<td>The yearly revenues' growth.</td>
</tr>
<tr>
<td>ROA</td>
<td>The ratio of net income to total assets.</td>
</tr>
<tr>
<td>LEV</td>
<td>The ratio of total debt to total assets.</td>
</tr>
<tr>
<td>AGE</td>
<td>The years since the foundation until the year of the observation.</td>
</tr>
</tbody>
</table>
References


Clark, T., & Linzer, D. (2014). Should I Use Fixed or Random Effects? *Political Science Research and Methods, 3*, 399-408. doi:10.1017/psrm.2014.32


Deng, X., Kang, J.-k., & Low, B. S. (2013). Corporate social responsibility and stakeholder


