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When Sustainability Reporting Becomes a Strategy: The Impact of Financial Performance and Institutional Pressures From EU Sustainability Reporting Regulations on ESG Decoupling

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ABSTRACT

Mitigating environmental, social, and governance (ESG) decoupling is essential to advancing reliable sustainability disclosure and ensuring that ESG reporting fulfills its intended purpose. This study aims to provide critical insights into the organizational and contextual elements that could intensify or diminish ESG decoupling. Using a multi-theoretical framework, this study examines the impact of firm value and institutional pressures from the European Union's sustainability reporting directives on ESG decoupling. The empirical findings, based on a random-effects panel regression analysis of data from 3465 large companies from 2009 to 2023 (13,488 firm-year observations), indicate that firms with higher financial performance and market value are more likely to engage in ESG decoupling. Conversely, the results demonstrate that normative and coercive pressures from the European Union's sustainability reporting directives result in greater alignment between ESG disclosures and performance. These findings offer researchers, regulators, investors, stakeholders, and ESG rating agencies additional insight into ESG decoupling and carry significant policy implications.

1 | Introduction

In recent years, information about corporate contributions to sustainable development has become paramount to stakeholders, including investors, regulators, and society at large (Buallay and Al-Ajmi 2020; Albitar et al. 2023). In response, companies are increasingly required to disclose information about their sustainability strategies, practices, and outcomes (Arif et al. 2021; Hasan et al. 2022). Consequently, environmental, social, and governance (ESG) reporting has become a core component of modern corporate disclosure practices (Pucheta-Martínez et al. 2021) and is steadily gaining importance similar to traditional financial reporting (García-Sánchez, Hussain, et al. 2022; Saeed et al. 2025).

However, the subjectivity and flexibility characteristic of ESG reporting frameworks often permit considerable discretion, creating ample opportunity for selective disclosure and impression management (Velte 2023). Consequently, companies may emphasize symbolic commitments while concealing material deficiencies or underperformance (Pisano et al. 2025; Saeed et al. 2025), creating a discrepancy between their ESG claims and actual practices (Sauerwald and Su 2019; Zhang 2022; Cepêda et al. 2025a). Known as ESG

decoupling, this phenomenon undermines the credibility of ESG information, diminishing its usefulness to stakeholders and hindering its ability to promote meaningful corporate accountability and societal change (Di and Li 2023; Talpur et al. 2024; Abweny et al. 2025). ESG decoupling can manifest in various ways, including greenwashing and brownwashing (Cepêda et al. 2025a). The former occurs when firms exaggerate or alter the truth about their sustainability practices to create a misleadingly positive portrayal of themselves, and the latter occurs when firms underreport or obscure their genuine social responsibility achievements. Both are forms of impression management that undermine trust in sustainability reporting and prevent authentic sustainability transitions (Kim and Lyon 2015; Testa et al. 2018).

Therefore, mitigating ESG decoupling is essential to advancing reliable sustainability disclosure and ensuring that ESG reporting fulfills its intended function. As a result, ESG decoupling has been the subject of increasing research attention in recent years (Velte 2023; Cepêda et al. 2025a). This research has focused on identifying the potential exacerbating or mitigating factors, as well as the consequences of ESG decoupling. However, important research gaps remain, and many questions are still unanswered (Bernini and La Rosa 2024; Cepêda et al. 2025a).

Although still understudied, the literature on institutional and stakeholder pressures suggests that financial performance and firm value can predict ESG decoupling behavior (García-Sánchez et al. 2020; Wang et al. 2024). Firms with better financial performance and market value may prioritize symbolic corporate social responsibility (CSR) and impression management over actual ESG performance (Nasih et al. 2024), particularly when sustainability efforts are considered costly or unnecessary for achieving short-term financial goals (Boiral 2016; Clarke and Boersma 2017; Wang et al. 2024). However, no previous study has explicitly examined how financial performance and firm value influence ESG decoupling behavior, as other researchers have taken the opposite approach, examining the effect of ESG decoupling on financial performance and firm value (Velte 2023; Cepêda et al. 2025a). Thus, it is important to investigate whether firms with higher financial performance and market value are more or less likely to engage in ESG decoupling.

Additionally, the institutional pressures arising from ESG reporting regulations are increasingly influencing ESG engagement and reporting (Monteiro and Aibar-Guzmán 2010; García-Sánchez et al. 2023, 2024; Aboud et al. 2024; Cepêda 2024). European Union (EU) ESG reporting regulations, such as the Directive 2014/95/EU as regards disclosure of non-financial and diversity information (known as the Non-financial Reporting Directive—NFRD) and the Directive (EU) 2022/2464 as regards corporate sustainability reporting (known as the Corporate Sustainability Reporting Directive—CSRD), aim to ensure that ESG disclosures accurately reflect actual ESG performance in order to strengthen transparency and corporate accountability (La Torre et al. 2020; Bernini and La Rosa 2024). Previous research has demonstrated that regulatory mechanisms can enhance corporate accountability and reduce symbolic compliance when coupled with robust governance structures (Ioannou and Serafeim 2012; La Torre et al. 2020). However, studies on the effect of ESG reporting regulations on information quality have reported contradictory findings (García-Sánchez et al. 2023; Ngo et al. 2023; Nicolò et al. 2025). These studies consider ESG reporting regulations to be a "double-edged sword" (Hąbek and Wolniak 2016). Therefore, the effectiveness of EU ESG reporting regulations in mitigating decoupling in sustainability reporting remains an open question.

Against this backdrop, the aim of this paper is to address these gaps in the literature by thoroughly examining ESG decoupling and the organizational and contextual elements that could intensify or diminish it. Specifically, we aim to answer the following questions: First, how does the market value of companies impact ESG decoupling? Second, how do the institutional pressures arising from ESG disclosure regulations, particularly the EU's sustainability reporting directives, affect ESG decoupling? Using an international sample of 3465 large companies from 2009 to 2023 (13,488 firm-year observations), our empirical findings suggest that firms with higher financial performance and market value are more likely to exaggerate their sustainability efforts by using ESG decoupling as a strategic tool to manage their image. This behavior enables them to present themselves as committed to sustainability without making substantive changes (Abweny et al. 2025). Additionally, our findings suggest that EU ESG reporting standardization mitigates decoupling in sustainability reporting. We demonstrate that normative and coercive pressures from EU directives lead to greater consistency between ESG disclosures and performance (García-Sánchez et al. 2023; Aboud et al. 2024).

This research makes two main contributions to the literature on corporate sustainability. First, our results provide new empirical evidence for the ongoing debate about the relationship between a firm's financial performance and the authenticity of its ESG engagement. While previous studies have examined the impact of decoupling in sustainability reporting on financial performance and market value (Hawn and Ioannou 2016; Testa et al. 2018; Bothello et al. 2023; Chen and Dagestani 2023; He et al. 2023; Liu et al. 2023; Sayari et al. 2024), our study explores how financial performance and market value influence the alignment of ESG discourse and practice by reversing the causal direction. This broadens our understanding of decoupling in sustainability reporting by viewing financial performance and market value as factors that explain, rather than result from, sustainability transparency policies. We demonstrate that, in a market that values appearance over authenticity, ESG disclosures can serve as low-cost signals (Wang et al. 2024). Our findings suggest that firms with higher performance and market value engage in ESG decoupling to take advantage of potential financial benefits (Abweny et al. 2025). In financial markets, where reputation is a form of capital, firms may exploit CSR as a marketing tool rather than as a means of transformation (Bernini and La Rosa 2024; Wang et al. 2024). From a theoretical standpoint, these results cast doubt on the optimism of certain approaches in the corporate sustainability literature that assume improved financial performance and market value lead to more socially responsible corporate behavior (Aras and Crowther 2008). Conversely, our

results imply that, in certain contexts, a firm's financial prosperity can create incentives for ESG decoupling (Li et al. 2024; Ma et al. 2025). This occurs, in particular, when stakeholder and investor attention can be managed through a strong reputational narrative (Wang et al. 2024). Thus, our results broaden the understanding of decoupling in sustainability reporting, presenting it as a potential consequence of financial success rather than an exclusive response to resource scarcity.

Second, this research provides robust evidence of the effectiveness of EU sustainability reporting directives in reducing decoupling in sustainability reporting, including the first empirical examination of the impact of the CSRD. Our analysis of the impact of the NFRD and CSRD on ESG decoupling contributes to the ongoing debate about the costs and benefits of mandatory ESG reporting (Christensen et al. 2021) as well as its effectiveness in promoting corporate sustainability, transparency, and real changes in corporate behavior (Bauckloh et al. 2023; García-Sánchez et al. 2023, 2024) by demonstrating the influence of the EU's sustainability reporting directives on firms' ESG disclosure practices. Although some authors have argued that regulation is insufficient to counteract the strategic use of ESG disclosure (Leong and Hazelton 2019; Papa et al. 2024), our analysis shows that the mandatory ESG disclosure requirements imposed by the NFRD and CSRD effectively increase consistency between what companies say and do, thereby reducing decoupling in sustainability reporting (Aboud et al. 2024; Pisano et al. 2025). Thus, ESG disclosure regulation emerges as an effective instrument for promoting transparency in sustainability, rather than a mere external imposition. From a theoretical perspective, our results enhance the understanding of the relationship between ESG reporting regulations and organizational legitimacy (Aboud et al. 2024). Our findings reveal that companies' responses to sustainability reporting regulations are not merely formal compliance measures designed to avoid penalties (Bernini and La Rosa 2024). Rather, these responses can effectively drive organizational transformation and alignment. From an institutional theory perspective, we demonstrate that regulatory and coercive pressures from the regulatory environment can generate more than just symbolic compliance, as some critical literature suggests. These pressures can lead to greater consistency between ESG disclosures and performance, thereby favoring substantive organizational transformations. These findings are particularly relevant in light of recent amendments to the CSRD introduced by the Omnibus Package, as well as the implications these amendments have for ESG disclosure and ESG decoupling mitigation.

The rest of the paper is organized as follows. The second section provides background on the relationship between ESG decoupling, financial performance, and firm value, as well as the influence of the institutional pressures arising from EU sustainability reporting regulations on ESG decoupling. The third section introduces the theoretical framework and the development of the research hypotheses. The fourth section details the study's empirical design (sample, variables, model, and method). The fifth section presents the findings, and the sixth section checks their robustness. The seventh section provides a complementary analysis. The implications of the results are discussed in the eighth section. The final section summarizes the research's main conclusion.

2 | Background

2.1 | The Impact of Financial Performance and Firm Value on ESG Decoupling

Although a substantial body of literature exists on the relationship between ESG reporting and firm market value and financial performance (Yu and Zhao 2015; Reverte 2016; Buallay 2019a; Qureshi et al. 2020; Cerciello et al. 2023; Sreepriya et al. 2023; Mahmood et al. 2025), the relationship is complex, and the results of empirical studies are mixed (Sampong et al. 2018; La Torre et al. 2021; Cai et al. 2024; Van et al. 2025). Some studies have found a positive association, attributing it to the competitive advantages and potential tangible and intangible benefits of ESG reporting (Bachoo et al. 2013; Friede et al. 2015; Kuzey and Uyar 2017; Alareeni and Hamdan 2020; Nwaigwe et al. 2022). However, other studies report a negative association due to the temporary nature of these benefits and market participants' skepticism about the credibility of ESG information (Nwaigwe et al. 2022; Friske et al. 2023). Considering this, Nirino et al. (2021, 2) state that such a relationship "is more complex than a simple cause-and-effect relationship, and many factors must be considered in order to understand the impact of one variable on the other".

Regarding ESG decoupling, firm value can be a "double-edged sword". While it enables better ESG structures (Eliwa et al. 2023; He and Gan 2025), it also increases the ability and incentive to engage in decoupling practices (Abweny et al. 2025; Ma et al. 2025). Empirical results on this association are mixed. For example, Chen and Dagestani (2023) analyzed the relationship between greenwashing practices and firm value as measured by Tobin's *Q* and found that greenwashing has a positive impact on firm value. However, other authors have reported a detrimental effect. For instance, Hawn and Ioannou (2016) observed that decoupling in sustainability reporting results in decreased market value, with a stronger effect in firms belonging to industries with a significant environmental footprint or social impact. Similarly, Liu et al. (2023) reported a negative association between ESG decoupling and Tobin's *Q*. Testa et al. (2018) found that both greenwashing and brownwashing negatively affect a company's market value and financial performance; however, Sayari et al. (2024) found that greenwashing increases firm value as measured by Tobin's *Q*, while brownwashing decreases it.

Although no study has examined the inverse relationship (i.e., the effect of firms' financial performance and market value on decoupling in sustainability reporting), studies that have included financial performance and/or market value as control variables in models examining the drivers or mitigating factors of ESG decoupling also report mixed results. Table 1 summarizes these studies' results for different proxies of financial performance and firm market value.

2.2 | Institutional Pressures Arising From EU Sustainability Reporting Regulations Regarding ESG Reporting

According to Park et al. (2023), the regulatory framework is one of the main factors affecting corporate disclosure. For more than three decades, promoting transparency in

TABLE 1 | Previous findings on the effects of different proxies of financial performance and firm market value on ESG decoupling.

		Financial performance and market value proxies			
		Tobin's *Q*	**ROA**	**ROE**	**Market to book ratio**
Effect on ESG decoupling	Positive	Sauerwald and Su (2019) Gull, Hussain, Khan, Khan, and Saeed (2023) Gull et al. (2024): greenwashing	García-Sánchez et al. (2020); García-Sánchez, Hussain, et al. (2022) Parra-Domínguez et al. (2021) Gull, Hussain, Khan, Khan, and Saeed (2023) Gull et al. (2024): greenwashing He and Gan (2025): brownwashing Abweny et al. (2025) Saeed et al. (2025) Velte (2025a, 2025b)	—	Abweny et al. (2025)
	Negative	Gull et al. (2024), except for greenwashing. Velte (2025b)	Zhang (2022) He and Gan (2025), except for brownwashing Li et al. (2024): greenwashing	—	—
	Not significant	Cepêda et al. (2025b) Li et al. (2024): greenwashing	Huang et al. (2022): brownwashing Eliwa et al. (2023) Gull, Hussain, Khan, Mushtaq, and Orij (2023) Gull et al. (2024), except for greenwashing Bergmann et al. (2025) Braam et al. (2025) Cepêda et al. (2025b) Li and Xiao (2025)	Ma et al. (2025)	García-Sánchez, Hussain, et al. (2022)

Source: Own elaboration.

sustainability reporting has been a top priority for the EU, making it a leading region in this field (Buallay 2019b; García-Sánchez, Sierra-García, and García-Benau 2022; García-Sánchez et al. 2023, 2024; Krasodomska et al. 2020; Pisano et al. 2025; Sharma 2025).

In the early 2010s, the European Commission emphasized the importance of enhancing the transparency of social and environmental information disclosed by companies. This emphasis was reflected in the Single Market Act II "Together for New Growth", adopted in October 2012, as well as in subsequent European Parliament resolutions on CSR issued on February 6, 2013: "Corporate social responsibility: accountable, transparent and responsible business behavior and sustainable growth" and "Corporate Social Responsibility: promoting society's interests and a route to sustainable and inclusive recovery".

In 2014, the EU took a significant step forward with the October 22 approval of Directive 2014/95/EU on non-financial and diversity information (Monciardini et al. 2020; Posadas and Tarquinio 2021; García-Sánchez, Sierra-García, and García-Benau 2022; García-Sánchez et al. 2023, 2024; Papa et al. 2024). This directive established the obligation for large public interest companies and groups to disclose non-financial information. Known as the Non-Financial Reporting Directive (NFRD), this directive was an important milestone because it was the first continental non-financial reporting legislation (Krasodomska et al. 2020; Nicolò et al. 2025). It established minimum legal requirements for the scope of sustainability information that companies must disclose and made mandatory the disclosure requirements established in previous directive regulations (e.g., Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings) (Aureli et al. 2020; García-Sánchez, Sierra-García, and García-Benau 2022; García-Sánchez et al. 2023, 2024).

More recently, on December 14, 2022, the Directive (EU) 2022/2464 on Corporate Sustainability Reporting (CSRD) was approved. The CSRD replaces the NFRD and aims to standardize the sustainability information that companies disclose, making it more objective, reliable, and comparable (Nicolò et al. 2025; Sharma 2025). With the approval of the CSRD, the EU sought to address shortcomings identified after implementing the NFRD (Pizzi et al. 2023; Aboud et al. 2024; Krasodomska 2025; Sharma 2025) and, more importantly, to align financial and non-financial information in terms of transparency, quality, depth, and reliability by establishing rigorous ESG disclosure requirements, including assurance. To ensure greater transparency and consistency in the disclosure of sustainability information, common standards have been established: the European Sustainability Reporting Standards (ESRS), developed by the European Financial Reporting Advisory Group (EFRAG) (Nicolò et al. 2025). On November 22, 2022, EFRAG sent the first 12 ESRS to the European Commission, which approved them on July 31, 2023.

On 26 February 2025, the European Commission published the Omnibus package. This included proposals to narrow the scope of the CSRD, as well as reducing and simplifying its reporting requirements to alleviate compliance burdens for companies (Nicolò et al. 2025). According to Nicolò et al. (2025, 9044), "this reform reflects the EU's commitment to ensuring regulatory proportionality and a more pragmatic, phased implementation of sustainability disclosure obligations". As a result, in March 2025, the EU Commission formally requested that EFRAG simplify the ESRS, aiming to reduce the number of mandatory data points by 50%. The amended ESRS exposure drafts were presented on July 31, 2025. They include a more flexible and focused approach to assessing dual materiality, a reduction in overlaps between standards, and clearer language and structure. Disclosure requirements were reduced to be more cost-conscious.

Finally, on 14 April 2025, the European Parliament approved Directive (EU) 2025/794, also known as the "Stop-the-Clock" Directive. Its main objective is to give companies more time to adapt to and comply with the sustainability regulations under review as part of the Omnibus package. It therefore postpones the reporting obligations for certain large companies and listed small and medium-sized enterprises (SMEs) within the scope of the CSRD for up to 2 years.

Table 2 summarizes the main corporate sustainability disclosure initiatives developed in the EU in recent years.

Despite some studies indicating that the NFRD does not consistently result in firms disclosing higher volumes or quality of ESG information (Matuszak and Różańska 2017; Tarquinio et al. 2020; Venturelli et al. 2017), prior research overall has demonstrated the NFRD's positive impact on the quantity and quality of disclosed ESG information (Mion and Loza Adaui 2019; Caputo et al. 2020; Korca et al. 2021; Arvidsson and Dumay 2022; Carmo and Ribeiro 2022; Fiechter et al. 2022; Lippai-Makra et al. 2022; Ottenstein et al. 2022; Cepêda 2024; García-Sánchez et al. 2023, 2024). Similarly, recent studies emphasize the "shift in sustainability reporting practices" promoted by the CSRD (Krasodomska 2025; Sharma 2025) and its positive impact on ESG disclosure level (Pisano et al. 2025).

Additionally, previous research has demonstrated that regulatory mechanisms can enhance corporate accountability and reduce symbolic compliance when coupled with robust governance structures (Ioannou and Serafeim 2012; La Torre et al. 2020). In particular, it has been shown that environmental regulations reduce the discrepancy between firms' disclosures and their actual performance in this area (Mateo-Márquez et al. 2022; Polizzi and Scannella 2023; Tang et al. 2023; Ben Mahjoub 2025). However, regarding the NFRD's impact on ESG decoupling, two recent studies report contradictory findings. Papa et al. (2024) found that Polish companies continued to engage in ESG decoupling after the NFRD took effect, while Aboud et al. (2024) found that the NFRD's passage and implementation mitigated decoupling in sustainability reporting.

Regarding the CSRD, although Pisano et al.'s (2025) study did not aim to analyze its effect on decoupling in sustainability reporting, the researchers observed a reduction in environmental decoupling practices by European companies following the passage of the directive. Similarly, Cepêda et al. (2025b) documented

TABLE 2 | Key EU corporate sustainability disclosure initiatives.

Date	Initiative
February 6, 2013	European Parliament resolutions "Corporate social responsibility: accountable, transparent and responsible business behavior and sustainable growth" and "Corporate Social Responsibility: promoting society's interests and a route to sustainable and inclusive recovery"
June 26, 2013	Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings
October 22, 2014	Directive 2014/95/EU on non-financial and diversity information (NFRD)
July 5, 2017	Communication "Guidelines on non-financial reporting (methodology for reporting non-financial information)" (2017/C 215/01)
March 08, 2018	Communication "Action Plan: Financing Sustainable Growth"
June 26, 2019	Communication "Guidelines on non-financial reporting: Supplement on reporting climate-related information" (2019/C 209/01)
November 27, 2019	Regulation (EU) 2019/2088 on "Sustainability-related disclosures in the financial services sector" (SFDR)
December 11, 2019	Communication "The European Green Deal"
June 18, 2020	Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment—EU Taxonomy Regulation
December 14, 2022	Directive (EU) 2022/2464 on Corporate Sustainability Reporting (CSRD)
July 31, 2023	Commission Delegated Regulation (EU) 2023/2772 as regards sustainability reporting standards
June 13, 2024	Directive (EU) 2024/1760 on Corporate Sustainability Due Diligence (CSDDD)
February 26, 2025	Omnibus–COM(2025)84
April 14, 2025	Directive (EU) 2025/794–"Stop-the-Clock Directive"

Source: Own elaboration.

a negative impact of the CSRD on ESG decoupling, incorporating the CSRD as a control variable in their model.

3 | Theoretical Framework and Research Hypotheses

Acknowledging that no single theory can fully explain the impact of various factors on ESG disclosure, particularly ESG decoupling (García-Sánchez et al. 2024; García-Sánchez, Núñez-Torrado, et al. 2025), this paper employs a multi-theoretical framework integrating five widely adopted theories within this field of study (Bernini and La Rosa 2024; Cepêda et al. 2025a): agency theory, the resource-based view, legitimacy theory, stakeholder theory, and institutional theory. "Each theory has its own virtue and collectively, thus adding (not replacing) to our understanding of practice and individuals in their social, economic, and cultural contexts" (Hoque et al. 2013, 1171).

3.1 | The Impact on Financial Performance and Firm Value on ESG Decoupling

From an agency theory perspective (Jensen and Meckling 1976), managers tend to prioritize short-term economic results and adopt behaviors that reinforce their reputation with owners because they are evaluated and rewarded primarily by financial and market indicators. According to this theory, decoupling in sustainability reporting can be interpreted as a rational response by managers to market incentives (Cepêda et al. 2025b), through which they balance financial and non-financial interests by projecting an image of social responsibility without compromising their focus on financial performance (Testa et al. 2018; Sayari et al. 2024; Abweny et al. 2025).

According to legitimacy theory (Suchman 1995), firms seek to balance maintaining social acceptance with maximizing shareholder value (Bergmann et al. 2025; He and Gan 2025). From this perspective, when financial performance and investor pressure acquire greater weight in strategic decisions, firms can resort to symbolic ESG strategies that reinforce their reputation without implying substantive changes in behavior (Huang et al. 2022; Bernini and La Rosa 2024; Saeed et al. 2025). Therefore, decoupling in sustainability reporting, as a rational strategy for managing social perception, will be favored in contexts where financial performance is the primary criterion for evaluating corporate success (Li et al. 2024; Ma et al. 2025).

According to the resource-based view (Wernerfelt 1984; Barney 1991), reputation and investor confidence are considered intangible assets that can provide companies with

competitive advantages (Nirino et al. 2021; Bernini and La Rosa 2024; Parfitt 2024a). In this sense, market value reflects current financial performance and investors' expectations about the company's future sustainability (Clarkson et al. 2011, 2013; Bothello et al. 2023; Sayari et al. 2024). Consequently, firms with larger market capitalization tend to face more intense scrutiny from stakeholders, the media, and regulators (Abweny et al. 2025; He and Gan 2025), which increases the pressure to project a responsible image to stakeholders (Kuzey and Uyar 2017; Li and Xiao 2025). Due to their dominant position and influence, however, these companies have the resources to manage external perceptions without undergoing profound structural or process changes (Testa et al. 2018). Consequently, high market value can lead to greater decoupling in sustainability reporting.

Similarly, stakeholder theory (Freeman 1984) posits that a firm's success and long-term sustainability depend on its ability to balance the interests of the various groups affected by its activities (Aras and Crowther 2008; Bernini and La Rosa 2024; Sharma 2025). The diversity of expectations among stakeholders can generate tensions between financial objectives and social and environmental responsibilities (Ackerman 1975; Barnett 2007; Chen and Dagestani 2023; Wang et al. 2024). As a result, companies with high market value may perceive their strong financial reputation as allowing them to adopt symbolic responses that satisfy stakeholder demands at a communicative level (He and Gan 2025). This approach minimizes the costs of profound organizational changes while avoiding significant deterioration of stakeholder trust (Eccles et al. 2014; Chen and Dagestani 2023; Wang et al. 2024).

Overall, these four theoretical frameworks suggest that firms with higher financial performance and market value are better positioned and more motivated to adopt symbolic ESG strategies that reinforce their legitimacy without requiring substantial changes. Previous empirical evidence confirms this notion. For example, Kim and Lyon (2015) showed that shareholders in low-profit firms may view the implementation of sustainability initiatives as a lower priority than more profitable projects, which can lead to pressure on managers to underreport these activities, resulting in ESG decoupling. Abweny et al. (2025) observed that companies with the highest market value and the greatest profitability tend to prioritize financial performance, which can result in the over-reporting of CSR activities to take advantage of possible financial benefits.

Thus, we posit a positive association between financial performance and decoupling in sustainability reporting and propose our first research hypothesis as follows:

H1. *Financial performance, as measured by firm market value, is positively associated with decoupling in sustainability reporting.*

3.2 | The Impact of the Institutional Pressures Arising From EU Sustainability Reporting Regulations on ESG Decoupling

The impact of the institutional pressures arising from the NFRD and the CSRD on decoupling in sustainability reporting can be explained based on the postulates of institutional theory, particularly its normative and coercive aspects (Aboud et al. 2024; Cepêda 2024; Nicolò et al. 2025; Sharma 2025). From this perspective, organizations respond to external institutional pressures to maximize efficiency and achieve social legitimacy (DiMaggio and Powell 1983; Patten 2005; Ball and Craig 2010). Thus, the introduction of more demanding regulatory frameworks regarding sustainability transparency generates normative and coercive pressures that positively affect the quality of information disclosed (Mion and Loza Adaui 2019; Korca et al. 2021; Aboud et al. 2024). By imposing detailed and standardized requirements on sustainability reporting, both directives make it more difficult for firms to use sustainability as a mere reputational tool and force them to be more accountable (Bauckloh et al. 2023), which contributes to a reduction in ESG decoupling. This effect stems from companies' attempts to gain legitimacy and avoid economic and social sanctions resulting from noncompliance with ESG information disclosure requirements set forth in the directives (Aboud et al. 2024; Krueger et al. 2024).

Similarly, legitimacy theory posits that companies strive to maintain the perception that their activities align with societal values and expectations (Patten 2005; Deegan 2010). From this perspective, the EU directives create an institutional environment characterized by increasing public scrutiny and social demands for greater corporate responsibility (Aboud et al. 2024; Nicolò et al. 2025; Pisano et al. 2025; Sharma 2025). In such an environment, companies that engage in ESG decoupling strategies face higher reputational and regulatory costs (Tarquinio et al. 2020) and are therefore discouraged from using these strategies as a means of legitimization.

As previously mentioned, the results of the few studies that have directly or indirectly examined the impact of the directives on ESG decoupling are mixed. Aboud et al. (2024) report a negative effect of the passage of the NFRD on decoupling in sustainability reporting, while Cepêda et al. (2025b) and Pisano et al. (2025) report a similar effect in the case of the CSRD. However, Papa et al. (2024) report no effect of the NFRD on decoupling in sustainability reporting.

Based on the above discussion, we posit that the NFRD and the CSRD have a negative impact on ESG decoupling. Accordingly, we propose our second hypothesis as follows:

H2. *The institutional pressures arising from the EU regulatory ESG reporting framework (NFRD and CSRD) are negatively associated with ESG decoupling.*

The research model for the study is illustrated in Figure 1.

4 | Methodology

4.1 | Sample

Building on previous studies of decoupling in sustainability reporting (e.g., García-Sánchez, Hussain, et al. 2022; Cepêda et al. 2025b), we configured the study sample by selecting large, publicly traded companies worldwide with financial and

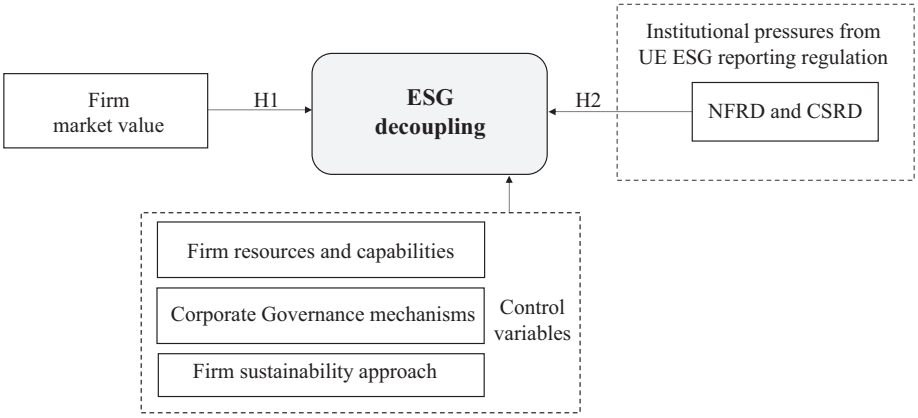

FIGURE 1 | Research model.

sustainability information available in the LSEG Refinitiv database. We chose these companies because, as high-visibility entities, they tend to be subject to greater pressure from regulators, investors, and stakeholders to disclose ESG information, which makes them more likely to exaggerate their ESG performance (Sauerwald and Su 2019; Belhouchet and Chouaibi 2024; Abweny et al. 2025). The study covers the period from 2009 to 2023 which was marked by a growing interest in ESG information, as well as regulatory developments regarding ESG reporting (Velte 2025a, 2025b).

Thus, our initial dataset consisted of 6409 companies (96,135 observations), to which we applied the same filters used by García-Sánchez, Hussain, et al. (2025). After eliminating cases for which information on the variables was missing and companies for which no information was available for five or more consecutive years, we obtained a final sample of 3465 companies (13,488 firm-year observations). The sample spans multiple industries and geographic regions, allowing for robust cross-country and sector comparisons. The sample firms are biased toward those from Anglo-Saxon countries, namely the United States, the United Kingdom, Canada, and Australia, which together account for nearly half of the sample (49.87%). These are followed by firms from Japan and China, which account for 6.64% and 6.46%, respectively. By sector, there is a bias toward industrials, real estate, and technology (18.64%, 16.08%, and 16.02%, respectively).

4.2 | Variables

The dependent variable, CSRGap, represents decoupling in sustainability reporting. It measures the discrepancy between a firm's ESG disclosures and its actual performance, ranging from −1 to 1. To calculate CSRGap, we used the methodology of Cepêda et al. (2025b), which is based on the criteria of García-Sánchez, Hussain, et al. (2022). CSRGap is calculated by subtracting the sum of 18 items representing external CSR practices from the sum of 20 items representing internal CSR practices (see Cepêda et al. 2025b, 137, 138). For each firm and year, we summed these items to create the variables "external CSR practices" and "internal CSR practices," which we then normalized. The CSRGap variable was computed as the difference between the normalized value of the "external CSR practices" variable in year *t* and the normalized value of the "internal CSR practices" variable in year *t*-1.

For the hypothesis related to the effect of financial performance (H1), following Aibar-Guzmán et al. (2024) the independent variable (Tobin's *Q*) represents the firm's market value. Originally introduced by Nicholas Kaldor in 1966, Tobin's *Q* is a widely recognized metric used to quantitatively assess firm market value by evaluating whether a firm or market is overvalued. Tobin's *Q* is calculated by dividing the market value of a firm (usually represented by the market value of equity plus debt) by the replacement cost of its assets (Kaldor 1966). A ratio greater than one indicates strong investor confidence and perceived value, suggesting that the market values the firm more highly than the cost of replacing its assets (Kaldor 1966). While other metrics exist to measure financial performance, such as return on assets (ROA), return on equity (ROE), return on investment (ROI), market-to-book ratio (MtoB), and earnings per share (EPS), Tobin's *Q* has gained prominence in empirical research due to its effectiveness in linking corporate value to various explanatory variables (Gharaibeh and Qader 2017; Buallay 2019b; Bhaskaran et al. 2020; La Torre et al. 2021; Giannopoulos et al. 2022; Shahrun et al. 2023).

Regarding the second hypothesis (H2), related to the institutional pressures arising from the EU's regulatory reporting framework, two dummy variables, NFRD and CSRD, measure the existence of mandatory ESG disclosure requirements in EU countries. These variables indicate whether EU firms are subject to the corresponding EU directive by taking the value 1 if the firm is subject to the directive and 0 if it is not. Specifically, these variables take the value of 1 for firms whose parent company was in an EU country between 2014 and 2023 (NFRD) or between 2022 and 2023 (CSRD). These time frames were chosen because, although the obligation to disclose ESG factors in accordance with the directives occurred after 2014 for the NFRD and after 2022 for the CSRD, their effects were felt shortly after publication (Fiechter et al. 2022; García-Sánchez, Sierra-García, and García-Benau 2022; García-Sánchez et al. 2023; Aboud et al. 2024).

Finally, following prior literature (e.g., García-Sánchez, Hussain, et al. 2022; Cepêda et al. 2025b), 12 control variables were include

into the model representing firm resources and capabilities, corporate governance mechanisms, and the firm's ESG performance. Additionally, the categorical variables (country, year, and industry) were included as control variables.

Table 3 provides a description of all variables included in the empirical model.

4.3 | Empirical Model

The model shown in the equation below examines the impact of financial performance, firm value, and the institutional pressures resulting from EU sustainability reporting regulations (NFRD and CSRD) on ESG decoupling.

$$\begin{aligned}\mathbf{CSRGap}_{i,t} = {} & \alpha_0 + \alpha_1 \mathbf{TobinsQ}_{i,t} \\ & + \alpha_2 \mathbf{NFRD}_{i,t} + \alpha_3 \mathbf{CSRD}_{i,t} \\ & + \alpha_4 \mathrm{ESGS} + \alpha_5 \mathrm{BSize}_{i,t} \\ & + \alpha_6 \mathrm{AUDCommittee}_{i,t} \\ & + \alpha_7 \mathrm{BGenderDiv}_{i,t} + \alpha_8\ \mathrm{ACIndep}_{i,t} \\ & + \alpha_9 \mathrm{ExecutiveMembersGD}_{i,t} \\ & + \alpha_{10} \mathrm{CSRCommittee}_{i,t} + \alpha_{11} \mathrm{CEODuality}_{i,t} \\ & + \alpha_{12} \mathrm{Accruals}_{i,t} + \alpha_{13} \mathrm{CashFlowOA}_{i,t} \\ & + \alpha_{14} \mathrm{Leverage}_{i,t} + \alpha_{15} \mathrm{Size}_{i,t} \\ & + \alpha_{16} \mathrm{Industry}_{i,t} + \alpha_{17} \mathrm{Country}_{i} \\ & + \alpha_{18} \mathrm{Year}_{t} + \varepsilon_{it} + \eta_{i} \end{aligned} \tag{1}$$

According to the Hausman test and to mitigate omitted variable bias, we use random-effects panel regression. We also perform other robust tests, including those that correct for heteroscedasticity and autocorrelation. Additionally, we use the instrumental variable approach to address potential endogeneity concerns.

5 | Results

5.1 | Descriptive Statistics

Table 4 presents the descriptive statistics of the variables used in the analysis. In line with previous models' findings, the average CSRGap is −0.149, suggesting that firms tend to overstate their disclosed CSR commitments relative to their actual practices. The variable Tobins *Q*, our proxy for financial performance and firm value, has a mean of 2.35 and a standard deviation of 2.90. This indicates significant variation in market performance across firms. With means of 0.17 and 0.08, respectively, the variables CSRD and NFRD indicate that only a small portion of the sample firms are subject to these regulatory frameworks. These low percentages are since both the NFRD and the CSRD only affect firms operating in the EU, and our sample is biased toward firms from non-EU countries, particularly the United States, the United Kingdom, Japan, China, Canada, and Australia. Nevertheless, these findings are consistent with previous literature (e.g., García-Sánchez et al. 2023, 2024).

Regarding the control variables, the average board size (BSize) is approximately 10 members. The mean for board gender diversity (BGenderDiv) is 25.7%, and the mean for executive members' gender diversity (ExecutiveMembersGD) is 51.12%, which is higher than the gender diversity on the board. An audit committee is present in 93.7% of firms, with 72% of members being independent. CSR committees (CSRCommittee) are present in 78.1% of the sample firms, and in 35.3% of the sample firms the CEO also serves as board chair (CEODuality). On average, the ESG score (ESGS) is 57.06%, indicating that most firms receive moderate sustainability ratings.

In terms of firm resources and capabilities, the mean size of firms in the sample is 22.45, suggesting that it is largely composed of large firms. Leverage averages 0.56 with significant variation, reflecting differences in capital structures. Accounting-related variables (accruals and operational cash flow) also exhibit high variability, implying diverse earnings management practices and quality of earnings.

Overall, the dataset reflects significant variation in CSR engagement, governance structures, and financial performance, which provides a solid basis for analyzing the relationship between decoupling in sustainability reporting, institutional pressures, and firm characteristics.

The Pearson correlation matrix (Table 5) shows that there is no significant correlation between the CSRGap variable and the independent or control variables; all absolute correlation values are below 0.8. Furthermore, multicollinearity is not a concern in the dataset since all variance inflation factor (VIF) values are below the commonly accepted threshold of 10 (Almarayeh et al. 2022, 2024; Cepêda et al. 2025b). These results suggest that the relationships among the independent variables are appropriate and do not compromise the robustness or reliability of the regression models.

5.2 | Main Results

Table 6 shows the results of the regression analysis. The findings support hypothesis H1, which states that financial performance (Tobins *Q*) is positively associated with decoupling in sustainability reporting. The positive and statistically significant coefficient for Tobin's *Q* ($\alpha_1 = 0.0019477$, $p < 0.01$) indicates that firms with higher market valuations are more likely to engage in decoupling in sustainability reporting. These results imply that firms' financial performance, as measured by Tobin's *Q*, motivates them to engage in symbolic ESG reporting practices, portraying themselves as sustainable without implementing substantive changes.

The second hypothesis (H2) relates to the impact of the institutional pressures arising from EU sustainability reporting regulations on decoupling in sustainability reporting. As shown in Table 6, firms subject to EU sustainability reporting regulations, specifically the NFRD and CSRD, are significantly less likely to decouple ESG disclosure from actual sustainability performance. The NFRD coefficient is negative and significant ($\alpha_2 = -0.0986177$, $p < 0.05$), as is the CSRD coefficient

TABLE 3 | Variable definition.

Variable	Measurement	Literature
Dependent variable		
CSRGap	Absolute difference between internal (policies) and external (disclosures) CSR actions, calculated as a modified version of the Hawn and Ioannou (2016)'s ESG decoupling proxy developed by García-Sánchez, Sierra-García, and García-Benau (2022).	García-Sánchez, Hussain, et al. (2022); Cepêda et al. (2025b)
Independent variables		
TobinsQ	Firm's market value relative to its book value.	Aluchna et al. (2022); Bothello et al. (2023); Gull et al. (2024); Sun et al. (2024)
NFRD	Dummy variable identifying the effect of the passage of the NFRD, taking the value 1 for those firms whose parent company was in an EU country from 2014 to 2021, and 0 otherwise	García-Sánchez, Sierra-García, and García-Benau (2022); García-Sánchez et al. (2023, 2024); He et al. (2023); Aboud et al. (2024)
CSRD	Dummy variable identifying the effect of the passage of the CSRD, taking the value 1 for those firms whose parent company was in an EU country in 2022 and 2023, and 0 otherwise.	Cepêda et al. (2025b)
Control variables		
ESGS	Overall ESG score based on reported data according to the Refinitiv's methodology ESG information calculation. ESG information is based on various data sources, including companies' annual reports, CSR disclosures (sustainability report and integrated report), official websites and share registers. The ESG score ranges from 0 to 100, where scores between 0 and 25 indicate weak performance with low transparency, 26 to 50 reflect satisfactory performance with moderate transparency, 51 to 75 represent good performance with above-average transparency, and 76 to 100 signify excellent performance with high transparency in public disclosure.	Lopez-de-Silanes et al. (2024); Cepêda et al. (2025b)
BSize	Total board members	García-Sánchez et al. (2023); Eliwa et al. (2023)
AUDCommittee	Dummy variable for the presence of an audit board committee.	Pisano et al. (2025); Velte (2025a)
BGenderDiv	Percentage of women among board members	García-Sánchez et al. (2024); Gull, Hussain, Khan, Nadeem, and Zalata (2023); Gull et al. (2024)
ACIndep	Proportion of independent members on the audit committee	Khan et al. (2013); Dwekat et al. (2022); Velte (2025b)
ExecutiveMembersGD	Percentage of women among executive committee members.	Ouni et al. (2020)
CSRCommittee	CSR committee: dummy taking the value of 1 if there is a CSR committee, 0 otherwise.	Pucheta-Martínez et al. (2021); Uyar et al. (2023)
CEODuality	CEO dual role: dummy variable taking the value 1 if the CEO is also the board chairperson, and 0 otherwise.	Garrido-Ruso et al. (2023)

(Continues)

TABLE 3 | (Continued)

Variable	Measurement	Literature
Accruals	Total accruals scaled by cash flow.	García-Sánchez et al. (2021); Cepêda et al. (2025b)
CashFlowOA	Firm's operational cash flow.	Al-Shaer and Zaman (2018); García-Sánchez et al. (2021); Meqbel et al. (2025)
Leverage	Level of financial indebtedness.	Al-Shaer et al. (2017); Dwekat et al. (2022); García-Sánchez, Hussain, et al. (2022); Gull et al. (2024); Velte (2025a)
Size	Firm size, measured by the natural logarithm of assets.	Al-Shaer et al. (2017); Buallay and Al-Ajmi (2020); Parra-Domínguez et al. (2021); Hasan et al. (2022); Eliwa et al. (2023)

Source: Own elaboration.

TABLE 4 | Descriptive statistics.

Variables	Obs.	Mean	Std. Dev.	Min	Max
Dependent variable					
CSRGap	13,488	−0.1487226	0.1324486	−0.5739687	0.531726
Independent variables					
Tobins *Q*	13,488	2.348114	2.896776	0	25.2
NFRD	13,488	0.168965	0.3747349	0	1
CSRD	13,488	0.0779953	0.2681741	0	1
Control variables					
ESGS	13,488	57.06191	17.88115	0.83	96.02
BSize	13,488	9.813316	3.010645	1	98
AUDCommittee	13,488	0.9366103	0.2436716	0	1
BGenderDiv	13,488	25.70391	13.7149	0	80
ACIndep	13,488	0.72200543	0.323526557	0.04166667	1
ExecutiveMembersGD	13,488	51.122	26.843	1.67	99.98
CSRCommittee	13,488	0.780694	0.4137917	0	1
CEODuality	13,488	0.3529804	0.4779144	0	1
Accruals	13,488	−6.77e+08	2.62e+09	−4.26e+10	1.10e+11
CashFlowOA	13,488	1.54e+09	5.32e+09	−1.01e+11	1.73e+11
Leverage	13,488	0.5551261	0.3276293	0	0.9992167
Size	13,488	22.45422	1.558222	16.17721	28.44639

Source: Own elaboration.

($\alpha_3 = -0.0048759$, $p < 0.05$). These results support the idea that sustainability regulatory obligations increase transparency and the reliability of ESG information by reducing decoupling in sustainability reporting.

Additionally, the results in Table 6 reveal that some control variables have a significant effect on decoupling in sustainability reporting. Specifically, firm size ($\alpha_{15} = -0.0093744$; $p < 0.01$), board gender diversity ($\alpha_7 = -0.0007369$; $p < 0.01$), and the existence of an audit committee on the board ($\alpha_6 = -0.0291822$; $p < 0.01$) are significantly and negatively associated with CSRGap, while leverage ($\alpha_{14} = 0.0112137$; $p < 0.05$) and operating cash flow ($\alpha_{13} = 8.11e{-}136$; $p < 0.05$) are positively and significantly associated with CSRGap.

TABLE 5 | Pairwise correlations and VIF test.

Variables	VIF	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) CSRGap		1.000															
(2) Tobins *Q*	1.19	0.042	1.000														
(3) NFRD	1.98	−0.066	−0.068*	1.000													
(4) CSRD	1.73	−0.076*	−0.054*	0.603*	1.000												
(5) ESGS	2.74	−0.167*	−0.069*	0.208*	0.148*	1.000											
(6) BSize	1.29	−0.176*	0.019	0.307*	0.239	0.322*	1.000										
(7) AUDCommittee	1.13	−0.010	0.097*	−0.273*	−0.173*	0.051	0.066*	1.000									
(8) BGenderDiv	1.39	−0.033*	−0.053*	0.164*	0.096*	0.281	0.070*	0.079*	1.000								
(9) ACIndep	1.21	−0.246	0.048*	0.080*	0.062*	0.102*	0.244*	0.056*	0.019*	1.000							
(10) ExecutiveMembersGD	1.11	−0.066*	0.030	0.037*	0.036*	0.192*	0.266*	0.049*	0.086*	0.115*	1.000						
(11) CSRCommittee	1.52	−0.093*	−0.161*	0.093*	0.095*	0.519*	0.149*	0.048*	0.199*	−0.017*	0.059*	1.000					
(12) CEODuality	1.09	−0.019*	0.090*	−0.076*	−0.052*	−0.021*	0.011	0.244*	0.069*	0.076*	−0.004	−0.035*	1.000				
(13) Accruals	2.24	0.005	0.004	−0.024	−0.010	−0.180*	−0.035*	−0.046*	−0.147*	−0.020*	−0.050*	−0.099*	−0.032*	1.000			
(14) CashFlowOA	2.46	0.006	0.075*	0.000	0.003	0.203*	0.028*	0.082*	0.147*	0.015	0.054*	0.108*	0.043*	−0.738*	1.000		
(15) Leverage	1.18	−0.075*	−0.183*	0.090*	0.048*	0.178*	0.110*	0.057*	0.176*	0.117*	0.065*	0.114*	0.026*	−0.069*	0.022	1.000	
(16) Size	2.03	−0.044	−0.145	0.065*	0.043*	0.471*	0.000	0.121*	0.434*	−0.048*	0.055*	0.324*	0.075*	−0.357**	0.421*	0.304	1.000

*$p < 0.1$.
Source: Own elaboration.

TABLE 6 | Random effects panel data results of the main analysis (model 4).

CSRGap	Coef.	Std. Err.	$p>z$
Independent variables			
Tobins *Q*	0.0019477	0.0005648	0.001
NFRD	−0.0986177	0.0427969	0.021
CSRD	−0.0048759	0.0036962	0.029
Control variables			
ESGS	0.0001484	0.0001226	0.226
BSize	0.0003611	0.0004911	0.462
AUDCommittee	−0.0291822	0.0074579	0.000
BGenderDiv	−0.0007369	0.0001316	0.000
ACIndep	0.0000616	0.0002505	0.806
ExecutiveMembersGD	−0.0000439	0.0000539	0.416
CSRCommittee	−0.0013845	0.003685	0.707
CEODuality	0.0006327	0.0033605	0.851
Accruals	7.11e-14	5.48e-13	0.897
CashFlowOA	8.11e-13	3.54e-13	0.022
Leverage	0.0112137	0.0053827	0.037
Size	−0.0093744	0.001636	0.000
Groups		3833	
Number of observations		13,488	
R^2		20.68	

Source: Own elaboration.

6 | Robustness Analysis

6.1 | Alternative Proxies for the Independent Variables Related to Financial Performance and Firm Value

To address potential model bias and enhance the robustness of our analysis, we re-estimated the model by replacing the independent Tobis *Q* with new independent variables representing financial performance and firm value (La Torre et al. 2021): profitability ratios (ROA and ROE) and earnings management (net income after tax-NIAT-and earnings per share-EPS). This step was taken because various dimensions of financial performance can influence how stakeholders perceive and evaluate companies. Including these new variables as proxies for financial performance and firm value in the revised model provides a more comprehensive view of a company's financial standing. This ensures that our results are not driven by the measurement of variables. Furthermore, this approach aligns with prior literature that emphasizes the importance of testing alternative specifications to validate findings and improve the model's explanatory power (e.g., Velte 2017; Zhao et al. 2018; Xie et al. 2019).

Table 7 shows the definitions of these new independent variables used in the revised model and Table 8 reports their descriptive statistics.

The robust test results shown in Table 9 support the main analysis results, yielding the same statistical conclusions for ROA, ROE, and NIAT. However, EPS is the only variable not statistically related to decoupling in sustainability reporting. Therefore, it can be concluded that firm value, as measured by Tobin's *Q*, is positively associated with decoupling in sustainability reporting, as

TABLE 7 | Definition of the new independent variables in the revised model 4.

Variables	Description	Literature
Accounting measures	Return on equity (ROE) is a measure of a firm's profitability relative to its shareholders' equity. It indicates how effectively a company generates profits from its equity financing.	Shahrun et al. (2023); Ma et al. (2025)
	Economic profitability as measured by return on assets (ROA). It is a measure of a firm's profitability relative to its total assets. It shows how efficiently management uses assets to generate net income.	Parra-Domínguez et al. (2021); Eliwa et al. (2023); Gull, Hussain, Khan, Khan, and Saeed (2023); Gull et al. (2024).
Profitability	Net Income After Tax (NIAT) is the firm's profits after all expenses and taxes have been deducted.	Rohaya et al. (2009); Abu-Abbas (2011)
	Earnings per share (EPS) is a measure of profit generated per share. It is calculated by dividing a firm's net profit by the total number of its outstanding common shares. Higher values indicate greater per-share profitability.	Gharaibeh and Qader (2017)

Source: Own elaboration.

TABLE 8 | Descriptive statistics of the new independent variables in the revised model 4.

Variables	Obs.	Mean	Std. Dev.	Min	Max
ROA	13,488	0.1131782	0.2235255	−0.8	1
ROE	13,488	0.389	2.816	0	94.992
NIAT	13,488	8.62e + 08	3.81e + 09	−1.91e + 10	1.51e + 11
EPS	13,488	−12.722	2110.079	−202196.98	88,769.833

Source: Own elaboration.

are alternative financial performance metrics commonly used in prior studies (ROA, ROE, and NIAT).

6.2 | Addressing Endogeneity Concerns

In line with prior studies (e.g., García-Sánchez et al. 2021; Pucheta-Martínez et al. 2021; Abweny et al. 2025), Model 4 was re-estimated using the generalized method of moments (GMM) to address potential endogeneity concerns. This method uses instrumental variables based on lags and differences of all variables in the model (García-Sánchez, Hussain, et al. 2025).

As shown in Table 10, the diagnostic tests support the validity of the specification. The Arellano-Bond test shows the expected AR(1) and no evidence of second-order autocorrelation (AR(2): $p = 0.276$). The Hansen test confirms instrument validity by not rejecting the null hypothesis ($p = 0.793$). While the Sargan test is significant, this result is not robust and becomes less informative in the presence of heteroskedasticity. The difference-in-Hansen test further supports the exogeneity of the instrument subsets. Overall, these findings indicate that the GMM system estimates are reliable and reinforce the robustness of our main results.

7 | Complementary Analysis

From an institutional theory perspective, research has shown that the effect of institutional pressures from sustainability disclosure regulations on the quality of ESG information is influenced by the characteristics of these regulations, such as the existence of clear and specific guidelines or mandatory assurance (Leong and Hazelton 2019; García-Sánchez et al. 2023). In this sense, the low effectiveness of the NFRD in improving the quality of corporate sustainability reporting has been attributed to its lack of these characteristics. Unlike the NFRD, the CSRD requires mandatory assurance of sustainability reports. Therefore, it is assumed that the CSRD will be more effective in improving the quality and credibility of sustainability information (Nicolò et al. 2025; Pisano et al. 2025; Krasodomska et al. 2024).

However, previous research has shown that the assurance of sustainability reports does not improve the quality of ESG information disclosed (Michelon et al. 2015; Boiral et al. 2019). Furthermore, when assurance is voluntary, firms seeking to build trust in their ESG performance tend to assure their sustainability reports (Krasodomska et al. 2021). As a result, suspicions have arisen about whether firms are using the assurance symbolically (García-Sánchez, Hussain, et al. 2025) and whether it is effective in reducing decoupling in sustainability reports (García-Sánchez, Hussain, et al. 2022; Braam et al. 2025).

In this regard, some authors have documented a significant and negative effect of assurance on ESG decoupling (Sauerwald and Su 2019; Ruiz-Blanco et al. 2022; Pizzi et al. 2023; Aboud et al. 2024; García-Sánchez, Hussain, et al. 2025); however, in other cases, the negative impact is not significant (García-Sánchez, Hussain, et al. 2022; Velte 2025b). These mixed results may be due to the level of assurance provided. Braam et al. (2025) have shown that limited assurance mainly has a symbolic function and can potentially lead to increased ESG decoupling. On the other hand, reasonable assurance can mitigate ESG decoupling; however, its effectiveness depends on the scope of the assurance and the type of assurance provider.

Thus, to gain a deeper understanding of the influence of firm value and the institutional pressures arising from EU sustainability reporting directives on ESG decoupling, we conducted a complementary analysis in which we split the sample companies into two groups: those that have their sustainability reports assured and those that do not. The results are shown in Table 11.

As can be seen, there is a positive and significant association between firm value and decoupling in sustainability reporting for both groups of companies, although it is more significant for the subset of companies whose sustainability reports are not assured (second column, $\alpha_1 = 0.001674$, $p < 0.05$) than for those that assure their reports (third column, $\alpha_1 = 0.0017718$, $p < 0.1$). These findings align with those from the main analysis and suggest that companies with higher market value are more inclined to engage in decoupling in sustainability reporting, regardless of whether they have assured their sustainability reports.

Regarding the impact of the NFRD and the CSRD on ESG decoupling, the results in Table 11 confirm the findings of the primary analysis. For both sets of companies, both directives negatively impact decoupling in sustainability reporting. This impact is higher for the NFRD (second column, $\alpha_2 = -0.0790208$, $p < 0.05$; third column, $\alpha_2 = -0.0615936$, $p < 0.05$) than for the CSRD (second column, $\alpha_3 = -0.0271316$, $p < 0.01$; third column, $\alpha_3 = -0.0013561$, $p < 0.05$). It should also be noted that the significance of the CSRD's impact on ESG decoupling is higher for companies whose sustainability reports are not assured than for those that assure their reports. This finding aligns with that obtained by Aboud et al. (2024).

TABLE 9 | Results of robust analysis.

	ROA	ROE	EPS	NIAT
Dependent variable CSRGap		**Coef. (std.)**		
Independent variables				
ROA/ROE/EPS/NIAT	0.0125992 (0.0060891)**	0.0008344 (0.0003225)***	−0.0001131 (0.0001044)	6.93e-13 (3.47e-13)**
NFRD	−0.0833842 (0.0375547)**	−0.0850071 (0.0375251)**	−0.0844345 (0.0375404)**	−0.0850304 (0.0375367)**
CSRD	−0.0071287 (0.003345)**	−0.0072077 (0.0033449)**	−0.0072647 (0.0033454)**	−0.007229 (0.0033444)**
Control variables				
ESGS	0.0000535 (0.0001046)*	0.0000576 (0.0001045)	0.000176 (0.0001493)	0.0000648 (0.0001045)
BSize	0.0003765 (0.0004617)	0.0003906 (0.0004616)	0.0004039 (0.000462)	0.0003875 (0.0004617)
AUDCommittee	−0.0381355 (0.0061263)***	−0.0382701 (0.0061251)**	−0.0386471 (0.0061339)**	−0.0383119 (0.0061251)***
BGenderDiv	−0.0009126 (0.0001114)***	−0.0009194 (0.0001114)**	−0.0009193 (0.0001115)***	−0.0009143 (0.0001114)***
ACIndep	−0.0001004 (0.0002248)	−0.0000788 (0.0002244)	−0.0000612 (0.0002249)	−0.0000771 (0.0002245)
ExecutiveMembersGD	0.0000157 (0.0000461)	0.0000183 (0.0000461)	0.0000138 (0.0000462)	0.0000152 (0.0000461)
CSRCommittee	−0.0048237 (0.0029757)	−0.0048837 (0.0029755)	−0.004416 (0.0030031)	−0.0051087 (0.002977)*
CEODuality	−0.0008538 (0.0029375)	−0.0007911 (0.0029363)	−0.0004786 (0.0029461)	−0.0007242 (0.0029365)
Accruals	1.33e-13 (4.97e-13)	1.17e-13 (4.97e-13)	1.48e-13 (4.97e-13)	−5.47e-13 (3.95e-13)
CashFlowOA	6.71e-13 (3.47e-13)*	6.73e-13 (3.47e-13)*	6.95e-13 (3.47e-13)*	6.58e-13 (3.47e-13)**
Leverage	0.0146764 (0.004609)***	0.0149198 (0.0046062)***	0.01491 (0.0046073)***	0.0149519 (0.0046068)***
Size	−0.0092694 (0.0014409)***	−0.0091971 (0.0014392)***	−0.0089332 (0.0014515)***	−0.0091295 (0.0014393)***
Number of observations = 13,488				
Number of groups = 3833				
R^2	22.11	22.22	22.19	22.15

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Source: Own elaboration.

TABLE 10 | Main analysis—GMM.

Variables	CSRGap Coef. (Std. Err.)
Independent variables	
Tobins *Q*	0.0067229 (0.0107514)**
NFRD	−6.657951 (10.42912)**
CSRD	−0.0294903 (0.0378874)**
Control variables	
ESGS	0.0035215 (0.0070778)
BSize	0.0387161 (0.0241558)*
AUDCommittee	−0.2478676 (0.2890741)
BGenderDiv	−0.0079069 (0.0436381)**
ACIndep	−0.008961 (0.0065606)**
ExecutiveMembersGD	−0.0030305 (0.0041783)**
CSRCommittee	−9.1677754 (0.1483236)*
CEODuality	−0.2332092 (0.2901533)
Accruals	3.61e-12 (2.47e-12)
CashFlowOA	2.14e-12 (2.86e-12)
Leverage	0.1740502 (0.0892328)***
Size	−0.0502205 (0.0681668)**
Industry, country and year variables included	
AR(2) Arellano-bond test: $p > z = 0.276$ Hansen test of overidentification: $p > \chi^2 = 0.793$	
Groups	3402
Number of observations	9364

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Source: Own elaboration.

Figure 2 depicts the evolution of the CRSGap variable for both groups of companies (those with assured sustainability reports and those without) throughout the study period. As can be seen, although companies without assured reports have a greater gap between their stated and actual sustainability practices than companies with assured reports, the publication of the NFRD in 2014 resulted in decreased decoupling in sustainability reporting for both groups. Similarly, the mitigating impact of the CSRD on ESG decoupling is practically unobservable for both groups, even though this directive establishes the mandatory obligation to assure sustainability reports.

8 | Discussion

Our results support hypothesis H1 and demonstrate firms' strategic use of ESG disclosure. These findings support the notion that firms with superior financial performance and market value are more inclined to implement ESG reporting to satisfy institutional expectations and attain legitimacy without disrupting their internal operations (Abweny et al. 2025). Thus, financial strength does not necessarily lead to greater consistency between ESG discourse and performance. Instead, financial strength may encourage the adoption of communicative policies that reinforce corporate legitimacy without substantially modifying the business model.

Therefore, the results underscore the instrumental nature of ESG policies when a firm is in a strong financial position. In line with the concept of organizational façades (Cho et al. 2015), decoupling in sustainability reporting suggests that firms with better financial performance and market value may engage in CSR activities primarily to manage stakeholder perceptions. This effect cannot be fully understood without considering the capitalist logic that underpins corporate behavior. According to the literature, business practices are deeply embedded in a system that prioritizes financial accumulation, shareholder value, and growth over environmental and social considerations (Gray 2006; Ezzamel et al. 2008; Li et al. 2024; Ma et al. 2025). Thus, ESG disclosure becomes an additional mechanism through which firms maintain their social license to operate within capitalist systems (Gray and Collison 2002; Negash and Lemma 2020). The results imply that decoupling in sustainability reporting may be a rational

TABLE 11 | Complementary analysis results.

	Model applied to the sample companies with no external ESG assurance	Model applied to the sample companies with external ESG assurance
Dependent variable	**CSRGap**	
Tobins *Q*	0.001674 (0.000691)**	0.0017718 (0.0009663)*
NFRD	−0.0790208 (0.0528043)**	−0.0615936 (0.1093729)**
CSRD	−0.0271316 (0.009646)***	−0.0013561 (0.0034698)**
ESGS	−0.000178 (0.0001721)	0.0007904 (0.0001849)*
BSize	0.0015255 (0.0008046)*	−0.0006907 (0.0005559)
AUDCommittee	−0.0370911 (0.011001)***	−0.0229865 (0.0098822)**
BGenderDiv	−0.0004685 (0.0001907)**	−0.0010115 (0.0001723)***
ACIndep	−0.0001435 (0.0003446)	0.0010253 (0.0003436)***
ExecutiveMembersGD	0.000117 (0.0000793)	−0.0002471 (0.0000689)***
CSRCommittee	0.0006773 (0.0046134)	−0.0032688 (0.0082186)
CEODuality	0.0016841 (0.004886)	0.0008159 (0.0043088)
Accruals	−8.44e-13 (1.71e-12)	-1.56e-13 (5.17e-13)
CashFlowOA	−6.90e-13 (1.01e-12)	6.34e-13 (3.45e-13)*
Leverage	0.0087071 (0.0075269)	0.0036763 (0.0073231)
Size	−0.0075883 (0.0024085)***	−0.0057743 (0.0022244)**
Number of observations	7593	5895
Number of groups	1934	1899
R^2	20.70	28.82

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Source: Own elaboration.

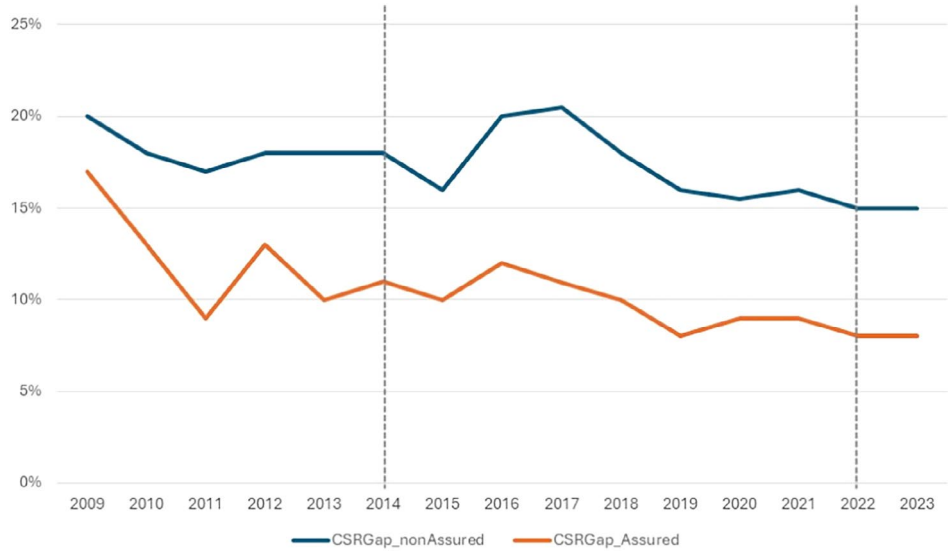

FIGURE 2 | Evolution of CRSGap for companies with and without assured sustainability reports. *Source:* Own elaboration.

response to capitalist incentives and an effective strategy in markets with information asymmetry and absent enforceable ethical standards (Deegan 2014; Laine et al. 2017; Mao et al. 2024). Thus, in financial markets where reputation is a form of capital, firms may exploit ESG as a communicative asset rather than a transformative one (Li et al. 2024).

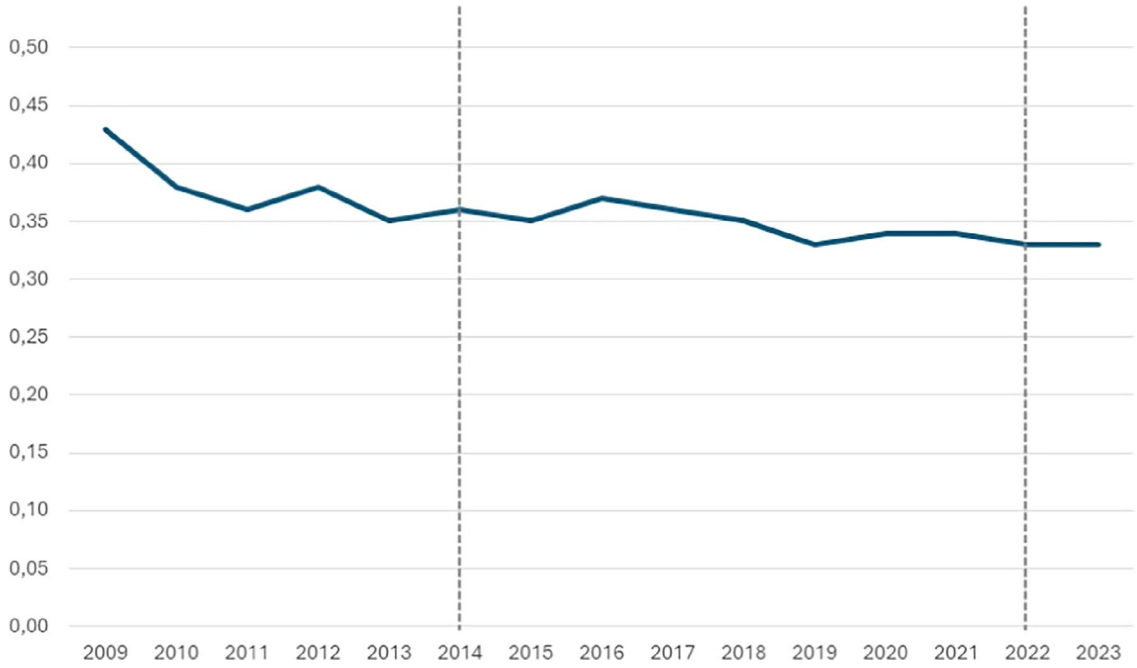

FIGURE 3 | Evolution of the CRSGap variable throughout the study period. *Source:* Own elaboration.

Our findings align with those of Kim and Lyon (2015), who demonstrated that low-profit firms tend to underreport their CSR activities, as well as with those of Abweny et al. (2025), who found that companies with the highest market value and greatest profitability tend to overreport their CSR activities. Additionally, our results are consistent with those obtained by Sauerwald and Su (2019) and Gull, Hussain, Khan, Khan, and Saeed (2023); Gull et al. (2024). Considering Tobin's *Q* as a control variable in their models, both studies found a positive, statistically significant association between Tobin's *Q* and decoupling in sustainability reporting. The same statistical conclusions were reached when using different proxies for financial performance and firm value (i.e., ROA, ROE, and NIAT), lending confidence to the robustness of these results.

Our results also show that the passage of the NFRD and CSRD is associated with a decrease in decoupling in sustainability reporting, indicating that alignment with EU sustainability standards promotes greater consistency between ESG reporting and actual corporate practices. These findings allow us to confirm hypothesis H2. These findings align with those of Aboud et al. (2024), Cepêda et al. (2025b), and Pisano et al. (2025), who documented a reduction in decoupling in sustainability reporting practices following the passage of the NFRD and CSRD.

It should be noted that the negative effect of the NFRD on decoupling in sustainability reporting ($\propto_2 = -0.0824768$; $p < 0.05$) is greater than that of the CSRD ($\propto_3 = -0.0071772$; $p < 0.05$). These results suggest that the NFRD has significantly reduced decoupling in sustainability reporting practices despite its lack of clear and specific guidelines, non-mandatory assurance, and absence of penalties for noncompliance, which have been considered to affect its effectiveness in improving ESG disclosure (García-Sánchez et al. 2023, 2024; Pizzi et al. 2023). In the case of the CSRD, which addresses the aforementioned issues, the lesser effect compared to the NFRD may be due to the limited time that has elapsed since its passage. Consequently, the CSRD's effect on sustainability transparency may not yet be fully realized.

Figure 3 shows the evolution of the CRSGap variable throughout the study period. As can be seen, the publication of the NFRD in 2014 resulted in a decrease in decoupling in sustainability reporting. This trend became more evident in subsequent years as the directive was implemented. The mitigating impact of the CSRD on decoupling in sustainability reporting is much smaller and practically unobservable in the figure. This is partly because its implementation is gradual, with mandatory compliance beginning in fiscal year 2024 for companies already covered by the NFRD (outside of our study period).

These findings highlight the importance of the institutional environment, especially the EU regulatory framework, in shaping ESG disclosure practices. However, the NFRD and the CSRD may barely modify companies' primary objective of maximizing profits (Parfitt 2024b). As long as the capitalist structure remains largely unchanged, corporate sustainability strategies, including ESG disclosure and assurance, may serve as a means of adapting to institutional pressures rather than achieving genuine organizational transformation (Gray et al. 1995; Gray and Collison 2002; Monteiro and Aibar-Guzmán 2010).

Finally, the complementary analysis revealed an interesting pattern: the effect of market value on decoupling in sustainability reporting was the same, regardless of whether companies assured their sustainability reports. Higher market value is associated with greater decoupling in sustainability reporting for both groups of companies (those that have their sustainability reports assured and those that do not), confirming hypothesis H1. As previously mentioned, this finding suggests that companies strategically utilize ESG discourse to potentially

preserve or reinforce their corporate reputation among investors (Bernini and La Rosa 2024), regardless of whether they assure their reports. Similarly, the effect of the NFRD and the CSRD on ESG decoupling is negative for both groups of companies, confirming hypothesis H2. Overall, these results suggest that companies engaging in decoupling in sustainability reporting may use assurance symbolically to create the appearance of compliance (García-Sánchez, Hussain, et al. 2022). Therefore, the risk of ESG decoupling persists even when sustainability reports are assured by an independent third party (Issa and Hanaysha 2023).

9 | Conclusion

This study aimed to provide critical insights into the relationship between corporate value, sustainability reporting regulation, and ESG decoupling by examining the influence of financial performance and firm value on ESG decoupling and the impact of the institutional pressures from the NFRD and CSRD on ESG decoupling. Drawing from an international sample of 3465 large companies from 2009 to 2023 (13,488 firm-year observations), our empirical findings suggest that firms with higher financial performance and market value tend to exaggerate their sustainability efforts. Furthermore, our results show that EU ESG reporting standardization mitigates decoupling in sustainability reporting.

As far as we know, this is the first study to empirically examine the effects of financial performance and firm market value on ESG decoupling. It also provides robust evidence of the effectiveness of EU sustainability reporting directives in reducing decoupling, including the first empirical examination of the impact of the CSRD. In practical terms, our results alert regulators, investors, and ESG rating agencies that they must scrutinize the practices of financially successful companies more rigorously. For investors, this means incorporating robust, verifiable indicators to measure companies' authentic ESG performance. Furthermore, complementary analyses show that companies with higher market values that opt for external assurance of their sustainability reports appear to seek superficial or reactive legitimacy rather than substantive legitimacy (Boiral et al. 2019; García-Sánchez, Hussain, et al. 2022; Braam et al. 2025). These findings suggest that regulators should consider the characteristics of the assurance service and its provider beyond the obligation to assure sustainability reports. Additionally, empirical evidence indicates that a regulatory design focused on standardization, transparency, and mandatory disclosure can significantly improve the quality and credibility of ESG information (Christensen et al. 2021). The findings also underscore the importance of strengthening ESG reporting requirements to reduce the risk of decoupling in sustainability reporting.

In June 2023, the International Sustainability Standards Board (ISSB) published the first two standards concerning sustainability-related financial disclosures: IFRS S1 (General Requirements for Sustainability-Related Financial Reporting), which outlines how companies should prepare and communicate such information, and IFRS S2 (Climate-Related Disclosure), which provides specific climate-related disclosure guidelines. Like the CSRD and ESRS, these international standards have the potential to prevent decoupling in sustainability reporting by requiring consistent, high-quality disclosure of financially relevant sustainability information, which makes ESG information more comparable and useful for investor decision-making while reducing the potential for misleading claims and legal risks. However, their limited scope (they are designed for publicly traded companies, though they can be applied to any type of company) and lower level of detail may affect their effectiveness. In this sense, our findings could guide regulators in integrating the standards into their sustainability reporting frameworks as they become mandatory in different jurisdictions.

Despite their novelty and utility, the findings of this study are not without limitations, which should be acknowledged. First, it should be noted that the observed relationship between firm value and ESG decoupling may be influenced by institutional, sectoral, or cultural factors affecting companies' legitimate pressures and ESG symbolic responses. Furthermore, despite the various robustness tests conducted, the data does not allow us to establish strict causality. Second, although this study provides robust evidence of the effectiveness of EU sustainability reporting directives in reducing decoupling in sustainability reporting and includes the first empirical examination of the impact of the CSRD, it should be noted that the study period ends in 2023. Consequently, our results may not fully capture the long-term effects of the CSRD or the changes introduced by the Omnibus package to sustainability reporting practices. Finally, our analysis focused on large companies, so our findings may differ for SMEs.

These limitations do not diminish the academic or practical significance of our findings; rather, they provide a basis for future research. Future research could include longitudinal or qualitative studies that analyze the internal mechanisms linking a firm's financial success to its consistency in ESG reporting. It would also be relevant to explore the moderating role of variables such as corporate governance, ownership structure, and media exposure. Another relevant area of research would be examining whether emerging regulatory pressures reduce the propensity for ESG decoupling in companies with high market value and financial performance. Cross-country comparative analyses could investigate how institutional environments and regulatory regimes mediate the relationship between ESG decoupling and firm value, shedding light on context-specific dynamics. Lastly, to obtain more conclusive evidence of the long-term effects of the CSRD, it would be pertinent to extend the study period and broaden the analysis to other geographical and regulatory contexts. This would make it possible to assess the generalizability of the results and explore the potential impact of cultural or sector-specific factors on the relationship between regulation and decoupling in sustainability reporting. In this regard, future studies could analyze the impact of ISSB standards related to sustainability-related financial disclosures (IFRS S1 and IFRS S2). Within the EU, it would be interesting to expand the analysis to include other ESG disclosure regulatory developments, such as the Taxonomy Regulation (Regulation (EU) 2020/852). Additionally, incorporating qualitative methodologies, such as case studies or in-depth interviews, could provide insight into the internal mechanisms of organizational adaptation to new regulatory requirements.

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