Reporting by Non-Listed Companies on

Corporate Social Responsibility

Dissertation

zur Erlangung des Doktorgrades

der Wirtschaftswissenschaftlichen Fakultät

der Georg-August-Universität Göttingen

vorgelegt von

Marten von der Heide

geboren in Bremen

Göttingen, 2023

Für meine Familie und Freunde.

Betreuungsausschuss:

Erstbetreuer:	Prof. Dr. Jörg-Markus Hitz	(Erstprüfer)
Weitere Betreuer:	Prof. Dr. Stefan Dierkes	(Zweitprüfer)
	Prof. Dr. Maik Hammerschmidt	(Drittprüfer)

Table of Contents

Page

Table of Contents .... **IV**

List of Tables .... **VIII**

List of Figures .... **IX**

1 Introduction **1**

1.1 Motivation of the thesis 1

1.2 Objectives and structure of the thesis 5

1.3 Summary of the thesis 10

2 CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks **16**

2.1 Introduction 17

2.2 Institutional background 22

2.2.1 The EU’s NFRD and its implementation in Germany 22

2.2.2 The GSBs 23

2.2.2.1 Firm characteristics 23

2.2.2.2 Corporate political connections 25

2.2.2.3 Double materiality approach to CSR reporting 26

2.3 Discussion of prior literature and research question 26

2.3.1 CSR preferences of internal stakeholders and CSR reporting 26

2.3.2 CSR preferences of external stakeholders and CSR reporting 28

2.3.3 Research question 29

2.4 Research setting and descriptive evidence 31

2.4.1 Choice of setting 31

2.4.2 Sample selection 32

2.4.3 CSR reporting measurement 33

2.4.4 Descriptive evidence on the GSBs’ CSR reports 37

2.5 Association between stakeholders’ CSR preferences and CSR reporting 38

2.5.1 Research design 38
2.5.1.1 Matching of political orientations and preferences for CSR 38
2.5.1.2 Empirical model and variable measurement 39
2.5.2 Political orientation and CSR reporting 42
2.5.3 Party-specific political orientation and CSR reporting 46
2.6 Alternative measures for political orientation 50
2.7 Conclusion 52
2.8 Appendix 55
3 Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks 68
3.1 Introduction 69
3.2 Institutional background 74
3.2.1 The NFRD and its implementation in Germany 74
3.2.2 Characteristics of the GSBs 75
3.2.3 GSBs and the role of CSR 77
3.3 Empirical effects of mandatory CSR reporting on firms’ CSR performance 78
3.3.1 Prior literature 78
3.3.2 Research question 80
3.4 Research design and data 83
3.4.1 Empirical model and DiD design 83
3.4.2 Variables measurement 85
3.4.3 Data and sample 87
3.5 Results 89
3.5.1 Plausibility of the transparency shock 89
3.5.2 Real effects of a CSR reporting mandate 91
3.5.2.1 Effects of the NFRD on GSBs’ CSR activities 91
3.5.2.2 GSBs’ CSR activities and fixed-effect structure 95
3.5.2.3 Cross-sectional analyses 98

3.5.3 Additional analyses ... 101
3.5.3.1 Manifestations of the real effects ... 101
3.5.3.2 Economic relevance and financial performance ... 104
3.5.3.3 Composition of treatment and control group over time ... 106
3.5.3.4 Alternative PSM strategies ... 107
3.6 Conclusion ... 107
3.7 Appendix ... 110
4 CSR Reporting by Large Private Firms: Evidence from Germany ... 119
4.1 Introduction ... 120
4.2 The CSRD ... 123
4.2.1 Development towards the CSRD ... 123
4.2.2 Regulatory changes resulting from the CSRD ... 125
4.2.2.1 Scope of application ... 125
4.2.2.2 Content of CSR reports ... 126
4.2.2.3 Reporting frameworks ... 127
4.2.2.4 Format of reports ... 128
4.2.2.5 Audit ... 129
4.2.3 Adoption in Germany ... 130
4.3 Empirical evidence on CSR reporting choices by German large private firms ... 131
4.3.1 Research question and setting ... 131
4.3.2 Sample selection and methodology ... 132
4.3.3 Empirical findings ... 135
4.3.3.1 CSR reporting contents ... 135
4.3.3.2 Standardization of reports ... 136
4.3.3.3 Reporting format ... 138
4.3.3.4 Reporting assurance ... 139
4.3.4 Discussion ... 140
4.4 Association between CSR reporting and characteristics of private firms ... 143

4.4.1 Prior literature 143
4.4.2 Empirical model and variable measurement 146
4.4.3 Empirical results 148
4.4.4 Discussion of CSR reporting motives in private firms 151
4.5 Compliance of CSR reporting by large private firms with the CSRD 152
4.6 Conclusion 154
4.7 Appendix 156
5 Conclusion 157
5.1 Summary of major findings and implications 157
5.2 Limitations 160
5.3 Outlook 162
6 Erklärung über den geleisteten Eigenanteil der Arbeit 164
7 Versicherung 165
References 166

List of Tables

Page

Table 2.1: Sample selection 33

Table 2.2: Measurement of CSR reporting volume and descriptive evidence 34

Table 2.3: Summary statistics 42

Table 2.4: Political orientation and CSR reporting volume and quality 44

Table 2.5: Party-specific political orientation and CSR reporting volume and quality 48

Table 2.6: Political orientation (other measure) and CSR reporting volume and quality 51

Table 3.1: Sample description 88

Table 3.2: Effect of the NFRD on GSBs' CSR activities 92

Table 3.3: DiD results excluding fixed-effects 97

Table 3.4: Cross-sectional analyses 99

Table 3.5: Manifestations of real effects 102

Table 3.6: Economic relevance of CSR activities 105

Table 4.1: Sample description 133

Table 4.2: Contents of voluntary CSR reports 135

Table 4.3: Standardization of voluntary CSR reports 137

Table 4.4: Format of voluntary CSR reports 138

Table 4.5: Assurance of voluntary CSR reports 139

Table 4.6: Summary statistics 148

Table 4.7: Private firms' reporting incentives for voluntary CSR reporting (choices) 149

List of Figures

Page

Figure 1.1: Objectives and structure of the thesis 6

Figure 2.1: Illustration of the political left-right axes by Switek et al. (2017)........................ 40

Figure 3.1: CSR reporting over the years.. 90

1 Introduction

1.1 Motivation of the thesis

In the light of the environmental challenges posed by climate change and the social consequences of the economic crisis and coronavirus pandemic, the public attention has increasingly shifted towards sustainable business conduct in recent years. As a result, a growing importance is attributed to 'Corporate Social Responsibility' (CSR), i.e. 'corporate activities and policies that assess, manage, and govern a firm's responsibilities for and its impacts on society and the environment' (Christensen et al., 2021). In line with this, emphasis is placed worldwide on aligning corporate efforts with global sustainability objectives. For instance, the 'United Nations' (UN), an international organization of 193 sovereign states, adopted the Agenda 2030 in 2015, which aims at achieving 'sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner' (United Nations, 2015). Similarly, the 'European Union' (EU) shifted away from its prior understanding of CSR in the form of a voluntary integration of CSR concerns in business operations (European Commission, 2001), as the voluntary approach was no longer considered sufficient to promote sustainable development to the desired extent (European Commission, 2011).

In this sense, to encourage CSR-oriented business conduct in the context of the EU, regulators opted, among other instruments, for a CSR reporting mandate, i.e. a policy tool for indirect behavioral regulation. The European Parliament and the Council adopted Directive 2014/95 – the so-called 'Non-Financial Reporting Directive' (NFRD) – in 2014. In line with disclosure of CSR information being 'vital for managing change toward a sustainable global economy', the NFRD is supposed to help 'the measuring, monitoring and managing of undertakings' performance and their impact on society' (Directive 2014/95, recital 3). In this way, by initially increasing the transparency of CSR information (Directive 2014/95, recital 1), the CSR reporting mandate aims at nudging firms to engage in more CSR activities (Fiechter et al., 2022).

The NFRD requires large ‘Public Interest Entities’ (PIEs) in the EU with an average number of employees in excess of 500 to prepare CSR reports (Directive 2014/95, art. 1, par. 1). PIEs are firms listed on EU-regulated stock exchanges, non-listed banks, insurances, and other entities designated by EU member states as PIEs (Directive 2013/34, art. 2 par. 1). PIEs within the scope of the NFRD have to provide CSR reports for fiscal years beginning on or after January 1, 2017 (Directive 2014/95, art. 4), meaning that first mandatory reports are published in the NFRD’s entry into force year 2018. The CSR reports should give an overview of the company’s business model and policies, outcomes, material risks and key performance indicators related to at least environmental, social- and employee-related matters, respect for human rights and anti-corruption and bribery matters (Directive 2014/95, art. 1, par. 1).

In its planned review of the NFRD in 2021 (European Commission, 2021a), the EU identified certain problems, such as a scope insufficient to meet stakeholders’ high CSR information demand and room for improvement in terms of the relevance, comparability and reliability of the disclosed CSR information (Directive 2022/2464, recital 13). As a result, the EU adopted a revision of the NFRD in 2023 – the Directive 2022/2464 or so-called ‘Corporate Sustainability Reporting Directive’ (CSRD). The CSRD expands the reporting requirements and the scope and comes into force gradually from fiscal year 2024 onwards (Directive 2022/2464, art. 5).

In the context of such CSR reporting mandates and their intended indirect, gradual behavioral regulation, prior literature differentiates between first- and second-order effects of reporting mandates (e.g. Gulenko, 2018; Ioannou & Serafeim, 2019). First-order effects refer to direct consequences of the reporting regulation, such as changes in transparency. Second-order consequences result from such first-order effects and manifest themselves, for example, in an altering of firm behavior, such as an increase in CSR activities (Fiechter et al., 2022).

Regarding the first-order consequences in response to a CSR reporting mandate, the literature review by Gulenko (2018) notes an overall rise in the number of reporting firms and in the reporting quantity, such as the number of words. Also, the majority of studies finds an increase in reporting quality, such as the share of verifiable, quantifiable and comparable information (Hahn & Kühnen, 2013). Thus, the heterogeneity of CSR disclosure prior to the mandate (e.g. Christensen et al., 2021; Grewal et al., 2019), which can, at least in part, be explained by firms' varying business models and associated cost-benefit functions of CSR reporting (Christensen et al., 2021), is likely mitigated by the mandate. This is particularly important as the disclosure of 'comparable and reliable sustainability information' is seen as a prerequisite for encouraging behavioral change, such as more sustainable business conduct (Directive 2022/2464, recital 2).

Yet, given that a reporting mandate can only partially mitigate the influence of factors, such as firm-level reporting incentives (Daske et al., 2013), the disclosure of CSR information (first-order effect) continues to be linked to certain firm characteristics. In this sense, previous research shows that CSR reporting is associated with generic firm characteristics, such as firm size and profitability (e.g. Hahn & Kühnen, 2013) and ownership structure (e.g. Höllerer, 2013). Similarly, firms' business activities such as the industry affiliation (e.g. Byrd et al., 2017; Gamerschlag et al., 2011) and CSR activities (e.g. Cho & Patten, 2007; Clarkson et al., 2008) are also linked to CSR reporting, alongside external factors such as pressures from shareholders (e.g. Gamerschlag et al., 2011) and institutional owners (e.g. Dhaliwal et al., 2011).

In terms of the second-order effects, prior literature (e.g. Fiechter et al., 2022; Hombach & Sellhorn, 2019) suggests various potential effect channels that link a rise in transparency (and salience) resulting from CSR reporting regulation to the creation of real effects, i.e. an altering of firm behavior (Christensen et al., 2021). For instance, stakeholders might use the higher level of easily accessible CSR information from mandated disclosures to exert pressure on firms, especially if they fail to meet their expectations (Christensen et al., 2017). The resulting real effects manifest, for example, in the form of higher employee safety (Christensen et al., 2017), lower levels of corporate emissions (Chen et al., 2018; Downar et al., 2021; Tomar, 2023) and higher CSR investments (Fiechter et al., 2022).

As large listed firms usually constitute the main target of reporting regulations (van der Lugt et al., 2020), prior research focuses primarily on CSR reporting by these firms (e.g. Downar et al., 2021; Fiechter et al., 2022; Grewal et al., 2019). At the same time, the CSR reporting by large non-listed firms receives comparatively little attention (e.g. Chi et al., 2020; J. Li & Di Wu, 2020). Yet, non-listed compared to listed firms are subject to 'different stakeholder groups, ownership structure, financing strategies and utility functions' (Chi et al., 2020). These differences might shape the cost-benefit function of CSR reporting and likely result in different CSR reporting incentives and first- and second-order outcomes. Similarly, non-listed differ from listed firms by not being publicly listed on a stock exchange, which includes powerful stakeholder groups like analysts and shareholders. Thus, mechanisms for stakeholders to act upon CSR disclosures and encourage CSR-related changes in firm behavior, such as shareholder activism (Grewal et al., 2016), are also comparatively limited. Overall, in view of non-listed firms' distinctive characteristics, which likely affect the functionality of CSR reporting mandates as a policy instrument for indirect behavioral regulation, more research is needed on (mandatory) CSR reporting by non-listed firms.

The relevance of CSR reporting by non-listed firms can be further illustrated by the role of non-listed firms within the EU's CSR reporting requirements. In terms of the NFRD, the scope refers to all large PIEs, which not only includes listed companies, but also non-listed banks and insurances (Directive 2013/34, art. 2 par. 1). For instance, in Germany, 249 out of the 487 firms within the scope of the NFRD are non-listed banks and insurances (Econsense & UN Global Compact Network Germany, 2018). These financial institutions are assigned a 'key role' in achieving sustainability goals, based on the capability of the financial sector to redirect investments in more sustainable directions (European Commission, 2018). In this sense, the majority of the 249 firms are 'German Savings Banks' (GSBs) that are part of the German Savings Banks Finance Group, i.e. the largest financial services provider in Europe with a total business volume of about EUR 3,330 billion (German Savings Banks Association, 2023). Altogether, CSR reporting by large non-listed financial institutions, i.e. GSBs, within the NFRD's scope provides a fruitful research opportunity.

Additionally, the looming CSRD largely increases the number of non-listed firms within the scope of CSR reporting regulation, regardless of the industry. For example, in Germany, the number of firms within the scope of a CSR reporting mandate is expected to rise from around 500 to around 15,000 firms according to the 'Accounting Standards Committee of Germany' (ASCG, 2021). This particularly applies to private companies, as the EU broadens the scope to include the CSR-related 'impacts and accountability' of all large companies, irrespective of a stock exchange listing (Directive 2022/2464, recital 18). Consequently, in view of the massive increase of CSR reporting by non-listed firms in response to the CSRD and the sparse existing research in this context, CSR reporting by large private firms outside the financial sector also represents an interesting avenue for research.

1.2 Objectives and structure of the thesis

CSR reporting mandates represent a key element within the EU's efforts towards achieving sustainable change. Besides listed companies, these mandates are also directed at non-listed firms, which likely face different CSR reporting incentives and outcomes. However, in the context of CSR reporting, many studies have been conducted on listed firms, while little is known about non-listed firms. In this thesis, I aim to provide exploratory evidence for non-listed firms of disclosure choices and of real effects of CSR reporting mandates. Specifically, I examine the first-order consequences and associated reporting incentives (study 1) and second-order consequences (study 2) in light of the distinctive characteristics of a large group of financial institutions within the scope of the NFRD, i.e. the GSBs. In addition, given the looming CSRD, I extend the scope of my research to all large non-listed firms (study 3) and provide early empirical evidence on CSR reporting choices and associated reporting incentives among these firms, while highlighting differences to listed firms.

Figure 1.1: Objectives and structure of the thesis

Reporting by Non-Listed Companies on Corporate Social Responsibility			
Aim of the thesis: I aim to provide exploratory evidence for non-listed firms of disclosure choices and of real effects of CSR reporting mandates.			
1. Introduction	• Motivation of the thesis • Objectives and structure of the thesis • Summary of the thesis		Pages 1-15
Main objective of the study	**Main results of the study**	**Main related literature**	
2. Chapter: CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks (*single authored*)			
Investigate the link between CSR preferences of non-shareholder stakeholders and mandatory CSR reporting.	CSR preferences of external and internal non-shareholder stakeholders are associated with the volume and quality of CSR matters in mandatory CSR reports.	Gulenko et al. (2022), Marquis, Qian (2014)	Pages 16-67
3. Chapter: Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks (*single authored*)			
Examine whether real effects emerge in GSBs in response to the NFRD.	Treatment relative to control GSBs significantly increase CSR activities in response to the NFRD, with these effects being concentrated in GSBs with a left-leaning political environment and high exposures to the NFRD and to competition. The real effects do not materialize before the NFRD's entry into force and do not significantly apply to social activities.	Fiechter et al. (2022)	Pages 68-114
4. Chapter: CSR Reporting by Large Private Firms: Evidence from Germany (*single authored*)			
Provide early empirical evidence on CSR reporting choices and associated reporting incentives among German large private firms.	Voluntary CSR reporting by large private firms is relatively heterogeneous, with one out of four firms within the scope of the CSRD already providing a CSR report. The availability of resources, unlike ownership structure, financing strategy and stakeholder demand, is linked to voluntary CSR reporting by large private firms.	Chi et al. (2020), Keitz, Grote (2022)	Pages 115-152
5. Conclusion	• Summary of major findings and implications • Limitations • Outlook		Pages 153-159

Overall, my thesis consists of three explorative empirical studies (see figure 1.1), which build on non-listed firms' distinctive characteristics, i.e. traits that distinguish these firms from listed companies. The first study, '*CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks*', is based on characteristics specific to the GSBs. The GSBs operate under municipal trusteeship (German Savings Banks Association, 2020b), which means that local politicians usually chair the supervisory board (Savings Banks Act[1], sec. 14 par. 1). Additionally, according to the GSBs' regional principle, the business area of a GSB is limited to the administrative region of the respective municipalities (German Savings Banks Association, 2020b). As a result of these characteristics, local politicians from these municipalities are associated with and impacted by business activities of GSBs, such as CSR reporting. These politicians thus likely have an incentive to shape CSR reporting in their own interest, for example, to promote their political careers. Beyond that, due to their public mandate, GSBs have to create shared value for their stakeholders and the society at large from the outset (German Savings Banks Association, 2020b). In this sense, GSBs likely use CSR reporting to demonstrate that their public mandate-oriented activities are congruent with the preferences of the society, i.e. external stakeholders, as this might help customer retention and acquisition, for example. Altogether, GSBs' mandatory CSR reporting is likely associated with CSR preferences of internal stakeholders, such as local politicians on the supervisory board, and external stakeholders, such as (potential) customers and the society at large.

By investigating this link, the study aims at providing empirical evidence on the double materiality approach under the NFRD. According to the double materiality approach, CSR information should not only be disclosed if the information is of (financial) relevance to shareholders (single materiality or outside-in perspective). Instead, along the lines of Christensen et

[1] In Germany, the Savings Banks Act falls under federal state law, which results in 16 mostly similar Savings Banks Acts. For reasons of clarity and comprehensibility, this thesis always refers to the Savings Banks Act from Baden-Wuerttemberg.

al. (2021), firms are intended to follow a broader approach to CSR reporting by also reporting on the firm's impact on the environment and society (inside-out perspective). Thus, the double materiality approach that combines both perspectives, should yield CSR information of relevance to a wide set of stakeholders, including customers and municipal trustees.

However, despite being of equal importance under the double materiality approach, the inside-out perspective receives comparably little attention, as prior research mainly focuses on the 'predominant' information demand of shareholders, i.e. the outside-in perspective (Gulenko et al., 2022). Given the GSBs' distinctive characteristics, such as the absence of typical shareholders, the setting of GSBs offers a rare opportunity to provide empirical evidence on the inside-out perspective, in particular. In this sense, the study contributes to research regarding the double materiality approach by examining the association between the CSR preferences of non-shareholder stakeholders and CSR reporting. This gains further importance in light of the CSRD's requirement for firms to consider each of the double materiality perspectives in its own right, rather than in aggregation (Directive 2022/2464, recital 29).

The second study, '*Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks*', is also based on the GSBs' distinctive characteristics. According to their public mandate, GSBs have to serve the common good from the outset (German Savings Banks Association, 2020b). This means that they reported on and promoted CSR-related matters already prior to the NFRD. In this sense, for example, CSR-related website postings or leaflets provided by the GSBs before the entry into force of the NFRD (Gulenko et al., 2022), might mitigate the increase in incremental CSR information in response to the CSR reporting regulation. Likewise, GSBs might also feature comparatively higher CSR performances from the beginning, given their particularly socially focused public mandate and associated engagements, for example, in terms of financial inclusion and social development. Additionally, GSBs are not capital market-oriented. Thus, in absence of powerful stakeholders, certain mechanisms for exerting influence on a firm's CSR performance, such as shareholder activism (Grewal et al., 2016), are not present in the given setting. Altogether, the GSBs likely feature a comparatively lower stakeholder demand for (additional) CSR disclosures, a smaller margin for improving CSR engagements and reduced opportunities for stakeholder interaction and pressure.

As a result, while prior research on listed firms shows the emergence of real effects (e.g. Fiechter et al., 2022), it remains uncertain whether non-listed GSBs respond to a CSR disclosure mandate in a similar way. Thus, using a 'Difference-in-Differences' (DiD) design, this study focuses on examining whether real effects emerge in GSBs in response to the NFRD. Thereby, this study contributes to the growing literature on real effects of CSR transparency regulation from the perspective of non-listed and non-profit-oriented firms. Overall, my first and second study aim at adding to the scarce research on the first- (study 1) and second-order consequences (study 2) of the NFRD in financial institutions.

The third study, '*CSR Reporting by Large Private Firms: Evidence from Germany*', adds a new perspective to my thesis by investigating voluntary CSR reporting by large private firms in Germany in light of the looming CSRD. The CSR reporting choices and associated incentives are quite diverse and differ between listed and private firms, as they possess 'different stakeholder groups, ownerships structure, financing strategies and utility functions' (Chi et al., 2020). For example, given their comparatively more concentrated ownership structure, private firms, on average, feature more direct communication between managers and owners, along the lines of Ajinkya et al. (2005) and Armstrong et al. (2010). This likely results in a reduction of information asymmetries and the demand for reporting. Such differences suggest that CSR reporting incentives and its associated CSR reporting choices are markedly different for private compared to listed firms.

Despite these differences and the relevance of private firms, as they constitute the vast majority of large firms within the scope of the CSRD (ASCG, 2021), the empirical evidence on voluntary CSR reporting by private firms, which are not already affected by the NFRD, is scarce and mostly encompasses qualitative studies (e.g. Carmo & Miguéis, 2022; Girella et al., 2019).

The few existing empirical studies largely lack representative datasets in the context of the CSRD, for example, as they focus solely on the largest private firms (e.g. Keitz & Grote, 2022) or on firms from other jurisdictions (e.g. Chi et al., 2020). Using a sample of 400 representatively selected, large private German firms outside the financial sector, this study addresses the resulting research gap by descriptively investigating whether and how such firms voluntarily provide CSR reports. On this basis, the study further examines in a quantitative empirical approach what reporting incentives are related to the observed reporting choices in large private firms. By doing so, the study highlights differences in CSR reporting incentives and associated CSR reporting choices in private compared to listed firms. Altogether, the study adds to prior research by providing early empirical evidence on CSR reporting by large private firms and thereby contributes to a greater understanding of the variation in (private) firms' CSR reports.

1.3 Summary of the thesis

The thesis comprises three studies on the CSR disclosure choices and real effects of CSR reporting mandates among non-listed firms. The *first study* (chapter 2) examines the association between CSR preferences of stakeholders and disclosure choices within the mandatory CSR reporting by GSBs. The second study (chapter 3) investigates whether real effects emerge in GSBs in response to the NFRD. The third study (chapter 4) examines reporting incentives that are related to the observed CSR reporting choices in a setting of large private firms within the scope of the CSRD. The final chapter concludes (chapter 5).

Study 1: CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks

The *first study* of this thesis examines the association between CSR preferences of internal and external non-shareholder stakeholders and mandatory CSR reporting in a setting of large GSBs. The sample consists of 125 mandatory CSR reports covering the financial year 2017, i.e. reports that were published in the NFRD's entry into force year 2018. The study first provides descriptive evidence on GSBs' mandatory CSR reporting. Following Hahn and Kühnen (2013), I focus on the CSR reporting adoption and find that the vast majority of GSBs are first-time reporters, i.e. 'true' mandatory CSR reporting firms. In addition, I provide descriptive evidence on the volume of CSR matters, as an indicator of the topical focus, and the quality that refers to the share of verifiable, comparable and quantifiable information.

Building on this, the study examines the association between CSR preferences of GSBs' stakeholders and the volume and quality of the disclosed CSR matters. I refer to the political orientation of external and internal stakeholders as a natural measure of CSR preferences (Di Giuli & Kostovetsky, 2014). In this regard, left- compared to right-leaning stakeholders are comparatively more concerned with CSR issues, in particular environmental-related matters and respect for human rights.

By employing cross-sectional analyses using multiple multivariate 'Ordinary Least Squares' (OLS) regressions, the study finds that a left- compared to a right-leaning political orientation of external stakeholders is significantly associated with a higher volume of CSR reporting on environmental-related matters and a higher volume and quality of respect for human rights. In addition, a left- in comparison to a right-leaning political orientation of internal stakeholders is significantly associated with a higher quality of CSR reporting in total and on environmental- and employee-related matters. In line with a signaling of a perception of external stakeholders' CSR preferences, these findings likely indicate that political orientations, i.e. CSR preferences, of external stakeholders are mainly linked to the topical focus of CSR reports. At the same time, the quality, which captures a company's efforts to measure and monitor specific CSR matters (Hahn & Kühnen, 2013), is mainly associated with CSR preferences of internal stakeholders, such as politicians serving on the supervisory board.

Lastly, the accuracy of the binary distinction of left- and right-leaning political orientations is tested, as the results are complemented using a party-specific political orientation approach.

The results show that, for example, the volume and quality of reporting on environmental matters is positively and most strongly associated with an above-median engagement of the party the Greens, while being mostly negatively linked to above-median engagements of the FDP and Union. A similar picture also emerges for CSR reporting in total. These findings further supports my main results. In conclusion, in line with the double materiality criterion, this study finds that CSR preferences of external and internal non-shareholder stakeholders are associated with the volume and quality of certain CSR matters within mandatory CSR reports.

Study 2: Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks

The *second study* investigates whether real effects emerge in GSBs in response to the NFRD. The analyses are based on a DiD design, which compares GSBs within the scope of the NFRD (treatment firms) with propensity score matched GSBs outside the scope of the NFRD (control firms). The balanced sample consists of 1414 firm-year observations from 2014-2020, i.e. 707 firm-year observations per treatment and control group. GSBs are obliged to report on CSR from the fiscal year 2017 onwards (Directive 2014/95, art. 4), which means that first mandatory CSR reports are published in the NFRD's entry into force year 2018. Thus, the study refers to 2018-2020 as (post) treatment years.

In line with prior research on real effects of CSR transparency regulation (e.g. Chen et al., 2018; Christensen et al., 2017; Downar et al., 2021; Tomar, 2023), the results from a first set of analyses show that treatment GSBs increase their CSR activities relative to matched control GSBs in response to the publication of the first mandatory reports in 2018. Yet, in contrast to Fiechter et al. (2022), the relative increase in CSR activities is attributable to governance- and particularly environmental-, but not social-related CSR activities. This finding likely indicates a lower potential for (reporting-regulation-based) improvements of social-related activities, by virtue of the GSBs' particularly socially-focused public mandate that existed already prior to the NFRD. In addition, yearly treatment effects of the NFRD are estimated. The yearly results indicate that CSR activities of treatment GSBs do not evolve differently from those of control GSBs before 2018. Consequently, in contrast to the study by Fiechter et al. (2022) on listed firms, the real effects in the GSBs do not materialize before the NFRD became effective. This is consistent with the late adoption of the GSBs, i.e. the GSBs being ‘true’ mandatory reporters.

In a second set of empirical tests, cross-sectional analyses are conducted to examine whether real effects differ relative to the GSBs’ external political environment and the exposure level to the NFRD and to competition. The results show that the increase in CSR activities is concentrated in GSBs with left-leaning external political environments and a high exposure level to the NFRD and to competition. In terms of the external political environment, the results indicate that GSBs likely refer to mandatory CSR reporting as a tool to signal a fit of their CSR activities with the CSR preferences of their external stakeholders. Concerning GSBs that are highly exposed to the NFRD, i.e. feature a low pre-directive level of CSR activities, my findings are consistent with a catching-up effect. Similarly, the competition-specific result likely reflects a differentiation or benchmarking effect regarding GSBs with high competition levels.

Overall, the main results of this study show that treatment in comparison to control GSBs significantly increase CSR activities after the NFRD’s entry into force, with these effects being concentrated in GSBs with left-leaning external political environments and pre-directive low levels of CSR activities and high competition. However, in contrast to previous research, the results also show that real effects in GSBs do not materialize before the entry into force year and do not significantly apply to social-related CSR activities. Taken together, this study demonstrates that the creation of real effects in response to the NFRD varies between listed, profit-oriented and non-listed, non-profit-oriented firms.

Study 3: CSR Reporting by Large Private Firms: Evidence from Germany

The *third study* examines the voluntary CSR reporting adoption and associated reporting choices among German large private firms in the light of a looming CSR reporting mandate. Using a sample of 400 representatively selected large private firms outside the financial sector, which fall under the CSRD from 2025 onwards, the first set of analyses investigates whether and how large private companies voluntarily report on CSR matters. To shed light on differences in CSR reporting between private and listed firms, the descriptive results are structured along and compared with a study by the ASCG (2021) on CSR reporting by listed firms in Germany. In this sense, the focus lies on CSR reporting decisions that are also discretionary in the context of listed firms within the scope of the NFRD.

The results of the descriptive analyses indicate that one quarter of large private firms within the scope of the CSRD (25%) already provides a CSR report. Regarding the reporting choices, the findings show that more than half of the reporting private firms (58%) cover all five of the CSR-related matters listed in the NFRD as minimum requirement. In addition, the majority of private firms refer to at least one CSR reporting framework (81%) and publish their CSR report separately outside the management report (88%). One quarter of private firms (24%) have at least parts of the CSR report audited. Comparing the discretionary reporting decisions of private and listed firms, both majorly use CSR reporting frameworks and prefer reporting outside the management report. At the same time, private differ from listed firms by addressing fewer CSR matters and opting for CSR reporting assurance less often. The observed differences indicate deviating cost-benefit functions and diverging incentives of private compared to listed firms.

Based on this, the second set of analyses aims at examining private firms' reporting incentives for the voluntary provision of CSR reports and related reporting decisions. In line with prior research (e.g. Hahn & Kühnen, 2013), results from estimating multivariate logit/probit and OLS regressions find a positive association between the availability of (financial) resources and the adoption, length and quality of CSR reporting. In this way, the reporting length focuses on the quantity of disclosed information, while quality is a compound variable that refers to CSR reporting frameworks and assurance. However, in contrast to previous research on listed firms (e.g. Cormier & Magnan, 2003; Dhaliwal et al., 2011; Höllerer, 2013), the results show that voluntary CSR reporting by large private firms is not significantly associated with the stakeholder demand, ownership structure and financing strategies. Overall, these results demonstrate that the upcoming CSRD will likely impact large private firms differently, with very heterogeneous costs. The findings also suggest that cost-benefit functions and resulting incentives for CSR reporting differ between private and listed firms.

2 CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks

Marten von der Heide[2]

Working Paper[3]

Abstract: In this study, I empirically investigate the association between 'Corporate Social Responsibility' (CSR) preferences of external and internal non-shareholder stakeholders and mandatory CSR reporting in a setting of 'German Savings Banks' (GSBs). Pertinent previous research mainly focuses on the predominant CSR information demands of shareholders. At the same time, the link between CSR preferences of non-shareholder stakeholders and mandatory CSR reporting receives comparatively little attention. I aim at addressing this research gap by using a sample of 125 GSBs within the scope of a CSR reporting mandate, i.e. the 'Non-Financial Reporting Directive' (NFRD). Building on distinctive characteristics of the GSBs, such as the absence of shareholders, my results from cross-sectional analyses indicate that CSR preferences of external non-shareholder stakeholders are mainly linked to the topical focus of CSR reports. In addition, my results also show that CSR preferences of internal non-shareholder stakeholders are mainly associated with the reporting quality. Overall, I find that CSR preferences of non-shareholder stakeholders likely shape GSBs' mandatory CSR reporting. In this way, I shed light on the NFRD's double materiality approach, which states that information in mandatory CSR reports should not only be of relevance to shareholders but to all stakeholders.

JEL Classification: M14, M41, M48

Keywords: Corporate social responsibility; mandatory CSR reporting; CSR preferences; corporate political connections; legitimacy theory; double materiality approach

Acknowledgments: For valuable comments, I am grateful to participants at the XVI International Accounting Research Symposium in Madrid, Spain (2021), and my dissertation adviser Jörg-Markus Hitz.

---

[2] Georg-August-Universität Göttingen, Faculty of Economic Sciences, Chair of Accounting and Auditing, Platz der Göttinger Sieben 3, 37073 Göttingen, Germany.

[3] First version of the working paper: January 2021. This version: September 2023.

2.1 Introduction

In this paper, I provide empirical evidence on the link between 'Corporate Social Responsibility' (CSR) preferences of non-shareholder stakeholders and mandatory CSR reporting. The European Parliament and the Council adopted the 'Non-Financial Reporting Directive' (NFRD) in 2014. The NFRD mandates 'Public Interest Entities' (PIEs) to report on CSR for fiscal years from 2017 onwards (Directive 2014/95, art. 4), which means that first mandatory reports are published in 2018, i.e. the entry into force year. In this context, the mandatory CSR reports should contain information on CSR matters 'to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters' (Directive 2014/95, art. 1 par. 1). According to the European Commission (2021a), these requirements correspond to a double materiality approach. This means that the disclosed CSR information should not only be of relevance to shareholders (single materiality or outside-in perspective), but to all stakeholders, for example, including customers and the society at large (inside-out perspective).

However, previous research mainly focuses on the 'predominant' CSR information demand of shareholders (single materiality approach) (Gulenko et al., 2022)[4]. In contrast, the inside-out perspective receives comparatively little attention, although it is of equal importance within the double materiality approach. In addition, the double materiality approach is not explicitly mentioned in the NFRD and lacks clarification. In line with this, the fitness check on corporate reporting shows that the 'two perspectives are often not well understood or applied' (Directive 2022/2464, recital 29). Overall, it remains mostly uncertain whether mandatory CSR reporting by firms within the scope of the NFRD is associated with the CSR preferences of non-shareholder stakeholders, such as customers and the society at large.

[4] The study by Gulenko et al. (2022) was published in March 2022, i.e. after the temporary completion of this research project. As the study is closely related to this study, a differentiation is made in the following (if possible).

To address this research gap, my study focuses on a sample of 125 'German Savings Banks' (GSBs) within the scope of the NFRD. Specifically, I investigate their mandatory CSR reports that provide CSR information on the financial year 2017, i.e. CSR reports published in 2018. The GBSs exhibit distinctive characteristics, i.e. the municipal trusteeship, regional principle and public mandate (German Savings Banks Association, 2020b). These characteristics provide certain advantages (see section 2.4.1) for an investigation of the association between CSR preferences of non-shareholder stakeholders and mandatory CSR reporting.

In terms of such an association, two streams of prior research exist that differentiate between CSR preferences of external and internal stakeholders. Regarding external stakeholders, pertinent reporting incentives likely emerge from legitimacy theory. This theory posits that firms are inclined to utilize disclosures to signal that their business operations are congruent with the preferences of their stakeholders or the society at large. These firms can thereby maintain or gain legitimacy (e.g. Dowling & Pfeffer, 1975; Preston & Post, 1975). In support of this, Cho and Patten (2007) find that firms likely refer to voluntary CSR disclosures as a legitimizing tool by signaling that business activities are congruent to stakeholders' CSR preferences. In the given mandatory setting, a GSB might, for example, be inclined to legitimize branch closures with resulting reductions of carbon emissions in a business area where stakeholders are particularly concerned about environmental protection. In this way, the GSB maintains or even grows its legitimacy, which might not only help the prevention of negative stakeholder reactions, but possibly also the acquisition of customers and employees who share these values and sense a perception of their CSR preferences.

With respect to internal stakeholders, prior research mainly builds on corporate political connections. These connections imply, for example, that local politicians serve on the supervisory board of a firm whose business area largely overlaps with their constituency. Therefore, local politicians are *connected* with a firm, as they are associated with and impacted by a firm's business activities (Preuss & Königsgruber, 2021). Based on this, incentives for connected politicians emerge to shape business activities, such as CSR reporting, in their own interest to promote their political careers. In line with this, extant research based on a Chinese voluntary CSR reporting setting shows that connected politicians consider CSR reports of politically connected firms beneficial for political purposes (e.g. Lee et al., 2017; Marquis & Qian, 2014).

However, the prior literature is comparatively scarce and mainly focuses on voluntary CSR reporting settings. Such settings imply that firms only provide CSR reports if the associated benefits outweigh the costs (Christensen et al., 2021). For instance, politically connected Chinese firms that comply with CSR preferences of the government seek higher governmental subsidies in return (e.g. Marquis & Qian, 2014). However, this does not apply to GSBs as these have to provide CSR reports regardless of the associated cost-benefit function. Additionally, external stakeholders might not be aware of the NFRD and of resulting mandatory CSR reports by GSBs. Accordingly, a GSB's signaling that business activities are congruent to the CSR preferences of external stakeholders might not result in the intended legitimizing effect. As a result, it remains unclear whether the association between stakeholders' CSR preferences and CSR reporting also persists in the given mandatory reporting setting.

Using the same setting as this study, Gulenko et al. (2022) find that CSR preferences of connected politicians, i.e. internal stakeholders, are associated with the length of certain aspects in GSBs' CSR reports. Thus, they already provide first insights into this research gap. Yet, they do not fully consider essential factors, such as CSR preferences of external stakeholders and CSR reporting quality. Taking into account external stakeholders would shed further light on whether mandatory CSR reporting is solely linked to the CSR preferences of internal stakeholders, for example, due to their ability to exert direct influence on the firm, or also to those of external stakeholders. Similarly, considering the quality besides the volume of CSR reports likely provides further insights into whether CSR preferences of stakeholders only shape the volume of certain CSR matters, i.e. topical focus, or also the quality, i.e. level of verifiable, quantitative information (Hahn & Kühnen, 2013).

To address these research gaps, I first provide descriptive evidence on GSBs' CSR reports published in 2018, to gain insights into the volume and quality of mandatory CSR reports by GSBs. The descriptive evidence shows that CSR reporting volume is largest for the CSR strategy, followed by employee- and environmental-related matters. In terms of the last two, the quality of CSR reports is also among the highest.

Subsequently, cross-sectional analyses are employed with the volume and quality of the whole CSR report and of environmental, social and employee-related matters, respect for human rights and anti-corruption and bribery issues as dependent variables. To examine a possible association with stakeholders' CSR preferences, I build on Di Giuli and Kostovetsky (2014) who posit that political orientations of external and internal stakeholders are a natural measure of CSR preferences. Thus, I exploit the variation in stakeholders' political orientations among the examined GSBs and match the political orientations to preferences for specific CSR matters.

The results of this first set of analyses show that a left- compared to a right-leaning external political orientation is significantly associated with higher volume of CSR reporting on environmental-related matters and higher volume and quality of respect for human rights. Similarly, a left- in comparison to a right-leaning internal political orientation is significantly associated with higher quality of CSR reporting in total and on environmental- and employee-related matters. These results are largely consistent with the results from my matching of political orientations and CSR preferences. This suggests that GSBs likely report more on CSR matters that are congruent to external stakeholders' CSR preferences. In other words, the findings likely indicate that CSR preferences of stakeholders in the GSBs' business areas are mainly linked to the topical focus of CSR reports. At the same time, CSR preferences of politically connected supervisory board chairs are mainly associated with the reporting quality. Thus, connected politicians likely encourage processes to measure and monitor CSR matters that correspond to their CSR preferences.

The second set of analyses tests the accuracy of my prior binary distinction of left- and right-leaning GSBs and complements the results of the first set of analyses based on a party-specific political orientation approach. The findings (presented in section 2.5.3) lend further support to the results from my main investigation. Using an alternative measure for political orientation, I also show that the results are robust to alternative specifications of the independent variable.

Overall, by finding that the CSR preferences of external and internal non-shareholder stakeholders are associated with the volume and quality of mandatory CSR reports, I contribute to prior literature in several ways. First, the findings add to the scarce literature on the double materiality approach to mandatory CSR reporting, as the absence of shareholders in the given setting allows for focusing mainly on the inside-out perspective. Specifically, I add to the study by Gulenko et al. (2022), which primarily focuses on CSR preferences of internal stakeholders, by simultaneously considering CSR preferences of external and internal non-shareholder stakeholders. In addition, I differentiate between the volume and quality of mandatory CSR reports and highlight differences in the respective associations with stakeholders' CSR preferences.

Second and related, prior studies based on voluntary CSR reporting settings find that CSR disclosures can be strategically used. For instance, Marquis and Qian (2014) show that CSR reporting that corresponds to the preferences of politically connected stakeholders can be used to strengthen a firm's political legitimacy and thereby attract governmental resources. This study adds to this strand of research by showing that stakeholders' CSR preferences continue to be associated with CSR reporting in a setting where firms are mandated to provide CSR reports irrespective of the related cost-benefit function (Christensen et al., 2021). In this sense, rather than disclosing low-cost, superficial CSR information, GSBs likely take a more comprehensive approach to the reporting mandate by also making strategic use of the CSR reports.

Third, while the 'Action Plan: Financing Sustainable Growth' points out the 'key role' of the financial sector in achieving sustainability goals (European Commission, 2018), extant research often excludes financial institutions for comparability reasons (e.g. Qiu et al., 2016). My study addresses this concern and extends the scarce literature on mandatory CSR reporting by a significant number of PIEs within the scope of the NFRD, i.e. non-listed credit institutions. This is of particular relevance as the GSBs account for approximately one quarter of the total 487 German companies within the scope of the NFRD (Econsense & UN Global Compact Network Germany, 2018). Altogether, the results are of interest to researchers and regulators as they shed further light on mandatory CSR reporting and associated factors.

2.2 Institutional background

2.2.1 The EU's NFRD and its implementation in Germany

This section provides a description of the NFRD and the GSBs' characteristics, including corporate political connections. It also addresses GSBs' CSR reporting incentives in the context of the double materiality approach. The European Commission identified the need to raise the transparency of corporate information on environmental and social matters to a similarly high level across all 'European Union' (EU) member states (Directive 2014/95/EU, recital 1). As a result, the EU adopted the NFRD, i.e. Directive 2014/95/EU, on December 5, 2014, amending the Accounting Directive 2013/34/EU. The NFRD mandates PIEs in the EU, which are large[5] undertakings with an average number of over 500 employees (Directive 2014/95, art. 1 par. 1), to provide CSR reports on an annual basis starting from fiscal year 2017 onwards, i.e. first mandatory CSR reports are published in 2018 (Directive 2014/95, art. 4). PIEs are companies listed on EU-regulated stock exchanges, non-listed banks and insurance companies, and other entities designated by EU member states as PIEs (Directive 2013/34, art. 2 par. 1). The CSR

[5] Firms are considered large if two of the following criteria – €20 million in total assets, €40 million in sales revenue, and 250 employees – are exceeded for two consecutive fiscal years (Directive 2013/34, art. 3 par. 4, 10).

reports should give an overview of the company's policies, outcomes and risks related to at least five CSR matters, i.e. environmental-, social- and employee-related matters, respect for human rights and anti-corruption and bribery. Regarding the (double) materiality, these information have to be provided 'to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity' (Directive 2014/95, art. 1 par. 1).

The German Bundestag transposed the NFRD into German Law by integrating the NFRD's requirements into, for example, the German Commercial Code as part of the 'CSR Directive Implementation Act' (CSR RUG). The CSR RUG came into force on April 19, 2017 and constitutes an one-to-one implementation of the NFRD in terms of company scope, reporting contents and frameworks (CSR Europe and Global Reporting Initiative, 2017).

By listing content-related specifications, the regulator targets to standardize the previously relatively heterogeneous voluntary CSR reporting (e.g. Christensen et al., 2021; Grewal et al., 2019). Yet, the approach still allows for a 'high flexibility of action' (Directive 2014/95, recital 3), as the precise reporting contents, i.e. reporting length and quantitative underpinnings, remain at the discretion of the companies (Christensen et al., 2021).

2.2.2 The GSBs

2.2.2.1 Firm characteristics

This paper focuses on the GSBs, i.e. a group of non-listed credit institutions organized under public law. Out of the 390 existing GSBs in Germany in 2017 (German Savings Banks Association, 2017), approximately one third falls under the scope of the NFRD, which corresponds to a significant share of the overall 487 affected firms in Germany (Econsense & UN Global Compact Network Germany, 2018). The GSBs as well as other related financial institutions, such as 'Landesbanken', are constituted under the German Savings Banks Finance Group. The GSBs are organized in twelve associations. These roughly correspond to the German federal states, comprising a 'Landesbank' as head institution and central clearing bank. Owing to the cooperation between small (i.e. GSBs) and large banks (i.e. 'Landesbanken') within the Savings Banks Finance Group, the GSBs are able to combine advantages of decentralization, such as closeness to the customer, with scale advantages of larger banking units in terms of higher operational efficiency (German Savings Banks Association, 2020b).

The GSBs exhibit further distinctive characteristics. First, GSBs are fully independent credit institutions that neither have owners, i.e. shareholders, nor members and operate under *municipal trusteeship* (German Savings Banks Association, 2020b). Based on this form of ownership, local politicians from the respective municipal or county constitute a significant proportion of the supervisory board members (Savings Banks Act[6], sec. 15 par. 1). In this way, the chairperson is generally the city or county mayor (Savings Banks Act, sec. 14 par. 1). As a result, municipalities have a determining influence on the GSBs' governance structure.

Second, based on the *regional principle*, GSBs only service the administrative region of the respective municipalities or counties in which the GSB was founded. Accordingly, the business areas largely overlap with the constituencies of local politicians on the supervisory board, meaning that some of the GSBs' major stakeholders, especially customers and employees (e.g. Sparkasse Koblenz, 2017), largely coincide with the constituents of local connected politicians. Also, the GSBs do not compete with each other, but rather span an interconnected network across all German municipalities and counties (German Savings Banks Association, 2020b).

Third, according to the German Savings Banks Association (2020b), GSBs are mandated to ensure the 'non-discriminatory provision of financial services to all citizens' and small and medium-sized enterprises due to their *public mandate*. In addition, GSBs are also compelled 'to strengthen competition in banking business' in all regions, including structurally and economically weak regions, 'to promote savings', and to sponsor various social commitments in

[6] In Germany, the Savings Banks Act falls under federal state law, which results in 16 mostly similar Savings Banks Acts. For reasons of clarity and comprehensibility, this study always refers to the Savings Banks Act from Baden-Wuerttemberg.

the business area. Thus, GSBs can be seen as a state instrument to promote and ensure the provision of financial services throughout the country (Anderloni et al., 2007). In this sense, profit maximization is not the main purpose of GSBs' operations as GSBs are legally obliged from the outset to create shared value for their stakeholders and the society at large. Yet, GSBs are required to operate economically as they need to fulfill their public mandate based on generated profits (German Savings Banks Association, 2020b).

2.2.2.2 Corporate political connections

Building on their distinctive characteristics, GSBs share certain *commonalities with state-owned firms.* For instance, due to their *personal service* on the supervisory board, local politicians engage in business activities, such as the audit of CSR reports (German Stock Corporation Act, sec. 171 par. 1), credit decisions, and the composition of the executive board and credit committee (Anderloni et al., 2007; Koetter & Popov, 2021). In addition, the regional principle implies that the GSBs' business areas largely overlap with the constituencies of local politicians. These *geographical links* suggest that the GSBs' actions, such as layoffs, sponsorings or lending decisions, affect local politicians and their stakeholders, i.e. voters, in the respective constituency (e.g. Chavaz & Rose, 2019; Preuss & Königsgruber, 2021).

Overall, the commonalities with state-owned firms, personal service and geographical links promote the GSBs' utility for political purposes. On the one hand, local politicians and their stakeholders are impacted by GSBs' business activities. On the other hand, local politicians can easily associate themselves to GSBs' operations, for example, as they frequently attend ceremonial handovers of donation cheques (Flagmeier & Gulenko, 2023). Thus, the GSBs' business operations affect the interests of local politicians, as they are associated with and impacted by business activities of GSBs, such as CSR reporting. This means, that the GSBs exhibit corporate political connections (Preuss & Königsgruber, 2021).

2.2.2.3 Double materiality approach to CSR reporting

Based on their public mandate, GSBs have to create shared value for their stakeholders and the society at large, meaning that they do not primarily aim at maximizing shareholder value in contrast to listed firms. Thus, along the lines of Christensen et al. (2021), GSBs unlike listed firms do not mainly follow a narrow approach to CSR reporting that focuses on CSR information only if they are financially material to shareholders. This approach is called single (financial) materiality or outside-in perspective. Instead, given their public mandate, GSBs likely follow a broader approach to CSR reporting by also reporting on the company's impact on the environment and society, consistent with an inside-out perspective. This approach broadens the target audience and yields CSR information of relevance (or materiality) to a wide set of stakeholders, such as customers, employees, or local municipalities. The approach is referred to as the double materiality criterion, given that the CSR reporting might also contain outside-in information of financial materiality (Christensen et al., 2021).

2.3 Discussion of prior literature and research question

2.3.1 CSR preferences of internal stakeholders and CSR reporting

In this section, a structured overview of prior literature on the association of CSR preferences of external and internal stakeholders and CSR reporting is provided before outlining the research question. This study follows the notion that political orientation is a natural measure of stakeholders' preferences for CSR (Di Giuli & Kostovetsky, 2014), which is also consistent with the idea that political values are linked to the perceived importance of CSR matters (Haniffa & Cooke, 2005). In line with Di Giuli and Kostovetsky (2014) and Huang and Kung (2010), a distinction is made between internal and external stakeholders. The *internal CSR preferences* build on the party affiliation of politicians serving on the supervisory board, while the *external CSR preferences* refer to the political tilt in the GSB's business area, i.e. the political orientation of external stakeholders, such as customers.

Regarding the association between CSR preferences of internal stakeholders and CSR reporting, prior literature mainly builds on corporate political connections. In this sense, previous studies focus on the association between the CSR preferences of governments and politicians and CSR reporting by politically connected[7], mainly state-owned firms. Building on a voluntary CSR reporting regime in China, several studies show that CSR reporting volume (Situ & Tilt, 2012) and quality (Dong et al., 2014; Luo et al., 2017) largely depend on the CSR preferences of the local and central government and on governmental signals, such as the publication of voluntary CSR guidelines. Following Lee et al. (2017) and Marquis and Qian (2014), this likely builds on politicians considering CSR reports of state-owned, i.e. politically connected, firms beneficial for political purposes, such as maintaining economic and socio-political stability. As the government is responsible for resource allocation in the Chinese setting, politically connected companies that comply with the government signals seek higher governmental subsidies in return. Consequently, in settings where political legitimacy[8] is a crucial factor for politically connected and mainly state-owned firms, governmental interests are referred to as one of the main drivers of CSR reporting volume and quality (T. Li & Belal, 2018). Along these lines, Qian and Chen (2021) show that reporting has become more politically motivated as politically connected chairmen in China are positively associated with environmental reporting levels in heavy polluting firms.

However, it remains questionable whether the results from voluntary CSR reporting regimes in China are transferable to a mandatory CSR reporting setting. On the one hand, one could argue that that the CSR directive and its enforcement can only partially mitigate the influence of factors such as firm-level incentives (Daske et al., 2013). Thus, a company's mandatory CSR reporting is not entirely dictated by the CSR reporting regulation (Chauvey et al., 2015; Ioannou

[7] Corporate political connections include various instances in which politicians or other governmental representatives hold an internal position in a firm. Accordingly, I assume that the political orientation of politicians and the corresponding governments reflect the CSR preferences of *internal* stakeholders.
[8] Following Marquis and Qian (2014), political legitimacy refers to the degree 'to which the government views the firm's actions as being in accordance with norms and laws' and can be seen as a strategic resource.

& Serafeim, 2019; Larrinaga et al., 2002), but continues to be linked to certain company characteristics similar to voluntary CSR reporting. On the other hand, the voluntary reporting setting implies that the Chinese companies provide CSR reports because the associated costs are outweighed by the benefits, such as the allocation of governmental resources (Christensen et al., 2021). This does not apply to a mandatory CSR reporting setting, as firms within the scope of the mandate are obliged to report regardless of the cost-benefit ratio. In addition, governmental resources and political legitimacy are often less crucial in settings outside of China. For example, the GSBs fully rely on their generated profits as they are independent credit institutions.

2.3.2 CSR preferences of external stakeholders and CSR reporting

In terms of the association between CSR preferences of external stakeholders and CSR reporting, prior literature focuses on CSR information demands of shareholders to a large extent. This is attributable to shareholders being a major source of external pressure on CSR reporting in listed firms (e.g. Christensen et al., 2021; Gamerschlag et al., 2011). In support of this, Holder-Webb et al. (2009) suggest that CSR disclosures might be a response to shareholders' information needs. In this sense, the shareholders refer to CSR reporting as a source of information on a firm's future prospects in addition to the historically focused financial data. Similarly, Reid and Toffel (2009) show that shareholder resolutions filed by social activists increase a firm's propensity to provide CSR information consistent with the aims of the associated social movement. In light of the studies based on listed firms that naturally focus on shareholder demands for CSR information, Gulenko et al. (2022) suggest a 'predominant role' of shareholders CSR preferences in listed firms.

Beyond that, firms might also be inclined to utilize CSR reporting to signal that their business operations are congruent with the CSR preferences of their stakeholders or the society at large. In line with this legitimacy theory (e.g. Dowling & Pfeffer, 1975; Preston & Post, 1975), firm managements likely consider non-financial disclosures in financial reports as a legitimizing tool for certain aspects of a company's operations (e.g. Deegan, 2002). In support of this, Cho and Patten (2007) argue that firms facing greater public pressure in the social environment likely disclose more positive or off-setting CSR information in their annual reports in response to increased threats to their legitimacy. Along these lines, Aerts and Cormier (2009) show that media coverage of CSR aspects is positively related to firms' reporting on these aspects, even though there is no consensus about the direction of this association.

Yet, there are also factors that speak against an association between CSR preferences of external stakeholders and CSR reporting. For example, external stakeholders might not be aware of the CSR reports and thus not read or process the information contained in the CSR reports[9]. This might prevent firms from perceiving CSR reporting as a tool for legitimization. Beyond that, firms might be inclined to focus solely on their CSR activities rather than CSR reporting, as the former directly benefits their stakeholders.

2.3.3 Research question

Reasons can be found both for and against mandatory CSR reports being shaped by CSR preferences of internal and external non-shareholder stakeholders. In this regard, GSBs face certain incentives to align their CSR reports according to the interests of internal and external stakeholders.

For instance, such CSR reporting incentives likely emerge from GSBs' corporate political connections. In this sense, connected politicians are probably inclined to utilize their position on the supervisory board to shape CSR reports according to their own preference or that of their constituents. In doing so, they can increase the visibility of their achievements and signal a perception of their voters' interests to promote their political careers.

[9] Anecdotal evidence concerning GSBs suggests that stakeholders, especially local media, use CSR reports as information source, thereby indicating a reception of the content (e.g. Rößle 2021; Schöls 2021; Schreiber 2019).

Although CSR reporting is principally within the responsibility of GSBs' executive directors, the authorities and duties of local politicians serving on a GSB's supervisory board provide various direct and indirect opportunities for shaping CSR reporting. For example, the CSR reports have to be audited by the supervisory board (German Stock Corporation Act, sec. 171 par. 1). Similarly, the supervisory board is responsible for setting (CSR-related) remuneration targets for the executives and subsequently assesses the target achievement (Sparkasse Köln-Bonn, 2017). In an attempt to shape business activities covered in CSR reports, the supervisory board also decides on the allocation of profits and the establishment and closure of branches (Savings Banks Act, sec. 12 par. 2). In addition, the supervisory board partially forms the credit committee that is in charge of important credit decisions (Savings Banks Act, sec. 22 par. 1).

Additionally, the public mandate requires GSBs from the outset to serve the interest of their stakeholders and the society at large (German Savings Banks Association, 2020b). In this sense, GSBs are likely inclined to utilize mandatory CSR reports to signal that their business operations are congruent with their stakeholders' or societal preferences. By using CSR reporting to potentially influence societal perceptions, GSBs can legitimize their operations to stakeholders and thus maintain or gain legitimacy, consistent with legitimacy theory (e.g. Dowling & Pfeffer, 1975; Preston & Post, 1975). For instance, as the number of GSBs steadily declined in recent years (German Savings Banks Association, 2017), the GSBs' directors might be increasingly incentivized to justify branch closures. In this regard, GSBs can use CSR reporting to draw on stakeholders' growing interest in environmental protection and hence highlight associated reductions in energy consumption and related carbon emissions. In this way, they likely maintain or even grow legitimacy, which helps the prevention of negative stakeholder reactions and possibly also promotes the acquisition of customers and employees who share these values and sense a perception of their CSR preferences.

Altogether, these reporting incentives suggest that GSBs' mandatory CSR reporting is likely related to the CSR preferences of both, external stakeholders, such as customers, and internal stakeholders, such as local politicians serving on the supervisory board. Using the same setting as this study, Gulenko et al. (2022)[10] partly support this by showing that a left-wing political orientation of the supervisory board chair and a higher share of left-wing members on the supervisory board are associated with longer CSR reports and more reporting on environmental, social, employee and human rights matters. Additionally, they find that GSBs respond more strongly to the political orientation of the chair than that of the supervisory board.

Yet, their study does not consider the GSBs' CSR reporting quality, as they 'expect longer CSR reports by savings banks to reflect more information and thus higher quality reporting'. Given that a longer CSR report is not necessarily paralleled by a higher CSR reporting quality, it thus remains an open question whether stakeholders' CSR preferences also shape a company's efforts to measure and monitor specific CSR matters, i.e. the CSR reporting quality. In this sense, a separate consideration of volume and quality also allows for the identification of superficial reporting practices that have little effect on firms' actual practices (Luo et al., 2017). In addition, Gulenko et al. (2022) do not take into account the external political orientation, which would provide further insights into whether CSR preferences of stakeholders in the business area also shape CSR reporting. Based on this, my study investigates *whether CSR preferences of external and internal non-shareholder stakeholders are associated with the volume and quality of GSBs' mandatory CSR reporting*.

2.4 Research setting and descriptive evidence

2.4.1 Choice of setting

This section describes the choice of setting, the sample and the measurement of the dependent variable before descriptive evidence on the GSBs' CSR reporting is presented. For an examination of the research question, the GSB setting offers several advantages. First, in absence

[10] See footnote 4 concerning the publication date of the study by Gulenko et al. (2022).

of shareholders and their 'predominant' CSR information demand (Gulenko et al., 2022), the setting allows for focusing on the CSR information demand of non-shareholder stakeholders.

Second, the GSBs constitute a homogenous group of banks that operate under the same business model and regulatory conditions. Thus, factors that shape CSR reporting, other than stakeholders' CSR preferences, are mitigated.

Third, extant research notes that external CSR preferences are difficult to measure (Di Giuli & Kostovetsky, 2014). In line with this, Gulenko et al. (2022) point out that prior literature mainly relies on crude measures for the CSR information demands of stakeholders. In this regard, the GSB setting allows for a precise identification of external CSR preferences due to the GSBs' regional principle and the resulting, clearly specified regional restriction of a GSB's business area. In this sense, the discretionary properties of the CSR reporting obligation and the GSBs' presence across all German municipalities and counties likely provide for variation in CSR reporting and stakeholders' CSR preferences.

Lastly, the given setting includes a high number of first-time reporters (114 out of 125 GSBs). This provides a rare opportunity to examine CSR reports of firms that began reporting solely as a result of a mandate, i.e. true mandatory CSR reporters. Altogether, along the lines of Gulenko et al. (2022), no other country provides for a comparable opportunity to examine the association between stakeholders' CSR preferences and mandatory CSR reporting.

2.4.2 Sample selection

The sample consists of GSBs' CSR reports covering the fiscal year 2017, i.e. reports published in the NFRD's entry into force year 2018. The selection process is outlined in table 2.1. Out of the existing 390 GSBs, 257 GSBs do not meet the size-criteria of the CSR reporting mandate and three GSBs are exempt from the reporting obligation as they are included in the consolidated CSR report of their parent undertaking.

Table 2.1: Sample selection

Selection criteria	Excluded GSBs	Remaining GSBs
Number of GSBs		*390*
- without non-reporters (size)	257	133
- without non-reporters (parent)	3	130
- without non-municipally owned ‘free’ GSBs	2	128
- without hardly comparable guidelines (WIN-Charta)	1	127
- without missing data	2	125
Final sample		125

Notes: This table states the number of excluded and remaining GSBs per selection step.

Of the remaining 130 reporting GSBs, two are excluded as they are so-called ‘free’ GSBs organized under private instead of public law and one GSB uses hardly comparable reporting guidelines called WIN-Charta. In addition, data is missing for two GSBs that merged, as the company database provided by ‘Bureau van Dijk’ (BvD) BankFocus is backdated. Consequently, a total number of 125 mandatorily CSR reporting GSBs is included in the final sample.

2.4.3 CSR reporting measurement

The respective CSR reporting data is hand-collected from the GSB homepages, German Federal Gazette and website of the ‘German Sustainability Code’ (DNK). Following Hahn and Kühnen (2013), this study distinguishes between CSR reporting volume and quality, as a longer CSR report is not necessarily paralleled by a higher CSR reporting quality. The CSR reporting volume refers to the amount of reporting on certain matters, which allows for an identification of major topics. Most GSBs refer to the DNK reporting guidelines (‘Accounting Standards Committee of Germany', ASCG, 2021). Thus, the volume is measured based on the hand-collected number of words on DNK-related reporting items, such as ‘concept’ or ‘management’. These items are incorporated in the five CSR sections, i.e. environmental- (ENV_VOL), social- (SOC_VOL) and employee-related matters (EMP_VOL), respect for human rights (HUM_VOL) and anti-corruption and bribery (COR_VOL), and the preceding CSR reporting section, i.e. CSR strategy. Along the lines of the Refinitiv (2022) scoring methodology, the wordcounts of the reporting items are (percentile) ranked [0;100] among all GSBs, with 100 being the highest score, to limit the sensitivity to outliers. The resulting ranks are then weighted[11] to adjust for the average share of the reporting item in the respective CSR section and overall report. On this basis, the section (ENV_VOL, SOC_VOL, EMP_VOL, HUM_VOL and COR_VOL) and total CSR reporting volume scores[12] (CSR_VOL) are constructed (see panel A of table 2.2).

Table 2.2: Measurement of CSR reporting volume and descriptive evidence

Panel A: Index assessing the volume of CSR reports					
CSR reporting items	Map to DNK	Mean word-count	Mean ranked scores	Section weights & scores*	Total weights & score*
Strategy					
Concept	1-4	1,057	50.176	42%	
Management	5-8	642	50.168	26%	
Stakeholder	9	402	50.168	16%	
Innovation & product management	10	408	50.104	16%	
Total		2,509		50.138	43%
Environmental					
Resources	11-13	872	50.176	100%	
Total (ENV_VOL)		872		50.176	15%
Social					
Corporate citizenship	18	575	50.120	100%	
Total (SOC_VOL)		575		50.120	10%
Employee					
Workforce	14-16	1,161	50.192	100%	
Total (EMP_VOL)		1,161		50.192	20%
Human rights					
Human rights	17	207	50.048	100%	
Total (HUM_VOL)		207		50.048	4%
Anti-corruption and bribery					
Compliance	19-20	556	50.120	100%	
Total (COR_VOL)		556		50.120	10%
Total (CSR_VOL)		5,879			50.141

Table 2.2 continues.

[11] The weights of volume and quality scores are roughly aligned in terms of the total CSR reporting sections.
[12] Further descriptions of all variables are provided in appendix 2.A1.

Continuation of table 2.2.

Panel B: Index assessing the quality of CSR reports

CSR reporting items	Map to DNK	Mean ranked scores	Section weights & scores*	Total weights & score*
Strategy				
Contact person	5	59.600	8%	
Sustainability officer	5	72.400	8%	
Audit	7	76.800	8%	
Strategy	1, 3	57.600	8%	
Strategic guiding principles	1	25.200	8%	
Materiality analysis	2	23.600	8%	
Customer survey	9	50.400	8%	
Employee survey	9, 14	30.400	8%	
Strategy audit	6-7	82.000	8%	
Sustainability check of association	6-7	19.200	8%	
Remuneration	8	20.800	8%	
Sustainable lending	10	56.000	8%	
Sustainable investment	10	51.200	8%	
Total			48.140	35%
Environmental				
Objectives	11-13	23.600	14%	
Eco-technology	11-12	46.400	14%	
Process	11-13	97.600	14%	
Environmental commitment	11-13	20.000	14%	
Energy consumption	11-12	87.200	14%	
Paper consumption	11-12	64.400	14%	
Emission	13	42.800	14%	
Total (ENV_QUAL)			54.686	19%
Social				
Common good	18	61.600	25%	
Local value added	18	38.800	25%	
Promotion of the financially weak	18	45.200	25%	
Financial access	18	49.200	25%	
Total (SOC_QUAL)			48.700	11%
Employee				
Objectives	14-16	12.400	11%	
Employee-related commitment	14-16	40.000	11%	
Age structure	15	62.000	11%	
Equal opportunities	15	72.000	11%	
Integration of the handicapped	14-15	32.400	11%	
Work-life-balance	14-15	74.400	11%	
Work safety	14-15	91.200	11%	
Trainee program	16	50.800	11%	
Education	16	67.200	11%	
Total (EMP_QUAL)			55.822	24%

Panel B of table 2.2 continues.

Continuation of panel B of table 2.2.

CSR reporting items	Map to DNK	Mean ranked score	Section weights & scores*	Total weights & score*
Human rights				
Human rights for employees	17	50.400	33%	
Human rights for customers	17	16.800	33%	
Human rights for suppliers	4, 17	69.200	33%	
Total (HUM_QUAL)			45.867	8%
Anti-corruption and bribery				
Corruption	19-20	76.400	100%	
Total (COR_QUAL)			76.016	3%
Total (CSR_QUAL)				48.962

Notes: This table illustrates the construction of the CSR reporting volume (panel A) and quality scores (panel B). In terms of the volume, each section (in cursive letters) includes one or more DNK-related CSR reporting items (e.g. concept, management etc.). The GSB's wordcount of each item is ranked among all GSBs. To combine the item-specific ranked scores into a section score, the items are weighted using the section weights, i.e. the proportion of the wordcount of an item in the specific section. For example, the concept item includes 1,057 words on average, i.e. 42% of the strategy section that includes 2,509 words on average. To determine the total score (CSR_VOL), the section scores are combined following the same procedure. For example, the strategy section includes 2,509 words on average, i.e. 43% of the total report that includes 5,879 words on average. In terms of the quality, each section (in cursive letters) includes one or more quality-related items (e.g. contact person). The index follows a similar procedure, except that the number of items in a section or the total report, respectively, is used as weight. The * indicates that minor rounding differences may occur regarding section and total scores. An example for the calculation of the scores for a specific GSB is given in appendices 2.A2-3.

In general, reporting quality differentiates between 'soft', narrative, hardly verifiable information on the one hand, and specific, 'hard', quantifiable information on the other hand (Hahn & Kühnen, 2013). Similar to Clarkson et al. (2008), I build on CSR reporting frameworks, specifically the DNK reporting guidelines, to measure the quality. In this sense, I manually assess whether the information on specific DNK requirements, i.e. CSR reporting items, is of specific vs. general, or quantitative vs. qualitative nature, for example. A score of 100 represents a high, a score of 50 a medium, and a score of 0 a poor quality. As the items are again incorporated in the five CSR sections (environmental matter etc.) and the preceding CSR strategy section, the scores are then weighted to adjust for the number of items in the respective section and overall report. Based on this, section (ENV_QUAL, SOC_QUAL, EMP_QUAL, HUM_QUAL and COR_QUAL) and total scores (CSR_QUAL) are constructed (see panel B of table 2.2).

2.4.4 Descriptive evidence on the GSBs' CSR reports

To gain first insights into the CSR reporting volume and quality, the analysis of the association between stakeholders' CSR preferences and CSR reporting is preceded by a descriptive investigation of GSBs' mandatory CSR reports. This is of further interest because research on mandatory CSR reporting by financial institutions is relatively scarce, as they are often excluded in previous research (e.g. Qiu et al., 2016).

With regard to the CSR reporting volume, panel A of table 2.2 shows that the GSBs report most on CSR strategy- (~2.509 words), followed by employee- (~1.161 words) and environmental-related issues (~872 words). Interestingly, the reporting item 'innovation and product management' within the CSR strategy section, which covers aspects such as CSR considerations when developing investment products or making investment decisions, is among the shortest, although it becomes increasingly important in light of the EU's 'Sustainable Finance Action Plan' (European Commission, 2018).

When excluding the anti-corruption and bribery section that is measured based on only a single item, the CSR reporting quality is the highest for employee- (~55.822) and environmental-related matters (~54.686) (see panel B of table 2.2). The results further show variation within individual reporting sections. For instance, regarding employee-related matters, the quality tends to be low for items, such as the setting of quantitative annual targets i.e. 'objectives' (~12.400), while the quality is above average for reporting items, such as ensuring 'work safety' (~91.200).

Overall, the results show that GSBs' CSR reporting volume and quality are particularly high for employee- and environmental-related matters in line with the ASCG (2021). Thus, the descriptive evidence indicates that CSR reporting volume is largely paralleled by quality, at first sight. Yet, mainly in the case of CSR strategy-related reporting, the comparably high volume is not mirrored by an above-average quality. This could be an indicator for greenwashing in this section. Alternatively, this result might stem from GSBs providing information on general topics, such as the business model, which hardly affect the measured quality of reporting on CSR-related items in this section. In addition, the high CSR reporting volume and quality scores for employee- and environmental-related matters indicate that these matters represent the topical focus of CSR reports, when excluding the more general CSR strategy section. Also, the GSBs' efforts are largest to measure and monitor these CSR matters. In sum, the volume of CSR aspects is paralleled by the respective quality in most sections. Yet, the link between these factors and CSR preferences of non-shareholder stakeholders remains largely unclear.

2.5 Association between stakeholders' CSR preferences and CSR reporting

2.5.1 Research design

2.5.1.1 Matching of political orientations and preferences for CSR

Following a description of the matching process, empirical model and measurement of independent variables, this section presents the main results. Prior research often briefly argues that environmental and social matters are more important to political left- in comparison to right-wing parties (e.g. Di Giuli & Kostovetsky, 2014; Gulenko et al., 2022). As a result of this superficial approach, very limited account is taken of different CSR preferences, i.e. political orientations, especially within the diverse German party landscape that includes six parties[13] in the German Bundestag in 2017. For this reason, this study matches the different political orientations of these (left- or right-leaning) political parties to preferences for specific CSR matters, to provide a more substantial basis to the investigation of the association between CSR preferences and CSR reporting. In this sense, it follows the notion that political orientation is a natural measure of stakeholders' preferences for CSR (Di Giuli & Kostovetsky, 2014).

[13] These are left-leaning parties, i.e. the 'The Left' (Left), 'Alliance 90/The Greens' (Greens), and 'Social Democratic Party of Germany' (SPD), and right-leaning parties, i.e. the 'Christian Democratic Union of Germany' and 'Christian Social Union in Bavaria' (Union), 'Free Democratic Party' (FDP) and 'Alternative for Germany' (AfD).

Using party-specific statements from the German ‘Wahl-O-Mat 2017’[14], political orientations of the six parties are matched with the five CSR matters listed in the NFRD as minimum requirement (Directive 2014/95, art. 1 par. 1). The results of this matching are presented in appendix 2.A4 and show that left-leaning political parties display a high degree of consent (column ‘Left’) with environmental and human right matters, while only a fraction of right-leaning political parties (column ‘Right’) vote in favor of these matters. In other words, these CSR matters are more salient to left- compared to right-leaning political orientations. Similarly, employee-related and anti-corruption and bribery matters are also more important for left-leaning political parties or orientations, respectively, although the differences seem comparatively less distinct. Regarding the importance of social-related matters, the consent is similar for left- and right-leaning political parties or orientations, respectively. Overall, the matching provides an indication of how different political orientations relate to preferences for specific CSR matters.

2.5.1.2 Empirical model and variable measurement

To empirically examine the association between CSR preferences, i.e. political orientations, and CSR reporting, this paper employs several multivariate analyses by estimating the following ‘Ordinary Least Squares’ (OLS) regression model:

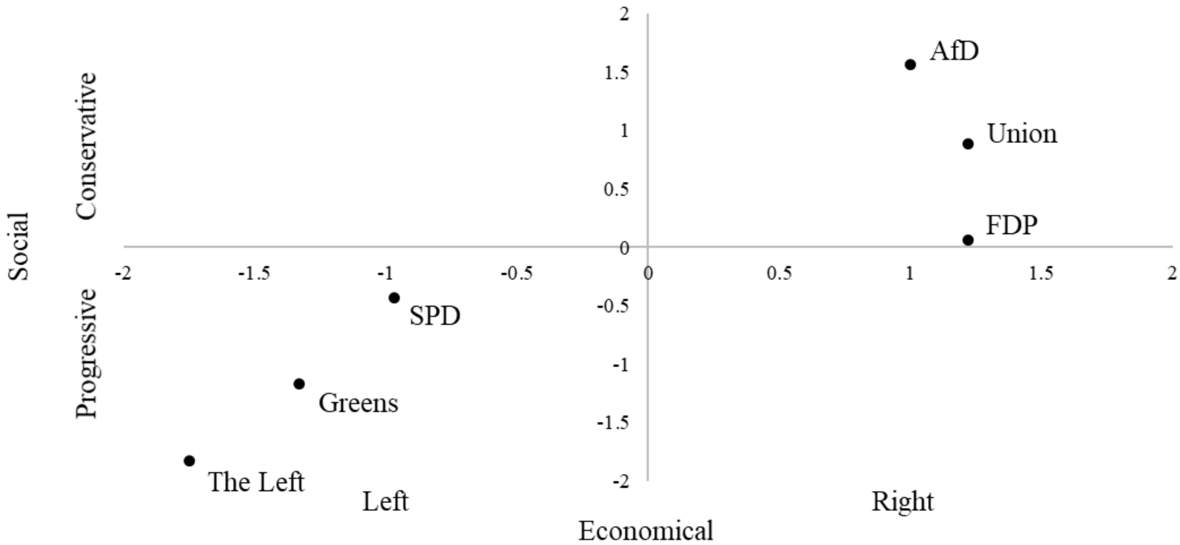
$$(1)\quad CSR_t = ß_0 + ß_1 EO\_LEFT_{t-1} + ß_2 IO\_LEFT_{t-1} + ß_j CONTROLS_{t-1} + \varepsilon_t$$

The dependent variable (CSR_t) is a placeholder for the CSR reporting volume or quality scores in the entry into force year 2018 (see section 2.4.3). The main independent variables distinguish between the external- and internal political orientation, which both are dummy variables. The variable for the external political orientation builds on the party-specific results of the German federal election in 2017 and comprises the prevailing political orientation in a

[14] According to the Federal Agency for Civic Education (2023), the ‘Wahl-O-Mat’ is an internet-based election decision support tool that the Federal Agency for Civic Education operates since 2002. It has become an established source of information in the run-up to elections and has been used more than 110 million times already.

GSB's main municipality. This is the municipality where a GSB's registered office is located. The variable for the internal political orientation is based on the party affiliations of the politically connected chair[15] of the supervisory board in 2017, with the composition of the supervisory board being hand-collected from annual reports. Subsequently, these external and internal party-specific representations are transformed into dummy variables based on the economical left-right axis (see figure 2.1) by Switek et al. (2017). The external- (EO_LEFT) and internal political orientation (IO_LEFT), both are binary variables that are assigned a value of 1 in case of an overall left- and a value of 0 in case of an overall right-leaning political orientation.

Figure 2.1: Illustration of the political left-right axes by Switek et al. (2017)



Notes: This figure illustrates the political left-right axes by Switek et al. (2017). The horizontal axis represents the economical left-right axis, while the vertical axis corresponds to the social progressive-conservative axis. For instance, if the SPD achieves an election result of 20% externally, this will be included in the calculation underlying the distinction of left- and right-leaning parties by a factor of -0.97 (in case of the economical left-right axis). In case of an overall negative result, the variable is assigned a value of 1 (for left-leaning), and 0 otherwise.

To investigate the association between CSR preferences and CSR reporting as independent as possible from the closely related CSR activities[16], the GSBs' CSR activities (CSR_ACT) are added as control (e.g. Cho & Patten, 2007; Clarkson et al., 2008). CSR_ACT consists of five

[15] In a few cases where the supervisory board chair affiliates with no party or a party that is not in the German Bundestag, the party affiliations of the deputy chairs are also taken into account.
[16] Following Christensen et al. (2021), it proves difficult to disentangle associations with CSR reports from associations with CSR activities. Thus, a residual risk for an incomplete disentanglement remains.

hand-collected, ranked [0;100] and equally weighted CSR-activity-related items, such as the change in energy consumption or charitable donations as a percentage of total assets (see appendix 2.A5). The regression model also includes several variables to control for company and operating area characteristics. In terms of the company characteristics, the size, measured by the natural logarithm of total assets ($SIZE$), profitability (ROA) and equity ratio ($EQUITY$) are used as controls (e.g. Brammer & Pavelin, 2006; Chauvey et al., 2015; Clarkson et al., 2008; Cormier & Magnan, 2003; Gamerschlag et al., 2011; Gulenko et al., 2022; Hahn & Kühnen, 2013; Qiu et al., 2016). These variables are all provided by the BvD BankFocus database. Similar to Gulenko et al. (2022), this study also includes operating area controls as the economic situation in a GSB's operating area might also influence CSR reporting. Thus, the unemployment ratio ($UNEMPL$) in the business areas of the GSBs is included. The corresponding data is provided by the federal, state and municipal statistical offices. Similar to the external and internal political orientation, the control variables also refer to 2017, i.e. the year covered in the CSR reports.

Finally, along the lines of Gulenko et al. (2022), an indicator variable ($GUIDE$) is included to control for unobservable differences in the underlying reporting guidelines and performance indicator sets. Likewise, an indicator variable ($ASSOCI$) is included to control for influences of GSB associations, which might support GSBs in preparing the CSR reports. An indicator variable for early reporters ($EARLY$) is also included to control for possible differences in CSR reporting by more experienced GSBs.

Panel A and B of table 2.3 report summary statistics for the non-indicator variables. The means of EO_LEFT and IO_LEFT both fall below 0.5, i.e. the mean of an equal distribution. This highlights a characteristic of the German party landscape in 2017. In line with this, Panel C of table 2.3 indicates an overall slightly right-leaning political orientation that is consistent with the electoral victory of the Union and the relatively strong performances of the FDP and AfD.

Table 2.3: Summary statistics

Panel A: Dependent variables						
	Obs	Min	Median	Mean	Max	StDev
CSR_VOL	125	7.961	52.261	50.141	92.551	18.657
ENV_VOL	125	0.000	50.000	50.176	100.000	28.969
SOC_VOL	125	0.000	50.000	50.120	100.000	29.029
EMP_VOL	125	0.000	50.000	50.192	100.000	28.990
HUM_VOL	125	0.000	50.000	50.048	100.000	29.030
COR_VOL	125	0.000	50.000	50.120	100.000	29.018
CSR_QUAL	125	22.973	50.000	48.962	72.973	8.343
ENV_QUAL	125	14.286	57.143	54.686	92.857	16.128
SOC_QUAL	125	12.500	50.000	48.700	87.500	17.665
EMP_QUAL	125	11.111	55.556	55.822	88.889	13.823
HUM_QUAL	125	16.667	50.000	45.867	83.333	12.461
COR_QUAL	125	0.000	100.000	76.016	100.000	26.594
Panel B: Independent variables						
	Obs	Min	Median	Mean	Max	StDev
Political orientation						
EO_LEFT	125	0.000	0.000	0.248	1.000	0.434
IO_LEFT	125	0.000	0.000	0.440	1.000	0.498
CSR activities						
CSR_ACT	125	0.000	44.000	44.705	89.800	14.875
Company characteristics						
SIZE	125	7.774	8.389	8.517	10.154	0.481
ROA	125	0.000	0.399	0.422	1.030	0.158
EQUITY	125	6.167	9.683	10.009	15.649	1.823
Operating area characteristics						
UNEMPL	125	2.147	5.008	5.326	14.000	2.363
Panel C: Distribution of political orientation						
	Obs	Left			Right	
		n	%		n	%
EO	125	31	0.248		94	0.752
IO	125	55	0.440		70	0.560

Notes: This table provides summary statistics for the dependent (panel A) and independent (non-indicator) variables (panel B). Panel C provides further insights in the political orientations. All variables are defined in appendix 2.A1.

2.5.2 Political orientation and CSR reporting

Regarding the main research question, this section reports results from estimating the baseline OLS regression model (see equation [1]). Based on a presumably high correlation between the dependent variables EO_LEFT and IO_LEFT, the variables are taken into account individually before being collectively considered. The individual results displayed in panel A-D of appendix 2.A6 are largely consistent with the collective results presented in panel A and B of table 2.4, as the significance levels, coefficient signs and magnitudes only differ slightly. In addition, the results from a VIF-test are consistently low (mean: 2.29). In aggregation, this suggests that multicollinearity does not significantly affect the analysis. Thus, based on the high similarities of individual (panel A-D of appendix 2.A6) and collective results (panel A and B of table 2.4), I only focus on the latter in the following.

The findings presented in panel A and B of table 2.4 show that a left- compared to a right-leaning external political orientation is positively and significantly associated with the CSR reporting volume of environmental matters and the volume and quality of CSR reporting on respect for human rights. In addition, a left- in comparison to a right-leaning internal political orientation is positively and significantly linked with the quality of the whole CSR report and of environmental- and employee-related CSR matters.

The regression table also includes the results from the matching (see section 2.5.1.1) in the grey marked 'expectation from matching' row. A '+' indicates that the respective CSR matter is more salient to left- compared to right-leaning political orientations. A '(+)' refers to less distinct differences, and a 'O' indicates that differences in consent between left- and right-leaning political orientations are rather negligible. Consistent with the matching, the coefficients for environmental-related matters and respect for human rights are all positive and frequently significant. At the same time, the coefficients for social-related matters feature mixed signs and are all insignificant.

Table 2.4: Political orientation and CSR reporting volume and quality

Panel A: Regression of CSR reporting volume on external and internal political orientation

Predictor variables	CSR_ VOL (1)	ENV_ VOL (2)	SOC_ VOL (3)	EMP_ VOL (4)	HUM_ VOL (5)	COR_ VOL (6)
Expectation from matching	(+)	+	O	(+)	+	(+)
EO_LEFT	2.452	12.195**	3.476	-4.406	10.990*	-4.717
	(0.68)	(2.30)	(0.44)	(-0.63)	(1.79)	(-0.66)
IO_LEFT	2.245	2.343	-0.981	7.177	6.872	4.982
	(0.79)	(0.51)	(-0.20)	(1.31)	(1.25)	(0.98)
CSR_ACT	0.223**	0.324*	0.093	0.424**	0.367**	0.360**
	(2.05)	(1.74)	(0.60)	(2.51)	(2.40)	(2.11)
SIZE	1.992	-1.591	-0.996	4.193	6.112	2.584
	(0.59)	(-0.34)	(-0.16)	(0.75)	(1.35)	(0.43)
ROA	10.654	-19.607	15.114	38.769*	-30.738	-7.823
	(0.95)	(-1.07)	(0.69)	(1.69)	(-1.52)	(-0.37)
EQUITY	-0.381	-0.007	-1.350	-0.188	-0.432	-0.186
	(-0.47)	(-0.01)	(-1.02)	(-0.12)	(-0.29)	(-0.12)
UNEMPL	0.865	-0.452	2.164	2.739	-1.777	1.122
	(0.80)	(-0.36)	(0.99)	(1.51)	(-1.25)	(0.59)
GUIDE	Yes	Yes	Yes	Yes	Yes	Yes
ASSOCI	Yes	Yes	Yes	Yes	Yes	Yes
EARLY	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.507	0.466	0.422	0.337	0.473	0.398
Observations	125	125	125	125	125	125

Table 2.4 continues.

Continuation of table 2.4.

Panel B: Regression of CSR reporting quality on external and internal political orientation						
Predictor variables	CSR_ QUAL (1)	ENV_ QUAL (2)	SOC_ QUAL (3)	EMP_ QUAL (4)	HUM_ QUAL (5)	COR_ QUAL (6)
Expectation from matching	(+)	+	O	(+)	+	(+)
EO_LEFT	-0.685	0.451	-0.479	-3.092	7.908**	-0.193
	(-0.39)	(0.14)	(-0.15)	(-0.89)	(2.28)	(-0.03)
IO_LEFT	2.651*	5.344*	-0.685	4.923*	2.011	3.804
	(1.81)	(1.82)	(-0.25)	(1.82)	(0.77)	(0.71)
CSR_ACT	0.150**	0.225**	0.198**	0.198*	0.008	0.033
	(2.45)	(2.21)	(2.29)	(1.84)	(0.12)	(0.19)
SIZE	2.644*	2.926	-2.309	1.108	2.651	-0.121
	(1.68)	(1.04)	(-0.74)	(0.43)	(1.26)	(-0.02)
ROA	6.194	6.711	6.166	15.074	-18.443*	27.953
	(1.19)	(0.52)	(0.55)	(1.18)	(-1.79)	(1.14)
EQUITY	-0.647	-0.581	-0.486	-0.743	-0.234	-0.222
	(-1.62)	(-0.76)	(-0.72)	(-1.20)	(-0.36)	(-0.14)
UNEMPL	0.282	0.111	0.812	0.622	-1.956**	-0.347
	(0.54)	(0.16)	(0.97)	(0.60)	(-2.23)	(-0.19)
GUIDE	Yes	Yes	Yes	Yes	Yes	Yes
ASSOCI	Yes	Yes	Yes	Yes	Yes	Yes
EARLY	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.418	0.462	0.585	0.255	0.275	0.101
Observations	125	125	125	125	125	125

Notes: This table reports the results from estimating equation [1] displayed in section 2.5.1.2 with the CSR reporting volume (panel A) and quality (panel B) as dependent variables. Controls (incl. indicator variables) are included in all regressions. All variables are defined in appendix 2.A1. The expectations from the matching (see section 2.5.1.1) are marked grey. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The reported results yield four main insights. First, CSR reporting volume seems to be mainly associated with the CSR preferences of external stakeholders. Building on legitimacy theory (e.g. Dowling & Pfeffer, 1975; Preston & Post, 1975), these findings likely suggest that the CSR preferences of stakeholders in a GSB’s business area shape the substantive focus of CSR reports, i.e. the respective topical volume. Consequently, GSBs likely signal a perception of CSR preferences of external stakeholders, which could favor the acquisition of customers and employees, for example.

Second, the quality of CSR reporting is mostly related to the CSR preferences of internal stakeholders. Building on corporate political connections, the CSR preferences of GSBs' politically connected supervisory board chairs thus likely shape the share of verifiable, specific and quantifiable CSR information. This might indicate that politically connected chairs of the supervisory board encourage such processes that improve the quality of information on CSR matters that correspond to their preferences for CSR. In this sense, politically connected supervisory board members presumably refer to their direct and indirect opportunities for shaping CSR engagements, such as the audit of CSR reports and setting (sustainable) remuneration targets for the GSBs' executives.

Third and related, although political legitimacy threats and the relevance of the allocation of governmental resources are mitigated in the given setting, the results suggest that CSR preferences of connected politicians continue to be related to CSR reporting. By demonstrating that this association persists in a mandatory CSR reporting setting in the absence of a 'centralized, command economy' (Situ & Tilt, 2012), the study adds to the prior studies conducted in voluntary Chinese reporting regimes (e.g. Dong et al., 2014; Luo et al., 2017).

Fourth, in an overall view, this study finds that CSR preferences of external and internal non-shareholder stakeholders are associated with the volume and quality of GSBs' mandatory CSR reporting. In this way, the focus of this study on non-shareholder stakeholders complements previous research, which largely concentrates on shareholders. By showing that mandatory CSR reporting also caters to the CSR preferences of non-shareholder stakeholders, this study therefore adds to the double materiality approach.

2.5.3 Party-specific political orientation and CSR reporting

The previous analyses solely focus on a left- compared to a right-leaning political orientation. However, based on its binary nature, the political orientation variable does not fully capture the diverse German party landscape, i.e. varying party-specific orientations that might also be associated with CSR reporting. For example, the Left party represents the maximum of all left-leaning parties on the economical left-right axis by Switek et al. (2017) (see figure 2.1 in section 2.5.1.2). Yet, it remains questionable whether the party the Left is more committed to promoting environmental-related reporting than the party the Greens that is, relatively speaking, located further right on the left-right axis. The additional value of a party-specific analysis can also be illustrated by the debates in the German Bundestag on the draft of the CSR RUG. In the first debate, the Greens filed a proposal for more effective and meaningful CSR reports, which would have expanded the draft of the CSR RUG in numerous aspects (German Bundestag, 2016). The proposal was rejected not only by the Union but also by the SPD (German Bundestag, 2017). This further illustrates that a political party with a considerably left-leaning political orientation, such as the SPD, does not necessarily assign greater importance to CSR issues. Altogether, this demonstrates the relevance of a complementary party-specific investigation of the association between party-specific political orientations and CSR reporting.

As the GSBs feature no supervisory board chair or deputy chair who affiliates with the AfD, and only two who affiliate with the Left party, both parties are excluded from the following analysis due to a lack of data. The party-specific external political orientation (e.g. EO_SPD) is a binary variable. The variable is measured based on a median-split of the respective party-specific federal election results in the GSBs' main municipality. The party-specific internal political orientation (e.g. IO_SPD) is also a binary variable and captured based on supervisory board chairs or deputy chairs, respectively, affiliating with the respective party.

The association between individual parties and CSR reporting is likely difficult to investigate in view of the diverse German party landscape. To maximize the influence of the respective party on CSR reporting, I focus on cases where the external and internal party-specific political orientation coincide. Thus, I interact the external and internal variables for each individual party. Table 2.5 reports the results from estimating equation [1] with party-specific independent variables and CSR reporting volume (panel A) and quality (panel B) as dependent variables.

Table 2.5: Party-specific political orientation and CSR reporting volume and quality

Panel A: Regression of CSR reporting volume on party-specific political orientation

Predictor variables	CSR_ VOL (1)	ENV_ VOL (2)	SOC_ VOL (3)	EMP_ VOL (4)	HUM_ VOL (5)	COR_ VOL (6)
EO_GREEN	2.555	8.912	-3.298	-0.078	7.845	3.902
	(0.57)	(1.24)	(-0.43)	(-0.01)	(1.17)	(0.42)
IO_GREEN	-6.280	-37.819**	16.748	-15.804	-0.318	-22.078*
	(-0.52)	(-2.34)	(1.42)	(-0.64)	(-0.03)	(-1.89)
EO_GREEN	7.147	35.337*	-8.347	37.797	10.889	15.771
x IO_GREEN	(0.49)	(1.92)	(-0.34)	(1.33)	(0.75)	(1.02)
EO_SPD	-0.793	-10.688	9.611	7.319	13.045	1.079
	(-0.13)	(-1.30)	(1.04)	(0.70)	(1.46)	(0.10)
IO_SPD	-2.374	-4.201	7.979	0.788	-8.234	-4.750
	(-0.37)	(-0.41)	(0.85)	(0.07)	(-0.78)	(-0.39)
EO_SPD	2.785	11.407	-9.961	-3.238	9.280	14.828
x IO_SPD	(0.34)	(0.92)	(-0.78)	(-0.21)	(0.74)	(1.05)
EO_UNION	4.924	0.003	-0.319	7.257	-3.333	4.767
	(0.93)	(0.00)	(-0.04)	(0.84)	(-0.41)	(0.53)
IO_UNION	6.128	11.245	7.934	8.272	12.883	0.121
	(1.16)	(1.52)	(0.89)	(0.91)	(1.58)	(0.01)
EO_UNION	-12.777*	-19.218*	0.343	-18.198*	-11.241	-2.758
x IO_UNION	(-1.83)	(-1.73)	(0.03)	(-1.68)	(-1.02)	(-0.21)
EO_FDP	-3.400	-9.274*	7.218	0.896	-12.174**	5.263
	(-0.91)	(-1.80)	(1.08)	(0.14)	(-2.26)	(0.97)
IO_FDP	6.804	31.024***	6.534	0.397	-28.553*	13.941
	(0.98)	(3.01)	(0.52)	(0.03)	(-1.69)	(0.84)
EO_FDP	-24.780**	-48.398***	-14.150	-59.851***	7.530	-29.829
x IO_FDP	(-2.01)	(-2.71)	(-0.72)	(-2.94)	(0.32)	(-1.26)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.552	0.558	0.494	0.444	0.561	0.432
Observations	125	125	125	125	125	125

Table 2.5 continues.

Continuation of table 2.5.

Panel B: Regression of CSR reporting quality on party-specific political orientation

Predictor variables	CSR_ QUAL (1)	ENV_ QUAL (2)	SOC_ QUAL (3)	EMP_ QUAL (4)	HUM_ QUAL (5)	COR_ QUAL (6)
EO_GREEN	-1.818	-3.098	4.576	-2.482	1.698	-3.246
	(-0.85)	(-0.73)	(1.16)	(-0.60)	(0.53)	(-0.37)
IO_GREEN	-3.932	-11.116	1.324	-13.503	-6.539	-5.733
	(-0.68)	(-1.47)	(0.20)	(-1.49)	(-0.83)	(-0.29)
EO_GREEN	11.803*	19.421*	8.034	29.513***	14.245	1.776
x IO_GREEN	(1.77)	(1.67)	(0.88)	(2.63)	(1.43)	(0.07)
EO_SPD	1.119	-3.627	-3.364	5.476	-1.067	0.534
	(0.38)	(-0.72)	(-0.67)	(1.14)	(-0.22)	(0.04)
IO_SPD	1.515	4.450	-1.599	3.538	-2.197	0.462
	(0.52)	(0.78)	(-0.29)	(0.72)	(-0.35)	(0.04)
EO_SPD	-2.041	0.033	0.650	-6.153	3.678	3.631
x IO_SPD	(-0.57)	(0.00)	(0.09)	(-0.99)	(0.55)	(0.27)
EO_UNION	2.759	5.262	3.653	0.851	-5.093	-6.003
	(1.23)	(0.88)	(0.70)	(0.20)	(-1.33)	(-0.53)
IO_UNION	2.339	1.987	4.927	2.894	-1.701	1.992
	(0.99)	(0.43)	(1.16)	(0.65)	(-0.37)	(0.20)
EO_UNION	-5.895*	-7.664	-9.443	-4.534	5.080	-0.008
x IO_UNION	(-1.93)	(-0.99)	(-1.44)	(-0.83)	(0.87)	(-0.00)
EO_FDP	-0.034	0.337	-0.474	1.157	-0.176	-5.075
	(-0.02)	(0.09)	(-0.14)	(0.38)	(-0.05)	(-0.70)
IO_FDP	-1.452	-3.473	-1.698	6.893	5.264	-26.416**
	(-0.33)	(-0.50)	(-0.30)	(1.29)	(0.81)	(-2.18)
EO_FDP	-3.524	11.118	-8.210	-14.382	-18.873*	8.583
x IO_FDP	(-0.50)	(0.99)	(-0.77)	(-1.47)	(-1.84)	(0.36)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.475	0.479	0.635	0.380	0.312	0.152
Observations	125	125	125	125	125	125

Notes: This table reports the results from estimating equation [1] with the CSR reporting volume (panel A) and quality (panel B) as dependent, and party-specific external and internal political orientations as independent variables. Controls (incl. indicator variables) are included in all regressions. All variables are defined in appendix 2.A1. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The interaction coefficients for the Greens are positive and significant in terms of the volume and quality of environmental-related matters and the quality of employee-related matters and the overall CSR report. With respect to the SPD, the interaction coefficients are mostly smaller but also majorly positive. However, the coefficients are all insignificant. The interaction coefficients for the Union are mostly negative and significant for the volume and quality of the overall CSR report and the volume of environmental- and employee-related matters. The interaction coefficients for the FDP also feature mostly negative signs. The coefficients are significant for the volume of the overall CSR report and environmental- and employee-related matters and the quality of respect for human rights.

These results indicate that, for example, the volume and quality of environmental-related matters is positively and most strongly associated with a high engagement of the Greens, while being mostly negatively linked to a high engagements of the FDP and Union. A similar picture also emerges for the whole CSR reporting. These results are mostly in line with the matching outlined in section 2.5.1.1 and thus lend further support to my findings that CSR preferences of external and internal stakeholders shape GSBs' mandatory CSR reporting volume and quality.

The separate, non-interacted coefficients for party-specific external and internal political orientations can also be taken into account. For example, the coefficient for IO_GREEN is negative and highly significant in the context of CSR reporting volume. Hence, if the Greens feature a high internal representation but below-median external representation, a negative association with environmental reporting volume is observed. According to my previous findings (see section 2.5.2), CSR reporting volume is mainly shaped by external political orientations. In this sense, the negative coefficient for IO_GREEN, i.e. a below-median external representation of the Greens, likely supports my results.

However, the diverse German party landscape and, in particular, the interplay between different parties has been extremely simplified and abstracted in this party-specific analysis. Thus, the results presented should only be seen as a complementary analysis and viewed with caution.

2.6 Alternative measures for political orientation

The results from the main analysis presented in section 2.5.2 critically hinge on the construct validity of the binary variables, i.e. external and internal political orientation. Following Switek et al. (2017), political research studies are regularly based on a two-dimensional approach for the precise distinction of left- and right-leaning political orientations. These are the economical left-right axis, which primarily refers to issues such as state intervention in the economy and the social welfare state, and the social progressive-conservative axis that focuses on issues such as national identity and immigration. To address the possibility that the presented results largely depend on the underlying measurement method for political orientation, the main analysis is re-estimated based on the alternative, social progressive-conservative axis.

Table 2.6: Political orientation (other measure) and CSR reporting volume and quality

Panel A: Regression of CSR reporting volume on external and internal political orientation (based on the social progressive-conservative axis)						
Predictor variables	CSR_ VOL (1)	ENV_ VOL (2)	SOC_ VOL (3)	EMP_ VOL (4)	HUM_ VOL (5)	COR_ VOL (6)
Expectation from matching	(+)	+	O	(+)	+	(+)
EO_LEFT	3.671	9.942*	4.542	-0.090	10.848*	-6.700
	(0.91)	(1.68)	(0.58)	(-0.01)	(1.85)	(-1.19)
IO_LEFT	2.325	3.856	-0.778	6.163	7.983	4.778
	(0.85)	(0.85)	(-0.17)	(1.17)	(1.58)	(0.92)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.509	0.459	0.423	0.335	0.471	0.401
Observations	125	125	125	125	125	125
Panel B: Regression of CSR reporting quality on external and internal political orientation (based on the social progressive-conservative axis)						
Predictor variables	CSR_ QUAL (1)	ENV_ QUAL (2)	SOC_ QUAL (3)	EMP_ QUAL (4)	HUM_ QUAL (5)	COR_ QUAL (6)
Expectation from matching	(+)	+	O	(+)	+	(+)
EO_LEFT	2.018	2.294	2.572	1.256	6.419*	-2.203
	(1.04)	(0.68)	(0.73)	(0.30)	(1.87)	(-0.27)
IO_LEFT	2.222	5.142*	-1.140	4.035	2.995	4.053
	(1.58)	(1.86)	(-0.44)	(1.49)	(1.18)	(0.78)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.423	0.464	0.587	0.251	0.259	0.102
Observations	125	125	125	125	125	125

Notes: This table reports the results from estimating equation [1]. Controls (incl. indicator variables) are included in all regressions. All variables are defined in appendix 2.A1. The political orientation variables refers to the social progressive-conservative axis instead of the economical left-right axis by Switek et al. (2017). The expectations from the matching (see section 2.5.1.1) are marked grey. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The results presented in panel A and B of table 2.6 are largely consistent with the previous results displayed in section 2.5.2. The coefficient signs and magnitudes differ negligible, while the significance levels change slightly. In this regard, the coefficients for the link between the internal political orientation and the employee-related and total CSR reporting quality become insignificant. At the same time, all previously presented significant coefficients regarding environmental-related matters and respect for human rights, i.e. those matters with the highest difference in consent between left- and right-leaning political orientations, remain positive and significant. Based on this, the finding of an association between CSR preferences of external and internal stakeholders and CSR reporting volume and quality remains mostly unchanged. Hence, my findings are robust to a change of the measurement method for political orientation.

2.7 Conclusion

This study provides descriptive evidence on the volume and quality of GSBs' mandatory CSR reporting before investigating its association with the CSR preferences of external and internal non-shareholder stakeholders. The paper is motivated by the scarce literature on the double materiality approach. In this sense, the GSBs' distinctive characteristics, such as the absence of shareholders, offer a rare opportunity to examine the link between CSR preferences of non-shareholder stakeholders and mandatory CSR reporting.

The main findings indicate that CSR preferences of stakeholders in the GSBs' business areas are mainly linked to the topical focus of CSR reports. At the same time, CSR preferences of politically connected supervisory board chairs are mainly associated with the reporting quality. Altogether, this indicates that CSR reports of GSBs cater to the CSR preferences of external and internal non-shareholder stakeholders.

The findings respond to the call from Christensen et al. (2021) for more research on mandatory CSR reports. In this sense, the findings shed light on the role of CSR preferences of non-shareholder stakeholders for a GSB's CSR reporting. Consequently, the results of this study directly add to the scarce literature (Gulenko et al., 2022) on the double materiality approach to CSR reporting. The study also contributes to previous research (e.g. Luo et al., 2017; Marquis & Qian, 2014) by showing that an association between the CSR preferences of connected politicians and CSR reporting persists in a setting, where governmental resources are comparatively less crucial and firms provide CSR reports due to a mandate, i.e. regardless of the cost-benefit function. Overall, the results are of interest to regulators and researchers as they shed further light on factors that shape mandatory CSR reporting.

The presented findings are subject to various limitations. First, the political orientation variable is not independent of other factors that influence CSR reporting. For example, a left-leaning political orientation might also be associated with a higher degree of environmental-oriented CSR activities that, in turn, is related to environmental CSR reporting. Although CSR activities are included as control variable to address this concern, it cannot be completely ruled out that the variation in political orientations is correlated with other variables, similar to CSR activities, which are omitted but also related to CSR reporting. Accordingly, I cannot (and do not strive to) show causality, but merely identify underlying associations. For the identification of causal inferences, it may be of interest for future studies to examine the GSBs' CSR reporting in a pre- and post-municipal-election-environment, particularly if there is a change in local government.

Second, with respect to the construct validity, the construction of the self-constructed CSR reporting scores entails a certain degree of subjective judgment. Although the underlying indexes are constructed along the lines of previous research and established reporting guidelines, other researchers might include or exclude different items and thus arrive at different results.

Lastly, the findings are based on a specific setting, i.e. CSR reporting by GSBs on the fiscal year 2017, with the GSBs exhibiting several unique characteristics. This clearly limits the generalizability of the presented findings. Yet, in light of the looming 'Corporate Sustainability Reporting Directive' (CSRD) that expands the scope of the CSR reporting regulation, more GSBs will be mandated to provide CSR reports in the future. In addition, the investigated GSBs share certain commonalities with state-owned enterprises and other politically connected firms. This likely creates various potential transfer options. In this sense, for example, other politically connected firms, such as the 'Deutsche Telekom AG', might pose an interesting setting for subsequent studies. These limitations aside, this study augments prior literature by finding an association between CSR preferences of external and internal stakeholders and CSR reporting volume and quality in a mandatory CSR reporting setting of GSBs.

2.8 Appendix

Appendix 2.A1: Variable description

Variables	Description	Data source
CSR reporting		
CSR_VOL	Reflects ranked [0;100] and weighted wordcount of the whole CSR report	CSR report
ENV_VOL	Reflects ranked [0;100] and weighted wordcount of the environmental-related section	CSR report
SOC_VOL	Reflects ranked [0;100] and weighted wordcount of the social-related section	CSR report
EMP_VOL	Reflects ranked [0;100] and weighted wordcount of the employee-related section	CSR report
HUM_VOL	Reflects ranked [0;100] and weighted wordcount of the respect for human rights section	CSR report
COR_VOL	Reflects ranked [0;100] and weighted wordcount of the anti-corruption and bribery section	CSR report
CSR_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the whole CSR report	CSR report
ENV_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the environmental-related section	CSR report
SOC_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the social-related section	CSR report
EMP_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the employee-related section	CSR report
HUM_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the respect for human rights section	CSR report
COR_QUAL	Reflects manually rated [0;100] and weighted quality indicators of the anti-corruption and bribery section	CSR report
*Political orientation**		
EO_LEFT	Reflects the political orientation in a GSB's main municipality with 1 indicating a left-leaning political orientation, and 0 otherwise	Annual report and 'Bundeswahlleiter'
IO_LEFT	Reflects the political orientation of the politically connected supervisory board chair with 1 indicating a left-leaning political orientation, and 0 otherwise	Annual report and online research
EO_GREEN	Reflects the party-specific affiliation in a GSB's main municipality with 1 indicating an above-median affiliation with the Greens, and 0 otherwise	Annual report and 'Bundeswahlleiter'
IO_GREEN	Reflects the party-specific affiliation of the politically connected supervisory board chair with 1 indicating an affiliation with the Greens, and 0 otherwise	Annual report and online research

Appendix 2.A1 continues.

Continuation of appendix 2.A1.

Variables	Description	Data source
EO_SPD	Reflects the party-specific affiliation in a GSB's main municipality with 1 indicating an above-median affiliation with the SPD, and 0 otherwise	Annual report and 'Bundeswahlleiter'
IO_SPD	Reflects the party-specific affiliation of the politically connected supervisory board chair with 1 indicating an affiliation with the SPD, and 0 otherwise	Annual report and online research
EO_UNION	Reflects the party-specific affiliation in a GSB's main municipality with 1 indicating an above-median affiliation with the Union, and 0 otherwise	Annual report and 'Bundeswahlleiter'
IO_UNION	Reflects the party-specific affiliation of the politically connected supervisory board chair with 1 indicating an affiliation with the Union, and 0 otherwise	Annual report and online research
EO_FDP	Reflects the party-specific affiliation in a GSB's main municipality with 1 indicating an above-median affiliation with the FDP, and 0 otherwise	Annual report and 'Bundeswahlleiter'
IO_FDP	Reflects the party-specific affiliation of the politically connected supervisory board chair with 1 indicating an affiliation with the FDP, and 0 otherwise	Annual report and online research
Controls		
CSR_ACT	Reflects five ranked [0;100] and equally weighted CSR activity scores	CSR report
SIZE	Natural logarithm of total assets (in mio.) winsorized at 1% and 99% level	BvD BankFocus
ROA	EBT / total assets (in %)	BvD BankFocus
EQUITY	Equity divided by total assets (in %)	BvD BankFocus
UNEMPL	Unemployment ratio in the operating area (in %)	Federal, state and municipal statistical offices
Indicator variables		
GUIDE	Reflects CSR reporting guidelines and performance indicator set with DNK & GRI = 0; DNK & EFFAS = 1; Savings bank indicators based on GRI = 2	CSR report
ASSOCI	Reflects the ten savings bank associations included in the final sample	Annual report
EARLY	Identifies early reporters, with 1 indicating that a GSB published a CSR report prior to 2017, and 0 otherwise	Homepages

Notes: This table shows variable definitions. GRI refers to the 'Global Reporting Initiative' and EFFAS to the 'European Federation of Financial Analysts Societies'. The * indicates that party affiliations of supervisory board members who do not hold a political position are not taken into account. Besides, election results or party affiliations in favor of parties with no seat in the German Bundestag are classified as others and are also not taken into account in further analyses due to the obscure nature of the inherent political orientations. GSBs are further excluded if the classification on the political-economical left-right axis does not allow for a clear distinction between the political camps.

Appendix 2.A2: Calculation of volume scores based on the CSR report by Sparkasse Hannover

CSR reporting items	Map to DNK	Wordcount of Sparkasse Hannover	Ranked score of Sparkasse Hannover	Section weights (based on all GSBs) & scores	Total weights (based on all GSBs) & score
Strategy					
Concept	1-4	1,226	65	42% (= 1,057 / 2,509)	
Management	5-8	790	70	26%	
Stakeholder	9	638	89	16%	
Innovation & product management	10	482	69	16%	
Total		3,136		71	43% (= 2,509 / 5,879)
Environmental					
Resources	11-13	1,180	86	100%	
Total (ENV_VOL)		1,180		86	15%
Social					
Corporate citizenship	18	455	48	100%	
Total (SOC_VOL)		455		48	10%
Employee					
Workforce	14-16	1,553	89	100%	
Total (EMP_VOL)		1,553		89	20%
Human rights					
Human rights	17	395	95	100%	
Total (HUM_VOL)		395		95	4%
Anti-corruption and bribery					
Compliance	19-20	791	93	100%	
Total (COR_VOL)		791		93	10%
Total (CSR_VOL)		7,510			77

Notes: This table illustrates the calculation of the CSR reporting volume score based on the CSR report by the Sparkasse Hannover (2017). For example, the concept item includes 1,226 words (the wordcount excludes guideline instructions). In line with this being slightly above the average of all GSBs (1,057 words, see table 2.2 in section 2.4.3), the Sparkasse Hannover receives a ranked score [0;100] of 65 for this item. To determine the section scores based on these item-specific ranked scores, I use the relative wordcount of the items in the respective section (determined across all GSBs, see table 2.2 in section 2.4.3) as weights (e.g. for ENV_VOL: 65 * 42% + 70 * 26% + 89 * 16% + 69 * 16% = 71). Similarly, to determine the total score (CSR_VOL) based on the section scores, I use the relative wordcount of the sections in the total report (determined across all GSBs, see table 2.2 in section 2.4.3) as weights (71 * 43% + 86 * 15% + 48 * 10% + 89 * 20% + 95 * 4% + 93 * 10% = 77).

Appendix 2.A3: Calculation of quality scores based on the CSR report by Sparkasse Hannover

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Strategy			
Contact person	Specific information incl. name & contact details = 100; General information incl. name = 50; Otherwise = 0	'Petra Tute, +49 (0) 511 3000 6142, +49 (0) 511 3000 951229, Petra.Tute@sparkasse-hannover.de'	100
Sustainability officer	Detailed description of activities of a sustainability officer or team = 100; General description of executives' responsibilities with regard to sustainability = 50; Otherwise = 0	'Die strategischen Entscheidungen werden vom Vorstand getroffen. Der Nachhaltigkeitsausschuss, der vom Vorstandsvorsitzenden geleitet wird, diskutiert und verabschiedet Entscheidungsvorlagen. Ein Kompetenzteam Nachhaltigkeit sorgt für die Vernetzung der Thematik innerhalb der Sparkasse Hannover.'	100
Audit	(Formal) external & internal audit = 100; Internal audit only = 50; No audit = 0	'Diese DNK-Erklärung wurde vom Büro Deutscher Nachhaltigkeitskodex auf formale Vollständigkeit nach dem CSRRichtlinie-Umsetzungsgesetz geprüft.'	100
Strategy	Description of the embedding of sustainability in the corporate strategy = 100; General information only = 50; Otherwise = 0	'Um den Erfolg unserer Nachhaltigkeitsbemühungen auch in der strategischen Gesamtbanksteuerung wiederzugeben, wurde 2017 ein Nachhaltigkeitsindikator aus vier Kernindikatoren erstellt und direkt an den Vorstand berichtet. Die Messgröße „Nachhaltigkeit" der Balanced Scorecard umfasst analog zur strategischen Ausrichtung unsere vier Nachhaltigkeitssäulen: Produkte, Bankbetrieb, Mitarbeiter und gesellschaftliches Engagement.'	100
Strategic guiding principles	Description of guiding principles specific to the GSB = 100; Description of general guiding principles of the Savings Banks Finance Group = 50; Otherwise = 0	'Bei der Ausformulierung von Grundsätzen zur Nachhaltigkeit haben wir das häufig immer noch sehr allgemeine Verständnis von Nachhaltigkeit für uns konkretisiert. Unser Nachhaltigkeitsengagement richtet sich an drei Leitfragen aus: Was soll strikt vermieden werden? Was soll verbessert werden? Was soll deutlich gefördert werden?'	100
Materiality analysis	Description of the process & timing = 100; Description of the process / timing = 50; Otherwise = 0	'Hier sind zentrale Marktforschungsergebnisse, beispielsweise aus der im Herbst 2015 mit 384 Angehörigen unserer Anspruchsgruppen (Kundinnen und Kunden, Beschäftigte, Lieferanten und Nachhaltigkeitsexperten) durchgeführten Wesentlichkeitsanalyse und der Kundenbefragung von 2015, maßgeblich eingeflossen. Für das Jahr 2018 ist eine neue Kundenbefragung geplant.'	100
Customer survey	Description of results = 100; General statement that a survey was conducted = 50; Otherwise = 0	'In der letzten Befragung von 2015 gaben knapp 70 Prozent der Kundinnen und Kunden an, dass sie die Sparkasse Hannover als ein nachhaltiges Unternehmen ansehen. Aber auch hier zeigte sich, dass unsere Kundinnen und Kunden Handlungsbedarf beim Energiesparen und Klimaschutz sehen.'	100

Appendix 2.A3 continues.

Continuation of appendix 2.A3.

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Employee survey	Description of results = 100; General statement that survey was conducted = 50; Otherwise = 0	'In der letzten Mitarbeiterbefragung haben wir fünf Handlungsfelder identifiziert und im Nachgang bearbeitet. Unter anderem haben dazu interessierte Kolleginnen und Kollegen bereichsübergreifende Arbeitsteams gebildet. Von unseren Mitarbeiterinnen und Mitarbeitern sind Anliegen zu Umweltschutz im Rahmen des Mitarbeiterimpulssystems formuliert worden.'	100
Strategy audit	Description of the process & timing = 100; Description of the process / timing = 50; Otherwise = 0	'Unsere Ziele und Maßnahmen werden jährlich im Zuge der Berichterstattung überprüft und gegebenenfalls angepasst. Um den Erfolg unserer Nachhaltigkeitsbemühungen auch in der strategischen Gesamtbanksteuerung wiederzugeben, wurde 2017 ein Nachhaltigkeitsindikator aus vier Kernindikatoren erstellt und direkt an den Vorstand berichtet. Die Kennzahlen geben den aktuellen Stand und den Zielwert für 2021 wieder. Hieraus können wir explizit Handlungsbedarf ableiten und als strategische Themenschwerpunkte festlegen.'	100
Sustainability check of GSB association	Description of results = 100; General statement that a check was conducted = 50; Otherwise = 0	'-'	0
Remuneration	Description of specific CSR-related issues that affect remuneration = 100; General statement if CSR factors affect remuneration = 50; Otherwise = 0	'-'	0
Sustainable lending	Quantitative & qualitative information on CSR-related lending = 100; Qualitative information on CSR-related lending = 50; Otherwise = 0	'Um das Thema Klimaschutz auch in der privaten Baufinanzierung und Immobilienvermittlung verstärkt aufzugreifen, haben wir im Jahr 2017 mit der Klimaschutzagentur in den ImmobilienCentern eine Kooperation pilotiert, die zwei Angebote der Klimaschutzagentur umfassen: Energieberatung und Hauskaufberatung.'	50
Sustainable investment	Quantitative & qualitative information on CSR-related investment = 100; Qualitative information on CSR-related investment = 50; Otherwise = 0	'Mit unseren Eigenanlagen – dem Depot A – haben wir direkten Einfluss darauf, wie die Investitionen getätigt werden. Seit 2013 haben wir dafür strikte Ausschlusskriterien definiert. Seit Mai 2016 haben wir mit dem nachhaltigen Sparkassenbrief N+, der in verschiedenen Laufzeiten erhältlich ist, ein erstes eigenes Produkt im Angebot. Dabei wird sichergestellt, dass das Geld unserer Kundinnen und Kunden ausschließlich in Kredite investiert wird, die einen nachhaltigen Verwendungszweck haben.'	50
Total (= averages of scores within the section)			77

Appendix 2.A3 continues.

Continuation of appendix 2.A3.

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Environmental			
Objectives	Description of quantitative & qualitative targets incl. time horizon = 100; Description of qualitative targets incl. time horizon = 50; Otherwise = 0	'Bei den Geschäftspapieren soll bis 2020 eine Reduktion um 20 Prozent gegenüber 2015 erzielt werden. Um hier verstärkt vorzugehen und auch der Schwerpunktsetzung „Klimaschutz“ gerecht zu werden, soll eine Klimaschutzstrategie 2030 entwickelt werden. Sie hat das Ziel, die Sparkasse Hannover mittelfristig klimaneutral zu stellen.'	100
Eco-technology	Quantitative & qualitative information on climate-friendly electricity generation = 100; Qualitative information on climate-friendly electricity generation = 50; Otherwise = 0	'Prüfung der Installation von Photovoltaikanlagen auf ausgewählten eigenen Immobilien.'	50
Process	Description of specific measures = 100; Description of general fields of action = 50; Otherwise = 0	'Ausbau der E-Mobilität im eigenen Fuhrpark. Umstellung der Prozesse durch Digitalisierung: So können Dienstreisen durch den Vorzug von Video- und Telefonkonferenzen vermieden oder Beratungstermine online angeboten werden. Festlegung von CO2-Grenzwerten für Dienstfahrzeuge sowie deren regelmäßige Anpassung.'	100
Environmental commitment	Detailed description of above average environmental commitment = 100; General description of above average environmental commitment = 50; Otherwise = 0	'Ebenfalls 2014 haben wir uns über den „Masterplan 100 % für den Klimaschutz“ der Region Hannover dazu verpflichtet, bis 2050 möglichst keine Treibhausgase mehr zu emittieren.'	50
Energy consumption	Quantitative information on the breakdown of energy consumption by energy source = 100; Quantitative information on total energy consumption = 50; Otherwise = 0	'Gesamt Stromverbrauch (2017): 9.423.259 kWh; fossile Energieträger: 37,6%; Kernenergie: 10,7%; Erneuerbare Energieträger: 51,7%; Gas: 4.767.895 kWh; Fernwärme: 4.950.163 kWh'	100
Paper consumption	Quantitative information on the breakdown of paper consumption by recyclability = 100; Quantitative information on total paper consumption = 50; Otherwise = 0	'Abfallaufkommen (2017): Papier: 177 to'	50
Emission	Quantitative information on scope 1-3 emissions & calculation program used = 100; Quantitative information on scope 1-3 emissions = 50; Otherwise = 0	'Scope 1: 869,52 to; Scope 2: 5.384,72 to; Scope 3: 3.752,88 to; Berechnung mit imug-CO2-Rechner'	100
Total (ENV_QUAL) (= averages of ranked scores within the section)			79

Appendix 2.A3 continues.

Continuation of appendix 2.A3.

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Social			
Common good	Quantitative information on the breakdown of common-good-related investments from GSBs & their foundations = 100; Quantitative information on total common-good-related investments = 50; Otherwise = 0	'Beiträge für gemeinnützige Zwecke und Einrichtungen: 3,1 Mio.EUR'	50
Local value added	Quantitative information on paid taxes, employee expenses & dividends to municipal trustees = 100; Quantitative information on some of these figures = 50; Otherwise = 0	'Personalaufwand: 120 Mio. EUR; davon Löhne und Gehälter: 97 Mio.EUR; davon soziale Abgaben und Aufwendungen: 23 Mio.EUR; Gewinnabhängige Steuern: 41 Mio. EUR; Ausschüttung an den Träger: 2,8 Mio.EUR'	100
Promotion of the financially weak	Quantitative & qualitative information on measures to support the financially weak incl. honorary engagements of employees = 100; Qualitative information only = 50; Otherwise = 0	'Darüber hinaus fördern wir ausdrücklich und aktiv das ehrenamtliche Engagement der Beschäftigten und Ruheständler. Dieses Verständnis von einer Kultur des gesellschaftlichen Miteinanders haben wir in unserer Personalstrategie und in unseren Grundsätzen zur Nachhaltigkeit konzeptionell verankert und vom Vorstand verabschieden lassen.'	50
Financial access	Quantitative information on number of branches & cash terminals = 100; Quantitative information on some of these figures = 50; Otherwise = 0	'-'	0
Total (SOC_QUAL) (= averages of item-specific scores within the section)			50
Employee			
Objectives	Description of quantitative & qualitative targets incl. time horizon = 100; Description of qualitative targets incl. time horizon = 50; Otherwise = 0	'Für 2018 ist eine erneute Durchführung dieses Personalbarometers geplant.'	50
Employee-related commitment	Detailed description of above average social commitment = 100; General description of above average social commitment = 50; Otherwise = 0	'-'	0
Age structure	Quantitative information on age structure & job tenure = 100; Quantitative information on some of these figures = 50; Otherwise = 0	'Die Altersstruktur sah folgendermaßen aus: unter 20: 0,81%; 20 - 29: 14,88%; 30 - 39: 16,29%; 40 - 49: 28,30%; 50 - 59: 34,25%; 60 und älter: 5,47%'	50

Appendix 2.A3 continues.

Continuation of appendix 2.A3.

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Equal opportunities	Detailed description of engagement = 100; General description of legal requirements = 50; Otherwise = 0	'Die Vorgaben aus dem Allgemeinen Gleichstellungsgesetz (AGG) sind für die Beschäftigten verpflichtend und werden konsequent umgesetzt. Im Falle möglicher Verstöße können sich die Beschäftigten – auch anonym – an unsere Gleichstellungsbeauftragte oder die interne Beratungsstelle wenden. Wir setzen uns für den Zeitraum von drei Jahren Ziele in welchem Maße wir Unterrepräsentanzen abbauen und überprüfen die Zahlen jährlich.'	100
Integration of the handicapped	Quantitative information on proportion of the handicapped & description of engagement = 100; Quantitative information on proportion of the handicapped but no description of engagement = 50; Otherwise = 0	'Die Schwerbehindertenquote für 2017 betrug 4,0%.'	50
Work-life-balance	Quantitative information on the use of measures to support the work-life balance = 100; Qualitative information on measures to support the work-life balance = 50; Otherwise = 0	'Dabei helfen flexible Arbeitszeiten, unterschiedliche Teilzeitmöglichkeiten, die Möglichkeit, Teilzeit zu befristen, ein Kinderbetreuungszuschuss für Krippen- und Tagesmutter-Kinder, das Angebot einer Kinderferienbetreuung sowie unser Eltern-Kind-Büro.'	50
Work safety	Description of specific measures to promote work safety = 100; Description of general (legal) requirements = 50; Otherwise = 0	'Seit 2013 koordiniert eine Gesundheitsreferentin im Rahmen eines betrieblichen Gesundheitsmanagements zentral alle Maßnahmen zum Thema „aktiv und gesund im Beruf“. Dazu zählen vielfältige gesundheitsfördernde Angebote wie Massagen, Rückenschulkurse, Bewegungsangebote sowie zentrale wie dezentrale Informationsveranstaltungen. Über die Betriebsärztin erhalten unsere Beschäftigen regelmäßig das Angebot kostenloser Grippeschutzimpfungen und Sehtests für Bildschirmbrillen, deren Finanzierung unser Unternehmen trägt.'	100
Trainee program	Quantitative information on number of trainees & proportion of permanently hired trainees = 100; Quantitative information on some of these figures = 50; Otherwise = 0	'-'	0
Education	Quantitative information on expenses for employee training & training days per year = 100; Quantitative information on some of these figures = 50; Otherwise = 0	'2017 wurden insgesamt 8.659 Seminartage zur Weiterbildung genutzt.'	50
Total (EMP_QUAL) (= averages of item-specific scores within the section)			50

Appendix 2.A3 continues.

Continuation of appendix 2.A3.

CSR reporting items	Criteria	Excerpt from the CSR report	Score
Human rights			
Human rights for employees	Description of processes for ensuring compliance = 100; Topic generally addressed = 50; Otherwise = 0	'Alle unsere Geschäftsstandorte befinden sich in Deutschland in der Region Hannover. Eine Prüfung im Hinblick auf Menschenrechte oder menschenrechtliche Auswirkungen wird nicht vorgenommen.'	50
Human rights for customers	Description of processes for ensuring compliance = 100; Topic generally addressed = 50; Otherwise = 0	'-'	0
Human rights for suppliers	Description of processes for ensuring compliance = 100; Topic generally addressed = 50; Otherwise = 0	'Wo Berührungspunkte auftreten, haben wir über strikte Ausschlusskriterien und Lieferantenbedingungen die Möglichkeit von Verstößen gegen Menschenrechte so weit wie für uns möglich eingeschränkt. Uns sind bisher keine Verstöße bekannt geworden. In unseren Einkaufsrichtlinien setzen wir zudem die Einhaltung von Menschenrechten gemäß International Labour Organisation (ILO) fest.'	100
Total (HUM_QUAL) (= averages of item-specific scores within the section)			50
Anti-corruption and bribery			
Corruption	Description of the role of compliance- & anti-money laundering managers = 100; General information on existence of compliance / anti-money laundering managers = 50; Otherwise = 0	'Im Rahmen der jährlichen Risikoanalyse durch die Compliance- und Geldwäschebeauftragten werden Themen wie Geldwäsche, Korruption, Bestechung und Terrorismusfinanzierung risikoorientiert bewertet. Dazu kommen jährliche Mitarbeiterunterweisungen und Schulungsmaßnahmen zu den Themen Kapitalmarktcompliance, Geldwäsche und Betrugsprävention für alle Mitarbeiterinnen und Mitarbeiter zur Sensibilisierung.'	100
Total (COR_QUAL) (= averages of item-specific scores within the section)			100
Total (CSR_QUAL) (= average of all item-specific scores)			66

Notes: This table illustrates the calculation of the CSR reporting quality score based on the CSR report by the Sparkasse Hannover (2017). To determine the section scores, I equally weight all item-specific scores, such as the score for human rights for employees, in the respective section (e.g. for HUM_QUAL: 50 * 33% + 0 * 33% + 100 * 33% = 50). Similarly, to determine the total score (CSR_VOL), I use the average of all item-specific scores. In this way, a section’s contribution to the total score depends on the number of items contained in the respective section. This is of relevance, as the section-specific weights used in the calculation of the volume and quality scores are roughly aligned. The text excerpts focus on essential information only and thus partially omit text.

Appendix 2.A4: Matching of statements from the 'Bundeswahlleiter 2017' and CSR matters

Statements	Pro CSR	The Left	Greens	SPD	Left	Union	FDP	AfD	Right
Environmental									
Higher taxation for diesel fuel for passenger cars.	agree	2	2	0	4	0	0	0	0
General speed limit on highways.	agree	2	2	0	4	0	0	0	0
Ability to limit the total number of livestock on farms.	agree	2	2	2	6	1	0	2	3
Development of renewable energies should be financially supported by the federal government on a permanent basis.	agree	2	2	2	6	0	0	0	0
Organic farming should be promoted more strongly than conventional farming.	agree	2	2	0	4	1	0	2	3
Brown coal mining should continue to be allowed in Germany in the future.	disagree	2	2	0	4	1	0	0	1
Total env (absolute)		12	12	4	28	3	0	4	7
Total env (%) (indicates consent)		100%	100%	33%	78%	25%	0%	33%	19%
Social									
All citizens should be required to have statutory health insurance.	agree	2	2	2	6	0	0	0	0
Children should be vaccinated against contagious diseases.	agree	0	0	0	0	2	2	0	4
BAföG should generally be paid regardless of the parents' income.	agree	2	2	1	5	0	2	2	4
There should be an unconditional basic income in Germany.	agree	1	1	0	2	0	0	0	0
The federal government should provide more funds for social housing.	agree	2	2	2	6	2	0	0	2
The purchase of owner-occupied residential property is to be tax-free up to a certain amount.	agree	0	0	0	0	2	2	2	6
Total soc (absolute)		7	7	5	19	6	6	4	16
Total soc (%) (indicates consent)		58%	58%	42%	53%	50%	50%	33%	44%
Employee									
Parents should have a legal right to an all-day childcare until the end of primary school.	agree	2	2	2	6	2	1	0	3
Temporary employment contracts should continue to be allowed without stating reasons.	disagree	2	2	2	6	0	0	1	1
Companies should be allowed to continue to employ temporary workers.	disagree	2	0	0	2	0	0	1	1
Retirement without deductions is to be possible after just 40 years of contributions.	agree	2	0	0	2	0	2	1	3
Total emp (absolute)		8	4	4	16	2	3	3	8
Total emp (%) (indicates consent)		100%	50%	50%	67%	25%	38%	38%	33%

Appendix 2.A4 continues.

Continuation of appendix 2.A4.

Statements	Pro CSR	The Left	Greens	SPD	Left	Union	FDP	AfD	Right
Human rights									
A yearly cap should apply to the admission of new asylum seekers.	dis-agree	2	2	2	6	1	2	0	3
Video surveillance in public spaces should be expanded.	dis-agree	2	2	0	4	0	1	0	1
A reduction of the benefits for admissioned refugees who refuse integration measures should be possible.	dis-agree	2	1	0	3	0	0	0	0
Total hum (absolute)		6	5	2	13	1	3	0	4
Total hum (%) (indicates consent)		100%	83%	33%	72%	17%	50%	0%	22%
Anti-corruption and bribery									
Website operators are to be legally obligated to delete false information ('fake news') that has been brought to their attention.	agree	0	2	2	4	2	0	0	2
The federal government should continue to fund projects against right-wing extremism.	agree	2	2	2	6	2	2	0	4
Total cor (absolute)		2	4	4	10	4	2	0	6
Total cor (%) (indicates consent)		50%	100%	100%	83%	100%	50%	0%	50%
In aggregation									
Total (absolute)		35	32	19	86	16	14	11	41
Total (relative) (indicates consent)		83%	76%	45%	68%	38%	33%	26%	33%

Notes: This table illustrates the matching of (party-specific) political orientations and CSR matters (in cursive letters). To start with, I classified whether agreeing or disagreeing with the given statements indicates an orientation in line with the respective CSR matter (see column 'Pro CSR'). For instance, agreeing to 'higher taxation for diesel fuel for passenger cars' would likely help the environmental-related development. Based on the inherent subjectivity, the classifications were performed by a second person. Any discrepancies were discussed and in the case of no consensus, the respective statement was disregarded. In a next step, I added the opinions of the political parties (e.g. the Left, Greens etc.) with 2 indicating a political orientation in line with the CSR matters, i.e. the 'Pro CSR' column, 1 indicating a neutral political orientation, and 0 otherwise. Based on this, the 'Total' rows indicate for each CSR matter and all CSR matters in aggregation, the degree of consent of the political parties. In addition, left- and right-leaning political parties are also aggregated, as indicated by the grey marked 'Left' and 'Right' columns.

Appendix 2.A5: Index assessing the CSR activities

CSR activities	Map to DNK	Mean ranked scores	Total weights and score*
Energy consumption (change)	11-12	43.152	20%
Paper consumption (change)	11-12	36.440	20%
Investment for employee development	16	47.660	20%
Female ratio	14-15	48.992	20%
Ratio of charitable donations	18	47.280	20%
Total (CSR_ACT)			44.705

Notes: This table illustrates the construction of the CSR activity scores. The * indicates that minor rounding differences may occur regarding the weighted score.

Appendix 2.A6: Political orientation and CSR reporting volume or quality

Panel A: Regression of CSR reporting volume on external political orientation						
Predictor variables	CSR_ VOL (1)	ENV_ VOL (2)	SOC_ VOL (3)	EMP_ VOL (4)	HUM_ VOL (5)	COR_ VOL (6)
Expectation from matching for all shown regressions	(+)	+	O	(+)	+	(+)
EO_LEFT	3.387	13.171***	3.068	-1.417	13.852***	-2.642
	(0.98)	(2.64)	(0.41)	(-0.21)	(2.62)	(-0.36)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.505	0.465	0.422	0.326	0.463	0.393
Observations	125	125	125	125	125	125
Panel B: Regression of CSR reporting quality on external political orientation						
Predictor variables	CSR_ QUAL (1)	ENV_ QUAL (2)	SOC_ QUAL (3)	EMP_ QUAL (4)	HUM_ QUAL (5)	COR_ QUAL (6)
EO_LEFT	0.419	2.677	-0.764	-1.042	8.745***	1.391
	(0.25)	(0.92)	(-0.25)	(-0.29)	(2.78)	(0.19)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.400	0.443	0.585	0.233	0.270	0.098
Observations	125	125	125	125	125	125
Panel C: Regression of CSR reporting volume on internal political orientation						
Predictor variables	CSR_ VOL (1)	ENV_ VOL (2)	SOC_ VOL (3)	EMP_ VOL (4)	HUM_ VOL (5)	COR_ VOL (6)
IO_LEFT	2.816	5.184	-0.171	6.151	9.432*	3.883
	(1.04)	(1.18)	(-0.04)	(1.17)	(1.89)	(0.77)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.506	0.448	0.421	0.335	0.458	0.396
Observations	125	125	125	125	125	125
Panel D: Regression of CSR reporting quality on internal political orientation						
Predictor variables	CSR_ QUAL (1)	ENV_ QUAL (2)	SOC_ QUAL (3)	EMP_ QUAL (4)	HUM_ QUAL (5)	COR_ QUAL (6)
IO_LEFT	2.492*	5.449**	-0.797	4.202	3.853	3.759
	(1.82)	(2.04)	(-0.31)	(1.64)	(1.58)	(0.74)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.417	0.462	0.585	0.250	0.235	0.101
Observations	125	125	125	125	125	125

Notes: This table reports the results from estimating equation [1] displayed in section 2.5.1.2 when taking the dependent variables EO_LEFT and IO_LEFT into account seperately. Controls (incl. indicator variables) are included in all regressions. All variables are defined in appendix 2.A1. The expectations from the matching (see section 2.5.1.1) for all shown regressions are marked grey. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

3 Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks

Marten von der Heide[17]

Working Paper[18]

Abstract: In this study, I investigate whether real effects emerge in non-profit-oriented savings banks under public law in response to 'Corporate Social Responsibility' (CSR) transparency regulation. The 'European Union' (EU) passed the 'Non-Financial Reporting Directive' (NFRD) that mandates certain 'Public Interest Entities' (PIEs) to prepare annual CSR reports beginning from fiscal year 2017 onwards. I build on a sample of 'German Savings Banks' (GSBs) that are concerned with the common good from the outset. In line with the regulatory intent, the results from a 'Difference-in-Differences' (DiD) approach document that GSBs within the scope of the NFRD (treatment firms) compared to GSBs outside the scope (control firms) significantly increase CSR activities from the NFRD's entry into force year onwards. I further find that these effects are concentrated in GSBs with a left-leaning external political environment and high exposures to the NFRD and to competition. However, in contrast to previous research, the results show that real effects in GSBs (i) do not materialize before the NFRD's entry into force year, (ii) do not significantly apply to social CSR activities, and (iii) are accompanied by a decrease rather than an increase in operating cost. Taken together, my study demonstrates that real effects in non-profit-oriented firms in response to the NFRD differ from real effects shown in prior research based on listed, profit-oriented firms.

JEL Classification: M14, M41, M48

Keywords: Corporate social responsibility; CSR; mandatory reporting; real effects; non-profit; savings banks

Acknowledgments: For valuable comments, I am grateful to session participants at the 17th EUFIN Workshop on European Financial Reporting in Lisboa, Portugal (2022), Joachim Gassen and my dissertation adviser Jörg-Markus Hitz.

[17] Georg-August-Universität Göttingen, Faculty of Economic Sciences, Chair of Accounting and Auditing, Platz der Göttinger Sieben 3, 37073 Göttingen, Germany.

[18] First version of the working paper: May 2022. This version: September 2023.

3.1 Introduction

This study examines real effects of 'Corporate Social Responsibility' (CSR) transparency regulation in non-profit-oriented banks under public law. The 'European Union' (EU) passed the 'Non-Financial Reporting Directive'(NFRD) that mandates large 'Public Interest Entities' (PIEs) with more than 500 employees to issue CSR reports (Directive 2014/95, art. 1 par. 1). Firms within the scope of the NFRD have to start reporting for fiscal years beginning on or after January 1, 2017 (Directive 2014/95, art. 4). This means that first mandatory reports are published in 2018, i.e. the entry into force year.

To the EU, the NFRD serves as a policy tool for indirect behavioral regulation. Thus, in line with CSR disclosure being 'vital for managing change toward a sustainable global economy', the directive is supposed to help 'the measuring, monitoring and managing of undertakings' performance and their impact on society' (Directive 2014/95, recital 3). In this sense, the NFRD initially aims at increasing CSR information transparency (Directive 2014/95, recital 1). Building on this targeted first-order (direct) effect, the NFRD seeks to encourage firms to engage in more CSR activities (Fiechter et al., 2022). An increase in CSR activities is consistent with an altering of firm behavior, i.e. the creation of real effects (Christensen et al., 2021), and represents second-order (indirect) effects of the CSR reporting regulation. The real effects manifest, for example, in the form of higher employee safety (Christensen et al., 2017) or lower levels of corporate emissions (Chen et al., 2018; Downar et al., 2021; Tomar, 2023). Similarly, building on the same regulatory setting as this study, Fiechter et al. (2022) show the creation of real effects in the form of higher CSR investments in response to the NFRD.

However, most of this research is based on listed, profit-oriented firms, while there is no such evidence for a significant proportion of PIEs within the scope of the NFRD, i.e. non-profit-oriented firms. As these firms have to promote the common good from the outset, it remains uncertain whether they respond to the NFRD in a similar way.

This study focuses on 'German Savings Banks' (GSBs), which account for approximately one quarter of the total 487 companies in Germany within the scope of the NFRD (Econsense & UN Global Compact Network Germany, 2018). The GSBs possess certain characteristics that distinguish them from most of the previously studied firms. According to their mainly socially-focused public mandate, GSBs are legally obliged from the outset to create value for all stakeholders, with profit generation serving only as a means to an end (German Savings Banks Association, 2020b). As a result, the GSBs likely feature high CSR- and particularly social-related activities already before the NFRD's entry into force. In addition, to demonstrate compliance with their public mandate, the GSBs have established CSR-related disclosures, such as leaflets and website posting, prior to the NFRD (Gulenko et al., 2022). Therefore, the GSBs likely also feature a high level of transparency of CSR information from the start. In comparison to PIEs without a public mandate, the GSBs' distinctive characteristics might thus attenuate the NFRD's potential for increasing the transparency of CSR information (first-order effects) and for improving especially social-related activities (second-order effects). Beyond that, restricted opportunities for stakeholder interaction and pressure, especially due to the GSBs not being capital market-oriented, might further hamper the creation of real effects in response to a CSR reporting regulation. Building on this, I investigate the open empirical question whether real effects emerge in non-profit-oriented GSBs in response to the NFRD.

This study first examines the plausibility of the NFRD's intended first-order effects, i.e. the existence of a CSR transparency shock. Based on a sample of 101 GSBs within the NFRD's scope, I find that the number of CSR reports rose from eight voluntarily provided CSR reports in the prior year to 101 reports in the entry into force year. This sharp increase likely suggests that the level of easily accessible CSR information has risen among these GSBs in 2018. Beyond that, in contrast to prior research on listed firms (Fiechter et al., 2022), GSBs have only marginally increased CSR reporting between the NFRD's passage in 2014 and its entry into force, i.e. in the pre-directive period. This late adoption might suggest a rather small stakeholder demand for (mandatory) comprehensive CSR reports, as the already established and less extensive information media likely suffice.

The subsequent analyses of the real effects are based on a 'Difference-in-Differences' (DiD) design, which compares the impact of the NFRD on GSBs within the scope of the NFRD (treatment firms) with propensity score matched GSBs outside the scope of the NFRD (control firms). Building on the GSBs' comparatively late adoption of CSR reporting, the analyses focus on the years following the passage of the NFRD, i.e. 2014-2020, with 2018-2020 as (post) treatment years. In addition, yearly treatment effects of the NFRD are estimated to provide further insights into the emergence of real effects on a yearly basis. Because the directive became effective in 2018, I use 2017 as baseline year. Overall, my sample consists of 101 treatment and 101 control GSBs, which adds up to 1414 firm-year observations in total.

In line with prior research on real effects of CSR transparency regulation (e.g. Chen et al., 2018; Christensen et al., 2017; Downar et al., 2021; Tomar, 2023), the results from the DiD analysis show that treatment GSBs increase their CSR activities relative to matched control GSBs in response to the publication of the first mandatory reports in 2018. Yet, in contrast to Fiechter et al. (2022), the relative increase in CSR activities is attributable to governance- and particularly environmental-, but not social-related CSR activities. In addition, the yearly DiD analysis indicates that the real effects do not materialize before the NFRD's entry into force. This finding that the CSR activities of treatment GSBs do not evolve differently from those of control GSBs before 2018 is also consistent with the marginally increase in GSBs' CSR reporting in the pre-directive period. Beyond that, further analyses reveal that the GSBs included in the full sample mostly show an overall decline in CSR activities, with the NFRD comparatively mitigating or partially reversing this effect in the post-directive period.

An additional set of empirical tests includes cross-sectional analyses that examine the extent to which real effects differ relative to GSBs' external political environment and exposure levels to the NFRD and to competition. The results show that the relative increase in CSR activities is concentrated in GSBs with left-leaning external political environments and high exposure levels to the NFRD and to competition. In terms of GSBs that are highly exposed to the NFRD, i.e. feature a low level of CSR activities in 2017, my findings are consistent with a catching-up effect. Similarly, the competition-specific result likely reflects a differentiation or benchmarking effect regarding GSBs with high competition levels. Concerning the external political environment, the results suggest that GSBs likely refer to mandatory CSR reporting as a (strategic) tool to signal a fit of their CSR activities with the preferences of their external stakeholders. Among all specifications of the cross-sectional analyses, the results show a statistically significant relative increase in environmental- and partially in governance-related CSR activities. Again, however, no statistically significant real effects are observed with respect to social-related activities. In contrast to Fiechter et al. (2022), my aggregate findings thus likely indicate a lower potential for reporting-regulation-based improvements of social-related activities by virtue of the GSBs' pre-existing and mainly socially-focused public mandate.

Additional analyses are performed to investigate the economic relevance of the real effects. The results show a significant decrease in total and other operating costs after the NFRD became effective. This finding is consistent with the necessity for the GSBs to operate highly efficient and related constraints on implementing costly measures for CSR-related improvements. However, the results contrast previous studies that show cost increases and profitability decreases as indicators of material real effects in response to a CSR transparency regulation (e.g. Chen et al., 2018; Fiechter et al., 2022). Another explanation of this result might be greenwashing as GSBs potentially aim at concealing negative CSR performances through positive but less costly and merely symbolic CSR engagements (Christensen et al., 2021).

Lastly, critical research design choices are addressed. First, in terms of the composition of the treatment and control group over time, the conducted analysis does not provide evidence in support of an unstable sample composition, i.e. treatment GSBs evading the NFRD. In addition, alternative 'Propensity Score Matching' (PSM) strategies are tested by re-estimating the main

DiD regressions (i) using a narrower caliper of 0.01 and (ii) without allowing for replacement. The results indicate that my findings are robust to alternative PSM strategies.

In line with the call from Christensen et al. (2021), this paper augments the growing literature on mandatory CSR reporting by examining real effects of CSR transparency regulation. In contrast to previous research on real effects that is mostly based on listed, profit-oriented companies, this study focuses on a significant proportion of PIEs within the scope of the NFRD, i.e. non-profit-oriented GSBs under public law with a fundamentally different business model. The findings lend support to previous research (e.g. Cuomo et al., 2022; Fiechter et al., 2022) by showing that treatment in comparison to control firms, on average, increase their CSR activities in response to the NFRD. However, the results also demonstrate differences in terms of the (i) timing, (ii) ESG dimensions and (iii) economic relevance of real effects emerging in response to the NFRD. The results of this study shed light on the role of the legal form and business model in the context of real effects in response to CSR reporting regulation. Consequently, the findings are of potential interest to researchers and regulators in understanding real effects in non-profit-oriented banks under public law subsequent to CSR reporting regulation. This is elevated by the importance of financial institutions in achieving sustainable development, as illustrated by the increasing regulatory focus, for example, in the form of the 'Sustainable Finance Action Plan' (European Commission, 2018) and the looming 'Corporate Sustainability Reporting Directive' (CSRD). In this way, the CSRD will increase the scope of the CSR reporting mandate based on lower size thresholds, which will have a major impact on the 'European Savings and Retail Banking Group' (ESBG) that comprises 18 EU countries and approximately 900 savings banks (ESBG, 2023).

3.2 Institutional background

3.2.1 The NFRD and its implementation in Germany

In this section, a detailed account of the NFRD and its implementation in Germany is given, before introducing the GSBs and the role of CSR for them. In response to a growing demand for companies to implement CSR, the European Parliament and the Council adopted the Directive 2014/95/EU, the so-called NFRD, on December 5, 2014. The NFRD aims at standardizing the previously relatively heterogeneous voluntary CSR reporting (e.g. Christensen et al., 2021; Grewal et al., 2019) and at increasing corporate transparency of CSR information to a similarly high level across all EU member states (Directive 2014/95, recital 1-2). Additionally, as 'disclosure of non-financial information helps the measuring, monitoring and managing of undertakings' performance and their impact on society', regulators consider the NFRD to be 'vital for managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection' (Directive 2014/95, recital 3).

The NFRD mandates PIEs in the EU, which are large[19] undertakings with an average number of employees in excess of 500 in the financial year, to provide CSR reports (Directive 2014/95, art. 1 par. 1). PIEs are firms listed on EU-regulated stock exchanges, non-listed banks and insurance undertakings, and other entities designated as PIE by EU member states (Directive 2013/34, art. 2 par. 1). The CSR reports are to be prepared on an annual basis starting from fiscal year 2017 (Directive 2014/95, art. 4). This results in first mandatory CSR reports being published in 2018, i.e. the entry into force year. The disclosed CSR reports should give an overview of the firm's policies, outcomes and risks related to at least environmental-, social- and employee-related matters, respect for human rights, and anti-corruption and bribery matters (Directive 2014/95, art. 1 par. 1). Regarding the required contents, the NFRD further refers to the voluntary application of reporting frameworks, such as the union-based 'Eco-Management

[19] Firms are considered large if two of the following criteria – €20 million in total assets, €40 million in sales revenue, and 250 employees – are exceeded for two consecutive fiscal years (Directive 2013/34, art. 3 par. 4, 10).

and Audit Scheme' (EMAS) or the international framework from the 'Global Reporting Initiative' (GRI) (Directive 2014/95, art. 1 par. 1, recital 9). This provides the reporting companies with some flexibility, as the exact reporting attributes, such as reporting length and quantitative underpinnings, remain at their own discretion (Christensen et al., 2021).

The German Bundestag transposed the NFRD into German law by integrating its requirements into, for example, the German Commercial Code as part of the so-called 'CSR Directive Implementation Act' (CSR RUG). The CSR RUG came into force on April 19, 2017 and largely represents an one-to-one implementation of the NFRD (CSR Europe and Global Reporting Initiative, 2017). Overall, 487 German firms are affected by the NFRD, thereof 238 capital market-oriented firms and 249 credit institutions and insurance undertakings (Econsense & UN Global Compact Network Germany, 2018).

3.2.2 Characteristics of the GSBs

This paper focuses on a group of non-profit-oriented and non-listed credit institutions organized under public law, namely the GSBs. Out of the 390 existing GSBs in Germany in 2017 (German Savings Banks Association, 2017), approximately one third falls under the scope of the NFRD, which corresponds to a significant part of the overall 487 affected companies in Germany (Econsense & UN Global Compact Network Germany, 2018). The GSBs as well as other related financial institutions, such as 'Landesbanken' and the DekaBank, are constituted under the German Savings Banks Finance Group. The GSBs are organized in federal state associations, comprising a 'Landesbank' as head institution and central clearing bank of all GSBs in the respective federal state. Owing to the cooperation between small (GSBs) and large banks ('Landesbanken' and the DekaBank as the central security service provider) within the Savings Banks Finance Group, the GSBs are able to combine advantages of decentralization, such as closeness to the customer, with the scale advantages of larger banking units, such as higher operational efficiency (German Savings Banks Association, 2020b). Based on their legal form and organizational structure, GSBs encompass unique characteristics that set them apart from other companies within the scope of the NFRD.

The *public mandate* is codified in the savings bank laws of the respective federal states. In principle, five tasks have emerged that characterize the public mandate – the guarantee function, structural protection function, principal bank function, support function, and competition protection function (Brämer et al., 2010; Savings Banks Act[20], sec. 6 par. 1). According to the guarantee function, the GSBs have to ensure the non-discriminatory provision of financial services to all citizens and small and medium-sized enterprises. The structural protection function aims at maintaining the existence of GSBs in all regions, including structurally and economically weak regions, and sponsoring a broad range of social commitments. Based on the principal bank function, GSBs are supposed to safeguard the monetary and credit supply of the municipal trustees. In accordance with the support function, GSBs have to encourage the population to save money and accumulate wealth, and to provide credit to the economy. Lastly, in line with the competition protection function, GSBs are intended to strengthen competition in the banking industry. Altogether, the public mandate requires GSBs from the outset to serve the interest of their stakeholders and the society at large. In this sense, it entrusts the GSBs with a social responsibility, in particular (German Savings Banks Association, 2020b).

These tasks form the basis of the GSBs' business activities and thus manifest in the so-called *mandate targets* of their multidimensional target system. The other part of the target system, the *safeguard target*, ensures the continued existence of the GSBs based on the generation of profit, maintenance of liquidity, and provision of security (Mülhaupt & Dolff, 1981). However, the mandate targets remain superior to these economic objectives, which means that a GSB's profits 'are used exclusively to strengthen its financial base and to provide benefits for society'

[20] In Germany, the Savings Banks Act falls under federal state law, which results in 16 mostly similar Savings Banks Acts. For reasons of clarity and comprehensibility, this study always refers to the Savings Banks Act from Baden-Wuerttemberg.

(German Savings Banks Association, 2020b). Thus, unlike profit-oriented companies, profit maximization is not the main purpose of GSBs' operations (Savings Banks Act, sec. 6 par 4).

In the course of fulfilling these targets, the GSBs face, for example, a demand for public-mandate-related measures and innovative and sustainable product portfolios. This is contrasted by industry-specific challenges, such as a persistently low level of interest rates around the entry into force year, increasing regulatory requirements and growing competition with (online) credit institutions. Accordingly, a dichotomy arises in which GSBs are required to operate highly efficient in order to simultaneously ensure the continuation of business and fulfill their legally obliged public mandate.

Beyond that, GSBs operate under *municipal trusteeship*. Based on this form of ownership, GSBs are fully independent credit institutions that neither have owners nor members and thus cannot be sold by the municipalities (German Savings Banks Association, 2020b). However, municipalities still have a determining influence on the GSBs' governance structure, given that local politicians from the respective municipal or district constitute a significant part of the supervisory board members (Savings Banks Act, sec. 14-15). In line with this municipal embedment and the *regional principle*, GSBs only service the administrative region of the respective municipalities or districts in which the GSB was founded. As a results, the GSBs do not compete with each other, but rather span an interconnected network across all municipalities and districts in Germany (German Savings Banks Association, 2020b).

3.2.3 GSBs and the role of CSR

According to the EU's CSR strategy, companies are expected to not only maximize 'the creation of shared value for their owners/shareholders' but also 'for their other stakeholders and society at large' as part of their sustainable transformation process (European Commission, 2011). Thus, firms are required to create value not just for shareholders but for all stakeholders, which corresponds to the stakeholder theory (Freeman, 1984), but contrasts shareholder theory.

The latter posits that the social responsibility of business is to increase its profits and maximize returns to shareholders (Friedman, 1970).

Unlike listed firms that likely focus more heavily on CSR activities that are congruent to their shareholders' (financial) interest, GSBs already act in line with the EU's CSR strategy, as they are legally obliged from the outset to pursue a business policy oriented towards all stakeholders and the common good, due to their public mandate. This particularly concerns the GSBs' social commitments, such as financial inclusion and social development, as GSB's public mandate predominantly addresses the compatibility of economic and social goals[21]. This prevailing social focus can be illustrated, for example, by CSR-related commitments of the German Savings Banks Finance Group in 2019. A total of 114 million Euros were given to social projects, while 13 million Euros were distributed to environmental projects (German Savings Banks Association, 2020a). In this context, GSBs likely refer to CSR-related disclosures (on such sponsorings) as a method of demonstrating that they fulfill the public-mandate-related expectations of stakeholders and the society at large.

3.3 Empirical effects of mandatory CSR reporting on firms' CSR performance

3.3.1 Prior literature

This section briefly summarizes pertinent extant research, before outlining the research question. Regulators have various regulatory instruments at their disposal to influence entrepreneurial activity. Apart from direct market regulation, such as restrictions or incentive taxes, regulators can also resort to public policy instruments for indirect behavioral regulation, for example, disclosure mandates (Leuz & Wysocki, 2016). The NFRD corresponds to the latter, with the effect channels of indirect behavioral regulation being not always consistent and difficult to disentangle. Building on CSR reporting regulation, these channels link a subsequent increase

[21] See the description of the mandate targets in section 3.2.2.

in transparency or salience (first-order effects) to the resulting creation of real effects (second-order effects).

According to Christensen et al. (2021) and Fiechter et al. (2022), one effect channel is the *stakeholder pressure channel*, which mainly relates to effects emerging after the entry into force of the CSR reporting regulation. The reporting regulation likely provides stakeholders with an increased level of easily accessible CSR information. The stakeholders can use this information to exert pressure through mechanisms like shareholder activism (Grewal et al., 2016), boycotts and adverse product demand (Jin & Leslie, 2003), public shaming (Dyck et al., 2008; Rauter, 2020), or by imposing sustainability restrictions along the supply chain (Dai et al., 2021; Darendeli et al., 2022). In line with this, several studies examine the effects of CSR reporting regulation in China (Chen et al., 2018), the UK (Downar et al., 2021; Jouvenot & Krueger, 2021) and the USA (Tomar, 2023) and show, among other results, a decrease in emission levels.

Besides the stakeholder pressure channel, Fiechter et al. (2022) show that firms within the scope of the NFRD increase their CSR activities already before the entry into force of the reporting mandate in 2018. In line with these findings, they propose three non-mutually exclusive effect channels – namely the internal learning, stakeholder awareness and anticipation channel – which can affect firm behavior in both, the pre- and post-directive period.

First, the *internal learning channel* builds on Simon (1955), who suggests that the extent to which managers consider information that is accessible but not yet collected and processed in their decision-making is depended on the cost of collecting and processing such information. Thus, regulatory changes in disclosure that require companies to collect and process additional information likely affect the information sets and decisions of the company's management (Roychowdhury et al., 2019; Shroff, 2017).

Second, the *stakeholder awareness channel* is based on the broad media coverage of the passage of the NFRD. This is likely associated with an increased stakeholder attention towards CSR (e.g. Howitt, 2014). As a result, stakeholder pressures on companies to adjust their CSR performance likely increase (Fiechter et al., 2022), as stakeholders, for example, assign greater importance to companies' CSR performances (Christensen et al., 2017).

Third, the *anticipation channel* refers to higher CSR transparency and the associated ability of stakeholders to monitor CSR performances subsequent to the NFRD. As these factors likely encourage stakeholders to exert pressure in case of goal misalignment, companies have an incentive to anticipate such behavior and, if necessary, increase their CSR performance in advance to reduce negative stakeholder reactions and preserve their CSR reputation (Amel-Zadeh & Serafeim, 2018; Rhee & Valdez, 2009). Altogether, in line with the proposed effect channels, previous literature indicates the presence of real effects in response to the NFRD (e.g. Cuomo et al., 2022; Fiechter et al., 2022; Jackson et al., 2020).

3.3.2 Research question

In terms of the GSBs, reasons can be found both for and against the NFRD affecting the GSBs' CSR activities. In favor of such an effect, GSBs probably need to collect and process additional CSR information to comply with the NFRD, which results in altered information sets of the GSB's management. Thus, activities such as an enhanced internal monitoring of the CSR performance likely prompt the GSB's management to adjust and optimize CSR performance.

In addition, customer who are concerned about CSR can resort to CSR reporting and related ratings to assist them in making product decisions. For instance, Zielke Research Consult GmbH (2021) use CSR reports to compare and rate the CSR performances of 119 German banks from all three banking pillars, i.e. private, cooperative and savings banks. The results show that GSBs perform comparatively well in terms of social-related engagements, but poorly regarding environmental issues. This might induce (potential) customers, who place great value on environmental protection, to switch banks or avoid GSBs from the outset. Along the lines of Jin and Leslie (2003), such an adverse product demand might pressure the GSB's management to change behavior and, for example, increase the environmental CSR performance.

Similarly, CSR reporting likely increases stakeholders' awareness of GSBs' CSR performances. The chair of a GSB's supervisory board is usually the mayor of the respective municipality. Given that voters likely associate the mayor with the GSB's local CSR engagement due to political credit claiming (Flagmeier & Gulenko, 2023), the CSR performance could thus be of mounting relevance in local elections. For example, in an attempt to derive a voting decision, voters might resort to CSR reporting to gain an impression of the local engagement of the GSB that is associated with the mayor running for election. Consequently, politicians who serve on the supervisory board are likely inclined to pressure the GSB's executives to increase CSR activities. In line with this, Flagmeier and Gulenko (2023) show that GSBs systematically adjust their CSR activities, i.e. charitable donations, in response to electoral cycles.

Concerning arguments against the NFRD influencing the GSBs' CSR activities, the creation of real effects might be hampered by the distinctive characteristics of the GSBs. Based on their organization under public law and the associated public mandate, the goal of the GSBs is to increase the well-being of all stakeholders from the outset, with profit generation serving only as a means to an end. In this endeavor, the public mandate aims at promoting especially social-related activities, such as financial inclusion or social development. In comparison to profit-oriented firms, this likely results in a higher level of CSR- and particularly social-related activities of the GSBs from the beginning, which probably limits the GSBs' opportunities for further CSR-related improvements in response to the NFRD.

In addition, to demonstrate compliance with their public mandate, GSBs are required to collect, monitor and publish public-mandate-related CSR information from the outset (Kruppe & Kühl, 2020). Thus, pertinent metrics and information media, such as GSB-specific leaflets or homepage enhancements, have already been established before the NFRD (Gulenko et al., 2022). In this sense, stakeholder demands for CSR information might already be satisfied, in particular regarding public-mandate-related issues. Additionally, although comprising less extensive CSR information than a comprehensive CSR report, the already existing information media might attenuate the increase in incremental CSR information in response to the NFRD. For instance, the Sparkasse KölnBonn (2017) states that existing positions might simply be summarized in a transparent manner within the mandatory CSR reporting under the NFRD. Altogether, this indicates that the stakeholder demand for additional forms of CSR disclosures, such as mandatory CSR reports, and the increase in incremental CSR information associated with these forms of disclosure might be rather low in the context of GSBs. This likely limits opportunities for internal learning and stakeholder pressure, for example.

Beyond that, GSBs lack a capital market-orientation and powerful stakeholder groups, such as capital market analysts and shareholders. Thus, opportunities for stakeholders to act upon CSR disclosures are limited, as particularly share-based mechanisms for exerting pressure on a firm are not present. In the context of the GSBs' operative business, this is further supported by the fact that the GSBs only act as the DekaBank's exclusive sales partner. In comparison to listed, profit-oriented banks, the GSBs' impact on redirecting investments in sustainable directions is thus rather limited, as the GSBs' securities service provider, the DekaBank, ultimately determines the investments' sustainability alignment. As a result, stakeholder attention and pressure are likely focused on the DekaBank's CSR commitment rather than that of the GSBs in this context. Similarly, the GSBs' operating business is subject to legal requirements. For instance, GSBs must not discriminate financial services according to their guarantee function. Hence, in comparison to other banks, GSBs must not restrict loans to firms with low CSR performances. As a result, the legal requirements further narrow the GSBs' leeway concerning CSR-oriented behavioral changes in response to stakeholder pressure.

Overall, capital market-oriented, large undertakings usually constitute the main target of CSR reporting regulations, such as the NFRD (van der Lugt et al., 2020). Accordingly, prior research focuses primarily on examining real effects of CSR reporting regulations for this group of companies and shows that real effects emerge in both, the pre- and post-directive period (e.g. Fiechter et al., 2022). However, a significant proportion of firms within the scope of the NFRD, i.e. the GSBs, feature a fundamentally different legal form and business model. The GSBs' distinctive characteristics likely mitigate the NFRD's potential for improving the transparency of CSR information (first-order effect) and for increasing CSR- and especially social-related activities (second-order effects). Based on this, I investigate the open empirical question *whether real effects emerge in non-profit-oriented GSBs in response to the NFRD.*

3.4 Research design and data

3.4.1 Empirical model and DiD design

This section outlines research design choices along with the data used. To examine whether real effects emerge in GSBs within the scope of the NFRD, this paper employs several multivariate tests by estimating the following baseline DiD model:

$$(1) \quad ESG = ß_0 + ß_n TREAT * POST + ß_j CONTROLS + ß_i FIXEDEFFECTS + \varepsilon$$

The DiD analyses compare the impact of the NFRD on GSBs within the scope of the NFRD (treatment firms) with GSBs outside the scope of the NFRD (control firms). Building on the GSBs' late adoption of the NFRD, the analyses focus on the years 2014-2020, with 2018-2020 as (post) treatment years. The NFRD applies to large undertakings with an average number of employees in excess of 500 in the financial year. Therefore, unlike the experimental ideal, the treatment is not randomly assigned, but linked to a size threshold. Based on the latter, the control group mainly consists of smaller GSBs. While size remains a differentiator between treatment and control GSBs, the given choice of control firms yields mainly three advantages.

First, a control group that is similar to the treatment GSBs in terms of their organization under public law and non-profit-oriented business model mitigates the risk of treatment effects being caused by structural differences between the two groups. With the other two pillars of the German banking market, namely private and cooperative banks, both pursuing different business strategies, only GSBs remain as truly similar control firms. Second, the banking sector is highly regulated. In fact, various regulations came into force in the relevant period (e.g. MiFiD II, MiFiR, CRR I-II). Thus, using firms from the same sector controls for a majority of such (size-invariant) regulations. Third, the GSBs provide the most comparable and comprehensive data in terms of data availability.

To further mitigate the risk that treatment effects are caused by structural differences, the firms of the treatment and control group are matched using PSM. The PSM is conducted based on the means of the ESG variable[22] and the covariates used in the main DiD model (see section 3.4.2), except for size[23], in the pre-directive period (2014-2017). In line with Fiechter et al. (2022) and Shipman et al. (2017), the PSM allows for replacement and uses a caliper of 0.05 to ensure a high quality of matching while mitigating further sample size reduction.

Subsequently, the covariate balance in the pre-treatment period (2014-2017) is examined to determine whether unobservable differences across treatment and control GSBs remain that might confound the treatment effect. In this sense, the treatment and control firms are compared along the variables included in the PSM. In addition, a probit regression is estimated with $TREAT$ as dependent variable and the covariates used for the matching as independent variables. Based on a comparison of the covariate balance across the unmatched and matched sample, both tests illustrate a successful matching. As shown in appendix 3.A2 in panel A, the differences between the mean values in the pre-directive period are mitigated in almost all cases. In line with this, the probit regression results presented in panel B indicate that significant pre-regulation differences across the treatment and control group are majorly nullified.

[22] All variables are defined in appendix 3.A1.
[23] Size is not included in the matching, as it would significantly lower the number of matched firms.

3.4.2 Variables measurement

The dependent variable ESG is self-constructed based on three equally weighted scores[24], measuring the environmental- (ENV), social- (SOC), and governance-related (GOV) performance of the GSBs. The three scores each comprise five equally weighted and (percentile) ranked [0;100] scores, with 100 being the highest score. The ENV variable refers to ecological CSR perspectives and mainly captures efficiency-related factors. In this sense, the ENV variable comprises the staff- ($STAFFEFF$), other administrative- ($ADMINEFF$), other operating efficiency ($OPEREFF$), return on assets (ROA), and asset turnover ratio ($ASSETTURNOVER$). In case of the resource efficiency scores ($STAFFEFF$, $ADMINEFF$ and $OPEREFF$), lower scores indicate a higher efficiency. These three scores mainly capture a firm's resource efficiency in generating revenue and relate, among other things, to energy, water and paper consumption. Similarly, the ROA and $ASSETTURNOVER$ variables refer to a company's efficiency in generating earnings before taxes, or revenue, respectively, based on their total assets.

SOC comprises variables associated with the commitment to public welfare and employees and thus mostly includes public-mandate-specific figures. Specifically, the change in the number of employees in the business area ($SERIVCE$), regional value added (RVA), i.e. a firm's added value and output that remain in its business area (Kruppe & Kühl, 2020), dividends paid to municipalities relative to the earnings before taxes ($DIVIDEND$), customer deposits per 10.000 business area inhabitants ($DEPOSITAREA$), i.e. customer satisfaction, and staff productivity ($STAFFPROD$), i.e. staff satisfaction, are included.

The GOV variable refers to CSR-related qualifications and the diversity of GSBs' managements. Hence, the GOV variable is based on the share of female executive board members (EB_FEMALE), share of female supervisory board members (SB_FEMALE), number of different

[24] The *ESG* variable was also constructed following the category weights listed in the Refinitiv (2022) scoring methodology (RSM) to account for the relative importance of each theme to the banking services industry (E: 14.3%, S: 50.0% and G: 35.7%). However, the findings presented in appendix 3.A3 show no significant variation in comparison to the results presented in section 3.5.2.1.

job classifications among supervisory board members ($SB\_DIVERSITY$), i.e. the job-related diversity, share of highly educated supversiory board members ($SB\_EDUCATION$), and share of CSR-related job classifiactions among supervisory board members (SB_CSR). Concerning the different job classifications, I use the framework by Hillman et al. (2000) as orientation.

To ensure that CSR activity scores do not rise merely because CSR reporting increases, I only use measures for CSR activities that are independent of mandatory CSR reporting. In this sense, all the data underlying my CSR activity scores is available outside the CSR reports, i.e. mainly in the respective annual reports. An example for the calculation of the ESG, ENV, SOC, and GOV scores for a specific GSB is given in appendix 3.A4.

The indicator variable $POST$ differentiates between the periods before (2014-2017) and after the NFRD came into force (2018-2020). The indicator variable $TREAT$ distinguishes between GSBs within the NFRD's scope (treatment) and propensity score matched GSBs outside the NFRD's scope (control). Several control variables are also added to control for the firm characteristics. Building on the uniqueness of the GSBs' business model, research investigating (non-) financial effects in GSBs, or savings banks in general, is comparably scarce (e.g. Vins, 2008). Thus, the choice of covariates in this study is mainly based on figures from the GSB's target system. In line with the German Savings Banks Association (2020b) and Mülhaupt and Dolff (1981), indicators for the profitability (ROA) and net interest margin ($INTERESTRATE$) are added to control for the generation of profit. In terms of the maintenance of liquidity, measures for the GSBs' reserves for general banking risks ($BANKRISKFUNDRATIO$) and liquidity ($LIQUIDASSETRATIO$) are included as controls. Regarding the provision of security, indicators for capital adequacy ($TOTALCAPITALRATIO$ and $DEBTTOEQUITY$) and customer deposits as the main source of funding ($CUSTOMERDEPOSIT$) are added as controls. This study also controls for size ($SIZE$) and asset structure ($PPERATIO$) of the GSBs, as these factors might also influence CSR activities (e.g. Chen et al., 2018; Fiechter et al., 2022). Appendix 3.A1 provides variable descriptions for all variables used in this study. Equation [1] is estimated using 'Ordinary Least Squares' (OLS) regressions and heteroscedasticity-robust standard errors clustered at the firm level. Firm and year fixed-effects are included to control for time-invariant unobservable characteristics of GSBs and for time trends across GSBs.

3.4.3 Data and sample

The GSBs' financial data is mainly provided by the 'Bureau van Dijk' (BvD) BankFocus database. This data is amended by yearly GSB rankings from the German Savings Banks Association (2020c) and hand-collected data from the annual reports, for example, on the composition of the executive and supervisory boards. The CSR reporting data is hand-collected from GSB homepages, the German Federal Gazette and the website of the 'German Sustainability Code' (DNK). The population data of the GSBs' municipalities is provided by the 'Federal, State and Municipal Statistical Offices' (GFSO).

The sample selection process on firm-level is outlined in panel A of table 3.1. Out of the existing 373 GSBs in the BvD BankFocus database in the given period, one GSB is excluded due to an incomplete BvD dataset. 35 GSBs are eliminated as their merging activities from 2014 onwards might entail concurrent events that could potentially create real effects and cause inconsistent or hardly comparable datasets. Four GSBs are dropped from the sample because they are so-called free GSBs organized under private law. One GSBs is eliminated based on inconsistent reporting, i.e. a switch from mandatory to voluntary CSR reporting in the post period. Regarding the control group, eight GSBs are excluded due to voluntary CSR reporting.

Table 3.1: Sample description

Panel A: Sample selection		
Selection criteria	Excluded GSBs	Remaining GSBs
BvD GSB-firm observations (2014-2020):		373
- without complete BvD BankFocus data	1	372
- without GSBs fusing from 2014 onwards	35	337
- without 'free' GSBs	4	333
- without non consistently reporting GSBs	1	332
- without voluntarily reporting control GSBs	8	324
Sample before matching		324
- thereof treatment GSBs		102
- thereof control GSBs		222
Sample after matching		202
- thereof treatment GSBs		101
- thereof control GSBs		101

Panel B: Sample distribution per year								
Sample distribution per year	2014	2015	2016	2017	2018	2019	2020	Total
Treatment GSBs	101	101	101	101	101	101	101	707
Control GSBs	101	101	101	101	101	101	101	707

Panel C: Summary statistics				
	Control GSBs Observations = 707		Treatment GSBs Observations = 707	
Variables	Mean	StDev	Mean	StDev
CSR activities				
ESG	45.430	11.092	46.515	9.691
ENV	49.476	16.479	50.520	14.648
SOC	47.656	15.545	49.826	15.613
GOV	39.159	16.632	39.198	16.906
Firm characteristics				
SIZE	21.088	0.651	22.384	0.437
ROA	0.371	0.154	0.403	0.160
PPERATIO	0.750	0.427	0.856	0.465
CUSTOMERDEPOSIT	76.527	6.573	75.868	5.886
BANKRISKFUNDRATIO	3.948	3.847	3.987	3.813
TOTALCAPITALRATIO	18.408	4.009	17.700	3.594
DEBTTOEQUITY	9.854	2.352	9.781	2.240
INTERESTRATE	1.652	0.375	1.729	0.312
LIQUIDASSETRATIO	10.953	7.183	10.262	5.852

Notes: This table states the number of excluded and remaining GSBs per selection step in panel A and provides an overview of the GSB-year observations over the sample period in panel B. Summary statistics for the (non-indicator) variables used when estimating equation [1] are provided in panel C. All variables are defined in appendix 3.A1.

Building on this sample selection process, the sample before the PSM consists of 324 GSB, i.e. 222 control and 102 treatment GSBs. Due to the specifications of the PSM, i.e. allowing for replacement and using a caliper of 0.05, one treatment GSB is dropped in the course of the PSM. This results in a balanced sample of 101 treatment and 101 control GSBs. Collectively, as illustrated in panel B of table 3.1, this adds up to a total of 707 firm-year observations per treatment and control group and 1414 firm-year observations in total. Summary statistics are reported separately for treatment and control GSBs in panel C of table 3.1.

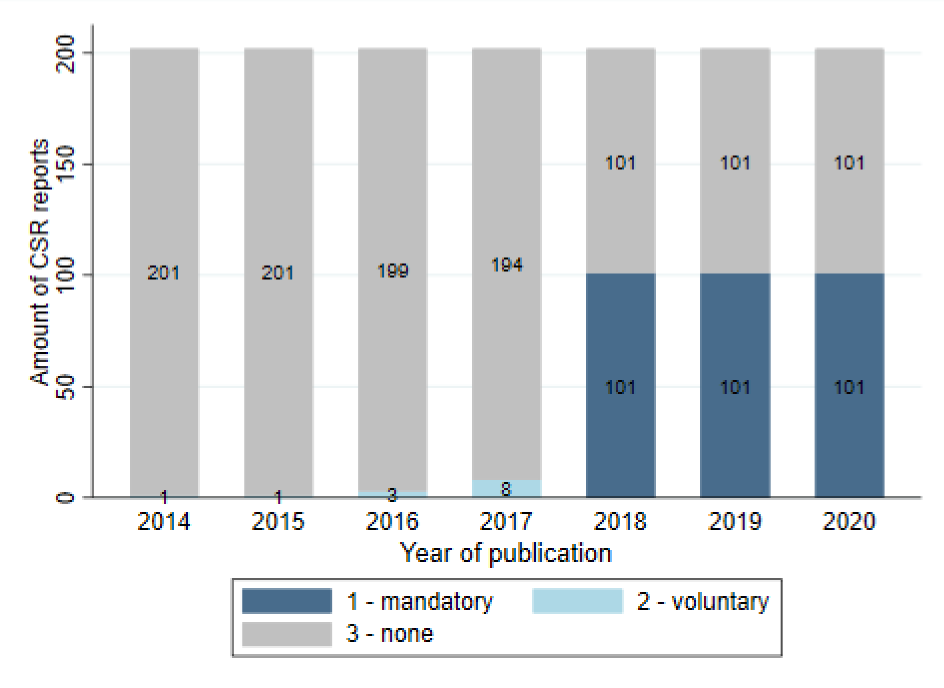
3.5 Results

3.5.1 Plausibility of the transparency shock

At the outset, this section examines the presence of a transparency shock in response to the NFRD before presenting the main results regarding the existence of real effects. In addition, further analyses are displayed that investigate the manifestations and economic relevance of the real effects and address critical research design choices.

The following analyses critically hinge on the assumption that the NFRD provides stakeholders with a higher level of easily accessible CSR information as this *transparency shock* is seen to be vital for managing change towards a sustainable economy, i.e. increasing CSR activities (Directive 2014/95, recital 3). However, it remains uncertain whether GSBs increase their CSR transparency in response to the adoption of the NFRD.

Figure 3.1: CSR reporting over the years



Notes: This figure illustrates the number of CSR reports published by the treatment (and control) GSBs over the years. While voluntary CSR reports refer to the publication years 2014-2017, mandatory CSR reports refer to the publication years 2018-2020.

To examine whether GSBs provide a higher level of easily accessible CSR information in response to the NFRD, figure 3.1 illustrates the number of voluntarily and mandatorily CSR reporting GSBs over time. The figure shows an immense increase in the amount of CSR reports published in the entry into force year 2018. Only eight GSBs from the treatment group voluntarily published a CSR report prior to the NFRD, while all of the 101 treatment GSBs provided a mandatory CSR report in subsequent years. Given the specification of the sample selection (see section 3.4.3), none of the control GSBs provided CSR reports.

In terms of reporting content, some metrics, are calculated and processed for the first time, such as the published carbon footprint (e.g. Kreissparkasse Köln, 2017). At the same time, already existing positions might be summarized in a transparent manner (Sparkasse KölnBonn, 2017), thereby likely increasing the salience of information, but limiting the extent of new CSR information in these reports.

In comparison to previous research based on listed firms (e.g. Fiechter et al., 2022), the relatively low number of voluntary CSR reports published between the NFRD's passage and its entry into force in 2018 demonstrates a late adoption. This likely indicates that GSBs are less exposed to CSR information demands of stakeholders. Similarly, this might suggest that previously established and less comprehensive information media, such as leaflets or websites (Gulenko et al., 2022), are sufficient to cater to stakeholders' CSR information demands.

Conclusively, although a few voluntary CSR reports and other information media have already existed prior to the NFRD, the sharp increase in CSR reports strongly suggests that transparency, i.e. the level of standardized and easily accessible CSR information, has increased in response to the NFRD. Yet, in contrast to prior literature on listed firms, the presence of a transparency shock does not span the pre-directive period, as GSBs did not significantly increase the provision of CSR reports before the NFRD's entry into force. Also, the transparency shock might be attenuated by already existing disclosures of CSR information.

3.5.2 Real effects of a CSR reporting mandate

3.5.2.1 Effects of the NFRD on GSBs' CSR activities

This analysis addresses the main research question whether real effects, i.e. changes in a firm's behavior, emerge in non-profit-oriented GSBs in response to CSR transparency regulation. Panel A of table 3.2 reports results from estimating the baseline model (see equation [1]) with total CSR activities (ESG), environmental- (ENV), social- (SOC) and governance-related activities (GOV), respectively, as dependent variables. Additionally, yearly coefficients are provided in panel B by substituting $POST$ with yearly indicator variables. Based on the GSBs' late adoption of the NFRD, i.e. the low number of voluntary CSR reports in the pre-directive period, I do not expect significant real effects to occur before the entry into force year. Thus, in the yearly regressions, I use 2017 as baseline year, i.e. the year prior to the NFRD becoming effective.

Table 3.2: Effect of the NFRD on GSBs' CSR activities

Panel A: DiD results including fixed-effect				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT	2.255***	2.983***	1.393	2.390
	(2.90)	(2.79)	(1.05)	(1.65)
SIZE	14.452**	8.654	36.561***	-1.859
	(2.33)	(0.82)	(4.69)	(-0.17)
ROA	32.045***	41.931***	49.051***	5.152
	(15.96)	(15.56)	(11.40)	(1.54)
PPERATIO	-0.234	0.337	-2.967**	1.928
	(-0.37)	(0.22)	(-2.06)	(1.27)
CUSTOMERDEPOSIT	-0.001	-0.042	0.267**	-0.229
	(-0.02)	(-0.28)	(1.97)	(-1.37)
BANKRISKFUNDRATIO	0.101***	-0.785***	1.091***	-0.001
	(2.87)	(-9.19)	(14.11)	(-0.02)
TOTALCAPITALRATIO	0.285	-0.089	0.729***	0.215
	(1.50)	(-0.30)	(3.12)	(0.89)
DEBTTOEQUITY	-0.063	0.242	-0.848***	0.416
	(-0.65)	(0.96)	(-3.97)	(1.31)
INTERESTRATE	3.982***	23.157***	-9.103***	-2.108
	(3.47)	(9.64)	(-4.21)	(-0.85)
LIQUIDASSETRATIO	-0.092	-0.097	-0.198**	0.017
	(-1.44)	(-0.82)	(-2.60)	(0.22)
Cluster	firm	firm	firm	firm
Firm FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
Adj. R2	0.891	0.866	0.820	0.854
Observations	1,414	1,414	1,414	1,414

Table 3.2 continues.

Continuation of table 3.2.

Panel B: Yearly DiD results including fixed-effects					
Predictor variables		ESG (1)	ENV (2)	SOC (3)	GOV (4)
2014xTREAT		0.686	1.716	0.612	-0.272
		(0.94)	(1.06)	(0.34)	(-0.19)
2015xTREAT		0.414	0.893	1.492	-1.142
		(0.68)	(0.59)	(0.83)	(-1.08)
2016xTREAT		0.238	-0.485	0.738	0.459
		(0.39)	(-0.36)	(0.48)	(0.62)
2018xTREAT	Entry into force	2.199**	3.236**	2.781	0.579
		(2.47)	(2.18)	(1.14)	(0.71)
2019xTREAT		2.951***	4.325***	1.375	3.153*
		(3.12)	(3.05)	(0.69)	(1.83)
2020xTREAT		2.612**	2.973*	2.137	2.727
		(2.23)	(1.78)	(1.04)	(1.27)
SIZE		14.549**	8.983	36.905***	-2.242
		(2.33)	(0.85)	(4.68)	(-0.20)
ROA		32.053***	41.927***	48.893***	5.340
		(15.95)	(15.57)	(11.40)	(1.59)
PPERATIO		-0.231	0.358	-2.964**	1.914
		(-0.36)	(0.24)	(-2.02)	(1.26)
CUSTOMERDEPOSIT		0.001	-0.036	0.271**	-0.234
		(0.01)	(-0.24)	(1.97)	(-1.40)
BANKRISKFUNDRATIO		0.104***	-0.777***	1.090***	-0.002
		(2.92)	(-9.04)	(13.98)	(-0.03)
TOTALCAPITALRATIO		0.289	-0.064	0.733***	0.198
		(1.52)	(-0.21)	(3.22)	(0.81)
DEBTTOEQUITY		-0.068	0.229	-0.857***	0.424
		(-0.70)	(0.90)	(-4.03)	(1.32)
INTERESTRATE		3.997***	23.069***	-8.998***	-2.081
		(3.47)	(9.58)	(-4.18)	(-0.84)
LIQUIDASSETRATIO		-0.092	-0.097	-0.199**	0.020
		(-1.43)	(-0.81)	(-2.60)	(0.25)
Cluster		firm	firm	firm	firm
Firm FE		yes	yes	yes	yes
Year FE		yes	yes	yes	yes
Adj. R2		0.891	0.867	0.820	0.855
Observations		1,414	1,414	1,414	1,414

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 with binary (panel A) and yearly DiD indicator variables (2017 as baseline year) (panel B). The dependent variables are total (ESG), environmental- (ENV), social- (SOC), and governance-related CSR activities (GOV). All variables are defined in appendix 3.A1. Standard errors clustered at the firm level and firm and year fixed-effects are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The $POSTxTREAT$ regression results presented in panel A of table 3.2 show significant positive coefficients for both, total CSR activities (ESG) and environmental-related activities (ENV). Regarding the yearly results, the coefficients shown in panel B are statistically significant for total CSR activities (ESG) and environmental-related activities (ENV) in the post-period, and for governance-related activities (GOV) in 2019. Beyond that, all coefficient estimates increase in 2018 compared to previous years. Overall, these results yield three main insights.

First, the $POSTxTREAT$ and yearly coefficient estimates suggest that GSBs within the scope of the CSR transparency regulation, relative to GSBs outside the scope, respond to the NFRD by significantly increasing their CSR activities in the post-directive period. This finding is consistent with prior research documenting real effects of mandated CSR disclosures (e.g. Chen et al., 2018; Fiechter et al., 2022).

However, as opposed to, for example, Fiechter et al. (2022), the increase in total CSR activities is mainly attributable to enhanced environmental activities. The latter primarily refer to resource efficiency and manifest in the GSBs, for example, in the execution of an energy audit, a sustainability-oriented restructuring of the corporate vehicle fleet and the continuous digitalization of processes (e.g. Kreissparkasse Köln, 2017; Sparkasse KölnBonn, 2017). The lower and insignificant coefficients of the social-related activities might reflect the lower potential for improvements, as a result of the GSBs' already existing, socially-focused public mandate. At the same time, the insignificant governance-related result of the $POSTxTREAT$ coefficient might partly stem from the slow-moving character of the governance variable, as this variable depends mainly on the composition of the supervisory board and is thus, among other things, tied to municipal election cycles of approximately four to six years. The lagged, slightly significant result regarding the governance-related yearly coefficients might underpin the slow-moving variable characteristic even further. The governance-related real effects materialize, for example, in the form of an increasing proportion of supervisory board members with CSR-related knowledge or a rise in job- or skill-related diversity among supervisory board members.

Second, the yearly coefficient estimates suggest that the real effects in response to the NFRD do not materialize in the pre-treatment period in contrast to Fiechter et al. (2022). Similar to the investigation of the plausibility of the transparency shock presented in section 3.5.1, these results thus likely attenuate the viability of the proposed effect channels, which can explain the emergence of real effects already in the pre-directive period, in the given setting.

Third and related, for the real effects in the post-treatment period to be attributed to the NFRD, the validity of the parallel trends assumption plays a crucial role. This requires the outcome variable, i.e. CSR activities, of treatment GSBs to not evolve differently from the control GSBs before 2018, i.e. the year in which the first mandatory CSR reports were published. Consistent with this requirement, the yearly coefficient estimates in the pre-treatment period in panel B of table 3.2 are all statistically insignificant. In line with this, the figure presented in appendix 3.A5 illustrates that CSR activities evolve in parallel across the treatment and control group in the pre-regulation period (2014-2017). This finding increases the confidence that the observed real effects can be attributed to the CSR transparency regulation.

3.5.2.2 GSBs' CSR activities and fixed-effect structure

The regional principle implies that the GSBs' business areas largely overlap with the constituencies of local politicians who serve on the supervisory board. With respect to the political environment, Di Giuli and Kostovetsky (2014) show that a politically left- rather than a right-leaning external political environment is associated with a higher CSR performance of the firm.

Also, GSBs have to strengthen banking industry competition according to their competition protection function. Regarding firm competition, Grimmer and Bingham (2013) find higher purchase intentions for products from firms with high (perceived) environmental performance.

Overall, the external political environment and competition might also influence the creation of real effects in GSBs. Yet, they interfere with my fixed-effect structure that controls for time-invariant unobservable GSB characteristics and for time trends across GSBs. Likewise, the

$POST$ and $TREAT$ coefficient estimates are also omitted in the main analysis, although being required to obtain an overall picture of the effect of the NFRD on the GSBs' CSR activities.

To address this shortcoming of my previous analysis, I re-estimate equation [1] without firm and year fixed-effects, while including several largely time-invariant variables. In this sense, the indicator variable (EO_LEFT) is included to control for the political environment in a GSB's business area. Additionally, the population density in the GSBs' operating areas ($COMPETITION$) is included to control for the exposure to competition for customers, which might also affect managerial reporting incentives. Lastly, an indicator variable ($EARLY$) is included to control for GSBs that voluntarily provided CSR reports already prior to the NFRD. All of these variables are defined in appendix 3.A1.

The results presented in table 3.3 show that the $POST$ and $TREAT$ coefficient estimates are partly significant and yield mostly negative signs. The coefficients for EO_LEFT and $COMPETITION$ are mostly positive and partly significant. The $EARLY$ coefficients are all insignificant. Altogether, these findings yield two main insights.

First, in terms of the overall ESG score, the partly significant and majorly negative $POST$ and $TREAT$ coefficients suggest that the examined GSBs show mostly declining CSR activities overall, with the treatment GSBs comparatively mitigating or partially reversing this effect in the post-directive period. This finding is probably attributable to the GSBs' tense business environment and the resulting need to operate highly efficient. For example, it becomes increasingly difficult to donate to social aspects, pay high dividends to municipalities, or generally implement costly ESG measures amidst declining margins.

Second, the results indicate that a left-leaning external political orientation in a GSB's business area and a high exposure to competition for customers might positively influence the overall CSR activities of the GSBs in line with previous research. In contrast, early CSR reporting does not seem to significantly affect a GSB's CSR performance.

Table 3.3: DiD results excluding fixed-effects

Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POST	-1.607	-5.434***	1.055	-0.443
	(-1.63)	(-4.48)	(0.78)	(-0.24)
TREAT	-5.824***	-5.932***	-1.796	-9.742**
	(-3.33)	(-3.56)	(-0.83)	(-2.22)
POSTxTREAT	2.178***	3.038***	1.431	2.065
	(2.70)	(2.73)	(1.05)	(1.36)
SIZE	3.473***	2.348***	1.151	6.919***
	(4.05)	(2.79)	(0.86)	(2.97)
ROA	34.202***	56.016***	57.960***	-11.371**
	(11.42)	(18.49)	(9.67)	(-2.00)
PPERATIO	-0.633	-1.057	-1.191	0.350
	(-0.84)	(-1.14)	(-0.91)	(0.19)
CUSTOMERDEPOSIT	0.013	-0.007	-0.269**	0.316*
	(0.18)	(-0.08)	(-2.37)	(1.88)
BANKRISKFUNDRATIO	0.117*	-0.488***	0.861***	-0.021
	(1.72)	(-5.21)	(7.24)	(-0.12)
TOTALCAPITALRATIO	0.376***	0.291**	0.700***	0.136
	(2.87)	(2.21)	(2.78)	(0.44)
DEBTTOEQUITY	-0.394*	-0.747***	-0.269	-0.165
	(-1.90)	(-3.00)	(-0.65)	(-0.28)
INTERESTRATE	7.107***	14.457***	-2.413	9.276***
	(4.53)	(11.34)	(-1.06)	(2.62)
LIQUIDASSETRATIO	0.029	0.058	-0.021	0.050
	(0.36)	(0.56)	(-0.20)	(0.28)
EO_LEFT	2.221**	-0.446	-0.852	7.960***
	(2.06)	(-0.43)	(-0.48)	(3.04)
COMPETITION	0.005***	-0.002	0.010***	0.006
	(2.83)	(-1.39)	(3.34)	(1.54)
EARLY	-0.842	1.841	-1.887	-2.481
	(-0.37)	(1.02)	(-0.66)	(-0.41)
Cluster	firm	firm	firm	firm
Firm FE	no	no	no	no
Year FE	no	no	no	no
Adj. R2	0.587	0.717	0.460	0.170
Observations	1,414	1,414	1,414	1,414

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 without using fixed effects. The dependent variables are total (ESG), environmental- (ENV), social- (SOC), and governance-related CSR activities (GOV). Largely time-invariant firm characteristics are included as independent variables. All variables are defined in appendix 3.A1. Standard errors clustered at the firm level are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

3.5.2.3 Cross-sectional analyses

Based on my findings of the previous analyses, the variation of the treatment effect is investigated in terms of firm-level exposure to the CSR transparency regulation and competitive pressures. Similarly, further light is shed on the role of the external political environment. In the fiscal year 2017, descriptive evidence presented in appendix 3.A6 indicates that the external political environment and the exposure to the NFRD and to customer competition vary across treatment GSBs.

In terms of the exposure to the NFRD, high exposure GSBs encompass below-median levels of CSR activities (ESG) before the entry into force year. Along the lines of Fiechter et al. (2022), the mandate to report on CSR activities thus provides such low-performing GSBs with particularly high incentives to increase CSR activities, for example, to avoid negative reactions from stakeholders in response to the mandatory disclosures.

Regarding the exposure to competition, high exposure GSBs are located in above-median populated regions ($COMPETITION$), i.e. urban areas, and thus likely encounter an increased number of competitors. Therefore, compared to low exposure GSBs, they are more likely to consider mandatory CSR reporting as a means of benchmarking or differentiating themselves from competitors, for example, through increased CSR activities.

Variation in the external political environment indicates different CSR preferences among (potential) customers (Di Giuli & Kostovetsky, 2014). In this sense, a left-leaning external political orientation (EO_LEFT) indicates a higher salience of CSR matters in a GSB's business area (Gulenko et al., 2022). Based on this, the CSR reporting obligation might incentivize GSBs to signal a fit with stakeholders' CSR preferences by reporting on comparatively high CSR activities in left-leaning external political environments. This might have a positive impact on customer loyalty and acquisition.

Table 3.4: Cross-sectional analyses

Panel A: Exposure to the NFRD				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT_HIGHEXP	2.549***	2.922**	1.322	3.404*
	(2.85)	(2.41)	(0.87)	(1.97)
POSTxTREAT_LOWEXP	1.953**	3.045**	1.465	1.348
	(2.21)	(2.37)	(1.01)	(0.75)
F test for diff. [p-value]	[0.001]	[0.346]	[0.001]	[0.004]
Cluster	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes
Adj. R2	0.891	0.866	0.820	0.854
Observations	1,414	1,414	1,414	1,414
Panel B: Exposure to competition				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT_HIGHEXP	2.796***	4.174***	1.405	2.809
	(3.10)	(3.21)	(0.96)	(1.61)
POSTxTREAT_LOWEXP	1.698*	1.757	1.380	1.958
	(1.96)	(1.50)	(0.91)	(1.08)
F test for diff. [p-value]	[0.001]	[0.192]	[0.001]	[0.001]
Cluster	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes
Adj. R2	0.891	0.867	0.820	0.854
Observations	1,414	1,414	1,414	1,414
Panel C: Exposure to the external political environment				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT_LEFT	4.482***	6.135***	2.986	4.324**
	(4.61)	(3.43)	(1.65)	(2.12)
POSTxTREAT_RIGHT	1.584*	2.033*	0.912	1.806
	(1.96)	(1.90)	(0.67)	(1.15)
F test for diff. [p-value]	[0.039]	[0.610]	[0.001]	[0.022]
Cluster	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes
Adj. R2	0.893	0.868	0.821	0.854
Observations	1,414	1,414	1,414	1,414

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 with non-overlapping treatment indicator variables. The variables $TREAT\_HIGHEXP$ and $TREAT\_LOWEXP$ refer to the exposure to the NFRD (panel A) and to competition (panel B). The variables $TREAT\_LEFT$ and $TREAT\_RIGHT$ refer to the external political environment (panel C). The dependent variables are total (ESG), environmental- (ENV), social- (SOC), and governance-related CSR activities (GOV). The controls are identical to the controls used in the main analysis presented in section 3.5.2.1. Standard errors clustered at the firm level and firm and year fixed-effects are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Table 3.4 presents the results from estimating the baseline model (see equation [1]) using (instead of the $TREAT$ variable) non-overlapping[25] binary indicators for treatment GSBs with high ($TREAT\_HIGHEXP$) or low ($TREAT\_LOWEXP$) exposure to the NFRD (panel A) and to competition (panel B). Likewise, panel C includes non-overlapping binary indicators for treatment GSBs with a left- ($TREAT\_LEFT$) or right-leaning external political environment ($TREAT\_RIGHT$). The total CSR activities (ESG), environmental- (ENV), social- (SOC) and governance-related activities (GOV), respectively, are used as dependent variables.

Regarding the GSBs that are highly exposed to the NFRD, the results in panel A show a significant positive treatment effect for total, environmental-, and governance-related CSR activities in the post-treatment period. In comparison, the coefficient estimates for the low exposure GSBs are mostly smaller and less statistically significant. In terms of the exposure to customer competition, the coefficients presented in panel B show similar results. Total and environmental-related CSR activities both yield significant, larger coefficients for high- compared to low-exposure GSBs. Similarly, with respect to the external political environment, the results presented in panel C show significant, higher coefficients for total, environmental-, and governance-related CSR activities in GSBs with a left- in comparison to right-leaning external political environment. The coefficient estimates for social-related activities remain positive but statistically insignificant in all specifications.

These findings yield four main insights. First, the results add to the main results, as real effects mainly materialize in GSBs that face particularly strong incentives to increase their CSR activities as a result of the NFRD, similar to Fiechter et al. (2022). Second, based on the comparatively higher coefficients for GSBs that are highly exposed to customer competition, the finding might suggest that GSBs likely refer to mandatory CSR reporting as a differentiation or benchmarking tool and adjust their CSR performance accordingly. Third, building on the results

[25] To indicate whether differences between the non-overlapping binary indicators are significant, F-tests are included in all regressions.

concerning the external political environment, GSBs likely refer to mandatory CSR reporting as a tool to signal a fit of CSR activities with external stakeholders' CSR preferences. This might boost customer perception and loyalty, for example. Lastly, the insignificant results in terms of social-related activities lend further support to the lower potential for improving social-related CSR transparency and activities by virtue of the GSBs' pre-existing mainly socially-focused public mandate. In line with Siegel (2009), this might indicate that GSBs mainly focus on environmental- and governance-related activities, as both, the potential for improvement and related (net) benefits, might be comparatively greater. Additionally, the relatively less pronounced coefficients in terms of social-related matters are consistent with varying levels of corporate engagement across different CSR matters (Apaydin et al., 2021).

3.5.3 Additional analyses

3.5.3.1 Manifestations of the real effects

In my main analysis presented in section 3.5.2.1, I use self-constructed scores as proxy for environmental- (ENV), social- (SOC) and governance-related activities (GOV). This allows me to examine relatively well, whether significant real effects can be observed regarding the overall CSR matters. Yet, the environmental-, social- and governance-related scores each comprise five equally weighted and (percentile) ranked [0;100] scores. Thus, further analyses are necessary to gain insights into the individual role of the comprised variables, i.e. the exact manifestations of the real effects in the resepective CSR matter.

To address this, the baseline model (see equiation [1]) is re-estimated using the variables underlying the three self-constructed scores. Regarding the environmental-related activities, I mainly refer to efficiency-related factors. Therefore, I include the staff- ($STAFFEFF$), other administrative- ($ADMINEFF$), other operating efficiency ($OPEREFF$), return on assets (ROA), and asset turnover ratio ($ASSETTURNOVER$) as dependent variables in panel A of table 3.5.

With respect to the social-related activities, I mainly refer to the commitment to public welfare and employees. Hence, I include the change in employees in the business area ($SERIVCE$), regional value added (RVA), ratio of dividends paid to municipalities ($DIVIDEND$), customer deposits per 10.000 inhabitants, i.e. customer satisfaction ($DEPOSITAREA$), and staff productivity, i.e. staff satisfaction, ($STAFFPROD$) as dependent variables in panel B of table 3.5.

Concerning the governance-related activities, I mainly refer to CSR-related qualifications and the diversity of the GSBs' managements. As a result, I include the share of female executive board members (EB_FEMALE), share of female supervisory board members (SB_FEMALE), job-related diversity of the supervisory board ($SB\_DIVERSITY$), share of highly educated supversiory board members ($SB\_EDUCATION$), and share of CSR-related job classifiactions among supervisory board members (SB_CSR) as dependent variables in panel C of table 3.5.

Table 3.5: Manifestations of real effects

Panel A: DiD results concerning environmental-related activities					
Predictor variables	STAFFEFF (1)	ADMINEFF (2)	OPEREFF (3)	ROA (4)	ASSETTURN-OVER (5)
POSTxTREAT	-0.601	-0.593**	-1.615***	0.009	0.041*
	(-1.44)	(-2.23)	(-2.91)	(0.53)	(1.83)
Cluster	firm	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes	yes
Adj. R2	0.838	0.819	0.931	0.694	0.916
Observations	1,414	1,414	1,414	1,414	1,414
Panel B: DiD results concerning social-related activities					
Predictor variables	SERVICE (1)	RVA (2)	DIVIDEND (3)	DEPOSIT-AREA (4)	STAFFPROD (5)
POSTxTREAT	0.004	-0.016**	2.557	-0.008**	0.413
	(1.15)	(-2.22)	(1.24)	(-2.31)	(1.01)
Cluster	firm	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes	yes
Adj. R2	0.383	0.914	0.762	0.989	0.973
Observations	1,414	1,414	1,414	1,414	1,414

Table 3.5 continues.

Continuation of table 3.5.

Panel C: DiD results concerning governance-related activities

Predictor variables	EB_ FEMALE (1)	SB_ FEMALE (2)	SB_ DIVERSITY (3)	SB_ EDUCATION (4)	SB_CSR (5)
POSTxTREAT	0.006	0.023*	0.857	0.001	0.036**
	(0.34)	(1.76)	(1.17)	(0.16)	(2.28)
Cluster	firm	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes	yes
Adj. R2	0.767	0.823	0.887	0.879	0.779
Observations	1,414	1,414	1,414	1,414	1,414

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 with binary DiD indicator variables. The variables underlying the environmental- (panel A), social- (panel B), and governance-related scores (panel C) are used as dependent variable. It should be noted that in the case of resource efficiency scores in panel A (STAFFEFF, ADMINEFF and OPEREFF), lower scores indicate a higher efficiency. The controls are identical to the controls used in the main analysis presented in section 3.5.2.1. All variables are defined in appendix 3.A1. Standard errors clustered at the firm level and firm and year fixed-effects are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The environmental-related results presented in panel A of table 3.5 show significantly negative $POSTxTREAT$ coefficient estimates for the other administrative- and other operating efficiency. Also, the results show a positive and significant coefficient for the asset turnover ratio. In terms of the social-related results displayed in panel B of table 3.5, the coefficient estimates for the regional value added and the customer deposit ration are negative and significant. Lastly, the governance-related results presented in panel C of table 3.5 find significantly positive coefficient estimates for the share of female supervisory board members and share of supervisory board members with CSR-related knowledge.

With regard to the significant efficiency scores in column 2 and 3 in panel A, lower scores indicate higher efficiency levels. Thus, my results indicate that the other administrative- and other operating efficiency of treatment relative to control GSBs both increase in response to the NFRD. In line with this, the coefficient estimate for the asset turnover ratio, which captures a company's efficiency in generating revenue based on their assets, also suggests an increase in efficiency. Concerning the manifestation of environmental-related real effects, GSBs thus likely strive to tap resource- and associated cost savings that were identified in response to the

NFRD. For example, relevant resource consumption information, such as energy, water and paper consumption, is collected, compared and broken down into specific targets (for the first time) as part of the preparation of the mandatory CSR reports (Kreissparkasse Köln, 2017).

The social-related results indicate that the regional value added and the customer deposits per 10.000 business area inhabitants slightly decrease for treatment compared to control GSBs after the NFRD's entry into force. Supplementing my prior findings, which point to improvements in environmental- and governance-related activities in response to the NFRD, these results indicate a deterioration of social-related activities. Specifically, I find that treatment relative to control GSBs do not increase their social-related activities as a result of the NFRD, but rather suffer slight decreases. The decline in customer deposits and the regional value added might be attributable to cost cuts, such as branch closures, due to difficult circumstances in the banking market in form of low interest rates and increasing competition from online banks.

In terms of the governance-related results, the positive coefficient estimates indicate that the share of female supervisory board members and share of CSR-related job classifications of the supervisory board members increases in treatment compared to control GSBs in response to the NFRD. In line with recital 18 of Directive 2014/95, by increasing the competences and views of supervisory board members, members are thus enabled 'to constructively challenge the management decisions and to be more open to innovative ideas, addressing the similarity of views of members, also known as the group-think phenomenon'.

3.5.3.2 Economic relevance and financial performance

Prior studies show that the preparation efforts for mandatory CSR disclosures and CSR activities are costly (e.g. Chen et al., 2018; Fiechter et al., 2022). In general, these studies follow the notion that increases in costs or decreases in profitability in response to a CSR transparency regulation are indicators of the real effects being material. However, the German banking market is characterized by persistently low interest rates, far-reaching regulatory requirements and an intensification of the competitive situation. At the same time, the demand for innovative and CSR-related product portfolios is increasing. Resulting from this dichotomy, GSBs face the necessity to operate highly efficient, which is in line with the efficiency-related results in the previous section 3.5.3.1. The GSBs' need for high efficiency also manifests in increasing fusing activities in recent years (German Savings Banks Association, 2020b), as illustrated by the high number of fusing GSBs in the sample selection outlined in section 3.4.3. Based on this, it remains questionable whether GSBs invest in costly CSR measures in response to the NFRD. Alternatively, GSBs might rather adhere to their business model and attempt to tap potential resource- and associated cost savings that were identified, for example, as part of the internal monitoring of CSR performance that is related to CSR reporting.

To provide further insights into the economic relevance of the real effects for the non-profit-oriented GSBs, the baseline model (see equation [1]) is re-estimated using the GSBs' total expenses ($TOTALEXP$), staff expenses ($STAFFEXP$), other administrative expenses ($ADMINEXP$) and other operating expenses ($OPEREXP$) as a proportion of total assets, and profitability (ROA), respectively, as dependent variables.

Table 3.6: Economic relevance of CSR activities

Predictor variables	TOTAL-EXP (1)	STAFF-EXP (2)	ADMIN-EXP (3)	OPER-EXP (4)	ROA (5)
POSTxTREAT	-0.034*	0.008	-0.007	-0.034**	0.009
	(-1.69)	(0.79)	(-0.91)	(-2.39)	(0.53)
Cluster	firm	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes	yes
Adj. R2	0.932	0.920	0.829	0.939	0.694
Observations	1,414	1,414	1,414	1,414	1,414

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 with binary DiD indicator variables. The operating cost- ($TOTEXP$, $STAFFEXP$, $ADMINEXP$, $OPEREXP$) and profitability-specific variables (ROA) are used as dependent variable. The controls are identical to the controls used in the main analysis presented in section 3.5.2.1. All variables are defined in appendix 3.A1. Standard errors clustered at the firm level and firm and year fixed-effects are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

The results presented in table 3.6 show significantly negative $POSTxTREAT$ coefficient estimates for total and other operating expenses. This likely indicates that GSBs significantly decrease their total and other operating expenses in the post-regulation period. These expenses comprise, for example, rental expenditures for used real estates and related operating expenses, such as electricity and heating cost. Thus, instead of an increase in operating costs and a decrease in profitability, as an indicator of material real effects in response to mandatory CSR reporting, the NFRD seems to have an opposite effect on GSBs. This finding might be attributable to the GSBs' operating efficiency and associated constraints on implementing costly measures for CSR-related improvements. Alternatively, these results could also be an indicator of greenwashing, as the GSBs might aim at concealing negative CSR performances through positive but less costly and merely symbolic CSR engagements (Christensen et al., 2021). Overall, the findings imply that GSBs likely behave differently to profit-oriented, listed firms regarding the economical response to the NFRD. However, given that the dependent variables include a wide array of cost items, the conclusions are rather vague and should be subject to future research with more granular datasets.

3.5.3.3 Composition of treatment and control group over time

Large GSBs might prefer to evade the NFRD by managing their employee count below the threshold of 500 employees. In this context, appendix 3.A7 shows the distribution of GSBs around the cutoff to investigate changes in the number of employees in the pre- and post-treatment period. A comparison of the pre- (panel A) and post-treatment period (panel B) does not indicate that the percentage of GSBs abnormally increases just to the left, or decreases just to the right of the cutoff. Thus, by illustrating that GSBs do not actively manage the size thresholds to avoid mandatory CSR reporting, this figure supports the requirement for the composition of the treatment and control group to remain stable over time (e.g. Atanasov & Black, 2016).

3.5.3.4 Alternative PSM strategies

To investigate whether the findings are robust to different matching strategies, the main DiD regressions (see equation [1]) are re-estimated (i) using a narrower caliper of 0.01 (panel A) and (ii) without allowing for replacement (panel B). Although the number of observations (not surprisingly) slightly decreases, the findings presented in appendix 3.A8 are in line with the previous observations. The results based on a narrower caliper and on a PSM without replacement, both show significantly positive treatment effects for total and environmental CSR activities. Thus, the findings corroborate the baseline results.

3.6 Conclusion

This paper provides evidence on real effects in response to a CSR reporting regulation, i.e. the NFRD, in non-profit-oriented GSBs under public law. The NFRD mandates a wide array of PIEs to publish CSR reports from the entry into force year 2018 onwards. However, most of the prior research investigates the effectiveness of such indirect behavioral regulation in altering firm behavior towards more sustainable business conduct solely in the context of listed, profit-oriented companies (e.g. Cuomo et al., 2022; Fiechter et al., 2022; Jackson et al., 2020; Mittelbach-Hörmanseder et al., 2021). This study adds to the discussion regarding the effectiveness of indirect behavioral regulation by investigating whether a significant proportion of PIEs within the scope of the NFRD, i.e. non-profit-oriented GSBs under public law that have to serve the common good from the outset, respond in a similar way.

Regarding the plausibility of the targeted increase in transparency, descriptive evidence shows that the majority of GSBs starts providing CSR reports in the NFRD's entry into force year 2018. In line with this, empirical findings from a DiD approach show that treatment compared to control GSBs significantly increase their CSR activities from 2018 onwards. Additional analyses find that these effects are mainly concentrated in GSBs with a left-leaning external political environment and a high exposure to the NFRD and to customer competition.

Yet, in contrast to extant research, this study finds that real effects in GSBs (i) do not materialize before the entry into force year, (ii) do not significantly apply to social-related CSR activities, and (iii) are accompanied by a decrease rather than an increase in operating cost.

The presented findings are subject to various limitations. First, with respect to the construct validity, the completeness and accuracy of the self-constructed CSR activity score is limited due to data availability. Although the underlying indexes are constructed drawing on previous research and guidelines of standard setters, other researchers might have broader datasets and include or exclude different items resulting in slightly different results. For instance, the CSR activity scores refer only to specific (operational) areas. In this way, the GSBs' inherently high externalities, i.e. investment decisions, remain unconsidered due to the GSBs' restrictive reporting policies in this regard (e.g. Correctiv, 2016). Thus, the extent to which GSBs redirect investments in more sustainable directions in response to NFRD is not captured and should be subject to future research. Likewise, the governance-related scores mainly incorporate board structure, while factors such as risk and compliance management remain unconsidered due to missing data.

Second, regarding the identification strategy, the choice of treatment and control firms provides several benefits with regard to the identification strategy. Yet, the inherent size differences might also enhance the risk that treatment effects are caused by structural differences. In this sense, I cannot rule out that banks larger in size pursue comparably more CSR activities and CSR reporting, for example, due to a higher availability of (human) resources, such as CSR specialists and staffs. Similarly, the upcoming EU taxonomy, which has to be implemented for the fiscal year 2022, focuses on treatment GSBs. As these GSBs likely anticipate the regulation, potential confounders might arise in the investigated period. In line with this, it cannot be completely ruled out that omitted variables influence CSR activities of the treatment and control groups differently and thus affect the results. However, the DiD design encompasses a variety of measures, such as a PSM, GSB-specific control variables, fixed-effects and several additional tests, to mitigate this risk.

Lastly, the results only hold for a special sample of PIEs, i.e. non-profit-oriented GSBs under public law that exhibit distinctive characteristics. This clearly limits the generalizability of the presented findings. However, the GSBs are part of the ESBG, which comprises 18 EU countries and approximately 900 savings banks (ESBG, 2023). Thus, the examined GSBs likely share certain commonalities with other PIEs within the scope of a CSR reporting mandate. In addition, the looming CSRD lowers the scope-related size thresholds, thereby resulting in more GSBs being mandated to provide CSR reports on an annual basis.

These limitations aside, this study augments prior literature by showing that non-profit-oriented GSBs respond to the NFRD, but in a different manner than listed, profit-oriented companies. This evidence is of potential interest to regulators and researchers in understanding corporate real effects (in non-profit-oriented GSBs) in response to CSR reporting regulation, particularly in the light of the looming CSRD.

3.7 Appendix

Appendix 3.A1: Variable description

Variables	Description	Data source
Total CSR activities		
ESG	Reflects ranked [0;100] and equally weighted ENV, SOC, and GOV scores	Self constructed
Environmental (efficiency-related) activities		
ENV	Reflects the following five ranked [0;100] and equally weighted environmental-related scores	Self constructed
STAFFEFF	Staff expenses / operating revenue (in %)	BvD BankFocus
ADMINEFF	Other administrative expenses / operating revenue (in %)	BvD BankFocus
OPEREFF	Other operating expenses / operating revenue (in %)	BvD BankFocus
ROA	EBT / total assets (in %)	BvD BankFocus
ASSET-TURNOVER	Operating revenue / total assets (in %)	BvD BankFocus
Social activities		
SOC	Reflects the following five ranked [0;100] and equally weighted social-related scores	Self constructed
SERVICE	Change in employees (in %) per square kilometer of business area	BvD Bank-Focus, GFSO
RVA	(EBT + bankriskfund input + staff expense) / operating revenue	BvD BankFocus
DIVIDEND	Dividend paid / EBT (in %)	BvD BankFocus
DEPOSIT-AREA	Customer deposits per 10.000 inhabitants in business area (log)	BvD Bank-Focus, GFSO
STAFFPROD	EBT / full time equivalents	BvD BankFocus
Governance activities		
GOV	Reflects the following five ranked [0;100] and equally weighted governance-related scores	Self constructed
EB_FEMALE	Number of female executive board members / total number of executive board members (in %)	Annual report
SB_FEMALE	Number of female supervisory board members / total number of supervisory board members (in %)	Annual report
SB_DIVER-SITY	Number of different job classifications in the supervisory board (in %)	Annual report
SB_EDUCA-TION	Number of 'Prof' or 'Dr' supervisory board members / total number of supervisory board members (in %)	Annual report
SB_CSR	Number of CSR-related job classifications among non-employee and non-political members of the supervisory board (in %)	Annual report

Appendix 3.A1 continues.

Continuation of appendix 3.A1.

Variables	Description	Data source
Firm characteristics		
SIZE	Natural logarithm of total assets winsorized at 1% and 99% level	BvD BankFocus
ROA	EBT / total assets (in %)	BvD BankFocus
PPERATIO	Property, plant, and equipment / total assets (in %)	BvD BankFocus
CUSTOMER-DEPOSIT	Customer deposits / total assets (in %)	BvD BankFocus
BANK-RISKFUND-RATIO	Bankriskfund input / equity (in %)	BvD BankFocus
TOTAL-CAPITAL-RATIO	Own funds / total risk exposure amount (in %)	BvD BankFocus
DEBTTO-EQUITY	Debt capital / equity	BvD BankFocus
INTEREST-RATE	Net interest income / total interest-bearing assets (in %)	BvD BankFocus
LIQUIDAS-SETRATIO	Liquid assets / total assets (in %)	BvD BankFocus
Firm characteristics that are (largely) time-invariant in the investigated time period		
EARLY	A 1 indicates that a GSB voluntarily provided CSR reports before the NFRD's entry into force, and 0 otherwise	CSR report
COMPETI-TION	Total population in business area / total square kilometers of business area	Annual report, GFSO
EO_LEFT	Reflects the political orientation in a GSB's main municipality with 1 indicating a left-leaning political orientation, and 0 otherwise	Annual report and 'Bundes-wahlleiter'
Economic relevance variables		
TOTALEXP	Total expenses / total assets (in %)	BvD BankFocus
STAFFEXP	Staff expenses / total assets (in %)	BvD BankFocus
ADMINEXP	Other administrative expenses / total assets (in %)	BvD BankFocus
OPEREXP	Other operating expenses / total assets (in %)	BvD BankFocus

Notes: This table provides variable descriptions for all variables.

Appendix 3.A2: Propensity score matching

Panel A: Mean differences							
		Observations		Mean value		Difference	
Variables		Treat	Control	Treat	Control	Diff	t value
ESG	Unmatched	408	888	48.538	44.396	-4.141	-7.00
	Matched	404	404	48.450	48.658	0.208	0.29
ENV	Unmatched	408	888	55.196	54.209	-0.986	-1.10
	Matched	404	404	55.160	56.049	0.889	0.88
SOC	Unmatched	408	888	51.681	44.456	-7.224	-7.95
	Matched	404	404	51.511	50.285	-1.226	-1.14
GOV	Unmatched	408	888	38.736	34.522	-4.214	-4.35
	Matched	404	404	38.678	39.641	0.963	0.82
SIZE	Unmatched	408	888	22.333	20.930	-1.404	-40.20
	Matched	404	404	22.327	21.035	-1.292	-33.27
ROA	Unmatched	408	888	0.448	0.412	-0.036	-2.95
	Matched	404	404	0.447	0.422	-0.025	-2.38
PPERATIO	Unmatched	408	888	0.896	0.985	0.088	2.90
	Matched	404	404	0.902	0.807	-0.095	-3.23
CUSTOMER-	Unmatched	408	888	75.465	75.889	0.423	0.95
DEPOSIT	Matched	404	404	75.459	76.228	0.769	1.70
BANKRISK-	Unmatched	408	888	4.864	4.442	-0.421	-1.75
FUNDRATIO	Matched	404	404	4.826	4.740	-0.086	-0.29
TOTALCAP-	Unmatched	408	888	17.569	18.473	0.904	3.40
ITALRATIO	Matched	404	404	17.580	18.293	0.713	2.50
DEBTTO-	Unmatched	408	888	10.099	10.048	-0.051	-0.35
EQUITY	Matched	404	404	10.111	10.132	0.021	0.12
INTEREST-	Unmatched	408	888	1.867	1.914	0.045	2.30
RATE	Matched	404	404	1.870	1.806	-0.064	-2.74
LIQUIDAS-	Unmatched	408	888	9.633	10.707	1.074	2.45
SETRATIO	Matched	404	404	9.650	10.255	0.605	1.21

Appendix 3.A2 continues.

Continuation of appendix 3.A2.

Panel B: Probit model

Predictor variables	TREAT			
	Pre-treatment differences of *unmatched* sample (1)		Pre-treatment differences of *matched* sample (2)	
ESG	0.040***	(3.63)	-0.014	(-1.04)
ROA	0.281	(0.43)	1.689*	(1.67)
PPERATIO	-0.132	(-0.75)	0.324	(1.38)
CUSTOMERDEPOSIT	0.010	(0.82)	-0.003	(-0.20)
BANKRISKFUNDRATIO	0.055*	(1.67)	0.046	(1.19)
TOTALCAPITALRATIO	-0.061**	(-2.37)	-0.036	(-1.13)
DEBTTOEQUITY	-0.007	(-0.17)	-0.011	(-0.21)
INTERESTRATE	-0.777***	(-2.65)	0.112	(0.32)
LIQUIDASSETRATIO	-0.000	(-0.01)	0.002	(0.09)
Pseudo R2	0.087		0.032	
Observations	324		202	

Notes: Panel A of this table illustrates the differences in means of the variables included in the PSM between treatment and control GSBs for the unmatched and matched sample in the pre-treatment period (2014-2017). Figures marked grey are not included in the PSM but are added to panel A for completeness. Panel B reports results from estimating a probit model with an indicator variable (treatment GSB = 1 and control GSB = 0) as dependent variable before and after the PSM. The probit model builds on the averaged pre-directive values of the variables included in the PSM. All variables are defined in appendix 3.A1. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix 3.A3: Alternative weights within the composition of the ESG variable

Panel A: DiD results using alternative ESG weights		
Predictor variables	ESG (1)	ESG (2)
POST		-0.244
		(-0.23)
TREAT		-6.179***
		(-3.54)
POSTxTREAT	1.976**	1.891**
	(2.22)	(2.01)
Cluster	firm	firm
Controls	yes	yes
Firm FE	no	yes
Year FE	no	yes
Adj. R2	0.863	0.433
Observations	1,414	1,414

Panel B: Yearly DiD results using alternative ESG weights		
Predictor variables		ESG (1)
2014xTREAT		0.455
		(0.48)
2015xTREAT		0.466
		(0.55)
2016xTREAT		0.464
		(0.61)
2018xTREAT	Entry into force	2.060*
		(1.71)
2019xTREAT		2.432**
		(2.01)
2020xTREAT		2.467*
		(1.80)
Cluster		firm
Controls		yes
Firm FE		yes
Year FE		yes
Adj. R2		0.863
Observations		1,414

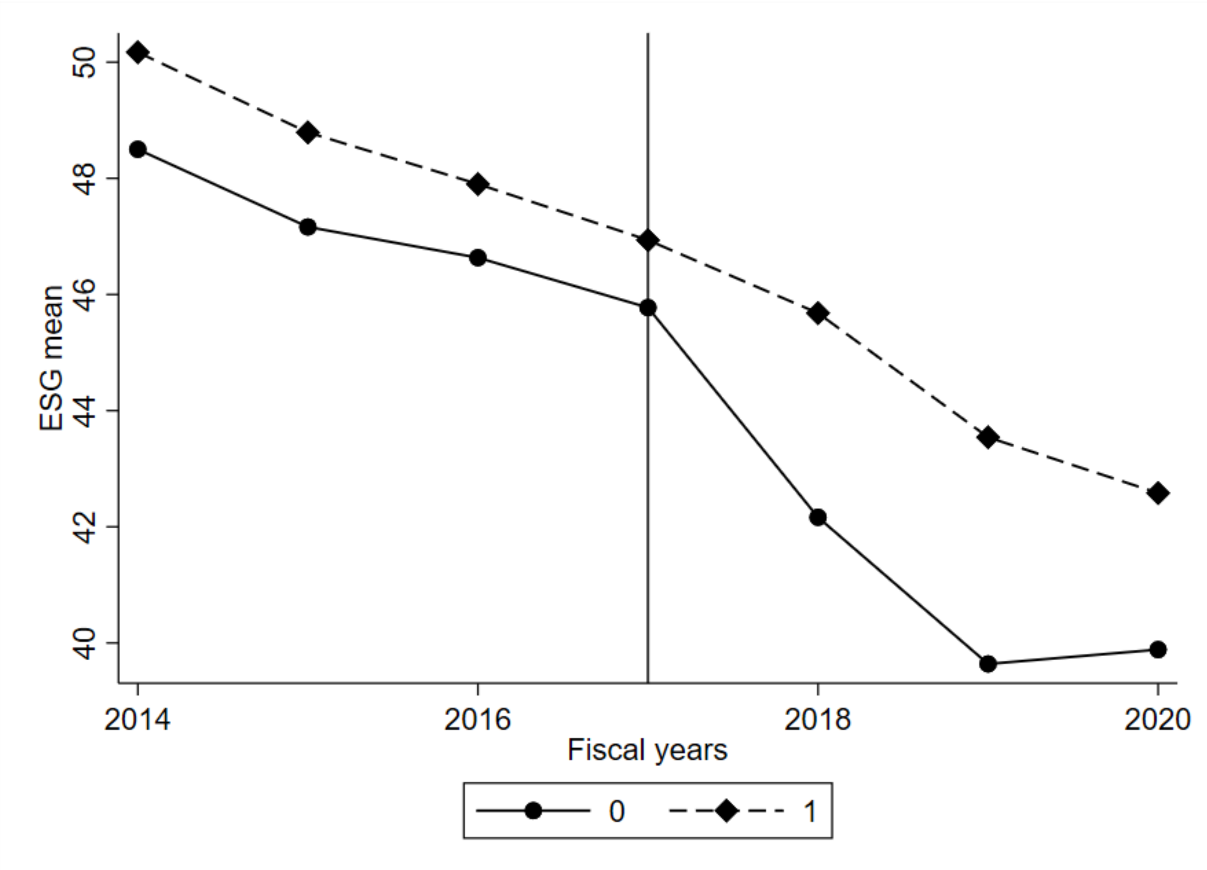
Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 with binary (panel A) and yearly DiD indicator variables (2017 as baseline year) (panel B). The dependent variable total CSR activities (ESG) is weighted according to the category weights from the RSM (E: 14.3%, S: 50.0% and G: 35.7%). All variables are defined in appendix 3.A1. Standard errors clustered at the firm level are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix 3.A4: Calculation of ESG score based on the Sparkasse Hannover

CSR activity items	Score of Sparkasse Hannover	Mean score of all GSBs and years	Ranked score of Sparkasse Hannover
Environmental			
STAFFEFF	32.528	42.422	96.000
ADMINEFF	27.669	20.343	4.000
OPEREFF	10.558	21.550	85.000
ROA	0.415	0.387	64.000
ASSETTURNOVER	2.489	2.603	35.000
Total (ENV) (= average of environmental-specific ranked scores)			56.800
Social			
SERVICE	-0.087	-0.023	2.000
RVA	0.525	0.716	4.000
DIVIDEND	14.000	12.946	79.000
DEPOSITAREA	18.419	18.468	44.000
STAFFPROD	40.071	26.604	92.000
Total (SOC) (= average of social-specific ranked scores)			44.200
Governance			
EB_FEMALE	0.500	0.042	93.000
SB_FEMALE	0.389	0.198	95.000
SB_DIVERSITY	50.000	35.586	90.000
SB_EDUCATION	0.056	0.073	47.000
SB_CSR	0.111	0.124	47.000
Total (GOV) (= average of governance-specific ranked scores)			74.400
Total (ESG) (= average of all ranked scores)			58.467

Notes: This table illustrates the calculation of the ESG, ENV, SOC and GOV scores based on the Sparkasse Hannover. All variables are defined in appendix 3.A1. The 'score of Sparkasse Hannover' column presents the respective scores in the year 2017. The 'mean score of all GSBs and years' column displays the average of the respective scores across all GSBs and years. Each score of the Sparkasse Hannover is ranked [0;100] among all GSBs and years. For example, given that the DIVIDEND score (14.000) is above the average score of all GSBs and years (12.946), the Sparkasse Hannover receives a ranked score of 79 in 2017. It should be noted that in the case of resource efficiency scores (STAFFEFF, ADMINEFF and OPEREFF), lower scores indicate a higher efficiency and thus receive higher rankings. To determine the section scores (ENV, SOC and GOV), I use the average of the ranked scores included in the respective section (e.g. for ENV in 2017: [96 + 4 + 85 + 64 + 35] / 5 = 56.800). Similarly, to determine the total score (ESG), I use the average of all (non-aggregated) ranked scores.

Appendix 3.A5: Parallel trends assumption



Notes: This figure illustrates the mean values of total CSR activities (ESG) of control (0) and treatment GSBs (1) before (2014-2017) and after the NFRD came into force (2018-2020). The vertical line represents the last year before the entry into force of the NFRD in 2018.

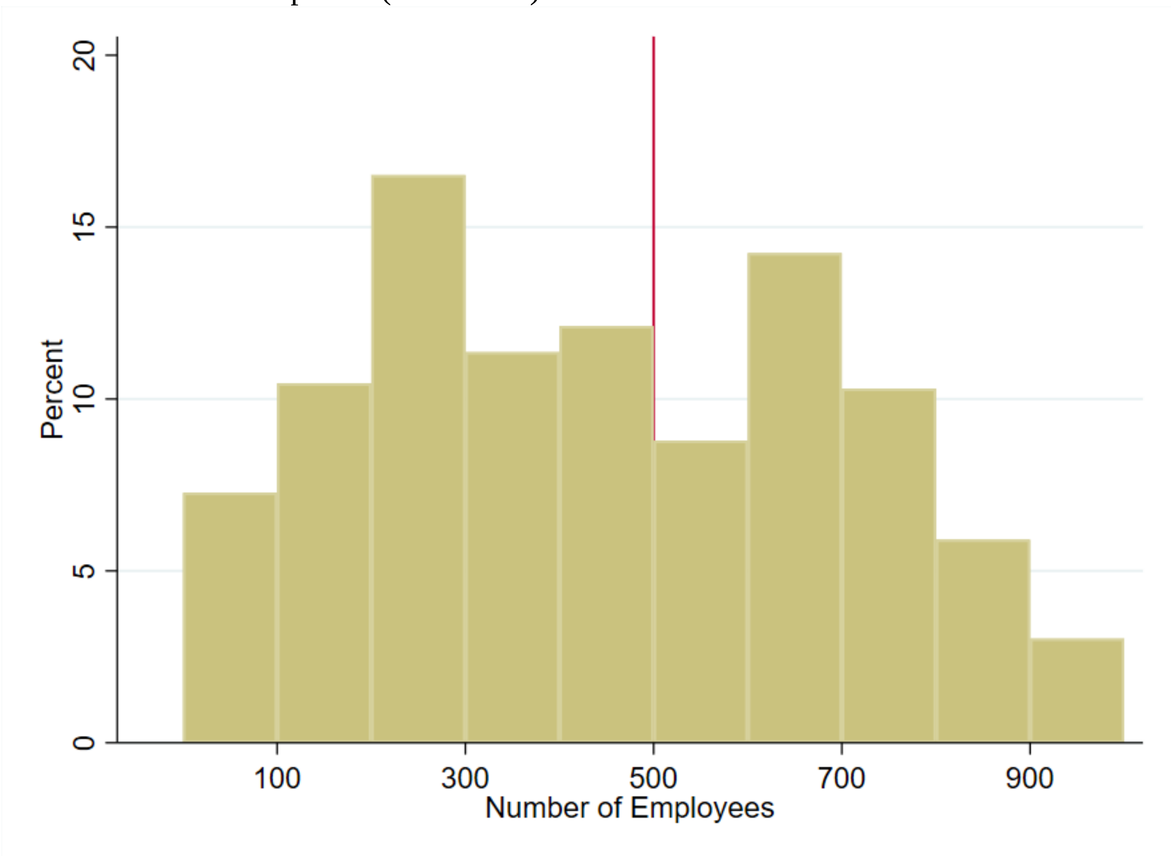
Appendix 3.A6: Descriptive evidence on the variation of certain variables in 2017

	Treatment GSBs Observations = 101			
Variables	Min	Mean	Max	StDev
ESG	27.000	46.936	66.800	8.997
COMPETITION	83.236	415.451	830.288	267.065
EO_LEFT	0.000	0.228	1.000	0.421

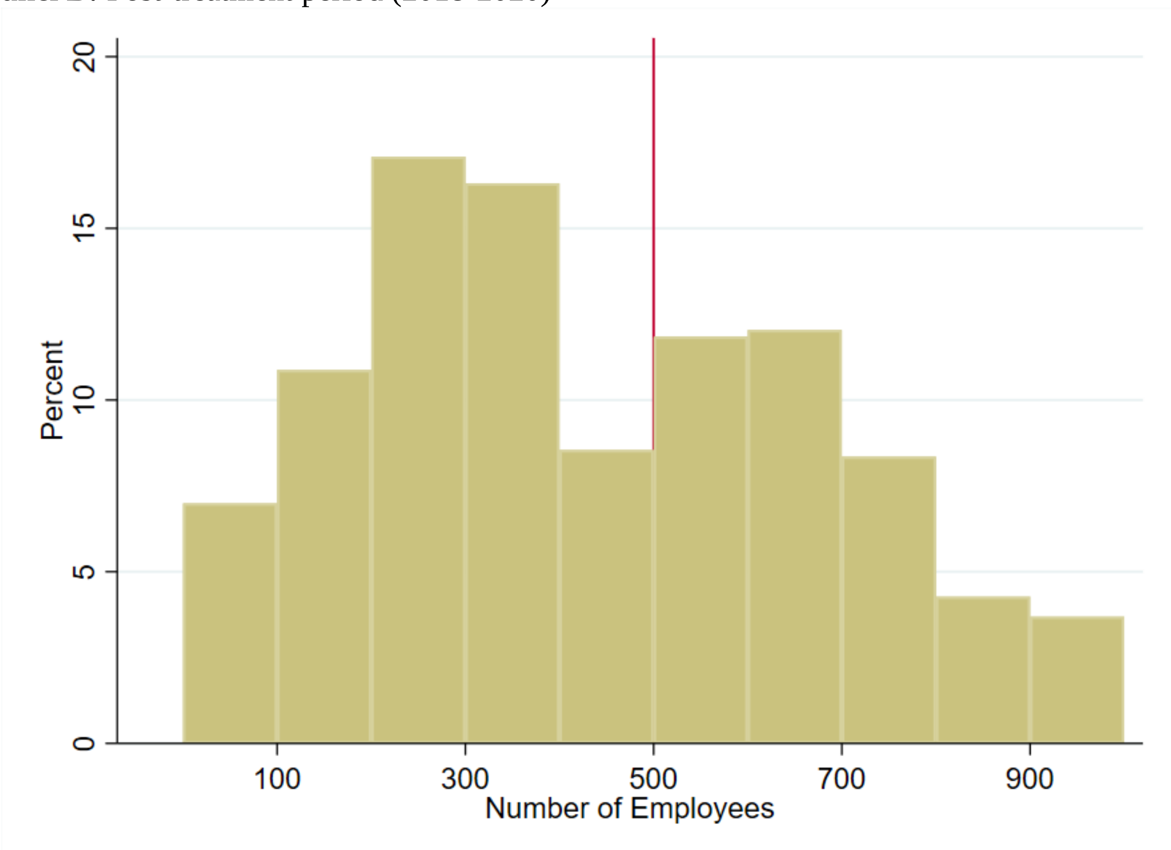
Notes: This table provides summary statistics for the total CSR activities (ESG), the level of competition ($COMPETITION$) and the external political environment (EO_LEFT). All variables are defined in appendix 3.A1.

Appendix 3.A7: Distribution of GSBs around the cutoff of 500 employees

Panel A: Pre-treatment period (2014-2017)



Panel B: Post-treatment period (2018-2020)



Notes: This figure illustrates the distribution of GSBs around the cutoff of 500 employees.

Appendix 3.A8: Alternative PSM strategies

Panel A: Results based on a PSM using a narrower caliper				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT	1.953*** (2.96)	2.935*** (2.79)	0.921 (0.82)	2.004 (1.37)
Cluster	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes
Adj. R2	0.891	0.867	0.822	0.851
Observations	1,344	1,344	1,344	1,344
Panel B: Results based on a PSM without allowing for replacement				
Predictor variables	ESG (1)	ENV (2)	SOC (3)	GOV (4)
POSTxTREAT	1.258* (1.95)	1.680* (1.95)	0.947 (0.88)	1.146 (0.85)
Cluster	firm	firm	firm	firm
Controls and FE	yes	yes	yes	yes
Adj. R2	0.871	0.867	0.805	0.840
Observations	1,288	1,288	1,288	1,288

Notes: This table reports the results from estimating equation [1] displayed in section 3.4.1 based on alternative PSM strategies, i.e. using a narrower caliper of 0.01 (panel A) and without allowing for replacement (panel B). The dependent variables are total (ESG), environmental- (ENV), social- (SOC), and governance-related CSR activities (GOV). The controls are identical to the controls used in the main analysis presented in section 3.5.2.1. All variables are defined in appendix 3.A1. Standard errors clustered at the firm level and firm and year fixed-effects are included in all regressions. The t-statistics are presented in parentheses. ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

4 CSR Reporting by Large Private Firms: Evidence from Germany

Marten von der Heide[26]

Working Paper[27]

Abstract: This paper presents evidence on voluntary 'Corporate Social Responsibility' (CSR) reporting in a setting of large private firms in Germany. The analyses are motivated by a looming CSR reporting mandate for these firms: From fiscal year 2025 onwards, large private firms in the 'European Union' (EU) fall within the scope of the 'Corporate Sustainability Reporting Directive' (CSRD), which extends scope and content of the previous mandate, i.e. the 'Non-Financial Reporting Directive' (NFRD). A detailed account of this regulatory background is given, followed by descriptive analyses of a hand-collected sample of 400 German large private firms. The results show that CSR reporting is relatively heterogeneous, with one out of four large private firms voluntarily providing a CSR report already. In addition, the availability of (financial) resources, unlike ownership structure, financing strategy and stakeholder demand, is identified as a main reporting incentive in this context. Contributing to the scarce empirical evidence on voluntary CSR reporting by large private firms, my findings indicate that the upcoming CSRD will impact these firms very differently. In addition, the results highlight differences in CSR reporting by private compared to listed firms. Taken together, the findings provide novel evidence on CSR reporting decisions by large private firms in the context of recent regulatory initiatives.

JEL Classification: M14, M41, M48

Keywords: Corporate social responsibility; CSR; corporate social responsibility directive; CSRD; reporting; Germany; large private companies

Acknowledgments: For valuable comments, I am grateful to Jana Wagner, Annika Weber, Daniel Volkmann and my dissertation adviser Jörg-Markus Hitz

[26] Georg-August-Universität Göttingen, Faculty of Economic Sciences, Chair of Accounting and Auditing, Platz der Göttinger Sieben 3, 37073 Göttingen, Germany.

[27] First version of the working paper: November 2022. This version: September 2023.

4.1 Introduction

This paper empirically examines the voluntary 'Corporate Social Responsibility' (CSR) reporting among German large private firms in the light of a looming CSR reporting mandate. Building on this, it further investigates what reporting incentives are related to the observed reporting choices. In response to a growing criticism concerning the lack of relevance, comparability and decision usefulness of non-financial reports under the current CSR reporting mandate for 'Public Interest Entities' (PIEs) in the 'European Union' (EU), i.e. the 'Non-Financial Reporting Directive' (NFRD), the European Commission (2021b) suggested a revision of this directive. As a result, the European Parliament and the Council adopted the 'Corporate Sustainability Reporting Directive' (CSRD) in 2023. In comparison to the NFRD, the CSRD broadens the scope (Directive 2022/2464, recital 17), expands and concretizes the required contents (Directive 2022/2464, recitals 28-33) and introduces mandatory reporting standards (Directive 2022/2464, recital 37-39) and audits for the first time (Directive 2022/2464, recitals 60-61).

Discretionary choices and associated reporting incentives for CSR reporting among large (listed) PIEs have already been subject to various research projects (e.g. Christensen et al., 2021). However, these attributes remain mostly unexplored in the context of private firms (e.g. Chi et al., 2020; Keitz & Grote, 2022), i.e. those firms that are required by the CSRD to report on CSR from fiscal year 2025 onwards. Consequently, it remains largely unclear whether and how large private firms voluntarily provide CSR reports already and what reporting incentives are related to the observed CSR reporting choices. To fill this research gap, this study presents early empirical evidence on large private firms to provide (i) an overview of the current level of CSR reporting, thereby highlighting differences from listed firms, and (ii) insights into firm characteristics associated with voluntary CSR reporting.

A large proportion of firms within the scope of the CSRD are from Germany ('Accounting Standards Committee of Germany', ASCG, 2021; European Commission, 2021b). Thus, the study is based on a sample of 400 representatively selected German large private companies from the 'Bureau van Dijk' (BvD) Amadeus database. These firms are not subsidiaries and fall under the CSRD from 2025 onwards (Directive 2022/2464, art. 5). The CSR reporting data is hand-collected and focuses on a firm's most current CSR report published between 2019-2022. The dataset is amended by financial and ownership data from the BvD Amadeus database.

The first set of analyses aims at investigating whether and how large private companies within the scope of the CSRD voluntarily report on CSR matters already. To shed light on differences in CSR reporting between private and listed firms, the descriptive results are structured along and compared with a study by the ASCG (2021) on CSR reporting by listed firms (and other PIEs) in Germany. In this sense, the focus lies on CSR reporting decisions that are also discretionary in the context of listed firms within the scope of the NFRD.

The results of the descriptive analyses indicate that one out of four large private firms within the scope of the CSRD (25%) already provide a CSR report. The results further show that more than half of the reporting firms (58%) cover all five of the CSR matters[28] considered. In addition, the majority of firms refer to at least one CSR reporting framework (81%) and publish their CSR report as a separate report (88%), while one quarter of firms (24%) have at least parts of their CSR report audited. Comparing their discretionary reporting decisions, private and listed firms, both majorly use CSR reporting frameworks and prefer reporting outside the management report. Meanwhile, private differ from listed firms by, on average, addressing fewer CSR matters and opting for CSR reporting assurance less often. Altogether, the comparatively low proportion of private firms that voluntarily provide CSR reports and the differences concerning the discretionary reporting decisions likely reflect different cost-benefit tradeoffs of private compared to listed firms. For instance, the preparation of CSR reports might be comparatively more costly for private firms due to a lack of resources, such as financial or human capital (Girella et al., 2019; Wickert et al., 2016). Similarly, the demand for CSR reporting by

[28] These are namely environmental, social- and employee-related matters, respect for human rights and anti-corruption and bribery matters.

private firms might be rather small, for example, as they likely feature more direct communication between owners and managers given their comparably more concentrated ownership structure (Ajinkya et al., 2005; Armstrong et al., 2010).

In view of private firms' presumably different cost-benefit function of CSR reporting, the second set of analyses aims at shedding light on motivations of private firms concerning the voluntary provision of CSR reports and related reporting choices. In this regard, the focus lies on differences between private and listed firms that might shape the cost-benefit tradeoff of CSR reporting. Results from estimating multivariate regressions show that voluntary CSR reporting by large private firms is rather shaped by the availability of (financial) resources than the stakeholder demand, ownership structure, or financing strategies. In turn, this indicates that the reporting mandate and the associated costs are likely to impose the greatest burden on resource-constrained, smaller private firms.

In light of the looming CSRD, the findings suggest that large private firms do not fully adopt to the directive-related extensions yet. This observation is particularly accurate in the context of the CSR reporting format and assurance, while less applicable to framework application and covered reporting contents. In combination with the findings from the second set of analyses, my results thus suggest that the upcoming CSR reporting requirements will impact large private firms differently, with very heterogeneous costs.

This paper makes three contributions. First, building on the limited number of descriptive studies on the upcoming CSRD (e.g. Keitz & Grote, 2022), I augment prior literature by providing novel empirical evidence on CSR reporting and its compliance with the CSRD requirements based on a large sample of large private firms in Germany. These results are relevant to legislators and stakeholders to gain early insights into the impact of the CSRD on such firms.

Second, this study adds to the scarce (Chi et al., 2020) and mostly qualitative literature on reporting incentives associated with voluntary CSR reporting in private firms (e.g. Carmo &

Miguéis, 2022; Girella et al., 2019; Massa et al., 2015; Rossi & Luque-Vílchez, 2021). I thereby contribute to a greater understanding of the variation in (private) firms' CSR reports.

Third, the EU states that separate, proportionate reporting standards for 'Small- and Medium-sized Enterprises' (SMEs) shall be developed and adopted by June, 2024 (Directive 2022/2464, art. 1 par. 8). In addition, the EU explicitly addresses the possibility of a future extension of the scope of the CSR reporting mandate to SMEs irrespective of a listing on EU regulated markets (Directive 2022/2464, art 6 par. 1). These measures are subject to ongoing discussions at EU-level. While SMEs and mainstream business organizations oppose the introduction of extensive mandatory CSR reporting requirements, civil society organizations, trade unions and financial institutions mostly vote in favor (European Commission, 2021b). Thus, by outlining heterogeneous implementation levels and highlighting differences in CSR reporting (incentives) in private compared to listed firms, I provide empirical evidence that yields implications for these discussions.

4.2 The CSRD

4.2.1 Development towards the CSRD

In this section, a detailed account of the NFRD and CSRD and their implementation in Germany is given. Reporting of non-financial information is seen to be 'vital for managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection' (Directive 2014/95, recital 3). Also, the EU no longer considers the integration of 'social and environmental concerns in their business operations […] on a voluntary basis' (European Commission, 2001) sufficient to increase to the desired extent the social responsibility of firms within the EU. As a result, the European Parliament and the Council adopted the NFRD, i.e. Directive 2014/95/EU, on December 5, 2014, amending the Accounting Directive 2013/34/EU. Building on the previously very heterogeneous voluntary CSR reporting (e.g. Christensen et al., 2021; Grewal et al., 2019), the NFRD aims at increasing the relevance, consistency and comparability of CSR information to a similarly high level across all member states (Directive 2014/95, recital 6).

However, a large number of member state options, for example, regarding the audit and reporting format of non-financial statements, led to different implementations of the NFRD across EU member states. The resulting heterogeneity in reporting was further intensified by various discretionary factors on firm level and by uncertainties concerning the interpretation of given, legal requirements, such as the concept of (double) materiality (e.g. Baumüller et al., 2020; Christ et al., 2021; European Commission, 2020, 2021b). In addition, the scope of the NFRD is criticized for not being far-reaching enough (European Commission, 2020). In this regard, the EU refers to the growing demand of users for sustainability information and the accountability of all firms, i.e. not only PIEs, with respect to their value chain, for example (Directive 2022/2464, recitals 11, 18).

As a result of the perceived lack of relevance, comparability and decision usefulness of the non-financial reporting under the NFRD, the European Commission came to the conclusion that the quality of non-financial statements is insufficient (European Commission, 2021b). Thus, in line with the European Green Deal and the 2020 Work Programme, the European Commission proposed a revision of the NFRD – the CSRD – on April 21, 2021 (European Commission, 2021b) and adopted the corresponding Directive 2022/2464/EU on January 5, 2023. The CSRD replaces the previous non-financial statement under the NFRD with a sustainability report (Directive 2022/2464, recital 8). The latter aims at addressing the criticized relevance, comparability and decision usefulness, for example, by broadening the directive's scope (Directive 2022/2464, recital 17), expanding and concretizing the required content (Directive 2022/2464, recitals 28-33) and introducing mandatory common reporting standards (Directive 2022/2464, recital 37-39) and audits at EU-level for the first time (Directive 2022/2464, recitals 60-61). By doing so, the EU ultimately strives to increase the accountability of EU companies' sustainability disclosures (Directive 2022/2464, recital 18).

4.2.2 Regulatory changes resulting from the CSRD

4.2.2.1 Scope of application

The NFRD mandates large[29] undertakings in the EU, which are PIEs with an average number of employees in excess of 500 in the financial year (Directive 2014/95, art. 1 par. 1), to disclose non-financial statements beginning from fiscal year 2017 onwards (Directive 2014/95, art. 4). PIEs are firms listed on EU-regulated stock exchanges, non-listed banks and insurances, and other entities designated by EU member states as PIEs (Directive 2013/34, art. 2 par. 1). Subsidiary undertakings that are included in consolidated non-financial disclosures of their parent undertaking are exempt from the mandate (Directive 2014/95, art. 1 par. 1).

The extensions under the CSRD will be introduced in several stages. Companies that are mandated to provide non-financial reports under the NFRD are required to prepare sustainability reports for fiscal years beginning on or after January 1, 2024. Subsequently, all other large PIEs and large companies have to publish sustainability reports for fiscal years starting on or after January 1, 2025. Capital market-oriented SMEs, except for micro-undertakings, have to start reporting from January 1, 2026 onwards and non-EU companies with EU branches or EU subsidiaries are obliged to comply with the CSRD on or after January 1, 2028. For a transitional period of two years, capital market-oriented SMEs have the possibility to opt-out from sustainability reporting until the fiscal year 2028, if they explain and justify their decision in the corresponding management report (Directive 2022/2464, art. 5). Additionally, subsidiary undertakings that are not large PIEs are exempt from the reporting requirement, provided that they are included in and refer to the parent company's consolidated management report that is reported in accordance with EU requirements (Directive 2022/2464, art. 1 par. 4).

[29] Companies are considered large if two of the following criteria – €20 million in total assets, €40 million in sales revenue, and 250 employees – are exceeded for two consecutive fiscal years (Directive 2013/34, art. 3 par. 4, 10).

4.2.2.2 Content of CSR reports

The non-financial statements under the NFRD should give an overview of the company's business model and policies, outcomes, material risks and key performance indicators related to at least environmental, social- and employee-related matters, respect for human rights and anti-corruption and bribery matters. In terms of materiality, the NFRD requires non-financial statements to contain 'information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity'. If undertakings choose not to disclose certain information, they are obliged to provide a clear and reasoned explanation for not doing so in accordance with the so-called 'comply-or-explain' principle (Directive 2014/95, art. 1 par. 1).

The CSRD is based on the 'main sustainability matters' consistent with the environmental, social and governance (ESG) concept. This concept encompasses the five CSR matters already known from the NFRD (see footnote 28) and adds further ones, as particularly governance factors receive special consideration in the CSRD. Thus, the already existing requirements are extended to cover, for example, the composition and role of the company's administrative, management and supervisory bodies with regard to sustainability issues. Similar to the NFRD, companies are mandated to give an overview of their business model and policies, outcomes, material risks and key performance indicators related to ESG factors. The CSRD also extends these requirements. For example, further information must be provided on the resilience of the business model and business strategy to CSR risks, on plans to ensure that the business model and strategy contribute to the transformation to a sustainable and climate-neutral economy, and on the inclusion of stakeholder interests (Directive 2022/2464, art. 1 par. 4).

In terms of the identification of material and thus reportable information, the materiality approach under the NFRD was criticized for a lack of materiality definitions and clear guidance (European Commission, 2021b). Accordingly, the CSRD clarifies that undertakings should consider each of the two materiality perspectives in its own right – namely the 'inside-out' perspective that requires information on the impact of business activities on the environment and people, and the 'outside-in' perspective, which builds on CSR factors that impact the success of the business (Directive 2022/2464, recital 29). In addition, the 'comply-or-explain' principle no longer applies to avoid confusion regarding the required CSR information (Directive 2022/2464, recital 36).

4.2.2.3 Reporting frameworks

The NFRD refers to the voluntary application of frameworks, such as the union-based 'Eco-Management and Audit Scheme' (EMAS) or international frameworks from the 'United Nations Global Compact' (UNGC) or the 'Global Reporting Initiative' (GRI). In this regard, reporting companies must state whether and what frameworks are used (Directive 2014/95, art. 1 par. 1, recital 9). This voluntary adoption approach provides firms with flexibility. Thus, the exact reporting contents remain at the discretion of the firms (Christensen et al., 2021).

In contrast, the CSRD refers to the development and introduction of mandatory common 'European Sustainability Reporting Standards' (ESRS), as a voluntary application of frameworks fails to ensure 'the comparability of the information disclosed by different undertakings' (Directive 2022/2464, recital 37). The ESRS are developed by the 'European Financial Reporting Advisory Group' (EFRAG) (Directive 2022/2464, recitals 37-39) and combine the given materiality approach with a list of information that have to be reported 'irrespective of the outcome of the materiality assessment' (EFRAG, 2022). In this sense, the ESRS consist of cross-cutting, topical (ESG) and sector-specific standards. According to the European Commission (2023a), the cross-cutting standards specify essential information to be disclosed regardless of the sustainability (ESG) matter, while the topical standards cover information requirements specific to environmental, social or governance topics. The cross-cutting and topical standards are sector-agnostic and thus apply to all undertakings irrespective of the sector. In contrast, the sector-specific standards ‘address impacts, risks and opportunities that are likely to be material for all undertakings in a specific sector and that are not covered, or not sufficiently covered, by topical standards’. In case that material impacts, risks or opportunities are still not (sufficiently) covered by an ESRS, the undertaking shall provide entity-specific information ‘to enable users to understand the undertaking’s sustainability-related impacts, risks or opportunities’ (European Commission, 2023a).

The European Commission adopted the first set of sector-agnostic ESRS as delegated act by the end of July 2023[30] (European Commission, 2023b). This first set comprises two cross-cutting and ten topical (ESG) standards[31]. A second set, including sector-specific standards among others, shall be adopted by the European Commission as delegated act by the end of June 2024 (Directive 2022/2464, art. 1 par. 8, recitals 53-54).

4.2.2.4 Format of reports

The reporting format is subject to the member states’ right of choice under the NFRD. Primarily, firms shall integrate their non-financial information into the management report. However, member states can exempt undertakings from this obligation if these publish a separate report either together with the management report, or on the company’s website with the management report referring to it (Directive 2014/95, art. 1 par. 1).

According to the CSRD, undertakings are no longer able to choose between integrated or separated reports as the possibility to publish a separate report hinders the findability (Directive

[30] The European Commission adopted the Delegated Act on July 31, 2023. However, the Delegated Act is not into force, as it has not been published in the EU’s Official Journal yet.
[31] Following the European Commission (2023b), the cross-cutting standards comprise ESRS 1 ‘General requirements’ and ESRS 2 ‘General disclosures’. The topical standards include ESRS E1 ‘Climate change’, ESRS E2 ‘Pollution’, ESRS E3 ‘Water and marine resources’, ESRS E4 ‘Biodiversity and ecosystems’ and ESRS E5 ‘Resource use and circular economy’ as envirnmental standards. They further contain ESRS S1 ‘Own workforce’, ESRS S2 ‘Workers in the value chain’, ESRS S3 ‘Affected communities’ and ESRS S4 ‘Consumers and end-users’ as social standards, and ESRS G1 ‘Business conduct’ as governance standard.

2022/2464, recital 57). Additionally, the European Commission (2020) states that separate reports might give the impression that sustainability 'information is of secondary importance' (European Commission, 2020). Thus, the CSRD requires firms to integrate sustainability disclosures into the management report (Directive 2022/2464, art. 1 par. 4). In addition, the sustainability reports have to be prepared in accordance with the 'European Single Electronic Format' and shall be made available to the public in a planned EU-wide digital database – the 'European Single Access Point' (Directive 2022/2464, art. 1 par. 9, recital 55).

4.2.2.5 Audit

The NFRD mandates auditors to verify the existence of the non-financial statement (Directive 2014/95, recital 16). Above that, member states can require auditors to also verify the content (Directive 2014/95, art. 1 par. 1). No regulations exist regarding the monitoring by the audit committee or the enforcement audit (Velte, 2022).

According to recitals 60 and 61 of the CSRD, the auditor is required to perform a substantive audit, i.e. has to verify the disclosed information. Initially, an audit with limited assurance[32] is contemplated. Subsequently, the CSRD includes an intent to move towards a reasonable assurance 'when the Commission adopts assurance standards for reasonable assurance of sustainability reporting by means of delegated acts no later than 1 October 2028'. In the audit of the sustainability report, the auditor has to include, among other things, the company's process of obtaining the reported information and the mark-up of sustainability reporting. As part of a member state option, the audit of sustainability reports can also be performed by independent assurance service providers other than statutory auditors or audit firms. To detect, correct and prevent inadequate execution of audits, member states shall establish effective investigation systems and sanctions (Directive 2022/2464, art. 3 par. 20).

[32] In a limited assurance engagement, the auditor performs fewer tests than in a reasonable assurance engagement (Directive 2022/2464, recital 60).

4.2.3 Adoption in Germany

The German Bundestag transposed the NFRD into German Law by integrating the directive's requirements into, for example, the German Commercial Code as part of the 'CSR Directive Implementation Act' (CSR RUG). The CSR RUG came into force on April 19, 2017 and constitutes an one-to-one implementation of the NFRD in terms of scope, content requirements and frameworks (CSR Europe and Global Reporting Initiative, 2017). Regarding the member state options on the reporting format and audit, the German legislator has mainly focused on the minimum requirements. This means that German companies can choose between integrated or separated non-financial statements (German Commercial Code, sec. 289b par. 3). Additionally, the German legislator opted against stricter audit requirements in contrast to other EU countries. Thus, apart from the requirement for auditors to verify the existence, only the supervisory board has to conduct a substantive audit of the information contained in the non-financial statement (Stock Corporation Act, sec. 171 par. 1).

The CSRD 'shall enter into force on the twentieth day following that of its publication' on December 16, 2022 (Directive 2022/2464, art. 7). Subsequently, the directive must be transposed into national law within '18 months after entry into force' (European Commission, 2021b). This will increase the number of companies that are subject to mandatory CSR reporting from around 500 at present to around 15,000[33] in Germany (ASCG, 2021), and from around 11,600 to around 49,000 firms in the EU (European Commission, 2021b).

[33] According to Eulner (2022), the estimate only refers to companies that are directly affected by the CSRD, as numerous indirectly affected public sector companies are not considered. These are primarily SMEs in the public sector that, regardless of their legal form, have to prepare accounts like large corporations by way of references, for example, in state laws or articles of association.

4.3 Empirical evidence on CSR reporting choices by German large private firms

4.3.1 Research question and setting

This section outlines the research objective and sample. Based on this, the first set of analyses examines whether and how large private companies voluntarily report on CSR matters. Despite the growing (regulatory) attention paid to sustainability information of private firms (e.g. Directive 2022/2464, recital 17), little is known about CSR reporting by private firms that have to provide CSR reports from 2025 onwards. Pertinent research mostly encompasses qualitative studies (e.g. Carmo & Miguéis, 2022; Girella et al., 2019; Massa et al., 2015; Rossi & Luque-Vílchez, 2021) and few empirical studies (e.g. Chi et al., 2020; Keitz & Grote, 2022). Regarding the latter, Keitz and Grote (2022) focus solely on the largest private firms in Germany. Thus, the dataset is not representative of all large private firms, as firm size is strongly related to CSR reporting (e.g. Hahn & Kühnen, 2013). The study by Chi et al. (2020) incorporates only a small number of CSR reports by private firms and builds on the institutional context of Taiwan, which calls the transferability of the results to the given context into question. Altogether, despite its growing relevance, the empirical evidence on voluntary CSR reporting by large private firms in Germany is rather scarce. Hence, the first set of analyses aims at investigating *whether and how large private companies voluntarily report on CSR matters*.

An extensive body of empirical literature already exists on the voluntary CSR reporting and its motives in listed firms (e.g. Christensen et al., 2021). Yet, listed in comparison to private firms possess ‘different stakeholder groups, ownerships structure, financing strategies and utility functions’ (Chi et al., 2020). This indicates that the motives for CSR reporting likely vary between listed and private firms, as these differences might shape the firm’s cost-benefit tradeoff for CSR reporting. Based on this, the second set of analyses explores *what reporting incentives are associated with the voluntary provision of CSR reports and related reporting* *choices in large private firms*. Emphasis is placed on firm characteristics and emerging reporting incentives specific to private firms. In this sense, the results of both sets of analyses are discussed against the background of similar studies on listed firms.

This study focuses on a German setting, i.e. large private companies based in Germany, for several reasons. First, the CSRD significantly affects these companies, as 14,500 (ASCG, 2021) of the total 37,400 newly affected companies in the EU (European Commission, 2021b) are based in Germany. Second, at almost 20%, Germany accounts for the largest share of the 1,000 private EU companies with the highest revenue[34]. This emphasizes the economic strength and importance of the German private sector. Third and related, Germany is the largest economy among all EU countries (European Commission Representation in Germany, 2023).

4.3.2 Sample selection and methodology

At present, the identification of German private companies within the scope of the CSRD proves to be difficult, as no official and generally accessible source exists that lists the firms affected by this directive. Therefore, I use the approach of the ASCG (2021) study, which investigates the CSR reporting of 100 representatively selected German listed firms (and other PIEs) affected by the NFRD between 2017-2019[35], as orientation.

Along these lines, my sample is based on the population of private firms in Germany from the BvD's Amadeus database. From this population, firms are identified that are non-listed and meet the size criteria for large firms[36] in fiscal year 2021 (see panel A of table 4.1). Of the remaining 3,981 firms, 400 firms are randomly selected to obtain a representative sample. Following ASCG (2021), the random selection is restricted to the extent that the industry distribu-

[34] This statement refers to the top 1,000 private EU companies in terms of revenue among all active companies in the universe of the BvD Amadeus database in the financial year 2021.
[35] Due to missing data, the sample comprises only 297 firm-year observations.
[36] See footnote 29 for a description of the size criteria.

tion of the initial BvD population is set as a secondary condition. The resulting industry distribution of the final sample is compared with that of the German HDAX (see panel B of table 4.1), to ensure comparability with the sample of the ASCG (2021) study. The HDAX combines all firms of the German selection indices DAX, MDAX and TecDAX and thus includes a large share of firms from the ASCG (2021) study.

In line with Chi et al. (2020), firms from the financial industry, i.e. credit institutions and insurance undertakings that qualify as PIEs alongside listed firms, are not taken into account in this study, as certain large private PIEs are already mandated to provide CSR reports. With regard to corporations, a reporting mandate for the parent firm might indirectly affect its consolidated subsidiaries (Heide et al., 2023). This results in the reporting of the latter being not entirely voluntary and subject to internal, non-observable demands from the parent firm. Hence, subsidiaries are also not taken into account, as their parent firms might already be required to publish consolidated CSR reports due to the NFRD. Altogether, my final sample includes 400 large private firms from Germany, which translates to roughly 10% of the BvD population and 3% of the ASCG (2021) estimate for affected firms.

Table 4.1: Sample description

Panel A: Sample selection		
Selection criteria	Excluded firms	Remaining firms
Amadeus firm observations:		21,892,672
- only firms based in Germany	20,454,976	1,437,696
- only non-listed firms	620	1,437,076
- only large firms	1,433,095	3,981
- shrinking (with industry distribution as secondary condition)	3,581	400
Final sample		400

Table 4.1 continues.

Continuation of table 4.1.

Panel B: Industry distribution of final sample			
Industries	SIC	Private firms	Listed firms (HDAX)
Agriculture, forestry, fishing	0	0%	1%
Mining, construction	1	2%	3%
Manufacturing	2	8%	12%
Manufacturing	3	16%	38%
Transportation, public utilities	4	7%	9%
Wholesale and retail trade	5	12%	7%
Finance, insurance, real estate	6	39%	13%
Services	7	10%	16%
Services	8	8%	3%
Public administration	9	0%	0%

Notes: This table states the number of excluded and remaining firms per selection step in panel A and provides an overview of the industry affiliation of the final sample in panel B. For comparison, the latter also includes an overview of listed HDAX firms in fiscal year 2021.

The CSR reports by the sample firms originate from the firms' homepages, the 'German Federal Gazette' (GFG) and the websites of the 'German Sustainability Code' (DNK) and UNGC. Only reports that cover more than one page, i.e. over 1,500 characters[37], are taken into account. The reports must also be clearly labelled, for example, as sustainability, non-financial or CSR report. Given that many firms report irregularly or at intervals of several years, CSR reports published between 2019-2022 are considered. In the case of multiple reports for one firm, the most recent one is used for the analyses.

To facilitate comparability with ASCG (2021) that focuses on firms affected by the NFRD, data was collected on discretionary reporting choices under the NFRD. In this sense, I focus on reporting content[38], frameworks, formats and assurance. For comparability reasons, the descriptive analyses in the following chapter report the results of ASCG (2021) in addition to those of this study. The ASCG (2021) study presents the annual average of all PIEs, i.e. not only listed firms. However, the displayed averages from listed firms mostly correspond to those of other PIEs. For simplicity reasons, I thus refer to these as annual averages of 'listed firms'. In cases

[37] Following the ASCG (2021), the number of pages is standardized using a default of 1,500 characters per page.
[38] Firms affected by the NFRD should at least address the five CSR matters listed as minimum requirement (see footnote 28). However, they can refrain from doing so by providing a clear and reasoned explanation that, in turn, creates some discretion.

where differences arise between listed firms and other PIEs, separate analyses are provided by ASCG (2021). These are then addressed in the discussion (see section 4.3.4) of my study.

For the second set of analyses (see section 4.4), the CSR reporting dataset is amended by financial and ownership data from the BvD database. Also, a lead-lag approach is employed to mitigate endogeneity concerns following Dhaliwal et al. (2011).

4.3.3 Empirical findings

4.3.3.1 CSR reporting contents

A total of 100 out of the 400 companies in the sample provide a CSR report. On average, the length of large private firms' CSR reports amounts to 52 pages (see panel A of table 4.2). The CSR reports vary widely in length, ranging from one page (LB GmbH) to 156 pages (Edeka Handelsgesellschaft Nord mbH). Additionally, the length of CSR reports is rather not concentrated around the average length of reports, i.e. the variance is high (see panel B of table 4.2).

Table 4.2: Contents of voluntary CSR reports

Panel A: CSR reporting length				
Number of pages	n	Min	Mean	Max
Private firms	100	1	52	156
Listed firms (ASCG, 2021)	297	4	41	225

Panel B: CSR reporting length in intervals of ten pages												
Number of pages	n	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	>100
Private firms	100	16%	6%	13%	7%	7%	7%	15%	8%	9%	8%	4%
Listed firms (ASCG, 2021)	297	11%	11%	19%	15%	14%	10%	9%	6%	3%	2%	1%

Table 4.2 continues.

Continuation of table 4.2.

Panel C: Covered CSR matters								
Reporting content	n	Environ-mental matters	Employ-ee matters	Social matters	Human rights	Corrup-tion and bribery	Consu-mer matters	Other matters
Private firms	100	100%	97%	82%	71%	65%	57%	63%
Listed firms (ASCG, 2021)	297	100%	100%	99%	98%	99%	58%	31%

Notes: This table displays summary statistics on the CSR reporting length in panel A, with one page being standardized to a default number of 1,500 characters (ASCG, 2021). The table further illustrates the CSR reporting length in intervals of ten pages in panel B, and the covered CSR matters in panel C. For comparability reasons, results from ASCG (2021) are included in both panels.

Regarding the reporting contents, environmental matters are addressed[39] in all CSR reports by private firms according to panel C of table 4.2. Employee-related and social matters are included in 97% and 82% of reports respectively. Human rights (71% of reports) and anti-corruption and bribery matters (65% of reports) are covered less frequently. Altogether, 58% of companies provide information on all five of the CSR-related matters listed in the NFRD as minimum requirement (see footnote 28). Beyond that, 57% of companies report on consumer matters and 63% of companies cover other matters[40].

4.3.3.2 Standardization of reports

The results presented in panel A of table 4.3 show that 81% of the 100 voluntarily CSR reporting private companies use at least one reporting framework[41]. In addition, the results indicate that some companies refer to more than one framework, with the most common frameworks among private firms being the GRI, GHG and SDG (see panel B of table 4.3).

[39] Following the ASCG (2021), an aspect is also considered reported if a reason is given for not providing information on that aspect.
[40] Following the ASCG (2021), other matters cover sustainability-related aspects, such as sustainable investment and supply chain.
[41] In line with the ASCG (2021) and the CSRD's recitals 43 and 45, particularly the following standards, frameworks and principles are taken into account: GRI, 'Greenhouse Gas Protocol' (GHG), 'Sustainable Development Goals' (SDG), UNGC, 'International Labour Organization' (ILO), DNK, 'UN Guiding Principles on Business and Human Rights' (UN GPBHR), 'Carbon Disclosure Project' (CDP), 'OECD Guidelines for Multinational Enterprises' (OECD) and ISO 26000. The CSRD uses the term 'framework' for all standards, frameworks and principles. This generic term is also adopted in this study.

Table 4.3: Standardization of voluntary CSR reports

Panel A: Usage of CSR reporting frameworks

Use of reporting framework(s)	n	Yes	No
Private firms	100	81%	19%
Listed firms (ASCG, 2021)	297	73%	27%

Panel B: Top 10 CSR reporting frameworks

Top 10 frame-works	n	GRI	GHG	SDG	UN-GC	ILO	DNK	UN GP-BHR	CDP	OECD	ISO 26000
Private firms	100	51%	50%	49%	31%	25%	22%	13%	8%	6%	3%
Listed firms (ASCG, 2021)	297	53%	1%	0%	4%	0%	42%	0%	0%	1%	1%

Panel C: Mandatory information disclosure requirements under the ESRS

Content	Datapoints	ESRS codification	Compliant private firms in % (n = 100)
General information	Business model	ESRS 2 SBM-1	95%
	Materiality analysis	ESRS 2 IRO-1	58%
Environmental information	Climate neutrality by 2050	ESRS E1-1	45%
	GHG emission reduction targets	ESRS E1-4	55%
	Energy consumption mix	ESRS E1-5	69%
Social information	Human rights policy	ESRS S1-1	71%
	Employee characteristics	ESRS S1-6	92%
	Diversity indicators	ESRS S1-9	51%
Governance information	Anti-corruption and bribery standards	ESRS G1-4	65%
	Board's gender diversity	ESRS 2 GOV-1	41%
	CSR-related incentive schemes	ESRS 2 GOV-3	12%

Notes: This table provides an overview of the application of CSR reporting frameworks in panel A, a top 10 list of the most applied CSR reporting frameworks in panel B, and an overview of addressed mandatory information requirements under the ESRS in panel C. For comparability reasons, results from ASCG (2021) are included in panel A and B.

The CSRD introduces a mandatory common framework, i.e. the ESRS. Thus, the existence of a subset of CSR information that must be reported irrespective of the materiality analysis is also examined. The results presented in panel C of table 4.3, which lack comparable results from the ASCG (2021) study due to actuality, show that 95% of CSR reports address their business model in the CSR report. Additionally, 58% of reports describe the process of the materiality analysis. In terms of topical information, the proportion of mandatory information is highest for social and environmental information and lowest for governance information.

4.3.3.3 Reporting format

The findings displayed in panel A of table 4.4 show that 88% of the private companies provide their CSR report on the company's website. Among these, 24% of companies choose to include a reference[42] to their CSR report in the annual report that is published via the GFG. 12% of the private companies opt to provide their CSR report via the GFG.

Table 4.4: Format of voluntary CSR reports

Panel A: Place of publication				
Reporting place	n	GFG	Website	Website & reference in GFG*
Private firms	100	12%	64%	24%
Listed firms (ASCG, 2021)	297	26%	56%	18%

Panel B: Reporting format						
		Inside the management report		Outside the management report		
	n	Separate section of management report	Integrated in management report	Separate non-financial report	Separate section in other report	Integrated in other report
Private firms	100	12%	0%	0%	0%	88%
Listed firms (ASCG, 2021)	297	22%	4%	68%	0%	6%

Notes: This table provides an overview of the place of publication in panel A and the reporting format in panel B. For comparability reasons, results from ASCG (2021) are included in both panels. The * indicates that in the ASCG (2021) study, this category is not limited to a reference in the GFG, but refers to a publication in the GFG and on the company's website (see footnote 42).

With regard to the reporting format, the sample firms only use two options (see panel B of table 4.4). 88% of the CSR reports are integrated in another report, for example, a sustainability report outside the management report. The remaining 12% of reports are published inside the management report in a separate section.

[42] It should be noted that the category 'Website & reference in GFG' does not refer to a publication in both places as in the ASCG (2021) study. Instead, it indicates a publication on the company website that is referred to in the GFG's annual report.

4.3.3.4 Reporting assurance

The results presented in panel A of table 4.5 demonstrate that 24% of private companies request at least certain aspects in their CSR reports to be externally audited. To be more exact, 2% choose an audit based on limited assurance and 10% opt for reasonable assurance. The assurance level for 12% of the firms is not detectable, mostly because these firms refer to an audit of selected aspects only (see panel B of table 4.5).

Table 4.5: Assurance of voluntary CSR reports

Panel A: Reporting assurance

Assurance	n	Yes	No
Private firms	100	24%	76%
Listed firms (ASCG, 2021)	297	59%	41%

Panel B: Level of assurance

Assurance level	n	Limited assurance	Reasonable assurance	Not detectable	No assurance
Private firms	100	2%	10%	12%	76%
Listed firms (ASCG, 2021)	297	48%	7%	4%	41%

Panel C: Category of assurance company

Assurance company	n	Big 4	Next 10	Other auditors	Coopera-tive association	Environ-mental verifier	Not de-tectable	No assurance
Private firms	100	6%	1%	4%	0%	13%	0%	76%
Listed firms (ASCG, 2021)	297	52%	0%	3%	2%	0%	2%	41%

Panel D: Type of assurance company

Assurance company	n	Auditor of annual report	Auditor	Others	Not detectable	No assurance
Private firms	100	9%	2%	13%	0%	76%
Listed firms (ASCG, 2021)	297	52%	5%	0%	2%	41%

Notes: This table provides an overview of the assurance ratio in panel A, the level of assurance in panel B, the category of assurance company in panel C, and the type of assurance company in panel D. Category refers to the different categories of players in the CSR audit market. The type differentiates between ‘auditors of the firm’s annual report’, ‘auditors’ and ‘others’, with ‘others’ relating to non-auditors, i.e. independent assurance services. For comparability reasons, results from ASCG (2021) are included in all panels.

The results presented in panel C of table 4.5 show that the audits are primarily conducted by environmental verifiers and big four companies, followed by other auditors and next ten firms.

In this regard, private companies mostly choose different firms for the audits of the annual and CSR reports. In case of the latter, these are often not assurance companies but others, i.e. independent assurance service providers (see panel D of table 4.5).

4.3.4 Discussion

To shed some light on the voluntary CSR reporting behavior specific to private firms, the descriptive results are discussed against the background of the displayed ASCG (2021) results. In this way, to facilitate comparability with previous, mainly NFRD-related studies, the analyses focus primarily on discretionary reporting choices under the NFRD. Given that the stated annual averages from the ASCG (2021) study relate to all PIEs within the scope of the NFRD, further explanations from the comparative study are taken into account if the results on listed companies differ from those of credit institutions and insurances.

In terms of the provision of CSR reports, the results show that one quarter of the investigated large private companies publish a CSR report, while all companies[43] in the ASCG (2021) study provide a report. This is not unexpected, as large listed companies, unlike private firms, are mandated to provide CSR reports starting from 2017.

Regarding the reporting contents, the maximum report length of private firms appears to be smaller (156 vs. 225 pages)[44], while the average length is slightly greater (52 vs. 41 pages) in comparison to listed firms. In addition, the reporting length of private firms varies comparatively more, which means that it is less concentrated around the average length of reports. Despite the slightly longer reports on average, just a little more than half (58%) of the private firms cover all of the five required CSR matters. Conversely, almost all listed firms (98%) in the ASCG (2021) study address these five matters. This changes upon the further investigated CSR aspects, as private firms' CSR reporting on consumer concerns is at a similar level compared to

[43] This excludes three reports in 2019 that have not been filed by the time the data collection was completed.
[44] When providing comparisons of numerical findings, I always list the private firm results first.

ASCG (2021) (57% vs. 58%) and the level of reporting on other matters is clearly greater (63% vs. 31%). A possible explanation might be that private compared to listed firms typically operate in less internationally spread business areas and maintain closer contact to customers owing to their more focused business areas. This likely results in comparatively more reporting on customer concerns and fewer reporting on issues that are less problematic in Germany and the EU, such as human rights (71% vs. 98%) or corruption and bribery (65% vs. 99%). In terms of other matters, the difference might stem from private firms anticipating the sustainable supply chain reporting in light of the Act on Corporate Due Diligence Obligations in Supply Chains, which has come into force on January 1, 2023.

The results on the standardization of CSR reports show that the application of frameworks in private firms is slightly higher (81% vs. 73%) than in the PIEs examined in the ASCG (2021) study. This is especially the case when considering not all PIEs but only listed firms, as 63% of the latter use CSR reporting frameworks (ASCG, 2021). With respect to the top 10 frameworks, the application of the GRI is largely the same when comparing private with listed firms (51% vs. 53%). In contrast, the DNK (22% vs. 42%) is used considerably more in PIEs. However, this difference is largely attributable to the credit institutions and insurance undertakings in the ASCG (2021) study. Other frameworks, such as the GHG (50% vs. 1%) and UNGC (31% vs. 4%), are adopted comparatively more by private firms. Especially the SDG (49%), which are not even listed in the top 10 in the ASCG (2021) study, appear in the top 10 in this study. Such variation in the application of CSR frameworks highlights the varying preferences of different companies concerning the discretionary choice of reporting frameworks. However, this variation likely hampers the comparability of the disclosed information in line with recital 37 of Directive 2022/2464. Based on this, the introduction of the ESRS as a mandatory common framework appears to be an adequate option to address this problem. In this sense, the results further show that some of the examined mandatory information under the ESRS are already reported by a significant proportion of large private firms. Although particularly governance information is still lacking, the relatively high compliance with the ESRS information requirements is mostly consistent with the EU's goal of avoiding additional, unnecessary administrative burden by taking account of already existing frameworks (Directive 2022/2464, recital 43).

In terms of the publication of CSR reports via the GFG (12% vs. 26%) or on the firm's website (64% vs. 56%), respectively, the findings are largely consistent with those of ASCG (2021). A separate investigation of listed firms and other PIEs in the ASCG (2021) study strengthens this observation, as differences between private and listed firms further diminish (GFG: 12% vs. 8%). Additionally, listed and private firms, both prefer reporting outside the management report (88% vs. 74%). However, the main difference stems from the majority of PIEs preparing non-financial reports (68%), while private firms tend to prefer an integration in other reports outside the management report (88%), i.e. sustainability reports. These differences are likely attributable to the different requirements of the NFRD, i.e. the mandate to provide *non-financial reports*, and the CSRD, i.e. the mandate to provide *sustainability reports*. The number of reports published inside the management report is about twice as high for PIEs (12% vs. 26%) and about three times as high when considering listed firms only (12% vs. 38%) (ASCG, 2021). The comparatively low number of publications inside the management report likely indicates that private firms might avoid this reporting format due to the management report's inherent audit obligation (German Commercial Code, sec. 316 par. 1).

Regarding the CSR reporting assurance, the proportion of PIEs that voluntarily choose to have their CSR report audited (24% vs. 59%) and the number of PIEs that opt for a limited assurance (2% vs. 48%), both are much greater. According to the ASCG (2021), this is mainly attributable to listed firms, as the majority of these, unlike credit institutions and insurance undertakings, request their CSR reports to be audited. In addition, private firms mostly choose independent assurance service providers (13%), while the majority of listed firms is audited by big four firms (52%). In contrast to private firms, the majority of the listed firms' auditors (52%) are not only responsible for the annual but also the CSR report by these firms (ASCG, 2021).

Overall, the comparably low assurance rate likely indicates that for most large private firms, the related cost-benefit tradeoff is unfavorable.

4.4 Association between CSR reporting and characteristics of private firms

4.4.1 Prior literature

In this second set of analyses, the study aims at shedding further light on private firms' reporting incentives for the voluntary provision of CSR reports and related reporting choices. Before going to the analysis, pertinent extant research is briefly summarized. In this regard, the focus lies on differences between private and listed firms that might shape the cost-benefit function of CSR reporting, i.e. 'different stakeholder groups, ownerships structure, financing strategies and utility functions' (Chi et al., 2020).

In terms of ownership structure, results of previous research on listed firms suggest that the provision of CSR reports is positively associated with the dispersion of ownership due to the resulting information asymmetry between the management and owners (e.g. Cormier et al., 2005; Gamerschlag et al., 2011; Höllerer, 2013; Mohd Ghazali, 2007). The dispersion of ownership can also vary in private firms. However, as the prior studies all refer to listed firms, they do not take into account private firms' restricted access to the equity market (Chi et al., 2020) and, for example, the resulting comparably more concentrated ownership structure. Along the lines of Ajinkya et al. (2005) and Armstrong et al. (2010), private firms thus likely feature more direct communication between managers and owners, which ultimately reduces information asymmetries and the demand for reporting. Based on this, it remains an unsettled question whether private firms with a higher dispersion of ownership face higher demands and are thus more likely to provide CSR reports, than private firms with a lower ownership dispersion.

In addition, Dhaliwal et al. (2011) show that institutional investors play a major role in pressuring listed firms to initiate and adjust CSR reporting based on their comparably high stakes and level of specialization. Yet, in contrast to listed firms, private firms typically exhibit comparably lower levels of institutional ownership (Chi et al., 2020). Building on these differences, it also remains questionable whether the level of institutional ownership is associated with CSR reporting by private firms.

Regarding financing strategies, private firms rely heavily on debt financing (Bigus et al., 2016), i.e. bank loans in particular, due to a restricted access to the equity market (e.g. Bigus & Hillebrand, 2017; Santikian, 2014). With respect to the association between debt financing and voluntary CSR reporting, previous literature is rather ambiguous. On the one hand, greater disclosure might enhance finance providers' awareness of the firm and understanding of climate-related risks and opportunities. Thereby, the base of financiers broadens, which ultimately reduces the cost of capital as a consequence of improved risk-sharing (Directive 2022/2464, recital 3; Merton, 1987). Building on the overlap in the factors that shape voluntary CSR and financial reporting (Christensen et al., 2021), the results by Gassen and Muhn (2023) provide slight support by showing that private firms tend to be more financially transparent, the more external financing is required.

On the other hand, banks obtain an advantage in collecting private and public information from a company, for example, by virtue of their contracts (e.g. Graham et al., 2008). This advantage might occur particularly in private firms, as they are heavily dependent on bank loans (Bigus & Hillebrand, 2017) and thus place particular value on a close relationship with the bank. In view of this, CSR reports by private firms might provide limited (if any) incremental information to the bank and therefore be less relevant for private firms that seek to influence the terms of bank debt. Consequently, no significant association between the extent of external financing and voluntary CSR reporting would exist. Overall, the link between debt financing and CSR reporting requires further empirical examination.

With respect to the stakeholder demand perspective, listed in comparison to private firms have larger and more heterogeneous stakeholder groups due to business size and complexity.

Based on these differences and the related public attention, listed firms are comparably more likely to face CSR information demands of certain stakeholder groups, such as analysts, the media and the government (Chi et al., 2020). In line with this, Cormier and Magnan (2003) show that voluntary CSR reporting by listed firms is shaped by public scrutiny.

In turn, private firms have comparatively smaller and more homogenous stakeholder groups, as they often operate in less international-spread business areas and focus more on local communities. In this regard, private firms likely face a comparably high CSR information demand of local stakeholder groups, who are interested in the company's impact on the local environment. Accordingly, the source of the CSR information demand changes. However, the average level of demand for CSR information might not significantly differ between listed and private firms (Chi et al., 2020). Altogether, in view of the comparatively lower public attention that is contrasted by a stronger local embeddedness, it remains unclear whether the stakeholder demand shapes CSR reporting by private firms.

Regarding the supply perspective, the preparation of CSR reports is comparatively less costly for listed firms, for example, owing to their size and associated economies of scale (e.g. Wickert et al., 2016). Similarly, in their qualitative studies, Girella et al. (2019) and Grant Thornton (2008) point out that the lower level of CSR reporting by private firms is likely rooted in a lack of various factors, such as financial resources. In support of this, Chi et al. (2020) find that private compared to listed firms are less likely to initiate CSR reporting. They further show that the comparably lower likelihood of private firms to provide voluntary CSR reports is particularly driven by a supply side force, i.e. the availability of (financial) resources. Yet, these results are based on a comparison between private and listed firms and therefore lack insights into the magnitude and significance of the supply perspective for a private firm's CSR reporting when only private firms are considered.

4.4.2 Empirical model and variable measurement

To examine private firms' reporting incentives concerning the voluntary provision of CSR reports and related reporting choices, this paper employs several multivariate tests by estimating the following logit- or 'Ordinary Least Squares' (OLS) regression model[45]:

$$(1)\ CSR_t = ß_0 + ß_1 SIZE_{t-1} + ß_2 ROA_{t-1} + ß_3 LEVERAGE_{t-1} + ß_4 BANKFINANCING_{t-1} + ß_5 OWNERS_{t-1} + ß_6 INSTOWNERSHIP_{t-1} + ß_j CONTROLS_{t-1} + \varepsilon_t$$

Following a study by Hahn and Kühnen (2013) that reviews and classifies pertinent extant research, the dependent variable CSR can take three forms. The first form refers to the adoption of CSR reporting with the placeholder CSR being substituted by the indicator variable $CSRREPORT$ for estimations based on the whole sample. The variable $CSRREPORT$ takes the value of 1 if a private firm provides a CSR report, and 0 otherwise.

The second form refers to the quantity of CSR reports, i.e. the length of disclosed information, with the placeholder CSR being replaced by the continous variable $LENGTH$. This variable captures the number of pages based on a default number of 1,500 characters per page.

The third form refers to the quality of CSR reports, i.e. the comparability and reliability of disclosed information, with the placeholder CSR representing the indicator variables $FRAMEWORK$ and $ASSURANCE$, and the compound variable $QUALITY$. The variable $FRAMEWORK$ takes the value of 1 if a firm uses at least one of the frameworks listed in footnote 41, and 0 otherwise. $ASSURANCE$ takes the value of 1 if a firm states that at least parts of the CSR report are externally audited, and 0 otherwise. The compound variable $QUALITY$ aggregates the two quality-related variables and thus ranges from 0 to 2. The estimations regarding the length and quality are based on CSR reporting firms only (n = 100).

With respect to the independent variables, firm size ($SIZE$) and profitability (ROA) are added, as larger and more profitable firms have more resources available to devote to CSR (e.g.

[45] Untabulated analyses show that the main results remain constant when using a probit model instead. In case of the dependent variables *LENGTH* and *QUALITY* that are continous, a regular OLS regression model is employed.

Chi et al., 2020; Girella et al., 2019). In addition to this supply perspective, I follow Chi et al. (2020) and also include a demand perspective in form of a proxy for the stakeholder demand for CSR information ($STAKEHOLDER$). The variable is based on the RepRisk Rating Score that captures a firm's risk exposure to ESG issues, whereby a higher risk exposure indicates a higher CSR information demand of stakeholders. Yet, the variable is separately added to the regression model due to its lower number of observations (n = 151). Beyond that, CSR reporting by private firms might also be related to the financing strategy. In this sense, the leverage ratio ($LEVERAGE$) is included, as transparency might be associated with the degree of external financing (Gassen & Muhn, 2023). Additionally, the share of financing by credit institutions ($BANKFINANCING$) is taken into account, as this might also shape the need for firms' CSR reporting, given the advantage of banks in acquiring (private) information (e.g. Graham et al., 2008). In terms of ownership structure, extant research on listed firms shows a positive association between CSR reporting and both, dispersed ownership and institutional ownership (e.g. Dhaliwal et al., 2011; Höllerer, 2013). However, private firms, on average, feature a much more concentrated ownership (Armstrong et al., 2010). Thus, to shed further light on the role of the ownership structure for private firms' CSR reporting, the dispersion, i.e. number of owners ($OWNERS$), and the share of institutional ownership ($INSTOWNERSHIP$) are also included.

Lastly, additional variables that are likely associated with CSR reporting, i.e. revenue growth ($GROWTH$) (e.g. Chi et al., 2020), firm age (AGE) (e.g. Chi et al., 2020; Dhaliwal et al., 2012) and the industry's sensitivity to CSR issues[46] ($INDSENSITIVITY$) (e.g. Byrd et al., 2017; Gamerschlag et al., 2011), are added as controls. As CSR performance shapes voluntary CSR reporting by listed firms (e.g. Hummel & Schlick, 2016), the 'Trucost Environmental Score' ($ENVSCORE$), which quantifies firms' environmental performances, is further used to approximate the CSR performance.

[46] CSR-sensitive industries are identified following DeVilliers et al. (2011).

Table 4.6: Summary statistics

Variables	Observations	Min	Mean	Max	StDev
Dependent variables					
CSRREPORT	400	0.000	0.250	1.000	0.434
LENGTH	100	1.167	51.745	155.835	35.042
QUALITY	100	0.000	1.050	2.000	0.479
FRAMEWORK	100	0.000	0.810	1.000	0.394
ASSURANCE	100	0.000	0.240	1.000	0.429
Independent variables					
SIZE	400	9.937	12.122	17.423	1.277
ROA	400	-36.597	7.833	57.657	8.761
LEVERAGE	400	7.256	56.346	123.235	20.228
BANKFINANCING	400	0.000	36.792	97.728	27.116
OWNERS	400	1.000	7.775	71.000	8.012
INSTOWNERSHIP	400	0.000	8.811	100.000	21.137
STAKEHOLDER	151	1.000	1.497	5.000	0.807
Control variables					
GROWTH	400	-0.662	0.098	3.225	0.253
AGE	400	2.000	52.995	444.000	45.827
INDSENSITIVITY	400	0.000	0.068	1.000	0.251
ENVSCORE	400	0.370	2.454	34.680	3.801

Notes: This table provides summary statistics for the respective variables.

Following Dhaliwal et al. (2011), a lead-lag approach is adopted to address potential endogeneity issues. In this sense, by replacing the independent variable X_t with X_{t-1}, concerns that X is endogenous to Y should be mitigated, as Y_t cannot drive X_{t-1}. Consequently, data from CSR reports published in one year is merged with BvD data from the previous year.

Summary statistics[47] are reported in table 4.6. Further descriptions of all variables are provided in appendix 4.A1.

4.4.3 Empirical results

Table 4.7 reports results from estimating the baseline OLS regression model (see equation [1]). With respect to the adoption of CSR reporting, the results presented in column 1 of panel A show that the provision of CSR reports by private firms is significantly and positively

[47] Although some of the independent and control variables show significant correlation, the consistently low VIFs (mean: 1.13) suggest that multicollinearity does not significantly affect the results.

shaped by firm size, profitability and CSR performance. To investigate the role of stakeholder demand, the variable is separately added to the regression model (column 2), due to its lower number of observations. The results slightly change in terms of insignificant coefficient estimates for profitability and CSR performance and a highly significant and negative coefficient for revenue growth.

Table 4.7: Private firms' reporting incentives for voluntary CSR reporting (choices)

Panel A: Adoption of CSR reporting		
Predictor variables	CSRREPORT (1)	CSRREPORT (2)
SIZE	0.556***	0.408***
	(5.60)	(3.08)
ROA	0.035*	0.024
	(1.94)	(1.09)
LEVERAGE	0.005	0.005
	(0.74)	(0.54)
BANKFINANCING	0.004	0.002
	(0.84)	(0.26)
OWNERS	0.016	0.024
	(1.13)	(1.05)
INSTOWNERSHIP	0.008	0.005
	(1.49)	(0.62)
STAKEHOLDER		0.119
		(0.41)
GROWTH	-1.292	-4.343***
	(-0.94)	(-2.67)
AGE	-0.000	-0.001
	(-0.12)	(-0.16)
INDSENSITIVITY	0.618	-0.309
	(1.21)	(-0.41)
ENVSCORE	0.053*	0.042
	(1.86)	(1.21)
Adj. R2	0.110	0.125
Observations	400	151

Table 4.7 continues.

Continuation of table 4.7.

Panel B: CSR reporting length and quality				
Predictor variables	LENGTH (1)	QUALITY (2)	FRAMEWORK (3)	ASSURANCE (4)
SIZE	11.331***	0.086**	1.326***	-0.145
	(3.30)	(2.29)	(3.69)	(-0.63)
ROA	0.638**	0.002	0.063**	-0.017
	(2.41)	(0.77)	(2.20)	(-0.84)
LEVERAGE	0.029	-0.000	0.025	-0.015
	(0.19)	(-0.17)	(1.48)	(-1.17)
BANKFINANCING	-0.012	0.001	-0.005	0.012
	(-0.10)	(0.63)	(-0.42)	(0.96)
OWNERS	-0.318	0.005	0.086	0.001
	(-0.88)	(1.03)	(1.57)	(0.06)
INSTOWNERSHIP	0.094	0.001	0.015	-0.007
	(0.63)	(0.23)	(0.93)	(-0.54)
GROWTH	-30.028***	-0.101	-1.781***	0.794
	(-6.70)	(-0.58)	(-3.04)	(1.16)
AGE	-0.167**	-0.001	-0.010	0.004
	(-2.50)	(-0.39)	(-1.08)	(0.62)
INDSENSITIVITY	23.218**	-0.238	0.003	-2.015
	(2.13)	(-1.28)	(0.00)	(-1.04)
ENVSCORE	-0.111	-0.008	-0.073	0.006
	(-0.13)	(-1.20)	(-1.56)	(0.13)
Adj. R2	0.257	0.120	0.318	0.054
Observations	100	100	100	100

Notes: This table reports the results from estimating equation [1] displayed in section 4.4.2 with CSR reporting adoption ($CSRREPORT$) as dependent variable and the varying inclusion of the stakeholder demand variable ($STAKEHOLDER$) in panel A. In addition, panel B provides the results from estimating equation [1] with CSR reporting length ($LENGTH$), quality ($QUALITY$), framework application ($FRAMEWORK$) and assurance ($ASSURANCE$) as dependent variables. All variables are defined in appendix 4.A1. The results in panel A are based on the whole sample, while the results in panel B are based on CSR reporting firms only.

Regarding the length and quality of CSR reports, the results are presented in panel B of table 4.7. These show that the CSR reporting length and the application of frameworks are positively and significantly associated with firm size and financial performance, while being negatively and significantly related to revenue growth. In terms of CSR reporting length, industry sensitivity features a significantly positive and firm age a significantly negative association. Lastly, the CSR reporting quality is significantly and positively shaped by firm size.

4.4.4 Discussion of CSR reporting motives in private firms

The aim of the empirical analyses is to investigate reporting incentives associated with the voluntary CSR reporting adoption, length and quality in large private firms in Germany. Emphasis is placed on firm characteristics and emerging reporting incentives specific to private firms. On the basis of prior literature, this also enables the identification of differences between private and listed firms.

Regarding the supply perspective, the coefficients for both, financial performance and firm size likely indicate a highly significant and positive association between the availability of (financial) resources and CSR reporting adoption, length and quality. This finding is consistent with larger firms being able to invest more resources in CSR (e.g. Chi et al., 2020) and exhibiting economies of scale (e.g. Wickert et al., 2016). Also, the finding is in line with Keitz and Grote (2022), who focus on the largest private firms and find a higher proportion of firms voluntarily providing CSR reports in comparison to this study. Overall, these results indicate that financial resources play an important role concerning the CSR reporting traits pursued by the EU, such as comparability that is linked to the usage of frameworks. However, the consistently insignificant coefficients for assurance indicate that even relatively large and financially strong private firms refrain from increasing the reliability of disclosed information, as the costs of an external audit probably exceed the associated benefits.

In terms of the stakeholder demand perspective, the separate analysis concerning CSR reporting adoption finds a positive but insignificant coefficient. This suggests that stakeholder demand does not significantly shape the voluntary provision of CSR reports in the context of large private firms. Thus, despite private firms being likely confronted with a high CSR information demand of local stakeholders, the overall level of demand does not seem to suffice to shape private firms' CSR reporting. The lack of stakeholders' opportunities for exerting influence on a firm, such as shareholder activism (Grewal et al., 2016), further support this explanation of the finding.

In contrast to previous studies on listed firms (e.g. Cormier et al., 2005; Gamerschlag et al., 2011), this study finds that the dispersion of ownership is not significantly associated with private firms' CSR reporting adoption, length and quality. This is likely attributable to the restricted access of private firms to the equity market (Chi et al., 2020), which, on average, results in smaller ownership dispersion and information asymmetries compared to listed firms. Similarly, the results might indicate comparatively higher levels of direct communication and privately obtained information in private firms in support of Ajinkya et al. (2005) and Armstrong et al. (2010). In addition, this study shows an insignificant link between institutional ownership and CSR reporting adoption, length and quality. Thus, the typically lower levels of institutional ownership in private firms (Chi et al., 2020) likely mitigate the association between institutional investors and a firm's CSR reporting. Overall, ownership dispersion and institutional ownership do not appear to be significantly related to voluntary CSR reporting by private firms.

In terms of financing strategies, this study shows no significant association between firm leverage or the relevance of bank financing and private firms' CSR reporting adoption, length and quality. Building on the rather ambiguous previous literature in this context, these results likely indicate that voluntary CSR reporting is not perceived by private firms as a tool to influence debt financing conditions. Additionally, the findings arguably underpin the advantageous position of banks in obtaining private information (Graham et al., 2008), which mitigates the relevance of CSR reports for the terms of debt financing.

4.5 Compliance of CSR reporting by large private firms with the CSRD

Based on my results, this section sheds light on the compliance of CSR reporting by large private firms with the CSRD. The descriptive findings from the first part of this study suggest that 100 out of 400 large private companies voluntarily provide a CSR report. Given that voluntary reporting reflects a firm's private cost-benefit tradeoff (Christensen et al., 2021), this likely suggests that the CSRD mandates a high proportion of firms (the 300 non-reporting firms) with negative net benefits to report on CSR.

In terms of the associated CSR reporting choices, the descriptive results further show that none of the examined reporting firms have fully adopted to the CSRD's extended requirements. For example, governance-related matters receive only limited coverage. However, building on a comparison with the mandatory CSR reporting by listed firms, this study finds that some aspects of CSR reporting by private firms are relatively advanced. This concerns particularly the high average reporting length, the number of covered CSR matters and the level of standardization. This is further supported by a relatively high degree of compliance with mandatory information requirements under the ESRS. In contrast, this study also identifies deficiencies, particularly with regard to the low level of CSR reports integrated into the management report and the low proportion of private firms that have their CSR report externally audited.

The empirical results from the second part of this study add to this by showing that private firms' CSR reporting adoption, length and quality is rather shaped by the availability of (financial) resources than the stakeholder demand, ownership structure or financing strategies. In this sense, the compliance with the CSRD is likely greater in larger private firms, i.e. those firms with more financial and human resources. Conversely, especially smaller private firms will be confronted with the preparation of mandatory CSR reports and the associated high costs.

Altogether, the EU emphasizes 'the growth of users' needs for sustainability information' to justify the extension of the scope of the CSR reporting regulation. Yet, stakeholders' information demands do not seem to play a significant role in the context of CSR reporting by large private firms. Thus, although the CSRD might address the critique regarding the NFRD and undermine the perception of CSR reports being of 'secondary importance' (European Commission, 2020), it remains questionable whether the extension of the scope to all large companies will generate benefits that are proportionate to the costs.

4.6 Conclusion

This paper provides empirical insights into CSR reporting by large private companies in Germany. As a result of the perceived lack of relevance, comparability and decision usefulness of the non-financial statements under the NFRD, the European Commission (2021b) proposed a revision of CSR reporting in the form of the CSRD. Building on the extension of scope, the CSRD obliges large private firms in the EU to report on CSR information from fiscal year 2025 onwards. Despite its growing relevance, the number of studies on the upcoming CSRD is still limited. Thus, to the best of my knowledge, this is the first study to empirically investigate CSR reporting and associated reporting incentives in a setting of large private firms in Germany.

After giving a detailed account of the looming CSRD, the results of the descriptive analyses show that one quarter of the large private companies voluntarily provide CSR reports. Regarding the CSR reporting length and quality, the findings indicate that the reporting companies stand on a solid foundation in terms of the consideration of content requirements and standardization. On the contrary, more action is needed concerning the uniform integration of CSR reports into the management report and the audit requirement.

The analyses of reporting incentives for large private firms finds that the availability of (financial) resources significantly shapes CSR reporting adoption, length and quality. In turn, ownership structure, financing strategy and stakeholder demand, do not seem to be significantly associated with voluntary CSR reporting by large private firms. Overall, the results propose that the CSRD will impact large private firms differently, with very heterogeneous costs.

The presented findings are subject to various limitations. First, the sample of large private firms in Germany includes only a subset of the affected companies, excluding subsidiaries and firms from the financial sector entirely. Private companies in Germany might also be subject to different environments or regulatory conditions compared to other EU countries. Consequently, the findings might not be generalizable to other countries and companies.

Second, endogeneity concerns might affect the results of the analyses. To address these issues, a lead-lag approach is employed in line with Dhaliwal et al. (2011). However, the approach has been heavily discussed in recent years (e.g. Bellemare et al., 2017), as it cannot be completely ruled out that changes in the independent variables are related to other factors that influence the dependent variable. Thus, this study explicitly does not seek to identify causal inferences.

Third, the results presented in this study provide a snapshot of the firms' most current CSR reports published between 2019-2022. Building on the fast moving developments of CSR reporting practices (e.g. ASCG, 2021), the results cannot necessarily be extrapolated to subsequent years.

Finally, this study is largely based on hand-collected data, which increases the error-proneness of the results. To mitigate this concern, a significant proportion of the data was hand-collected by one person and subsequently verified by a second person.

These limitations aside, this study augments prior literature by providing insights into CSR reporting decisions and underlying motives in German large private firms that will be affected by the CSRD starting from 2025. The study contributes to a better understanding of the CSRD's impact on large private firms and the differences in their CSR reports. Therefore, the findings are not only relevant to stakeholders but also to legislators, for example, as they contribute to the ongoing discussion at EU-level on separate reporting requirements for SMEs.

4.7 Appendix

Appendix 4.A1: Variable description

Variables	Description	Data source
Dependent variables		
CSRREPORT	Takes the value of 1 if a firm provides a CSR report, and 0 otherwise	Hand-collected
LENGTH	Number of pages based on a default number of 1,500 characters per page	Hand-collected
QUALITY	Compound variable that aggregates the framework- and assurance-related variables and ranges from 0 to 2	Hand-collected
FRAMEWORK	Takes the value of 1 if a firm uses at least one CSR reporting framework, and 0 otherwise	Hand-collected
ASSURANCE	Takes the value of 1 if a firm states that at least parts of the CSR report are externally audited, and 0 otherwise	Hand-collected
Independent variables		
SIZE	Natural logarithm of total assets winsorized at 1% and 99% level	BvD Amadeus
ROA	EBT / total assets (in %)	BvD Amadeus
LEVERAGE	Debt capital / total assets (in %)	BvD Amadeus
BANKFINANCING	Bank liabilities / total liabilities (in %)	BvD Amadeus
OWNERS	Number of owners	BvD Amadeus
INSTOWNERSHIP	Institutional ownership / total ownership (in %)	BvD Amadeus
STAKEHOLDER	'RepRisk Rating Score' from AAA (=1) to BB (=5)	BvD Amadeus
Control variables		
GROWTH	Growth in revenue relative to the previous year	BvD Amadeus
AGE	Number of years since the foundation of the company	BvD Amadeus
INDSENSITIVITY	Takes the value of 1 for CSR-sensitive industries, and 0 otherwise	BvD Amadeus
ENVSCORE	Represents the 'Trucost Environmental Score'	BvD Amadeus

Notes: This table provides descriptions for all variables.

5 Conclusion

5.1 Summary of major findings and implications

Non-listed firms differ from listed firms in multiple ways, which likely affects the firms' cost-benefit function and associated incentives and outcomes related to 'Corporate Social Responsibility' (CSR) reporting. In addition, non-listed firms increasingly become the focus of CSR disclosure mandates, especially regarding the looming 'Corporate Sustainability Reporting Directive' (CSRD). However, in the context of CSR reporting regulation, prior research mainly focuses on large listed companies (e.g. Downar et al., 2021; Fiechter et al., 2022; Grewal et al., 2019), while large non-listed firms receive comparatively little attention (e.g. Chi et al., 2020; Li & Di Wu, 2020). Therefore, in this thesis, I address this research gap by providing exploratory evidence for non-listed firms of disclosure choices and of real effects of CSR reporting mandates

The first and second study of this thesis build on the distinctive characteristics of non-listed 'German Savings Banks' (GSBs) within the scope of the 'Non-Financial Reporting Directive' (NFRD). The first study provides empirical evidence on the first-order consequences of the NFRD and exploits the GSB's distinctive characteristics to examine whether CSR preferences of external and internal non-shareholder stakeholders shape the mandatory CSR reporting. The results of my cross-sectional analyses suggest that CSR preferences of external stakeholders, such as customers, are mainly linked to the volume, i.e. the topical focus, of certain CSR matters. At the same time, CSR preferences of internal stakeholders, i.e. politicians serving on the supervisory board, are mainly associated with the quality of reporting on certain CSR matters. By investigating the link between CSR preferences of external and internal stakeholders and mandatory CSR reporting, the findings contribute to the scarce prior literature on the double materiality approach (e.g. Gulenko et al., 2022; Marquis & Qian, 2014).

The second study focuses on second-order consequences of the CSR reporting regulation, by providing insights into whether real effects emerge in GSBs in response to the NFRD. Using a ‘Difference-in-Differences’ (DiD) design based on treatment and propensity score matched control GSBs from 2014-2020, the study shows an increase of CSR activities in treatment relative to control GSBs in response to the entry into force of the NFRD. Yet, the increase does not include social-related CSR activities and is restricted to the period from the NFRD’s entry into force in 2018 onwards. Cross-sectional analyses further reveal that the observed real effects are concentrated in GSBs with pre-directive low levels of CSR activities and high competition and a left-leaning external political environment. The findings contribute to prior literature (e.g. Fiechter et al., 2022) by suggesting that the creation of real effects in response to CSR reporting regulation varies between listed, profit-oriented and non-listed, non-profit-oriented firms.

Taken together, in the context of a widespread CSR reporting mandate, the first two studies of my thesis provide empirical evidence on the first-order consequences and related reporting incentives (*study 1*) and second-order consequences (*study 2*) in a setting of non-listed financial institutions. The results of my first study suggest that GSBs take into account the CSR preferences of non-shareholder stakeholders in their mandatory CSR reporting, which is in line with the double materiality criterion. In addition, the findings of the second study help the understanding of real effects of CSR reporting regulation by showing that non-listed, non-profit-oriented GSBs respond to the NFRD, but in a different manner than listed, profit-oriented firms. In this sense, my findings yield implications for researchers and standard setters, in particular.

In view of the looming CSRD, the third study adds a new angle to my thesis by providing early empirical evidence on CSR reporting choices and associated reporting incentives among large private firms, while highlighting differences to large listed firms. Using a sample of 400 representatively selected large private firms outside the financial sector, which fall under the CSRD from 2025 onwards, descriptive findings show that one out of four of these firms already provide a CSR report. While the reporting choices of listed and private firms are alike in terms of the application of frameworks and format, they vary in terms of the covered CSR issues and assurance. Regarding the reporting incentives, the results suggest that the observed reporting choices are associated with the availability of (financial) resources. However, in contrast to prior literature on listed firms (e.g. Cormier & Magnan, 2003; Höllerer, 2013), the results likely indicate that CSR reporting by large private firms is not shaped by stakeholder demand, ownership structure and financing strategies.

By providing empirical evidence on CSR disclosures choices and associated reporting incentives, the study adds to the scarce literature on CSR reporting by large private firms (e.g. Chi et al., 2020; Keitz & Grote, 2022). In addition, given my finding that particularly smaller private firms refrain from voluntary CSR reporting (presumably because of associated negative net benefits), the study also yields implications for the ongoing discussion of the European Union's (EU) future plans for a potential extension of the scope of the CSR reporting mandate to all 'Small- and Medium-sized Enterprises' (SMEs) (Directive 2022/2464, art 6 par. 1) and for developing separate, proportionate reporting standards for SMEs (Directive 2022/2464, art. 1 par. 8). In this sense, although SMEs likely have a CSR-related accountability, my findings raise concerns whether a CSR reporting mandate for smaller firms, such as SMEs, generates benefits that are proportionate to the costs.

In the context of this thesis, the results also extend the findings of my first study on GSBs. While the third study shows no significant association between the CSR information demand of stakeholders and voluntary CSR reporting, my first study likely suggests that CSR preferences of stakeholders shape mandatory CSR reporting. Although counterintuitive at first sight, the diverging results might stem from private firms being not yet obliged to report according to the double materiality criterion. In this sense, the results might hint to a change in firms' reporting practices, i.e. real effects, in response to CSR reporting regulation. Also, the different measurement methods of stakeholders' CSR preferences used in the two studies pose another possible explanation. Overall, the studies presented in this thesis each have their own important implications which, taken together, lead to greater general insights into the variation of CSR reporting and its effects in large non-listed firms.

5.2 Limitations

As outlined in the respective chapters, the findings of this thesis are subject to several limitations. First, all of my three studies are subject to endogeneity concerns. In the first study, it cannot be completely ruled out that variation in the CSR preferences, i.e. political orientations, is correlated with other variables that are omitted but also affect CSR reporting. The third study faces similar concerns. Accordingly, both studies explicitly do not attempt to show causality, but merely identify underlying associations. Regarding the second study, omitted variables might affect the creation of real effects, such as an increase in CSR activities, in the treatment and control group differently. A variety of measures, such as a 'Propensity Score Matching' (PSM), GSB-specific control variables, fixed-effects and several additional tests, are included to mitigate the risk. However, inherent size differences between the two groups still pose the risk that treatment effects are caused by structural differences or concurrent events, such as an anticipation of the CSR-related EU taxonomy regulation.

Second, the generalizability of the results to other settings is limited. The first two studies are based on a setting of mandatorily CSR reporting large GSBs that exhibit distinctive characteristics. Thus, the findings are specific to GSBs within the scope of the NFRD. The sample used in the third study includes only a subset of large private firms within the CSRD's scope. Given that my samples exclude, for example, SMEs and subsidiaries, the findings might not be generalizable to other companies. For instance, I cannot infer from my results that real effects also emerge in SMEs in response to a CSR disclosure mandate. In terms of all three studies, the sample is focused on Germany. Companies in other countries are likely subject to different environments and regulatory conditions, which additionally reduces the generalizability of findings at the country level.

Third, due to data constraints, the second study cannot (and does not intend to) investigate the role of specific effect channels that connect an increase in transparency and salience resulting from CSR reporting regulation to the creation of real effects (e.g. Fiechter et al., 2022).

Similarly, the second study is incapable of drawing conclusions about the GSBs' inherent high externalities, i.e. investment decisions, due to the GSBs' restrictive reporting policies in this regard (e.g. Correctiv, 2016).

Fourth, I use self-constructed CSR measures. The construction of such CSR measures is associated with a certain degree of subjective judgment. Thus, although the underlying indexes are constructed drawing on standard setter guidelines and prior research, other researchers might include or exclude different items and thus arrive at different findings. Similarly, I use a large amount of hand-collected data in all three studies. To address the subjectivity (and error-proneness) of such data, a significant proportion of the hand-collected data was collected by one person and subsequently verified by a second person.

Fifth and from a more general perspective, I cannot fully capture the benefits and costs of mandatory CSR reporting. On the benefit side, it remains unclear whether the real effects that result from CSR disclosure regulation are socially desirable. In this sense, the observed real effects that benefit the achievement of sustainability goals might be (partially) offset by unobserved and unintended effects, which also result from the CSR disclosure mandate (Christensen, 2022). On the cost side, a CSR disclosure regulation is associated with various costs on firm-level. In addition to direct costs, such as staff expenses related to the preparation efforts, indirect costs might also occur, for example, in the form of proprietary costs (Christensen et al., 2021). Based on the complexity of the cost-benefit function in this context, I am unable to weigh the benefits against the costs and cannot arrive at conclusions about the resulting net benefits of the CSR disclosure mandate. As a result, I also cannot make any statements whether a CSR disclosure mandate, as a policy tool for indirect behavioral regulation, provides a more cost-efficient alternative for addressing CSR issues than direct policy tools, such as taxes or penalties.

Lastly and related, a successful CSR disclosure mandate, which is designed to realize change, must encompass the supply chain of the reporting entities (Christensen, 2022; Darendeli et al., 2022). Yet, I focus only on the mandated firms themselves, while ignoring other firms along the supply chain. This further reduces my ability to derive conclusions about the overall net benefits of the CSR reporting regulation.

5.3 Outlook

In general, research on the first- and second-order consequences of CSR reporting regulation still contains some gaps (e.g. Christensen et al., 2021). In conjunction with the findings of this thesis, I point at several opportunities for future research in the following.

First, the findings of my thesis illustrate that CSR reporting regulation affects non-listed and listed firms differently, due to their disparate characteristics. Thus, given the looming CSRD and the CSR-related accountability of all large firms regardless of a stock-exchange listing, CSR reporting by large non-listed firms generally provides a fruitful avenue for future research. For instance, the results of the third study on voluntary, pre-directive CSR reporting by large private firms could be compared with mandatory, post-directive CSR reporting to distill the CSRD's influence. Similarly, first- and second-order consequences of the CSRD could be compared between large listed firms and their large private peers to illuminate the role of a company's form and business model in the context of CSR reporting regulation.

Second, particularly financial institutions, which are assigned a 'key role' based on their capability to redirect investments in more sustainable directions, might pose an interesting setting. In this sense, future studies that have access to pertinent data, could examine whether investment behavior of financial institutions changes in response to CSR reporting regulation. A starting point could be the EU taxonomy that contains criteria for 'establishing the degree to which an investment is environmentally sustainable' (Regulation [EU] 2020/852, art. 1 par. 1).

Third, prior literature illustrates various effect channels, such as the stakeholder pressure channel, that link the increased transparency and salience resulting from CSR reporting regulation to the creation of real effects (e.g. Fiechter et al., 2022; Hombach & Sellhorn, 2019). To contribute to a greater understanding of the creation of real effects through CSR reporting regulation, it would also be of interest for future studies to investigate the specific role of different effect channels in this context.

Fourth, the preparation and provision of mandatory CSR reports entails costs and benefits. The costs materialize, for example, in the form of expenses for involved employees, proprietary costs or increased stakeholder scrutiny. At the same time, mandatory CSR reporting might also generate sustainability-related benefits, such as an increase in CSR activities, and financial benefits, such as an improved capital allocation. Given the complexity of the cost-benefit function in this context, more research is needed to fully explore the benefits and costs of CSR disclosure regulation. Along the lines of Christensen (2022), future research might focus on substantiating that the observed behavioral changes, i.e. real effects, in response to a CSR reporting mandate are socially desirable. In this sense, the identification of unintended and potentially offsetting real effects might pose a good start. Beyond that, to be able to draw conclusions about the net benefits of a CSR reporting mandate (and compare it with other policy tools), it might also be of interest to consider the reporting entity alongside all the firms in its supply chain. Similarly, it could be interesting to compare the evolution of benefits and costs among firms that started CSR reporting solely as a result of the mandate, i.e. true mandatory reporters that likely feature initial negative net benefits of CSR reporting, with firms that provided voluntary CSR reports already before the mandate, i.e. firms that likely feature an initial positive cost-benefit ratio.

Lastly, with regard to my first study, it might be of interest for future studies to examine the GSBs' CSR reporting in a pre- and post-municipal-election-environment, particularly when there is a change in local government. Exploiting such shocks likely helps the identification of causal inferences and thus further contributes to the literature on the double materiality approach. Overall, the outlined avenues for future research would help to further extend the understanding of the functioning and the impact of a CSR reporting regulation.

6 Erklärung über den geleisteten Eigenanteil der Arbeit

Study 1: *CSR Preferences of Stakeholders and Mandatory CSR Reporting: A Setting of German Savings Banks*

- This study is single-authored.

Study 2: *Real Effects of a CSR Reporting Mandate: A Setting of Non-Profit-Oriented German Savings Banks*

- This study is single-authored.

Study 3: *CSR Reporting by Large Private Firms: Evidence from Germany*

- This study is single-authored.

Göttingen, den 15.09.2023

Marten von der Heide

7 Versicherung

gemäß § 12 der Prüfungs- und Studienordnung (Version AM I 20/20.06.2023) für den Promotionsstudiengang „Wirtschaftswissenschaften” der Georg-August-Universität Göttingen.

Ich versichere,

1. dass ich die eingereichte Dissertation „Reporting by Non-Listed Companies on Corporate Social Responsibility“ selbstständig angefertigt habe und nicht die Hilfe Dritter in einer dem Prüfungsrecht und wissenschaftlicher Redlichkeit widersprechenden Weise in Anspruch genommen habe,
2. dass ich das Prüfungsrecht einschließlich der wissenschaftlichen Redlichkeit – hierzu gehört die strikte Beachtung des Zitiergebots, so dass die Übernahme fremden Gedankenguts in der Dissertation deutlich gekennzeichnet ist – beachtet habe,
3. dass beim vorliegenden Promotionsverfahren kein Vermittler gegen Entgelt eingeschaltet worden ist sowie im Zusammenhang mit dem Promotionsverfahren und seiner Vorbereitung
   - kein Entgelt gezahlt oder entgeltgleiche Leistungen erbracht worden sind
   - keine Dienste unentgeltlich in Anspruch genommen wurden, die dem Sinn und Zweck eines Prüfungsverfahrens widersprechen
4. dass ich eine entsprechende Promotion nicht anderweitig beantragt und hierbei die eingereichte Dissertation oder Teile daraus vorgelegt habe.

Mir ist bekannt, dass Unwahrheiten hinsichtlich der vorstehenden Versicherung die Zulassung zur Promotionsprüfung ausschließen und im Falle eines späteren Bekanntwerdens die Promotionsprüfung für ungültig erklärt werden oder der Doktorgrad aberkannt werden kann.

Göttingen, den 15.09.2023

Marten von der Heide

References

Aerts, W., & Cormier, D. (2009). Media Legitimacy and Corporate Environmental Communication. *Accounting, Organizations and Society*, *34*(1), 1–27. https://doi.org/10.1016/j.aos.2008.02.005

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The Association between outside Directors, Institutional Investors and the Properties of Management Earnings Forecasts. *Journal of Accounting Research*, *43*(3), 343–376. http://www.jstor.org/stable/3542289

Amel-Zadeh, A., & Serafeim, G. (2018). Why and How Investors Use ESG Information: Evidence from a Global Survey. *Financial Analysts Journal*, *74*(3), 87–103. https://doi.org/10.2469/faj.v74.n3.2

Anderloni, L., Braga, M. D., & Carluccio, E. M. (2007). *New Frontiers in Banking Services: Emerging Needs and Tailored Products for Untapped Markets*. Springer.

Apaydin, M., Jiang, G. F., Demirbag, M., & Jamali, D. (2021). The Importance of Corporate Social Responsibility Strategic Fit and Times of Economic Hardship. *British Journal of Management*, *32*(2), 399–415. https://doi.org/10.1111/1467-8551.12402

Armstrong, C. S., Guay, W. R., & Weber, J. P. (2010). The Role of Information and Financial Reporting in Corporate Governance and Debt Contracting. *Journal of Accounting and Economics*, *50*(2-3), 179–234. https://doi.org/10.1016/j.jacceco.2010.10.001

ASCG. (2021). *CSR-Studie: Abschlussbericht zur vom BMJV beauftragten Horizontalstudie sowie zu Handlungsempfehlungen für die Überarbeitung der CSR-Richtlinie.* Accounting Standards Committee of Germany. https://www.drsc.de/app/uploads/2021/06/210128_CSR-Studie_final.pdf

Atanasov, V., & Black, B. (2016). Shock-Based Causal Inference in Corporate Finance and Accounting Research. *Critical Finance Review*, *5*(2), 207–304. https://doi.org/10.1561/104.00000036

Baumüller, J., Scheid, O., & Kotlenga, M. (2020). "CSR-Richtlinie 2.0"? Zentrale Erkenntnisse aus den Konsultation der EU-Kommission des ersten Halbjahres 2020 und deren Implikationen. *Zeitschrift Für Internationale Und Kapitalmarktorientierte Rechnungslegung (KoR)*(11), 439–445. https://www.genios.de/fachzeitschriften/artikel/KOR/20201106/-csr-richtlinie-2-0-zentrale-erkenn/KORKOR1342777.html

Bellemare, M. F., Masaki, T., & Pepinsky, T. B. (2017). Lagged Explanatory Variables and the Estimation of Causal Effect. *The Journal of Politics*, *79*(3), 949–963. https://doi.org/10.1086/690946

Bigus, J., Georgiou, N., & Schorn, P. (2016). Legal Form and Earnings Properties. *European Accounting Review*, *25*(3), 515–548. https://doi.org/10.1080/09638180.2015.1051566

Bigus, J., & Hillebrand, C. (2017). Bank Relationships and Private Firms' Financial Reporting Quality. *European Accounting Review*, *26*(2), 379–409. https://doi.org/10.1080/09638180.2016.1152906

Brämer, P., Gischer, H., Pfingsten, A., & Richter, T. (2010). Der öffentliche Auftrag der Deutschen Sparkassen aus der Perspektive des Stakeholder-Managements. *Zeitschrift Für Öffentliche Und Gemeinwirtschaftliche Unternehmen*, *33*(4), 311–332. https://doi.org/10.5771/0344-9777-2010-4-311

Brammer, S., & Pavelin, S. (2006). Voluntary Environmental Disclosures by Large UK Companies. *Journal of Business Finance & Accounting*, *33*(7-8), 1168–1188. https://doi.org/10.1111/j.1468-5957.2006.00598.x

Byrd, J., Hickman, K., Baker, C. R., & Cohanier, B. (2017). Corporate Social Responsibility Reporting in Controversial Industries. *SSRN Electronic Journal*, 1–22. https://doi.org/10.2139/ssrn.2894789

Carmo, C., & Miguéis, M. (2022). Voluntary Sustainability Disclosures in Non-Listed Companies: An Exploratory Study on Motives and Practices. *Sustainability*, *14*(12), 7365. https://doi.org/10.3390/su14127365

Chauvey, J.-N., Giordano-Spring, S., Cho, C. H., & Patten, D. M. (2015). The Normativity and Legitimacy of CSR Disclosure: Evidence from France. *Journal of Business Ethics, 130*(4), 789–803. https://doi.org/10.1007/s10551-014-2114-y

Chavaz, M., & Rose, A. K. (2019). Political Borders and Bank Lending in Post-Crisis America. *Review of Finance*, *23*(5), 935–959. https://doi.org/10.1093/rof/rfy027

Chen, Y.-C., Hung, M., & Wang, Y. (2018). The Effect of Mandatory CSR Disclosure on Firm Profitability and Social Externalities: Evidence from China. *Journal of Accounting and Economics*, *65*(1), 169–190. https://doi.org/10.1016/j.jacceco.2017.11.009

Chi, W., Wu, S.-J., & Zheng, Z. (2020). Determinants and Consequences of Voluntary Corporate Social Responsibility Disclosure: Evidence from Private Firms. *The British Accounting Review*, *52*(6), 100939. https://doi.org/10.1016/j.bar.2020.100939

Cho, C. H., & Patten, D. M. (2007). The Role of Environmental Disclosures as Tools of Legitimacy: A Research Note. *Accounting, Organizations and Society*, *32*(7-8), 639–647. https://doi.org/10.1016/j.aos.2006.09.009

Christ, J., Kocian, J., & Stappert, C. (2021). Der Kommissionsvorschlag zur Corporate Sustainability Reporting Directive. *KoR*(9), 379–388. https://www.econbiz.de/Record/der-kommissionsvorschlag-zur-corporate-sustainability-reporting-directive-christ-jan/10012627528

Christensen, H. B. (2022). Is Coporate Transparency the Solution to Political Failure on our Greatest Problems? A Discussion of Darendeli, Fiechter, Hitz, and Lehmann (2022). *Journal of Accounting and Economics*, *74*(2-3), 101542. https://doi.org/10.1016/j.jacceco.2022.101542

Christensen, H. B., Floyd, E., Liu, L. Y., & Maffett, M. (2017). The Real Effects of Mandated Information on Social Responsibility in Financial Reports: Evidence from Mine-Safety Records. *Journal of Accounting and Economics*, *64*(2-3), 284–304. https://doi.org/10.1016/j.jacceco.2017.08.001

Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and Sustainability Reporting: Economic Analysis and Literature Review. *Review of Accounting Studies*(26), 1176–1248. https://doi.org/10.3386/w26169

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the Relation between Environmental Performance and Environmental Disclosure: An Empirical Analysis. *Accounting, Organizations and Society*, *33*(4-5), 303–327. https://doi.org/10.1016/j.aos.2007.05.003

Cormier, D., & Magnan, M. (2003). Environmental Reporting Management: A Continental European Perspective. *Journal of Accounting and Public Policy*, *22*(1), 43–62. https://doi.org/10.1016/S0278-4254(02)00085-6

Cormier, D., Magnan, M., & van Velthoven, B. (2005). Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions? *European Accounting Review*, *14*(1), 3–39. https://doi.org/10.1080/0963818042000339617

Correctiv. (2016). *Deutschlands Sparkassen sind großzügig beim Spenden - und knauserig bei den Ausschüttungen an die Kommunen.* https://correctiv.org/aktuelles/sparkassen/2016/11/10/deutschlands-sparkassen-sind-grosszuegig-beim-spenden-und-knausrig-bei-den-ausschuettungen-an-die-kommunen/

CSR Europe and Global Reporting Initiative. (2017). *Member State Implementation of Directive 2014/95/EU: A Comprehensive Overview of how Member States are Implementing the EU Directive on Non-Financial and Diversity Information*. https://www.accountancyeurope.eu/wp-content/uploads/NFR-Publication-3-May-revision.pdf

Cuomo, F., Gaia, S., Girardone, C., & Piserà, S. (2022). The Effects of the EU Non-Financial Reporting Directive on Corporate Social Responsibility. *The European Journal of Finance*, 1–27. https://doi.org/10.1080/1351847X.2022.2113812

Dai, R., Liang, H., & Ng, L. (2021). Socially Responsible Corporate Customers. *Journal of Financial Economics*, *142*(2), 598–626. https://doi.org/10.1016/j.jfineco.2020.01.003

Darendeli, A., Fiechter, P., Hitz, J.-M., & Lehmann, N. (2022). The Role of Corporate Social Responsibility (CSR) Information in Supply-Chain Contracting: Evidence from the Expansion of CSR Rating Coverage. *Journal of Accounting and Economics*, *74*(2-3), 101525. https://doi.org/10.1016/j.jacceco.2022.101525

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a Label: Heterogeneity in the Economic Consequences around IAS/IFRS Adoptions. *Journal of Accounting Research*, *51*(3), 495–547. https://doi.org/10.1111/1475-679X.12005

Deegan, C. (2002). Introduction: The Legitimising Effect of Social and Environmental Disclosures – A Theoretical Foundation. *Accounting, Auditing & Accountability Journal*, *15*(3), 282–311. https://doi.org/10.1108/09513570210435852

DeVilliers, C., Naiker, V., & van Staden, C. J. (2011). The Effect of Board Characteristics on Firm Environmental Performance. *Journal of Management*, *37*(6), 1636–1663. https://doi.org/10.1177/0149206311411506

Dhaliwal, D. S., Li, O. Z., Tsang, A [Albert], & Yang, Y. G [Yong George] (2011). Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting. *The Accounting Review*, *86*(1), 59–100. https://doi.org/10.2308/accr.00000005

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A [A.], & Yang, Y. G [Y. G.] (2012). Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure. *The Accounting Review*, *87*(3), 723–759. http://www.jstor.org/stable/23245628

Di Giuli, A., & Kostovetsky, L. (2014). Are Red or Blue Companies more likely to go Green? Politics and Corporate Social Responsibility. *Journal of Financial Economics*, *111*(1), 158–180. https://doi.org/10.1016/j.jfineco.2013.10.002

Dong, S., Burritt, R., & Qian, W. (2014). Salient Stakeholders in Corporate Social Responsibility Reporting by Chinese Mining and Minerals Companies. *Journal of Cleaner Production*, *84*, 59–69. https://doi.org/10.1016/j.jclepro.2014.01.012

Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *The Pacific Sociological Review*, *18*(1), 122–136. https://doi.org/10.2307/1388226

Downar, B., Ernstberger, J., Reichelstein, S., Schwenen, S., & Zaklan, A. (2021). The Impact of Carbon Disclosure Mandates on Emissions and Financial Operating Performance. *Review of Accounting Studies*, *26*(3), 1137–1175. https://doi.org/10.1007/s11142-021-09611-x

Dyck, A., Volchkova, N., & Zingales, L. (2008). The Corporate Governance Role of the Media: Evidence from Russia. *The Journal of Finance*, *63*(3), 1093–1135. https://doi.org/10.3386/w12525

Econsense, & UN Global Compact Network Germany. (2018). *Neuer Impuls für die Berichterstattung zu Nachhaltigkeit? Studie zur Umsetzung des deutschen CSR-Richtlinie-Umsetzungsgesetzes*. https://www.globalcompact.de/migrated_files/wAssets/docs/Weitere-Themen/CSR-RUG-Studie_DGCN-und-econsense_online.pdf

EFRAG. (2022). *Draft European Sustainability Reporting Standards: ESRS 1 (General requirements).* European Financial Reporting Advisory Group. https://efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FSiteAssets%2F06%2520Draft%2520ESRS%25201%2520General%2520requirements%2520November%25202022.pdf

ESBG. (2023). *The European Savings and Retail Banking Group: The Voice of Savings and Retail Banks at the Heart of EU Decision Making*. https://www.wsbi-esbg.org/about-esbg/

Eulner, V. (2022). Nachhaltigkeitsberichterstattung: Inwieweit sind öffentliche Unternehmen davon betroffen? *Die Wirtschaftsprüfung*(13), 745–754. https://beck-online.beck.de/Dokument?vpath=bibdata%2Fzeits%2Fwpg%2F2022%2Fcont%2Fwpg.2022.745.1.htm&pos=9

European Commission. (2001). *Green Paper: Promoting a European Framework for Corporate Social Responsibility: COM(2001) 366 final*. https://ec.europa.eu/commission/presscorner/detail/en/DOC_01_9

European Commission. (2011). *A Renewed EU Strategy 2011-14 for Corporate Social Responsibility: COM(2011) 681 final*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0681&from=EN

European Commission. (2018). *Action Plan: Financing Sustainable Growth: COM(2018) 97 final*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097

European Commission. (2020). *Summary Report of the Public Consultation on the Review of the NFRD: Ref. Ares(2020)3997889*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=PI_COM:Ares(2020)3997889

European Commission. (2021a). *Fitness Check on the EU Framework for Public Reporting by Companies: COM(2021) 199 final*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0081&rid=1

European Commission. (2021b). *Proposal for a Directive of the European Parliament and of the Council: 2021/0104 (COD)*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021PC0189&from=EN

European Commission. (2023a). *Annex to the Commission Delegated Regulation (EU) …/…: C(2023) 5303 final ANNEX 1*. http://ec.europa.eu/finance/docs/level-2-measures/csrd-delegated-act-2023-5303-annex-1_en.pdf

European Commission. (2023b). *Commission Delegated Regulation (EU) …/… of 31.7.2023: C(2023) 5303 final*. http://ec.europa.eu/finance/docs/level-2-measures/csrd-delegated-act-2023-5303_en.pdf

European Commission Representation in Germany. (2023). *Germany in the EU*. https://germany.representation.ec.europa.eu/uber-uns/deutschland-der-eu_de

Federal Agency for Civic Education. (2023). *Wahl-O-Mat*. https://www.bpb.de/themen/wahl-o-mat/

Fiechter, P., Hitz, J.-M., & Lehmann, N. (2022). Real Effects of a Widespread CSR Reporting Mandate: Evidence from the European Union's CSR Directive. *Journal of Accounting Research*, *60*(4), 1499–1549. https://doi.org/10.1111/1475-679X.12424

Flagmeier, V., & Gulenko, M. (2023). CSR and Political Insiders. *TAF Working Paper*(84), 1–64. https://en.wiwi.uni-paderborn.de/fileadmin-wiwi/cetar/TAF_Working_Paper_Series/TAF_WP_084_FlagmeierGulenko2023.pdf

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman.

Friedman, M. (1970, September 13). The Social Responsibility of Business Is to Increase Its Profits. *The New York Times Magazine*.

Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of Voluntary CSR Disclosure: Empirical Evidence from Germany. *Review of Managerial Science, 5*(2-3), 233–262. https://doi.org/10.1007/s11846-010-0052-3

Gassen, J., & Muhn, M. (2023). Financial Transparency of Private Firms: Evidence from a Randomized Field Experiment. *TRR 266 Accounting for Transparency Working Paper Series, 115*, 1–89. https://doi.org/10.2139/ssrn.3290710

German Bundestag. (2016). *Antrag: Zukunftsfähige Unternehmensverantwortung – Nachhaltigkeitsberichte wirksam und aussagekräftig ausgestalten – Umsetzung der CSR-Richtlinie: Drucksache 18/10030*. https://www.bundestag.de/dokumente/textarchiv/2017/kw10-de-berichtspflichten-unternehmen-csr-493972

German Bundestag. (2017). *Stenografischer Bericht, 221. Sitzung: Plenarprotokoll 18/221*. https://dserver.bundestag.de/btp/18/18221.pdf

German Savings Banks Association. (2017). *Financial Report 2017 of the Savings Banks Finance Group*. https://www.dsgv.de/content/dam/dsgv-de/englische-inhalte/DSGV-FB-2017-Online-EN.pdf

German Savings Banks Association. (2020a). *Focus Paper: Social Taxonomy*. https://www.dsgv.de/content/dam/dsgv-de/englische-inhalte/fokus-papiere/201218_Fokuspapiere_Soziale_Nachhaltigkeit_EN.pdf

German Savings Banks Association. (2020b). *Inside the Savings Banks Finance Group*. https://www.dsgv.de/content/dam/dsgv-de/englische-inhalte/210105-Inside-Saving%20Banks_Group_2020_EN.pdf

German Savings Banks Association. (2020c). *Sparkassenrangliste 2020*. https://www.dsgv.de/content/dam/dsgv-de/sparkassen-finanzgruppe/downloads/Sparkassenrangliste%202020.pdf

German Savings Banks Association. (2023). *Wir über uns*. https://www.sparkasse.de/ueber-uns.html

Girella, L., Zambon, S., & Rossi, P. (2019). Reporting on Sustainable Development: A Comparison of three Italian Small and Medium-Sized Enterprises. *Corporate Social Responsibility and Environmental Management*, *26*(4), 981–996. https://doi.org/10.1002/csr.1738

Graham, J. R., Li, S., & Qiu, J. (2008). Corporate Misreporting and Bank Loan Contracting. *Journal of Financial Economics*, *89*(1), 44–61. https://doi.org/10.1016/j.jfineco.2007.08.005

Grant Thornton. (2008). *Corporate Social Responsibility: A Necessity Not a Choice: International Business Report.* Grant Thornton International Ltd. https://www.grantthornton.global/en/insights/articles/About-IBR/

Grewal, J., Riedl, E. J., & Serafeim, G. (2019). Market Reaction to Mandatory Nonfinancial Disclosure. *Management Science*, *65*(7), 3061–3084. https://doi.org/10.1287/mnsc.2018.3099

Grewal, J., Serafeim, G., & Yoon, A. (2016). Shareholder Activism on Sustainability Issues. *SSRN Electronic Journal*, 1–56. https://doi.org/10.2139/ssrn.2805512

Grimmer, M., & Bingham, T. (2013). Company Environmental Performance and Consumer Purchase Intentions. *Journal of Business Research*, *66*(10), 1945–1953. https://doi.org/10.1016/j.jbusres.2013.02.017

Gulenko, M. (2018). Mandatory CSR Reporting - Literature Review and Future Developments in Germany. *NachhaltigkeitsManagementForum | Sustainability Management Forum*, *26*(1-4), 3–17. https://doi.org/10.1007/s00550-018-0476-9

Gulenko, M., Kohlhase, S., & Kosi, U. (2022). CSR Reporting under the Non-Financial Reporting Directive: Evidence from Non-Publicly Listed Firms. *SSRN Electronic Journal*, 1–48. https://doi.org/10.2139/ssrn.4040946

Hahn, R., & Kühnen, M. (2013). Determinants of Sustainability Reporting: A Review of Results, Trends, Theory, and Opportunities in an expanding Field of Research. *Journal of Cleaner Production*, *59*, 5–21. https://doi.org/10.1016/j.jclepro.2013.07.005

Haniffa, R. M., & Cooke, T. E. (2005). The Impact of Culture and Governance on Corporate Social Reporting. *Journal of Accounting and Public Policy*, *24*(5), 391–430. https://doi.org/10.1016/j.jaccpubpol.2005.06.001

Heide, M. von der, Wagner, J., Volkmann, D., & Weber, A. (2023). Status quo der Nachhaltigkeitsberichterstattung von großen nicht-kapitalmarktorientierten Unternehmen in Deutschland – Eine empirische Analyse von Tochter- und Einzelunternehmen. *Der Konzern*(6), 244–251. https://research.owlit.de/document/cdab9fb9-9737-3ca9-998f-951a66d3bb77

Hillman, A. J., Cannella, A. A., & Paetzold, R. L. (2000). The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change. *Journal of Management Studies*, *37*(2), 235–256. https://doi.org/10.1111/1467-6486.00179

Holder-Webb, L., Cohen, J. R., Nath, L., & Wood, D. (2009). The Supply of Corporate Social Responsibility Disclosures Among U.S. Firms. *Journal of Business Ethics*, *84*(4), 497–527. https://doi.org/10.1007/s10551-008-9721-4

Höllerer, M. A. (2013). From Taken-for-Granted to Explicit Commitment: The Rise of CSR in a Corporatist Country. *Journal of Management Studies*, *50*(4), 573–606. https://doi.org/10.1111/joms.12029

Hombach, K., & Sellhorn, T. (2019). Shaping Corporate Actions through Targeted Transparency Regulation: A Framework and Review of Extant Evidence. *Schmalenbach Business Review*, *71*(2), 137–168. https://doi.org/10.1007/s41464-018-0065-z

Howitt, R. (2014, April 16). The EU Law on Non-Financial Reporting - How we got there. *The Guardian*.

Huang, C.-L., & Kung, F.-H. (2010). Drivers of Environmental Disclosure and Stakeholder Expectation: Evidence from Taiwan. *Journal of Business Ethics*, *96*(3), 435–451. https://doi.org/10.1007/s10551-010-0476-3

Hummel, K., & Schlick, C. (2016). The Relationship between Sustainability Performance and Sustainability Disclosure – Reconciling Voluntary Disclosure Theory and Legitimacy Theory. *Journal of Accounting and Public Policy*, *35*(5), 455–476. https://doi.org/10.1016/j.jaccpubpol.2016.06.001

Ioannou, I., & Serafeim, G. (2019). The Consequences of Mandatory Corporate Sustainability Reporting. In A. McWilliams, D. E. Rupp, D. S. Siegel, G. K. Stahl, & D. A. Waldman (Eds.), *The Oxford Handbook of Corporate Social Responsibility: Psychological and Organizational Perspectives* (pp. 452–489). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198802280.013.20

Jackson, G., Bartosch, J., Avetisyan, E., Kinderman, D., & Knudsen, J. S. (2020). Mandatory Non-financial Disclosure and Its Influence on CSR: An International Comparison. *Journal of Business Ethics*, *162*(2), 323–342. https://doi.org/10.1007/s10551-019-04200-0

Jin, G. Z., & Leslie, P. (2003). The Effect of Information on Product Quality: Evidence from Restaurant Hygiene Grade Cards. *The Quarterly Journal of Economics*, *118*(2), 409–451. https://doi.org/10.1162/003355303321675428

Jouvenot, V., & Krueger, P. (2021). Mandatory Corporate Carbon Disclosure: Evidence from a Natural Experiment. *SSRN Electronic Journal*, 1–68. https://doi.org/10.2139/ssrn.3434490

Keitz, I. von, & Grote, R. (2022). Wie gut ist der Mittelstand auf die künftige ESG-Berichtspflicht vorbereitet? - Eine Analyse anhand der bisherigen Berichterstattung von 40 der Top 500-Unternehmen -. *Der Betrieb*(50), 2937–2943. https://research.ow-lit.de/document/85b17647-2567-3550-bb0f-7620a78b23d5

Koetter, M., & Popov, A. (2021). Political Cycles in Bank Lending to the Government. *The Review of Financial Studies*, *34*(6), 3138–3180. https://doi.org/10.1093/rfs/hhaa118

Kreissparkasse Köln. (2017). *DNK-Erklärung 2017*. https://datenbank2.deutscher-nachhaltigkeitskodex.de/Profile/CompanyProfile/8892/de/2017/dnk

Kruppe, C., & Kühl, R. (2020). Nachhaltigkeit systematisch steuern. *Controlling & Management Review*, *64*(3), 56–63. https://doi.org/10.1007/s12176-020-0093-7

Larrinaga, C., Carrasco, F., Correa, C., Llena, F., & Moneva, J. (2002). Accountability and Accounting Regulation: The Case of the Spanish Environmental Disclosure Standard. *European Accounting Review*, *11*(4), 723–740. https://doi.org/10.1080/0963818022000001000

Lee, E., Walker, M., & Zeng, C. (2017). Do Chinese State Subsidies affect Voluntary Corporate Social Responsibility Disclosure? *Journal of Accounting and Public Policy*, *36*(3), 179–200. https://doi.org/10.1016/j.jaccpubpol.2017.03.004

Leuz, C., & Wysocki, P. D. (2016). The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of Accounting Research*, *54*(2), 525–622. https://doi.org/10.1111/1475-679X.12115

Li, J., & Di Wu (2020). Do Corporate Social Responsibility Engagements Lead to Real Environmental, Social, and Governance Impact? *Management Science*, *66*(6), 2564–2588. https://doi.org/10.1287/mnsc.2019.3324

Li, T., & Belal, A. (2018). Authoritarian State, Global Expansion and Corporate Social Responsibility Reporting: The Narrative of a Chinese State-Owned Enterprise. *Accounting Forum*, *42*(2), 199–217. https://doi.org/10.1016/j.accfor.2018.05.002

Luo, X. R., Wang, D., & Zhang, J. (2017). Whose Call to Answer: Institutional Complexity and Firms' CSR Reporting. *Academy of Management Journal*, *60*(1), 321–344. https://doi.org/10.5465/amj.2014.0847

Marquis, C., & Qian, C. (2014). Corporate Social Responsibility Reporting in China: Symbol or Substance? *Organization Science*, *25*(1), 127–148. https://doi.org/10.1287/orsc.2013.0837

Massa, L., Farneti, F., & Scappini, B. (2015). Developing a Sustainability Report in a Small to Medium Enterprise: Process and Consequences. *Meditari Accountancy Research*, *23*(1), 62–91. https://doi.org/10.1108/MEDAR-02-2014-0030

Merton, R. C. (1987). A Simple Model of Capital Market Equilibrium with Incomplete Information. *The Journal of Finance, 42*(3), 483–510. https://doi.org/10.1111/j.1540-6261.1987.tb04565.x

Mittelbach-Hörmanseder, S., Hummel, K., & Rammerstorfer, M. (2021). The Information Content of Corporate Social Responsibility Disclosure in Europe: An Institutional Perspective. *European Accounting Review*, *30*(2), 309–348. https://doi.org/10.1080/09638180.2020.1763818

Mohd Ghazali, N. A. (2007). Ownership Structure and Corporate Social Responsibility Disclosure: Some Malaysian Evidence. *Corporate Governance: The International Journal of Business in Society*, *7*(3), 251–266. https://doi.org/10.1108/14720700710756535

Mülhaupt, L., & Dolff, P. (1981). *Zielsystem im Sparkassenbetrieb: Göttinger Hefte zur Bankbetriebslehre und Unternehmungsfinanzierung: 7b. Texte zur wissenschaftlichen Bankbetriebslehre 2*. Verlag Otto Schwartz & Co.

Preston, L. E., & Post, J. E. (1975). *Private Management and Public Policy: The Principle of Public Responsibility*. Prentice-Hall.

Preuss, S., & Königsgruber, R. (2021). How Do Corporate Political Connections Influence Financial Reporting? A Synthesis of the Literature. *Journal of Accounting and Public Policy*, *40*(1), 106802. https://doi.org/10.1016/j.jaccpubpol.2020.106802

Qian, W., & Chen, X. (2021). Corporate Environmental Disclosure and Political Connection in Regulatory and Leadership Changes: The Case of China. *The British Accounting Review*, *53*(1), 100935. https://doi.org/10.1016/j.bar.2020.100935

Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and Social Disclosures: Link with Corporate Financial Performance. *The British Accounting Review*, *48*(1), 102–116. https://doi.org/10.1016/j.bar.2014.10.007

Rauter, T. (2020). The Effect of Mandatory Extraction Payment Disclosures on Corporate Payment and Investment Policies Abroad. *Journal of Accounting Research*, *58*(5), 1075–1116. https://doi.org/10.1111/1475-679X.12332

Refinitiv. (2022). *Environmental, social and governance (ESG) scores from Refintiv*. https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf

Reid, E. M., & Toffel, M. W. (2009). Responding to Public and Private Politics: Corporate Disclosure of Climate Change Strategies. *Strategic Management Journal*, *30*(11), 1157–1178. https://doi.org/10.1002/smj.796

Rhee, M., & Valdez, M. E. (2009). Contextual Factors Surrounding Reputation Damage with Potential Implications for Reputation Repair. *Academy of Management*, *34*(1), 146–168. https://www.jstor.org/stable/27759990

Rossi, A., & Luque-Vílchez, M. (2021). The Implementation of Sustainability Reporting in a Small and Medium Enterprise and the Emergence of Integrated Thinking. *Meditari Accountancy Research*, *29*(4), 966–984. https://doi.org/10.1108/MEDAR-02-2020-0706

Rößle, S. (2021, January 20). Stadtsparkasse Augsburg setzt auf Nachhaltigkeit. *Bayerische GemeindeZeitung*.

Roychowdhury, S., Shroff, N., & Verdi, R. S. (2019). The Effects of Financial Reporting and Disclosure on Corporate Investment: A Review. *Journal of Accounting and Economics*, *68*(2-3), 101246. https://doi.org/10.1016/j.jacceco.2019.101246

Santikian, L. (2014). The Ties that Bind: Bank Relationships and Small Business Lending. *Journal of Financial Intermediation*, *23*(2), 177–213. https://doi.org/10.1016/j.jfi.2013.11.004

Schöls, D. (2021, February 9). Sparkasse sozial engagiert. *Badische Zeitung*.

Schreiber, M. (2019, May 13). Nachhaltigkeit - Zwei Sparkassen landen ganz hinten. *Süddeutsche Zeitung*.

Shipman, J. E., Swanquist, Q. T., & Whited, R. L. (2017). Propensity Score Matching in Accounting Research. *The Accounting Review*, *92*(1), 213–244. https://doi.org/10.2308/accr-51449

Shroff, N. (2017). Corporate Investment and Changes in GAAP. *Review of Accounting Studies*, *22*(1), 1–63. https://doi.org/10.1007/s11142-016-9375-x

Siegel, D. S. (2009). Green Management Matters Only If It Yields More Green: An Economic/Strategic Perspective. *Academy of Management Perspectives*, *23*(3), 5–16. https://www.jstor.org/stable/27747522

Simon, H. A. (1955). A Behavioral Model of Rational Choice. *The Quarterly Journal of Economics*, *69*(1), 99–118. https://doi.org/10.2307/1884852

Situ, H., & Tilt, C. A. (2012). Chinese Government as a Determinant of Corporate Environmental Reporting: A study of Large Chinese Listed Companies. *Journal of the Asia Pacific Centre for Environmental Accountability*, *18*(4), 251–286. https://www.researchgate.net/publication/283154036_Chinese_Government_as_a_Determinant_of_Corporate_Environmental_Reporting_A_study_of_Large_Chinese_Listed_Companies

Sparkasse Hannover. (2017). *DNK-Erklärung 2017*. https://datenbank2.deutscher-nachhaltigkeitskodex.de/Profile/CompanyProfile/7545/de/2017/dnk?AspxAutoDetectCookieSupport=1

Sparkasse Koblenz. (2017). *Nichtfinanzielle Erklärung der Sparkasse Koblenz: Berichtsjahr 2017*. https://www.sparkasse-koblenz.de/content/dam/myif/sk-koblenz/work/dokumente/pdf/Geschaeftsberichte/Nachhaltigkeitsbericht.pdf

Sparkasse KölnBonn. (2017). *DNK-Erklärung 2017*. https://www.sparkasse-koeln-bonn.de/content/dam/myif/sk-koelnbonn/work/dokumente/pdf/unternehmen/Engagement/Nachhaltigkeitsbericht_2017.pdf?n=true

Switek, N., Thomeczek, J. P., & Krouwel, A. (2017). *Die Vermessung der Parteienlandschaft vor der Bundestagswahl 2017 mit dem Bundeswahlkompass.* Regierungsforschung.de - Das wissenschaftliche Online-Magazin der NRW School of Governance. https://regierungsforschung.de/wp-content/uploads/2017/09/05092017_regierungsforschung.de_Switek_Krouwel_Thomeczek_Vermessung-der-Parteienlandschaft-vor-der-Bun-destagswahl-2017-mit-dem-Bundeswahlkompass-1.pdf

Tomar, S. (2023). Greenhouse Gas Disclosure and Emissions Benchmarking. *Journal of Accounting Research*, *61*(2), 451–492. https://doi.org/10.1111/1475-679X.12473

United Nations. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development: A/RES/70/1*. https://undocs.org/en/A/RES/70/1

van der Lugt, C., van de Wijs, P. P., & Petrovics, D. (2020). *Carrots & Sticks 2020 - Sustainability Reporting Policy: Global Trends in Disclosure as the ESG Agenda goes Mainstream.* Global Reporting Initiative (GRI) and the University of Stellenbosch Business School (USB). https://www.carrotsandsticks.net/media/zirbzabv/carrots-and-sticks-2020-june2020.pdf

Velte, P. (2022). Regulierung der europäischen Nachhaltigkeitsberichterstattung - Empirische Befunde zur Richtlinie 2014/95/EU und Handlungsempfehlungen. *Der Betrieb*, *75*(18), 1081–1090. https://www.researchgate.net/publication/361169902_Regulierung_der_europaischen_Nachhaltigkeitsberichterstattung_Empirische_Befunde_zur_Richtlinie_201495_und_Handlungsempfehlungen

Vins, O. (2008). How Politics Influence State-Owned Banks: The Case of German Savings Banks. *Working Paper Series: Finance & Accounting*(191), 1–47. http://hdl.handle.net/10419/36638

Wickert, C., Scherer, A. G., & Spence, L. J. (2016). Walking and Talking Corporate Social Responsibility: Implications of Firm Size and Organizational Cost. *Journal of Management Studies*, *53*(7), 1169–1196. https://doi.org/10.1111/joms.12209

Zielke Research Consult GmbH. (2021). *Nachhaltigkeitsanalyse Banken*. https://www.lifepr.de/pressemitteilung/zielke-research-consult-gmbh/nachhaltigkeits-analyse-banken/boxid/835742