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Assessing the Influence of Target's CSR on Acquisition Premiums in Europe

An Examination of ESG Premiums

School of Accounting and Finance
Master's Thesis in Finance
Master's Degree Programme in Finance

Vaasa 2025

UNIVERSITY OF VAASA
School of Accounting and Finance
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Title of the thesis: Assessing the Influence of Target's CSR on Acquisition Premiums in Europe : An Examination of ESG Premiums
Degree: Master of Science in Economics and Business Administration
Discipline: Master's Degree Programme in Finance
Supervisor: John Kihn
Year: 2025 **Pages:** 116

ABSTRACT :

This thesis examines the relationship between the target's acquisition premium and its pre-acquisition CSR rating. The study's objective is to investigate whether target firm's CSR rating influences the target selection within the M&A process and if the sustainability performance is priced in within the valuation and bidding phase of the M&A transaction. Explicitly, the thesis aims to determine whether an ESG-based premium exists associated with target firms in Europe. Furthermore, the study investigates whether the impact of the target's CSR is stronger in intra-industry acquisitions.

The theoretical framework of the study is built on key normative and descriptive theories concerning the bidding and valuation of the target firm in the M&A setting. The study is based on a sample consisting of 424 European M&A transactions across 16 countries between the years 2010 and 2024. The research methodology employs multivariate analysis to study the relationship between the variables. Ordinary Least Squares regression is used to test the hypotheses by regressing the acquisition premium against the primary variable of interest, the target firm's pre-acquisition CSR rating, and a set of deal- and firm-specific control variables.

Consistent with previous literature, the study finds a positive and statistically significant relationship between the target's pre-acquisition CSR rating and its acquisition premium. The findings indicate that acquirers are willing to pay a premium for socially responsible target firms, providing evidence that CSR plays a role in M&A transactions. Furthermore, the study finds positive and statistically significant evidence that the impact of the target's CSR on acquisition premium is more profound when the acquirer and target operate in the same industry. Therefore, it could be inferred that by acquiring a socially responsible competitor, the acquirer is provided with a direct opportunity to absorb and implement the "best practices" in sustainability and corporate responsibility. Moreover, the study finds both contradicting and statistically significant results concerning the measurement window of the acquisition premium. The findings indicate that the premium is greater when measured using a long window prior to the announcement, while using a shorter window do not yield statistically significant results. The findings illustrate that market timing matters.

KEYWORDS: Acquisition premium, M&A, corporate social responsibility, CSR, ESG, corporate strategy.

VAASAN YLIOPISTO
Laskentatoimen ja rahoituksen maisteriohjelma
Tekijä: Nea Kajala
Otsikko: Assessing the Influence of Target's CSR on Acquisition Premiums in Europe : An Examination of ESG Premiums
Koulutus: Master of Science in Economics and Business Administration
Maisteriohjelma: Master's Degree Programme in Finance
Ohjaaja: John Kihn
Vuosi: 2025 **Sivumäärä:** 116

TIIVISTELMÄ :

Tämä tutkielma tarkastelee yrityskaupan kohteena olevan yrityksen hankintaa edeltävän yritysvastuun (CSR) ja sen hintapreemion välistä suhdetta. Tutkimuksen tavoitteena on selvittää, vaikuttaako kohdeyrityksen CSR-luokitus kohteen valintaan yrityskauppaprosessissa ja hinnoitellaanko kohteen vastuullisuustoiminta yrityskaupan arvonmääritys- ja tarjousvaiheessa. Tutkielman tavoitteena on selvittää, kohdistuuko eurooppalaisiin kohdeyrityksiin ESG-pohjainen preemio. Lisäksi tarkastellaan, onko kohteen vastuullisuusvaikutus suurempi toimialan sisäisissä yritysostoissa.

Tutkimuksen teoreettinen viitekehys rakentuu keskeisille teorioille, jotka koskevat kohdeyrityksen arvonmääritystä. Tutkimus perustuu otokseen, joka koostuu 424 eurooppalaisesta yrityskaupasta 16 maassa vuosina 2010–2024. Tutkimusmenetelmä käyttää monimuuttuja-analyysiä muuttujien välisen suhteen tutkimiseen. OLS-regressiota (Ordinary Least Squares) käytetään hypoteesien testaamiseen mittaamalla hintapreemion ja kohdeyrityksen hankintaa edeltävän CSR-arvion suhdetta, sekä hyödynnetään useita kauppa- ja yrityskohtaisia kontrollimuuttujia.

Tulokset osoittavat, että kohteen CSR-suorituskyvyllä on positiivinen ja tilastollisesti merkittävä suhde hintapreemioon. Tulokset osoittavat, että ostajayritykset ovat valmiita maksamaan preemion sosiaalisesti vastuullisista kohdeyrityksistä, mikä osoittaa, että yritysten yhteiskuntavastuulla on merkitystä yrityskauppatilanteissa. Lisäksi tutkimuksen tulokset osoittavat, että kohteen vastuullisuudella on suurempi merkitys preemioon, kun ostaja ja kohde toimivat samalla toimialalla. Näin ollen voidaan päätellä, että ostamalla sosiaalisesti vastuullisen kilpailijan, ostajalle saa suoran mahdollisuuden omaksua kestävän kehityksen ja yritysvastuun parhaat käytännöt. Lisäksi tutkimuksen tulokset osoittavat ristiriitaisia sekä tilastollisesti merkitseviä tuloksia hankintapreemion mittaustavasta. Tulokset osoittavat, että hintapreemio on suurempi, kun se mitataan pitkällä ikkunalla ennen yrityskaupan julkista ilmoitusta, kun taas lyhyemmällä ikkunalla mitattuna preemio ei tuottanut tilastollisesti merkitseviä tuloksia. Tulokset osoittavat, että markkinoiden ajoituksella on merkitystä yrityskauppatilanteissa.

AVAINSANAT: Yrityskaupat, yrityksen arvonmääritys, yritysvastuu, yhteiskuntavastuu, kestävä liiketoiminta, yritysstrategiat.

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Abbreviations

2SLS	2-Stage Least Squares
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
ESG	Environmental, Social, and Governance
M&A	Mergers and Acquisitions
OLS	Ordinary Least Squares
SRI	Socially Responsible Investing / Socially Responsible Investment

1 Introduction

Corporate social responsibility (CSR) has become a strategic focus for organizations across industries. CSR comprises the firm's dedication to acting ethically and responsibly, lowering its environmental impact, and improving the quality of life of its employees and the community. Similarly, the number of mergers and acquisitions (M&A) has increased. M&As are important in corporate strategy as they enable firms to expand, restructure, and diversify their operations. M&As are significant transactions that can either generate or eliminate shareholder value (Cumming et al., 2023, p. 1465).

One critical factor in M&A transactions is the acquisition premium, which represents the additional amount paid for a target firm beyond its market value. Companies are willing to pay premiums for targets to combine resources to obtain competitive advantage and extend their market presence. However, acquisition premiums can vary substantially between firms and industries. As acquirers tend to overpay for targets, high acquisition premium impacts the post-merger financial performance of the acquirer, sometimes even leading to financial distress or even bankruptcy (Haunschild, 1994, p. 393). Thus, acquisition premiums are interesting to study as they have a considerable impact on the successful completion of the transaction.

Incorporating CSR factors into M&A decisions is consistent with the changing expectations of stakeholders such as investors, consumers, employees, and legislators. As the awareness of environmental, social, and governance (ESG) impact has increased, firms try to incorporate CSR principles into their strategy to become more sustainable and avoid reputational risk. El Ghoul et al. (2011, p. 2388) note that more than half of the Fortune 1000 firms in the United States disclose their CSR performance as large institutional investors screen for firms that integrate socially responsible activities into their operations. Therefore, examining how CSR practices impact firm valuations through acquisition premiums can provide insights into the extent to which ethical and social performance influences financial results in M&A deals.

Empirical studies indicate that investors and market participants are increasingly aware of the importance of CSR variables in determining corporate value and risk. Studies have shown that firms with strong CSR have decreased firm-specific risk (Albuquerque et al., 2019) and reduced stakeholder risk (Becchetti et al., 2015). Moreover, Ferrell et al. (2016) find a positive relationship between CSR and firm value, indicated by high Tobin's q. High CSR rating is linked to increased profitability, growth rates, and sales compared to low-CSR firms (Lins et al., 2017). Firms engaged in CSR activities have lower cost of equity capital (Chava, 2014; Ghoul et al., 2011) and fewer agency problems (Ferrell et al., 2016). Furthermore, firms with strong CSR-rating tend to have higher resilience to market shocks (Lins et al., 2017). CSR is not linked only to improved financial ratios, as Edmans (2012) found that firms that scored high in providing a better workplace for employees had higher stock returns than their peers.

According to prior research, the target firm's CSR has become a key acquisition rationale. Qiao and Wu (2019, p. 1) argue that the target's CSR rating influences the target selection within the M&A process. They present an example of Unilever's rationale for acquiring Ben and Jerry's to gain knowledge on creating and executing socially responsible initiatives. They argue that CSR is essential in the initial stages of the M&A process because firms are likely to acquire socially responsible firms to gain capabilities related to sustainability. Similarly, Ozdemir et al. (2022, p. 1005) find that the target's CSR rating significantly impacts the transaction valuation. They state that strategic acquirers, reported in PwC study in 2012, incorporate positive CSR performance into target valuation, while poor CSR performance is used as a leverage to negotiate a lower offer price.

The topic of CSR and acquisition premiums contributes to the prior literature in the following ways. First, the study aims to find evidence of whether investments in CSR generate financial returns or if they are an expense, as described in shareholder theory. Second, as the study focuses solely on the target's role in acquisitions, as opposed to the acquirer's view on prior research, the study aims to find more evidence on targets' sus-

tainability efforts driving value creation. Finally, if CSR impacts the valuation of a company, it could provide a financial motive for investors and firm owners to include sustainability in their business operations or investment strategy.

1.1 Purpose of the study

The purpose of this study is to examine the relationship between the target's acquisition premium and its pre-acquisition CSR ratings. Explicitly, the thesis aims to determine whether an ESG-based premium exists associated with target firms in Europe. This would imply that target firms with high pre-acquisition CSR ratings command a premium in acquisition transactions.

The rationale for the study is the current research gap in the prior literature. The target's perspective of the possible influence of CSR on acquisition premiums has not yet been examined by prior research, despite thoroughly examining the acquirer's point of view, and the value creation potential of ESG practices. By addressing this research gap, the study aims to contribute to an understanding of how CSR and firm valuation relate in the context of M&A.

Furthermore, the study examines the acquisition premiums in Europe, which provides further novelty to the topic. The majority of the studies have been clustered around the United States and China. North-Western Europe is a compelling target for the study due to its strong commitment to sustainability and the extensive adoption of sustainable practices across the continent. As Al Ani et al. (2024, pp. 656-657) state, European Union countries have actively promoted policies to reduce environmental impact, such as lowering greenhouse gas emissions and promoting sustainable consumption. They state that consumer preferences represent an institutional commitment, incentivising firms to adopt sustainable practices. Moreover, the EU has shown a high degree of innovation as measured by the Eco-Innovation index (Al Ani et al., 2024, pp. 656-657). Given the limited studies between CSR and M&A in Europe, despite the region's advocacy for CSR and Socially Responsible Investing (SRI), it is particularly interesting to focus on Europe.

The relationship between CSR and acquisition premiums is compelling for various factors. Whereas the existing literature on CSR and its impact on financial performance has a wide range of findings, numerous literature points to the positive impact of CSR activities on a company's financial performance (Ozdemir et al., 2022). Based on the stakeholder theory, it is found that organizations that display transparency and establish stakeholder relations are more likely to benefit from lower firm-specific risk (Godfrey et al., 2009). This may result in increased acquisition premiums for targets with strong CSR performance. While acquisitions are inherently uncertain due to information asymmetry, companies with strong CSR practices may reduce uncertainty, potentially leading to greater acquisition premiums (Ozdemir et al., 2022). This thesis seeks to gain more evidence on this connection.

1.2 Hypotheses

The thesis aims to determine whether target the firm's pre-acquisition ESG rating has an impact on the acquisition premium during the M&A transaction. The hypothesis is based on prior studies on the topic (Gomes & Marsat, 2018; Qiao & Wu, 2019; Cho et al., 2021; Li et al., 2021; Ozdemir et al., 2022; Liu et al., 2023). Most of these studies are based on target firms in the United States or China. This thesis studies whether the relationship between pre-acquisition CSR score and acquisition premium exists in Europe. The hypothesis is as follows:

> H_1: *The pre-acquisition CSR score of the target firm has a positive relationship with its acquisition premium.*

Moreover, to test whether the measurement period impacts the results, the acquisition premium is measured using short- and long-term windows before the announcement. The second hypothesis is as follows:

> H_2: *The relationship between the target firm's pre-acquisition CSR score and its acquisition premium is the same whether measured over a short-term window (specifically, -42 trading days) or a long-term window (specifically, -105 trading days) prior to the announcement.*

If the first and second hypotheses hold, the purpose is to test whether the target's pre-acquisition CSR score's impact on the premium is more profound in horizontal acquisitions, where the acquirer and target operate within the same industry. Prior literature has found evidence that firms are likely to acquire similar firms (Hillman et al., 2009, p. 1405). Haleblian et al. (2009, pp. 472-473) argue that it is caused by firms acquiring their direct competitors to gain monopolistic advantages. However, the European Commission regulates horizontal mergers and prohibits transactions if they cause competitive harm in the market (Bartalevich, 2020, p. 383). Therefore, it is interesting to see to which extent the M&A transactions in the sample include firms operating in the same industry, how the competition impacts the acquisition premium, and if the target's CSR rating has an impact on the premium. The third hypothesis is the following:

> H_3: *Target's pre-acquisition CSR rating has a greater impact on the acquisition premium when the target and acquirer operate within the same industry.*

The third hypothesis aligns with the resource-based view, which suggests that CSR activities can create a competitive advantage (Qiao & Wu, 2019, p. 3). In this context, the acquirer may seek to transfer the target's CSR-related capabilities through the acquisition as a form of organisational learning. The transfer may, in turn, increase the acquisition premium compared to cross-industry acquisitions. Of course, this is speculation, and to the extent possible, this study will try to contribute to enhancing the probability of whether European firms involved with M&A during the sample period appear more focused on reducing competition and/or enhancing organisational learning.

1.3 Structure of the study

The thesis is structured in the following way: The second chapter outlines the concept of CSR, provides definition, and explains how CSR affects firm value. Chapter three provides a rationale as to why acquisitions are conducted and what causes acquisition premiums. The fourth chapter outlines a more in-depth literature review on the topic. The fifth chapter covers the theoretical framework, including key theories that impact the valuation and bidding in M&A transactions. The sixth chapter presents the data, chosen methodology, and variables. Chapter seven outlines the empirical findings, and the final chapter concludes the thesis and discusses the contribution of the study and future research suggestions, and practical recommendations for investors and M&A agents.

2 Corporate Social Responsibility (CSR)

According to Alshehhi et al. (2018, p. 1) sustainability means addressing today's needs without jeopardizing the ability of future generations to meet theirs. In a corporate context, sustainability involves broadening the focus from purely financial outcomes to also include environmental and social factors (Alshehhi et al., 2018, p. 1). Various terms related to sustainability and CSR are defined within this chapter.

CSR embodies the concept that companies have social responsibilities beyond generating profits through producing goods and services (Hill et al., 2006, p. 166). McWilliams and Siegel (2001, pp. 117-118) define CSR as actions promoting social welfare exceeding the company's own interests, industry norms, and legal obligations. CSR involves companies integrating social and environmental considerations into their operations and stakeholder interactions. CSR shows a company's ethical conduct by promoting economic growth and improving the welfare of workers, the community, and society at large (McWilliams & Siegel, 2001, pp. 117-118).

Viswanathan et al. (2019, p. 339) extend the definition of strategic CSR as socially responsible activities that simultaneously improve the financial performance of the firm through either promoting its reputation, strengthening the exchange between stakeholders, reducing unsystematic risk, and/or boosting innovation. Strategic CSR differs from general CSR as a concept by focusing solely on activities that improve corporate financial performance, excluding activities that benefit society but do not directly add value to the firm, thus distinguishing it from broader, ethically driven CSR (Viswanathan et al., 2019, p. 339).

ESG measures a firm's performance across three sustainability areas (Galbreath, 2013, p. 530). Studies on sustainability tend to use the terms CSR and ESG as synonyms. While CSR refers to a firm's commitment to conduct business in a responsible manner, ESG extends the concept into a framework integrating the three major dimensions and serves

as an international measuring standard for each (Jiang et al., 2024, p. 4694). ESG includes a wide range of topics related to environmental concerns, such as climate change, social responsibility, such as human rights, and corporate governance, such as independence of board members and remuneration (Galbreath, 2013, p. 530).

Corporate social performance (CSP), according to Perrini et al. (2012, p. 59), is defined as the outcome of carrying out CSR activities and behaviours, which include social responsibility policies associated with a company's interaction with its stakeholders. Therefore, CSP is an extension of CSR that concentrates on results as opposed to the broad concept of a company's responsibility to society (Perrini et al., 2012, p. 59).

Socially responsible investing (SRI) connects achieving financial returns while fulfilling CSR objectives. SRI involves integrating ESG considerations into investment decisions and active ownership. (PRI, 2021.) Thus, SRI combines the needs of stakeholders with shareholder interests (Steurer et al., 2012, p. 212).

2.1 Understanding CSR

As stakeholders have become more aware of CSR, firms have increased their efforts to demonstrate sustainable behaviour. The increase in the firm's CSR activities arises from either voluntary efforts or pressure from its stakeholders (McWilliams & Siegel, 2001, pp. 119-120). Wu and Shen (2013, p. 3530) extend this and state that three main motives for CSR activities include "altruism, strategic choices, and greenwashing". The altruistic motive shows that firms engage in CSR for their benefit, such as philanthropy (Wu & Shen, 2013, p. 3530). When CSR is viewed strategically, CSR is driven by management's vision and values, not seen as a cost but rather as a tool to differentiate themselves from their competition (Fatima & Elbanna, 2023, p. 105). Today, the strategic motive is primarily considered the driver for firms engaging in CSR activities (Fatima & Elbanna, 2023, p. 105; Wu & Shen, 2013, p. 3540).

As firms employ CSR communication as part of their sustainability strategy to improve their brand, greenwashing can deceive customers and limit the effectiveness of legitimate CSR activities (Parguel et al., 2011, p. 15). According to Parguel et al. (2011, p. 16), greenwashing refers to deceiving customers about a firm's sustainability activities or the advantages of its products and services. If a company's reputation suffers due to unethical behavior or poor sustainability activities, it may lose its customers, employees, and community support for its operations (McWilliams & Siegel, 2001, pp. 119-120). Parguel et al. (2011, p. 24) find that firms with poor sustainability activities negatively impact their corporate brand image.

McWilliams and Siegel (2001, pp. 119-120) argue that firms employ CSR in their strategy due to demand from two sources: consumers and other stakeholders, including shareholders, personnel, and community. They argue that consumer demand rises from the perception that purchasing products with sustainable attributes, such as not-tested-on-animals labels, enables consumers to support issues they care about while profiting from firms that invest in CSR. Hill et al. (2006, p. 166) state that CSR acts as a differentiation strategy for companies, distinguishing them from competitors. Demand for CSR from other stakeholders rises from firms' need to attract and maintain skilled employees, and governmental pressure to support sustainable activities (McWilliams & Siegel, 2001, pp. 119-120).

Although management deems engaging in CSR redundant, firms may be forced to undertake it due to external pressure from legislation. Governments have established initiatives to promote corporate sustainability and direct funds to more sustainable firms (Drempetic et al., 2020, p. 336). One government effort is Agenda 2030 for Sustainable Development, which involves the public and commercial sectors meeting the Sustainable Development Goals (SDGs) through defined targets. By including SDGs in strategy and business modes, firms can impact on global concerns. (Pizzi et al., 2022, p. 87.) The SDGs are illustrated in Figure 1.

Figure 1. United Nation's Sustainable Development Goals (United Nations, n.d.).

As firms devote more resources to strategic CSR, there is a growing emphasis on understanding how to effectively execute sustainability strategies. According to Fatima and Elbanna (2023, p. 106), implementing a CSR strategy includes employing a systematic approach to raise awareness of sustainability concerns and incorporating those values into the firm's operations. The four elements of the CSR process involve organizational awareness of CSR, communicating CSR initiatives and performance both inside and outside the firm, incorporating CSR into firm strategy by establishing CSR policies, as well as regular monitoring of CSR targets and compliance (Fatima & Elbanna, 2023, p. 106).

2.1.1 CSR ratings

According to Tampakoudis et al. (2021, p. 1119) the ESG score is a prominent proxy for assessing CSR rating, as it addresses the complexity of quantifying corporate sustainability. It is commonly used in CSR literature (Krishnamurti et al., 2020; Tampakoudis et al. 2021). Therefore, this study uses ESG scores to measure CSR performance from LSEG database (formerly known as Refinitiv and Thomson Reuters). Refinitiv ESG as a database has received nearly 1.500 academic citations (Berg et al., 2020, p. 7).

ESG rating is an assessment of an entity's impact on or exposure to environmental, social, and governance issues. The rating is given using a specific grading methodology to measure the entity's compliance with international climate agreements or sustainability standards. ESG ratings or scores are often grouped into two categories: ESG risk ratings and ESG impact ratings. ESG risk ratings assess an entity's exposure to ESG risks, while ESG impact ratings assess its impact on ESG variables. (Mazzacurati et al., 2021, p. 106.)

ESG ratings are assessed by third-party, independent rating agencies. Examples of such agencies include MSCI, Sustainalytics, S&P, Refinitiv, Moody's, ECPI, and Bloomberg. Data for the ESG rating is obtained from public sources, including annual reports and company news. Moreover, some rating agencies obtain data from entities themselves via questionnaires or interviews. Other agencies collect data from third parties and public databases. (Mazzacurati et al., 2021, pp. 106-108.)

The ESG performance assessment combines three pillars – E, S, and G – into a single score (Mazzacurati et al., 2021, p. 106). Ratings follow the same dimensions but differ in methodology and scoring (Elbasha & Avetisyan, 2018, p. 43). According to the authors, ESG providers in the United States prefer the screening approach, excluding firms that participate in controversial industries (such as tobacco), while European providers prefer the best-in-class approach. Different rating providers may assign varying weights to these pillars based on the materiality of the issue, potentially resulting in subjective ratings that are difficult to compare (Mazzacurati et al., 2021, p. 106). Elbasha and Avetisyan (2018, p. 43) reference a study showing that the U.S.-based ESG rating provider KLD assigns 71 percent of its pillar weight to social issues, whereas the Europe-based agency Asset4 assigns only 47 percent weight to social issues. Moreover, the evaluation criteria for rating CSR performance are regularly updated to reflect new issues or irrelevant criteria deleted (Elbasha & Avetisyan, 2018, p. 43).

The main criticism of ESG ratings arises from the reliability and lack of consistency between the ratings from ESG-rating agencies (Mazzacurati et al., 2021, p. 109). Boffo et al.

(2020, pp. 14-15) find that firms that receive higher E-scores do not result in lower environmental impact, with a positive relationship between overall CO2 emission and high E scores. They examine E-scores from prominent rating agencies such as Thomson Reuters, MSCI, and Bloomberg, which reveal the varying methodologies used by the agencies. Moreover, they show that firms that generate dangerous waste may have higher E-scores contingent on the data source (Boffo et al., 2020, pp. 14-15). These concerns about lack of transparency and clarity on ESG ratings are considered in the European Union's Taxonomy for Sustainable Activities (European Commission, 2023).

2.1.2 CSR in Europe

According to Steurer et al. (2012, pp. 206-207), the implementation of CSR varies greatly across different European regions despite the widely accepted concept of CSR. This variation can be attributed to the corporate environment, including stakeholder requirements, which vary across countries. CSR policies established by governments include raising awareness of CSR, enhancing the transparency of CSR reporting, promoting SRI, and offering incentives (Steurer et al., 2012, p. 209).

According to Steurer et al. (2012, p. 206), Western European governments are far more engaged in supporting CSR than those in Central and Eastern Europe. They argue that governmental initiatives on CSR enhance rather than reduce the European CSR gap, reflecting disparities in the adoption of CSR in Europe. The findings by Steurer et al. (2012, p. 206) are supported by Pizzi et al. (2022, p. 98), who find that Scandinavian companies are reporting on CSR more than other European companies.

Sustainability reporting in Europe made a significant advancement when the EU Directive 2014/95 took place, requiring European companies to report non-financial information on their ESG activities (Mio et al., 2021, p. 1591). The Non-Financial Reporting Directive (NFRD) was prompted by the need to bridge the information gap between companies and stakeholders (Pizzi et al., 2022, p. 85). Mio et al. (2021, p. 1602) found that the NFRD significantly improved the quality and quantity of non-financial reporting in

2017 after the Directive took place compared to 2016. Moreover, they find evidence that firms disclosure of non-financial information to demonstrate their commitment towards sustainability, thus supporting the signalling theory.

A more recent ESG initiative in Europe is the European Union's Taxonomy for Sustainable Activities. The Taxonomy is included in the European Union's sustainable finance framework that supports firms and the financial sector in transitioning to a sustainable future by facilitating funding for sustainable projects (European Commission, 2023). The Taxonomy connects the reporting obligations of the Corporate Sustainability Reporting Directive (CSRD) succeeding the NFRD, along with the Sustainable Finance Disclosure Regulation (SFDR) by categorising ecologically friendly economic activities (Hummel & Bauernhofer, 2024, p. 2). The Taxonomy promotes the recognition of economic activities in relation to six environmental targets illustrated in Figure 2. CSRD applies to large and publicly traded firms, while SFDR sets out disclosures of financial products for issuers (Hummel & Bauernhofer, 2024, pp. 4-5).

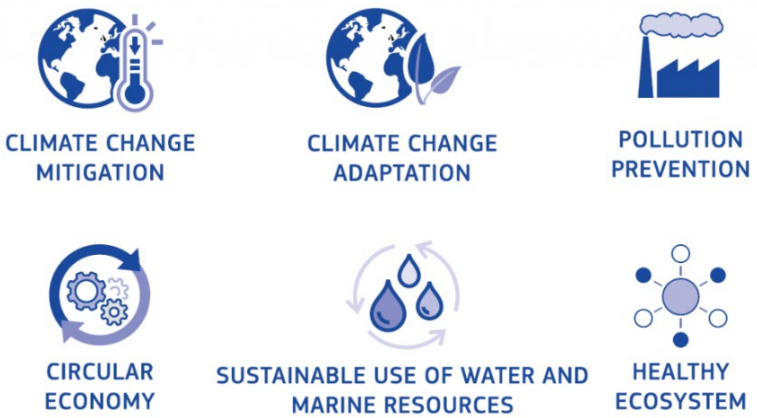

Figure 2. Environmental targets of the EU Taxonomy (European Commission, 2019).

As stated in the Taxonomy regulation, to be considered environmentally sustainable, the activity must meet three conditions. First, the activity has to support significantly achiev-

ing at least one of the six environmental targets, illustrated in Figure 2. Second, the activity cannot substantially damage any of the targets. Finally, the activity must be performed with minimum precautions. (Hummel & Bauernhofer, 2024, p. 4.)

According to Lucarelli et al. (2023, p. 2), capital markets may only be referred to as "sustainable" when invested funds are directed towards companies that follow the EU Taxonomy's industry-specific environmental requirements. They state that Taxonomy intends to promote firms to improve their sustainability profiles, assuring their continued eligibility for funding (Lucarelli et al., 2023, p. 2).

The Taxonomy is implemented in stages. Nonfinancial companies must report their eligibility for climate change mitigation and adaptation initiatives from 1.1.2022, covering the financial year 2021. The second phase begins 1.1.2023, as companies must report their eligibility and alignment for the financial year 2022 onwards. The third phase expands the disclosure requirements to include all six environmental targets. (Hummel & Bauernhofer, 2024, pp. 4-5).

According to the European Commission (2024), in 2023, 600 European companies invested in projects aligned with the EU Taxonomy, amounting to a total of 191 billion euros. The Commission reports that companies with high levels of Taxonomy-aligned disclosures have consistently outperformed the stock market in recent years. They continue by stating that the majority of green bonds are issued in Europe, highlighting the role of Europe in advancing towards a sustainable future. Lucarelli et al. (2023, p. 2) find that the EU Taxonomy itself did not increase investment between eligible companies; rather, company size and confusion regarding eligibility have an impact on investment decisions. These findings demonstrate the viability of the European Commission's policy to encourage sustainable investments (Lucarelli et al., 2023, p. 2).

2.2 CSR and firm value

As briefly noted, many scholars have investigated whether and how CSR initiatives increase profitability of a firm or if they come at a cost. To explore the perspectives on this matter, two primary viewpoints are examined. In literature, the shareholder expense view and the stakeholder value maximization view are the two competing perspectives on CSR. The perspective of stakeholder value maximization states that CSR initiatives boost shareholder wealth because they make stakeholders more inclined to support a company's operations (Deng et al., 2013, p. 88). The shareholder expense view, in contrast to the stakeholder value maximization view, views that the management participates in CSR activities to support various stakeholders at the expense of the firm's shareholders (Deng et al., 2013, p. 89). These perspectives are defined in detail in the theoretical framework chapter.

According to Alshehhi et al. (2018, pp. 16-17), the prior literature indicates a strong positive correlation between firm financial performance and sustainability initiatives. They studied 132 articles related to CSR and firm performance from pre-2002 until 2017. A few studies have found a negative, mixed, or no significant correlation between financial performance and sustainability (Alshehhi et al., 2018, pp. 16-17).

Deng et al. (2023, pp. 89-90) show that during merger announcements, acquirers with high CSR-rating have a positive impact on the wealth of other stakeholders of the firm, including employees and suppliers, as well as the bondholders of the acquirer. Furthermore, employees of merged firms risk fewer layoffs in mergers with high CSR acquirers compared to those with low CSR-rating. These findings indicate that firms with higher CSR scores participate in transactions that benefit various stakeholders, thus supporting the stakeholder value maximisation perspective (Deng et al., 2013, pp. 89-90).

The relationship between CSR rating and a firm's cost of capital has been examined from the perspective of the cost of debt and equity. Cheng et al. (2014, pp. 1-3) find that firms with high CSR ratings have easier access to financing. They argue that capital limitations,

such as factors blocking a firm from funding its investments, are lowered by improved stakeholder participation and transparency. When assessing the elements of CSR-rating separately, they discover that its effect is influenced by social and environmental variables. Their sample includes 2.439 globally listed firms from 2002 to 2009.

El Ghoul et al.'s (2011, p.2388) findings may explain the results of Cheng et al.'s (2014, pp. 1-3). They find that firms with higher CSR ratings have lower cost of equity capital. Moreover, they find that firms active in so called "sin" industries exhibit higher cost of equity. As the cost of equity acts as a discount rate for estimating a firm's market value based on future cash flows, El Ghoul et al.'s (2011, p. 2388) study suggests that firms with strong CSR-rating receive higher valuations and reduced risk. Their sample consists of 12.915 observations of U.S. -based firms from 1992 to 2007.

Giese et al. (2019, p. 69) study the link between ESG-rating and firm valuation. They find that ESG has a positive impact on both company valuation and performance. More specifically, ESG results in lower cost of capital in CAPM and thus higher valuations, as well as improved profitability and less exposure to tail risks. The authors examine the relationship through a DCF model and utilize MSCI ESG Rating data from 1600 firms during 2007-2017. (Giese et al., 2019, p. 69.)

Godfrey et al. (2008, p. 426) extend the topic of valuations and examine whether firms can conserve their value through CSR activities. They find that firms benefit from a form of insurance-like protection when they engage in CSR activities. This implies that in case of a negative event, firms with high participation in CSR activities lead to smaller market movement in the firm's stock price (Godfrey et al., 2009, p. 441).

Godfrey et al. (2008) findings are supported by Albuquerque et al. (2020, p. 593), who examine ESG rating as a resilience factor amidst times of economic uncertainty. They find that during the COVID-19 pandemic, firms with higher environmental and social ratings experienced higher stock returns than those with low ratings. Moreover, they document

that firms with higher ratings had decreased daily volatility of the returns compared to other firms. Albuquerque et al. (2020, p. 600) sample consists of daily stock returns of 2.171 firms in the United States for the first quarter of 2020. They exclude the governance rating to capture the effect of environmental and social effects as, based on prior literature, corporate governance may be a plausible driver for abnormal returns (Albuquerque et al., 2020, p. 598).

On the other hand, the shareholder expense view is supported by prior studies. Especially the positive connection between CEO entrenchment strategies and CSR practices is documented in the literature. Surroca and Tribó (2008, pp. 784-786) find that manager entrenchment is positively connected to CSP and worker satisfaction. This implies that managers use CSR initiatives to maintain their positions. When managers establish CSR initiatives in response to stringent governance rules, financial performance suffers, leading to worsened shareholder value (Surroca & Tribó, 2008, pp. 784-786). Furthermore, Cronqvist et al. (2009, p. 337) found that CEOs who employ entrenchment strategies tend to pay higher salaries to employees instead of paying higher dividends to shareholders or improving the bottom line. This behaviour supports the shareholder expense view by demonstrating that CSR activities, such as higher employee salaries, are an expense for shareholders.

Also supporting the shareholder expense view, Fisher-Vanden and Thorburn (2011, p. 444) report that voluntary environmental activities initiated by corporations may have a negative impact on stock performance. This finding suggests that initiatives to reduce greenhouse gas emissions by corporations can conflict with maximising shareholder value (Fisher-Vanden & Thorburn, 2011, p. 444). Their sample includes 117 announcements to participate in two voluntary environmental programmes (the EPA's Climate Leaders and Ceres) from 1993 to 2008.

According to Renneboog et al. (2008, p. 316), mutual funds that invest in ethical, socially responsible, and environmental themes in the United States, continental European, and

Asia-Pacific countries lag behind their local benchmarks by roughly 2.2 to 6.5 percent annually. Their sample consists of 440 equity mutual funds in 17 countries within three regions from 1991 to 2003. However, conflicting with Renneboog et al. Study, Hill et al. (2007, pp. 170-172) find that socially responsible firms generated positive alpha for the U.S. and European portfolios over a long-term investment horizon (1995-2005). They conclude that European investors seem to value firms with high CSR in the short- and long-term. Their sample consisted of 33 publicly listed firms in three regions from 1995 to 2005.

3 Acquisition Premiums

Acquisition premium, according to Qiao and Wu (2019, p. 3), can be defined as the additional price paid by the acquirer exceeding the target's fair value. Haleblian et al. (2009, p. 485) measure acquisition premium in the following equation:

$$\text{Acquisition premium} = \frac{(\text{Purchase price} - \text{Target's stock price pre-acquisition})}{\text{Target's stock price pre-acquisition}}. \quad (1)$$

Acquisition premiums are interesting to study because they vary substantially and have a considerable impact on the successful completion of the transaction. According to Haunschild (1994, p. 393), firms can pay an average premium of 50 percent and premiums can reach 100 percent. As overpayment is typical, the acquirer's post-merger performance is often negatively impacted and can even cause bankruptcy for the acquirer (Haunschild, 1994, p. 393).

Before delving into acquisition premiums, the key aspects of M&A activities are outlined. The first section provides an overview of M&A, covering various types of M&A transactions, M&A process, and the M&A environment in Europe. The following section, 2.3, discusses the rationale why firms undertake acquisitions. Chapter 3.3 then provides a detailed discussion of acquisition premiums and their underlying causes.

3.1 Understanding acquisitions

Mergers and acquisitions are frequently used as synonyms in academic literature. Despite their technical differences, authors fail to distinguish between mergers and acquisitions. Term acquisition refers to a transaction where a firm acquires another, resulting in a situation where the acquirer remains a legal entity while the acquired firm ceases to exist and is consolidated into the acquirer. A merger occurs when two firms fuse into one, resulting in a third company where the two original merging firms no longer exist. (Moeller & Brady, 2014, p. 9.)

M&As are essential in corporate strategy as they enable firms to expand, restructure, and diversify their operations. M&As are significant transactions that can either generate or eliminate shareholder value (Cumming et al., 2023, p. 1465). According to the Institute for Mergers, Acquisitions & Alliances (IMAA), which tracks M&A activities, the number of M&A globally has increased from 10.814 in 1990 to 39.603 in 2023, as illustrated in Figure 3. Similarly, the total value of worldwide M&A deals has risen from USD 540 billion in 1990 to USD 2.5 trillion in 2023.

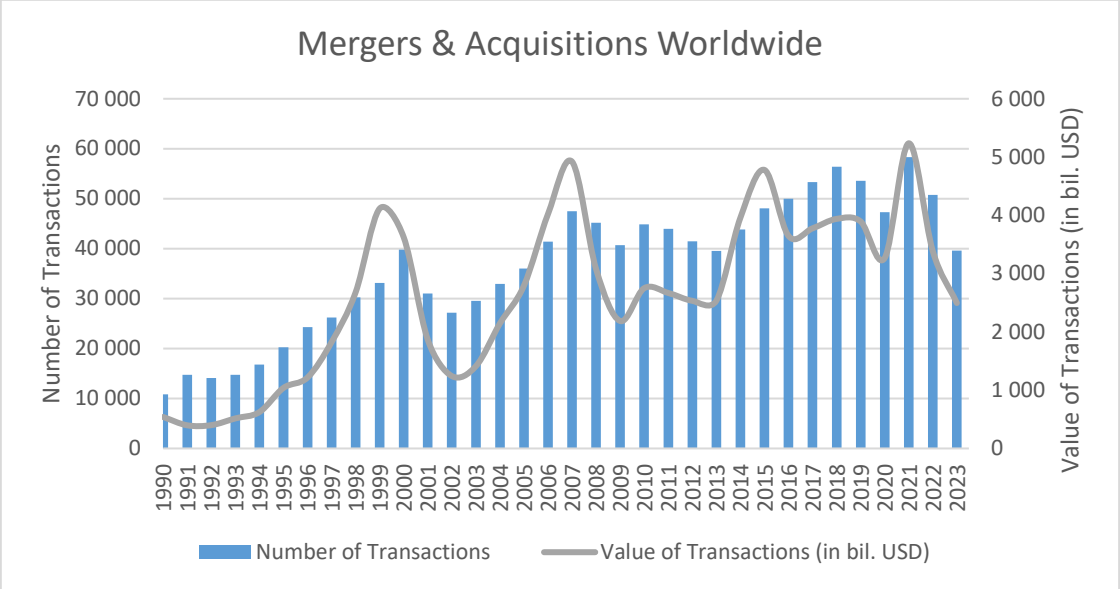

Figure 3. Worldwide M&A transactions 1990-2023 (IMAA, n.d.).

Prior literature suggests that global M&A activity fluctuates and is driven by macroeconomic circumstances and economic cycles. According to neoclassical economic theory, external shocks, whether economic, regulatory, or technological, have the potential to disrupt industries and create merger waves (Vinogradova, 2021, p. 360). These merger waves occur when the industry shocks are concentrated during periods of high capital liquidity (Cumming et al., 2023, p. 1454). From a behavioural finance perspective, Graham (2022, p. 2022) finds evidence that firm executives actively try to time the market by issuing debt when interest rates are low and issuing equity when stock valuation is high. The fact that CFOs try to time the market may further act as a trigger for merger

waves. During merger waves, the demand for target firms increases, which explains the disparities in acquisition premiums at different times (Vinogradova, 2021, p. 360).

3.1.1 Types of M&A transactions

M&A transactions can be divided into three main types, horizontal, vertical, and conglomerate mergers (Cumming et al., 2023, p 1485). They state that horizontal mergers concern firms operating within the same industry, while vertical mergers occur when firms involved in different phases of the supply chain combine. Conglomerate mergers, on the other hand, concern firms in unrelated operations, such as different industries or geographical locations (Cumming et al., 2023, p. 1485). Cross-border acquisitions differ from domestic ones because the target firm is in a different country than the acquirer. Thus, factors like cultural, geographical, and institutional differences between the two countries play a larger role in these deals (Cumming et al., 2023, p. 1485).

On the sell-side spectrum of M&A activities are divestitures, namely equity carve-outs, spin-offs, and sell-offs (Hulburt et al., 2002, p. 88). Divestitures and carve-outs allow managers to sell assets, product lines, or business units that no longer fit a company's strategy (Haleblian et al., 2009, p. 491). Spin-offs include distributing the company's shares to the parent company's shareholders and thus creating a publicly traded company with the same initial shareholders, while sell-off allows managers to exit the company's assets (Hulburt et al., 2002, p. 88).

The type of an M&A acquirer has an impact on the valuation of the target. M&A acquirers are typically divided into financial and strategic acquirers. According to Fidrmuc et al. (2012, p. 829), strategic acquirers are typically other firms in the industry, while financial buyers are typically private equity or venture capital firms. They state that from the selling point of view, the two acquirers differ significantly. When selling to a financial acquirer, the current management often stays within the firm, partially owning the firm while also benefiting from future growth. Conversely, strategic acquirers tend to merge the acquired assets into the acquirer's operations. According to Fidrmuc et al. (2012, p.

829), strategic acquirers are willing to pay a higher premium as they can optimize the use of the target firm's assets more effectively. Moreover, strategic acquirers can realise the benefits of synergies between their firm and the target firm (Fidrmuc et al., 2012, p. 829). Gorbenko (2019, p. 89) finds that an average U.S. strategic acquirer is willing to pay a 27.9 percent premium for the target while financial acquirers pay on average 18.6 percent premiums.

M&A transactions are divided into friendly and hostile takeovers based on whether the target firm's board of directors approves the deal. Gigante and Rubinacci (2023, p. 491) state that prior literature provides mixed findings regarding friendly and hostile takeovers. Three studies cited by Gigante and Rubinacci (2023, p. 491) find that the acquirer's cumulative abnormal returns (CARs) for unfriendly takeovers are statistically insignificant, while friendly takeovers generate positive and statistically significant gains. They argue that managerial hostility may result in larger acquisition premiums and, thus, reduce the value for the acquiring firm's shareholders. They, however, note that the number of hostile takeovers has significantly decreased since the mid-1990s, and the mood variable has led to inconsistent findings (Gigante & Rubinacci, 2023, p. 491).

3.1.2 M&A process

The following Figure 4 illustrates the pre-deal M&A process. The target selection, bidding and negotiation, and valuation phases are especially important in this thesis as they are considered to be closely linked with the target's CSR performance and the final determination of the acquisition premium. The acquisition premium is determined during the valuation, financial terms, and financing phase of the deal. A more detailed discussion of the factors influencing acquisition premiums can be found in section 3.3.

Figure 4. Pre-deal M&A process (Welch et al., 2020, p. 844)

The initiation phase is the strategic choice to engage in M&A. Welch et al. (2020, pp. 847-849) find that behavioural reasons, such as competitors' decreased innovation, executive-driven factors, such as hubris, and firm ownership characteristics, such as large share of males in the board of directors, all increase the probability to engage in M&A. The majority of prior literature states that risk-averse executives or directors, such as family enterprises and firms owned by the state, are less probable to undertake M&A (Welch et al., 2020, p. 494).

Target selection includes screening of potential target firms through, for example, internal lists of prospects, market screening, and the recommendations of external advisors (Welch et al., 2020, pp. 850-851). They note that prior literature has focused on evaluating target attractiveness through resource-based theory, where patents, strong R&D activity, and sustainability increase the probability of firms becoming targets. Moreover, firms similar to the acquirer in terms of geography, products, and human resources are generally considered advantageous for the acquisition (Welch et al., 2020, pp. 850-851). The authors state that similarity is preferred, as cross-border acquisitions are perceived as more difficult to integrate, and there is a higher risk that synergies do not realise. Finally, the authors note that prior literature has emphasised that information asymmetry negatively impacts the assessment of target firms (Welch et al., 2020, pp. 850-851).

The bidding and negotiation phase follows the target selection process. The phase includes private negotiations between the acquirer and the target, often beginning with an initial nonbinding offer (Welch et al., 2020, pp. 851-853). The authors note that the

bidding process differs between public and private firms, as public firms are subject to regulations requiring a public tender offer. The authors state that increased competition during the bidding process has been shown to drive up the purchase price and lead to the winner's curse. Consequently, bidders favour direct negotiations with fewer bidders to maintain control over pricing. To accelerate negotiations, acquirers may use tactics such as toeholds (partial stake), time pressure, or low cash offers, while targets may counter these with the use of termination fees, inviting additional bidders, or advising shareholders to reject offers deemed inadequate (Welch et al., 2020, pp. 851-853). They state that negotiations include behavioural biases, and executive overconfidence drives acquirers to proceed with bids even when faced with negative information. Ultimately, trust between the parties has a significant impact on the negotiation outcomes (Welch et al., 2020, pp. 851-853).

The valuation, financial terms, and financing phase occur simultaneously with due diligence and negotiations (Welch et al., 2020, pp. 853-856). They state that a key part of the phase is to assess and quantify the anticipated strategic benefits of the deal. Executives with industry experience are more likely to conduct accurate valuations of the targets compared to managers with less experience (Welch et al., 2020, pp. 853-856). Additionally, the authors state that the chosen payment method is linked to information asymmetry and uncertainty of the target's intrinsic value, as stock payment signals the acquirer's caution and the acquirer's willingness to share the risk of the transaction with the target. Finally, the availability of external funding can significantly impact the bidding strategies of acquirers (Welch et al., 2020, pp. 583-586).

The public announcement concludes the behind-the-doors negotiations between the parties. Welch et al. (2020, p. 856) emphasize the importance of impression management during the announcement phase, as negative stock market reactions may hinder the support of key stakeholders and, thus, compromise the closing of the deal. The authors note that prior literature has found that acquirers often issue more press releases regarding non-fundamental information of the firm and use optimistic language

throughout the negotiations. Welch et al. (2020, p. 856) note that the public announcements are released to improve the stock prices. Moreover, as deals financed with acquirers' stock signal to the market that the acquirers' stock is overvalued, acquirers should clearly communicate the deal's rationale and terms to investors to reduce negative stock market reactions (Welch et al., 2020, pp. 856-587).

Closure is the final phase in the M&A process. The phase includes mandatory filings with authorities, final financing negotiations, shareholder voting regarding the deal, signing the SPA (share purchase agreement), and preparation of the post-merger integration (Welch et al., 2020, p. 857). The authors note that the antitrust authorities must approve the merger before the parties can proceed with the final closing and move to post-merger integration activities. Arouri et al. (2019, p. 176) note that deals may fail due to opposition from either the acquirer's or target's shareholders, failure to obtain financing, or regulatory resistance.

3.1.3 M&A in Europe

According to IMAA, the number of M&A in Europe has increased from 5.009 in 1990 to 13.848 in 2023, as illustrated in Figure 5. Similarly, the total value of M&A deals in Europe has risen from EUR 203 billion in 1990 to EUR 1.2 trillion in 2023. In the peak year 2021, the value of deals reached EUR 2.6 trillion.

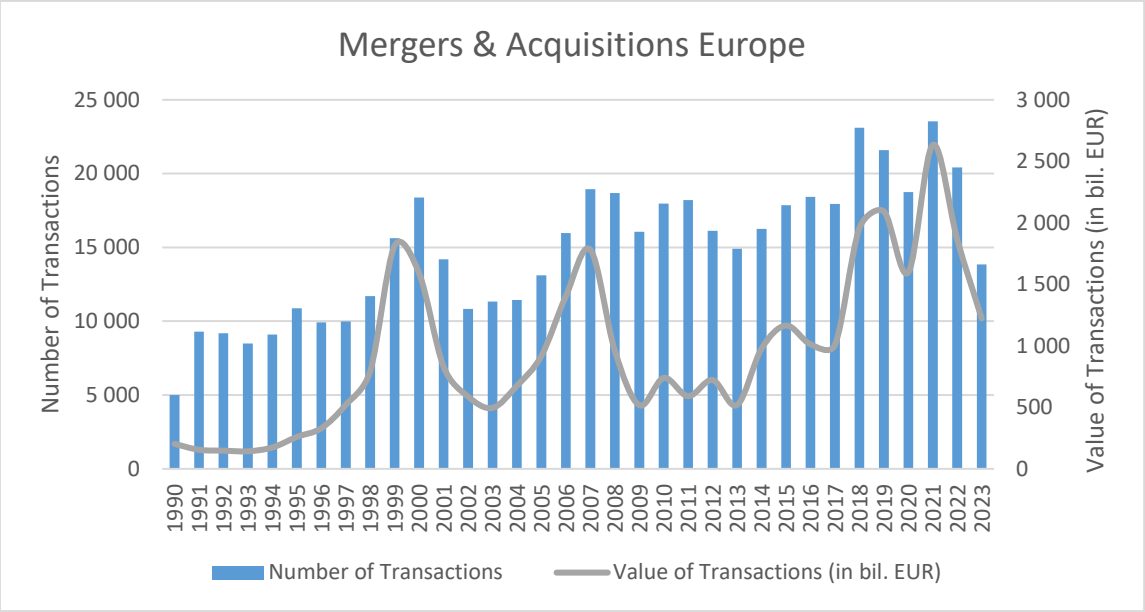

Figure 5. M&A transactions in Europe 1990-2023 (IMAA, n.d.).

Moschieri and Campa (2014, p. 1478) find that M&A transactions vary greatly by EU country due to economic factors like corporate ownership structures, governance frameworks, and the reliance on banks for financing. They find that European deals are typically friendly, as opposed to more hostile offers in the United States. The study also shows that transaction characteristics, including parties' attitudes and the number of competing offers, have a greater influence on deal completion than regulatory factors or payment methods. Faccio and Masulis (2005, pp. 1345-1346) find that the ownership is more concentrated in Europe, with 63 percent of publicly traded firms having a sole shareholder who controls over 20 percent of the votes, compared to the United States, where the number is only 28 percent.

The M&A environment in Europe is impacted by legislation that restricts and promotes M&A deals within Europe. In the European Union, the Council Regulation (EC) No 139/2004 is the primary legislation for governing the markets by deciding if firms can merge into one. Mergers exceeding a certain threshold and involving multiple EU nations are subject to the jurisdiction of the EU's competition authority, which requires member countries to follow the European Commission's ruling (Dinc & Erel, 2013, p. 2474). The

regulation has an impact on a wide range of market participants, including large EU and non-EU firms (Bartalevich, 2020, p. 383).

The European Commission's merger control sets out rules concerning mergers. Bartalevich (2020, p. 383) states that horizontal mergers occur when two competing firms operating in the same market merge and can be blocked by the Commission if they are expected to cause harm to consumers by raising prices, reducing product choices or quality, or hindering innovation. Thus, horizontal mergers have to undergo competitive assessment. Non-horizontal mergers include vertical and conglomerate mergers and are generally not seen as a threat to competition except if the merging firm possesses significant market power (Bartalevich, 2020, p. 383).

Furthermore, M&As are subject to the European Union's antitrust legislation, including Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU). TFEU Article 101 concerns rules regarding cartels by forbidding anti-competitive agreements such as fixing prices and market sharing between competitors. FFEU Article 102 forbids the abuse of dominating market position when it impacts trade between the member states within the EU. Violations can include enforcing unfair prices, restricting production, or disadvantaging competitors via contradictory terms in contracts.

Prior literature, however, finds that European competition and trade policy can take protectionist stances. Dinc and Erel (2013, p. 2471) find that European governments favour domestic ownership of target firms over foreign ownership. This favouritism hinders the completion of acquisitions and discourages foreign corporations from tendering for future acquisitions in the country. The authors conclude that such protectionist measures harm especially cross-border acquisitions within Europe. Furthermore, as M&A transaction causes a greater competitive threat to competing European domestic firms, the likelihood of European regulatory intervention increases, especially if the acquirer is from a non-EU country (Moscieri & Campa, 2014, p. 1479).

Despite the efforts of the European Commission to ensure competitive markets, Koltay et al. (2023, p. 466) find that competition in Europe has sharply declined. They state that within the past two decades, the markets have become more concentrated and are moving towards oligopoly. Koltay et al. (2023, p. 476) define oligopoly as an industry that has high concentration, measured by the four largest firms accounting for more than 50 percent of sales. Calligaris et al. (2024, p. 8) find that industries with strong M&A activity seem to have higher concentration and markups (i.e., difference between product price and cost). They (p. 14) suggest that firms use M&A as a mean to sustain their market position by acquiring their direct competitors. Moreover, declined competition leads to firms with high market power to increase the prices, and thus, their profitability (Calligaris et al., 2024, p. 14). They suggest that firms engage in M&A to increase their market share.

3.2 Acquisition rationale

Empirical evidence suggests that M&A activities decrease the value of the acquiring firm in the short- and long-term. In contrast, due to acquisition premiums, the target firm's shareholders seem to experience positive returns from acquisitions. Gorton et al. (2009, p. 1292) find that, on average, the acquirer's stock price tends to drop when a merger is announced. While acquisitions generate overall gains when examining firm value from the perspective of both the acquirer and target, the breakdown of these gains reveals that targets contribute primarily to the gains, whereas acquirers often experience neutral or negative returns. (Haleblian et al., 2009, pp. 469-471.) Given that acquirers empirically do not benefit from acquisitions, it raises the question: if M&A typically reduces shareholder value for acquiring firms, why do companies still pursue it?

A common rationale for acquirer's engaging in M&As is that of Welch et al. (2020, p. 847) who argue that key rationales for M&A are competition, economies of scale, synergies, and diversification. In contrast, Hillman et al. (2009, p. 1405) argue that a key rationale for firms engaging in M&A is to reduce competition. Haleblian et al. (2009, pp. 472-473)

argue that according to the *market power hypothesis*, a decrease in the number of competitors within the industry enhances the firm's ability to influence pricing. Essentially, this suggests that acquirers undertake M&A not only to eliminate direct competitors but also to consolidate their market position to create a monopoly, leading to increased market share and pricing power within the industry (Haleblian et al., 2009, pp. 472-473). Hillman et al. (2009, p. 1405) note that this has been empirically supported by prior literature showing that firms are likely to acquire firms similar to them. Most importantly, in places like EU, the evidence strongly supports this interpretation of the decades long modern experience of industrial competition or, more accurately, lack thereof.

Trautwein's (1990, pp. 284-285) *efficiency theory* explains synergy achievement as a rationale for M&A transactions. As synergies generate cost savings for the acquiring firm, efficiency theory is linked to appreciating firm value through M&A activities. Trautwein divides synergies into three types: financial, operational, and managerial synergies. Financial synergies are linked to decreased cost of capital by lowering the firm-specific risk of the firm through the acquisition of an unrelated business or increasing the size of the firm. However, Trautwein (1990, p. 284) notes that financial synergies have faced criticism as they cannot be realized in efficiently functioning financial markets.

The concept of operational and managerial synergies is criticized for being rarely realizable (Trautwein, 1990, pp. 284-285). Operational synergies originate from integrated processes of originally independent departments or from the transfer of knowledge. He argues that operational synergies must be evaluated against the expense of relocating assets to determine whether they are realisable. Managerial synergies are achieved when the acquirer's management displays advanced planning and oversight capabilities that result in improvements to the target's operational performance (Trautwein, 1990, p. 284).

An additional theory that acknowledges the appreciation of the acquiring firm's value is the *synergy theory* posited by Kitching (1967). Kitching (1967, pp. 92-94) argues that

when two firms merge, their combined value exceeds their individual value when operating separately. "*Two plus two equals five"* encompasses the idea of the synergy theory. He finds that synergy benefits are the highest in finance as the merged firm has a larger asset base, making it easier to access financing and potentially lowering the cost of borrowing through lower interest rates. Moreover, he finds that marketing has the second largest synergy payoff, while technology and production often do not achieve synergy benefits (Kitching, 1967, pp. 92-94). According to Bauer and Friesl (2024, p. 40), for acquisition to be economically beneficial, the value of the realised synergies has to be greater than the sum of the target's acquisition price, including the premium paid, financing expenses, and transaction costs. However, they (2024, p. 38) also note that only 40 to 60 percent of acquisitions perform, possibly due to no realised synergies or insufficient post-merger integration. In summary, there seems to be a gap between the descriptive reality of actual M&A performance compared to its theoretically expected benefits.

3.3 Acquisition premium causes

As acquisition premiums play a significant role in transactions and the performance of firms participating in M&A, their cause must be examined. Table 1 illustrates the key causes of acquisition premiums according to prior literature. I have grouped the key factors into four categories: target-related, market-related, behavioural, and transaction-related causes. The causes are discussed in more detail in the following paragraphs.

Table 1. Factors impacting acquisition premium.

Category	Related cases based on prior literature	Impact on premium*
A: Target	High intangible assets (Laamanen, 2007; Haleblian et al., 2009),	+
	Target size (Alexandridis et al., 2013),	+/-
	Ownership and management structure (Haleblian et al., 2009),	+
	Synergies (Haunschild, 1994; Laamanen, 2007).	+
B: Market	Regulation (Simonyan, 2014),	+/-
	Consolidated industries (Simonyan, 2014).	+
C: Behavioral	Hubris (Hayward & Hambrick, 1994),	+
	Winner's curse (Haunschild, 1994); existence of competing bids.	+
D: Transaction	M&A advisor (Reuer et al., 2012),	+
	Cash payment (Alexandridis et al., 2013),	+
	Tone of transaction (Reuer et al., 2012),	+/-
	Auction set-up (Bulow & Klemper, 2009).	+/-

*Sign expressed as + (-) when the underlying cause increases (decreases) the acquisition premium.

The first category concerns target-related factors. Laamanen (2007, p. 1360) finds that firms with high intangible assets tend to receive higher acquisition premiums. He suggests that the market struggles to accurately value a firm's innovation (i.e., as proxied by its R&D activities). He notes, however, that the increased premium due to high R&D does not lead to value destruction for the acquirer's shareholders. Alexandridis et al. (2013, p. 1) find an inverse relationship between target size and the acquisition premium, showing that acquirers often pay lower premiums for larger firms, suggesting that firm size may be an indicator of perceived difficulty in large transactions. According to Haleblian et al. (2009, p. 486), target firms with strong shareholder control typically receive larger premiums, as shareholders tend to influence the negotiations. They state that if shareholders are weaker compared to the CEO, the CEO may accept reduced premiums for a position in the merged entity. Moreover, they state that targets with institutional shareholders are more inclined to receive offers but at lower premiums, implying poorer negotiation power resulting in value reduction for target shareholders (Haleblian et al., 2009, p. 486).

As discussed earlier, synergies are a key argument for acquisitions. Haunschild (1994, p. 393) notes that the prior evidence is weak on synergies, while Laamanen (2007, p. 1367) argues that firms are willing to pay a premium explicitly for synergies, as combining acquirer's resources with the target's leads to value-creation opportunities. Moreover, the tendency of bidders operating within the same sector as the target suggests that industry overlap captures possible synergy effects, as proven in positive industry wealth effects following takeover announcements (Eckbo, 2009, p. 160).

The second category concerns market-related causes. According to Simonyan (2014, p. 93), market misvaluation has an impact on acquisition premiums, where market undervaluation, negative investor sentiment, and high volatility lead to higher premiums, while overvaluation and positive investor sentiment lead to lower premiums. Moreover, they state that regulation impacts premiums, where takeovers in regulated industries have lower premiums if they happen just before the industry is deregulated. Finally, firms in consolidated industries with surplus resources attract higher premiums compared to other sectors (Simonyan, 2014, p. 93).

The third category includes behavioural factors, such as hubris and the winner's curse, that increase the acquisition premium. According to Hayward and Hambrick (1997, p. 102), overconfident acquirers pay larger premiums because they believe that they can manage target firms better. Moreover, premiums can result from agency conflicts, in which managers with excess cash seek empire-building methods to enhance their benefit against the benefit of shareholders (Baldi & Silva, 2022, p. 2). Finally, Haleblian et al. (2009, p. 486) note that managerial ownership increases the premium as entrenched management of target will reject bids until they feel completely rewarded for their loss of control, called the "resistance argument". According to Haunschild (1994, pp. 393-394), a key cause for acquisition premiums is competition. They state that prior literature finds evidence that the existence of competing bids results in higher premiums for targets. The argument for the competition is supported by the "winner's curse" theory, dis-

cussed more in detail in chapter 5.2.4, which states that the winner of the bidding contest is the party who most overstated the fair value of the target (Haunschild, 1994, p. 394).

The final category concerns transaction-related factors and their impact on the acquisition premium. Reuer et al. (2012, pp. 679-680) find that targets with prominent advisors receive higher premiums in transactions. This may be explained by Haunschild's (1994, p. 406) finding that M&A advisors, such as investment bankers involved in the deal, influence the premium paid, leading to similar premiums for firms using the same advisors but differing from those working with different advisors. Moreover, cash payments in transactions lead to lower acquisition premiums (Alexandridis et al., 2013, p. 7). Baldi and Silva (2022, p. 2) argue that in cash transactions, the acquirer's shareholders bear the risk of synergies not materialising, whereas, in stock transactions, the risk is shared with the target's shareholders. The acquirer's stock valuation is also debated as a reason for M&A deals, as prior literature finds that overvalued acquirers often pay higher premiums for their targets (Baldi & Salvi, 2022, p. 1; Cumming et al., 2023, p. 1454). Furthermore, the tone of the transaction, as the target's board approving the takeover, impacts the premium. According to Reuer et al. (2012, pp. 679-680), hostile takeovers receive higher deal premiums compared to friendly transactions.

Finally, how the auction is set up impacts the acquisition premium. According to Bulow and Klemper (2009, p. 1454), auctions often result in higher premiums due to competitive bidding, driven by the winner's curse phenomenon, which causes bidders to overpay for targets by overestimating the target's value. They state that while sequential bidding is more efficient and preferred by bidders, it allows for pre-emptive jump-bids, which deters other bidders, reduces competition, and cuts prices. As a result, sellers prefer auctions, which maximise earnings despite the overpayment risk for bidders (Bulow & Klemper, 2009, p. 1454).

4 Literature Review

The literature review chapter discusses the prior empirical literature on the cross-section of CSR and acquisitions. First, empirical evidence on the impact of CSR on M&A is reviewed. Followed by review of prior literature on CSR and acquisition premiums, especially focusing on the target's CSR rating.

4.1 Empirical evidence on the impact of CSR on M&A outcomes

For decades, academic studies have focused on CSR. As described in Chapter 3.2, prior studies have demonstrated that CSR has an impact on valuation, risk, and financial performance. Few authors have attempted to investigate CSR within the context of M&A transactions. Table 2 illustrates the prior literature on the cross-section of CSR on M&A outcomes. These studies are highlighted in this sub-chapter.

Table 2. Summary of prior literature on CSR on M&A outcomes.

Authors	Dependent Variable	Explanatory Variable	Geographical Area	Time Period	Significance
Aktas et al. (2011)	Announcement returns	Target CSR	Global	1997-2007	Significant positive on acquirer gains
Arouri et al. (2019)	Deal uncertainty	Acquirer CSR	Global	2004-2016	Significant negative
Deng et al. (2013)	Announcement returns, post-merger operating performance, long-term stock perfromance, deal duration	Acquirer CSR	USA	1992-2007	Significant positive - Significant negative on deal duration
Fatemi et al. (2017)	Announcement returns	Acquirer CSR	Japan	2000-2014	Insignificant
Gomes (2019)	Probability of becoming a target	Target CSR	Global	2003-2014	Significant positive
Hussain & Shams (2022)	Announcement returns	CSR difference (Acquirer - Target)	Global	2003-2016	Significant positive (negative) for acquirer (target)
Krishnamurti et al. (2019)	Announcement returns, Bid premiums	Acquirer CSR	Australia	2000-2016	Significant positive on announcement returns - Significant negative on bid premium
Krishnamurti et al. (2021)	M&A investment, bid premium	Firm CSR	USA	1999-2016	Significant negative
Tampakoudis et al. (2021)	Announcement returns	Acquirer CSR	USA	2018-2020	Significant negative
Yen & André (2019)	Announcement returns	Acquirer CSR	Emerging markets	2008-2014	Insignificant

In the context of M&A announcements, Aktas et al. (2011, p. 1754) show how SRI generates value for shareholders, particularly when acquiring targets with strong social and environmental ratings. The study indicates a positive correlation between the abnormal returns of the acquirer and the CSR rating of the target. This suggests that targets with higher ratings yield substantial financial benefits for the acquirer's shareholders. The study includes listed acquirers globally from 1997 to 2007.

However, Tampakoudis et al. (2021, p. 1117) more recent study conflicts with Aktas et al. (2011). They find that during the COVID-19 pandemic, ESG performance is connected with value-decreasing implications for acquirer shareholders. Firms with high ESG-ratings suffered negative announcement returns, while firms with low ESG-ratings benefited from merger announcements. Tampakoudis et al. (2021, p. 1117) state that the market views ESG initiatives as costly investments that reduce shareholder value during the pandemic. Their sample consist of 889 finalized M&A transactions in the United States from 2018 to mid-2020.

Similarly to Aktas et al. (2011, p. 1754), Deng et al. (2013, p. 89) find that acquirers with high CSR ratings received higher stock returns when announced, greater post-merger operating performance, and superior long-term stock returns. Furthermore, they find that acquisitions with high CSR acquirers are completed faster and are less likely to fail. They study 1.556 finalized mergers in the United States from 1992 to 2007. The study shows that CSR in acquisitions mitigates conflicts of interest between the shareholders and other stakeholders, benefiting both sides (Deng et al., 2013, p. 90).

Krishnamurti et al. (2019, p. 2) extend Deng et al.'s (2013, p. 89) sample to Australian firms. Their sample consists of 776 Australian firms from 2000 to 2016. In line with Deng et al. (2013, p. 89), Krishnamurti et al. (2019, p. 2) find that high-CSR firms receive positive stock returns when the M&A deal is announced. Moreover, they find a significant negative relationship between the acquisition premium and the acquirer's CSR rating. This implies that high-CSR acquirers tend to pay lower premiums in acquisitions, thus

improving the shareholder value. Finally, high-CSR acquirers tend to engage in single bids and avoid bidding for multiple targets (Krishnamurti et al., 2019, p. 2).

Contradictory to Australian and U.S. results, Fatemi et al. (2017, p. 166) find no correlation between acquirers' ESG rating and abnormal returns in 243 Japanese M&As from 2000 to 2014. They study whether the acquiring firm's shareholders see gains sixty months after the transaction but find no significant long-term impact. The authors suggest that the results differ from prior studies due to the corporate control in Japan differing from that in the U.S. and other Western countries.

Likewise, Yen and André (2019, p. 114) find no correlation between acquirer's CSR rating and announcement returns. Their sample consists of 1986 cross-country M&A deals in 23 emerging countries from 2008 to 2014. The authors suggest that their findings are not consistent with prior studies as developing countries portray weak governance quality and agency issues.

Equivalently to Deng et al. (2013), Arouri et al. (2019, p. 176) study the impact of an acquirer's CSR rating on the uncertainty related to M&A transactions. Their sample extends Deng et al.'s (2013) focus by including 726 global M&A transactions from 2004 to 2016. Arouri et al. (2019, p.177) find that the deal uncertainty has an inverse relationship to acquirer's CSR. They discover that when acquirer's CSR rating increases, the transaction's arbitrage spread decreases. The individual elements of CSR rating (environmental, social, and governance) are similar to the aggregate CSR score. The authors suggest that the acquirer's CSR has a significant influence on the market's perceptions of the M&A transaction's successful completion globally.

Hussain and Shams (2022, p. 1) study the link between announcement returns and CSR rating. The dependent variable measures the cumulative abnormal returns (CARs) arising from announcing the acquisition. Their explanatory variable is the CSR difference constructed by deducting the target's CSR rating from the acquirer's. Hussain and Shams

(2022, p. 11) find that when the CSR difference is positive, on the M&A announcement, the acquirer experiences positive CARs while the target's CARs are negative. The authors suggest that the findings can be explained by portability theory. According to Hussain and Shams (2022, p. 2), portability theory proposes that acquirers can transfer CSR practices to targets via M&A deals. They continue by stating that targets with poorer CSR practices may strengthen their CSR rating by adopting the acquiring firm's CSR standards. Their sample consists of 1.334 global transactions from 2003 to 2016, including both domestic and cross-border deals.

Gomes (2019, pp. 153-155), on the other hand, studies whether CSR ratings have an impact on which firms are selected as M&A targets. They find a positive relationship between the target's CSR and its probability of becoming a target. The sample includes 608 global deals in 15 different developed countries from 2003-2014. When studying the probability of a firm becoming an M&A target, the author employs logistic regression where the dependent variable is a binary with a value of 1 indicating a firm becomes a target, and a value of 0 if not. Gomes (2019, p. 157) argues that CSR has a strategic influence on M&A decisions, and the results are driven by CSR's risk-reduction elements and improved transparency.

Krishnamurti et al. (2021, pp. 467-468) study the trade-off of a firm investing in CSR activities or M&A investment. They find a negative relationship between a firm's CSR activity and its likelihood to invest in M&A transactions. This is more profound in firms that have fewer available resources. Krishnamurti et al. (2021, pp. 484-486) argue that the trade-off is due to reconciling the interests of shareholders and stakeholders, contrary to managerial opportunism. Krishnamurti et al. (2021, pp. 467-468) also find that high-CSR firms with low M&A activity pay lower acquisition premiums and thus generate value for their shareholders. They find that one standard deviation rise in CSR leads to a 50.18 percent decrease in the 30-day acquisition premium. Moreover, high-CSR firms with low M&A activity posit higher share prices in the long run and thus have higher valuations. Their sample consists of firms in the United States from 1999 to 2016.

The varying results in prior literature can be explained by differences in methodology among studies. First, Tampakoudis et al. (2021) extend their analysis to include the COVID-19 pandemic period from 2018 to 2020, providing more recent coverage compared to the median sample year of 2006 when the CARs were positive. Second, the geographic focus of the sample also explains the results, as seen by Fatemi et al. (2017) and Yen and André (2019). They examine Japan and emerging markets, respectively, whereas other studies focus on firms in the United States or global samples.

4.2 Empirical evidence of target's CSR on acquisition premium

Prior literature on CSR and M&A has focused majorly on the perspective of the acquirer. Regardless of the extensive study into the positive impact of CSR in the M&A context, as described in the previous section, the intersection is seldom explored from the perspective of targets and their impact on shareholder value. Prior literature on the target's role in acquisition premiums remains scarce (Gomes & Marsat, 2018, pp. 70-72; Cho et al., 2021, p. 379). As the role of the target's CSR rating has received less attention, there is a gap in the literature regarding its impact on acquisition premiums. This section seeks to address this gap by examining the findings on the topic. Table 3 illustrates the few sources of literature that explore the relationship between an acquisition premium and the target's CSR ratings.

Table 3. Summary of prior literature on acquisition premiums and target's CSR rating.

Authors	Dependent Variable	Explanatory Variable	Geographical area	Time Period	Significance
Aktas et al. (2011)	Announcement returns	Target CSR	Global	1997-2007	Significant positive on acquirer gains - Target CSR rating insignificant
Chen & Gavious (2015)	Announcement returns	Target CSR	Israel	2007-2012	Insignificant
Cho et al. (2021)	Announcement returns	CSR difference (Target - Acquirer)	USA	1993-2016	Significant positive
Gomes & Mrsat (2018)	Deal premiums	Target CSR	Global	2003-2014	Significant positive
Hussain & Shams (2022)	Deal premium	CSR difference (Acquirer - Target)	Global	2003-2016	Significant negative
Jost et al. (2022)	Acquisition premium	Target and acquirer CSR	Global	2003-2018	Insignificant
Li et al. (2021)	Acquisition premium (book value)	Target and acquirer CSR	China	2007-2018	Significant positive
Ozdemir et al. (2022)	Deal premiums	Target CSR	USA	1991-2018	Significant positive
Qiao & Wu (2019)	Cross-border acquisition premium	Target CSR	Global	1991-2016	Significant positive

This section is divided into two parts. First, the positive relationship between acquisition premiums and the target's CSR ratings is discussed. Followed by prior literature that found no statistically significant relationship between the two topics.

4.2.1 Positive relationship

Gomes and Marsat (2018, pp. 70-72) examine the relationship between CSR and the bid premiums from the strategic acquirers' standpoint. Their study is unique in a way that they focus on the strategic acquirer's viewpoint instead of the marginal investors'. Prior literature has focused on the marginal investors' viewpoint through analysing stock prices, but Gomes and Marsat (2018, pp. 70-72) introduce the analysis of acquisition premiums. They find that acquirers pay more for targets with high CSR ratings. Gomes and Marsat (2018, p. 76) also study how the relationship differs in the case of domestic and cross-border transactions. They find that in cross-border deals, the social rating of the target causes a premium. The authors argue that acquirers pay more for targets with high social performance to offset increased risk related to cross-border deals due to information asymmetry. Their sample consists of 588 global M&A transactions from 2003 to 2014. The authors suggest that the relationship can be explained by reduced information asymmetry as acquirers conduct rigorous due diligence examination of possible

targets and thus gain more knowledge of the firm that is not available to marginal investors.

Gomes and Marsat's (2018, pp. 70-72) findings are supported by Ozdemir et al. (2022, p. 1022). Ozdemir et al. (2022, p. 1022) extend Gomes and Marsat's (2018, pp. 70-72) study by examining whether firms operating in the service industry obtain higher premiums compared to firms in other industries. They find that in the service industry, the CSR-acquisition premium relationship is stronger compared to firms operating in other industries. Their sample consists of 277 transactions in the United States from 1996 to 2018. Ozdemir et al. (2022, p. 1022) suggest that the findings can be explained by the signalling theory, as firms send positive signals to the market in order to increase their valuation.

To investigate whether CSR plays a significant role in global M&A, Qiao and Wu (2019, pp. 16-17) extend their sample to include acquisitions where the acquirer and target are from separate countries. Qiao and Wu (2019, pp. 16-17) examine whether a target's CSR rating has an impact on acquisition premiums in cross-border transactions. Their sample consists of 252 global transactions from 1991 to 2016. They find that acquiring a target with a strong CSR rating leads to a higher acquisition premium. However, as the gain decreases, there are increased institutional and cultural differences between the acquirer and the target. Moreover, when there is a significant number of other M&A transactions in the target's country, the acquirer pays a lower premium. The authors argue that their findings support the institutional theory, which seeks to explain why organizations have certain similar characteristics (Qiao & Wu, 2019, pp. 16-17).

Li et al. (2021, pp. 1-2) extend on Gomes and Marsat's (2018, pp. 70-72) study by investigating whether CSR impacts acquisition premiums in China. Their sample consists of 2.224 Chinese M&A deals from 2007 to 2018. Li et al. (2021, p. 10) find that target firms with high CSR ratings have higher bid prices, and thus, greater premiums. They also note that the effect is stronger when acquiring firms with higher CSR ratings, which increases the premium further. Li et al. (2021, pp. 6-7) study the link between CSR and acquisition

premiums in China. Thus, they retrieve CSR data from the China Stock Market & Accounting Research (CSMAR) database. Unlike other studies on the topic, they use book value as a proxy for acquisition premium.

Cho et al. (2021, pp. 378-379) examine the relationship between target CSR and acquisition performance with a different methodology compared to prior literature concerning the target's CSR rating. Their explanatory variable measures the CSR difference by subtracting the acquirer's rating from the target's. They use target's abnormal cumulative return (CAR) as a proxy for measuring acquisition performance. They find that the target's CARs are higher on the announcement when the target's CSR rating is higher than the acquirer's rating. Furthermore, they find that the effect of CSR is stronger when the acquirer is well-governed. Cho et al. (2021, p. 381)'s sample consists of 199 transactions in the United States from 1993 to 2016. The authors argue that market players expect bidders to pay a CSR premium in order to acquire the target and recognize probable synergy benefits in the transaction.

Hussain and Shams (2022, p. 1) utilise a similar methodology as Cho et al. (2022). However, their explanatory variable is the CSR difference constructed by deducting the target's CSR rating from the acquirer's. Hussain and Shams (2022, pp. 13-14) find that acquisition premium decreases when the CSR difference is positive. This implies that the acquirer with a stronger CSR rating compared to the target pays a lower acquisition premium. The authors suggest that the phenomenon is explained by an acquirer's risk of being negatively impacted by the target's poorer CSR rating. Moreover, they show that the completion of the transaction is faster when there is a positive CSR gap. Their sample consists of 1.334 global transactions from 2003 to 2016, including both domestic and cross-border deals (Hussain & Shams, 2022, p. 3).

4.2.2 No significant relationship

Aktas et al. (2011, p. 1754) study socially responsible investing in the context of stock market performance. The focus of their study is how the target's environmental and social ratings impact the stock market performance of the acquirer. They find that the pre-deal CSR rating of the target firm is not significant. They explain the finding by suggesting that the stock market is already aware of the CSR rating of the firm, and therefore, the CSR performance is already priced in the share price. Aktas et al. (2011, p. 1754) study includes listed acquirers globally from 1997 to 2007.

A study conducted by Chen and Gavious (2015, p. 29) studies the importance of CSR ratings to institutional investors, marginal investors, and M&A acquirers. They find that CSR has no significant relationship with M&A deals. The study is limited to Israel and has a relatively short timeframe from 2007 to 2012. Their sample consists of 134 Israeli M&A deals.

A more recent study conducted by Jost et al. (2022, p. 8) confirms Aktas et al. (2011, p. 1754)'s findings. Jost et al. (2022, p. 8) find no significant relationship between the acquirer's nor the target's CSR ratings and the deal premium. The result holds true for both cross-border and domestic transactions. Their study consists of 1.598 global deals from the acquirer's perspective and 449 deals from the target's perspective from 2003 to 2018. Jost et al. (2022, p. 8) argue that the correlation between CSR and acquisition premiums may not be described solely by shareholder or stakeholder theories.

Disparities in past literature can largely be attributed to methodological differences among studies. For instance, Chen and Gavious (2015, p. 29) include sample data from Israel, which may explain their insignificant results compared to studies with a global sample. Additional differences, such as those observed in the findings of Aktas et al. (2011, p. 1754) and Jost et al. (2022, p. 8), are most likely due to variations in model estimation used by authors.

5 Theoretical Framework

The objective of the chapter is to explain the key theories that impact the study. The chapter is organized in the following way. First, the normative financial theories are discussed, followed by descriptive financial theories.

Normative financial theories are those that explain how financial decisions shall be made (Peon & Antelo, 2012, p. 90). The key assumption in normative theories is that financial markets operate efficiently, and investors act rationally, have access to equal information, and want to maximise their wealth (Peon & Antelo, 2012, p. 97). They note that examples of normative financial theories include Capital Asset Pricing Model (CAPM), Markowitz Portfolio Theory, and Efficient Market Hypothesis by Fama (1970). In the context of this study, key theories related to finance and sustainability are discussed. Thus, shareholder and stakeholder theories are discussed in detail. In the context of acquisition premiums, these normative financial theories concern the valuation of the firm.

Contrary to normative financial theories, descriptive financial theories describe how financial decisions are actually made (Peon & Antelo, 2012, p. 91). These theories incorporate behavioural and psychological factors to explain real-world financial behaviour, including irrationality, biases and market inefficiencies (Peon & Antelo, 2012, p. 98). The key descriptive financial theories concerning acquisition premiums are information asymmetry, signalling theory, agency theory, and the winner's curse. These theories concern both the valuation of the target, and the bidding process. However, these descriptive theories tend to overlap and especially information asymmetry impacts both the valuation of the target firm and the bidding for the firm. While theories concerning bidding process are agency theory and winner's curse.

5.1 Normative financial theories

The shareholder and stakeholder theories offer opposing perspectives on value creation and sustainability. This subchapter will examine both shareholder and stakeholder theories in this setting.

5.1.1 Shareholder theory

Shareholder theory was first introduced by Friedman in 1970. According to the shareholder theory, the only purpose of a company is to increase its profits and thus bring value to its shareholders. The shareholder theory is based on principal-agent relationship. Firm executives act as an agent who act on behalf of the principals, the shareholders of the firm. Thus, executives have a fiduciary duty to make choices that ultimately serve the best interests of the principals. According to shareholder theory, this duty is fulfilled by maximising profits and creating financial gains for the firm's shareholders, thereby ensuring their monetary prosperity. (Mansell, 2013, p. 585.)

According to Deng et al. (2013, p. 89), shareholder theory, within the context of CSR, views CSR as an expense to shareholders. By prioritising sustainable activities over the interests of shareholders, firm executives destruct shareholder value. They give an example of a firm establishing stricter pollution regulations than its competitors, leading to a firm investing excessive resources to unprofitable sustainability activities, diminishing profitability and shareholder wealth. This leads to other stakeholders benefiting from CSR activities at the expense of shareholders, causing a shift of wealth from shareholders to stakeholders (Deng et al., 2013, p. 89). Shleifer and Vishny (1997, p. 738) note that sustainability projects that generate negative net present value (NPV), destruct shareholder value.

5.1.2 Stakeholder theory

The opposing view to shareholder theory was introduced by Freeman in 1984 (Jensen, 2001, p. 299). In contrast to shareholder theory, stakeholder theory states that firm's

responsibility extend beyond the interests of shareholders to include external stakeholders surrounding the firm (Mansell, 2013, p. 583). Stakeholders include all parties who are participating in the firm's operations, such as customers, employees, suppliers, regulators, investors, and the community (Jensen, 2001, p. 299). According to the stakeholder theory, firms can maximise shareholder value by taking into consideration the interests of all stakeholders, which leads to increased shareholder wealth in the long-term (Jensen, 2001, p. 309).

Stakeholder theory suggests that CSR investment benefits both firm shareholders and stakeholders as by fostering stakeholder interests leads to ultimately increased shareholder value (Hussain & Shams, 2022, p. 3). Academics claim that CSR investment can reduce the risk of unfavourable regulatory measures while also helping firms draw in sustainability conscious customers and attract capital from investors (Cheng et al., 2014, p. 3). Within the context of M&A, enhanced CSR and transparency strengthens firm's relationships with banks and investors, leading to easier access to finance, thus enabling acquirer to fund its M&A activities (Krishnamurti et al., 2021, p. 467). This leads to increased shareholder value in the long-term.

The stakeholder theory aligns with Coase's (1973) contract theory, viewing a firm as a network of "explicit and implicit contracts" with its shareholders and stakeholders (Deng et al., 2013, p. 88; Arouri et al, 2019, p. 179). Explicit contracts are legally binging, such as a contract between a firm and supplier, while implicit contracts are not legally enforceable thus there are no direct consequences for not fulfilling the contracts (Arouri et al., 2019, p. 179). They state that the value of implicit contracts is determined by stakeholders' expectations of firm's dedication to keep these commitments. According to Arouri et al. (2019, p. 179), CSR initiatives demonstrate a greater dedication to fulfilling implicit contracts, thus improving firm's reputation. They state that firms with strong CSR-ratings are less likely to violate implicit contracts, leading to a greater support from stakeholders, such as employees and investors. Thus, high CSR-firms align the interests

of shareholders and stakeholders better compared to low CSR-firms, leading to improved shareholder value in the long-term (Arouri et al., 2019, p. 179).

Firm reputation is linked to trust between the firm and its stakeholders. According to Arouri et al. (2019, p. 179), trust and stakeholder support is essential in M&A transactions due to their uncertainty. They, argue that acquiring firm's shareholders are less probable to resist transactions with strong CSR-firms. In the contrary, acquiring firms with poor CSR-ratings, may face more protest from target's shareholders, pressing the board to not go through with the transaction (Arouri et al., 2019, p. 179).

The relationship between CSR and value creation can be understood through the lens of stakeholder maximation view, with key theories like resource-based view explaining how CSR contributes to a firm's competitive advantage. Resource-based view suggests that firms only invest in CSR activities when the funds are not required for other purposes and the benefit of investing exceeds the costs incurred by CSR activities (Krishnamurti et al., 2021, p. 467). According to resource-based view, firm has distinctive attributes that, when effectively utilized, can result in a competitive advantage and improved shareholder value (Alshehhi et al., 2018, p. 2). According to Gomes (2019, p. 154), relationship with stakeholders and stakeholder support, indicated by high CSR-rating, is difficult to establish. Therefore, CSR-rating can be considered an attribute that results in competitive advantage as seen in the principles of resource-based view. The author states that engaging in CSR-activities allows firms to create intangible assets, such as expertise, brand and reputation, leading to advantages, such as customer loyalty and employee retention. The market may struggle to value intangible assets; therefore, the value of CSR may not be fully reflected in the stock price after a merger announcement. As CSR activities have an impact on these firm's attributes, they should have an impact on acquirer's desire to acquire the target, measured by acquisition premium (Gomes, 2019, p. 154).

5.2 Descriptive financial theories

This subchapter discusses the key descriptive financial theories related to acquisition premiums first on the perspective of firm valuation and then the bidding process. The key theories related to the firm valuation and bidding are information asymmetry, signalling theory, agency theory, and winner's curse.

5.2.1 Information asymmetry

Information asymmetry impacts both the valuation and bidding process in M&A. Modigliani and Miller (1963), define symmetric information as the assumption that investors and management have equal knowledge of a firm's future prospects. However, managers typically have more information of the firm than external investors and other stakeholders, which leads to information asymmetry. (Cui et al., 2018, pp. 549-550.) Information asymmetry has an impact on the valuation of the target, as it affects how accurately the acquirer estimates the target's intrinsic value. On the other hand, in the bidding process, acquirer lacks information how much they should optimally bid for the target due to information asymmetry, influencing the acquisition premium and competing bids.

Akerlof (1970, p. 489) describes information asymmetry via the example of a used car market, to illustrate that information asymmetry results in adverse selection, in which vendors refuse to offer high-quality products at lower prices than buyers are ready to pay, with the result that buyers receive poorer-quality items. This may lead to market freezing up compared to a market with symmetric information (Akerlof, 1970, p. 489). In the context of M&A, that means that acquirers may assume that targets are of lower quality, which may lead to undervaluation or inefficiency in the market.

Similarly, in the context of M&A transactions, Ozdemir et al. (2022, p. 1003) state that transactions are inherently uncertain and characterised by significant information asymmetry between the acquirer and the target that significantly impacts the valuation of the

target. The target possesses private information about its value, strategic plans, and potential risks that the acquirer cannot fully observe. Thus, the acquirer's due diligence involves obtaining all available information on the target, including its operational and financial strengths and vulnerabilities, to reduce the information asymmetry (Ozdemir et al., 2022, p. 1003).

Furthermore, a distinct type of information asymmetry emerges between the acquiring firm and the stock market that impacts the target's share price. In the context of M&A transactions, information asymmetry occurs when the acquiring firm's management hold confidential information about the merging firms and their synergies, which is not accessible to stock market investors. The information asymmetry is stronger when the target is privately traded, operates in the technology industry, or overseas, and the acquirer operates in a less developed market with less transparency and accounting norms. As a result of due diligence and negotiations, acquirers have access to more precise information than other investors. This asymmetry leads to mispricing in the market. (Song et al., 2021, p. 448.)

CSR has a significant impact on information asymmetry. Cheng et al. (2014, p. 2) highlight that high CSR-rating helps reduce information asymmetry through CSR reporting by enhancing transparency regarding firm's social and environmental impact, and its governance structure. Enhanced data quality and availability narrow the information gap, making the firm more transparent to potential acquirers (Cheng et al., 2014, p. 2). Additionally, CSR investment can serve as an indicator of the firm's future value creation possibilities, as managers have a deeper understanding of the firm's CSR activities, including its objectives and strategy, than external stakeholders (Cui et al., 2018, pp. 549-550). Gomes (2019, p. 157) state that acquirers value target's CSR performance for its risk-reduction capabilities. Strong CSR standards are seen to reduce future labour and environmental concerns, ensuring potential buyers post-merger stability and reduced potential legal ex-

penses. Therefore, target's high CSR-rating often translates to a higher acquisition premium, highlighting the importance of factoring CSR into the target firm's valuation (Ozdemir et al., 2022, pp. 1005-1006).

The influence of CSR on information asymmetry has been examined by academics. Cui et al. (2018, p. 549) find a negative relationship between CSR and information asymmetry. The authors conclude that increased CSR activity is connected to lower reputational risk, which in turn is linked with decreased information asymmetry. The relationship is stronger in risky firms where managers focus on establishing a positive reputation. Cui et al. (2018, p. 550) sample consists of 2.166 firms in the United States from 1991 to 2010. Their findings support the stakeholder theory, where CSR participation is seen as a mechanism to maintain corporate reputation.

Similarly to Cui et al. (2018, p. 550), Nguyen et al. (2019, p. 188) confirm the negative association between firm CSR and information asymmetry. The inverse relationship is amplified for larger companies and those with greater market power. Moreover, they find that the CSR-information asymmetry relationship is reduced for companies that have a higher equity risk. Their sample consists of 391 listed Australian firms from 2004 to 2014.

5.2.2 Signalling theory

Signalling theory first introduced by Spence (1973) is closely connected to minimising information asymmetry between two parties (Connelly et al., 2011, pp. 42-44). According to Connelly et al. (2011, pp. 42-44), the theory states that firms use signals, such as dividends and debt ratio, to illustrate that they are of high-quality. They state that market participants then read and interpret these signals to distinguish between high- and low-quality firms. They note that as market participant acts based on the interpretation of the signal, the firm receives feedback. Signalling attempts to eliminate information asymmetries in the market by sending signals from insiders who have access to information not available to the public (Connelly et al., 2011, pp. 42-44).

Signals may be both positive and negative, but the theory emphasises the intentional delivery of positive signals with the purpose of expressing positive organisational characteristics (Connelly et al., 2011, pp. 44-45). Signals must be observable by market participants in order for them to be effective, the authors state that another important attribute is "signal cost". Connelly et al. (2011, p. 45) use an example of obtaining a manufacturing certification to illustrate the signal cost concept. They state that the cost of obtaining the certification is high due to the time and effort involved. However, it is less expensive for a high-quality firm to obtain the certification compared to low-quality firm, as the latter would have to change their manufacturing processes to be certified. (Connelly et al., 2011, pp. 44-45.)

According to signalling theory, target firms function as signallers, sending signals to receivers known as acquirers, as shown in Table 4. According to Ozdemir et al. (2022, pp. 1004-1005), participation in CSR-activities can send signals to investors that the firm has a distinctive potential. As described in relation to stakeholder theory, firms engaged in CSR signal reputation through its fulfilment of implicit contracts (Arouri et al., 2019, p. 179). Based on this signalling effort, targets with strong CSR-ratings should receive higher acquisition premiums in M&A transactions.

Table 4. Flow of signalling in M&A transaction impacting acquisition premium.

Signaller	Signal	Receiver
Acquisition target	CSR activity measured by CSR-score (Ozdemir et al., 2022, pp. 1004-1005) signalling reputation through fulfilment of implicit contracts (Arouri et al., 2019, p. 179).	Acquirer
	Inter-organisational relationships (Reuer et al., 2012, pp. 679-680).	
	CEO hubris (Hayward & Hambrick, 1997, pp. 117-118).	

In the context of M&A transactions, Reuer et al. (2012, pp. 679-680) find that targets having relationships with recognised financiers and venture capitalists act as a signal that

leads to increased acquisition premiums in M&A deals. Moreover, Hayward and Hambrick (1997, pp. 117-118) note that CEO hubris, or in other words CEO's excessive self-esteem, acts as a signal in the market that has a positive impact on acquisition premiums.

5.2.3 Agency theory

Agency theory impacts the managerial behaviour in the context of M&A especially within the bidding process. Acquiring firm's shareholders on average lose value due to acquisition premiums paid (Haunschild, 1994, p. 393). This suggests that firm managers may not act in the best interests of the firm shareholders.

Agency theory focuses on the principal-agent relationship, where the principal assigns the agent to carry out tasks on behalf of the principal. According to agency theory, there is a conflict of interest between the principal (firm shareholders), and agent (firm management) which arise when executives prioritise personal objectives over those of shareholders (Eisenhardt, 1989, p. 58).

Trautwein (1990, p. 287)*'s empire-building theory* is derived from agency theory and the separation of control and ownership of a firm. According to the theory, M&A transactions are carried out by executives that prioritize their own gain over their shareholders' value. The prioritization may rise from conflict of interest between the executives and shareholders and executive characteristics, such as over-optimism, seeking growth or professional pursuits, among other reasons (Trautwein, 1990, p. 288).

Roll (1986, p. 197) presents *hubris hypothesis* as a rationale for M&A activities that decrease the value of the firm. Hubris is defined in the context of acquisitions as overconfident and illogical mindset displayed by acquiring firm's executives. According to the hubris hypothesis, overconfidence causes firms to pursue acquisitions even when the estimated valuation is higher than the market price (Roll, 1986, p. 197). In short, firms affected by hubris pay excessive premium for the acquisition target.

Jensen (1986, p. 328) studies agency theory in relation to M&As. He argues that firm's payout policy is a key conflict in a firm between shareholders and managers. When firm pays out funds consistently, it reduces the share of free cash flow accessible to managers, which limits managers' ability to engage in projects that may not benefit shareholders. Therefore, managers have an incentive to hold onto excess cash as it leads to the firm growing larger in size, resulting in increased compensation to managers. Jensen (1986, p. 328) states that by engaging in M&A, managers can use excess cash as opposed to distributing it to the shareholders. According to the theory, acquirers with excess cash undertake acquisitions that destroy shareholder value (Jensen, 1986, p. 328).

The excess cash argument is aligned with the *size theory* by Gorton et al. (2009, pp. 1291-1295). According to the theory, the acquiring firm's size impacts whether the M&A transaction is profitable or not. Gorton et al. (2009, pp. 1291-1293) state that firms rarely acquire larger target firms in size. This is due to financing difficulties. They find that large acquirers decrease the firm value as they tend to overpay for the target and thus decrease shareholder value (Gorton et al., 2009, pp. 1328-1329).

5.2.4 Winner's curse

Winner's curse was first introduced by Capen, Clapp and Campbell in 1971. The theory states that the winner of the bidding contest is the party who most overstated the fair value of the target (Haunschild, 1994, p. 394). Thus, corporate takeovers are often associated with the winner's curse where acquirer overpays for the target.

Arroyabe and Hussinger (2024, p. 3247) summarizes the phenomenon in the following way: when multiple bidders are competing for the target, bidders' management tends to become overconfident in their capability to generate value from the acquisition, resulting in more aggressive offers. This competitive drive to close the deal leads in a winning bid that is inflated by the competition and thus overestimates the target's fair value (Arroyabe & Hussinger, 2024, p. 3247).

Eckbo (2009, pp. 161-162), argue that winner's curse in M&A transactions is driven by bidders failing to account for how their private information of the target influences other bidder's valuations, if made public. Winning an auction indicates that the winner has the highest estimate, but this estimate is frequently biased higher, even when each bidder's initial estimate is unbiased (Eckbo, 2009, pp. 161-162). To avoid the winner's curse, bidders should lower their bids relative to their estimates, especially as uncertainty and competition increases (Varaiya & Ferris, 1987, p. 64).

5.3 Discussion

After examining both normative and descriptive financial theories related to firm valuation and bidding process, it is essential to bridge the gap between academical perspectives and real-world financial decision-making. While normative theories, such as shareholder and stakeholder theory provide a framework for how financial markets should operate, descriptive theories, including information asymmetry, signalling theory, agency theory, and the winner's curse, help explain observed market behaviour. However, actual corporate decision-making does not always align with these theories, as evidenced by empirical research on firm executives' priorities and behaviour.

Graham's (2022, pp. 2029) study on the gap between academic research and the corporate finance practice highlights the decision-making among CFOs. His findings suggest that firm executives prioritize revenue growth and debt-to-EBITDA ratios when determining the capital structure, and payout policy that aligns with historical dividends. Normative financial theories assume that firm executives act solely to maximize shareholder value through rational investment in positive NPV projects, Graham (2022, p. 2019) finds that CFOs display cautionary behaviour driven by managerial self-interest, particularly concerns over job security. He notes that the conservatism is visible through CFOs valuing financial flexibility in the capital structure to avoid distress and as means to pursue investment opportunities.

Graham (2022, p. 2022) finds evidence that CFOs actively try to time the market by issuing debt when interest rates are low and issuing equity when stock valuation is high. This behaviour does not align with normative financial theories, which assume that firms should not attempt to time the market. His finding that CFOs often perceive their stock as undervalued, even in high market conditions, further supports the presence of information asymmetry between firm executives and investors. This aligns with descriptive theories that emphasize the role of incomplete and asymmetric information in financial markets.

The objective of the firm is another area where real-world practice differs from traditional financial theories. Shareholder theory emphasizes that firm executives should primarily focus on prioritizing shareholder value. Graham's (2022, pp. 2030-2031) findings show a trend towards balancing the shareholder and stakeholder interests. Although maximizing shareholder wealth remains the main objective for firm executives, there has been a notable trend in the last decade towards greater emphasis of stakeholders, while in 2010 the share of CFOs who prioritized solely shareholders was higher. CFOs rank employees, customers, and the environment as the most important stakeholders, followed by creditors and local community.

6 Data & Methodology

This chapter discusses the data and chosen methodology used in the study. First, the data collection and construction methods are described. Second, the chosen variables, including the dependent variable, independent variable, and the control variables, are explained. Finally, the regression model used to perform the empirical analysis is discussed.

6.1 Data description

The main objective of the thesis is to study how the target's CSR score prior to the transaction impacts the acquisition premium. The focus is motivated by the growing importance of CSR, and the increased recognition that a target's sustainability profile may influence its perceived value during the M&A transaction. The M&A transaction data including target, acquirer, offer price, and deal characteristics, was retrieved from LSEG database. Financial accounting data for both target and acquirer was obtained from Datastream, while the ESG ratings were retrieved from the LSEG database. Consistent with M&A literature, various firm- and deal-specific characteristics that influence acquisition premiums are included as control variables to isolate the effect of CSR performance.

The initial data sample includes M&A transactions for the most recent 14 years, namely from January 2010 to November 2024. The time frame was selected to focus on transactions occurring after the financial crisis, as the post-financial crisis period initiated significant regulatory changes and economic recovery. When the sample begins from 2010, the analysis can focus on a more stable economic climate, and therefore, eliminates the need to control the impacts of the 2008-2009 financial crisis. Moreover, the chosen period illustrates the growing importance of CSR in corporate decision-making, as evidenced by a growing number of high CSR firms in the post-financial crisis period (Krishnamurti et al., 2021, p. 472). Furthermore, ESG data availability is limited prior to 2010.

All targets in the sample are publicly listed firms from 17 European countries. In the initial sample criteria, only target firms that were publicly listed before the acquisition were selected. This exclusion was done to ensure better data availability as the acquisition premium is calculated using share prices available only for listed firms. Moreover, offer prices for transactions are more commonly disclosed by publicly listed firms. Thus, the data availability is worse for private firms.

The selected countries in the initial sample include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. The selected countries represent Western European countries with relatively similar levels of corporate governance practices, and regulatory environment, which makes the analysis more robust and comparable. Furthermore, prior research on acquisition premiums and CSR has primarily focused on the United States, and thus, research in the European context remains limited.

This study uses ESG scores from the LSEG database (formerly known as Refinitiv and Thomson Reuters), one of the most extensive ESG databases. Refinitiv ESG as a database has received nearly 1.500 academic citations (Berg et al., 2020, p. 7). Most of the prior literature uses ESG data retrieved from ASSET4, which is now part of the LSEG database, along with KLD and Innovest.

6.2 Data construction

The M&A transactions were extracted from the LSEG database. The data period covers January 1, 2010, to November 6, 2024. The applicable data was sequentially reduced through the following sample selection criteria:

1. Target's accounting data is available from the Datastream database. This filter leads to an initial sample of 18.801 transactions. The criterion is important for the control variable construction as the control variables cannot be established without accounting data.
2. The acquirer attempts to obtain complete control of the target, specifically acquiring at least 95% of shares from a previously held stake of less than 50%. The criterion ensures that the sample excludes minority purchases and partial acquisitions, which may not represent true mergers where strategic factors like CSR significantly influence valuation. Moreover, no leveraged buyouts, spin-offs, buybacks, or remaining interest transactions reported by LSEG are included. In addition, no exchange offers are included where the acquirer and target are the same entity. No acquisition of assets or divestitures are included. By focusing only on full-scale acquisitions, the study includes true M&A transactions, allowing for a more accurate examination of CSR's impact on the premium. These types of transactions are excluded in accordance with prior research (see Deng et al., 2013; Krishnamurti et al., 2020; Hussain & Shams, 2022) to enable a reliable analysis of the strategic motive of engaging in M&A and how it influences the acquisition premium. Transactions where the deal value is not available are excluded. This criterion is also important for the construction of the control variables. These filters lead to a sample of 2.200 transactions.
3. The offer price is disclosed. This criterion is important for constructing of the dependent variable. The sample is reduced to 1.682 transactions.
4. The deal size exceeds 1 million euros, and the payment method is known. These criteria are selected based on prior literature that indicates that the payment method in the deal has a significant impact on the premium. Moreover, small

transactions may complicate the direct comparison of the results. These filters reduce the sample to 1.578 transactions.

The objective was to include only data that was relevant to the study. Thus, after imposing the sample selection criteria, the final M&A sample was 1.578 transactions. Next, the data was completed with targets' and acquirers' financial data from the Datastream database to construct the control variables used in the study. This step narrowed the sample size to 1.521 transactions, as 57 transactions were missing financial data. Third, the ESG data was retrieved from the LSEG database and matched against the M&A data. This narrowed the sample to 424 observations. Ultimately, after clearing missing values, a total of 424 observations remained.

6.3 Final data sample

This sub-chapter explains the final data sample and presents figures to enable a deeper understanding of the sample before delving into regression results. Additionally, the section provides transaction and sample distributions to help further analysis.

Table 5 illustrates the sample distribution by years (Panel A), target country (Panel B), and target's macro-operating industry (Panel C). The number of transactions in the sample gradually increased from 2010, reaching a peak in the year 2021. Following a decline in 2022, transaction activity rebounded in 2023. As seen in Panel A, the highest number of observations is in the year 2021, with 61 announcements (14.39 percent), followed by the year 2024 (10.61 percent) and years 2023 and 2022 (9.43 percent).

Table 5. Sample distributions.

Panel A: Year Distribution

Announcement Year	N	%
2010	17	4,01
2011	17	4,01
2012	13	3,07
2013	11	2,59
2014	18	4,25
2015	23	5,42
2016	25	5,90
2017	27	6,37
2018	22	5,19
2019	33	7,78
2020	32	7,55
2021	61	14,39
2022	40	9,43
2023	40	9,43
2024	45	10,61
Total	424	100

Panel B: Country Distribution

Target Country	N	%
Belgium	7	1,65
Denmark	6	1,42
Finland	14	3,30
France	22	5,19
Germany	29	6,84
Greece	1	0,24
Ireland	13	3,07
Italy	10	2,36
Luxembourg	2	0,47
Norway	8	1,89
Portugal	3	0,71
Spain	11	2,59
Sweden	26	6,13
Switzerland	13	3,07
The Netherlands	24	5,66
The United Kingdom	235	55,42
Total	424	100

Panel C: Industry Distribution

Target Marco Industry	N	%
Consumer Products and Services	53	12,50
Utilities	34	8,02
Financials	30	7,08
Healthcare	32	7,55
High technology	66	15,57
Industrials	75	17,69
Materials	22	5,19
Media and Entertainment	32	7,55
Real Estate	40	9,43
Retail	23	5,42
Telecommunications	17	4,01
Total	424	100

The United Kingdom accounts for the majority of observations, comprising 55.42 percent (235 observations) of the sample, as seen in Panel B. To address whether the results are driven solely by UK transactions, I test for robustness in section 7.3 and provide the results in Appendix 4. The results are consistent with the main results presented in Table 11 and indicate that the large share of UK transactions does not impact the sample or regression results. The next most frequent target countries are Germany (6.84 percent), Sweden (6.13 percent), and the Netherlands (5.66 percent). All countries from the initial except for Austria are present in the final sample.

Panel C classifies the target firms by industry according to the LSEG macro industry classification. The industrials sector has the highest representation with 75 observations (17.69 percent), followed by high technology (15.57 percent), and consumer products and services (12.50 percent). The sample distribution across industries is comprehensive, covering a broad array of sectors.

Figure 6 displays the annual volume and the total value of M&A transactions. The sample averages 28 deals per year. The figure illustrates that the number of M&A transactions has an upward trend over time, peaking in 2021 with 61 transactions. While specific years, such as 2013 and 2018, exhibit lower transaction volume, the general pattern indicates increasing deal activity, particularly from 2014 onwards. The total transaction values fluctuate considerably compared to deal counts, peaking in 2015, 2017, and 2021. These fluctuations can be attributed to the occurrence of a few high-value deals, even when the total number of transactions was lower during that year, such as in the year 2017. The surge in 2015 is aligned with a series of large market-value deals in Europe and the United States, as noted by previous research. The peak in 2021 can be explained by favourable market conditions, including low interest rates and a recovering global economy after the COVID-19 pandemic. Interestingly, despite the record-high number of deals in 2021, deal values declined sharply in the following years. This trend suggests that the most recent deals may have been smaller in value, potentially driven by tighter financing conditions.

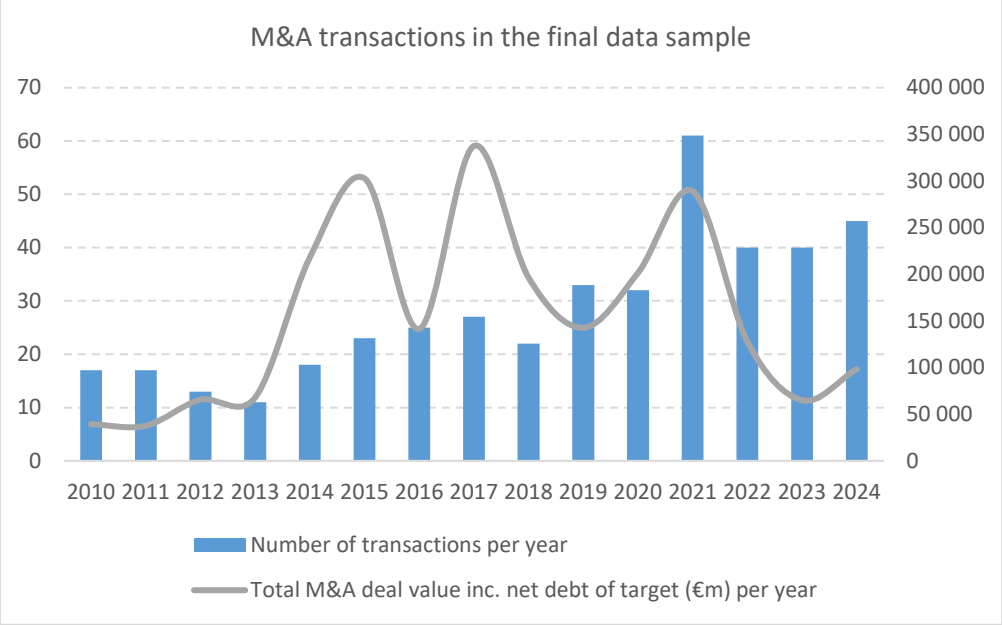

Figure 6. M&A transactions in the final data sample.

Figure 7 illustrates the geographical distribution of M&A transactions in the sample. The intensity of colour signifies the number of deals per country within the final sample. The United Kingdom exhibits the highest deal volume, totalling 235 transactions. Other countries with notable transaction counts include Germany and France, while Greece has the lowest deal volume, totalling one transaction in the sample. The map highlights the concentration of M&A activity in Western and Northern Europe in the final sample.

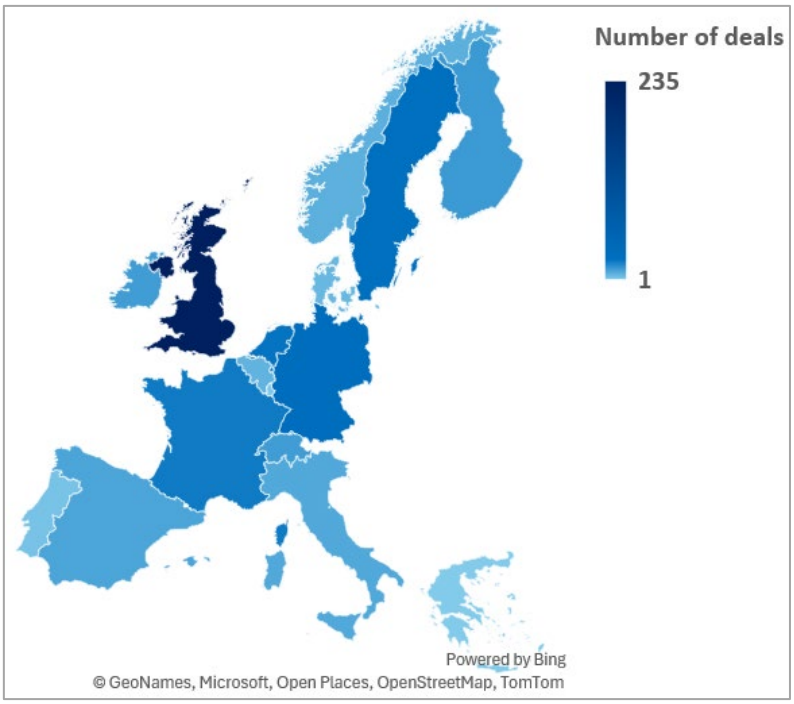

Figure 7. Number of transactions in the final data sample.

Figure 8 illustrates the average acquisition premiums in the final data sample calculated using target firms' pre-merger stock prices at three intervals, -42, -63, and -105 trading days prior to the announcement date. As can be seen, the average premiums vary from year to year. The premiums coincide closely over the different measurement periods. The figure shows that the premiums peaked in 2023, with all three intervals showing the highest values, reaching approximately 45 percent. According to Laamanen (2007, p. 1359), the average acquisition premium ranges from 20 to 30 percent, while in the United States, the premiums range from 30 to 50 percent. Haunschild (1994, p. 393)notes that firms can pay an average premium of 50 percent, and premiums can reach 100 percent. Thus, the findings of the thesis are in line with prior research, as the mean acquisition premiums in the sample are within the range of 30 to 40 percent.

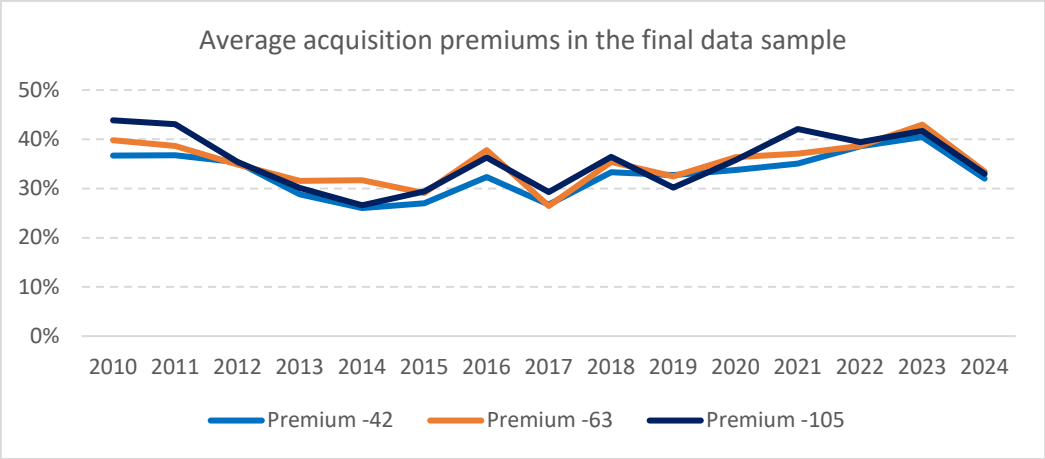

Figure 8. Average acquisition premiums in the final data sample.

Figure 9 provides the same results but as a bar chart. It displays the average target value and acquisition premium ratio from the offer price. The graph is based on the premium measured -105 days prior to the deal announcement. Blue color signifies the target's market value, while grey denotes the mean premium exceeding the target's share price.

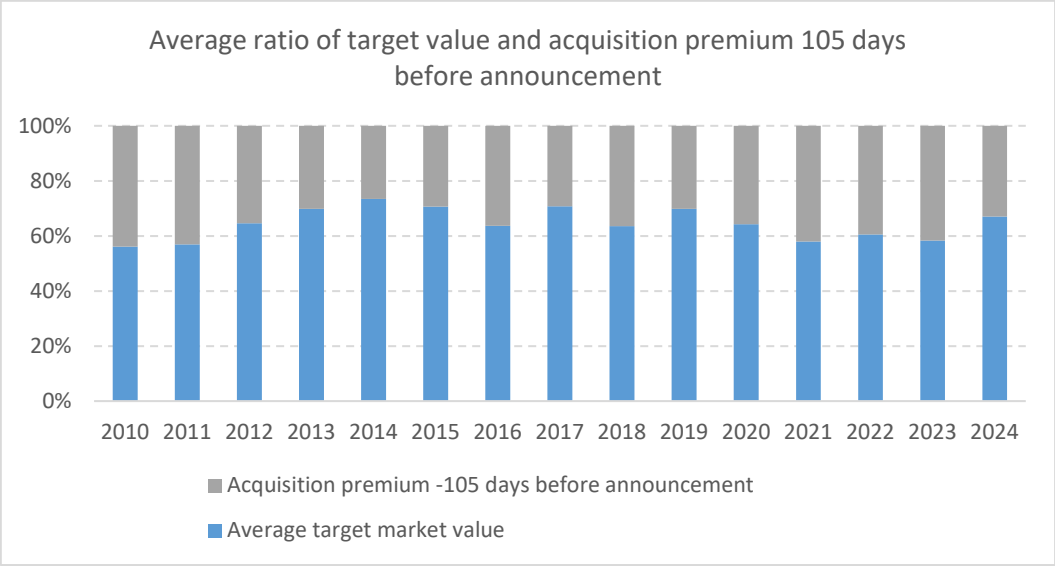

Figure 9. The average ratio of target market value and acquisition premium -105 days before M&A announcement.

Figure 10 displays the distribution of acquisition premiums by industry within the final data sample. Each boxplot represents the range, interquartile spread, and median of

premiums across industries. Real estate consistently shows the lowest premiums in all intervals, with relatively narrow ranges that suggest less variability in premiums. In contrast, industrials show the highest premiums across the intervals. When measured -105 days prior to the announcement, the top three industries by median acquisition premiums are utilities (39.75 percent), industrials (39.50 percent), and high technology (37.86 percent). The same pattern holds for the -63-day interval. However, at the -42-day interval, premiums tend to be lower overall, with industrials (36.35 percent), utilities (35.54 percent), and telecommunications (35.31 percent) leading.

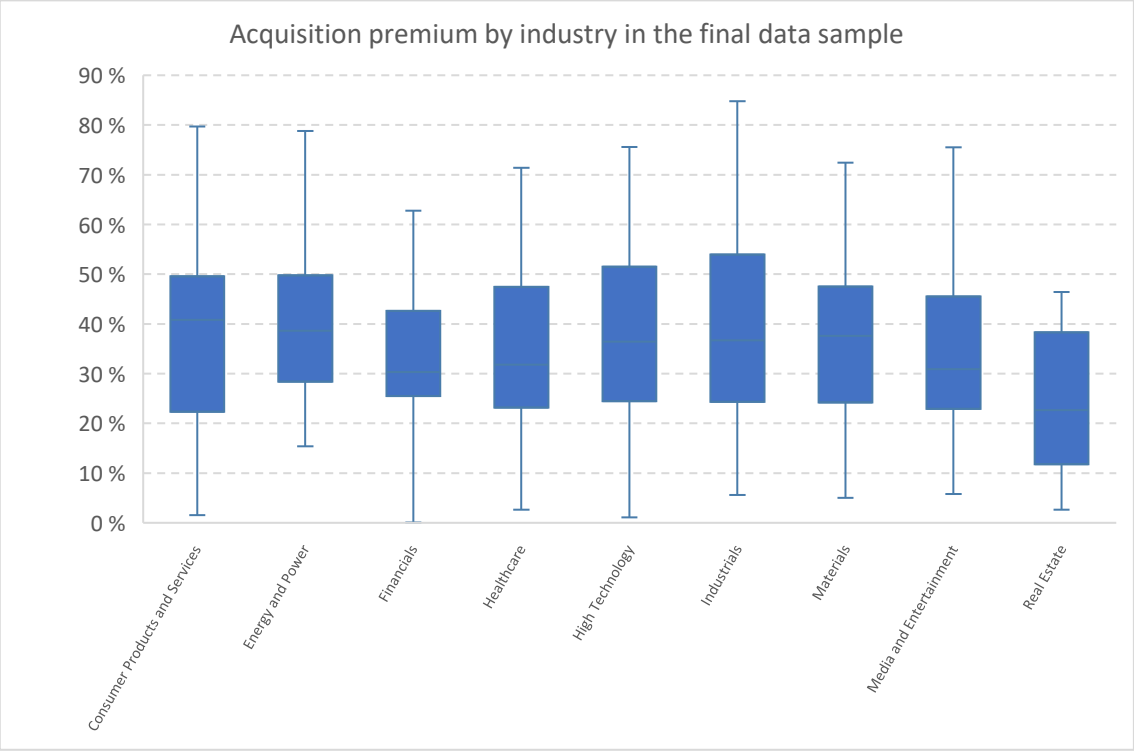

Figure 10. Acquisition premium by industry in the final data sample -105 days before M&A announcement.

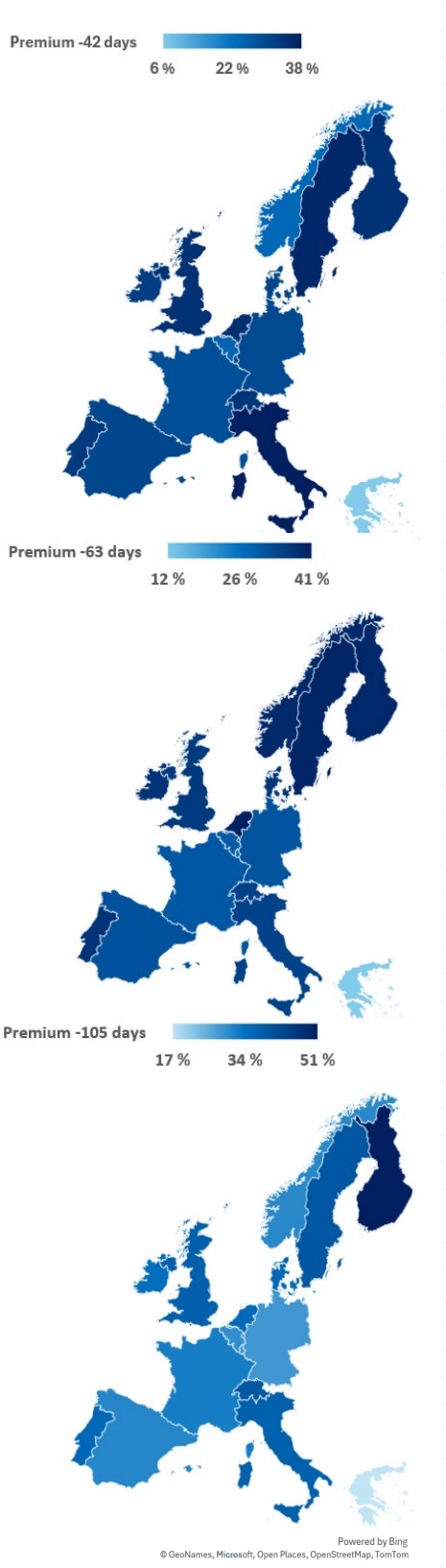

Figure 11. Average acquisition premiums in the final data sample by country.

Figure 11 illustrates the average acquisition premiums in the final data sample within the different time intervals. As seen from the figure, the premiums vary significantly based on the chosen reference interval. At -42-day interval, Italy exhibits the highest average premium at 38.4 percent. At -63-day interval, the highest premiums are observed in the Netherlands (40.5 percent), Sweden (39.4 percent), and Finland (38.9 percent). At -105-day interval, Finland records the highest average premium of 50.6 percent. Across all reference periods, Greece has the lowest acquisition premiums, ranging from 6.4 to 17.4 percent.

6.4 Variables

This sub-chapter presents the variables used in the study. First, the dependent variable is outlined, followed by a detailed discussion of the independent variable. Subsequently, the deal-specific and firm-specific control variables are introduced. Finally, the sub-chapter explains the regression model used to examine the relationship between the target firm's CSR and acquisition premiums.

6.4.1 Dependent variable

Acquisition premium is examined as the dependent variable in the study. The premium payment represents an amount paid above the value already incorporated into the target's share price prior to the acquisition (Qiao & Wu, 2019, p. 3). The premium is a key measure in M&A research, as it reflects the acquirer's willingness to pay above the target's market value, which is influenced by various factors. The acquisition premium used in the study is illustrated in equation 2:

$$Acquisition\ premium_i = \frac{(Initial\ offer\ price_t - P_t)}{P_t}, \quad (2)$$

where $Acquisition\ premium_i$ is the premium for transaction i, $Initial\ offer\ price_t$ is the target's disclosed offer price per share retrieved from LSEG database, and P_t is target's stock price either -42, -63 or -105 days prior to announcement date.

In prior literature, acquisition premiums are calculated using the target firm's pre-merger stock prices a number of trading days before the announcement date. The typical trading days prior to announcement range from four to nine weeks, namely 28 to 63 trading days (Eaton et al., 2019, p. 1098). For instance, Gomes and Marsat (2018) and Ozdemir et al. (2022) use 42 days, while Qiao and Wu (2019) and Reuer et al. (2012) use 28 days prior to the announcement. However, Eaton et al. (2019, p. 1098) find that the deal process has been substantially longer since the 1980s, and the runup period begins around 100 days prior to the announcement. They state that with shorter event windows, the premiums are underestimated by eight percentage points. However, Eaton et al. (2019, p. 1099) note that the longer event window can captivate other non-takeover related elements, such as earnings announcements, yet they demonstrate that earnings surprises have a positive impact on premiums.

The thesis tests hypothesis H_2: *The relationship between the target firm's pre-acquisition CSR score and its acquisition premium is the same whether measured over a short-term window (specifically, -42 trading days) or a long-term window (specifically, -105 trading days) prior to the announcement.* The hypothesis is examined by calculating the acquisition premium using three event windows that begin on trading day -42, -63, and -105.

Since the initial offer price is recorded in euros, while the daily share prices are listed in the target's local stock market currency, I convert the daily share prices into euros using historical daily exchange rates obtained from the European Central Bank's database.

6.4.2 Independent variable

In addition to the dependent variable, this study examines *CSR* as the independent variable. The variable is measured using target firms' ESG performance retrieved from the LSEG database. The CSR variable is constructed by obtaining the firm's historical ESG scores one year prior to the deal announcement, as the M&A process typically begins well in advance of their public disclosure.

The LSEG database measures the firm's CSR performance along three areas: environmental, social, and governance. LSEG assesses the firm's comparable ESG performance using data provided by the firm. The data is retrieved from the firm's publicly available reports, such as the annual report, firm website, and code of conduct. The environmental category measures the firm's use of natural resources, its commitment to reduce emissions, and its innovation to develop capabilities to reduce its environmental impact. The social category assesses a firm's impact on its workforce and community and its effectiveness in adhering to human rights. Lastly, the governance category measures management's commitment to corporate governance and integration of ESG policies into its operations. The Combined ESG score sums the comparative weights of environmental and social categories, which differ by industry. In contrast, the governance weights remain uniform across all industries. These combined weights are then scaled to express the ESG score in percentage from 0 to 100. The higher the score, the higher the relative ESG performance and the degree of transparency in ESG reporting. (LSEG, 2023, pp. 8-9.) The CSR variable used in the study is ESG score. ESG variable is a combined ESG score retrieved from LSEG that evaluates the firm's sustainability measures. The following figure 12, illustrates the evaluation parameters of the ESG-score.

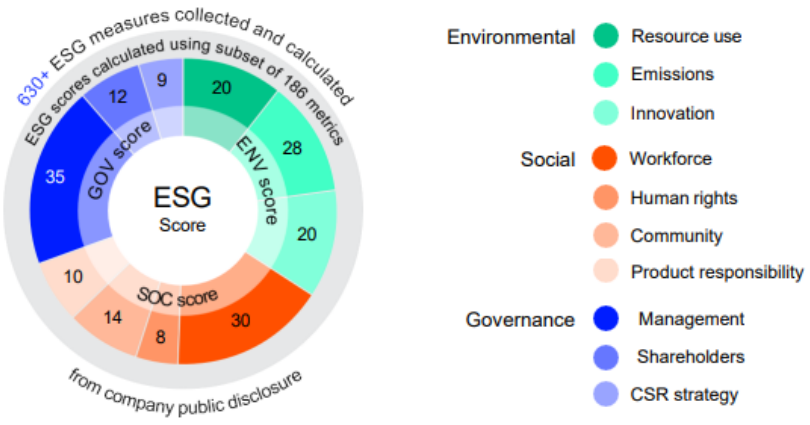

Figure 12. LSEG ESG score evaluation parameters (LSEG, 2023, p. 9).

6.4.3 Control variables

To further understand the link between CSR and acquisition premium, this thesis incorporates specific control variables strictly based on prior literature. Following Deng et al. (2013), each target's and acquirer's size, leverage, Tobin's q, relative deal size, same industry, the tone of transaction, and payment method are controlled for. Variables that did not exhibit statistical significance or materially impact the model fit were excluded from the final regression to enhance the final model used. Thus, the all-cash dummy variable, cross-border dummy variable, market-to-book variable, and a target's free cash flow variable were excluded from the final regression.

The relative deal size and acquirer's size variables contain missing data. To address this, the missing values are interpolated following the method described by Yahaya et al. (2005). According to the method, each missing value is substituted with the average of all available observations for the respective variable. Therefore, I have replaced all missing acquirer's market values with an average of all corresponding observations for that variable. Furthermore, the data has missing entries for the competing bids dummy variable. If there was more data, the variable could provide more meaningful results for the analysis.

In line with Laamanen (2007), the R&D ratio is included to capture synergy effects. Additionally, in line with Alexandridis et al. (2013), the existence of competing bids is included. Furthermore, this thesis controls for government social spending to review whether the government's share of social spending captures CSR effects on acquisitions. Earnings yield spread and bond yield spread are included to determine whether market timing impacts the relationship between CSR and acquisition premiums.

Table 6 illustrates the chosen control variables used in the multivariate regression, their definitions, and the expected relationship with acquisition premiums.

Table 6. Control variables.

Variable	Definition	Expected sign
Acquirer size	Natural logarithm of acquirer's market value. Source: Datastream.	+
Bond yield spread	Baa-graded bond yield minus 10-year T-bond yield. U.S.-based yields. Source: Federal Reserve Bank of St. Louis.	+ / -
Competing bids	Dummy variable that is 1 if third party bid for the target while initial bid was bending, otherwise 0. Source: LSEG.	+
Earnings yield spread	Target country's earnings-to-price ratio minus target country's 10-year T-bond yield. Source: LSEG.	+ / -
Government social spending	The government's social spending divided by government's total spending. Source: Eurostat and GOV.UK.	+ / -
Hostile	Dummy variable that is 1 if deal is hostile, otherwise 0. Source: LSEG.	+
Leverage	Target's long-term debt divided by total assets. Source: Datastream.	-
R&D ratio	Target's R&D expense divided by sales. Source: Datastream.	+
Relative deal size	Deal (rank) value divided by acquirer's market value. Source: LSEG.	
Same industry	Dummy variable that is 1 if acquirer and target operate in same industry, otherwise 0. Source: LSEG.	+
Stock deal	Dummy variable that is 1 if deal is financed with partially stock payment, otherwise 0. Source: LSEG.	+
Target size	Natural logarithm of target's book value of total assets. Source: Datastream.	-
Tobin's q	Target's market value of assets (total book value of assets - book value of equity + market value of equity) divided by book value of assets. Source: Datastream.	+ / -

The government social spending variable measures the ratio of government social spending to total spending. Deriving from resource dependence theory, increased government social investment may lower the demand for businesses to engage in socially responsible activities, thus influencing the strategic reasons driving M&A decisions (Hillman et al., 2009, pp. 1405-1406). By including the variable, the study aims to determine if government-provided social support moderates the perceived value or importance of CSR in acquisition strategies. Data was constructed by obtaining annual data of a country's public sector expenditure divided by total public expenditure. The chosen variable focuses on social protection that includes subsidies and social benefits to citizens. Most social spending rises from pension payments, followed by sickness and disability, family and children, unemployment, and social housing (Rodriguez-Vives & Kezbere, 2019). For the United Kingdom, the data was obtained from GOV.UK and the other countries in the sample were obtained from Eurostat (the official European Union's database), which collects data from European countries.

The rationale for choosing the earnings yield spread variable is to measure whether firm management attempted to time the market when executing M&A transactions. The spread captures the firm's ability to generate returns relative to the risk-free rate in the market. The earnings yield reflects the return a firm generates relative to its stock price, compared to the risk-free rate in the market. Data was constructed by obtaining daily Price-to-Earnings data from LSEG for each primary stock exchange in the sample country. The Price-to-Earnings ratios were converted to Earnings-to-Price ratios to measure the firm's effective earnings yield. Due to the unavailability of daily 10-year Treasury yields, monthly rates for each country obtained from LSEG were employed. As the analysis requires daily measures, I applied the corresponding monthly rate across all days within each month, to proxy the daily bond yields. To simplify the analysis, the earnings yield for the target's country index was used instead of calculating deal-specific rations, as it was not feasible to compute individual spreads for every transaction in the sample. Thus, it must be noted that the earnings yield spread variable is a proxy, and by utilising actual E/P ratios for the sample firms, the variable could provide better results. Two variables were constructed for the earnings yield spread based on two different time points: at the announcement and six months before. Six months before was determined suitable as the M&A process typically begins well in advance of the public disclosure. This method allows to compare which timing yields more robust results in the regression.

The bond yield spread variable was chosen to capture market conditions and measure whether firm management attempts to time the M&A deal based on borrowing costs. While the earnings yield variable focuses on the firm's internal rate of return, the bond yield variable measures the cost of external borrowing. The spread between bond yields and 10-year Treasury yields represents the premium firms must pay to borrow funds compared to the risk-free rate. As firms typically cannot borrow for the risk-free rate, this spread provides a realistic measure of borrowing cost for firms with varying credit ratings. A smaller spread indicates favourable credit conditions, suggesting cheaper financing, which could then incentivize more M&A activity. In contrast, a larger spread indicates

higher borrowing costs, potentially discouraging transactions. The variable was constructed by obtaining daily Moody's Baa-graded bond yields for the United States from the Federal Reserve Bank of St. Louis. Due to the unavailability of country-specific Baa-rated bond yield data, U.S.-based yields were used as a proxy to ensure consistency and data availability. If target-country-specific bond yields were available, the regression could provide more insightful results. The Baa-graded bonds are considered to have modest risk, meaning they are potentially speculative (Moody's Investors Service, 2021, p. 6). The monthly 10-year Treasury yields for the United States were obtained from the Federal Reserve Bank of St. Louis. Similarly to the earnings yield variable, the bond yield variable was constructed based on two time points: at the announcement and six months prior.

6.4.4 Model estimation

This thesis examines the impact of target's pre-CSR rating and acquisition premium using multivariate analysis. In the multivariate analysis, I regress the acquisition premium against the primary variable of interest, the CSR rating, and a set of control variables that have been shown to influence the premium. The analysis focuses explicitly on the post-financial crisis period in Europe.

Ordinary Least Squares (OLS) regression was chosen to test the hypotheses. OLS is deemed an appropriate regression model as the acquisition premium is a continuous variable that allows for the analysis of its relationship with the target firm's CSR performance (Qiao & Wu, 2019, p. 11). To test the second hypothesis, I examine the acquisition premium as the dependent variable: 105 days, 63 days, and 42 days prior to the announcement. The independent variable consists of the ESG rating of the target one year prior to the announcement. The control variables consist of firm and deal controls, further explained in chapter 6.4.3. The thesis establishes the following equation 3 to test the impact of the target's CSR on acquisition premium:

$$Premium = \beta_0 + \beta_1 CSR + \sum \beta_2 \, firm\ controls + \sum \beta_3 \, deal\ controls + \varepsilon, \quad (3)$$

where β_0 is the intercept, *CSR* is the target's ESG score, *firm and deal controls* refer to the control variables discussed in 6.4.3, and ε is the error term representing factors not included in the model.

The dependent variable is winsorised by excluding the same number of observations with negative acquisition premiums and the largest positive premiums from the final sample to reduce skewness and mitigate the influence of extreme outliers. The winsorisation did not cause a significant difference to the original data sample and the model's explanatory power. Moreover, I tested robustness by estimating regression models with both the logarithmic transformation of the left-hand side (LHS) variable and its untransformed version. The results showed that the logarithmic transformation used did not significantly affect the regression results. Therefore, for simplicity, I use the unlogged LHS variable in the final model.

To test the third hypothesis, I include an interaction term into the regression model to proxy firms operating in the same industry. The interaction effect is estimated with the following equation 4:

$$Premium = \beta_0 + \beta_1 CSR + \beta_2 Same\ industry + \beta_3 (CSR\ x\ Same\ industry) + \sum \beta_4 \, firm\ controls + \sum \beta_5 \, deal\ controls + \varepsilon, \quad (4)$$

where β_0 is the intercept, *CSR* is the target's ESG-score, *Same industry* is a dummy variable that is 1 if the target and acquirer operate in the same mid industry as classified by LSEG, and 0 otherwise, *CSR x Same industry* is the interaction term, *firm and deal controls* refer to the control variables, and ε is the error term representing factors not included in the model.

7 Empirical Findings

This chapter presents the empirical findings of the study. First, the descriptive statistics provide insights into the variables and their distributions. Next, the regression analysis results are introduced and discussed, highlighting the relationship between acquisition premiums and the explanatory variables. Finally, the robustness of the results is tested, including a test for endogeneity, to ensure the reliability and validity of the findings.

7.1 Descriptive statistics

The thesis studies whether the target's pre-acquisition CSR performance impacts its acquisition premium. The premiums are measured across three reference periods: -42, -63, and -105 days prior to the announcement. The results for the dependent variable are displayed in Table 7 across the reference periods. The sample includes 424. As seen in the table, the premiums vary significantly. The highest premiums measured in the sample reached 85.04 percent, while the lowest was 0.11 percent. The mean premiums show a clear upward trend as the reference period extends further from the announcement date, in line with Eaton et al.'s (2019, p. 1098) findings. The median premiums rise from 32.29 percent to 34.21 percent and then 34.16 percent, respectively. The highest premiums are measured -105 trading days before the announcement, with 36.22 percent on average. Standard deviations (SD) remain relatively stable, ranging from 0.17 to 0.18, indicating that the spread of premiums does not fluctuate significantly across time periods. Premiums for all reference periods are statistically significant at 1% when measured with t-statistics. The t-statistics indicate that the mean acquisition premiums are significantly different from zero.

Table 7. Acquisition premium -42, -63, and -105 days prior to announcement.

Reference period	N	Mean	Median	Max	Min	SD	t-stat
Premium -42	424	33,68 %	32,29 %	77,81 %	1,75 %	0,17	39,85***
Premium -63	424	35,55 %	34,21 %	79,64 %	0,25 %	0,17	42,22***
Premium -105	424	36,22 %	34,16 %	85,04 %	0,11 %	0,18	40,97***

*, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 8 presents the descriptive statistics for the variables used in the study, with panel A summarizing the entire sample. Panel A shows that 29 percent of the deals were horizontal, as reflected by the mean value of 0.292 for the same industry variable. Hostile transactions were relatively rare, accounting for only 2 percent of the sample, with a mean value of 0.021 for the hostile variable. Additionally, 17 percent of the deals involved at least one competing bid, indicated by the mean value of 0.172 for the competing bids variable. Furthermore, 52 percent of the deals in the sample were cross-border, meaning the acquirer and target were based in different countries. Lastly, 65 percent of the deals were financed through cash payments.

To further analyse the impact of CSR performance, firms in the sample are divided into high- and low-ESG subsamples. Firms with high ESG scores are displayed in panel B, while firms with low ESG scores are displayed in panel C. The classification is based on whether a firm's ESG rating is above or below the industry mean within the sample. The high-subsample has 235 observations, while the low-subsample has 189 observations. The mean CSR score is 46.73 for the whole sample, while for the high-CSR group, the mean is 61.61 and a minimum score of 43.71, while the low-CSR group shows a mean of 28.23 with a maximum score of 47.76. Within the low-CRS sample, there are 17 observations with zero as an ESG score. These observations were included to avoid selection bias, which could distort the results by omitting firms with potentially lower ESG activity.

Table 8. Descriptive statistics.

Panel A: Full sample

Variable	N	Mean	Median	Max	Min	SD
CSR score	424	46,731	48,980	91,980	0,000	20,371
Same industry (dummy)	424	0,292	0,000	1,000	0,000	0,455
Hostile (dummy)	424	0,021	0,000	1,000	0,000	0,144
Competing bids (dummy)	424	0,172	0,000	1,000	0,000	0,378
Relative deal size	424	0,117	0,000	0,921	0,000	0,227
Target size (in million euros)	424	8 933,5	1 589,7	842 804,0	24,0	43 446,1
Leverage	424	0,344	0,316	0,996	0,000	0,209
Tobin's q	424	1,854	1,394	45,345	0,458	2,548
R&D	424	0,030	0,000	3,857	0,000	0,193
Stock deal (dummy)	424	0,292	0,000	1,000	0,000	0,455
Acq. Size (in million euros)	424	18 249,469	18 249,47	183 982,90	0,00	18 800,54
Gov. social spending	424	0,365	0,365	0,458	0,296	0,044
Earnings yield spread_an	424	0,047	0,048	0,127	-0,060	0,018
Earnings yield spread_6m	424	0,048	0,048	0,143	-0,044	0,020
Bond yield spread_an	424	0,022	0,022	0,036	0,014	0,005
Bond yield spread_6m	424	0,023	0,023	0,042	-0,034	0,007

Panel B: Sub-sample of high CSR firms

Variable	N	Mean	Median	Max	Min	SD
CSR score	235	61,610	60,030	91,980	43,710	10,637
Same industry (dummy)	235	0,328	0,000	1,000	0,000	0,470
Hostile (dummy)	235	0,026	0,000	1,000	0,000	0,158
Competing bids (dummy)	235	0,153	0,000	1,000	0,000	0,361
Relative deal size	235	0,128	0,000	0,901	0,000	0,233
Target size (in million euros)	235	14 283,14	3 420,60	842 804,00	74,90	57 553,40
Leverage	235	0,362	0,336	0,996	0,004	0,213
Tobin's q	235	1,817	1,318	45,345	0,593	3,224
R&D	235	0,038	0,000	3,857	0,000	0,255
Stock deal (dummy)	235	0,332	0,000	1,000	0,000	0,472
Acq. Size (in million euros)	235	19 082,19	18 249,47	161 655,05	0,00	19 671,62
Gov. social spending	235	0,367	0,365	0,458	0,296	0,043
Earnings yield spread_an	235	0,047	0,047	0,094	-0,060	0,018
Earnings yield spread_6m	235	0,049	0,050	0,143	-0,044	0,021
Bond yield spread_an	235	0,022	0,021	0,036	0,014	0,005
Bond yield spread_6m	235	0,023	0,022	0,040	-0,034	0,007

Panel C: Sub-sample of low CSR firms

Variable	N	Mean	Median	Max	Min	SD
CSR score	189	28,231	31,280	47,460	0,000	13,118
Same industry (dummy)	189	0,249	0,000	1,000	0,000	0,433
Hostile (dummy)	189	0,016	0,000	1,000	0,000	0,125
Competing bids (dummy)	189	0,196	0,000	1,000	0,000	0,398
Relative deal size	189	0,103	0,000	0,921	0,000	0,219
Target size (in million euros)	189	2 281,72	843,00	72 427,70	24,02	6 624,31
Leverage	189	0,322	0,288	0,965	0,000	0,202
Tobin's q	189	1,899	1,450	6,953	0,458	1,289
R&D	189	0,019	0,000	0,284	0,000	0,049
Stock deal (dummy)	189	0,243	0,000	1,000	0,000	0,430
Acq. Size (in million euros)	189	17 214,08	18 249,47	183 982,90	31,87	17 654,57
Gov. social spending	189	0,362	0,360	0,458	0,296	0,045
Earnings yield spread_an	189	0,048	0,049	0,127	0,009	0,017
Earnings yield spread_6m	189	0,047	0,047	0,142	0,005	0,018
Bond yield spread_an	189	0,023	0,022	0,036	0,014	0,005
Bond yield spread_6m	189	0,024	0,023	0,042	-0,024	0,006

Classification between the subsamples is based on whether a firm's ESG score is above or below the industry mean within the sample. All variables are defined in Table 7 in 6.4.3.

When examining the deal characteristics between the two subsamples, the relative deal size is slightly higher for high-CSR firms (0.128) compared to low-CSR firms (0.103). Interestingly, competing bids are more frequent in the low-CSR sample (mean of 0.196) compared to high-CSR firms (0.153), potentially suggesting a higher attractiveness of lower-scored CSR targets. However, it must be noted that the relative deal size and competing bid variables were missing a large share of data, which may distort the results. Lastly, high-CSR firms have a higher proportion of stock deals (33.2 percent) compared to low-CSR firms (24.3 percent). As prior literature suggests, stock payments often signal acquirer caution and a desire to share risk with the target. Thus, the findings may imply that the premiums paid for high-CSR firms are more influenced by their perceived long-term value by acquirers.

When examining firm characteristics, high-CSR firms tend to be larger, with a mean target size of 14.2 million euros, compared to 2.3 million euros for low-CSR firms. This aligns with prior research suggesting that larger firms often have more established CSR practices. Moreover, the leverage ratio is higher for high-CSR firms (0.362) than for low-CSR firms (0.322), which suggests that they may have more external debt financing, possibly due to their size or capital structure. Both subsamples have fairly similar Tobin's q values.

There are no notable differences in macroeconomic variables between the two subsamples. The earnings yield spread, and bond yield spread are relatively consistent across both groups. The government social spending variable is similar between the high- and low-CSR firms (0.367 and 0.362), which indicates that the macroeconomic conditions were stable across the sample.

As seen from Panel A, both the earnings yield and bond yield are measured at two reference points: at the announcement and six months prior to the announcement. The differences between these two measurement periods are minimal. Therefore, the earnings yield and bond yield from six months prior to the announcement are used in the final regression model.

Table 9 illustrates the acquisition premiums across the selected measurement periods for the high- and low-ESG subsamples. In all periods, the high-ESG subsample exhibits higher premiums compared to the low-ESG subsample. Firms with high ESG scores generate an average premium of 37.58 percent when measured -105 trading days before the announcement, while firms with low ESG scores show an average premium of 34.54 percent. The difference between the subsamples is lowest when measured -42 days before the announcement.

Table 9. Acquisition premiums for sub-samples.

	High ESG subsample			Low ESG subsample			Difference		
	N	Mean	Median	N	Mean	Median	Mean	Median	t-stat
Premium -42	235	33,95 %	32,87 %	189	33,34 %	31,34 %	0,60 %	1,53 %	0,350
Premium -63	235	36,50 %	36,16 %	189	34,37 %	31,60 %	2,13 %	4,56 %	1,199
Premium -105	235	37,58 %	36,43 %	189	34,54 %	31,50 %	3,03 %	4,93 %	1,645*

Classification between the subsamples is based on whether a firm's ESG score is above or below the industry mean within the sample. Significance of mean between two subsamples is tested with cross-sectional t-test. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

The findings align with the results illustrated in Figure 8, which show that the 42-reference period yields the lowest premiums, while the 105-reference period produces the highest premiums. When considering median premiums, the gap between the high- and low-ESG subsamples is even more pronounced. The statistical significance of the difference between the subsamples is tested with a cross-sectional t-test. Notably, the difference in premiums measured at the 105-day reference period is statistically significant at 10 percent level.

The results are consistent with prior literature, which suggests that acquirers are willing to pay a higher premium for targets that perform well in terms of CSR. The results may be based on stakeholder theory and resource-based view; both argue that CSR activities provide targets with a competitive advantage that acquirers recognize and value, ultimately translating into higher acquisition premiums.

Table 10. Correlation matrix acquisition premium -105 prior to announcement.

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1. Premium -105	1,00														
2. CSR score	0,10*	1,00													
3. Same industry	-0,04	0,06	1,00												
4. Hostile	0,00	0,02	-0,02	1,00											
5. Competing bids	0,04	-0,02	-0,11**	-0,02	1,00										
6. Relative deal size	-0,06	0,04	0,29***	-0,06	-0,07	1,00									
7. Target size	-0,13**	0,51***	0,22***	0,01	-0,13**	0,15***	1,00								
8. Leverage	-0,07	0,12**	0,10*	-0,04	-0,08	0,06	0,43***	1,00							
9. Tobin's q	-0,02	-0,01	-0,04	-0,03	0,03	0,09	0,20***	0,19***	1,00						
10. R&D ratio	-0,02	0,06	-0,05	-0,01	0,02	0,04	-0,05	0,08	0,00	1,00					
11. Stock deal	0,30***	0,06	0,36***	0,01	-0,05	0,41***	0,32***	0,18***	0,01	0,06	1,00				
12. Acquirer size	0,08	0,28***	0,13**	0,03	-0,06	0,01	0,32***	0,06	0,09	0,02	-0,06	1,00			
13. Gov. social spending	-0,11*	0,02	0,10*	0,02	-0,12**	0,08	0,30***	0,17***	-0,09	0,08	0,11**	0,09	1,00		
14. Earnings yield spread	0,00	0,03	-0,11**	-0,06	-0,07	-0,03	0,10*	0,12**	0,01	0,02	-0,12**	-0,06	0,10*	1,00	
15. Bond yield spread	0,04	0,15***	0,11*	0,07	-0,03	0,13**	0,05	0,08	-0,08	-0,03	0,08	0,06	0,18***	0,10*	1,00

Significance of Pearson correlation coefficient is tested with t-test. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 10 provides the correlation matrix for the -105-day reference period among the variables used in the study. The complete correlation matrices for all reference periods are provided in Appendix 1. As seen from the table, all correlation coefficients are less than the threshold of 0.7, indicating that multicollinearity is not a concern (Qiao & Wu, 2019, p. 11). According to Kutner et al. (2005, p. 84), Pearson's correlation coefficient measures the linear relationship between the variables and ranges from -1 (negative correlation) to 1 (positive correlation). The threshold of 0.7 indicates a strong correlation between the variables, and thus, values exceeding that may cause multicollinearity concerns (Qiao & Wu, 2019, p. 11). Moreover, Variance Inflation Factors (VIFs) were examined, with no indication of multicollinearity (see section 7.2).

A positive correlation ($r = 0.1$, $p < 0.1$) between CSR and acquisition premium is observed during the -105-day reference period, aligning with theoretical expectations (such as Qiao & Wu, 2019, p. 12). For other reference periods, the correlation between the dependent and independent variables is not statistically significant. The acquisition premium is negatively correlated with target size ($r = -0.13$), stock deal ($r = -0.30$), and government's share of social spending ($r = -0.11$). The CSR score is positively correlated with target size ($r = 0.51$), leverage ($r= 0.12$), and acquirer size ($r = 0.28$) while negatively correlated with bond yield spread ($r = -0.15$). The same industry variable is positively correlated with relative deal size ($r = 0.29$), target size ($r = 0.22$), stock deal ($r = 0.36$), and acquirer size ($r = 0.13$). In contrast, it is negatively correlated with earnings yield spread ($r = -0.11$), and competing bids ($r = -0.13$). This indicates that firms operating in the same industry receive less competition during the bidding process, and stock payment is a preferred method in deal financing. Target size is positively correlated with leverage ($r = 0.43$), while negatively correlated with Tobin's q ($r = -0.20$), indicating that large firms tend to use more financial leverage and have lower Tobin's q values compared to smaller firms. Stock deal is positively correlated with government social spending ($r = 0.11$) but negatively correlated with earnings yield spread ($r = -0.12$), indicating that deals are financed less with stock when the stock markets generate higher returns relative to the prevailing risk-free rate in the market.

7.2 Empirical results

After estimating the regression model (Equation 3) to examine the impact of the target's pre-acquisition CRS rating on the acquisition premium, the results are presented in Table 11. The model fit is assessed through the R-square and the number of observations (N). The interpretation of results is judged through the coefficient values and their corresponding t-statistics. This thesis utilises two-tailed tests to determine statistical significance. The critical t-values are 1.649, 1.966, and 2.588 for the 10%, 5%, and 1% significance levels, respectively. Therefore, a variable's t-statistic exceeding these thresholds indicates statistical significance at the corresponding level.

To assess potential multicollinearity among the variables, Variance Inflation Factors (VIFs) were calculated after running Equation 3 using OLS. As shown in Appendix 2, all VIF values range from 1.02 to 2.38. Thus, no variable exceeds the recommended threshold of 10 (Kutner et al., 2005, p. 409). The threshold of 10 is commonly used in statistics as a value exceeding 10, which means that 90% of the variability in one variable is explained by other variables (Kutner et al., 2005, pp. 409-410). This indicates that the variables are intercorrelated and thus the regression results are not reliable. These results indicate that multicollinearity is not a concern in the model based on commonly accepted thresholds.

The regression results are provided in Table 12, with each reference period as a dependent variable in columns. CSR has a positive and statistically significant relationship with acquisition premiums when measured at -63 and -105 days prior to the announcement. These findings support hypothesis H_1*: The pre-acquisition CSR score of the target firm has a positive relationship with its acquisition premium.* The CSR variable has a positive sign in all regressions, signifying that the pre-merger CSR score of the target increases the acquisition premium of targets. More specifically, one unit increase in the CSR rating results in 20 %[1] increase in the acquisition premium.

[1] Calculated by ((exp(0.184)-1)*100). The formula is derived from Ozdemir et al. (2022, p. 1014).

Table 11. Baseline regression results.

OLS regression for acquisition premium and target's pre-merger CSR-rating

The sample consists of 424 European acquisitions between 2010 and 2024. The data selection process is detailed in sections 6.1 and 6.2. The dependent variable is the acquisition premium, calculated as target's disclosed offer price less target's stock price either -42, -63, or -105 days prior to the announcement date. All control variables are defined in Table 7. The coefficients are presented in the same row, with t-statistics shown below in parentheses. Multicollinearity is tested using VIF values. Model fit is assessed through R-squared and the number of observations (N). *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)
Variable	-42 days	-63 days	-105 days
Intercept	0,527	0,392	0,487
	(3,883)***	(2,881)***	(3,492)***
CSR	0,076	0,106	0,184
	(1,545)	(2,132)**	(3,615)***
Same industry	0,033	0,025	0,024
	(1,642)	(1,258)	(1,169)
Hostile	0,093	0,081	-0,005
	(1,636)	(1,425)	(-0,088)
Competing bids	-0,008	0,005	0,008
	(-0,45)	(0,240)	(0,363)
Relative deal size	0,038	0,040	0,047
	(0,938)	(0,981)	(1,128)
Target size	-0,005	-0,005	-0,021
	(-0,630)	(-0,641)	(-2,689)***
Leverage	0,015	-0,012	0,026
	(0,330)	(-0,278)	(0,579)
Tobin's q	-0,004	-0,002	-0,004
	(-1,320)	(-0,559)	(-1,114)
R&D ratio	-0,041	-0,038	-0,022
	(-0,952)	(-0,864)	(-0,491)
Stock deal	-0,117	-0,111	-0,119
	(5,329)***	(-5,031)***	(5,261)***
Acquirer size	0,000	0,005	0,010
	(-0,020)	(0,601)	(1,177)
Government social spending	-0,392	-0,243	-0,241
	(-1,965)**	(-1,219)	(-1,177)
Earnings yield spread	0,199	0,229	-0,182
	(0,464)	(0,534)	(-0,412)
Bond yield spread	0,154	0,626	2,554
	(0,119)	(0,484)	(1,923)**
Observations	424	424	424
R-square	0,112	0,104	0,143

Interestingly, the relationship becomes stronger further away from the announcement date. This finding contradicts hypothesis H_2*: The relationship between the target firm's pre-acquisition CSR score and its acquisition premium is the same whether measured over a short-term window (specifically, -42 trading days) or a long-term window (specifically, -105 trading days) prior to the announcement*. The results in Table 12 indicate that the relationship between CSR and acquisition premium is more pronounced when using the long-term window (-105 days). In contrast, the short-term window (-42 days) does not yield statistically significant results based on commonly accepted confidence thresholds. This may suggest that investors price in CSR reputation over time or that the deal is anticipated in the market already prior to the announcement.

Within all reference periods, the intercept and stock deal variables are statistically significant at a one percent level. As expected, the stock deal variable has a negative sign, implying that deals financed with stock tend to have lower premiums. This aligns with Malhotra et al. (2017, p. 1872) and Qiao and Wu (2019, p. 13), who find that cash payment increases the premium. In column 3, target size and bond yield spread are also statistically significant at 1% and 5%, respectively. In line with prior research (see Alexandridis et al., 2013; Malhotra et al., 2014; Ozdemir et al., 2022), target size (-0.021) has a negative impact on the acquisition premium. The relationship implies that larger targets tend to receive lower premiums. The bond yield spread (2.554) signifies that a higher financing cost increases the premium. The bond yield spread was constructed using U. S.-based Baa-bond yields due to the unavailability of target-country-specific investment-grade bond yields. The relationship between acquisition premiums and market timing could be (or probably would be expected to be) even more pronounced if European data were used. The government's share of social spending is only significant at 5% in Model 1. This finding suggests that in countries with higher social spending, CSR's impact on premiums is less pronounced. Interestingly, although 29 percent of the sample consisted of horizontal mergers, the variable did not have a statistically significant impact on the acquisition premium.

The regression models have R-square values ranging from 11.2 to 14.3, with the lowest value observed for Model 1. In this study, the control variables explained in sub-section 6.4.3 serve as proxies for firm and deal-specific factors rather than the exact measures, which is common in the prior M&A literature. Moreover, given the absence of a universally accepted set of control variables for M&A research, the chosen variables do not accurately capture the relationship between the dependent and independent variables. Therefore, the low R-square values can be attributed to the use of an inadequate set of control variables. However, prior literature also appears to face similar challenges, suggesting that the inadequate use of control variables is not unique to this study but rather a broader issue within M&A research.

While these R-squared values are lower compared to some prior studies, the difference can be attributed to key differences in the sample and period. Previous research, that applies the same methodology, focuses on global transactions and including the pre-financial crisis period in the sample. In contrast, this study applies the same methodology but examines a more recent sample focusing only on European transactions. Given these differences, the model's explanatory power is lower. Despite the lower R-squared, the number of observations is consistent with prior studies, indicating that the sample size is sufficient for analysis.

To test the third hypothesis: H_3: *Target's pre-acquisition CSR rating has a greater impact on acquisition premium when the target and acquirer operate within the same industry*, I include an interaction term between the CSR variable and Same industry dummy variable (CSR x Same industry) into the OLS regression to proxy firms operating in the same industry. The interaction effect is estimated with the equation 4. The results are presented in Table 12. The overall regression model fit is improved from Equation 3, with an R-squared value ranging from 10.6 to 15.3. The number of observations remains the same as in the original OLS regression.

Table 12. OLS regression results with the interaction term.

OLS regression with interaction term

The sample consists of 424 European acquisitions between 2010 and 2024. The data selection process is detailed in sections 6.1 and 6.2. The dependent variable is the acquisition premium, calculated as target's disclosed offer price less target's stock price either -42, -63, or -105 days prior to the announcement date. The interaction term is CSR x Same industry dummy that denotes 1 if the acquisition is horizontal, otherwise 0. All control variables are defined in Table 7. The coefficients are presented in the same row, with t-statistics shown below in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)
Variable	-42 days	-63 days	-105 days
Intercept	0,574	0,416	0,538
	(4,184)***	(3,015)***	(3,817)***
CSR	0,014	0,073	0,116
	(0,239)	(1,257)	(1,944)**
Same industry	-0,047	-0,016	-0,062
	(-1,066)	(-0,359)	(-1,381)
Interaction term	0,170	0,088	0,184
	(2,032)**	(1,041)	(2,145)**
Hostile	0,096	0,082	-0,002
	(1,686)*	(1,448)	(-0,42)
Competing bids	-0,005	0,006	0,010
	(-0,249)	(0,289)	(0,466)
Relative deal size	0,042	0,042	0,051
	(1,045)	(1,033)	(1,242)
Target size	-0,004	-0,005	-0,021
	(-0,560)	(-0,603)	(-2,623)***
Leverage	0,019	-0,010	0,031
	(0,426)	(-0,229)	(0,681)
Tobin's q	-0,004	-0,002	-0,004
	(-1,283)	(-0,537)	(-1,074)
R&D ratio	-0,038	-0,036	-0,018
	(-0,882)	(-0,826)	(-0,415)
Stock deal	-0,123	-0,114	-0,125
	(-5,561)***	(-5,122)***	(-5,510)***
Acquirer size	-0,002	0,004	0,008
	(-0,250)	(0,480)	(0,933)
Government social spending	-0,382	-0,238	-0,230
	(-1,920)**	(-1,192)	(-1,127)
Earnings yield spread	0,186	0,223	-0,196
	(0,435)	(0,518)	(-0,446)
Bond yield spread	0,070	0,583	2,463
	(0,054)	(0,450)	(1,861)*
Observations	424	424	424
R-square	0,121	0,106	0,153

As seen from Table 12, within all reference periods, the intercept and stock deal are significant at a one percent level. The CSR variable (0.116) has a positive and statistically significant relationship with the premium at the five percent level, shown in column 3 when measured -105 days before the announcement. For other reference periods, the CSR variable does not produce statistically significant results. The coefficient for the interaction term is positive and significant, shown in columns 1 and 3, at a five percent level. This indicates that in horizontal mergers when the target and acquirer operate within the same mid-industry as classified by LSEG, the target's pre-acquisition CSR score has a more profound impact on the acquisition premium. More specifically, when measured -105 trading days prior to the announcement, a one-point increase in ESG score is associated with a 30 percent[2] increase in the premium for same-industry deals. When the deal is cross-industry, one-point increase in ESG increases the premium by 11.6 percent when measured -105 days prior to the announcement. Thus, the results provide support the third hypothesis.

7.3 Endogeneity and robustness testing

Prior research states that a firm's CSR may not be exogenous (Cui et al., 2018, p. 560). They state that a firm's decision to invest in CSR is dependent on its resources and capability. This means that the CSR variable may be correlated with the error term, resulting in biased OLS model (Cui et al., 2018, p. 560). If this is true, OLS regression should not be used to measure the relationship between the dependent and independent variables.

Following Ozdemir et al. (2022), I test whether the independent variable, CSR, is endogenous. To address potential endogeneity, I apply the instrumental variable (IV) model to regress the primary model (Equation 3) using a two-stage least squares (2SLS) regression. Following Ozdemir et al. (2022), the chosen instrumental variables are the industry mean CSR score within the sample (CSR_IndMean) and the target's lagged CSR rating (CSR_Lagged). Since the independent CSR variable in the main regression is already

[2] 11.6% for CSR variable + 18.4% for interaction term leads to 30.0%.

lagged by one year, reflecting the typical M&A process, the CSR_Lagged variable is further lagged by an additional year, resulting in a two-year lag. This approach assumes that while the lagged CSR variable remains correlated with the current CSR rating, it is unlikely to be directly influenced by the acquisition premium at the time of the deal.

Table 13. 2SLS regression results.

Instrumental variable approach via 2SLS regression		
The table provides IV results for acq. premium measured -105 days prior to the announcement in columns 5 and 6. Other reference periods are provided in Appendix 3. The coefficients are presented in the same row, with t-statistics shown below in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.		
	(5)	(6)
Variable	First stage	Second stage
Intercept	-0,186	0,487
	(-1,970)**	(3,437)***
CSR		0,184
		(2,923)***
CSR_IndMean	0,001	
	(0,8666)	
CSR_Lagged	0,007	
	(27,838)***	
Same industry	0,003	0,024
	(0,293)	(1,163)
Hostile	0,025	-0,005
	(0,757)	(-0,088)
Competing bids	0,016	0,008
	(1,220)	(0,361)
Relative deal size	0,002	0,047
	(0,099)	(1,122)
Target size	0,018	-0,021
	(4,080)***	(-2,516)**
Leverage	-0,040	0,026
	(-1,550)	(0,573)
Tobin's q	-0,000	-0,004
	(-0,113)	(-1,107)
R&D ratio	0,022	-0,022
	(0,885)	(-0,486)
Stock deal	-0,015	-0,119
	(-1,174)	(-5,219)***
Acquirer size	0,009	0,010
	(1,860)*	(1,168)
Government social spending	-0,182	-0,241
	(-1,572)	(-1,165)
Earnings yield spread	0,068	-0,182
	(0,272)	(-0,410)
Bond yield spread	-0,438	2,554
	(-0,575)	(1,899)*
Observations	424	424
R-square		0,134

The first stage of regression estimates the CSR variable with the instrumental variables CSR_IndMean and CSR_Lagged along with other control variables. Then, the obtained predicted CSR from the first stage is used as the independent variable in the second stage regression, along with the control variables. The results of the 2SLS regression are presented in Table 13 for the premium measured -105 days prior to the announcement. Other reference period tests are provided in Appendix 3.

As seen from column 6 (second stage), the coefficient of CSR is 0.184 and statistically significant at a 1% level. This result is in line with the original OLS model presented in Table 13, column 3. These findings indicate that the OLS results are not driven by the OLS model, which does not take into account the potential endogeneity of the CSR variable. After the 2SLS regression, I obtain a Wu-Hausman value of 1.086 with a p-value of 0.278. The result is statistically not significant and fails to reject the null hypothesis that the CSR variable is exogenous. This result implies that the OLS estimates used in the study are reliable.

To test the robustness of the results, I examine whether the findings are driven by the large number of observations from the United Kingdom in the sample. As seen in Table 5, the United Kingdom accounts for 55.42 percent of the observations with 235 transactions in the sample. To address whether the regression results are driven by UK transactions, the OLS is re-run, excluding all transactions from the United Kingdom. The results are provided in Appendix 4. The results are consistent with the main results reported in Table 11. Thus, the exclusion does not impact the result that the target's pre-acquisition CSR has a positive relationship with its acquisition premium, and the results are not driven by UK transactions.

8 Conclusions

The objective of this study was to examine the relationship between the target's pre-acquisition CSR rating and acquisition premium. Specifically, the thesis aimed to determine whether an ESG-based premium exists for target firms in European M&A transactions. The study was motivated by the growing importance of sustainability and responsible business practices in corporate strategy and investment decisions. While prior studies suggest a positive link between CSR and firm value, the relationship has been largely unexplored in the European M&A market. By addressing the research gap, the study contributes to understanding how CSR and firm valuation relate in the context of M&A.

Building on stakeholder theory and prior literature, the first hypothesis proposed that a target firm's pre-acquisition CSR score has a positive relationship with the acquisition premium. While prior literature found evidence of the positive relationship, they were based on older samples and different markets. The study is based on a sample consisting of 424 European M&A transactions across 16 countries between the years 2010 and 2024. The findings indicate that acquirers are willing to pay a premium for socially responsible target firms, providing evidence that CSR plays a role in M&A transactions. These results align with prior research (Gomes & Marsat, 2018; Qiao & Wu, 2019; Ozdemir et al., 2022) and suggest that CSR considerations are increasingly integrated into strategic acquisition decisions.

Moreover, the study highlights that the relationship between CSR and acquisition premium is particularly strong over longer measurement periods. The second hypothesis proposed that the relationship between CSR and acquisition premium remains consistent when long-term and short-term windows are used to measure the acquisition premium. The study found contradicting and statistically significant results indicating that the premium is greater when measured -105 days prior to the announcement, while using a shorter window did not yield statistically significant results. This suggests that investors and acquirers may gradually price in CSR reputation over time. It also raises questions about traditional event-study methodologies, which commonly use a -42-day

window before the deal announcement. Given the longer deal processes in modern M&A transactions, shorter pre-announcement windows may not fully capture the extent to which CSR is factored into valuation (Eaton et al., 2019, p. 1098). Minimally, this result shows that market timing matters.

The third hypothesis proposed that the target's pre-acquisition CSR rating had a greater impact on the acquisition premium when the target and acquirer operate within the same industry. In contrast to recent more general European based industrial competition studies, the study did not find evidence for the market power hypothesis proposed by Haleblian et al. (2009, pp. 472-473). The study found positive and statistically significant evidence that the impact of the target's CSR on acquisition premium is more profound when the acquirer and target operate in the same industry. This finding is significant as it suggests that acquirers value socially responsible targets more when they operate within the same industry. From a resource-based view, firms seek to attract valuable, rare, and unique resources to gain a competitive advantage (Alshehhi et al., 2018, p. 2). In this context, CSR capabilities can serve as an intangible asset that improves brand reputation, stakeholder trust, and regulatory compliance. Thus, acquiring a target with strong CSR performance enables the acquirer to absorb these benefits, especially when both firms operate in the same industry and serve similar stakeholders.

Moreover, from an organisational learning perspective, it could be inferred that by acquiring a socially responsible competitor the acquirer is provided with a direct opportunity to absorb and implement the "best practices" in sustainability and corporate responsibility. Therefore, it could be inferred that in horizontal mergers the knowledge transfer could be more efficient due to similar industries, that enable the acquirer to replicate the target's CSR strategies. The findings may suggest that acquires view socially responsible competitors as a means to improve their ESG strategies. The willingness to pay a higher premium for targets with strong CSR performance in intra-industry transactions could be interpreted as acquirers emphasising the importance of sustainability in corporate strategy.

This study forms a bridge between M&A literature and stakeholder theory. The study contributes to the current literature by providing more evidence of the target's role in acquisition valuation. The majority of the prior research has focused on the acquirer's perspective, focusing on how acquiring firms' ESG practices drive value for firm shareholders. In contrast, this study shifts attention to the target's standpoint, demonstrating that CSR can enhance a firm's attractiveness and negotiating power in M&A transactions.

The study has certain limitations. First, the regression models used in the study have low R-square values. This can be attributed to the used control variables that serve as proxies for firm and deal-specific characteristics rather than the exact measures, which is common in the prior M&A literature. Thus, given the absence of a universally accepted set of control variables for M&A research, the chosen variables do not accurately capture the relationship between the dependent and independent variables. However, prior research also appears to face similar challenges, suggesting that this issue is not unique to the present study but rather a broader concern within acquisition research. Second, many transactions had to be excluded from the sample due to them not having ESG ratings. The limitation has also been documented in prior studies and displays the challenge that ESG ratings are not yet universal.

The results of the study have practical implications for investors. From the perspective of target management, the findings suggest that the earlier the management give hints that there is a M&A transaction happening, the more likely, on average, the target firm's shareholders will be positively impacted (i.e., since the highest premiums are measured over the long-term window). Moreover, the findings indicate that the target firm's management can use the firm's strong CSR performance as a leverage to negotiate better terms in the M&A transaction. From the perspective of the acquirer's management and shareholders, the objective is to minimise the acquisition premium. Therefore, the findings suggest that management should exercise caution when disclosing information about the upcoming transaction. Moreover, the acquirer's management should be cau-

tious about potential overvaluation risk when pursuing targets with strong CSR performance. From the perspective of an outside investor, the findings suggest that a buy-and-hold strategy can potentially be beneficial for strong CSR-performing firms as the longer holding period seems to pay off compared to the short-term window in the case of an acquisition, thus benefiting long-term investors. Moreover, investors analysing M&A targets may consider a firm's CSR performance compared to peers as a predictive factor in acquisition premiums.

This study has practical implications for corporates and policymakers. The findings suggest that target firms can maximise their acquisition value by ensuring transparent and credible ESG reporting. By providing clear disclosures on CSR initiatives and performance, target firms can reduce uncertainty for potential acquirers, which may lead to higher deal premiums. Additionally, policymakers play an important role in transparency by encouraging CSR disclosures. Improved reporting standards and audit of a firm's sustainability disclosures can help decrease information asymmetry in M&A transactions.

Future research could expand on the study by exploring the following areas. First, this study focused only on publicly listed targets; therefore, the findings may not be applicable to private firms. Incorporating private firms could provide deeper insights into how CSR influences acquisition premiums across different firms. Since private firms often have less strict ESG reporting requirements, it would be valuable to examine whether their sustainability actions also result in a premium in M&A transactions. Second, given the current strong investor preference for ESG-focused companies, it remains uncertain whether the observed relationship between CSR and acquisition premium will persist in the long term. In fact, it has been brought to my attention that especially outside of Europe the shift has probably already occurred. As trends shift, future studies should reassess whether CSR continues to drive higher valuations in Europe. Third, as prior literature indicates, the competition has significantly decreased in the EU in the past decades. Therefore, especially when examining the intra-industry acquisitions, including explanatory variables that measure competition could provide meaningful results. Lastly,

further research could explore the potential existence of a “green premium” for sustainable firms and a “brown discount” for less sustainable firms in M&A valuation. Understanding whether firms with weaker CSR performance face systematic devaluation in deals would contribute to the current CSR literature.

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Appendices

Appendix 1. Variable Correlation Matrices

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1. Premium -42	1,00														
2. CSR score	0,05	1,00													
3. Same industry	-0,02	0,06	1,00												
4. Hostile	0,07	0,02	-0,02	1,00											
5. Competing bids	-0,01	-0,02	-0,11**	-0,02	1,00										
6. Relative deal size	-0,07	0,04	0,29***	-0,06	-0,07	1,00									
7. Target size	-0,07	0,51***	0,22***	0,01	-0,13**	0,15***	1,00								
8. Leverage	-0,04	0,12**	0,10*	-0,04	-0,08	0,06	0,43***	1,00							
9. Tobin's q	-0,06	-0,01	-0,04	-0,03	0,03	0,09	-0,20**	-0,19**	1,00						
10. R&D ratio	-0,07	0,06	-0,05	-0,01	0,02	0,04	-0,05	0,08	0,00	1,00					
11. Stock deal	-0,28**	0,06	0,36***	0,01	-0,05	0,41***	0,32***	0,18***	0,01	0,06	1,00				
12. Acquirer size	0,03	0,28***	0,13**	0,03	-0,06	0,01	0,32***	0,06	0,09	0,02	-0,06	1,00			
13. Gov. social spending	-0,12**	0,02	0,10*	0,02	-0,12**	0,08	0,30***	0,17***	-0,09	0,08	0,11**	0,09	1,00		
14. Earnings yield spread	0,03	0,03	-0,11**	-0,06	-0,07	-0,03	0,10*	0,12**	0,01	0,02	-0,12**	-0,06	0,10*	1,00	
15. Bond yield spread	-0,02	-0,15**	0,11*	0,07	-0,03	0,13**	0,05	0,08	-0,08	-0,03	0,08	0,06	0,18***	0,10*	1,00

Significance of Pearson correlation coefficient is tested with t-test. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1. Premium -63	1,00														
2. CSR score	0,09	1,00													
3. Same industry	-0,03	0,06	1,00												
4. Hostile	0,06	0,02	-0,02	1,00											
5. Competing bids	0,02	-0,02	-0,11**	-0,02	1,00										
6. Relative deal size	-0,06	0,04	0,29***	-0,06	-0,07	1,00									
7. Target size	-0,06	0,51***	0,22***	0,01	-0,13**	0,15***	1,00								
8. Leverage	-0,07	0,12**	0,10*	-0,04	-0,08	0,06	0,43***	1,00							
9. Tobin's q	-0,01	-0,01	-0,04	-0,03	0,03	0,09	-0,20**	-0,19**	1,00						
10. R&D ratio	-0,06	0,06	-0,05	-0,01	0,02	0,04	-0,05	0,08	0,00	1,00					
11. Stock deal	-0,27**	0,06	0,36***	0,01	-0,05	0,41***	0,32***	0,18***	0,01	0,06	1,00				
12. Acquirer size	0,07	0,28***	0,13**	0,03	-0,06	0,01	0,32***	0,06	0,09	0,02	-0,06	1,00			
13. Gov. social spending	-0,09	0,02	0,10*	0,02	-0,12**	0,08	0,30***	0,17***	-0,09	0,08	0,11**	0,09	1,00		
14. Earnings yield spread	0,04	0,03	-0,11**	-0,06	-0,07	-0,03	0,10*	0,12**	0,01	0,02	-0,12**	-0,06	0,10*	1,00	
15. Bond yield spread	0,00	-0,15**	0,11*	0,07	-0,03	0,13**	0,05	0,08	-0,08	-0,03	0,08	0,06	0,18***	0,10*	1,00

Significance of Pearson correlation coefficient is tested with t-test. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1. Premium -105	1,00														
2. CSR score	0,10*	1,00													
3. Same industry	-0,04	0,06	1,00												
4. Hostile	0,00	0,02	-0,02	1,00											
5. Competing bids	0,04	-0,02	-0,11**	-0,02	1,00										
6. Relative deal size	-0,06	0,04	0,29***	-0,06	-0,07	1,00									
7. Target size	-0,13**	0,51***	0,22***	0,01	-0,13**	0,15***	1,00								
8. Leverage	-0,07	0,12**	0,10*	-0,04	-0,08	0,06	0,43***	1,00							
9. Tobin's q	-0,02	-0,01	-0,04	-0,03	0,03	0,09	-0,20***	-0,19***	1,00						
10. R&D ratio	-0,02	0,06	-0,05	-0,01	0,02	0,04	-0,05	0,08	0,00	1,00					
11. Stock deal	-0,30***	0,06	0,36***	0,01	-0,05	0,41***	0,32***	0,18***	0,01	0,06	1,00				
12. Acquirer size	0,08	0,28***	0,13**	0,03	-0,06	0,01	0,32***	0,06	0,09	0,02	-0,06	1,00			
13. Gov. social spending	-0,11*	0,02	0,10*	0,02	-0,12**	0,08	0,30***	0,17***	-0,09	0,08	0,11**	0,09	1,00		
14. Earnings yield spread	0,00	0,03	-0,11**	-0,06	-0,07	-0,03	0,10*	0,12**	0,01	0,02	-0,12**	-0,06	0,10*	1,00	
15. Bond yield spread	0,04	-0,15***	0,11*	0,07	-0,03	0,13**	0,05	0,08	-0,08	-0,03	0,08	0,06	0,18***	0,10*	1,00

Significance of Pearson correlation coefficient is tested with t-test. *, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Appendix 2. Variance Inflation Factors

Variable	R-squared	VIF
CSR	0,352	1,54
Same industry	0,202	1,25
Hostile	0,023	1,02
Competing bids	0,041	1,04
Relative deal size	0,213	1,27
Target size	0,579	2,38
Leverage	0,236	1,31
Tobin's q	0,116	1,13
R&D	0,062	1,07
Stock deal	0,345	1,53
Acquirer size	0,212	1,27
Government social spending	0,151	1,18
Earnings yield spread	0,096	1,11
Bond yield spread	0,108	1,12

Appendix 3. 2SLS Results

Instrumental Variable Approach

Variable	(7) First stage *-42 days*	(8) Second stage *-42 days*	(9) First stage *-63 days*	(10) Second stage *-63 days*
Intercept	-0,186	0,381	-0,186	0,551
	(-1,970)**	(2,767)***	(-1,970)**	(4,204)***
CSR		0,087		0,119
		(1,425)		(1,965)*
CSR_IndMean	0,001		0,001	
	(0,8666)		(0,8666)	
CSR_Lagged	0,007		0,007	
	(27,838)***		(27,838)***	
Same industry	0,003	0,025	0,003	0,033
	(0,293)	(1,252)	(0,293)	(1,649)*
Hostile	0,025	0,082	0,025	0,092
	(0,757)	(1,432)	(0,757)	(1,612)
Competing bids	0,016	0,006	0,016	-0,008
	(1,220)	(0,253)	(1,220)	(-0,376)
Relative deal size	0,002	0,040	0,002	0,037
	(0,099)	(0,984)	(0,099)	(0,925)
Target size	0,018	-0,003	0,018	-0,008
	(4,080)***	(-0,423)	(4,080)***	(-1,006)
Leverage	-0,040	-0,014	-0,040	0,019
	(-1,550)	(-0,319)	(-1,550)	(0,429)
Tobin's q	-0,000	-0,002	-0,000	-0,005
	(-0,113)	(-0,539)	(-0,113)	(-1,384)
R&D ratio	0,022	-0,035	0,022	-0,046
	(0,885)	(-0,808)	(0,885)	(-1,064)
Stock deal	-0,015	-0,112	-0,015	-0,115
	(-1,174)	(-5,041)***	(-1,174)	(-5,237)***
Acquirer size	0,009	0,005	0,009	-0,001
	(1,860)*	(0,633)	(1,860)*	(-0,102)
Government social spending	-0,182	-0,254	-0,182	-0,368
	(-1,572)	(-1,262)	(-1,572)	(-1,837)*
Earnings yield spread	0,068	0,228	0,068	0,203
	(0,272)	(0,529)	(0,272)	(0,474)
Bond yield spread	-0,438	0,547	-0,438	0,335
	(-0,575)	(0,418)	(-0,575)	(0,258)
Observations	424	424	424	424
R-square		0,097		0,115

*, **, *** denote significance at the 10%, 5%, and 1% level, respectively.

Appendix 4. Additional Analysis

Additional analysis			
Exluding UK	(11)	(12)	(13)
Variable	*-42 days*	*-63 days*	*-105 days*
Intercept	0,426	0,511	0,621
	(1,675)*	(2,014)**	(2,404)**
CSR	0,072	0,121	0,232
	(1,024)	(1,719)*	(3,234)***
Same industry	0,053	0,046	0,025
	(1,726)*	(1,503)	(0,817)
Hostile	-0,009	-0,058	-0,071
	(-0,073)	(-0,468)	(-0,558)
Competing bids	0,012	0,008	-0,029
	(0,317)	(0,213)	(-0,753)
Relative deal size	0,061	0,068	0,070
	(1,052)	(1,169)	(1,184)
Target size	-0,007	-0,004	-0,025
	(-0,583)	(-0,336)	(-2,160)**
Leverage	0,003	-0,020	-0,021
	(0,038)	(-0,272)	(-0,277)
Tobin's q	-0,008	-0,007	-0,008
	(-0,984)	(-0,895)	(-0,913)
R&D ratio	-0,046	-0,052	-0,040
	(-0,965)	(-1,107)	(-0,834)
Stock deal	-0,116	-0,109	-0,085
	(-3,501)***	(-3,311)***	(-2,521)**
Acquirer size	0,010	0,010	0,001
	(0,901)	(0,844)	(0,054)
Government social spending	-0,517	-0,844	-0,153
	(-1,196)	(-1,962)*	(-0,350)
Earnings yield spread	0,110	0,319	-0,017
	(0,178)	(0,518)	(-0,027)
Bond yield spread	1,294	1,968	3,768
	(0,731)	(1,116)	(2,098)**
Observations	189	189	189
R-square	0,117	0,139	0,140

*, **, *** denote significance at the 10%, 5%, and 1% level, respectively.