

Zahid, R. M. Ammar; Taran, Alina; Khan, Muhammad Kaleem; Chersan, Ionela-Corina

Article

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ESG, dividend payout policy and the moderating role of audit quality: Empirical evidence from Western Europe

R.M. Ammar Zahid ^a, Alina Taran ^{b,*}, Muhammad Kaleem Khan ^c, Ionela-Corina Chersan ^d

^a School of Accounting, Yunnan Technology and Business University, Yunnan, PR China

^b Department of Business Administration, Faculty of Business and Administrative Sciences, Istanbul Okan University, Turkiye and The Body of Expert and Licensed Accountants of Romania, Suceava, Romania

^c Asia-Australia Business College, Liaoning University, PR China

^d Faculty of Economics and Business Administration, "Alexandru Ioan Cuza" University of Iasi, Romania

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Abstract

This study investigates the relationship between environmental, social, and governance (ESG) scores and dividend policies, considering the moderating role of audit quality. Based on data for Western European listed companies (leaders in ESG revolution) over the period 2010–2019, panel regression analyses show a significant positive relationship between ESG and dividend payouts. Thus, companies with strong ESG practices prove their stakeholders' and shareholders' orientation, maintaining their dividend payments. However, involvement in high-quality ESG practices slows dividend growth. Audit quality has also a negative moderating effect on ESG–dividend links, prevalent at the firms whose financial audit is conducted by Big Four auditors, with no statistically significant results for ESG assurance quality. The findings are robust to sensitivity analyses based on alternative measures and estimation techniques. These results have implications for investors, management, analysts, and policy makers, providing significant lessons for companies and markets concerned about extending their ESG policies.

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1. Introduction

Dividends are the ultimate goal of business investment. Numerous studies and theories focus on the motivation and determinants of dividends and on corporate dividend policies as influenced by financial and governance factors (Booth & Zhou, 2017; Denis & Osobov, 2008). However, the recent international orientation toward global environmental and social problems strongly influences business practices, inducing a major paradigm shift. Consequently, the allocation of corporate resources

to environmental, social, and governance (ESG) friendly policies, which are appreciated by investors and society in general, also raises new challenges and dilemmas for management and investors, setting new priorities in investment and corporate goals and enhancing sustainability practices at the expense of shareholder assets. Therefore, a financial conflict inherently arises between the ability of companies to invest in ESG initiatives and to compensate their investors with dividend payments.

Several recent studies have questioned how the business orientation toward ESG goals influences corporate dividend payouts, reporting contradictory results: a positive relation between ESG scores and a firm's ability to pay dividends in the United States (Benlemlih, 2019), the European Union (Verga Matos et al., 2020), the United Arab Emirates (Ould Daoud Ellili, 2022), France (Salah & Amar, 2022), and Korea (Oh

* Corresponding author.

E-mail addresses: amrzahid@gmail.com (R.M.A. Zahid), alina.taran@okan.edu.tr (A. Taran), muhammadkaleem.khan@vu.edu.au (M.K. Khan), corina.chersan@feaa.uaic.ro (I.-C. Chersan).

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& Park, 2021) and negative results in China (Cheung et al., 2018; Ni & Zhang, 2019; Niccolo et al., 2020). Western Europe is leading the worldwide ESG revolution through its environmentally friendly pacts, policies, incentives and regulations, social responsibility initiatives, and corporate governance measures. ESG practices and nonfinancial disclosures reflected by ESG scores indicate the sustainability orientation of the companies, and investors and stakeholders embrace the adoption of corporate ESG practices. Sustainability reporting is mandatory for large public interest entities in the EU as of 2017 (Vander Bauwhede & Van Cauwenberge, 2022; Zahid et al., 2022a). In addition to the mandatory financial audit, assurance of ESG reporting, even if still voluntary, also became a common practice. Thus, the first objective of this research is to investigate the corporate dividend payout practices with an ESG orientation and performance using the two perspectives of dividends as payouts (as previously studied) and growth ratios (thus far unexplored in the literature) in the unique setting of Western European countries.

Moreover, moderating factors such as corporate governance (Ould Daoud Ellili, 2022; Sheikh et al., 2021; Yilmaz et al., 2022) significantly interfere with the ESG–dividend relationship. The role of intermediary factors in the strategies, costs, efficiency, and practices of ESG (Duque-Grisales & Aguilera-Caracuel, 2021) is important. Factors such as audits and assurances interpose the ESG–performance relationship and consequently influence dividend payout policies over time, in terms of size and growth, in various cultural and regional settings.

Corporate ESG orientation and additional nonfinancial information about ESG practices enable firms to reduce information asymmetry, generally leading to positive economic outcomes (De Villiers & Marques, 2016) with a significant financial impact (Bizoumi et al., 2019). Extant studies have not yet addressed the problem of dividend growth, in association with corporate investment in ESG or the role of financial audits (as an external stewardship and advisory factor that entrusts corporate financial results and reports), or nonfinancial audits (assurance) that enhance nonfinancial or sustainability disclosures, which demonstrate corporate ESG practices and reduce informational friction. The professional expertise of auditors enhances trust in corporate reporting and financial practices, influencing corporate financial decisions and risk management, business ethics, and compliance with financial reporting regulations (Zahid & Simga-Mugan, 2022). Thus, the second goal of our research is to analyze the moderating role of both financial and nonfinancial audit quality in the ESG–dividend relationship focused on Western Europe, which creates an international ESG practice, reporting, and compliance model.

The results of alternative statistical estimations indicate a positive effect of ESG practices on the corporate dividend payout, confirming some prior literature, and a newly found negative effect of ESG on dividend growth, which illustrates the redistribution or reduction of profits determined by ESG corporate actions. The moderating role of Big Four auditors is significant for both dividend payouts and growth ratios, suggesting that the strict rigors of financial audits involve prudence

in valuation methods, limit tentative manipulation, and imply high-quality ESG actions, which together may reduce the corporate financial results, free cash flows, and dividend payments and, consequently, slow dividend growth. No significant results were found about the moderating role of the ESG assurance conducted by Big Four auditors, suggesting that assurance of nonfinancial information, which was still optional during our period of analysis in 2010–2019, does not have an impact on dividend policy decisions. These findings contribute to the future of corporate sustainability practices, corporate and investor decisions, regulators, and stock market actors with the power to shape ESG and investment corporate policies in Western Europe and internationally.

The study makes three contributions to the literature. First, we offer a better understanding of the impact of sustainability and ESG policies on dividend payout decisions, building on the work of Verga Matos et al. (2020) by illustrating the influence of ESG on dividend growth. Second, an emerging debatable question is the importance of financial audit and professional assurance of sustainability reporting, in influencing ESG–dividend payouts. To date, it has been found that audit quality is related to earnings quality (Lawson & Wang, 2016) and dividend decisions (Khan & Ahmad, 2017), and the assurance of corporate sustainability responsibility (CSR) or nonfinancial reports, especially professional Big Four assurance, reduces corporate information asymmetry and the cost of capital (Garzón-Jiménez & Zorio-Grima, 2021; Martínez-Ferrero & García-Sánchez, 2017; Vander Bauwhede & Van Cauwenberge, 2022). Along this line of thinking, we find these beneficial implications further affect corporate profitability and dividend policies in the context of ESG practices. To the best of our knowledge, this is the first study to investigate the moderating role of financial audit and sustainability assurance on corporate dividend decisions, especially Big Four assurance. Third, we present new empirical evidence from Western Europe, an internationally leading region in terms of environmental and social initiatives, governance practices, and ESG reporting.

The structure of the paper consists of section 2 background motivation, section 3 theoretical discussions and literature review, methodology in section 4, results discussed in section 5, and conclusions in section 6.

2. Background

Intensive free cash flow enhances managerial discretion and the likelihood of overinvestment. The situation becomes critical if growth opportunities are limited. The agency theory implies that cash outflows in dividends reduce free cash flow and control cash flow–related agency problems (Jensen, 1986), such as managerial opportunism (Heaton, 2019). Studies such as Healy and Palepu (1988), and Officer (2011) find that markets respond positively to dividend announcements and react negatively to dividend omissions (Healy & Palepu, 1988). At the same time, managerial optimism can lead to excessive dividend payments, which reduces the company's ability to finance its operations (Heaton, 2019).

Consequently, dividends can lead to a higher cost of debt, and professional managers and inside directors may be wary of committing profits to shareholders. They might choose a more flexible payout route to avoid underinvestment due to funds shortages and high capital costs. However, these assumptions are challenged by the pressure of ESG practices, which also require enhanced investment and corporate funding for sustainable development and benefits over time, in line with international environmental and social goals.

Although nonfinancial reporting has not yet been standardized, and mandatory reporting is still absent in many regions (Eccles et al., 2011), worldwide, Global Reporting Initiative (GRI) is the dominant global standard for sustainability reporting and assurance of sustainability information as a preferred and value-relevant practice for large- and mid-cap companies (KPMG, 2020; Vander Bauwhede & Van Cauwenberge, 2022). Numerous other reporting frameworks have contributed to the international development of sustainability reporting, such as SASB Standards, the Integrated Reporting Framework, Non-Financial Reporting Directive issued by the European Commission, the United Nations sustainable development goals (SDG), the United Nations Global Compact (UNGC), and the Taskforce on Climate-related Financial Disclosures (TCFD), and companies are mainly encouraged to disclose nonfinancial or sustainability information regardless of the framework applied.

Western Europe leads internationally in voluntary and, since 2017, mandatory nonfinancial reporting for public companies with over 500 employees in the EU. The sustainability reporting rate in Europe was 77 percent in 2020, the same level as in 2017. Eastern Europe and Western Europe differ in terms of timely adoption: Western European countries have adopted the European Directive on Non-Financial Reporting, but Eastern European governments have been slower to integrate the directive into domestic law. According to the KPMG Corporate Sustainability Report (2020), countries in Western Europe are at the top of various international corporate sustainability rankings: Sweden, Spain, France, the UK, and the Netherlands have a sustainability reporting rate of more than 90 percent; France, Sweden, the Netherlands, and Norway are among the top 10 countries in several integrated reports; Finland, France, and the UK are among the top 10 countries in which companies include sustainability information in annual reports; France and Germany are among the top five countries where companies report biodiversity-related risk; France, the UK, the Netherlands, and Spain are among the top 10 countries that acknowledge climate change as a financial risk; Germany and France are among the top five countries where companies connect sustainability activity with the SDGs (KPMG, 2020), and so on.

In addition to the high sustainability disclosure rate, Western European companies also provide voluntary assurance about nonfinancial disclosures, an overwhelming majority (over 90%) of the firms that provide ESG reporting assurance purchase these services from a financial auditor (IFAC, AICPA, & CIMA, 2022). A recent study (Abay, 2022) proved that firms with third-party assurance have significantly

higher ESG performance than firms with no assurance; the third-party assurance about the quality of ESG reporting is valuable to investors who rely on the ESG rating in their decision-making (Del Giudice & Rigamonti, 2020).

Because of the strong interest in ESG reporting and sustainable development, on April 21, 2021, the European Union (EU) adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), to replace the existing Non-Financial Reporting Directive (NFRD). The CSRD focuses on three core issues: firms will be obliged to provide dedicated ESG reports as part of their annual reports; the European Financial Reporting Advisory Group (EFRAG) will be responsible for establishing European Sustainability Reporting standards for quantitative ESG disclosures; and the external assurance of ESG reports will be mandatory (CSRD, 2021), most probably as of 2023. Thus, ESG reporting in Western Europe and internationally still has room for improvement. The companies, investors, managers, analysts, and policy makers still have many challenges in implementing sustainability goals. This paper contributes to solutions to these challenges by providing theoretical and empirical insights related to sustainable business practices and their implications for corporate dividend decisions.

3. Literature review and hypotheses development

3.1. Theoretical framework

In order to comprehend the relationship between ESG and dividend payments, it is necessary to combine multiple theories. As a starting point for creating testable hypotheses, we focus in more detail on three interrelated theories: agency theory, signaling theory, and stakeholder theory.

3.1.1. Agency theory

According to the agency theory, asymmetrical information creates agency challenges for internal (management) and external (shareholders) stakeholders. Because of the informational asymmetry, investors tend to favor dividends over retained earnings. Over time, various remedies to agency issues have included effective monitoring, enhancing insider ownership, debt use, and board independence. Dividend payments and the publication of additional financial and nonfinancial information represent fundamental solutions to the agency problem (Lloyd et al., 1985). Unless earnings are distributed to shareholders as dividends, the management can divert it to further its interests or use it for projects that harm the company's worth and benefit only the company's managers (La Porta et al., 2000). According to these arguments, dividend payments mitigate agency concerns by removing the additional cash from the organization, thus limiting managerial opportunism (Jiraporn et al., 2011). In addition, shareholders can use dividend payments to extort money from debtholders (Adaoglu, 2000).

Dividends and ESG performance serve some common purposes. Both contribute to a company's reputation, enhancing the company's good governance by sending clear signals to the

market (El Ghouli et al., 2011). At the same time, a positive reputation can enhance the ability of the companies to attract external financing at lower cost. Further, because of the low cost of external funding, corporations can set aside funds for dividend payments. As a result, this viewpoint implies a favorable association between ESG and dividend payout. However, dividend payments reduce agency costs (Athari et al., 2016), and disclosure of additional company-related nonfinancial information reduces information asymmetry.

3.1.2. Signaling theory

Signaling theory refers to the interactions of signal senders and recipients as participants in financial markets (Ambarish et al., 1987). According to signaling theory, the disclosure of additional business information communicates to the capital market the actions taken by corporate management to reduce information asymmetry costs, optimize financing costs, and increase corporate value. The signaling theory intersects with the agency theory as both concern the presence of asymmetric information between insider and outsider stakeholders. The signaling theory obtains information from capital markets to mitigate asymmetric information in corporate activities' financial and social areas (Spence, 2002). The quality of the disclosed information (the signal's quality) garners support and trust from diverse stakeholders, determining benefits for the firms. As a result, sustainability-related reporting becomes a tool for monitoring managerial behavior, indicating "excellent management behavior" (Pérez, 2015).

3.1.3. Stakeholder theory

Shareholders are a key group of stakeholders, and ESG initiatives indicate that high scores in all three components (environment, social, and governance) account for both shareholders' and stakeholders' rights and expectations. A high dividend level combined with high ESG scores indicates that a corporation is dedicated to all its stakeholders (Benlemlih, 2019), sending a strong positive signal to financial markets and stakeholder groups. Firms may allocate smaller short-term cash flows for dividend distribution in order to reinvest profit and continue to enhance ESG performance (Dhaliwal et al., 2011; El Ghouli, 2011; Ould, 2020; Zahid et al., 2022a).

To summarize, these core ideas help to explain how sustainable practices affect the dividend policy of enterprises in developed economies. Importantly, rather than competing, these ideas complement one another to improve our understanding of nonfinancial disclosures and ESG practices incorporating funding decisions. However, dividend decisions still have contradictory motivations, with benefits and threats to business development (Black, 1976; Bhattacharyya, 2007). For a more complex analysis of dividend theories and motivations, we recommend the reviews by Bhattacharyya (2007) and Booth and Zhou (2017). Taking these theoretical viewpoints together, we claim that corporations share ESG-related information to alleviate information asymmetry (agency theory) and demonstrate their commitment to social and environmental issues, fostering stakeholders' faith in corporate actions (signaling and stakeholder theories).

3.2. The relationship between ESG and dividends payouts

In theory, the nonfinancial disclosures can affect dividend decisions via two interconnected routes: the debt cost channel and the earnings channel.

According to the debt cost channel, the nonfinancial disclosures reduce asymmetric knowledge between insiders and investors, increasing access to finance and lowering the cost of capital, thus encouraging managers to pay dividends. The cost of capital and dividend payment have a negative relationship because when the cost of finance is low, the external financial constraints are less binding for companies (Cheung et al., 2018). As a result, the absence of binding restraints allows corporations to pay dividends (Cao et al., 2017). Nonfinancial reporting about environmental, social, and governance practices provides additional information about the company and assists investors in assessing the company's possible environmental and social liabilities (El Ghouli et al., 2011). According to Cuadrado-Ballesteros et al. (2016), when information asymmetry decreases due to high disclosure and corporate transparency practices, the transaction costs decrease, favorably affecting the firm's inclination to pay dividends. When disclosure is inadequate, and investors are not confident about the information received, they can restrict their investment and demand relatively high returns (Dhaliwal et al., 2011), harming dividend payout decisions. According to the signaling theory, more knowledge leads to higher investor trust in managerial decision-making. As a result, they are more confident in directing their investment toward companies with a solid reputation for corporate governance. The ESG reporting signals to the financial markets that the organization can control environmental and social risks. The investors link this disclosure to strong corporate governance (Cheung et al., 2018), high social capital, a good reputation (Birkey et al., 2016), and big investor bases, so idiosyncratic risk is regarded as low (El Ghouli et al., 2011). The lower the perceived risk of disclosing corporations is, the lower the debt premium, increasing their capacity to pay out cash as a dividend.

The second channel is earnings, which illustrates how nonfinancial disclosures reflect the corporate commitment to stakeholders, key determinants of business profitability. Consumers appreciate the corporate social and environmental commitment. It can determine a change in the sales market share, resulting in favorable financial results and increasing the corporate ability to pay dividends. Previous research has identified earnings as a crucial antecedent of dividend payments (Mitton, 2004). Nonfinancial disclosure can boost revenues by establishing brand equity, improving stakeholder interactions, increasing staff productivity, and better asset allocation. These benefits contribute to favorable investor dividend policies and higher earnings, creating a positive situation for investors, businesses, and all stakeholders (Cheung et al., 2018). El Ghouli et al. (2011) demonstrate that socially responsible corporate behavior protects companies against market uncertainty. As a result, a consistent revenue stream may further allow the company to pay out cash as dividends.

Some prior studies indicate a positive relationship between CSR and dividends (Benlemlih, 2019; Cheung et al., 2018; Rakotomavo, 2012), with sustainability practices associated with more stable dividend policies (Samet & Jarboui, 2017). Cheung et al. (2018) find that firms with high CSR scores have higher dividend levels because higher CSR scores increase earnings by reducing perceived risk (Dhaliwal et al., 2011; El Ghouli, 2011; Goss & Roberts, 2011; Ould, 2020) and better relationships with stakeholders, especially for nonfinancial firms. In a study on US firms before the 2007 financial crisis, Rakotomavo (2012) suggests that CSR efforts and dividends tend to increase together. Thus, social and sustainability practices do not reduce investors' expected dividends. However, this result can vary based on the corporate and institutional context and country characteristics, as Niccolo et al. (2020) and Ni and Zhang (2019) find a negative relation between ESG practices and dividend payout by listed companies in China. Cheung et al. (2018) claim that the two main channels explaining the ESG–dividend relationship can also lead to a negative relationship. The corporations benefiting from a lower cost of debt might still reinvest their profit or find an alternative use for their free cash flow.

In contrast, the expected increase in profitability from ESG practices may require time and financial benefits in the long run. Moreover, ESG investments are rather costly and thus reduce corporate cash and even profitability (Duque-Grisales & Aguilera-Caracuel, 2021). That is why investors with longer horizons prefer firms with higher ESG, whereas short-term investors prefer the opposite (Starks et al., 2017). Nevertheless, as Pan (2020) states, institutional investors should encourage their managers to include ESG issues in general credit evaluations and monitor them to improve risk management. Dividend policy and corporate governance mechanisms are complementary tools for reducing agency costs (Farooque et al., 2021). Firms that pay higher dividends are more likely to engage in good governance practices and implement strong monitoring and control systems that enhance corporate results and pay dividends (Elmagrhi et al., 2017; Erdaş & Simoes, 2020). Simultaneously, firms with strong corporate governance have higher dividend payouts (Adjaoud & Ben-Amar, 2010).

Overall, the various aspects that define ESG practices have a strategic and significant influence on corporate activity, financial performance, and, thus, dividend-related decisions. Considering the level of corporate and regulatory development in Western Europe, with developed financial markets and high commitment to ESG, transparency, and quality of disclosure, the Western European companies, may be an example of quality reporting to demonstrate their commitment to improved governance standards and to build a good reputation (Dhaliwal et al., 2011; Zahid & Simga-Mugan, 2019). By doing so, the companies attract investors and raise debt at a low cost, which may benefit the dividend policy (El Ghouli et al., 2011). Thus, these firms may be more likely to disclose socially responsible activities to convey a firm's unobservable attributes (e.g., an effort to reduce opportunism), which aids firms in lowering their cost of capital

and, as a result, leaves them with enough cash to pay dividends. However, evidence supporting the relationship between ESG and nonfinancial disclosure and dividend payout practices is still scarce in the EU region (Verga Matos et al., 2020), and contradictory results can still be obtained. Collectively, based on these arguments, we anticipate that ESG practices have a significant impact on dividend payouts in the context of Western European markets, hypothesized as follows.

Hypothesis 1. *A significant relationship is found between ESG practices and dividend payment.*

3.3. The moderating role of audit quality in ESG–dividend payment decisions

Previous empirical research has suggested that higher audit quality adds value to market participants by ensuring that financial statements accurately reflect a company's underlying activities (DeFond & Zhang, 2014). Auditors consider their clients' characteristics and potential agency problems in their audit submissions, especially due to reputation and professional risks (Ali & Lesage, 2013; Griffin et al., 2010). They also advise the corporations regarding proper disclosure of financial and nonfinancial information, valuation, and risk assessment. Their impact on corporate financial results and governance practices affects the profit figures, their distribution as dividends, and resource allocation for sustainability practices. According to a poll conducted by the Institute of Certified Financial Analysts (ICFA), 72 percent of the respondents consider the audit report extremely important in investment decision-making (CFA Institute, 2010). Similarly, Lee and Lee (2013) state that a higher-quality audit raises the value of financial statements, particularly in portraying economic business success and providing greater investor precision in evaluating business value. Large auditors are generally more effective in constraining earnings management and providing higher-quality audits (Becker et al., 1998).

Auditing is one of the most important monitoring strategies for reducing information asymmetry, reining in exploitative activities, and enhancing ESG performance and transparency as per agency theory (Jensen & Meckling, 1976). Auditing theory literature indicates that audit quality is essential for the success of external audits (Knechel et al., 2013). One of the parameters provided in prior research to evaluate auditors' quality is the auditing firm's size. According to DeAngelo (1981), the quality of an audit firm increases as its size or reputation develops. Larger, better-known auditing companies protect their reputation by providing clients with audits of superior quality while remaining objective (Bacha et al., 2020). Because of their longer experience (Choi et al., 2010) and greater audit effort, larger audit firms (i.e., the Big Four) conduct higher-quality audits (Francis & Yu, 2009). Big Four audit clients have always demonstrated exceptional CSR performance and transparency (Agyei-Mensah, 2019). Big Four audit firms deliver

superior audit quality (Francis, 2011) because they have more resources to deploy during audits and make substantial investment in human capital and technology, increasing the dependability of the information provided, including nonfinancial information. Thanks to their expertise and rigor, Big Four auditors enhance ESG practices, especially in governance and environmental actions, in line with the European directives and international regulatory sustainability initiatives. At the same time, they reduce earnings management and overestimate dividends, emphasizing confidence in corporate activities. Therefore, audit quality, defined by the type and characteristics of the auditors, becomes a core-moderating factor in understanding dividend policies and practices.

Audit quality, in particular, is critical in improving the reliability of financial statements and financial information, reducing financing costs, and minimizing opportunistic managerial behavior (Huguet & Gandía, 2016). The audit firms known as the Big Four are associated with the performance of a high-quality audit (Hammami & Zadeh, 2020). Thus, higher audit quality results in less information asymmetry and greater transparency. Farooque et al. (2021) and Mitton (2004) show that Big Four-affiliated audit firms significantly and positively influence dividend policy. In contrast, Deshmukh et al. (2003) indicate that higher information asymmetry, caused by a poor audit, leads to lower dividends paid to shareholders.

The success of ESG practices and transparency regarding corporate activities are related to higher audit quality, which improves firm legitimacy and reputation (Hammami & Zadeh, 2020). An external financial audit involves an in-depth risk assessment of any aspect of the business that may influence the accuracy of financial information, including financing ESG practices, corporate reputational risk, allocation of corporate resources, and firm profitability. Thus financial auditors are implicitly trained in ESG practices and strategies and avoiding corporate misconduct, helping corporations to improve their practices and reduce their reputational risk (Asante-Appiah & Lambert, 2022). The monitoring and corrective role of enhanced quality audit can improve corporate financial results, including dividend policies and ESG practices. Alternatively, it can prevent financial manipulation and misconduct, which have a negative impact on reporting profitability and other financial indicators. Considering the relation between financial and nonfinancial audits with ESG reporting and dividend payout, audit quality is a moderating element that can influence the association between ESG and dividends. It enhances the quality of ESG actions from the perspective of financial reporting and trust in corporate financial decisions, highlighting ESG practices and their financial implications. Therefore, audit quality is expected to moderate the ESG-dividend payout relationship in the context of Western European markets, given that higher audit quality enhances ESG practices (by limiting opportunistic behaviors and reducing agency conflicts) and regulatory compliance in a region with strong institutions, developed financial markets, and high voluntary disclosure. The second hypothesis in the study is as follows:

Hypothesis 2. *Audit quality significantly moderates the relationship between ESG scores and dividend payments.*

Nonfinancial reporting assurance, especially if provided by Big Four, can also affect ESG-dividend decisions, in line with the degree of support for accurate ESG information. However, as this assurance represents a new aspect of audits, still in development and optional in many countries, its effect might not be as pronounced as the role of financial audit in corporate practices and investment decisions. In addition to the fact that a high-quality audit is a sign of corporate responsibility toward stakeholders, the assurance of ESG disclosure signals a corporate commitment to ESG practices, improves ESG reporting, and facilitates an understanding and evaluation of ESG practices. Del Giudice and Rigamonti (2020) find a significant difference between audited and unaudited ESG information, significantly higher for companies that involve an external auditor in the ESG reporting, suggesting that the presence of an external auditor in the ESG report can mitigate the information asymmetry between companies and market participants. Asante-Appiah and Lambert (2022) also explain financial auditors' professional expertise and authority in performing additional services as sustainability assurance. However, they indicate that the positive relation between ESG assurance and corporate financial results can vary in line with the dominant component of ESG practices, which is not confirmed when ESG risk is dominated by its social component, according to their findings for a sample of US companies.

Martínez-Ferrero and García-Sánchez (2017) and Bacha et al. (2020) find that audit quality and CSR performance are associated with lower debt costs and higher credibility of sustainability information, often perceived as insufficient or uncertain if not accompanied by assurance evidence. Moreover, they point out that Big Four auditors are also preferred for sustainability assurance services because of their reputation and expertise. Bacha et al. (2020) show that incremental audit quality, attributable to audits by the Big Four auditors, provides additional assurance to banks and drives them to handle, with greater confidence, both financial and nonfinancial information when making credit decisions, which leads to a lower cost of debt for CSR firms. Consequently, a lower cost of debt might be beneficial for dividend payments, through the debt cost channel (Cheung et al., 2018), and the assumption of information asymmetry reduction due to entrusted ESG disclosure as explained by agency and signaling theories. Additionally, Western European companies show a high level of voluntary ESG disclosure and assurance by Big Four professionals, which is expected to make a positive contribution to the companies and, thus, their shareholders. Along these lines of thinking, we hypothesize that:

Hypothesis 3. *The audit quality of nonfinancial disclosure significantly moderates the relationship between ESG scores and dividends.*

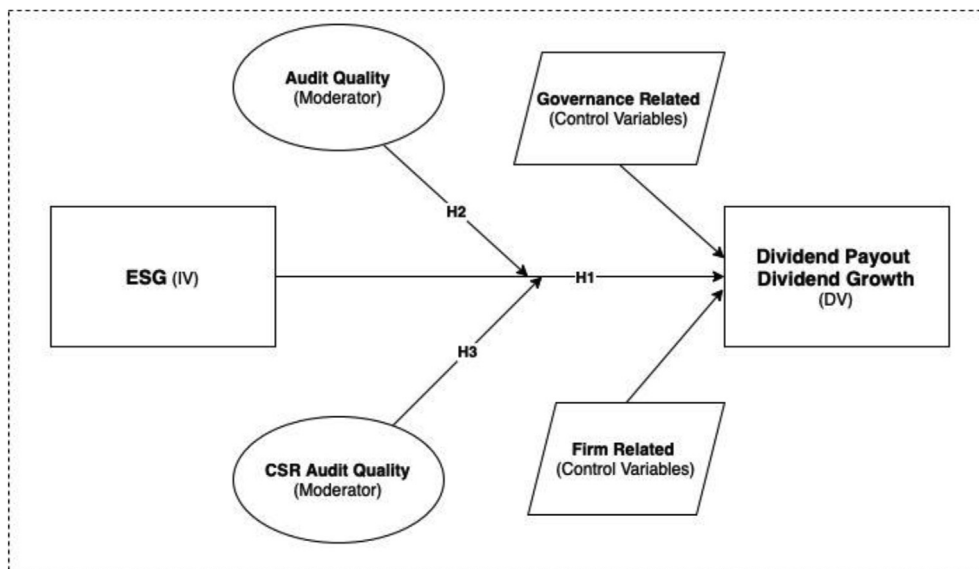


Fig. 1. Conceptual model.

Overall, the conceptual model of our study is summarized in Fig. 1.

4. Research design

4.1. Data description and sample selection

Although ESG reporting and corporate involvement in sustainability practices are highly promoted, the disclosure of these practices by countries and companies is still inconsistent. Therefore, we identify the companies involved in ESG practices based on the ESG scores determined by the Eikon Refinitiv database, which continues to expand its ESG coverage per country, based on their inclusion in benchmarking international financial indexes, such as FTSE 250, S&P 500, Russell 1000, and MSCI World.¹ Eikon ESG data come from the companies' corporate annual reports, NGO websites, and individual nonfinancial reports, the rating methodology being developed to maintain comparability and up-to-date information. Thus we selected all the listed companies headquartered and primarily listed in Western European countries with ESG scores available in the Eikon Refinitiv database for the period 2010–2019 (with relatively stable economic conditions and an intense orientation toward environmental and social strategies, after recovery from the 2007–2008 financial crisis and before the emergence of the Covid-19 pandemic), obtaining an initial sample of 809 companies out of 1902 listed companies in the region with financial information reported during the period analyzed. Some companies lack dividend and ESG data over the period, and after financial firms (39) are excluded, the final sample consists of 663 nonfinancial companies headquartered

¹ For a detailed explanation of ESG data compilation in the Eikon database: https://www.refinitiv.com/content/dam/marketing/en_us/documents/quick-reference-guides/esg-data-in-eikon-march-2021.pdf.

Table 1
Sample distribution.

	Number of companies	
Initial sample	809	
Excluded financial companies	42	
Companies with missing data	104	
Final sample	663	
Country	Number of companies	Percentage
Austria	25	3.77
Belgium	41	6.17
France	172	25.95
Germany	243	36.56
Luxembourg	1	0.15
Netherlands	45	7
Switzerland	136	20.38
Total	663	100

and listed in Western European countries (listed in Table 1), in EU member states, and Switzerland, an important non-EU financial market with strong ESG reporting practices that follow EU regulatory trends (80% of the 100 largest Swiss companies present sustainability disclosures; KPMG, 2020). The top and bottom values in the data were winsorized at 5 percent to eliminate the impact of outliers.

4.2. Variable measurements

4.2.1. Dependent variable

We use two measures to determine the dividend payout, consistent with previous dividend literature. The first is the dividend payout ratio (*Div_Payout*), calculated as the ratio of dividends paid to total assets (e.g., Benlemlih, 2019), indicating the corporate dividend payments related to corporate size as a consistent measure that is unbiased by eventual financial reporting manipulation or stock market shocks and

strategies (Sheikh et al., 2021). The second is dividend growth (*Div_Growth*), representing the change in the dividend value over time and dividend payment tendency, measured as percentage growth in the difference between the current year's and last year's dividends over the last year's dividend (Cooper & Lambertides, 2018). The following equations represent the alternative measures for our dependent variable:

$$Div_{payout} = \left(\frac{Dividend\ Paid}{Total\ Assets} \right) * 100 \quad (1)$$

$$Div_Growth = \left(\frac{Dividend\ Paid_t - Dividend\ Paid_{t-1}}{Dividend\ Paid_{t-1}} \right) * 100 \quad (2)$$

4.2.2. Independent and moderating variables

Our main independent variables are the yearly ESG aggregated scores from the Eikon Refinitiv database and, alternatively, each of the three ESG components: environmental score (*Env*), social score (*Soc*), and governance score (*Gov*), as suggested in prior studies (Niccolo et al., 2020; Verga Matos et al., 2020). These scores are on a scale from 0 to 100 and are determined based on numerous financial and nonfinancial indicators collected from corporate disclosures.²

The *Big Four auditor* variable reflects the moderating role of the auditor and audit quality as a dummy variable that takes a value of 1 if a Big Four company audited the year's financial statements and 0 for a non-Big Four auditor. Additionally, the variable *CSR Big Four auditor* takes a value of 1 for companies with assurance reports on nonfinancial information provided by a CSR or a sustainability external auditor member of the Big Four and 0 in the absence of a CSR or sustainability assurance report.

4.2.3. Control variables

Following the main literature on dividend determinants and recent empirical studies (DeAngelo et al., 2006; Denis & Osobov, 2008; Dewasiri et al., 2019; Kuo et al., 2013), a significant number of factors can influence the dividend payout. In order to isolate the effect of ESG and audit quality on dividend policy, we control for firm and corporate governance characteristics that potentially affect the dividend policy of a firm (e.g., Adjaoud & Ben-Amar, 2010; Benlemlih, 2019; Verga Matos et al., 2020) and its ESG practices (Khan et al., 2021; Suttipun, 2021).

Board size, board independence, and CEO duality are control variables for corporate governance influence on corporate decisions, as they affect dividend policies (Ould Daoud Ellili, 2022; Guizani, 2018; Zahid et al., 2022b) through the level of protection they give shareholders, limiting agency conflicts and managerial opportunism (Yilmaz et al., 2022). Board size (*BSize*) is measured as the total number of directors on the corporate board, indicating the dilution of power and the number of monitoring members,

ensuring objective corporate conduct. Board independence (*BInde*) is the ratio of independent directors on the board to the total number of directors, and CEO duality (*CEOD*) is a dummy variable for the dual role of a CEO as a board member, reflecting the level of independence or management-board ties in corporate strategic decisions (Curea et al., 2022).

Firm size, another determinant of dividends, is positively correlated with dividend payouts (Benlemlih, 2019). Firm size (*SizeTA*) is a control variable calculated as a natural logarithm of total assets. Free cash flows and external credit availability (at lower cost) increase with firm size. As a result, large firms may have more resources with which to pay dividends and are also more stable. However, financial leverage may also harm the dividend payout when lenders constrain managers or dividend payouts in order to protect their own interests (e.g., Adjaoud & Ben-Amar, 2010). Depending on the cost of debt, and the financial risk associated with corporate debt, financial leverage (*FL*), calculated as the ratio of total liabilities to total assets, is also a control variable that affects the business potential of ESG investment and, at the same time, dividend payment.

As profitable firms are expected to generate more free cash flows and pay higher dividends (Benlemlih, 2019), the return on assets (*ROA*) (a measure of profitability) and free cash flows (*FCF*) (a measure of cash availability) are used to control for the corporate potential to pay dividends. *ROA* is calculated as net income before extraordinary items, divided by total assets. *FCF* is the value of free cash flows available for payments at the end of the reporting period.

According to the firm life-cycle hypothesis, companies with more promising growth prospects should retain their profit for reinvestment, contributing to business growth. In contrast, companies with less promising prospects of growth should be able to benefit from their cash flow by increasing dividend payments. So, the projected growth effect significantly affects corporate dividend policy (Adjaoud & Ben-Amar, 2010). To evaluate growth potential, we use sales growth (*SG*), calculated as the ratio of changes in sales from the previous to the current year, divided by the prior year's sales.

In his classic work, Lintner (1956) argues that retained earnings and tax liabilities are other important determinants of dividend policy. Dividends should be reduced in response to a greater tax burden and increase when firms have a higher proportion of retained earnings. Elton and Gruber (1970) illustrate the impact of taxes on corporate dividend policies. Baker et al. (1985) demonstrate that earnings are a crucial determinant in dividend policy in the United States. Therefore, we also include the natural logarithm of retained earnings (*RE*) and effective tax rate (*iTax*), calculated as a ratio of tax paid to earnings before interest and tax, as control variables.

4.2.4. Econometric model

To test the hypothesized relationships between ESG, audit quality, and corporate dividend payout decisions, we estimate the following models:

² <https://www.refinitiv.com/en/sustainable-finance/esg-scores#methodology/> (Date of access February 20, 2021).

$$\begin{aligned}
 Div = & \alpha + \beta_1 ESG_{it} + \beta_2 BSize_{it} + \beta_3 BInde_{it} + \beta_4 CEOD_{it} + \beta_5 FL_{it} + \beta_6 Size(TA)_{it} + \beta_7 SG_{it} + \beta_8 ROA_{it} + \beta_9 RE_{it} + \beta_{10} FCF_{it} + \beta_{11} iTax_{it} \\
 & + \sum_{i=1}^n \beta_n Country_Dummies_{it} + \sum_{i=1}^n \beta_n Industry_Dummies_{it} + \sum_{i=1}^n \beta_n Year_Dummies_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{3}$$

where:

- *i* is the firm, and *t* is the time (fiscal year)
- *Div* is the dividend paid, alternatively measured by *Div_Payout* and *Div_Growth*
- *ESG* refers to the ESG total score and individual environment, social, and governance scores, alternatively
- *BSize* refers to the total number of directors on corporate boards
- *BInde* is the number of independent directors on corporate boards
- *CEOD* depicts the dual role of the CEO as a director of the board
- *FL* is financial leverage, measured as the ratio of total debt to total assets
- *Size(TA)* is the natural logarithm of the total assets of the firm

- *SG* is sales growth
- *ROA* is the return on assets
- *RE* is the natural logarithm of retained earnings
- *FCF* is the natural logarithm free cash flows available
- *iTax* is the effective income tax rate.

Country, industry, and year dummies are included in the model to avoid common endogeneity issues arising over time or across industries and countries. ε is the error term.

Starting with the base model in Equation (3), we include two interaction terms in Equations (4) and (5), which reflect the moderating effect of audit quality on the ESG and the dividend payout nexus. First, *Big4 x ESG* is an interaction term measuring the moderating effect of the Big Four financial audit. Second, *Big4CSR x ESG* is an interaction term measuring the effect of sustainability reporting assurance by Big Four companies. The rest of the variables are the same as in the base model.

$$\begin{aligned}
 Div = & \alpha + \beta_1 ESG_{it} + \beta_2 Big4_{it} + \beta_3 Big4_{it} \times ESG_{it} + \beta_4 BSize_{it} + \beta_5 BInde_{it} + \beta_6 CEOD_{it} + \beta_7 FL_{it} \\
 & + \beta_8 Size(TA)_{it} + \beta_9 SG_{it} + \beta_{10} ROA_{it} + \beta_{11} RE_{it} + \beta_{12} FCF_{it} + \beta_{13} iTax_{it} + \sum_{i=1}^n \beta_n Country_Dummies_{it} \\
 & + \sum_{i=1}^n \beta_n Industry_Dummies_{it} + \sum_{i=1}^n \beta_n Year_Dummies_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{4}$$

$$\begin{aligned}
 Div = & \alpha + \beta_1 ESG_{it} + \beta_2 Big4CSR_{it} + \beta_3 Big4CSR_{it} \times ESG_{it} + \beta_4 BSize_{it} + \beta_5 BInde_{it} + \beta_6 CEOD_{it} + \beta_7 FL_{it} \\
 & + \beta_8 Size(TA)_{it} + \beta_9 SG_{it} + \beta_{10} ROA_{it} + \beta_{11} RE_{it} + \beta_{12} FCF_{it} + \beta_{13} iTax_{it} + \sum_{i=1}^n \beta_n Country_Dummies_{it} \\
 & + \sum_{i=1}^n \beta_n Industry_Dummies_{it} + \sum_{i=1}^n \beta_n Year_Dummies_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{5}$$

5. Empirical results and discussion

5.1. Descriptive statistics

Descriptive statistics of the variables are presented in Table 2. Panel A shows that the overall mean dividend payout ratio is 28.10 percent, and the mean dividend growth is 17.03 percent. The variation in the dividend payout and growth is relatively high in the sample, suggesting various dividend policies and business strategies. The ESG score has a moderate mean of 54.83 and a standard deviation of 20.57, with a higher deviation among its components. Among the ESG components, the governance scores seem lower and with a lower maximum than the other components. Thus improvement in corporate governance practices might help them to become more effective and objective, in line with international principles and guidelines. Most companies seem to have their financial statements audited by Big Four auditors, assurance reports for their nonfinancial disclosure, and board independence of 50.61

percent on average. Board size seems to vary from 3 to 22 members, with an average of 11, and CEOs also seem to be a board members at around 33.5 percent of the companies.

Financial leverage and sales growth ratios have higher standard deviations than corporate size and ROA, indicating various characteristics of the firms in terms of debt, the value of assets, changes in sales over the period, profitability, and even financial loss. The retained earnings and free cash flows of the companies seem to be considerable, and they have effective tax rate of 19.3 percent on average.

Panel B, showing a country-wise presentation of the mean for each of the variables, indicates that Luxembourg has the highest mean dividend payout ratio, and Austria has the lowest. However, Luxembourg has the lowest dividend growth, suggesting a stable dividend level, and Belgium the highest. The highest average ESG score is achieved by France (60.90), followed by the Netherlands (58.92), Germany (54.00), Austria (53.05), Belgium (50.78), Switzerland (46.97), and Luxembourg (43.99). On average, the pillars of ESG (i.e.,

Table 2
Descriptive statistics.

Panel A: Overall descriptive statistics					
Variable	Obs.	Mean	Std. Dev.	Min	Max
Dividend Payout	5122	28.101	42.514	0	657.716
Dividend Growth	4291	17.031	1053.927	-1	69,000.492
ESG	2971	54.836	20.574	9.619	91.512
Environment	2971	54.166	27.09	0	96.798
Social	2971	58.705	23.907	4.392	96.545
Governance	2971	49.104	22.776	6.95	92.257
Big4 Auditor	6633	0.702	0.457	0	1
CSR Big4 Auditor	1465	0.81	0.392	0	1
Board Size	2970	11.171	4.62	3	22
Board Independence	2940	50.617	31.656	0	100
CEO Duality	2971	0.335	0.472	0	1
FL	6630	0.258	15.565	-877.372	586.25
Size (TA)	6633	21.258	1.974	16.64	25.865
Sales Growth	5660	1.838	58.992	-1	3878.199
ROA	6488	0.032	0.1	-0.516	0.265
Retained Earnings	5612	20.022	1.953	10.456	24.403
Free Cash Flows	5905	18.83	1.955	7.803	23.349
Effective tax rate	6596	0.193	3.79	-178.904	203.658

Panel B: Country-wise mean values							
	Austria	Belgium	France	Germany	Luxembourg	Netherlands	Switzerland
Dividend Payout	18.396	35.573	21.109	27.738	113.217	25.212	37.769
Dividend Growth	0.187	247.840	0.689	0.412	0.061	0.341	0.190
ESG	53.057	50.785	60.900	54.002	43.999	58.923	46.975
Environment	53.313	49.078	66.428	50.972	37.039	56.271	41.798
Social	52.602	50.701	65.391	58.352	58.397	63.994	50.996
Governance	52.085	52.343	48.916	49.223	27.362	53.665	45.144
Board Size	11.977	11.134	12.925	12.740	11.000	7.047	8.065
Board Independence	67.953	45.257	51.876	42.186	28.401	82.129	43.343
CEO Duality	0.053	0.216	0.721	0.084	0.875	0.061	0.381
FL	0.790	-0.693	0.351	0.533	0.227	-1.838	0.557
Size (TA)	21.911	21.376	21.772	20.973	23.015	21.999	20.688
Sales Growth	0.023	0.229	0.339	2.622	0.004	1.333	3.477
ROA	0.037	0.024	0.017	0.044	0.102	0.031	0.030
Retained Earnings	20.579	19.852	20.470	19.582	22.015	20.603	20.041
Free Cash Flows	19.303	18.994	19.416	18.442	20.928	19.516	18.382
Effective tax rate	0.243	0.617	0.199	0.247	0.284	-0.013	0.019

Table 3
Correlation of the key variables.

Variables	Dividend Payout	Dividend Growth	ESG	Environment	Social	Governance	Big4	CSR Big4
Dividend Payout	1							
Dividend Growth	0.006	1						
ESG	-0.102*	-0.023	1					
Environment	-0.134*	-0.02	0.857*	1				
Social	-0.068*	-0.028	0.892*	0.694*	1			
Governance	-0.052*	-0.005	0.721*	0.435*	0.461*	1		
Big4 Auditor	0.019	0.01	0.052*	0.009	0.075*	0.053*	1	
CSR Big4 Auditor	0.013	0.011	0.113*	0.129*	0.090*	0.041	0.131*	1

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

environment, social, and governance scores) take a similar pattern. The Netherlands is at the top regarding board independence, with an average of 82.12 percent of independent members on the board of directions, significantly higher than Austria (67.95%), France (51.87%), Belgium (45.25%), and the other countries. On average, the size of the companies among the countries is the same, as expected, considering the Eikon methodology for collecting ESG data. The retained earnings and free cash flow are comparable regardless of the country, whereas financial leverage, tax rate, profitability, and sales growth substantially vary.

Table 3 presents the correlation analysis between the main independent and dependent variables, showing that the ESG score and its components are negatively correlated with the dividend payout. *Big Four audit* is positively correlated with total ESG score and individual social and governance scores, whereas Big Four nonfinancial assurance is positively correlated with the total ESG score and environmental and social component scores.

5.2. ESG and dividend payout

Table 4 presents the results from estimating Equation (3). In particular, we conducted a panel ordinary least squares (OLS) regression with year-, industry-, and country-fixed effects to deal with the endogeneity problem (the Hausman tests also suggest a preference for a fixed effects model). Model 1 depicts the ESG impact on dividend payout and dividend growth. Models 2, 3, and 4 represent the influence of environmental, social, and governance scores on dividend policy. The results show that the ESG score and its components have a significantly positive influence on the dividend payout ratio, confirming that in developed Western European countries, dividend payments are a priority, and involvement in ESG practices does not cancel out shareholders' remuneration but, rather, limits agency conflicts, reducing information asymmetry and sending positive signals to financial markets. This finding supports and complements the studies by Verga Matos et al. (2020) and Salah and Amar (2022). They analyze the Stoxx Euro 600 firms and France companies, respectively, using alternative dividend payout measures linked to financial market influence, such as the ratio of total dividends per share to earnings per share or the dividend yield (calculated as the dividend per share divided by the stock price). In contrast, our

study emphasizes and explores the dividend payment ability from an internal corporate perspective, measuring the dividend payout ratio by scaling the value of dividends paid to total assets, thus reflecting how much shareholders' remuneration is related to firm size.

Despite the boost in dividends as part of the potential profitability generated by ESG practices, the ESG score and its components have a negative influence on dividend growth, reflecting the small changes in dividend values over time and the fact that the cost of ESG practices becomes a cost for shareholders as well, reducing the growth rate of dividends. Thus, although they might prefer dividend distribution because of investment efficiency, ESG practices alter the variations in dividend values over time. This is a novel finding, as dividend growth has not been studied in terms of its relation to ESG. This new finding indicates a negative association between ESG and dividends, as discussed in the Chinese context by Ni and Zhang (2019), considering dividend payout measures as dividends over assets or dividends over sales over a period. The main reasons for the negative relationship between ESG and dividend growth might be a slowdown in profitability, debt costs, and payments due for ESG investment, the higher current costs of maintaining ESG practices, or agency problems. This result might be surprising in the Western European context because the region is known for stable dividend policy and stable expectations of dividend payouts (Ni & Zhang, 2019). Aside from the warnings raised by the result for shareholders and management, it raises further research questions about the long-term implications of ESG for corporate financial results. Thus regulators might also be concerned about an eventual reduction in investor motivations for supporting ESG projects in the event of significant variations in dividend perspectives.

Moreover, corporate size has a negative effect on dividends. In contrast, as expected, ROA has a significantly positive effect on both dividend payouts and growth, in line with most studies (Friede et al., 2015). Financial leverage restrains dividend payments and also has a significantly negative effect. This implies that larger firms tend to pay lower dividends when they invest more in ESG activities. In addition, they tend to avoid paying a dividend when they are in debt, as previously reported by Verga Matos et al. (2020) and Benlemlih (2019) for mature firms. Prior profits accumulated as retained earnings reflect strong safety and enhance dividend payments. Sales growth has a negative effect on dividend payouts, probably because of the

Table 4
Baseline regression results.

Variables	Dividend Payout				Dividend Growth			
	1	2	3	4	1	2	3	4
ESG	0.141*** (0.047)				-0.020*** (0.062)			
Environment		0.103** (0.040)				-0.057* (0.050)		
Social			0.104*** (0.034)				-0.011*** (0.004)	
Governance				0.305* (0.035)				-0.015*** (0.004)
Board Size	0.599* (0.350)	0.524* (0.350)	0.564* (0.350)	0.589* (0.354)	-0.020 (0.045)	-0.006 (0.046)	-0.013 (0.045)	-0.033 (0.046)
Board Independence	-0.034 (0.027)	-0.028 (0.027)	-0.028 (0.027)	-0.021 (0.028)	-0.003 (0.003)	-0.005 (0.003)	-0.004 (0.003)	-0.004 (0.003)
CEO Duality	0.673 (1.759)	0.478 (1.762)	0.488 (1.760)	0.779 (1.768)	-0.068 (0.215)	-0.071 (0.217)	-0.054 (0.216)	-0.120 (0.216)
FL	-2.360** (1.088)	-2.504** (1.091)	-2.271** (1.088)	-2.330** (1.091)	-0.148 (0.132)	-0.124 (0.133)	-0.155 (0.133)	-0.134 (0.132)
Size (TA)	-15.23*** (2.312)	-14.62*** (2.280)	-15.03*** (2.294)	-13.88*** (2.274)	-0.309* (0.297)	-0.520* (0.292)	-0.403* (0.293)	-0.407 (0.288)
Sales Growth	-0.054*** (0.015)	-0.053*** (0.015)	-0.053*** (0.015)	-0.053*** (0.015)	1.186*** (0.312)	1.241*** (0.314)	1.258*** (0.311)	1.191*** (0.311)
ROA	57.24*** (12.27)	56.90*** (12.27)	56.39*** (12.26)	56.71*** (12.30)	1.164** (1.619)	1.017** (1.627)	1.166** (1.623)	0.855** (1.617)
Retained Earnings	2.010** (0.839)	1.987** (0.840)	1.971** (0.839)	2.143** (0.840)	-0.047 (0.113)	-0.062 (0.114)	-0.042 (0.113)	-0.084 (0.113)
Free Cash Flows	0.783 (0.922)	0.832 (0.922)	0.807 (0.922)	0.801 (0.925)	0.117 (0.132)	0.0829 (0.132)	0.104 (0.132)	0.116 (0.131)
Effective tax rate	-0.140 (0.130)	-0.143 (0.130)	-0.132 (0.130)	-0.144 (0.130)	0.168 (0.112)	0.175 (0.112)	0.167 (0.112)	0.186* (0.112)
Constant	302.4*** (43.75)	290.8*** (43.11)	299.9*** (43.50)	274.3*** (42.80)	5.316 (5.569)	10.24* (5.423)	7.170 (5.496)	8.216 (5.271)
Country FE	Included	Included	Included	Included	Included	Included	Included	Included
Industry FE	Included	Included	Included	Included	Included	Included	Included	Included
Year FE	Included	Included	Included	Included	Included	Included	Included	Included
Observations	2057	2057	2057	2057	1239	1239	1239	1239
Number of ID	414	414	414	414	343	343	343	343

Notes: Equation (3) is the model estimated. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

longer conversion of sales into available cash. However, it has a positive link with dividend growth, from the growth perspective of the business generating dividends. Free cash flow does not have any significant influence on the model estimations. In contrast, the effective tax rate only weakens the relation between individual governance scores and dividend growth.

Like Yarram (2015), in a study on Australian companies, we find that corporate governance practices, reflected by the governance component of ESG, have a significantly positive influence on the decision to pay dividends. This suggests that in an environment characterized by high levels of investor protection and well-developed stock markets, the governance mechanisms work well and contribute to both business sustainability and the protection of shareholders' interests through a generous dividend policy, as also found by Guizani (2018). However, among the specific governance characteristics controlled for in the model, such as board size, board independence, and CEO duality, only board size seems to influence the dividend payout ratio significantly. Hence, aside from all

the other factors, a large board size leads to higher dividend allocations.

5.3. ESG and dividend payouts: the moderating role of audit quality

As indicated in Table 5, the quality of financial audits (*Big Four auditor*) significantly moderates the relationship between ESG and dividend measures. A comparison of Models 1 and 2 reveals that the impact of ESG on dividend payouts is affected by introducing the Big Four auditor variable into the equation. Big Four audits of financial statements negatively influence the effect of ESG practices on the corporate dividend. Thus ESG practices and enhanced audit quality, as reflected by Big Four certification of corporate financial reports, reduce dividend payments and growth during the period analyzed. In other words, when firms are audited by the Big Four and have high ESG scores, they tend to pay fewer dividends. Greater reporting rigor, risk assessment, and governance advice provided by Big Four auditors have implications for shareholders'

Table 5
The moderating role of audit quality in ESG-dividend policy nexus.

Variables	Dividend Payout			Dividend Growth		
	1	2	3	1	2	3
ESG	0.141*** (0.047)	0.165** (0.069)	0.175* (0.096)	-0.020*** (0.062)	-0.069 (0.082)	-0.017 (0.018)
Big4		0.0824 (3.932)			0.762 (0.463)	
Big4#ESG		-0.028* (0.062)			-0.016** (0.007)	
Big4CSR			6.236 (6.247)			1.654 (1.271)
Big4CSR#ESG			-0.103 (0.096)			-0.016 (0.019)
Board Size	0.599* (0.350)	0.616* (0.350)	0.771** (0.327)	-0.020 (0.045)	-0.015 (0.045)	-0.055 (0.063)
Board Independence	-0.034 (0.027)	-0.034 (0.027)	0.027 (0.032)	-0.003 (0.003)	-0.004 (0.003)	-0.008 (0.005)
CEO Duality	0.673 (1.759)	0.676 (1.762)	1.217 (1.564)	-0.068 (0.215)	-0.041 (0.215)	-0.240 (0.278)
FL	-2.360** (1.088)	-2.412** (1.089)	-2.598** (1.169)	-0.148 (0.132)	-0.152 (0.132)	0.078 (0.214)
Size (TA)	-15.23*** (2.312)	-15.48*** (2.319)	-5.089** (2.529)	-0.309 (0.297)	-0.344 (0.299)	-0.0999 (0.454)
Sales Growth	-0.054*** (0.015)	-0.054*** (0.015)	-1.145 (1.639)	1.186*** (0.312)	1.165*** (0.312)	1.615*** (0.532)
ROA	57.24*** (12.27)	57.10*** (12.27)	27.01* (15.34)	1.164 (1.619)	1.228 (1.615)	-0.356 (2.908)
Retained Earnings	2.010** (0.839)	2.039** (0.841)	0.015 (0.825)	-0.047 (0.113)	-0.021 (0.113)	0.016 (0.153)
Free Cash Flows	0.783 (0.922)	0.821 (0.924)	-3.954*** (1.099)	0.117 (0.132)	0.109 (0.131)	0.136 (0.203)
Effective tax rate	-0.140 (0.130)	-0.147 (0.130)	-0.348 (0.617)	0.168 (0.112)	0.155 (0.112)	0.212* (0.125)
Constant	302.4*** (43.75)	306.2*** (44.01)	203.2*** (49.88)	5.316 (5.569)	5.106 (5.633)	-0.895 (9.344)
Country FE	Included	Included	Included	Included	Included	Included
Industry FE	Included	Included	Included	Included	Included	Included
Year FE	Included	Included	Included	Included	Included	Included
Observations	2057	2057	1063	1239	1239	624
Number of ID	414	414	231	343	343	193

Notes: Equations (4) and (5) are estimated. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. 1 = No moderation; 2 = Audit Quality (Ref: NonBig4#ESG); 3 = CSR Audit Quality (Ref: NonCSRAudit#ESG).

decisions (Cao et al., 2017), influencing dividend policies. Due to their monitoring role, financial auditors influence the corporate resource allocation decisions through their signal to shareholders (Hammami & Zadeh, 2020), affecting the ESG–dividend relationship. Moreover, audit quality is generally associated with higher earnings quality (Asante-Appiah & Lambert, 2022), prudence in financial estimations, and a lower risk of misrepresentation, providing shareholders with safer dividend decisions in the context of enhanced ESG practices.

Additionally, our estimations indicate that the relation between ESG and dividend measures does not depend on the assurance of nonfinancial disclosures. A nonfinancial assurance of ESG information, regardless of the type of auditor or its absence, has no significant effect on corporate dividend policies in the Western European context. That implies trust and reliability in corporate ESG practices, regardless of auditors' involvement in this process, as indicated by Thompson et al. (2022). Equity investors seek investment opportunities when

positive ESG factors signal future growth. The vast majority of investors may be driven by financial rather than ethical reasons in using ESG data, as documented by Amel-Zadeh and Serafeim (2018).

The substitution view can further explain these new findings about the role of audit quality between dividends and the quality of information as signaling mechanisms. As dividends represent a solution to agency conflicts, ESG practices, especially those that are financially ensured in the financial audit process, reduce information asymmetry and offer better protection to stakeholders, lowering expectations by the firms to demonstrate a commitment and communicate private information through costly dividend payouts (Ni & Zhang, 2019). Clearly, the managers, shareholders, and policy makers might question whether these facts endanger the quality of corporate ESG or audit practices. Considering the high reputational contribution of audit quality, ESG assurance, and ESG practices in general, it can be assumed that

Table 6
Robustness test alternative proxy for dividend payout.

Variables	Dividend Payout (Dividend/Equity)					
	1	2	3	4	5	6
ESG	0.036** (0.017)				0.048* (0.025)	0.055* (0.031)
Environment		0.021* (0.014)				
Social			0.031** (0.013)			
Governance				0.008* (0.001)		
Big4					0.055 (0.014)	
Big4#ESG					-0.014* (0.023)	
Big4CSR						0.030 (0.020)
Big4CSR#ESG						-0.001 (0.001)
Board Size	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002** (0.001)
Board Independence	-0.001 (0.001)	-0.001 (0.001)	0.008 (0.001)	-0.009 (0.001)	-0.009 (0.001)	-0.009 (0.001)
CEO Duality	0.004 (0.006)	0.003 (0.006)	0.003 (0.006)	0.004 (0.006)	0.004 (0.006)	0.004 (0.005)
FL	0.050*** (0.004)	0.049*** (0.004)	0.050*** (0.004)	0.050*** (0.004)	0.050*** (0.004)	0.020*** (0.003)
Size (TA)	-0.058*** (0.008)	-0.055*** (0.008)	-0.058*** (0.008)	-0.054*** (0.008)	-0.058*** (0.008)	-0.022*** (0.008)
Sales Growth	-0.001* (0.005)	-0.001* (0.005)	-0.001* (0.005)	-0.001* (0.005)	-0.001* (0.005)	-0.005 (0.005)
ROA	0.163*** (0.045)	0.162*** (0.045)	0.161*** (0.045)	0.162*** (0.045)	0.163*** (0.045)	0.0742 (0.049)
Retained Earnings	0.006** (0.003)	0.006** (0.003)	0.005* (0.003)	0.006** (0.003)	0.006** (0.003)	-0.008*** (0.002)
Free Cash Flows	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	-0.006* (0.003)
Effective tax rate	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.002)
Constant	1.076*** (0.162)	1.034*** (0.160)	1.082*** (0.161)	1.002*** (0.159)	1.079*** (0.163)	0.821*** (0.161)
Country FE	Included	Included	Included	Included	Included	Included
Industry FE	Included	Included	Included	Included	Included	Included
Year FE	Included	Included	Included	Included	Included	Included
Observations	2057	2057	2057	2057	2057	1063
Number of ID	414	414	414	414	414	231

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

investors accept its negative influence on dividends as a premium cost.

5.4. Sensitivity analysis

For the sake of robustness, in the following estimations we replace the main dependent variables in our baseline model with an alternative measure of the dividend payout ratio (dividend/equity) (Benlemlih, 2019). At the same time, we confirm the sensitivity of audit quality moderating role with the alternative estimations, reported in Table 6. Model 1 shows a significantly positive impact of ESG performance on dividend payouts. This result is consistent with our main results. Further, Models 2, 3, and 4 show that all three components of ESG are

positively and significantly related to the dividend payout ratio. Finally, Models 5 and 6 present the results for moderating variables (i.e., audit quality). The interaction term for the Big Four auditor and ESG significantly affect the dividend payout measure, but CSR audit does not significantly affect the ESG–dividend payout relationship. Overall, these robustness tests strengthen our main findings.

We apply industry- and country-fixed effects in our main regressions to address the possible presence of unknown firm-specific or country-specific characteristics and control for omitted variable bias that could influence the dividend payout.

Additionally, to ensure that the model selection does not bias the findings, we use random effects and pooled OLS to estimate the relationship (unreported here). The direction of the

Table 7
Robustness test (2SLS) regression results.

Variables	Dividend Payout				Dividend Growth			
	1	2	3	4	1	2	3	4
ESG	0.094** (0.050)				-2.886* (2.792)			
Environment		0.057* (0.039)				-0.861* (2.164)		
Social			0.036* (0.039)				-2.562* (2.164)	
Governance				0.076** (0.043)				-1.570* (2.408)
Board Size	0.251 (0.207)	0.249 (0.209)	0.288 (0.206)	0.294 (0.205)	0.713 (11.38)	-0.113 (11.47)	0.431 (11.33)	-0.721 (11.28)
Board Independence	0.023 (0.026)	0.032 (0.025)	0.034 (0.025)	0.019 (0.027)	-0.339 (1.479)	-0.740 (1.423)	-0.468 (1.428)	-0.435 (1.537)
CEO Duality	-2.985** (1.498)	-3.179** (1.521)	-2.969** (1.513)	-2.209 (1.525)	-70.76 (82.42)	-71.57 (83.81)	-62.18 (83.20)	-89.23 (83.85)
FL	-1.374 (1.038)	-1.449 (1.037)	-1.380 (1.040)	-1.364 (1.038)	-17.36 (56.61)	-15.37 (56.59)	-19.61 (56.68)	-16.73 (56.64)
Size (TA)	-14.46*** (1.517)	-14.64*** (1.533)	-14.30*** (1.515)	-14.28*** (1.515)	17.08 (84.93)	17.27 (85.82)	12.49 (84.78)	11.95 (84.82)
Sales Growth	-0.089*** (0.027)	-0.090*** (0.027)	-0.090*** (0.027)	-0.091*** (0.027)	-0.310* (1.498)	-0.269* (1.498)	-0.336* (1.498)	-0.257* (1.497)
ROA	271.9*** (16.77)	270.8*** (16.75)	270.2*** (16.75)	272.0*** (16.79)	861.4* (938.8)	917.9* (937.5)	883.8* (936.7)	887.9* (939.5)
Retained Earnings	0.810 (0.914)	0.898 (0.913)	0.866 (0.914)	0.766 (0.916)	-56.03 (51.16)	-59.23 (51.06)	-56.45 (51.11)	-56.23 (51.31)
Free Cash Flows	7.571*** (1.195)	7.845*** (1.181)	7.749*** (1.197)	7.612*** (1.194)	45.25* (66.41)	35.98* (65.71)	47.09* (66.44)	41.09* (66.37)
Effective tax rate	-0.564** (0.235)	-0.565** (0.235)	-0.565** (0.235)	-0.567** (0.235)	-2.595* (12.74)	-2.534* (12.74)	-2.628* (12.74)	-2.481* (12.74)
Constant	166.0*** (14.76)	164.7*** (14.91)	159.9*** (14.31)	163.2*** (14.39)	106.6* (817.2)	268.0* (824.8)	183.7* (790.2)	251.0* (798.6)
Observations	1851	1851	1851	1851	1795	1795	1795	1795
R-squared	0.306	0.306	0.306	0.306	0.300	0.322	0.301	0.290
Instrumented:	ESG	Env	Soc	Gov	ESG	Env	Soc	Gov

Notes: Instrumental variable: ΔESG. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

relationship remains stable, and Hausman test results suggest that the preferred model for our estimations employs fixed effects.

Finally, as disclosure of ESG information is a voluntary corporate decision possibly influenced by the dividend policy, we perform additional testing of our findings to eliminate reverse-causality and endogeneity issues. Following prior studies (An et al., 2022; Benlemlih, 2019; Eliwa et al., 2021), we employ an established endogeneity solution. Such as two-stage least squares regression (2SLS) estimation. We use the instrumental variable “change in ESG,” which is correlated with the key independent variable (i.e., ESG) but not correlated with the dependent variables (i.e., dividend payout). Our instrumental variable meets the criteria of both relevance and exclusion for valid instruments.

Table 7 reports the results of 2SLS regression estimates. We regress both the ESG score and its components on the explanatory variables used in the model. The coefficient of ESG and its components are significantly positively related to the dividend payout ratio and significantly negatively related to dividend growth. These results confirm our main findings and suggest that, after possible endogeneity issues are controlled for, the findings remain consistent and in line with the baseline model.

6. Summary and conclusions

This work is motivated by the lack of empirical evidence about the impact of ESG on dividend payout decisions, dividend growth, and the moderating role of audit quality in the ESG–dividend relationship in the Western European context. Previous literature in this area is scarce, thereby highlighting the need to extend it to the broader international and regional context. Our study adds to this line of research with a cross-country analysis using data on seven developed Western European countries from 2010 to 2019. The study provides theoretical support and empirical evidence on the positive relationship between ESG scores, the dividend payout ratio, and dividend growth. Furthermore, the results elaborate that the relationship between ESG and dividend policy is significantly but negatively affected by a Big Four audit. We attribute our results to the environmental realities of Western European markets. These results suggest that ESG reporting and dividend policy are substitutes for reducing information asymmetry and controlling agency problems. We conduct various robustness tests to confirm the strength of our results, using alternative measures of dividend policy and alternative estimation

techniques. Despite the positive relationship between ESG scores and dividend payouts, a novel finding of our study is a negative relationship between ESG and dividend growth.

One implication of this study is that firms bring all the stakeholders closer through enhanced ESG and greater payouts, thereby reducing information asymmetry. The shareholders thus appreciate the firms for various financial and nonfinancial characteristics that directly affect society, including environment, social, governance aspects and profit sharing in dividend distributions. This increases the confidence of investors and society in the businesses. It also affects investment and financing decisions. The study recommends that shareholders who want a greater share in dividend distributions consider the investment pattern of a firm.

Given that higher ESG scores demonstrate a corporate inclination toward responsible investment, this study shows that responsible firms can offer higher payouts. Another important recommendation of this study is the importance of the quality of the audit in the relationship between ESG and dividend payouts. So, policy makers should stress that firms improve audit quality despite the temporary tensions that audits can create in dividend payment decisions.

The conclusions of this study should be viewed with caution. This study was conducted in the context of specific European countries, so some changes need to be made before it is generalized to other developed or emerging countries. Because of the European Union's active involvement in the Paris climate agreement and other sustainability commitments, European countries pay greater attention to sustainability concerns. Therefore, companies in these countries might be more responsible than those in other regions. Further research should explore the relationship between ESG and firm financial decisions in other regions with distinct institutional and business characteristics.

Declaration of competing interest

Authors declare no conflict of interest.

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