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CSR Decoupling and Assurance of CSR Reports: Do Combinations of Level, Scope, and Assurance Provider Matter?

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ABSTRACT

In response to growing concerns about the credibility of corporate social responsibility (CSR) reports, this study examines the relationship between external assurance on CSR reports and CSR decoupling. Specifically, we explore how combinations of the level and scope of assurance, and the type of assurance provider are associated with a reduction in CSR decoupling. Using an international sample of publicly listed firms, we find that CSR decoupling is significantly reduced when firms obtain reasonable assurance together with either a broad assurance scope or an assurance provider from the auditing profession. These results suggest that reasonable assurance provides a necessary foundation for reducing CSR decoupling, but its effectiveness is contingent on its combination with either a broad assurance scope or an assurance provider from the auditing profession. This highlights the importance of comprehensive CSR assurance practices in meaningfully addressing the gap between CSR disclosure and performance, whereas CSR assurance practices that meet only the minimum standards primarily serve a symbolic role, enhancing legitimacy. We discuss the implications of these findings for policymakers and investors.

1 | Introduction

This study examines the relationship between external assurance on corporate social responsibility (CSR) reports and CSR decoupling. In response to growing pressures from investors and other stakeholders to become more accountable for the impacts of their activities on the environment and society, companies are expected—or even legally obliged—to enhance transparency. Although they increasingly disclose information on CSR performance (Lin et al. 2024), stakeholders remain concerned about CSR decoupling. Prior literature defines CSR decoupling as "a symbolic strategy whereby firms overstate their CSR performance in their disclosures to strengthen their legitimacy" (Tashman et al. 2019, 154; see also García-Sánchez et al. 2022; Sauerwald and Su 2019). Companies may use CSR decoupling as a strategic tool to shape stakeholders' perceptions by communicating CSR actions that are not matched by substantive efforts (Hawn and Ioannou 2016; Marquis et al. 2016; Cho and Patten 2007).

To address increasing concerns from investors and other stakeholders about the credibility and reliability of the CSR information presented in CSR reports, CSR assurance serves as an external monitoring mechanism to enhance stakeholders' confidence in the credibility of the CSR information disclosed (Adams and Evans 2004; Brown-Liburd and Zamora 2015; Du and Wu 2019). For companies, obtaining external assurance signals that their reported CSR performance is fairly presented

and free from material misstatements, thereby aiming to reduce CSR decoupling and enhance the overall quality of CSR reporting (Christensen et al. 2021; Ballou et al. 2018; Sethi et al. 2017). In parallel, policymakers have increasingly integrated assurance requirements into CSR disclosure regulations to improve the credibility of reported information at a systemic level. For instance, the EU has adopted the Corporate Sustainability Reporting Directive (CSRD), which initially mandates limited assurance for CSR disclosures. Similarly, other jurisdictions, such as South Africa, have introduced assurance obligations for CSR information (Ackers and Eccles 2015). However, both in voluntary and mandatory settings, CSR assurance may vary considerably in terms of the level and scope of assurance, and the choice of the assurance provider. The level of assurance ranges from reasonable assurance to limited assurance, and the scope of assurance may cover the entire report or be limited to specific sections. For an independent assurance provider, companies can choose assurance providers from either the auditing profession or non-auditing professions.

In voluntary settings, managers from companies with poor CSR performance facing public pressures and legitimacy threats may strategically benefit from less comprehensive assurance practices (i.e., limited instead of reasonable assurance and a narrower scope of assurance) to proactively shape stakeholders' perceptions of the credibility of the CSR information disclosed, while deflecting attention from poor CSR performance (Unerman 2008; O'Dwyer et al. 2011; Perego and Kolk 2012). They may exercise their managerial discretion to primarily use CSR assurance as a self-serving risk management tool to enhance external legitimacy and corporate reputation through symbolic communication about their CSR actions in CSR reports, without being adequately supported by substantive CSR actions (Bothello et al. 2023; García-Sánchez et al. 2022; Bromley and Powell 2012; Marquis et al. 2016; Velte 2021). Such practices raise doubts about the actual effectiveness of CSR assurance in reducing CSR decoupling and in enhancing the transparency and decision-usefulness of CSR reports for investors and other stakeholders (Boiral et al. 2019; Talbot and Boiral 2018; Michelon et al. 2015).

In mandatory settings, policymakers face important cost–benefit trade-offs when determining the appropriate level and scope of assurance in disclosure regulations (Leuz and Wysocki 2016; Christensen et al. 2021). These trade-offs have recently become evident in the EU Omnibus discussions (European Commission 2025), which ultimately led to the abandonment of the initially ambitious goal of requiring reasonable assurance for CSR disclosures aimed at elevating their quality to the level of financial reporting for all firms subject to the CSRD.[1] To assess and evaluate the effectiveness of disclosure regulations in enhancing CSR reporting quality and credibility, it is important to develop a deeper understanding of how variations in CSR assurance choices may relate to variations in CSR decoupling. Specifically, the influence of combinations of CSR assurance choices on CSR decoupling remains underexplored (Aboud et al. 2024).

In this study, we aim to enhance understanding of the relationship between CSR assurance and CSR decoupling. To this end, we examine how combinations of assurance level, assurance scope, and the type of assurance provider are associated with reductions in CSR decoupling. Using a unique international panel dataset of publicly listed firms from 2010 to 2022, the results show that reductions in CSR decoupling are significantly negatively associated with the combination of reasonable assurance and a broad scope of assurance, as well as with reasonable assurance and providers from the auditing profession. This highlights the importance of comprehensive assurance practices in meaningfully addressing the gap between CSR disclosure and performance.

Our study contributes to ongoing research on the effectiveness of CSR assurance in enhancing CSR reporting quality by being among the first to systematically examine how combinations of CSR assurance choices relate to CSR decoupling (García-Sánchez et al. 2022; Braam and Peeters 2018; Hodge et al. 2009). The findings indicate that the CSR assurance process can help reduce CSR decoupling when reasonable assurance is combined with a broad scope or when reasonable assurance is provided by an assurance provider from the auditing profession. They suggest that adopting a CSR assurance approach that exceeds the minimum standards, particularly through combinations involving reasonable assurance, can have synergistic effects in mitigating CSR decoupling.

However, the findings show no significant relationships between reductions in CSR decoupling and combinations of limited assurance and other assurance-related choices, indicating that limited assurance is not effective in mitigating CSR decoupling. Instead, our findings suggest that limited assurance primarily serves a symbolic function, enhancing perceived legitimacy, stakeholder trust, and corporate reputation while having little effect on reducing CSR decoupling, and may even contribute to its increase. These findings have important implications for policymakers, investors, and other stakeholders. From a cost–benefit perspective, the findings are policy-relevant as they inform policymakers about the potential benefits of a comprehensive assurance approach to improving the quality of CSR reporting. Additionally, they help investors and other stakeholders better understand the role of CSR assurance in enhancing the credibility of CSR reports.

2 | Theoretical Background and Development of Hypotheses

CSR assurance should ensure that the information disclosed in CSR reports is, in all material respects, reliable and accurate, in compliance with reporting standards, and, for this reason, verifiable. It should signal the credibility of corporate CSR disclosures, enhance stakeholders' confidence in the accuracy and reliability of the information disclosed (Brown-Liburd et al. 2018; García-Sánchez et al. 2022). The process of independent assurance can encourage companies to strengthen their risk management systems, enhance the stakeholders' engagement processes, and improve their accounting systems and reporting practices, enabling them to produce and disclose more reliable and accurate CSR information (Michelon et al. 2015; Braam and Peeters 2018). This, in turn, helps lessen the gap between CSR disclosures and actual performance (Sauerwald and Su 2019), improves

the quality of CSR reporting (Ballou et al. 2018; Moroney et al. 2012; Sethi et al. 2017), and fosters greater transparency (Christensen 2016; Christensen et al. 2021). Consistently, Sauerwald and Su (2019) find that CSR assurance reduces CSR decoupling, while García-Sánchez et al. (2022) report a negative but non-significant relationship between CSR assurance and CSR decoupling. Furthermore, improved reporting processes and disclosure of higher quality CSR information may strengthen companies' commitment to sustainability and drive sustainable value creation, which may positively influence corporate reputation (Simnett et al. 2009; Pflugrath et al. 2011; Reimsbach et al. 2017; Odriozola and Baraibar-Diez 2017) and companies' competitive position (Lozano and Huisingh 2011; Marín et al. 2012; Lozano 2015).[2]

However, managers of companies have flexibility in choices related to CSR assurance. Managerial capture, which refers to management's control over CSR reporting and assurance processes (O'Dwyer 2003; O'Dwyer and Owen 2005; Michelon et al. 2015), allows managers to strategically exercise control and discretion in making choices related to the level and scope of assurance, as well as the choice for an assurance provider. In this study, we posit that companies with low levels of CSR decoupling are expected to make different choices related to the level and scope of CSR assurance and the assurance provider to distinguish themselves from companies with high levels of CSR decoupling. Reasonable (positive) assurance offers a higher level of assurance and requires an assurance provider to obtain sufficient and appropriate evidence to conclude that the disclosed CSR information is free from material misstatements. It more likely enhances the credibility and reliability of CSR disclosures for stakeholders than limited (negative) assurance. In terms of scope, assuring the entire CSR report signals a stronger commitment to transparency and accountability in CSR practices than a limited scope. While a restricted scope may draw attention to specific sections, it can also raise concerns about the company's overall transparency and integrity in its CSR efforts.

Combinations of reasonable assurance and broad scope provide higher overall assurance levels and are expected to be more effective in reducing CSR decoupling. They involve greater scrutiny than limited assurance or assurance restricted to specific sections (Moroney et al. 2012), decrease the likelihood that management will selectively highlight favorable CSR performance while omitting less favorable aspects (Cho et al. 2012), and are more likely to signal that the CSR information is fairly presented, in all material respects. However, they are also costly signals. According to signaling theory, companies will trade off the relative costs and benefits of different assurance combinations and employ combinations only if the expected benefits outweigh the costs (Connelly et al. 2011; Hahn and Reimsbach 2021). The marginal expected benefits of credibly signaling lower levels of CSR decoupling through 'high-quality' assurance choices are more likely to outweigh the associated incremental costs for companies with low levels of CSR decoupling than for those with high CSR decoupling. Particularly for large firms that attract much public attention and scrutiny, the expected benefits of enhanced stakeholder confidence in the credibility of the CSR information disclosed may likely outweigh the higher costs, including the increased CSR assurance expenses (Braam and Peeters 2018; Fonseca 2010). In addition, these 'high-quality' assurance choices are challenging for companies with high levels of CSR decoupling to imitate (Clarkson et al. 2008; Pflugrath et al. 2011; e.g., Connelly et al. 2011).

Legitimacy theory, however, suggests that companies exhibiting high levels of CSR decoupling may also benefit from CSR assurance, especially when faced with public pressure and legitimacy threats. Specifically, these companies are more likely to choose "low-quality" assurance choices, that is, limited assurance and a narrow scope, resulting in less scrutiny and greater flexibility to decouple reported CSR performance from actual practices. Through these strategic assurance choices, managers can signal the credibility and reliability of their CSR disclosures while simultaneously masking high levels of CSR decoupling. As a result, for companies with high levels of CSR decoupling, CSR assurance can actively help manage stakeholders' confidence in the company's commitment to sustainable development (Schons and Steinmeier 2016). Strategic CSR assurance choices can help to divert attention from unfavorable CSR performance, while at the same time enhancing perceived legitimacy and corporate reputation (Hahn and Lülfs 2014; Michelon et al. 2015; Roszkowska-Menkes et al. 2024).

We expect that companies with low levels of CSR decoupling are more likely to select combinations of reasonable assurance and a broader scope to differentiate themselves from companies with high levels of CSR decoupling. Combinations of "high-quality" assurance choices are costly signals but provide strategic benefits for companies with low levels of CSR decoupling because they are difficult for companies with high levels of CSR decoupling to imitate. In particular, for large firms that attract much public attention and scrutiny, the marginal expected benefits of credibly signaling lower levels of CSR decoupling are likely to outweigh the associated marginal costs of using these combinations. In contrast, companies with high levels of CSR decoupling may strategically use combinations of the "low-quality assurance choices", that is, limited assurance with a narrow scope, to signal credibility while simultaneously obscuring the extent of their CSR decoupling. Accordingly, we state the following hypotheses:

Hypothesis 1. *Companies that combine a reasonable level of assurance with a broad scope of assurance on their CSR reports exhibit less CSR decoupling than companies lacking either or both of these assurance choices.*

Following prior literature, we distinguish between assurance providers from the auditing profession and other independent providers, such as sustainability or environmental consulting firms (Velte 2021; Martínez-Ferrero and García-Sánchez 2018; Sethi et al. 2017). The auditing profession has experience and developed auditing standards, a body of ethics, independence and ethical requirements, that is, generally accepted auditing standards (GAAS), and quality control mechanisms to provide high-quality independent assurance. Unlike other independent service providers, who are not required to comply with GAAP, having to follow GAAPs ensures a higher and more consistent quality of assurance for CSR reports, which enhances stakeholder trust. Auditing firms also have a reputation on which they rely on for the continuation of their business. For these reasons, some literature argues that assurance provided by auditing firms, on average, is of a higher quality than that provided by

specialist consultants (Hodge et al. 2009; Pflugrath et al. 2011; Zorio et al. 2013).

Moreover, studies indicate that assurance providers from the auditing profession tend to charge higher fees than non-auditing providers (e.g., Simnett et al. 2009). This is consistent with the literature suggesting that fees may serve as a proxy for the level of audit effort (Hoitash et al. 2007). In this context, assurance providers from the auditing profession, on average, are likely to signal a higher level of audit effort on CSR reports than their non-audit counterparts (Dalla Via and Perego 2020). As a result, they are expected to be more effective in reducing CSR decoupling, enhancing credibility, and shaping stakeholders' perceptions of the reliability of the information disclosed in CSR reports. A counterargument, however, is that non-auditing assurance providers, such as environmental or sustainability consultancies, may possess more specialized expertise (Velte 2021; Martínez-Ferrero et al. 2018) and may adopt a different focus compared to traditional auditors (O'Dwyer and Owen 2005). Assurance providers within the auditing profession, however, can acquire this specialized knowledge (Simnett et al. 2009; Casey and Grenier 2015).

When considering CSR assurance combinations that include the choice of an assurance provider, the arguments become less straightforward. For both companies with high and low levels of CSR decoupling, selecting an assurance provider from the auditing profession may offer benefits. For companies with low levels of CSR decoupling, an assurance provider from the auditing profession can strengthen the effects of a CSR assurance approach that provides a reasonable level of assurance and/or a broad scope, thereby enhancing the credibility of their CSR disclosures. Conversely, for companies with high levels of CSR decoupling, an assurance provider from the auditing profession can also strengthen the effectiveness of "low-quality" assurance options, building legitimacy and facilitating stakeholder trust.

Taken together, given that assurance providers from the auditing profession have well-established, high-quality assurance processes and rely on their reputation—to a higher extent than non-auditing assurors—we state the following hypothesis:

Hypothesis 2. *Companies with a reasonable level of assurance on their CSR reports provided by an assurance provider from the auditing profession exhibit less CSR decoupling compared to companies lacking either or both of these assurance choices.*

Hypothesis 3. *Companies with a broad scope of assurance on their CSR reports provided by an assurance provider from the auditing profession exhibit less CSR decoupling compared to companies lacking either or both of these assurance choices.*

3 | Research Method

3.1 | Sample

To test our hypotheses, we first extracted data on nonfinancial information from the Sustainability Disclosure Database, the Global Reporting Initiative (GRI), and LSEG Workspace. When non-financial information was not available in these databases, CSR reports were retrieved directly from the companies' websites to gather the missing data. We then merged this data with financial data provided by LSEG Workspace Datastream. Our final dataset contains 4299 firm-year observations in 843 unique publicly listed firms across 29 different countries in the period 2010–2022.

Table 1 presents the descriptive statistics for these firms. Panel A reports the distribution of the sample firms across countries and industries. Almost half of the firms are from the United Kingdom and United States, which are both shareholder-oriented countries; data coverage is, in general, large. However, we also cover smaller countries, containing two to eight firms. Panel B presents the distribution of CSR assurance choices across industries and shows the distribution of CSR assurance choices across sectors, with the manufacturing sector accounting for 43% of observations. Panel C shows the distribution of CSR assurance choices by year for the subsample of firms with CSR assurance.

3.2 | Variables

3.2.1 | CSR Decoupling

To measure our dependent variable CSR decoupling (CSR DECOUPLING), we follow the approach of Hawn and Ioannou (2016), who—using raw data points from the Thomson Reuters ASSET4 database (currently part of the ESG database in LSEG Workspace)—differentiated between external and internal CSR actions. Actions were classified as external CSR actions if they "[...] appeared to be more externally oriented in terms of disclosure (e.g., reporting) and claims [...]," while internal actions were those "[...] that were more internally oriented in terms of policies [...]" (Hawn and Ioannou 2016, 2577). Following Hawn and Ioannou (2016), we first measured external and internal actions per firm per year as the equally-weighted average of the normalized performance scores of internal actions and external actions, respectively. However, in our study, we make use of the LSEG database, where not all data points used to construct the original 24 external and 21 internal actions remain available. Where necessary, we substituted missing data with adapted measures or the most appropriate available proxies. Additionally, we omitted two external actions to avoid potential duplication with variables already included in our model as independent and control variables.[3] The indices were then normalized, resulting in annual firm-level measures ranging from 0 to 1. Following Hawn and Ioannou (2016), CSR decoupling was calculated as the difference between the external normalized score in year t and the internal normalized score in year $t-1$, where higher values indicate more CSR decoupling. Because larger companies are expected to have higher levels of internal and external CSR actions, we also applied a scaled measure for CSR decoupling. Consistent with Hawn and Ioannou (2016), this size-adjusted, relative measure of CSR decoupling was calculated as the ratio of CSR decoupling to the natural logarithm of total assets. This approach aligns with prior studies that also applied a scaled measures of CSR performance and disclosure (Al-Tuwaijri et al. 2004; Cho and Patten 2007; Clarkson et al. 2008; Braam et al. 2016).

TABLE 1 | Descriptive statistics for sample firms (2009–2022).

Panel A. Country distribution

	Firm-year observations		CSR assurance		LEVEL		SCOPE		PROVIDER	
Country[a]	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**
Canada	214	4.97%	70	3.60%	15	21.4%	5	7.1%	41	58.6%
Denmark	107	2.48%	46	2.36%	0	0.0%	7	15.2%	43	93.5%
Finland	108	2.51%	86	4.42%	0	0.0%	45	52.3%	75	87.2%
France	451	10.47%	186	9.55%	35	18.8%	26	14.0%	170	91.4%
Germany	368	8.54%	224	11.50%	21	9.4%	81	36.2%	214	95.5%
Greece	5	0.12%	5	0.26%	1	20.0%	1	20.0%	0	0.0%
India	7	0.16%	3	0.15%	0	0.0%	0	0.0%	3	100.0%
Italy	77	1.79%	75	3.85%	4	5.3%	50	66.7%	70	93.3%
Japan	6	0.14%	1	0.05%	0	0.0%	0	0.0%	0	0.0%
Norway	27	0.63%	12	0.62%	1	8.3%	2	16.7%	11	91.7%
Spain	123	2.86%	89	4.57%	12	13.5%	42	47.2%	82	92.1%
Switzerland	152	3.53%	81	4.16%	8	9.9%	25	30.9%	53	65.4%
The Netherlands	131	3.04%	79	4.06%	26	32.9%	28	35.4%	67	84.8%
Australia	28	0.65%	25	1.28%	4	16.0%	16	64.0%	25	100.0%
Austria	11	0.26%	11	0.56%	3	27.3%	1	9.1%	11	100.0%
Belgium	74	1.72%	42	2.16%	0	0.0%	11	26.2%	35	83.3%
Hungary	20	0.46%	14	0.72%	1	7.1%	8	57.1%	13	92.9%
Ireland	39	0.91%	10	0.51%	0	0.0%	3	30.0%	2	20.0%
Luxembourg	15	0.35%	12	0.62%	0	0.0%	0	0.0%	7	58.3%
Poland	17	0.39%	2	0.10%	1	50.0%	1	50.0%	1	50.0%
Portugal	11	0.26%	4	0.21%	0	0.0%	0	0.0%	3	75.0%
Russia	106	2.46%	55	2.82%	10	18.2%	30	54.5%	33	60.0%
South Korea	3	0.07%	1	0.05%	1	100.0%	0	0.0%	0	0.0%
Sweden	108	2.51%	47	2.41%	4	8.5%	27	57.4%	44	93.6%
United Kingdom	1123	26.07%	434	22.29%	48	11.1%	57	13.1%	260	59.9%
United States	968	22.48%	333	17.10%	31	9.3%	49	14.7%	74	22.2%
Total	4299	100.00%	1947	100.00%	226	11.61%	515	26.45%	1337	68.67%

Panel B. Distribution of CSR assurance across industries

	Full sample		Subsample of companies with CSR assurance	
Industry[b]	***n***	**(%)**	***n***	**(%)**
Manufacturing	1851	43.1%	891	45.8%
Transportation, communication and public utilities	682	15.9%	349	17.9%
Trade	435	10.1%	137	7.0%
Services	516	12.0%	157	8.1%

(Continues)

TABLE 1 | (Continued)

Panel B. Distribution of CSR assurance across industries

	Full sample		Subsample of companies with CSR assurance	
Industry[b]	***n***	**(%)**	***n***	**(%)**
Finance	298	6.9%	155	8.0%
Construction, mining and agriculture	517	12.0%	258	13.3%
Total	4299	100.00%	1947	100.00%

Panel C. Distribution of CSR assurance choices across years for the subsample of firms with CSR assurance

	CSR assurance		LEVEL[c]		SCOPE[d]		PROVIDER[e]	
Year	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**
2010	67	3.4%	11		13		47	
2011	106	5.4%	15		30		78	
2012	113	5.8%	15		31		83	
2013	102	5.2%	16		33		92	
2014	125	6.4%	15		35		88	
2015	111	5.7%	16		33		81	
2016	126	6.5%	18		36		90	
2017	141	7.2%	18		34		101	
2018	157	8.1%	18		42		112	
2019	185	9.5%	18		52		129	
2020	219	11.2%	19		58		137	
2021	241	12.4%	21		63		148	
2022	254	13.0%	26		55		151	
Total	1947	100.0%	226	11.6%	515	26.5%	1337	68.7%

Note: Table 2 shows the definitions of the variables.
[a]The United Kingdom, United States, and Canada and Ireland are classified as shareholder-oriented countries.
[b]Our sample is composed of 4299 firm-year observations in 834 unique firms in 62 industries based on the two-digit Standard Industrial Classification (SIC) codes, which we reclassified into six main industry groups for presentation purposes.
[c]Firms that have reasonable assurance on their CSR reports per year and in total, and as a percentage of all firms with assured CSR reports.
[d]Firms that have a broad scope of assurance, that is, assurance on the entire CSR report, per year and in total, and as a percentage of all firms with assured CSR reports.
[e]Firms that have an assurance provider from the auditing profession per year and in total, and as a percentage of all firms with assured CSR reports.

3.2.2 | CSR Assurance Choices

Consistent with Braam and Peeters (2018), we used three dummy variables: LEVEL takes the value of 1 if reasonable (positive) assurance was provided for the CSR report, and 0 in the case of limited (negative) assurance. SCOPE is equal to 1 if the scope of the CSR assurance provided covers the entire sustainability report, and 0 otherwise. PROVIDER takes the value of 1 if the assurance provider is a member of the auditing profession, and 0 if the assurance is not provided by a member of the auditing profession (Simnett et al. 2009; Sethi et al. 2017; Martínez-Ferrero et al. 2018).

3.2.3 | Control Variables

At the firm level, consistent with prior studies, we included size (SIZE) measured as the natural logarithm of total assets, leverage (LEVERAGE) defined as the ratio of long-term debt to total assets, return on assets (ROA) measured as the return-on-assets ratio (Ruiz-Blanco et al. 2022; García-Sánchez et al. 2022; Sauerwald and Su 2019), and other firm-specific characteristics (Tashman et al. 2019; Marquis et al. 2016). For non-financial performance, we used the ESG score (ESG) provided by the ESG database from LSEG Workspace Datastream, which reflects a company's combined performance across the environmental, social, and governance (ESG) pillars. Research & Development (R&D), defined as the expenses in research and development divided by the total sales (Tashman et al. 2019), was added as a proxy for a firm's innovation ability. To overcome the common issue of missing data on firms' R&D expenses, we followed Tashman et al. (2019) by using industry averages as a proxy for missing data. Capital intensity (CAPITAL INTENSITY), measured as the ratio of net property, plant, and equipment to total assets (Marquis et al. 2016;

TABLE 2 | Variable definitions.

Dependent variables	
CSR DECOUPLING$_{it}$	Calculated as the difference between the external normalized score in year t and the internal normalized score in year $t-1$ for firm i in year t. Higher values indicate more CSR decoupling.
SCALED CSR DECOUPLING$_{it}$	Relative, size-adjusted measure of CSR decoupling calculated as the ratio of CSR decoupling to the natural logarithm of total assets for firm i in year t.
Independent variables	
CSR ASSURANCE$_{it}$	A dummy variable that is equal to 1 if the sustainability report of firm i in year t was assured by an independent CSR assurance provider, and 0 otherwise.
LEVEL$_{it}$	A dummy variable that is equal to 1 if reasonable assurance was provided for the sustainability report of firm i in year t, and 0 otherwise, that is, limited assurance.
SCOPE$_{it}$	A dummy variable that is equal to 1 if the scope of the independent assurance provided covers the entire sustainability report of firm i in year t, and 0 otherwise.
PROVIDER$_{it}$	A dummy variable that is equal to 1 if the assurance provider of firm i in year t is a member of the auditing profession, and 0 if the assurance is not provided by an accounting firm (Simnett et al. 2009).
Control variables at firm and country level	
SIZE$_{it}$	Natural logarithm of the company i's year-end total assets.
LEVERAGE$_{it}$	Total debt for firm i in year t, measured as a percentage of total assets.
ROA$_{it-1}$	Return on assets for firm i in year $t-1$, measured as net income divided by total assets.
ESG$_{it}$	Combined ESG score for firm i in year t, based on the reported information in the environmental, social, and governance (ESG) pillars as obtained from the ESG database in LSEG Workspace.
R&D$_{it}$	Proxy for innovation, measured as the expenses in research and development divided by total sales for firm i in year t (Tashman et al. 2019).
CAPITAL INTENSITY$_{it}$	Ratio of net property, plant, and equipment to total assets for firm i in year t (Marquis et al. 2016; Tashman et al. 2019).
DISCLOSURE REGULATION$_{it}$	Dummy variable coded as 1 if a company i in year t has to comply with mandatory CSR disclosure regulation (Krueger et al. 2024), and 0 other wise.
STAKEHOLDER ORIENTATION$_{i}$	Dummy variable coded as 1 if a company i is headquartered in a stakeholder-oriented country, and 0 if a company i is headquartered in a shareholder-oriented or other country.

Tashman et al. 2019), was included because capital-intensive firms typically have greater financial resources, which may influence their approach to CSR initiatives and assurance practices. In addition, we controlled for whether firms were subject to mandatory CSR disclosure regulations (Krueger et al. 2024).

To control for sector-specific effects, we controlled for industry differences based on a categorization of industries with the use of the two-digit SIC codes (Industry dummies). To account for country-level effects, we distinguished between companies that were headquartered in a stakeholder-oriented versus shareholder-oriented and other countries (Ballou et al. 2018; Braam and Peeters 2018; Simnett et al. 2009). Table 2 summarizes the definitions of the dependent, explanatory, and control variables used in our analyses. Table 3 presents the summary statistics for these variables.

3.3 | Research Model

We tested our hypotheses using multilevel mixed-effects linear panel data regression analyses as our panel data set has a multilevel structure with repeated measurements at the firm level that are nested within countries. This approach accounts for the hierarchical structure of the data and mitigates the risk of heteroscedasticity (Lindner et al. 2021). To test Hypotheses 1–3, we used the following model:

TABLE 3 | Summary statistics.

Panel A. Descriptive statistics					
Variable	***n***	**Mean**	**SD**	**Min**	**Max**
CSR DECOUPLING	4299	−0.25	0.15	−0.73	0.34
SCALED CSR DECOUPLING	4299	−0.02	0.01	−0.05	0.02
LEVEL	4299	0.05	0.22	0	1
SCOPE	4299	0.12	0.32	0	1
PROVIDER	4299	0.31	0.46	0	1
SIZE	4299	16.32	1.50	11.24	20.90
LEVERAGE	4299	27.66	15.78	0.00	71.85
ROA	4299	6.11	7.15	−17.96	31.86
ESG	4299	60.70	15.01	13.38	95.11
CAPITAL INTENSITY	4299	9.54	15.88	0.15	105,32
R&D	4299	0.56	1.62	−3.91	6.54
DISCLOSURE REGULATION	4299	0.41	0.39	0	1
STAKEHOLDER ORIENTATION	4299	0.45	0.49	0	1

Panel B. Pearson's *r* correlations							
Variable	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. CSR DECOUPLING	1.000						
2. SCALED CSR DECOUPLING	0.987*	1.000					
3. SIZE	0.133*	0.263*	1.000				
4. LEVERAGE	−0.124*	−0.103*	0.147*	1.000			
5. ROA	0.002	−0.007	−0.085*	−0.137*	1.000		
6. ESG	0.016	0.027	0.094*	0.042*	0.023	1.000	
7. CAPITAL INTENSITY	−0.097*	−0.097*	−0.017	0.171*	−0.117*	0.053*	1.000
8. R&D	−0,106*	−0.105*	−0.031*	0.015	0.069*	0.052*	0.083*

Note: Table 2 shows the definitions of the variables.
*Correlations that are significant at a level below 5% (two-tailed).

$$\begin{aligned}\text{CSR DECOUPLING}_{it} = {} & \beta_0 + \beta_1\,\text{LEVEL}_{it-1} + \beta_2\,\text{SCOPE}_{it-1} \\ & + \beta_3\,\text{PROVIDER}_{it-1} + \beta_4\,\text{LEVEL}_{it-1} \times \text{SCOPE}_{it-1} \\ & + \beta_5\,\text{LEVEL}_{it-1} \times \text{PROVIDER}_{it-1} \\ & + \beta_6\,\text{SCOPE}_{it-1} \times \text{PROVIDER}_{it-1} \\ & + \beta_7\,\text{Firm}_{\text{CONTROL}_{it}} + \beta_8\,\text{INDUSTRYY}_{\text{CONTROL}_i} \\ & + \beta_9\,\text{COUNTRY}_{\text{CONTROL}_i} \\ & + \beta_{10}\,\text{YEAR}_{\text{CONTROL}_t} + \varepsilon_{i,t}\end{aligned}$$

where CSR DECOUPLING$_{it}$ represents the measures for CSR decoupling for firm i in year t as discussed earlier; the level of assurance (LEVEL$_{it-1}$), scope of assurance (SCOPE$_{it-1}$), the type of assurance provider (PROVIDER$_{it-1}$), and their combinations are used to explain variation in CSR decoupling while controlling for the other variables in our model. We used one-year lagged effects for the CSR assurance-related choices as the influence of the CSR assurance practices might not immediately affect CSR decoupling, and thus approach causality. To account for the fact that the lagged effects of CSR assurance-related options on CSR decoupling may vary depending on the presence of the other assurance-related choices, we examined the interaction effects between different assurance-related choices. Finally, our panel data analysis incorporated year fixed effects to control for time effects and random effects at both the firm and country levels to control for variations across firms and countries. The Pearson's *r* correlations shown in Panel B of Table 3 as well as the variance inflation factors (unreported) suggest no multicollinearity.

4 | Results

4.1 | Tests of Hypotheses

Table 4 shows the results of the regression analysis that examines the relationships between the combinations of the CSR assurance choices and CSR decoupling to test Hypotheses 1–3. Panel A shows

TABLE 4 | Multilevel mixed-effects linear regression results of 1-year lagged CSR assurance-related choices or combinations on size-adjusted and absolute measures CSR decoupling.

Panel A. Full sample

		Measures of CSR decoupling$_{it}$[a]			
		SCALED CSR DECOUPLING$_{it}$		CSR DECOUPLING$_{it}$	
	Expected sign	Model 1	Model 2	Model 3	Model 4
LEVEL$_{it-1}$		−0.053	0.418***	−1.587	3.573**
		(0.126)	(0.112)	(1.897)	(1.533)
SCOPE$_{it-1}$		0.017	−0.011	−0.161	−1.914
		(0.071)	(0.145)	(1.057)	(2.179)
PROVIDER$_{it-1}$		0.208**	0.207**	1.549	1.357
		(0.081)	(0.092)	(1.281)	(1.510)
H1: LEVEL$_{it-1}$ × SCOPE$_{it-1}$	—		−0.464***		−4.852***
			(0.156)		(1.793)
H2: LEVEL$_{it-1}$ × PROVIDER$_{it-1}$	—		−0.458***		−4.919**
			(0.128)		(2.081)
H3: SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	—		0.108		3.247
			(0.156)		(2.564)
SIZE$_{it}$				1.415**	1.373**
				(0.574)	(0.591)
LEVERAGE$_{it}$		−0.004**	−0.004**	−0.090***	−0.090***
		(0.002)	(0.002)	(0.027)	(0.027)
ROA$_{it-1}$		−0.000	−0.000	0.037	0.036
		(0.002)	(0.002)	(0.038)	(0.038)
ESG$_{it}$		0.001	0.001	−0.006	−0.003
		(0.001)	(0.001)	(0.034)	(0.035)
R&D$_{it}$		−0.024	−0.024	−0.188	−0.191
		(0.020)	(0.020)	(0.279)	(0.276)
CAPITAL INTENSITY$_{it}$		−0.003**	−0.003**	−0.021	−0.022
		(0.001)	(0.001)	(0.025)	(0.025)
DISCLOSURE REGULATION$_{it}$		0.152	0.147	1.408	1.325
		(0.113)	(0.109)	(1.480)	(1.491)
STAKEHOLDER ORIENTATION$_{i}$		0.160	0.153	4.866*	4.692*
		(0.196)	(0.196)	(2.816)	(2.809)
Industry fixed effects		Included	Included	Included	Included
Year fixed effects		Included	Included	Included	Included
Random country effects		Included	Included	Included	Included
Random firm effects		Included	Included	Included	Included
Constant		−2.113***	−2.076***	−53.645***	−52.506***
		(0.256)	(0.258)	(10.537)	(10.621)
Observations		4299	4299	4299	4299

(Continues)

TABLE 4 | (Continued)

Panel B. Subsample of companies with CSR assurance

		Measures of CSR decoupling$_{it}$ [a]			
		SCALED CSR DECOUPLING$_{it}$		CSR DECOUPLING$_{it}$	
	Expected sign	Model 1	Model 2	Model 3	Model 4
LEVEL$_{it-1}$		−0.098	0.355***	−2.102	2.937*
		(0.116)	(0.126)	(1.824)	(1.537)
SCOPE$_{it-1}$		0.009	−0.176	−0.052	−3.508*
		(0.060)	(0.136)	(0.922)	(1.857)
PROVIDER$_{it-1}$		0.123*	0.108	0.830	0.462
		(0.073)	(0.080)	(1.090)	(1.301)
H1: LEVELit-1 × SCOPE$_{it-1}$	—		−0.326**		−2.895*
			(0.149)		(2.069)
H2: LEVEL$_{it-1}$ × PROVIDER$_{it-1}$	—		−0.471***		−5.500***
			(0.134)		(2.147)
H3: SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	—		0.302**		5.187***
			(0.132)		(2.117)
SIZE$_{it}$				2.232***	2.167***
				(0.634)	(0.648)
LEVERAGE$_{it}$		−0.003	−0.003	−0.054**	−0.054**
		(0.003)	(0.003)	(0.026)	(0.027)
ROA$_{it-1}$		−0.002	−0.002	0.024	0.021
		(0.003)	(0.003)	(0.058)	(0.058)
ESG$_{it}$		0.004*	0.004**	0.093**	0.097**
		(0.002)	(0.002)	(0.040)	(0.040)
R&D$_{it}$		−0.039*	−0.038*	−0.260	−0.253
		(0.022)	(0.021)	(0.330)	(0.316)
CAPITAL INTENSITY$_{it}$		−0.005***	−0.005***	−0.028	−0.030
		(0.002)	(0.002)	(0.030)	(0.030)
DISCLOSURE REGULATION$_{it}$		0.212	0.194	2.814	2.624
		(0.216)	(0.201)	(2.890)	(2.737)
STAKEHOLDER ORIENTATION$_{i}$		0.099	0.083	5.264*	4.923
		(0.228)	(0.225)	(3.126)	(3.109)
Industry fixed effects		Included	Included	Included	Included
Year fixed effects		Included	Included	Included	Included
Random country effects		Included	Included	Included	Included
Random firm effects		Included	Included	Included	Included
Constant		−1.341***	−1.348***	−65.183***	−63.730***
		(0.235)	(0.244)	(12.822)	(13.098)
Observations		1947	1947	1947	1947

Note: Table 2 shows the definitions of the variables. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ (firm-level clustered and heteroscedasticity-adjusted standard errors in parentheses). Panel A shows the results for the full sample, while Panel B presents the results for the subsample of companies with CSR assurance on their CSR reports.
[a]Models 1 and 2 use the scaled CSR decoupling measure. Models 3 and 4 use the CSR decoupling measure.

TABLE 5 | OLS linear regression results with industry, country, and year fixed effects and firm-level clustered and heteroscedasticity-adjusted standard errors.

		Measures of CSR decoupling$_{it}$[a]			
		SCALED CSR DECOUPLING$_{it}$		CSR DECOUPLING$_{it}$	
	Expected sign	Model 1	Model 2	Model 3	Model 4
LEVEL$_{it-1}$		0.418***	3.592*	0.361**	3.055
		(0.148)	(2.117)	(0.171)	(2.449)
SCOPE$_{it-1}$		−0.012	−1.907	−0.183	−3.586*
		(0.126)	(2.096)	(0.126)	(2.125)
PROVIDER$_{it-1}$		0.207***	1.391	0.105	0.414
		(0.064)	(1.027)	(0.070)	(1.120)
H1: LEVELit-1 × SCOPE$_{it-1}$	—	−0.462***	−4.849**	−0.326**	−2.959*
		(0.168)	(2.697)	(0.168)	(2.001)
H2: LEVEL$_{it-1}$ × PROVIDER$_{it-1}$	—	−0.463***	−4.984**	−0.479***	−5.585**
		(0.167)	(2.523)	(0.185)	(2.811)
H3: SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	—	0.112	3.290*	0.309**	5.290**
		(0.148)	(2.390)	(0.143)	(2.351)
SIZE$_{it}$			1.353***		2.132***
			(0.384)		(0.500)
LEVERAGE$_{it}$		−0.005**	−0.091***	−0.003	−0.056
		(0.002)	(0.030)	(0.003)	(0.043)
ROA$_{it-1}$		−0.000	0.035	−0.003	0.017
		(0.003)	(0.046)	(0.004)	(0.061)
ESG$_{it}$		0.002	−0.002	0.004*	0.098***
		(0.002)	(0.029)	(0.002)	(0.037)
R&D$_{it}$		−0.024	−0.195	−0.039*	−0.272
		(0.017)	(0.274)	(0.024)	(0.376)
CAPITAL INTENSITY$_{it}$		−0.003*	−0.021	−0.005**	−0.029
		(0.002)	(0.026)	(0.002)	(0.043)
DISCLOSURE REGULATION$_{it}$		0.155	1.473	0.205	2.764
		(0.097)	(1.487)	(0.141)	(2.202)
Industry fixed effects		Included	Included	Included	Included
Country fixed effects		Included	Included	Included	Included
Year fixed effects		Included	Included	Included	Included
Constant		−2.485***	−55.866***	−1.612***	−62.622***
		(0.708)	(12.320)	(0.415)	(10.269)
Observations		4299	4299	1947	1947
R^2		0.307	0.327	0.341	0.373

Note: Table 2 shows the definitions of the variables. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ (firm-level clustered and heteroscedasticity-adjusted standard errors in parentheses).
[a]Models 1 and 2 show the results for the full sample. Models 3 and 4 present the results for the subsample of companies with CSR assurance on their CSR reports. In addition, Models 1 and 3 use the Scaled CSR decoupling measure, while Models 2 and 4 use the CSR decoupling measure.

TABLE 6 | Subsample analysis.

Dependent variable		Measures of CSR DECOUPLING$_{it}$ [a]					
		Subsample excluding UK		Subsample excluding US		Subsample excluding small countries	
Subsample	Expected sign	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
LEVEL$_{it-1}$		0.371**	2.638	0.360***	2.832	0.423***	3.649**
		(0.159)	(1.949)	(0.134)	(1.891)	(0.113)	(1.558)
SCOPE$_{it-1}$		−0.034	−2.793	−0.172	−3.710	0.004	−1.660
		(0.191)	(2.682)	(0.169)	(2.851)	(0.144)	(2.157)
PROVIDER$_{it-1}$		0.109	−0.358	0.191*	1.258	0.214**	1.463
		(0.083)	(1.205)	(0.111)	(1.822)	(0.092)	(1.519)
H1: LEVEL$_{it-1}$ × SCOPE$_{it-1}$	—	−0.503***	−5.528***	−0.334***	−3.364**	−0.463***	−4.918***
		(0.186)	(1.920)	(0.139)	(1.556)	(0.157)	(1.799)
H2: LEVEL$_{it-1}$ × PROVIDER$_{it-1}$	—	−0.419***	−4.194**	−0.497***	−5.520***	−0.464***	−4.983**
		(0.141)	(2.384)	(0.140)	(2.324)	(0.130)	(2.113)
H3: SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	—	0.162	4.931**	0.255*	4.993*	0.091	3.004
		(0.197)	(2.952)	(0.192)	(3.336)	(0.154)	(2.540)
SIZE$_{it}$			2.170***		1.183*		1.345**
			(0.376)		(0.641)		(0.592)
LEVERAGE$_{it}$		−0.004	−0.077**	−0.005*	−0.106***	−0.004**	−0.090***
		(0.003)	(0.031)	(0.003)	(0.037)	(0.002)	(0.028)
ROA$_{it-1}$		−0.001	0.013	−0.002	0.022	−0.000	0.035
		(0.003)	(0.047)	(0.003)	(0.051)	(0.002)	(0.038)
ESG$_{it}$		0.003**	0.045**	0.002	−0.017	0.001	−0.005
		(0.001)	(0.022)	(0.002)	(0.033)	(0.001)	(0.035)
R&D$_{it}$		−0.032	−0.144	−0.033	−0.354	−0.025	−0.207
		(0.026)	(0.364)	(0.026)	(0.357)	(0.020)	(0.280)
CAPITAL INTENSITY$_{it}$		−0.003	0.000	−0.004***	−0.036	−0.003**	−0.022
		(0.002)	(0.033)	(0.001)	(0.023)	(0.001)	(0.025)
DISCLOSURE REGULATION$_{it}$		0.097	−0.307	−0.035	−0.173	0.155	1.527
		(0.130)	(1.343)	(0.098)	(1.354)	(0.106)	(1.466)
STAKEHOLDER ORIENTATION$_{i}$		0.130	5.113	0.150	3.943	0.268	5.640*
		(0.225)	(3.125)	(0.204)	(2.894)	(0.229)	(3.316)
Industry fixed effects		Included	Included	Included	Included	Included	Included
Year fixed effects		Included	Included	Included	Included	Included	Included
Random country effects		Included	Included	Included	Included	Included	Included
Random firm effects		Included	Included	Included	Included	Included	Included
Constant		−2.041***	−66.108***	−2.001***	−46.288***	−2.193***	−53.309***
		(0.307)	(7.378)	(0.306)	(9.552)	(0.281)	(11.097)
Observations		3184	3184	3331	3331	4256	4256

Note: Table 2 shows the definitions of the variables. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ (standard errors in parentheses).
[a]Models 1, 3, and 5 use the scaled CSR decoupling measure. Models 2, 4, and 6 use the CSR decoupling measure.

TABLE 7 | Multilevel panel data regression analysis of 1-year lagged CSR assurance-related choices or combinations on size-adjusted and absolute measures CSR decoupling including three-way interaction.

	Measures of CSR decoupling$_{it}$ [a]			
	SCALED CSR DECOUPLING$_{it}$		CSR DECOUPLING$_{it}$	
	Model 1	**Model 2**	**Model 3**	**Model 4**
LEVEL$_{it-1}$	0.466***	3.643**	0.397***	2.974**
	(0.104)	(1.605)	(0.144)	(1.443)
SCOPE$_{it-1}$	0.009	−1.883	−0.159	−3.493*
	(0.157)	(2.444)	(0.147)	(2.026)
PROVIDER$_{it-1}$	0.210**	1.362	0.112	0.465
	(0.091)	(1.500)	(0.076)	(1.259)
H1: LEVEL$_{it-1}$ × SCOPE$_{it-1}$	−0.595**	−5.044*	−0.438*	−2.992
	(0.263)	(3.517)	(0.310)	(3.575)
H2: LEVEL$_{it-1}$ × PROVIDER$_{it-1}$	−0.527***	−5.019***	−0.530***	−5.551***
	(0.091)	(1.799)	(0.149)	(1.713)
H3: SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	0.080	3.205	0.279**	5.167**
	(0.176)	(2.943)	(0.148)	(2.297)
LEVEL$_{it-1}$ × SCOPE$_{it-1}$ × PROVIDER$_{it-1}$	0.195	0.285	0.162	0.140
	(0.326)	(4.362)	(0.341)	(4.196)
SIZE$_{it}$		1.372**		2.167***
		(0.591)		(0.647)
LEVERAGE$_{it}$	−0.004**	−0.090***	−0.003	−0.054**
	(0.002)	(0.027)	(0.003)	(0.027)
ROA$_{it-1}$	−0.000	0.036	−0.002	0.021
	(0.002)	(0.038)	(0.003)	(0.059)
ESG$_{it}$	0.001	−0.003	0.004**	0.097**
	(0.001)	(0.035)	(0.002)	(0.040)
R&D$_{it}$	−0.024	−0.191	−0.038*	−0.253
	(0.020)	(0.276)	(0.021)	(0.317)
CAPITAL INTENSITY$_{it}$	−0.003**	−0.022	−0.005***	−0.029
	(0.001)	(0.025)	(0.002)	(0.030)
DISCLOSURE REGULATION$_{it}$	0.148	1.326	0.196	2.625
	(0.109)	(1.499)	(0.200)	(2.742)
STAKEHOLDER ORIENTATION$_{i}$	0.153	4.691*	0.082	4.922
	(0.196)	(2.810)	(0.225)	(3.110)
Industry fixed effects	Included	Included	Included	Included
Year fixed effects	Included	Included	Included	Included
Random country effects	Included	Included	Included	Included
Random firm effects	Included	Included	Included	Included
Constant	−2.071***	−52.492***	−1.346***	−63.722***
	(0.257)	(10.607)	(0.243)	(13.030)
Observations	4299	4299	1947	1947

Note: Table 2 shows the definitions of the variables. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ (standard errors in parentheses).
[a]Models 1 and 2 show the results for the full sample. Models 3 and 4 present the results for the subsample of companies with CSR assurance on their CSR reports. In addition, Models 1 and 3 use the Scaled CSR decoupling measure, while Models 2 and 4 use the CSR decoupling measure.

the results for the full sample, while Panel B focuses on the subsample of companies with CSR assurance on their CSR reports. In both panels, Models 1 and 3 use the size-adjusted, scaled measure of CSR decoupling as the dependent variable, while Models 2 and 4 use the gap measure of CSR decoupling.

Models 2 and 4 in both Panel A and B show that the interactions between the lagged effects of LEVEL and SCOPE are significantly and negatively associated with CSR decoupling. These results provide strong support for Hypothesis 1, indicating that companies providing a reasonable level of assurance combined with a broad scope of assurance on their CSR reports exhibit less CSR decoupling than companies lacking one or both of these assurance characteristics. The findings suggest that the combination of reasonable assurance with a broad assurance scope can have synergistic effects in reducing CSR decoupling.

Models 2 and 4 in both Panels also reveal that the interactions between the lagged effects of LEVEL and PROVIDER are significantly and negatively related to CSR decoupling. These results provide strong support for Hypothesis 2, indicating that companies combining a reasonable level of assurance with assurance provided by the auditing profession exhibit lower levels of CSR decoupling.

Finally, Model 4 in Panel A and Models 2 and 4 in Panel B show significant positive interactions between SCOPE and PROVIDER and CSR decoupling, while Model 2 in Panel A shows a positive but non-significant association. These results do not support Hypothesis 3. Specifically, the findings in Panel B suggest that among companies with CSR assurance on their reports, those with limited assurance, a broad assurance scope, and an assurance provider from the auditing profession exhibit higher levels of CSR decoupling.

Together, these results suggest that CSR assurance practices that exceed minimum standards, particularly those involving reasonable assurance, can play a significant role in mitigating CSR decoupling. The findings suggest that CSR assurance can conditionally contribute to mitigating CSR decoupling and enhance the quality of CSR reports. Specifically, the findings indicate that the assurance process enhances the quality of CSR reports when a reasonable level of assurance is combined with a broad scope or assurance providers from the auditing profession.

4.2 | Robustness

The results in Table 4 show that using the alternative measures of CSR decoupling does not change our main results, suggesting that the findings are robust across different measures of CSR decoupling. In addition, we investigated whether cross-country variation measures may affect the results. For this reason, we also estimated Ordinary Least Squares (OLS) regressions with country, industry, and year fixed effects and firm-level clustered and heteroscedasticity-adjusted standard errors. Table 5 presents the results of these additional analyses, which qualitatively align with our main analysis in Table 4, indicating that the findings are robust to different measures of country effects.

Moreover, Table 1 shows that the United Kingdom (UK) and the United States (US) are highly represented in our data set with 26% and 22% of observations, respectively, while some other countries in the sample are rather small. To ensure that our results are not influenced by the inclusion (or exclusion) of the UK or the US, or by observations from countries that are very small, as additional robustness tests, we recursively repeated our main analyses after eliminating the UK, the US, one at a time, or the small country samples containing less than 15 firm-year observations from the analysis. Table 6 reports the results of these additional analyses for the main results. The results are consistent with the main results in Table 4, indicating that the results are robust to the inclusion or exclusion of specific countries with the larger or smaller country samples.

Table 7 shows the results when also including the three-way interaction between LEVEL, SCOPE, and PROVIDER. The findings of this additional analysis show that the results are mostly robust to the inclusion or exclusion of the three-way interaction. Finally, even though we use time-fixed effects in our settings, we test whether the Covid pandemic drives our main results by dropping the Covid years 2020 and 2021 from our sample. The untabulated results show that our main findings stay qualitatively the same after dropping the Covid years. Overall, as none of the robustness tests change our general results, we are confident that our results are qualitatively robust.

5 | Conclusions and Discussion

This study examined the relationship between CSR assurance and CSR decoupling. Specifically, we explored how the combinations of the level and scope of assurance and the type of assurance provider are associated with a reduction in CSR decoupling. Our findings indicate that CSR assurance can mitigate CSR decoupling when reasonable assurance is combined with a broad scope or when reasonable assurance is provided by an assurance provider from the auditing profession. They highlight the importance of comprehensive assurance practices in effectively addressing the gap between CSR disclosure and performance, and in substantively enhancing the quality of CSR reports. However, for companies that meet only the minimum assurance standards, our results suggest that CSR assurance primarily serves a symbolic role, enhancing perceived legitimacy while having little effect on reduction, or even potentially increasing CSR decoupling. Legitimacy theory explains these latter findings by suggesting that managers of companies use CSR assurance as a self-serving tool for risk and impression management to proactively shape stakeholders' perceptions of the credibility of the CSR information disclosed, enhance perceived company legitimacy, and build stakeholder trust (Talbot and Boiral 2018; Braam and Peeters 2018; O'Dwyer et al. 2011).

Our results have important implications for policymakers, investors, and other stakeholders. From a policy perspective, they suggest that policymakers should strengthen mandatory CSR assurance requirements to enhance the quality of corporate sustainability reporting. Under the CSRD, companies are currently mandated to obtain limited assurance (European Commission 2025). However, our findings indicate that limited assurance—regardless of its scope or whether it is provided by

a practitioner from the auditing profession—does not reduce CSR decoupling, nor does it increase the likelihood that CSR disclosures are fairly presented and free from material misstatements. Specifically, the results suggest that limited assurance—whether mandatory or voluntary—may primarily serve a symbolic rather than substantive role, as its actual impact on the quality and reliability of CSR disclosures appears limited. Accordingly, the decision of EU policymakers to drop the ambitious goal to implement reasonable assurance of CSR information under the Omnibus regulation raises concerns that, despite growing societal demands for corporate accountability and transparency regarding CSR performance and corporate impact on society and the environment, limited assurance may produce unintended adverse effects (Aboud et al. 2024). However, such an approach entails substantial costs and implementation challenges, which lie beyond the scope of this study.

Our findings can further be helpful for investors and other stakeholders in assessing the credibility and reliability of the CSR information presented in CSR reports. Our findings suggest that CSR assurance is not "automatically" associated with management's commitment to credible CSR disclosures, increased transparency, and a higher CSR reporting quality (Michelon et al. 2015).

Finally, our study has certain limitations, including those related to the potential influence of unobservable factors that may affect CSR assurance and CSR decoupling, potentially leading to endogeneity issues. Although we have included different measures of CSR decoupling and conducted several robustness tests, future studies could further investigate the conditions under which CSR assurance enhances or inhibits the development of higher-quality CSR reporting and increased transparency, ultimately facilitating more responsible business practices. Additionally, future studies could examine the cost implications of CSR assurance, including those related to the assurance level, scope, and the choice of assurance provider to advance our understanding of the consequences of regulating CSR assurance.

Endnotes

[1] The decision to retain limited assurance, rather than transitioning to the more extensive and costly reasonable assurance, was motivated by the EU's aim to reduce compliance costs and administrative burdens. Moreover, limited assurance provides companies with greater flexibility by enabling adaptability to emerging issues without the rigidity of formal standards, and by placing greater emphasis on materiality assessments.

[2] Enhanced stakeholder confidence in the credibility of disclosed CSR information may result in competitive advantages, including improved access to finance (Cheng et al. 2014), lower cost of equity capital (Dhaliwal et al. 2011; Martínez-Ferrero and García-Sánchez 2017), increased analyst coverage, lower analyst forecast errors, lower monitoring costs (Dhaliwal et al. 2012; Casey and Grenier 2015), and higher future cash flows (Lys et al. 2015; Plumlee et al. 2015).

[3] In their article, Hawn and Ioannou (2016) referred to the online version of Appendix S1, titled "The Composition of Internal and External Actions' Indices". Appendix S1 provides the complete list of the 24 external and 21 internal actions, and enables an exact replication of their classification and measurement approach. The two omitted external actions are: (13) "Is the company's CSR report published in accordance with the GRI guidelines?" and (22) "Does the company have an external auditor of its CSR/H&S/Sustainability report?".

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