LUISS

Department
of Business and Management

Course of Business Valuation

The impact of ESG performance on M&A premia. An empirical analysis.

Prof. Marco Vulpiani
SUPERVISOR

Prof. Michela Altieri
CO-SUPERVISOR

ID No. 741611 Lorenzo Lopane
CANDIDATE

Academic Year 2021/2022

Table of Contents

List of Figures

List of Tables

Introduction

The climate clock is a countdown of the time left to reverse the crisis climate making it the most important number in the world. It demonstrates how quickly the planet is approaching 1.5 °C of global warming, given current emissions trends. Every increment to global temperature is expected to increase weather extremes, such as heat waves and extreme precipitation events and there is also the risk of irreversible ice sheet loss. Installed in New York City by some artists and activists, it reminds the world every day just how perilously close we are to the brink. The general public attention to the environmental issue can be traced back from the 1997 Kyoto protocol and increased every year, passing through 2030 Agenda and Paris agreement, coming to present days with the phenomenon of Greta Thunberg, who inspired the creation of an international movement called Fridays for Future. The Covid-19 pandemic further accelerated this social awakening since the nature took its dominant place again during lockdowns, showing the harmfulness of the human being behaviours. Some scientists also claim that the spread of diseases like Covid-19 can be exacerbated by rising temperatures, deforestation, loss of biodiversity, and poor sanitation – all of which are prominent, interconnected sustainability issues. It brings to our conscious the importance not only of the nature per se, but also the fact that if we do not respect the habitat where we live, it could severely harm us. The infamous pandemic led to significant social disparities and an increase in poverty and unemployment, as well as numerous deaths. The social factor came to light showing the fragility and the importance of our finite life.

A new paradigm was affirmed: the environmental and social crises are not two separate crises, but one complex crisis that must be solved holistically. The holistic approach towards these issues is fundamental also for the most prominent economic actors in the world: firms. Social and environmental aspects should be included into corporate planning, measuring, and controlling processes and also in their strategy, defining their values, visions, and missions. Companies can not more underestimate the importance of these issues, in an era that sees ESG becoming part of the new normal in corporate culture. Embracing the concept of Corporate Social Responsibility is considered an “important” or “very important” task for every firm, according to the United Nations. Firms are called to be responsible by the public, institutions, and markets. However, this is not intended to sacrifice firms’ economic performance on the altar of social responsibility: it is possible to make profits with purpose as stated by Larry Fink – the CEO of the biggest asset management company in the world, BlackRock. A well-defined purpose can produce several positive consequences in that it unifies stakeholders, drives ethical behaviour, guides company culture, and sustains long-term shareholder value. This marks the overtaking of the theory of Friedman’s ideology that “business is business”: making profits even though this means producing negative externalities. Recently, also the old shareholder primacy principles, that defined a corporation’s principal purpose as maximizing shareholder return, have been surpassed in favor of a stakeholder-centric orientation. In its place, the CEOs of 2019 Business Roundtable adopted a new statement on the purpose of a corporation declaring that companies should serve not only their shareholders, but also deliver value to their customers, invest in employees, deal fairly with suppliers, and support the communities in which they operate. Firms have a very leading role in

the society nowadays: they serve as societal purpose to addressing broad societal challenges also when governments show their limits in addressing them. This is recognised in financial markets too: sustainable investing is gaining more and more importance nowadays, although it is only at the early stage, but will be a core component for how everyone invests in the future (Fink, 2020). Consequently, this would push further firms to invest in CSR, as a part of their strategy or as a result of pressure from activist shareholders, and would also increase the amount of voluntary CSR reports in which they disclose their CSR practices. However, due to the direct and indirect potential financial loss that non-CSR companies can incur (i.e., ESG risk), there is a concrete possibility of a large spread of corporate greenwashing practices in the next future.

The debate between stakeholder theory and shareholder theory is old, but still actual and alive. The literature, following these two theories, has extensively analysed how the corporate social performance impacts the corporate financial performance. Prior literature largely acknowledges the value-enhancing role of CSR finding a positive relationship between Corporate Social Performance (CSP) and Corporate Financial Performance (CFP). Corporate Social Responsibility enhances financial performance also through multiple channels such as capital market benefits, lowering of risks, increased operating efficiency, product market gains, and enhanced employee productivity. However, since the literature is still fragmented given the complex relationship, the debate remains open. Despite this, the critical question of causality, whether firms "do well by doing good" or "do good by doing well", is still not clear and quite impossible to answer.

Only a limited number of studies, instead, have analysed the link between CSR performance and M&As. Scholars have generally found positive effects between them, such as high post-deal performance and propensity to be a target, less uncertainty and time to complete, but since empirical evidence is still scarce, there is no full convergence. Specifically, very few studies analyze the relation between CSP and M&A premia. This study has the purpose to explore the value enhancing role of target's pre-acquisition CSR performance in an M&A transaction by focusing on the deal premia, filling the gap in the extant literature.

In order to shed a light on this, a sample of M&A deals is used. Corporate takeovers are one of the most significant events in the life of a firm and represent the largest and the most readily observable form of corporate investment (Golubov *et al.*, 2013). Therefore, it should be easier to assess the impact of CSR on such investments. In fact, there are two main advantages for focusing on M&A deal premiums. Firstly, M&A are characterized by high level of information asymmetry between the acquirer and the target, that can be lowed by the bidder through the due diligence, obtaining a great deal of information about the target that is inaccessible to the public. The due diligence makes them more informed about intrinsic value than the market and that they are better able to assess target organizational characteristics such as intangible CSR-related assets. Indeed, according to Deloitte (2009), acquirers hire experts to quantify and assess the target firm's social and environmental reputation and risk during the social and environmental due diligence procedure and incorporate these assessments into their valuation process. Secondly, bidders are by definition forced to assume a large amount of specific risk because of investment concentration and the high costs associated with the divestiture of acquired businesses. This is in stark contrast with the situation of marginal investors who have the ability to diversify their portfolios and liquidate positions at minimal costs. In other

words, while marginal investors are mainly concerned with systematic risk, M&A bidders are largely concerned with targets' specific risks. Because good relationships with stakeholders decrease firm-specific risk insofar as they build goodwill that reduces cash-flow shocks when negative events materialize, the CSR performance of M&A targets should be of particular importance for acquirers (Gomes, 2019).

Using a sample of 1,323 M&A deals with public targets of all counties and industries in the last fifteen years period (2007-2021), this work measures the effect of ESG score and its three pillars on M&A premia through a multivariate regression with fixed effects. This is conducted firstly on the entire sample, and subsequently on subsamples highlighting the changes in space and time of the aforementioned relationships. Each geographic region has its own approach to the CSR issue due to economical, political, and cultural differences. For example, coal, one of the major contributor to climate change, is already on the wane around the world, except in Asia (Fink, 2020). It also helps to clarify the position of emerging markets on the matter. Instead, comparing the changes of the relationship since the onset of the pandemic gives some insights about the effects, in terms of CSR awareness, provided by the pandemic to the public and dealmakers. Finally, it is tested the association between the similarity of targets and buyers' ESG profiles and takeover premia, in order to determine weather a higher degree of similarity leads to a higher premium.

This work contributes to the current literature in multiple ways. First of all, there is only one study on the matter that uses a sample of international deals and takes the targets' perspective as this work does. The other few studies discuss the effect of sustainability on deal premia by using a U.S. deals sample or a specific sector deal sample or assuming the buyers' perspective. This work wants to test whether, on a global level, target firms can achieve gains in the M&A market in form of higher acquisition premiums as a direct result of their superior ESG performance. This study complements also the narrowly focused pre-acquisition and targets' gain-related M&A research and further supports one side of the debate between shareholder and stakeholder theories. Secondly, the work introduces a more standardized measure of CSR: the ESG score. It is the most widely adopted corporate social performance measure which reflects a firm's performance based on its environmental, social and governance performances. Other studies use a proxy of such performance. Using a standardized measure, this study is more replicable and transferable to regions, industries, and different periods. In fact, this was performed in this study. The third advantage of this work is that it has been possible to analyse the differences in time and space of the original sample, as well the similarity between targets and buyers' ESG profile. All this is completely novel to the extant literature. Lastly, the work adopts a holistic approach, discussing the effect of the combined targets' ESG rating as well as their three separate ESG ratings on deal premia in all the models, whereas previous research often discusses only one rating (i.e., often the combined ESG rating).

The empirical findings of this study are important for targets' shareholders and managers and supplement the professional views regarding the increasingly leading role of CSR in M&A deals.

This work is divided into five chapters. The first two chapters introduce the two main topics: the Corporate Social Responsibility and Mergers & Acquisitions.

Chapter one begins with a discussion about what is the CSR, since there is not a unique definition, and presents the main theories about CSR elaborated by the literature that can be reconducted to the stakeholder and shareholder theories. Subsequently, it is examined the most common way to define and measure the corporate social performance: the ESG score. The chapter ends with an overview about the recent development of the topic, how it gained more importance in recent years and how the Covid-19 pandemic influenced it.

Chapter two opens with a description of general aspects that characterized an M&A transaction, emphasizing its different types. Then, it follows a detailed presentation of motives that push a bidder to enter an M&A deal in order to understand why these types of extraordinary corporate transactions take place around the world. Since the emphasis of this work is on the premium of M&A deals, the chapter focuses also on the theme of M&A transaction valuation within the realm of business valuation. It finally offers an overview on M&A waves and recent trends in the M&A market.

Chapter three examines extensively the literature about the relationships between corporate social performance and corporate financial performance and how corporate social performance impacts on mergers and acquisitions.

Chapter four summarizes the research questions and describes the methodology adopted, as well as the variables used. The chapter concludes with a comprehensive analysis of the sample.

The final chapter, the fifth, summarizes the main results obtained and discusses their validation. Lastly, the work suggests potential future research.

Chapter 1: Corporate Social Responsibility

1.1. Definition

CSR is an extremely popular and widespread topic worldwide. The increased awareness of the general public (consumers, mangers, politicians, and societies) into the topic and the spread of specific investment products have determined a growth of its popularity, gaining additional significance and global dimensions.
The birth of CSR can be traced back in the first industrial revolution era, when some British visionary entrepreneurs decided to build comfortable and safe homes for their employees (Zattoni, 2020). But now, CSR has become a mantra for the 21st century (Dyllick & Hockerts, 2002; Wood, 2010) and is considered an "important" or "very important" task for every firm (UN Global Compact-Accenture, 2010).
It is possible to consider four factors that are driving this move towards CSR (Commission of the European Communities, 2001):

i. New concerns and expectations from citizens, consumers, public authorities, and investors in the context of globalisation and large scale industrial change;
ii. Social criteria are increasingly influencing the investment decisions of individuals and institutions both as consumers and as investors;
iii. Increased concern about the damage caused by economic activity to the environment;
iv. Transparency of business activities brought about by the media and modern information and communication technologies.

But what does CSR mean? CSR stands for Corporate Social Responsibility and its definition is not univocal. According to the results of a study conducted in 2006, there were thirty-seven definitions of CSR in the literature (Dahlsrud, 2006), but this figure seems to underestimate the true number (Carroll & Shabana, 2010). Furthermore, different terms for Corporate Social Responsibility create a kind of confusion, making definition difficult. CSR is also famous as corporate citizenship, business social responsibility, business philanthropy, business ethics, corporate charitable, society interactions, society relationships, sustainable development, society development (Kotler & Lee, 2005). It is a broad concept, still very ambiguous and vague (Hamel & Prahalad, 1994). Also, the right that businesses do have a social responsibility has been discussed in the literature for over fifty years (Bowen 1953; Davis, 1960; Carroll, 1999). The debate on CSR is still heated and the theories around CSR are very fragmented.
The first modern contribution to this topic was provided by Bowen (1953), who underlined that corporate decision-making processes have to consider not only the economic dimension, but the social consequences deriving from their business behavior as well. Bowen defined CSR as "the obligation to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society". In Bowen's opinion, businessmen are ''responsible for the consequences of their actions in a sphere somewhat wider than that covered by their profit-and-loss statements'' (Carroll, 1999).

The concept of CSR is not only a research construct, but a declaration of principles promoted by different international institutions.

The Business for Social Responsibility, a US-based global business organization, defined CSR as "operating business in a manner that meets or exceed beyond the ethical, legal, commercial, and community expectations that society has of business".

According to the World Business Council for Sustainable Development (1999), a group of 120 worldwide companies, "CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large". The definition by WBCSD shows that businesses are beginning to see the concept of CSR as important aspect of their thinking and put more attention to ethical decisions.

Another interesting definition of CSR comes from the Prince of Wales International Business Leaders Forum: ''CSR means open and transparent business practices that are based on ethical values and respect for employees, communities, and the environment. It is designed to deliver sustainable value to society at large, as well as to shareholders''.

CSR has triggered a series of initiatives worldwide that can create a kind of consensus around social responsibility and push toward more appropriate behaviours. One of these initiatives is the Global Compact. Promoted by the United Nations in July 2000, it is a voluntary initiative open to the participation of companies and NGOs, with the goal to make some principle of corporate responsibility in the fields of human rights, labor standards and the environment globally accepted by companies.

Also, the European Union is dealing with the issues related to CSR. The EU is concerned with corporate social responsibility as it can be a positive contribution to the strategic goal decided in Lisbon: "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion" (Commission of the European Communities, 2001). The European Commission, presenting the so-called Green Paper, which has the objective of launching a wide debate on how the European Union could promote CSR at both the European and international level, gives us another definition of CSR. It states that "Corporate social responsibility is essentially a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment", meaning that "companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (Commission of the European Communities, 2001). According to the approach proposed by the European Commission, CSR has an internal and an external dimension (Tencati *et al.*, 2004). The former encompasses human resources management; occupational health and safety management; business restructuring; management of environmental impact and natural resources. The latter involves many stakeholders, affects local communities; business partners, suppliers, customers, and consumers; protection of the human rights along the whole supply chain and global environmental concerns.

As well as CSR has an internal and an external dimension, it is also possible to identify the benefits of engaging in CSR within these two dimensions (Figure 1).

Figure 1. External and internal benefits of CSR

External Benefits	Internal Benefits
• Improved financial performance • Reduced risk exposure • Enhanced brand image • Increased sales and customer loyalty • Creation of new business networks • Improved trust • Enhanced corporate reputations • Improved government relations • Reduced regulatory intervention • Reduced costs through environmental best practice.	• Improved financial performance • Reduced risk exposure • Improved recruitment and staff retention • Increased staff motivation and enhanced skills • Improved trust.

Source: Safari *et al.* (2014)

The EU underlines the need for a holistic approach towards CSR integrated management in order to include social and environmental aspects into corporate planning, measuring, and controlling of processes and to define a long-term strategy which minimizes the risks linked to uncertainty (Tencati *et al.*, 2004). CSR shall be based on the concept of sustainable development, which refers not only to environmental preservation, but also to economic development: creating value for shareholders and preserving, at the same time, the environment, social and human capital.

In fact, companies, encouraged also by good principles of corporate governance and international standards organizations, have started to create voluntarily a subcommittee which formulate and recommend CSR policy to the board of directors, i.e., CSR committee. These committees are key in finding all the CSR issues, developing a strategy, and reporting to the board of directors.

It is possible to affirm that CSR implies the commitment to behave correctly and not merely complies with the minimum requirements of the law. According to Tencati *et al.* (2004), companies should integrate social and environmental concerns into their business strategies, their management tools, and their activities, as well as in their culture (Lozano, 2012).

1.2. Theories

For decades scholars discussed on the reason companies should invest on CSR activities and this debate is characterized by two opposing schools of thought: the "stakeholder value maximization" view and the "shareholder expense" view. Before discussing these theories, it is important to define who are the "shareholders" and who are the so-called "stakeholders".

A shareholder of a corporation is an individual or legal entity that is registered by the corporation as the legal owner of shares of the share capital of a public or private corporation and, consequently, is entitled of different rights and obligations. Shareholders are considered to be a subset of stakeholders.

Instead, the term "stakeholders" does not define precisely which categories of subjects are included and many scholars developed different definitions of it.

The word "stakeholder" appeared for the first time in 1963 report by the Stanford Research Institute, referring to groups of people and organizations (shareholders, employees, customers, suppliers, banks, and society as a whole) without whose support the firm would cease to exist. So, the term was used to extend management responsibility to categories other than shareholders.

Twenty years later, Freeman & Reed (1983) proposed two definitions of stakeholders: a broad one, which includes any group of people who may influence the achievement of company's objectives, and a narrow one, which refers to any group of people whom the organization depends for its survival.

According to Clarkson (1995), all the groups of people who have either a right, an expectation or an interest in the firm are defined as stakeholders. He classified the stakeholders in two groups: the primary stakeholders, who provide key contributions for long-term company survival, and the secondary stakeholders, who influence or are influenced by its activity.

Some years later, still Clarkson (1998) proposed another definition of stakeholders, this time dividing them into voluntary stakeholders and involuntary stakeholders: those who provide intentionally or unintentionally something that has a value to the firm.

In the work of Carroll & Näsi (1997), they distinguished between internal stakeholders, people who condition firm's business, and external stakeholders, people who are conditioned by firm's business.

Concisely, a common definition of stakeholders does not exist, but scholars tried to group people in classes according to their expectations toward the firm's activities: these interests, if ignored, eventually can undermine firm's survival.

On the one hand, the "shareholder expense" view (Friedman, 1970) claims that the only social responsibility of a business is to increase its profits (within the limits fixed by respect for the law in force). According to Friedman, only people (not firms) have responsibility, and there is no right or wrong in business decisions since ethical principles do not apply to them. This view suggests that managers engage in socially responsible activities to help other stakeholders at the expense of shareholders, resulting in a wealth transfer from shareholders to other stakeholders (Deng *et al.*, 2013). Instead, managers must take decisions only

aimed at maximizing shareholders value. Therefore, firms can pursue the good of stakeholders, fulfilling their interests, not for its own sake, but only when it is instrumental to create value for shareholders.

On the other hand, according to the "stakeholder value maximization" view (Freeman, 1984), "corporate success and social welfare are not a zero-sum game" (Porter & Kramer, 2006) and CSR activities have a positive effect on shareholder wealth because focusing on the interests of other stakeholders increases their willingness to support a firm's operation, which increases shareholder wealth. Thereby, ethical behaviours and profit maximization are not mutually exclusive and engaging in sustainability can allow corporations to enhance profitability. Moreover, this view stresses the accountability of corporations towards all stakeholders and is in line with the contract theory and the theory of the firm advanced by Coase (1937) and expanded subsequently by different scholars. These theories view a firm as a nexus of contracts between shareholders and other stakeholders that contribute to the success of the firm and should be jointly satisfied: each group of stakeholders supplies the firm with critical resources or effort in exchange for claims outlined in explicit contracts or suggested in implicit contracts. In fact, these theories suggest that the interests of shareholders and other stakeholders in high CSR firms are in greater alignment than those of shareholders and other stakeholders in low CSR firms, and hence they are more likely to contribute to firms' long-term profitability and efficiency (Jensen, 2001), as well as the Freeman's theory implied.

From the "stakeholder value maximization" view derives the studies on business ethics and CSR.

The business ethics approach criticized the "business is business" philosophy of Friedman which may lead firms, pursuing the profit maximization, to impose negative externalities on stakeholders and community. According to business ethics, managers and entrepreneurs have a moral obligation and cannot avoid their social responsibility towards the latter: they shall take right and fair decisions based on sound moral principles even when these decisions negatively affect shareholders value creation.

While the business ethics approach puts ethics as the main driver of the business whose effect can be detrimental for the shareholders, the CSR view, promoting an integrated approach to achieving a competitive advantage, tends to satisfy the needs of all the stakeholders, including shareholders. In fact, the CSR approach encompasses four areas of responsibility (Carroll, 1979): economic, legal, ethic and discretionary. This is the so-called Carroll's CSR pyramid:

i. Economic responsibility: firms must produce goods and services in quantity and quality to meet customer needs and generate profit for shareholders.
ii. Legal responsibility: firms must comply with the law while fulfilling its economic mission.
iii. Ethic responsibility: firms must comply with expectations and moral standards of the community which are over and above legal requirements.
iv. Discretionary (or voluntary) responsibility: firms must comply with moral duty voluntarily (e.g., philanthropic donations to charitable foundations), acting freely in favour of stakeholders or community at large because it is the "right thing to do" and not pursuing the merely economic convenience.

Another theory that opposes the "shareholder expense" view is the "shared value" theory (Porter & Kramer, 2011). In particular, the latter challenge the trade-off of the Friedman's theory between economic performance and social and environmental performance. If it is true for Friedman that managers sacrifice the shareholders value creation engaging in CSR activities, the theory of Porter and Kramer, following the "stakeholder value maximization" view of Freeman, suggests that it is possible to create value for both shareholders and other stakeholders at the same time addressing societal and environmental concerns since firms' competitiveness and communities' well being are strictly linked. The concept of shared value underlines that while ignoring these concerns can increase firm's costs, addressing them may be not necessarily more expensive.

However, balancing the equilibrium between economic performance and social and environmental responsibility is difficult. At the beginning of the last decade, United Stated started to promote the so-called Benefit Corporations, a new legal form adopted by for-profit corporate entities whose bord members promote both shareholders' and stakeholders' interests. This initiative has been promoted subsequently by other countries, among others Italy, Colombia, Canada. Moreover, B Lab, a non-profit organization, created the B Corp certifications that awards for-profit companies that have good economic, social, and environmental performances. Nowadays, there are over 5000 certified B Corps across more than 150 industries in eighty countries, according to B Lab.

The debate around these theories has been reinvigorated recently. The founder and CEO of Black Rock – the largest asset manager in the world –, Larry Fink, in his annual letters to CEOs, challenged the Friedman's ideology that "business is business", inviting CEOs and top managers to make profits with purpose (Fink, 2018): firms serve as societal purpose to addressing broad societal challenges when governments show their limits in addressing them. He stated that "the purpose is not the sole pursuit of profits", but the latter "are in no way inconsistent with purpose: profits and purpose are inextricably linked" (Fink, 2019).

In other words, he recognised the importance of making profits and creating value for shareholders, but at the same time, invited companies to go beyond the focus on short-term results (i.e., short-termism) and be responsible towards the stakeholders and the environment, given the inextricably link to their long-term sustainable performance. According to Fink, a well-defined purpose can produce several positive consequences in that it unifies stakeholders, drives ethical behaviour, guides company culture, and sustains long-term shareholder value (Zattoni, 2020).

1.3. ESG

While firms started to adopt and integrate into their strategy the CSR principles, the need to measure their impact on society and environment started to grow as well. But what is the corporate social performance (CSP) and how it is measurable were not univocal. Not even easy because "the full spectrum of CSP is broad and generating a proxy that can reflect its full scope is challenging" (Chen & Delmas, 2011). Moreover, due to the qualitative nature of CSP, its assessment relies mostly on ''soft'' indicators related to management practices, rather than the ''harder'' indicators.

The roots of CSP's concept seems to trace back in 1950s and derive from the Boulding's idea that "view of complex organizations as open systems, intricately connected to their larger environments" (Wood, 2010). One of the first clear and comprehensive definition was given by Wood (1991) who defined CSP as "a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships". Similarly, according to Perrini *et al.* (2011), CSP can be defined as "the outcome of implementing CSR activities and behaviors, thus comprising principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firms' relationships with stakeholders".

Instead, Elkington (1997) was one of the first scholars to propose an innovative performance measurement called triple bottom line or triple P's (i.e., People, Planet, and Profit). According to this perspective, companies should report their performance on three dimensions: the social, the environmental, and the economic performance. The economic dimension (Profit) refers to the net income, i.e., the bottom line of the Income Statement. Elkington suggested to add other two bottom lines: the social bottom line (People) – the impact of the business on the society – and the environmental bottom line (Planet) – the impact of the business on the environment – because a company can be profitable and at the same time harm the social or ecological environment in which it is embedded.

Measuring the economic performance is easy thanks to the accounting principles and because profit has a quantitative monetary nature. The challenge is to measure the social and environmental bottom lines which have no univocal unit measures. Without the latter is difficult for a manager find a balance among these three dimensions.

However, in 1997, the Global Reporting Initiative (GRI) was founded: an international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on social and environmental issues. So that the Global Reporting Initiative developed the so-called Sustainability Reporting Framework. Its guidelines were published in 2000 and quickly the GRI has expanded and updated its universal (GRI 100), economic (GRI 200), environmental (GRI 300), and social (GRI 400) standards. In 2010, the GRI collaborated with the International Organization for Standardization (ISO), an international standard-setting body founded in 1947, to develop the so-called ISO 26000 standards. The latter provides guidelines for CSR and its goal is to contribute to

global sustainable development by encouraging businesses and other organizations to practice social responsibility to improve their impacts on their workers, their natural environments, and their communities. In the same year, a global coalition of regulators, companies, NGOs, and standard setters founded the International Integrated Reporting Council (IIRC), whose objective is to provide useful principles and guidelines for companies and organizations that want to operate in a socially responsible manner (Zattoni, 2020).

While the GRI and other standards organizations settled the guidelines for the disclosure of CSR activities in the so-called Social or Sustainability Report, in 2017, with the Directive 2014/95/EU, the EU made mandatory the disclosure of such non-financial information for companies that fulfil certain requirements. The EU forced the implementation of CSR policies pushing companies to satisfy not only the shareholders, but all the stakeholders. The disclosure of non-financial information in an understandable way for the general public firstly helps the measuring, monitoring, and managing of undertakings' performance and their impact on society and environment, and secondly increase the confidence of investors, consumers and everyone who has an interest into the company.

According to Amini & Dal Bianco (2017), there are four common ways to evaluate and measure CSP: (a) disclosures, such as annual reports, letters to shareholders and other corporate disclosures to the public; (b) reputation ratings; (c) social audits; and (d) managerial principles and values. But all these tools, although helping the public to express a judgment on CSP, are qualitative (i.e., soft) measures, and making a comparison in space (i.e., make a comparison with other companies) and over time (i.e., discover the impact of the business on environment and social dimensions during the years) is not possible.

Nowadays, a common (hard) measure widely accepted both by research and by the capital market to capture the CPS are the ESG factors (Sassen *et al.*, 2016). The ESG scores rating market has developed considerably in recent years and is used by major business consulting firms worldwide. ESG scores are used as major indexes and overall indicators to identify ESG practices (Alareeni & Hamdan, 2020).

The term ESG stands for Environmental, Social, and corporate Governance and was coined by Ivo Knoepfel, founder of onValues, at “The Who Cares Wins” conference in 2005. The conference brought together institutional investors, asset managers, buy-side and sell-side research analysts, global consultants and government bodies and regulators to examine the role ESG value drivers in asset management and financial research. There was a remarkable degree of agreement among participants that ESG factors play a significant role in the context of longer-term investments (onValues, 2005).

The meaning of the three acronyms has been analysed in detail, among others, by Fung *et al.* (2010). The E factor evaluates how the business, directly or indirectly, impacts on the environment (e.g., if the company is responsible of the pollution of water, air, soil, and deforestation), manage it (e.g., implementation of robust environmental management systems, awards and certificates from independent organizations, establishment of an environmental culture), and uses natural recourses (e.g., if the company wastes water, paper, energy, and not use renewable recourses). The S factor evaluates how the business, directly or indirectly, impacts on stakeholders (i.e., employees, clients, suppliers, and society at large) on the dimensions of labour and social

development, respecting them equally and without discrimination, ethically without undermine their (human) rights, and engaging in charitable initiative. And finally, the G factor evaluates if the company follows the good principle of corporate governance (e.g., the composition, the structure, and the functioning of the board of directors, the degree of transparency and disclosure of the company, and the fairness of an audit process).

With the development of ESG factors, many companies started to be evaluated and rated on ESG performance by third-party rating agencies, such as S&P, Refinitiv, Bloomberg, and MSCI. At the same time, stock exchanges created market indices, such as FTSE4Good and Down Jones Sustainability Index, to measure the stock performance of companies committed to ESG practices.

One year later the birth of the term ESG, UN Secretary-General Kofi Annan supported the launch of the Principles for Responsible Investment (PRI). The PRI were developed by an international group of institutional investors reflecting the increasing relevance of ESG issues to investment practices. They have more than 4000 signatories from over sixty countries representing over $120 trillion of assets.

With the goal to promote a global sustainable financial system, they developed the following six principles:

i. Incorporating ESG parameters into financial analysis and investment decision-making processes;
ii. Being an active shareholder and incorporating ESG parameters into shareholder policies and practices;
iii. Requiring reporting on ESG metrics from companies being invested in;
iv. Promoting acceptance and implementation of the Principles in the financial industry;
v. Collaborating to improve implementation of the Principles;
vi. Reporting periodically on activities and progress in implementing the Principles.

These principles paved the way to the Sustainable and Responsible Investments (SRI), a long-term oriented investment approach which integrates ESG factors in the research, analysis, and selection process of securities within an investment portfolio. Investors can change the world by influencing companies' behaviour. Eurosif, the leading pan-European association promoting Sustainable Finance at European level, identifies seven different SRI investment strategies:

i. Best in class: this approach provides a positive screening, i.e., selecting the best performing companies within a universe in terms of ESG commitment;
ii. Engagement & voting: it is the long-term attitude of those shareholders, which through the voting of shares and engagement with companies on ESG matters, want to influence the behaviours of their company;
iii. ESG integration: this approach integrates ESG factors alongside financial factors into the investments analysis process because the former can impact in a positive or negative way on the latter;

iv. Impact investing: are investments made with the intention to generate social and environmental impact alongside a financial return;
v. Exclusions: this approach provides a negative screening, i.e., excluding investments in companies, sectors, or countries within a universe if involved in certain activities based on specific criteria (like weapons, pornography, tobacco, and animal testing);
vi. Norms based screening: it is the screening of investments according to their compliance with international standards and norms on ESG;
vii. Sustainability themed: investment in themes or assets linked to the development of sustainability which contribute to addressing social and/or environmental challenges.

The SRI is also known as sustainable finance which is, in other term, the application of the concept of sustainable development into financial activity. In the Brundtland Report, the United Nations (1987) defined the sustainable development as the development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" or as "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs". In 2015, the UN set up the Sustainable Development Goals (SDGs) that are intended to be achieved by 2030 for a better and more sustainable future, since the actual economic development model is not sustainable. The seventeen SDGs are included in a UN General Assembly Resolution called the 2030 Agenda and are declined on the economic, social, and environmental dimensions.

Given the tight link to the global capital market and determining the investments-making process, CSR has increasingly gained importance over time: being green or socially responsible is a real trend. So that, the need to disclose and measure the social and environmental performance also fulfils the necessity to crack down one famous attitude nowadays: the greenwashing. The term derives from "whitewashing", which refers to the attempt to stop people finding out the true facts about a situation. So, the "greenwashing" is defined as the behaviour or activities that make people believe that a company is doing more to protect the environment (or be socially responsible) than it really is.

1.4. The Impact of Covid-19 on ESG

In recent years, we witnessed to different changes in the world, from climate emergency and social injustice to the coronavirus pandemic. And now, we are in the midst of a war at the door of Europe.

The grown interest for sustainability has been heated by Greta Thunberg, who began to protest outside the Swedish Parliament in 2018 for the climate emergency. The young Swedish schoolgirl inspired the creation of an international movement, called Fridays for Future, which demand action from political leaders to prevent climate change and for the fossil fuel industry to transition to renewable energy.

Climate change is not in the future, is now. Recently, we witnessed to extreme weather events which climatologists traced back to the consequences of rising global temperatures and are examples the fires in Australia and in the Amazon, the violent hurricanes in US, the floods in Europe and many others.

All the climate-related disasters happened have caused billions of euros in damage and numerous deaths, hitting disproportionally the poorest and the most vulnerable parts of the society.

The social awakening is more than only related to climate change and goes beyond to the social impact awareness. Social injustices bring us to reflect on who we are, the impact of our choices on society, as well as in which firms we decide to invest. For example, the social movement Black Lives Matter seeks to highlight racism, discrimination, and inequality experienced by black people. Shading a light on this issue which many people fail to acknowledge or address, it brings us to recognize actively social injustices and act for a better society.

All these events contributed to raise the awareness of ESG, which had transformed from a niche to mainstream. The coronavirus pandemic (and now the war) further accelerated this process of change. A process which impacted also on our day-to-day behavior and everyday life, from work to entertainment. The pandemic put the magnifier on the concept of sustainability such that companies adopted strategies aiming to reduce the negative environmental impact, but also social inequalities. They designed a governance that is attentive to the environment, the society, and the social welfare.

The factor Environment came to the fore because during the lockdown the nature took its dominant place showing the harmfulness of the human being presence in the world, or at least of his bad habits. Some scientists claim that there is a correlation between the pollution of the environment and the speed of transmission of the virus, but nowadays there is no full convergence about that. Others say that the spread of diseases like Covid-19 can be exacerbated by rising temperatures, deforestation, loss of biodiversity, and poor sanitation – all of which are prominent, interconnected sustainability issues.

The water of lakes, rivers and seas became cleaner, the green flourished, the quality of air increased thanks to the stop of the production processes of all industries and restriction to movement and work. A relatively "new" way of doing business (i.e., e-commerce) and work (i.e., smart-working) have affirmed in order to survive somehow because of tight restrictions needed to contain the spread of the virus. The new habits reduced drastically CO_2 emissions, the main factor which explains climate change. A recent scientific study say that the raising temperature will lead many animals to find new warmer habitat and, in the end, easing

the transmission of viruses, could be the cause of a new pandemic. It brings to our conscious the importance not only of the nature per se, but also the fact that if we do not respect the habitat where we live, it could severely harm us: the human being, with his insolent and extreme behaviour, could be the cause of his extinction. For this reason, the transition from a brown economy, characterized by the so-called “throwaway culture”, to a circular and green economy is necessary and is the actual base of the reconstruction of the global economy post Covid-19. The process should be driven by a real awareness of the “file rouge” among society, environment, and resources scarcity.

In the encyclical Laudato si’, Pope Francis critiques consumerism and irresponsible development, laments environmental degradation and global warming, and calls all people of the world to take "swift and unified global action". The pope affirms that our social and environmental crises are not two separate crises, but one complex crisis that must be solved holistically, which led to a stronger concentration on social factors. The Covid-19 pandemic has brought to light the importance of the "S" factor because it has led to significant social disparities and an increase in poverty and unemployment. The human being discovered the fragility of his life and the importance of life quality, during that time of crisis. Philanthropism put the concept of the well-being of employees and workers, and their health and safety to ensure strong productivity ahead the profit-oriented view: the adoption of good long-term welfare practices will drive the superior performance of companies.

From the start of the pandemic, every firm in the world (except the ones which supply essential goods) was forced to close and many people lost their job. According to Statista, in US, the unemployment rate increased rapidly from 3.7% of 2019 to 8.1% of 2020. It means that nearly seven million of people lost their job because of pandemic in 2020. After decreasing to 5.3% in 2021, nowadays, it come back to its original level of 2019. In the European Union, the unemployment rate followed the same pattern: it increased sharply from 6.8% in 2019 to beyond 7.5% in 2020, remained constant around 7% around 2021, and come back to its original level at the beginning of 2022. The European Commission responded strongly to this issue, developing a temporary (until December 2022) tool to support the EU Member States and protect the jobs and workers: the SURE (Support to mitigate Unemployment Risks in an Emergency). This is a strong expression of solidarity between the Member States through the EU for the protection of workers. The SURE will provide financial assistance totalling €100 billion in the form of loans, granted by the EU to Member States on favourable terms. The loans will help them to cope with rapid increases in public expenditure on maintaining employment and to prevent a shock from having negative and lasting effects on the Member States’ economy. Thus, it contributes to supporting household incomes and to preserving the productive capacity and human capital of businesses and the economy as a whole.

The new environment generated by Covid-19 is characterized by an increasingly complex set of pressures and demands from various stakeholder groups, heightened expectations for societal engagement and corporate citizenship, and radical uncertainty about the future. These factors are complicating board decision-making and challenging the classical shareholder-centric model of governance, rewriting the rules of corporate governance (Paine, 2020).

One of the first difficult decision to take regarded the dividend policy. Boards of directors had to balance company's strategic plans requirements with the pressure from shareholders, in order to meet their expectations, and the signalling effect reducing the dividends in a period in which employees, the skeleton of a company, were being laid off. Similarly, boards faced the same problem for the compensation of executive and management employees, far higher than company workers who not only bore the brunt of potential exposure to Covid-19, but they also tended to be the least well paid and the most vulnerable to health and financial risk. Executives' compensations should be aligned with the company's strategy and societal commitments, perceived internally as fair and equitable. It means that companies shall consider the reaction of each stakeholders' group to various possible corporate decisions because the latter may be considered as unfair to the public, given a particular situation.

The pandemic showed the importance of every stakeholder group for the correct functioning of a company. The shareholder primacy principles, by which corporations exist principally to serve shareholders, have been completely surpassed: there is no primacy of one group of stakeholders over the others. The crisis has validated the Business Roundtable's 2019 statement on corporate purpose, which was signed by 181 CEOs who commit to lead their companies for the benefit of all stakeholders – customers, employees, suppliers, communities, and shareholders – and reversed its endorsement of shareholder primacy.

Boards started to actively monitor relationships with core stakeholders and, at the same time, define a corporate strategy aimed at meeting their expectations or incorporate their voice and perspective into the decision-making processes. Corporate governance will embrace a holistic approach towards sustainability as expression of corporate citizenship in order to create long-term value for all stakeholders, addressing both environmental (e.g., environmental degradation, climate change) and social issues (e.g., gender gap, racial and ethnic discrimination, wealth inequality, declining education).

Monitoring company's relationships with its stakeholders, assessing strategy, overseeing risk, reviewing societal and environmental engagement, assessing pay practices, overseeing board independence and management's diversity and inclusion efforts characterize a strong corporate governance. Ultimately, the latter amplifies the impact of "E" and "S" factors.

The change started from the base. In July 2020, the European Council agreed a temporary recovery instrument (until 2023) to support all the EU Member States impacted by Covid-19, called the Next Generation EU (NGEU). The NGEU is a €750 billion fund and is the largest stimulus package ever financed in Europe, but it is more than a recovery plan. If its primary scope is to help repair the immediate economic and social damage brought about by the coronavirus pandemic, it is also an opportunity to make Europe greener, more digital, more resilient, and better fit for the current and forthcoming challenges. If fact, more than 50% of the NGEU will support research, innovation, digital transformation, and health system, while the 30% of the NGEU is only intended to fight climate change and environmental degradation. The European Green Deal will transform the EU into a modern, resource-efficient, and competitive economy, ensuring no net emissions of greenhouse gases by 2050, and economic growth decoupled from resource use

and fair, lifting no one behind. It has goals extending to many different sectors, including construction, biodiversity, energy, transport, and food.

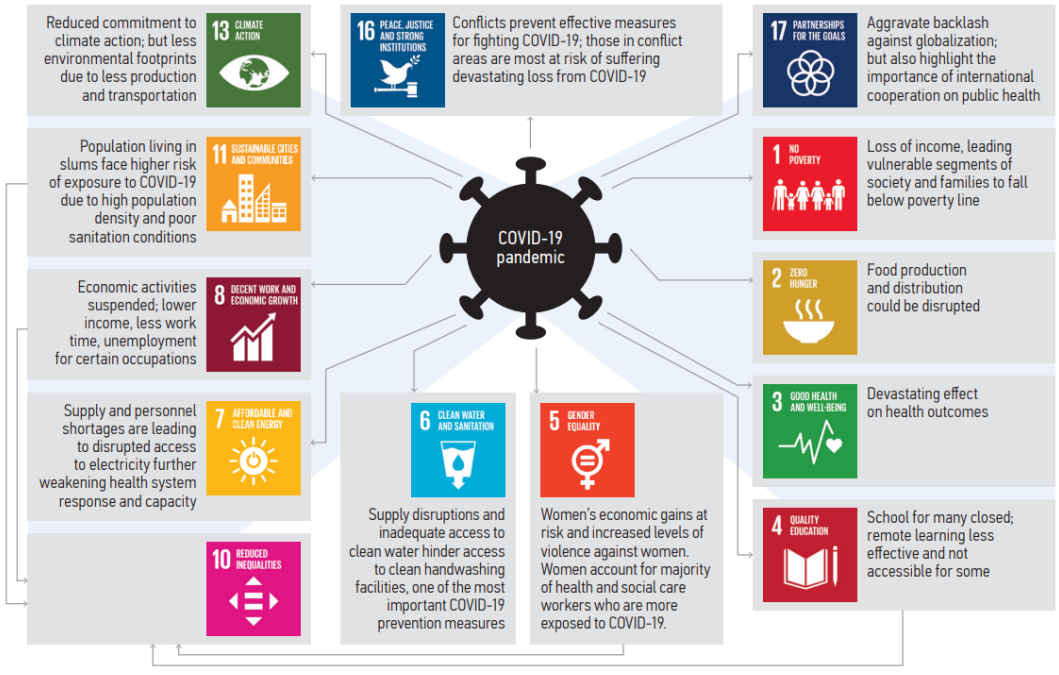
Italy is the main beneficiary of the European funds of the NGEU. Italy received €191.5 billion, equal to 25% of total funds deployed: €68.9 billion in non-repayable grants and €122.6 billion in loans. In order to allocate the funds, Italy developed the so-called National Recovery and Resilience Plan (PNRR). According to the plan's framework, financial resources will be allocated across six macro areas: (a) green revolution and ecological transition; (b) digitalization, innovation, and competitiveness; (c) mobility infrastructure; (d) education, training, research and culture; (e) inclusion and cohesion; (f) healthcare and welfare.

Covid-19 started as a public health crisis and quickly evolved into a financial and economic crisis of huge proportions. Many countries have lived a period of recession, while bond yield raised sharply and stock prices plunged and then fell into a pattern of unprecedented volatility. These effects are amplified by an increasingly interconnected world. Covid-19 pandemic can be described by Edward Lorenz's "butterfly effect": the crisis started in a provincial market in China but spread rapidly round the world through travel routes and supply chains. Inevitably, it impacted on the financial industry and accelerated the ESG trend. Morgan Stanley Investment Management (2020) has identified six implications that will involve sustainable investments during and after Covid-19:

i. Covid-19 has intensified sustainability challenges, requiring significant financing in the bond markets to address.

   According to United Nations, the pandemic has negatively impacted 13 of the 17 Sustainable Development Goals (Figure 2).

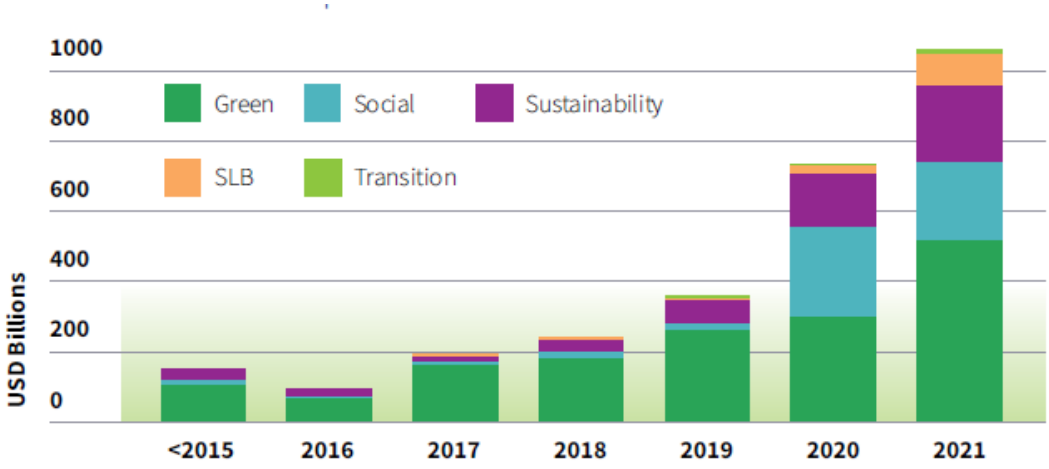
Figure 2. Socio-economic impacts of Covid-19 based on the SDGs



Source: Morgan Stanley Investment Management (2020)

In order to address these issues, the debt capital markets responded actively (Figure 3). In 2020, when the pandemic broke out round the world, sustainable finance bonds issuance raised sharply doubling the values of 2019. During full year 2021, sustainable finance bond issuance surpassed $1.0 trillion for the first time, an increase of 46% ($730.5bn) compared to full year 2020 and an all time record.

Figure 3. The volume of sustainable debt



Source: Climate Bonds Initiative (2021)

Green bonds provide the use of proceeds directed to climate and/or environmental sustainability. Energy, buildings, and transport have always accounted as use of proceeds categories by more than 75%. Green bonds have always been the largest source of sustainable debt. In 2021, they reached an all-time record with 49% of the total ($523bn), thanks to an increase of number of issuers, instruments, and average size of the instruments. The market size increased a bit in 2020, but it increased by 75% in 2021. In the same period, more than three quarters of sustainable debt are issued by Europe, Asia pacific, and North America, respectively in terms of volume. The world largest green bond ever issued is the NGEU green bond which will fund green and sustainable investments across the EU. Looking at single countries, USA, China, and Germany are, respectively, the largest countries source of green debt. Financial and non-financial corporate issuers together represented nearly half of cumulative green bond volumes. Sovereigns also experienced a great growth of on the period, and now contributes 10% to cumulative volumes.

The “greenium”, or green premium, refers to the pricing advantage offered to issuers by green bonds over conventional issuance. Over time green, social & sustainability bonds achieved a pricing benefit due to higher degree of oversubscription and at times better execution in difficult markets.

Social bonds, whose proceeds are directed to social projects, skyrocketed in 2020, growing by 1017% with respect to 2019, but declined by 14% to $223.2bn in 2021. While the number of instruments more than doubled, the average size of each one more than halved. In 2021, social bond issuance experienced an upward trend in almost every region. Europe has always been the largest

source of social debt, followed by North America and Asia Pacific, respectively. Government-backed entities were the most prolific issuers, with a 66% of total social-themed volumes. The EU SURE programme was the source of 38% of government-backed entity volume. EU SURE is the worlds largest social bond scheme.

The market size of sustainability bonds experienced a huge growth in 2020 (131%), and a moderate growth (23%) in 2021, reaching the all-time record of $200bn. Their proceeds a can be directed to both climate/environmental projects as well as specific social ones. Supernationals issued more sustainability debt than any region. The largest contribution came from the World Bank for two consecutive years. Europe placed second, Asia-Pacific third, and North America fourth.

The remaining two type of bonds have a large market share in Europe and Asia Pacific, but their overall market size is small, among others bond types. The Sustainable Linked Bonds (SLB) has a $119bn market size, while the transition bond has $4.5bn one because is a relatively new market.

SLBs demonstrated the fastest growth, expanding by ten times year-on-year among all themes. In 2021, its market size grown by 940%. About 90% of SLB volume came from non-financial corporate issuers and the Italian energy company, Enel, is the largest non-financial corporate issuer of SLBs. In effect, utilities and industrials issued the largest share of SLB volumes. The SLB use the proceeds for general corporate purpose and the financial and/or structural characteristics of these bonds depends on sustainability related KPIs. The proceeds of transition bonds, instead, is directed to projects that help “brown” companies become less brown and align themselves with the sustainable benchmarks.

Agency and Sovereign issuers accounted for 41% of overall activity during full year 2021, down from 56% of Sustainable Finance bond activity in 2020. In the last ten years, Agency and Sovereign issuers surpassed Corporate issuers only in 2020 with a raise of 440% with respect to 2019. Registering a 91% increase compared to a year ago, Corporate issuers accounted for 57% of issuance, up from 44% during full year 2020. European issuers accounted for the largest regional market for Sustainable Finance bonds with 54% market share during full year 2021, compared to 22% from the Americas and 18% from Asia Pacific. It was achieved a similar result in 2020 (Refinitiv, 2021).

ii. Sustainable investing will play a defining role in shaping the recovery.

All regulators integrated green transition principles into stimulus package. The NGEU is a remarkable example. But also the US announced its $2.3 trillion infrastructure plan with a large focus on electric vehicles, clean energy, and climate change research, in order to create a more sustainable economy.

iii. Integration of sustainability considerations into valuation and risk/return models.

Investors will incorporate ESG factors into their assessment of risk/return of the issuer, so that companies and Governments that have established strong ESG practices will emerge successfully from the crisis.

iv. Increasing role of active engagement by fixed income investors, especially on social issues.

The pandemic highlighted the importance of social and governance issues that had previously been underestimated compared to environmental issues. In fact, the Principles of Responsible Investment have stimulated investors to take a critical look at companies that neglected their workers' safety or favoured executive pay and dividend payments over business sustainability. Since the measures taken to address the pandemic will be financed mainly through debt securities, issuers, in order to obtain the necessary resources for their economic recovery, should improve and inform the whole sustainable investment process.

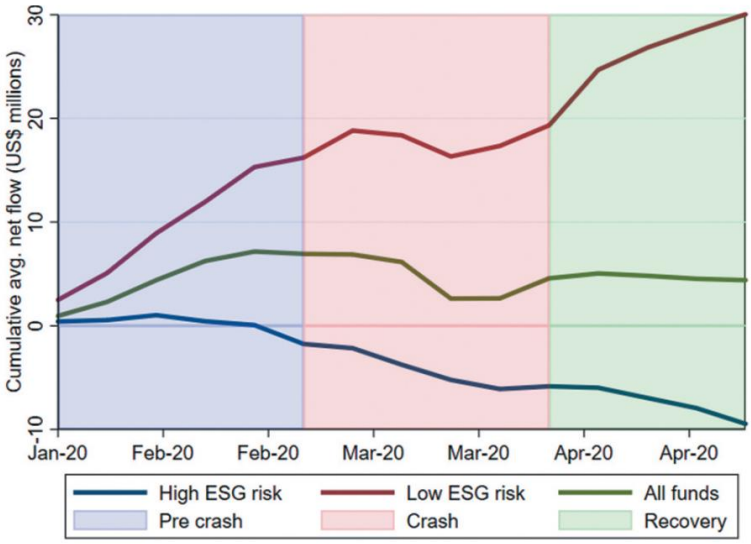
v. Improved holistic risk assessment and disclosure practices from companies.

The need for companies to develop and communicate holistic risk models applied to other high-impact/high-likelihood sustainability risks beyond climate change.

vi. Greater investors focus on preparedness and resilience in the face of long-term risks.

Many sustainability issues like health, inequality and climate change are inherently long-term, with impacts and solutions playing out over decades. However, associated risks such as infectious disease outbreaks, social unrest and weather events can manifest more severely in the short term. Companies started to prepare plans to manage disruptions and smoother the recovery when they occur. The pandemic has demonstrated the need for more resilient systems that investors will pay more attention to. Resilience is synonymous with stable cash flows, less price volatility on bonds, and lower default rates.

Figure 4. Average cumulated flows of high ESG risk funds and low ESG risk funds



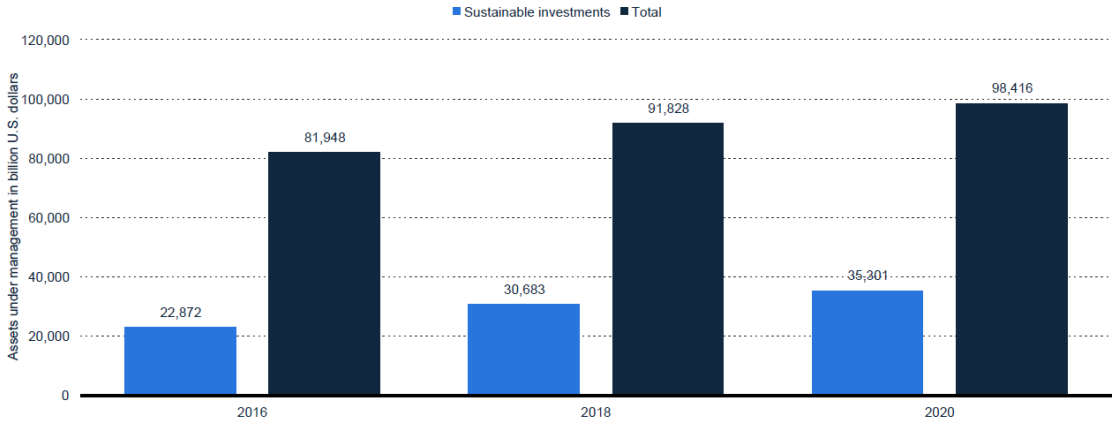
Source: Ferriani & Natoli (2021)

The spread of the Covid-19 pandemic started in China at the end of 2019 and in Europe, as well as in the world, at the beginning of 2020. Starting from that period, Ferriani & Natoli (2021) analysed the growing ESG trend. They considered the dynamics of cumulative average net flow of all funds in the sample considered, that of high-ESG risk funds and that of low-ESG risk funds (Figure 4). A stark difference

appears between low-ESG risk funds (red line), which experienced positive inflows even during the market collapse phase (light red shaded area), and high-ESG risk funds (blue line) that suffered continued outflows since then.

According to Statista (2022), the worldwide value of assets under management (AUM) from sustainable investments was small in comparison to total assets under management in 2020 but has grown since 2016 (Figure 5). Sustainable investment AUM grew by over 50 percent between 2016 and 2020 and reached a value of around $35.3 trillion in 2020. Total assets under management globally reached around $98.4 trillion that year. The share of total global assets under management (AUM) from sustainable investments grew in recent years too. In 2020, almost 36 percent of the total AUM worldwide were from sustainable investments, compared to around 28 percent in 2016.

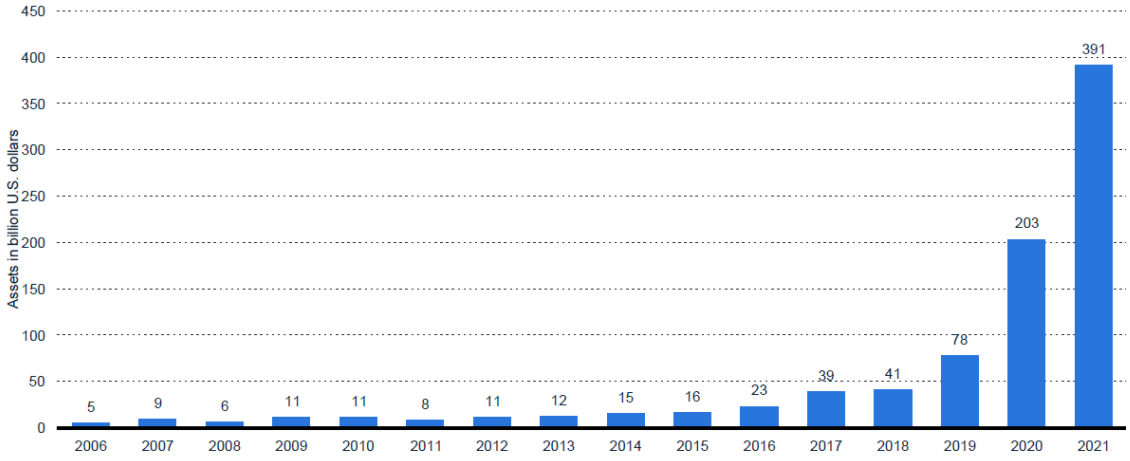
Figure 5. Value of sustainable AUM and total AUM worldwide



Source: Statista (2022)

The growth of ESG investing in 2020 can be investigated not only analysing the trend of sustainable AUM, but also looking at ESG Exchangeable Treaded Funds (ETF). The total asset size of ESG ETFs worldwide grew markedly since 2006, when the assets was $5bn, up to $391bn in 2021 (Figure 6).

Figure 6. Global ESG ETF assets



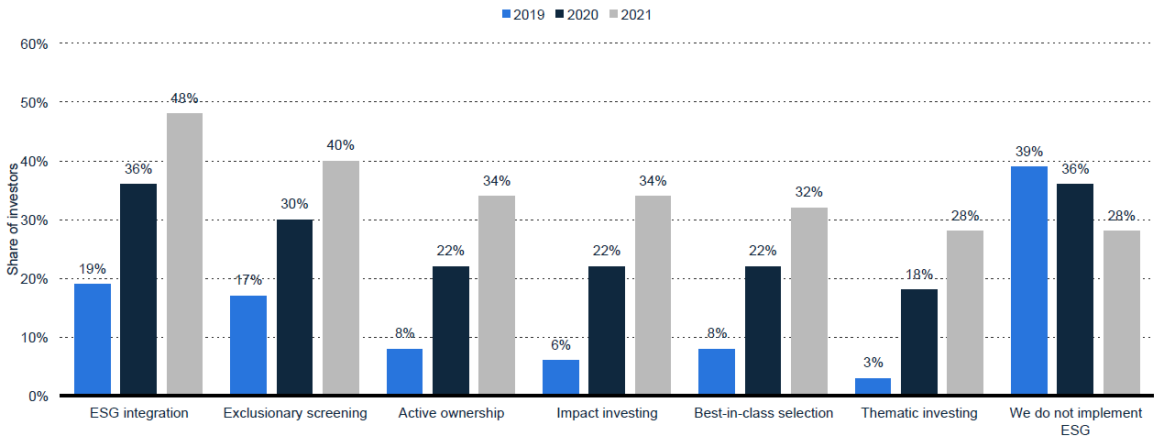
Source: Statista (2022)

In terms of geographic distribution, most assets managed by ESG funds worldwide are concentrated in Europe, accounting for 81 percent of the total assets. Only 13 percent of total sustainable assets worldwide are managed in the United States. European sustainable funds held the more than three trillion U.S. dollars of sustainable assets, which is more than ten times the value of assets of sustainable funds in the United States. Asia was the third largest region for assets of sustainable funds, reaching 81 billion U.S. dollars.

A similar geographic distribution is observed for ESG ETF assets. Most of the worldwide ESG ETF assets were concentrated in Europe at the end of 2021. More than 60 percent of the total AUM of ESG ETFs were in Europe. A little more than one third of the assets in America, while Asia-Pacific only accounted for three percent of the worldwide ESG ETF assets.

The most common method for ESG investing among institutional investors worldwide in 2021 was ESG integration, meaning systematically including ESG issues in the investment decision. The share who used ESG integration more than doubled since 2019, reaching 48 percent in 2021. Overall, ESG adoption is becoming more common, and the share who did not implement ESG methods at all decreased steadily during the period (Figure 7).

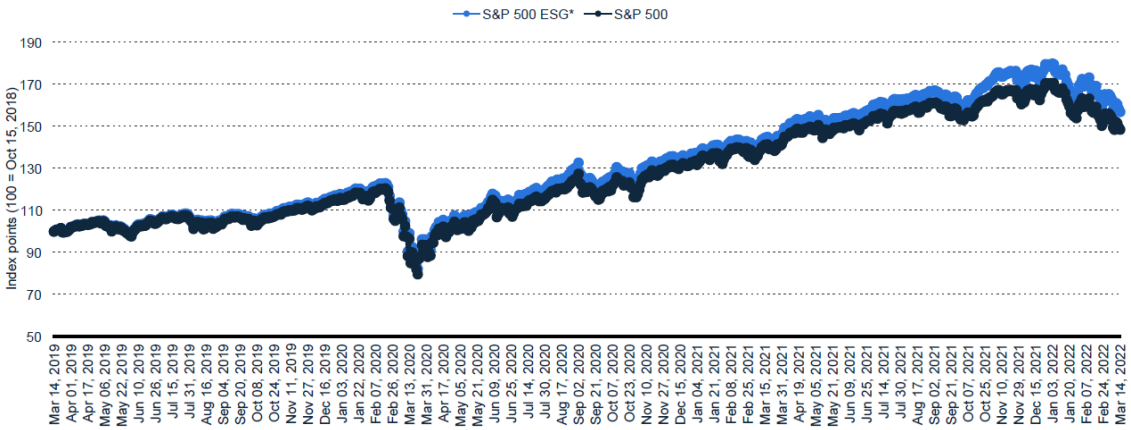
Figure 7. Most common method for ESG adoption among institutional investors worldwide



Source: Statista (2022)

Finally, it worth to note that also some ESG indexes outperformed their counterparts from the start of the Covid-19 (Figure 8). It is the case of the S&P 500 ESG: a market-cap-weighted index designed to measure the performance of securities meeting sustainability criteria, while maintaining similar overall industry group weights as the S&P 500. Over the three years through March 14, 2021, the S&P 500 ESG index outperformed the regular S&P 500 index. Before the pandemic, the difference between the two indexes was slightly less than two points, but this had changed to over 2.5 points by the end of March 2020, was approaching four points by the end of June, and reached 4.4 points at the end of September. However, this may not as much reflect the higher profitability of sustainable investing as much as the economic impacts of the coronavirus pandemic. One of the key differences between the two indexes is that the S&P 500 ESG index has a higher concentration of technology stocks, and the technology sector was the best performing sector throughout the coronavirus pandemic.

Figure 8. Performance difference between the S&P 500 ESG and S&P 500 indexes



Source: Statista (2022)

To conclude, coronavirus pandemic served as wake-up call, driving the economy towards a greener and more inclusive model and investments towards a more sustainable investing one. Although, this shift is getting slower because of the war between Russia and Ukraine and geopolitical tensions associated with the latter in other countries, ESG is more than a trend and will help accelerate the global recovery from the pandemic and build a more resilient economy and society for the future.

Chapter 2: Mergers & Acquisitions

2.1. Types of M&A

M&A is the acronym of Mergers and Acquisitions which refers to the consolidation process of companies, business units or assets. There are two main ways through which a company can grow: (a) organically: investing in technology, creating new products, and hiring new people; or (b) inorganically: bolt-on acquisitions, alliances and joint venture, strategic acquisitions. So, being a synonymous of external corporate expansion, M&A is the opposite of the organic growth. Inorganic growth is considered a faster way for a company to grow compared to organic growth.

"M" stands for merger, which is a combination of two or more firms in which all but one cease to exist legally and the combined organization continues under the original name of the surviving firm. In a typical merger, shareholders of the target firm – after voting to approve the merger – exchange their shares for those of the acquiring firm. Those not voting in favor are required to accept the merger and exchange their shares for those of the acquirer. A merger differs from a consolidation, which is a business combination whereby two or more companies join to form an entirely new company. All of the combining companies are dissolved and only the new entity continues to operate. The shareholders of the original companies become shareholders of the new company. If a merger is represented by the following equation A + B = A (company B merges into A), a consolidation is represented by A + B = C (C is the new company).

"A" stands for acquisition, which is when any kind of business purchases another part (or all) of another business which does not change its legal name or structure. An acquisition may involve the purchase of another firm's assets or stock, with the acquired firm continuing to exist as a legally owned subsidiary. In contrast, a divestiture is the sale of all or substantially all of a company or product line to another party. In a spinoff, a parent creates a new legal subsidiary and distributes shares in the subsidiary to its current shareholders as a stock dividend. An equity carve-out describes a transaction in which the parent firm issues a portion of its stock or that of a subsidiary to the public. A leveraged buyout (LBO) or highly leveraged transaction involves the purchase of a company financed primarily by debt (DePamphilis, 2010).

The price is the total amount of consideration paid in all forms in order to acquire the target company or its assets. Acquisitions of the assets or of the target shares can be paid for in cash or in shares (or a mix). When cash is paid, an acquisition is often called an outright acquisition; when shares are used, it is called a stock swap or an all-equity transaction. A merger is always paid in shares (Fleuriet, 2008).

An M&A transaction involves an acquirer (buyer) and a firm that has been targeted by another firm for a takeover (seller). There are two types of buyers: (a) strategic buyer: other companies planning to combine operations of the two companies to some extent (as opposed to buying strictly for financial reasons); and (b) financial buyer: funds of money (usually private equity funds) that buy companies.

Usually, the buyer makes an offer to the target called tender offer. When the seller's management and board of directors are willingly acquired by the buyer, the M&A transaction is called friendly takeover. In contrast, an unfriendly takeover or hostile takeover occurs when the initial approach was unsolicited, the target was not seeking a merger, and the approach was contested by the target's management. The acquirer may attempt

to circumvent management by offering to buy shares directly from the target's shareholders (i.e., a hostile tender offer) and by buying shares in a public stock exchange.

In hostile takeover, the target company can put in place some defense measures that are pre-emptive or reactive. Example of pre-emptive tactics are anti-takeover amendments (i.e., charter changes that aim at limiting a Bidder's ability to get the control of the Target, such as staggered boards, fair price provision, upper-majority provision, dual class recapitalization), golden parachutes (i.e., provisions that generously compensate the top managers in case they are fired after a change in control), labor agreements (i.e., union representatives might be part of the board of directors and since hostile takeovers typically result in downsizing the Target, labor representatives are likely to oppose an attack), poison pills (i.e., issuance of securities to make costly and difficult to gain control of the Target), and poison puts (i.e., covenants that grant bondholders the right to sell Target bonds at par – or even above par – in case of a change in control). Instead, some reactive measure could be greenmail (i.e., the Target repurchases its shares from the Bidder at premium, in exchange for the Bidder's agreement not to make a hostile bid over a given time span), white knight (i.e., friendly bidder to contrast the hostile bid), white squire (i.e., company purchasing a block, without gaining control), Pac-man (i.e., the Target launching a counter bid on the Bidder), restructuring (i.e., it refers to divestures and break up transactions – the sale of "crown jewels" – acquisition of undesirable assets, share repurchase or leveraged recapitalization to increase the leverage of the Target to intolerable levels for the Bidder), and enter into a litigation.

Under the economic perspective, business combinations may also be defined depending on whether the merging firms are in the same or different industries and on their positions in the corporate value chain. A horizontal merger occurs between two firms within the same industry. A conglomerate merger is one in which the acquiring company purchases a firm in a largely unrelated industry and is usually done for diversification reasons. Vertical mergers involve firms that participate at different stages of the production or value chain.

In a well-known article published in the Harvard Business Review, Professor Bower (2001) identified six distinct varieties of M&A transactions:

i. Overcapacity deals: are aimed at reducing capacity and duplication in mature industries through consolidation in order to obtain cost synergies. The acquiring company (part of an industry with excess capacity) will eliminate capacity, gain market share, and create a more efficient operation. The industry as a whole has less excess capacity at the end.
ii. Product or market extension: the aim is to extend a company's product line or its international coverage. Sometimes these are similar to geographic roll-ups; sometimes they involve deals between big companies.
iii. Financial deals in which a multi-business company sold a division to a financial acquirer.
iv. Geographic roll-ups: companies with successful strategies expand geographically by rolling up other companies in adjacent territories in order to gain access to a target's customers, channels, and

geographies. Like overcapacity M&A deals, roll-ups are designed to achieve economies of scale and scope by rolling up competitors in geographically fragmented industries.

v. M&A as R&D: acquisitions as a substitute for in-house R&D is used to build market position quickly in response to shortening product life cycles. As John Chambers, former executive chairman and CEO of Cisco Systems, said, “If you don’t have the resources to develop a component or product within six months, you must buy what you need or miss the opportunity”.

vi. Industry convergence deals: the purpose is to exploit resources from existing industries whose boundaries seem to be disappearing. If these deals don’t work, they simply create conglomerates with unrelated business units. They are the old vertical M&A, where a corporation buys a supplier or a customer. They are not usually successful because the combined entity will compete with customers of the former supplier or with suppliers of the former customer.

In Bower’s findings, overcapacity and product-line extension deals were the most common, while the last two were still uncommon.

2.2. The Rationale Behind M&A Transactions

The strategic motives and determinants of M&As are multiple, but there are two most cited ones: faster growth and synergies.

Growth is one fundamental reason for M&As. Companies can grow within their own industry or may expand in other industries (i.e., diversification). Companies seeking to expand are faced with a choice between internal or organic growth and growth through M&As. Internal growth may be a slow and uncertain process. Growth through M&As may be much more rapid, although it brings with it its own uncertainties. During the expansion phase, timing is essential: as a company grows slowly through internal expansion, competitors may respond quickly and take market share. M&A may be a quicker and less risky mean also if a company decides to expand geographically, into other regions in the country in which it is already based or in other countries. In the latter case, cross-boarder M&A is considered a way of achieving greater revenues and profits. A cross-border deal may enable an acquirer to utilize the country-specific know-how of the target, including its indigenous staff and distribution network.

In some slow-growth industries, continuing to grow becomes very tough and M&A is seen as a way to jump start growth. On the one hand, it will lead revenue growth (i.e., just adding the revenues of the target company) and seems partially solve the main issue of the company, but on the other hand it will be more difficult sometimes to also improve the profitability of the overall enterprise. Boards should critically analyse the expected profitability of the revenue derived from growth and determine if the growth is worth the cost.

Sometimes, companies want to expand in other industries that are more profitable than the current one they belong to because the latter has reached maturity or it is not possible further increase the price and get abnormal profits. So, they see M&A as the most powerful tool for business diversification. But the main problem companies face when they enter in a more profitable industries is the lack of an assurance that those profit opportunities will persist for an extended time in the future. Economic theory implies that in the long run, only industries that are difficult to enter will have above-average returns. This implies that a diversification program to enter more profitable industries will not be successful in the long run. The expanding firm may not be able to enter those industries that exhibit persistently above-average returns because of barriers that prevent entry, and may be able to enter only the industries with low barriers. When entering the low-barrier industry, the expanding company will probably be forced to compete against other entrants who were attracted by temporarily above-average returns and low barriers. The increased number of competitors will drive down returns and cause the expansion strategy to fail (Gaughan, 2018). Diversification can bring other advantages like synergies.

The term “synergy” derived from the Greek “synergos”, συνεργός, meaning “working together”. In chemistry, it refers to the type of reaction that occurs when two substances or factors combine to produce a greater effect together than separately. In mergers, this translates into the ability of a corporate combination to be more profitable than the individual parts of the firms that were combined. There are two main types of

synergies: (a) operating synergy, which refers to revenue enhancements and cost reductions; and (b) financial synergy, which refers to the possibility that the cost of capital may be lowered by combining one or more companies.

Revenue-enhancing synergies can be difficult to achieve. One survey by McKinsey (Christofferson *et al.*, 2004) estimated that 70% of mergers failed to achieve their expected revenue synergies. Revenue-enhancing synergies can come from various sources:

i. Pricing (or purchasing) power: it's the ability to raise prices without reducing demand in their products. Whether this will be achievable depends on the degree of competition in the industry and relevant geographic markets, as well as the size of the merger partners. With respect to pricing power, if the combination leads to a more oligopolistic market structure, this may be possible. On the other hand, if large pricing gains are achievable through increased concentration, the deal may not get regulatory approval (Gaughan, 2018);
ii. Combination of functional strengths: each merging company bring important capabilities to the table, which the other lacks (e.g., one company has strong R&D or production abilities while the other has great marketing and distribution);
iii. Growth from faster-growth markets or new markets: achieve a meaningful growth in a mature market is very difficult. This sometimes means that large companies have to invest greater amounts to increase market share or sometimes to merely maintain what they have. However, such companies may be able to achieve important increases in growth by moving into more rapidly growing markets, such as those in the emerging world (Gaughan, 2018).

If revenue-enhancing synergies are difficult to achieve, this means that the main source of operating synergies comes from cost-reducing synergies. This type of synergies comprises both economies of scale and economies of scope. Economies of scale are cost advantages reaped by companies when decreases in per-unit costs result from an increase in the size or scale of a company's operations. As the production becomes efficient, the level of output rises and the per-unit fixed costs decline. This is sometimes referred to as spreading overhead. Economies of scope arise when a specific set of skills or an asset currently employed to produce a given product or service is used to produce something else. While economies of scale mean produce more of the same product/service in order to reduce costs by increasing efficiency, economies of scale refer to producing multiple products/services together to lower costs.

Financial synergies refer to the impact of a M&A on the cost of capital which results lower in the acquiring firm or in the newly formed entity. An M&A may reduce firm's risk, decreasing volatility in cash flows which in turns decrease the risk of bankruptcy. As a result, suppliers of capital perceive the firm less risky and the cost of capital decreases. Higgins & Schall (1975) explain this effect in terms of debt coinsurance. If the correlation of the income streams of two firms is less than perfectly positively correlated, the bankruptcy risk associated with the combination of the two firms may be reduced.

The concept of economies of scale, obtained through a M&A, is applied also to the financial level: financial economies of scale may be possible in the form of lower flotation and transaction costs (Levy & Sarnat, 1970). In financial markets, a larger company is considered less risky than a smaller firm and it can enjoy better access to financial markets. A larger company experiences lower costs of raising equity and debt capital: so, the bigger size of a firm after an M&A transaction may lower the firm's cost of capital. Thus, larger companies may provide targets access to an internal capital market (Billet & Mauer, 2003).

Other motives for M&As can be found in horizontal and vertical merger. In horizontal mergers, companies can realize certain economies since they each know the other's business and they can increase their market share, although the latter depends on the size of the firms involved and the level of competition within the industry. An increase in market share impacts directly on market power (i.e., monopoly power) which is defined as the ability to set and maintain price above competitive levels.

Reasons behind vertical mergers are multiple. Companies may vertically integrate to be assured of a dependable source of supply. Dependability may be determined not just in terms of supply availability but also through quality maintenance and timely delivery considerations. Having timely access to supplies helps companies to provide their own products on a reliable basis. In addition, as companies pursue just-in-time inventory management, they may take advantage of a vertically integrated corporate structure to lower inventory costs. Moreover, owning a supplier, the buyer can lower transaction costs and predict future supply costs. Vertical integrations may be very common when the buyer uses specialized inputs in its operations in order to be no more at the mercy of the supplier.

Roll (1986) formulated the so-called "hubris hypothesis" regarding the rationale behind corporate takeover. According to this hypothesis, managers seek to acquire firms for their own personal motives, as the primary motivation of an acquisition sometimes. Managers may also pay a premium for such acquisition because they believe that their valuation is superior to that of the market. Managerialism is somewhat similar to hubris, in that both may involve overpaying for a target. In managerialism, however, the bidder's management knowingly overpays so as to pursue their own gains, even though it comes at the expense of their shareholders (to whom they have a fiduciary duties). Another theory similar to the hubris hypothesis is the one formulated by Lehn & Zhao (2006), according to which managers of companies acquire other companies to increase their size (i.e., empire building), which, in turn, allows them to enjoy higher compensation and benefits.

Other motives that could be mentioned as important determinants of M&As are improving management (i.e., changing the actual management with another one that can better manage the target's resources can increase the value of the target), improving R&D, improving distribution channels, and securing tax benefits.

2.3. Valuation of M&A Transactions

In a M&A transaction, the stand-alone theoretical value of the target company (i.e., its value before the transaction) is sometimes significant different from the paid price. This positive difference is defined as acquisition premium and can be partially explained by the following two kinds of effects, difficult to quantify but usually main drivers of M&A transactions: (a) revenue/cost synergies; and (b) attempt to modify the market's competitive equilibrium by the acquirer or its risk profile. Otherwise, when the former difference is negative, it is called acquisition discount.

The paid price is the extreme synthesis of the negotiation process in friendly acquisitions since the acquirer wants to minimize it and in contrast the target company maximize it. In case of hostile takeover, the price is determined by the market.

The acquirer should estimate the appropriate price for the target company on the basis of the Value Creation rationale. According to this rationale the price is fair if the overall value of the acquirer increases following the acquisition (Vulpiani, 2014).

When the transaction has no impact on the stand-alone value of the target company, there would be value creation for the acquirer if the paid price is less than the stand-alone value of the target company.

Generally, the acquisition has a direct impact on the value of the acquirer. In this case, there would be value creation for the acquirer if the paid price is lower than the stand-alone value of the target plus the change in value for the acquirer resulting from the transaction (i.e., the difference of acquirer's value after and before the acquisition). In contrast, any other value of the paid price greater than this algebraic sum means value destruction for the acquirer, while the maximum paid price is defined when the two values are equal.

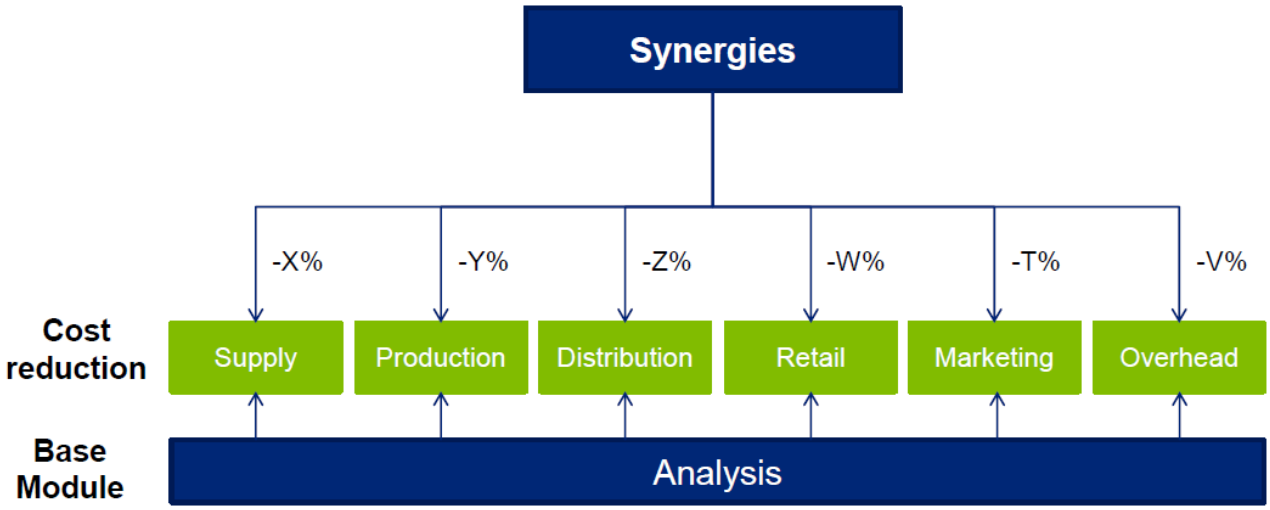
The change in value of the acquirer from the transaction is defined by the following three components:

i. The value of revenues and costs synergies obtained with the integration of the target company in the acquiring company;
ii. The value of the real options gained by the acquiring company trough the acquisition of the target company;
iii. The value associated with the change in risk profile of both the acquirer and target company, as a consequence of the transaction.

According to Vulpiani (2014), the revenue synergies analysis should focus on the price and volume increase obtainable by the sharing of tangible resources (e.g., production plants, sales forces, etc.) and intangible resources (brands, software, etc.).

Instead, the cost synergies analysis should focus on the potential cost reduction obtainable by the elimination of resource duplications (e.g., plants, depots, warehouses, etc.). The analysis model for cost synergies can be based on the cost decomposition according to the company value chain (Figure 9).

Figure 9. Cost synergy analysis



Source: Vulpiani (2014)

Once the revenue and cost synergies have been determined, the incremental value is given by the present value of the yearly revenues (i.e., cash inflow from incremental revenues) and cost (i.e., cash inflow from savings due to cost reduction) synergies in the timeframe of their implementation, netted of the cost of implementation (i.e., extraordinary cash outflows for the integration between the acquirer and the target company).

One of the reasons that often prompt companies to acquire other companies is the quest, more than revenue or cost synergies, for strategic options embedded in the acquisition These are generally real options that can improve the acquirer's competitive positioning and can be classified in the following three main categories:

a) Growth options: opportunity to increase the aggregate business of the acquiring company, with the additional benefit of increasing its competitiveness;
b) Options of flexibility and strategic diversification: economic benefits related to the increase in flexibility associated with strategic diversification;
c) Selling options: the possibility of selling the acquired company or spinning off part of it, in case of failure of the original strategy.

Finally, the impact that the acquisition may have on the risk profile of the acquiring company is the last important potential source of value generated by the acquisition process examined.

In order to model the impact of the transaction on the company's risk profile, it is possible to refer to the "Capital Asset Pricing Model" (CAPM):

$$K_e = r_f + \beta * (ERP)$$

where K_e is the cost of equity capital, r_f is the rate of return of a risk-free asset, β is the beta of the company, and *ERP* is the equity risk premium for the market.

The overall risk of the companies involved in an M&A transaction is reflected in the beta of the former equation. So, a possible approach for estimating change in the company risk profile due to acquisition involves breaking beta down into its main components:

a) Strategic risk: relates to the specific service and/or product offered by the company and, more in general, by its specific competitive positioning;
b) Financial risk: relates to the specific financial structure of the company and can be represented by the leverage of the company (Debt to Equity ratio) or by the Degree of Financial Leverage ("DFL"), which is defined by the EBIT ("Earning Before Interest and Taxes") to EBT ("Earnings Before Taxes") ratio;
c) Operating risk: relates to the specific cost structure of the company (in particular, the higher the burden of fixed costs, the higher the operating risk) and may be represented by the Degree of Operating Leverage ("DOL"), which is defined by the Gross Margin to EBIT ratio.

In particular, there are three main approaches to compute the post-acquisition beta of the acquiring company:

i. The "weighted average risk" approach: since synergies are produced by the combined contribution of both the acquiring and acquired companies, the beta of the acquiring company following the acquisition may be estimated as the weighted average of both companies involved in the transaction, using the respective equity values for weighting purposes:

$$\beta_{a+b} = W_a * \beta_a + W_b * \beta_b$$

where β_{a+b} is the post-acquisition beta of the acquiring company, W_x is company *x* equity value to total value (sum of the equity value of both the acquiring and acquired companies) ratio, and β_x is the pre-acquisition beta of company *x*.

ii. The "financial risk" approach: a possible approach for estimating the (possible) financial risk reduction for the acquirer can be based on the Hamada contribution which proposed the following equation relating to systematic risk and financial leverage:

$$\beta = \beta_u + \beta_u * (1 - \tau) * D/E = \beta_u * [1 + (1 - \tau) * D/E]$$

where β_u is the unlevered beta of the acquiring company, τ is the tax rate, and D/E is the financial leverage.

In particular, β_u represents the unlevered systematic risk (because netted of financial risk), while $\beta_u * (1 - \tau) * D/E$ represents the financial risk.

Firstly, the beta of the acquiring company is "de-levered" from his financial leverage. Then the post-acquisition beta of the acquiring company is estimated by applying the post-acquisition financial leverage in the Hamada formula (re-leverage process).

iii. The "financial and operating risk" approach: the Mandelker and Rhee contribution can be used for estimating the impact of an M&A transaction on the financial and operating risks of the acquiring company. They obtained the following equation:

$$\beta = DOL * DFL * \beta_u$$

Therefore, the unlevered beta of the acquiring company is obtained from this formula using the pre-acquisition value of beta, DOL, and DFL (de-leverage process). After that, the post-acquisition beta of the acquiring company is estimated by applying post-acquisition DOL and DFL in the Mandelker-Rhee formula (re-leverage process).

The first step for analysing an M&A premium (or discount) is to compute the stand-alone value of the target company. This can be done using the comparable companies' analysis, which is a relative valuation method, or the discounted cash flow analysis, which is an analytical valuation method.

The relative valuation methods capture the extrinsic value of the company based on the values expressed by those firms considered similar to that under evaluation. Appraisers do not compute the firm's value directly but estimate it by looking at the values expressed within the market. The analytical valuation methods are intrinsic value approaches since directly forecast the business' value drivers to perform the estimation process by building the financial model.

The discounted cash flow (DCF) method derives the value of a company from the present value of its expected free cash flow (FCF). The projected FCF are based on numerous assumptions about the expected financial performance of the company under evaluation (e.g., sales growth rate, CAPEX and net working capital requirement). The projected FCF and terminal value (i.e., its "going concern" value) are discounted to the present at the target's weighted average cost of capital (WACC), which is a discount rate commensurate with its business and financial risks. It represents the weighted average of the required return on the invested capital, debt and equity, in a given company. The present value of the FCF and terminal value are summed to determine an enterprise value. To derive implied equity value, the company's net debt, preferred stock, and noncontrolling interest are subtracted from the calculated enterprise value.

The comparable companies' method derives the firm value on the basis of multiples of certain key economic business measures that are expressed by the market. In order to apply this method, it is necessary to identify a set of listed companies comparable with the company in question which share business and financial

characteristics, performance drivers, and risks. In particular, there must be a similarity in cash flows, potential growth, and degree of risk, between comparable companies, and consistency between the numerator (i.e., enterprise value or equity value) and the denominator (i.e., the financial performance measure, such as sales, EBITDA, EBIT, earnings) of the multiple. Based on the numerator, it is possible to distinguish two types of multiples: (a) equity side multiples, calculated taking into account the market value of equity alone, allowing a direct estimate of the equity value; and (b) asset side multiples, calculated taking into account the total value of the company (i.e., enterprise value), which estimates the value of the capital indirectly.

2.4. Waves and Trends

Mergers and Acquisitions happen in waves and tend to be caused by a combination of economic, regulatory, and technological shocks. The economic shock comes in the form of an economic expansion that motivates companies to expand to meet the rapidly growing aggregate demand in the economy since M&A is a faster form of expansion than internal, organic growth. Regulatory shocks can occur through the elimination of regulatory barriers that might have prevented corporate combinations. Technological shocks can come in many forms as technological change can bring about dramatic changes in existing industries and can even create new ones (Gaughan, 2018). They are called waves because they happen alternating frequency of peaks and drops. In fact, these periods are characterized by cyclic activity, that is, high levels of mergers followed by periods of relatively fewer deals.

Seven periods of merger activity (i.e., merger waves) have taken place in history. Mergers are an integral part of market capitalism and there have been continuous waves of merger activity since the evolution of the industrial economy in the latter part of the 19th century.

1. First wave (1897-1904): the mergers of the first wave were predominantly horizontal combinations, which tended to consolidate industries. For this reason, this merger period is known for its role in creating large monopolies. The focus was on transportation (railroads) and communications (telegraph and telephone companies), as well as steel and rubber.
2. Second wave (1916-1929): if the first wave was known as “merging for monopoly”, the second wave is called “merging for oligopoly”. The consolidation pattern which started in the first wave continued also in the second wave, but the result was an oligopolistic market structure. Such trend was also favored by a more stringent antitrust environment, aimed at reducing the power of monopolies. This wave was characterized by vertical and conglomerate mergers.
3. Third wave (1965-1969): the booming economy led to a very high level of M&A activity in this period, known also as conglomerate merger period. This wave was the zenith of diversification. Many buyers tended to overpay targets because of the benefits of diversification. The fact that the conglomerate boom ended, helping the collapse of stock market, could be one of reasons this type of M&A gave negative performance most of the time.
4. Fourth wave (1984-1989): this wave was the wave megamerger. With respect to past waves, in this period the total dollar value paid in acquisitions and the average size of transaction raised sharply. One reason some industries (i.e., airline, banking and petroleum industries) experienced a disproportionate number of M&As as compared with other industries was deregulation. Moreover, in this period hostile mergers become an acceptable form of corporate expansion. The growth of junk bond market was important for many takeovers. In particular, it provided the financing for many LBOs (Leveraged Buyout, i.e., the acquisition of a Target using debt to finance a large portion of the purchase price) of the period, since good economic conditions made debt cheaper. This was one of

the reasons small companies were able to make bids for comparatively larger targets. The aggressiveness of investment bankers in pursuing M&As was crucial to the growth of this wave.

5. Fifth wave (1992-2001): during the 1990s, the economy entered into its longest post-war expansion, and companies reacted to the increased aggregate demand by pursuing M&As. As well as the fourth wave, the fifth one was characterized by many megadeals, but there were fewer hostile takeover and LBOs and more strategic mergers occurred. It was the era of deregulation, globalization and technological developments, and as a result global market boundaries were broken down. In fact, the number of cross-border transaction and geographic roll-ups raised a lot.
6. Sixth wave (2004-2007): during this year, the economic boom was driven by a persistent low interest rate environment, as a response of 2001 recession and the 9/11 tragic event. Many pointed out that this was the cause of real estate bubble in U.S., which turned out to be an economic and financial crisis all over the world. The low interest rates also gave a major boost to the private equity business. LBOs became less expensive for private equity buyers to do, since debt was cheaper. As well, private equity firms found it easy to raise equity capital and equally easy to borrow money at extremely attractive rates. The end of this wave coincided with the beginning of sub-prime crises and 2008 recession.
7. Seventh wave (2014-2019): after the Great Recession in U.S. and the sovereign debt crisis in E.U., the economic environment was characterized by low interest rate in order to pursue economic expansion. Equity market reached historical highs during this period. Cross-boarder mergers, hostile takeovers, LBOs, industrial consolidations and megadeals were still flourished and prevalent, thank to globalization and economic growth. Technology acquisition was number one driver of M&A pursuits.

The seventh wave came to an end when Covid-19 started to spread all over the world, depressing the economy of each country, by the beginning of 2020. In order to successfully understand the effects of the pandemic around the world on M&A market, it is better to make a regional analysis, focusing on three macro-areas: AMERS (North, Central and South America), EMEA (Europe, Middle East and Africa) and APAC (Asia Pacific).

i. AMERS

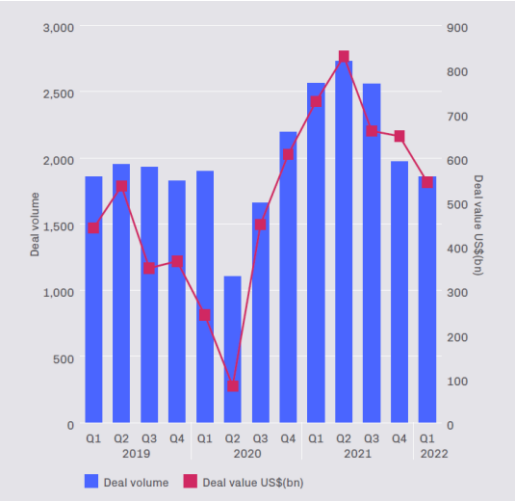
Volatile stock markets and global economic disruption as a result of Covid-19 lockdowns and uncertainty saw declines of 14% in deal volume (to 6,635 deals) and 23% in deal value (to $1.4tn) (Mergermarket, 2021a). Despite this, AMER experienced a robust recovery (i.e., a V-shaped recovery) in the second half of 2020, such that M&A volume and value outpaced the level of the same period in 2019. The expansive monetary policy, the series of successful vaccine trials and the resolution of the U.S. presidential election were the main drivers of this rebound and brought stability to the region. The technology, media, and telecoms (TMT) sector outpaced its M&A performance of

2019 with deal value rising by more than a third despite pandemic dislocation. Stay-at-home orders have boosted demand for TMT products and services and accelerated digital adoption across all industries. Technology also influenced activity in other sectors as M&A was considered a mean to enhance their digital capabilities. Also pharma, medical & biotech (PMB) and financial services (FS) sectors saw a spike in M&A activity in 2020. TMT and PMB accounted seven of the ten largest M&A transactions during the year. This reflected the focus on these two sectors through the course of the pandemic, as governments and societies adapted to remote working and shopping and invested in getting to grips with the public health impact of the pandemic.

The M&A market has continued to grow also in 2021, since the second half of 2020, thanks to vaccine roll-out, return of investor confidence and good economic performance of U.S., the largest M&A market so far. Value and volume were up more than 102% (to $2.86tn) and 39% (to 9,775 deals) respectively in 2020 (Mergermarket, 2022a). Megadeals (i.e., deals value grater than $5bn) doubled with respect to 2020 ($1.22tn), representing nearly half of total deal value. The low interest rate environment and the high volume of cash hold were the cause of the booming of Special Purpose Acquisition Companies (SPAC) phenomenon, which in 2021 reached its greatest level on both value and volume side all over the world, and buyout by private equity. Buyout value exploded to $710.3bn invested across 2,721 deals, gains of 145% and 70% on pre-pandemic levels in 2019 (Mergermarket, 2022a). The most disruptive sector, the TMT sector remained the dominant one, reaching an all time high for M&A activity. It was followed by the FS sector, which realized a consolidation process also for facing the competition from fintechs, and by the PMB sector, respectively.

By the end of 2021, the scenario changed (Figure 10). While the pandemic faded from view, geopolitical tensions and high inflation signed the descent of M&A activity. The fear of a Fed's quantitative tightening became reality in the Q1 2022 in order to fight the rising inflation. In fact, deal value and volume were respectively 16% and 5.8% down from Q4 2021 (Mergermarket, 2022b).

Figure 10. Deal value and volume in AMERS



Source: Mergermarket (2022b)

ii. APAC

The first case of Covid-19 was diagnosed in the city of Wuhan, China, in December 2019. Markets reacted to the crisis at different speeds. Oil prices fell first and hardest as travel restrictions and business closures wiped out demand. Metals slid next, and finally also stock market jumped. Also the M&A market declined in the first half of 2020 but thank to the optimism for the growth outlook of the region and the prospect of mass vaccinations which signalled a return to normality, it rose sharply in the second half of that year. Remarkably, deal value increase by 30.8% in 2020 (to $842bn) with respect 2019 (Mergermarket, 2021b). Deal volume was 4.9% down (to 4211 deals). Most striking of all, it was the surge of megadeals in both volume and deal size. Energy, mining & utilities (EMU) sector shines as the sector with the biggest increase in both volume and value, shattering its previous records. And in a year when many people were stuck at home consuming digital services, it's unsurprising that TMT deals also grew strongly, especially in value terms.

The economic recovery underpinned a return to M&A markets by corporates and investors alike in 2021. Despite the turbulence of Covid-19 and its variants, the region recorded 5,683 transactions over the year with total deal value of almost $1.3tn, representing increases of 32% and 53%, respectively, compared to the previous year (Mergermarket, 2022c). The trend of megadeals continued also in 2021, quite doubling in terms of value with respect to 2020. As well as in AMERS, also in APAC, private equity played an important role in 2021 M&A narrative. Indeed, at $328bn, the value of buyouts completed by private equity investors over the course of the year was up by 159% on 2020. Exit activity was also up sharply, with $83bn worth of deals, more than three times the US$26bn seen the previous year (Mergermarket, 2022c). The TMT sector dominated in the dealmaking activity also in 2021, followed by the Industrials & Chemicals (I&C) sector.

Figure 11. Deal value and volume in APAC

Source: Mergermarket (2022d)

M&A activity slipped in the first quarter of 2022, but the decline was less precipitous than AMERS and EMEA regions. Although value and volume dropped 21% and 9% respectively compared to the

first quarter of 2021, total M&A in the first quarter of this year is in line with pre-pandemic levels of activity (Figure 11). It's a trend that can be observed across geographic markets and is best understood as a reversion to the mean. Furthermore, it could be also explained by the strict lockdown imposed in Shanghai following the worst breakout of Covid infections China has seen since the pandemic began. This has massively disrupted cargo hipping, further adding to existing inflation, and risk stalling the country's economy.

iii. EMEA

Despite the extreme uncertainty bought by the pandemic, deal value only fell by 1% to €835.3bn, although deal volumes did see a steeper decline of 15% to 7,369 transactions (Mergermarket, 2021c). Also in EMEA, M&A market proved to be resilient in 2020, bouncing back in the second half of the year. The TMT sector was the most active in terms of deals. This reflects the reliance on technology through lockdown periods, with customers relying on their products to support remote working, schooling, and entertainment and with buyers noting the sector's ability to continue growing earnings despite wider disruption.

The TMT was the most active M&A sector also in 2021, pushed by trends like the adoption of ecommerce and hybrid work which are set to continue to grow and by consolidation in Europe's fragmented telecoms markets since high competition and cost pressures choked investment and equity returns. Total value reached €352.5bn, not only was this the highest of any sector in 2021, as well as the highest annual total for any sector in Europe on record. In 2021, as the pandemic became more manageable and the economy restarted, dealmaking activity bounced back and ground record on both value and volume side. Total value came to €1.37tn across the year, a 74% increase on the previous year, meanwhile, volume increased 43% year-on-year to 11,007 transactions (Mergermarket, 2022e). Corporates needed to raised money, also through divestitures, mainly to pay down the debt they secured during the first year of pandemic. Private equity industry was particularly rich of cash and the activity was especially buoyant, with buyout value surging 116% year-on-year to €423bn, while volume rose by 60% to 2,530 transactions. Funds weren't only acquisitive; the rebound in economic demand and the backdrop of rising stock markets supported valuation multiples, allowing PE funds to liquidate existing holdings. Exit value increased by 49% annually, to €265bn, and volume by 58% to 1,368 deals (Mergermarket, 2022e).

Dealmaking activity went down in Q1 2022 also in EMEA, without exception (Figure 12). Deal volume fell by 31% to 2,007 transactions and value by 27% to a total of €223bn year-on-year in Q1 this year. Deal value fell by nearly 50% from Q4 2021 to Q1 2022 (Mergermarket, 2022f). The main cause are geopolitical tensions, born after the invasion of Ukraine by Russia, which denting confidence and caused supply chain disruptions, and high inflation, with the specter of rising interest rates to rein in prices. Predicting how M&A will perform for the rest of the year is not easy. The

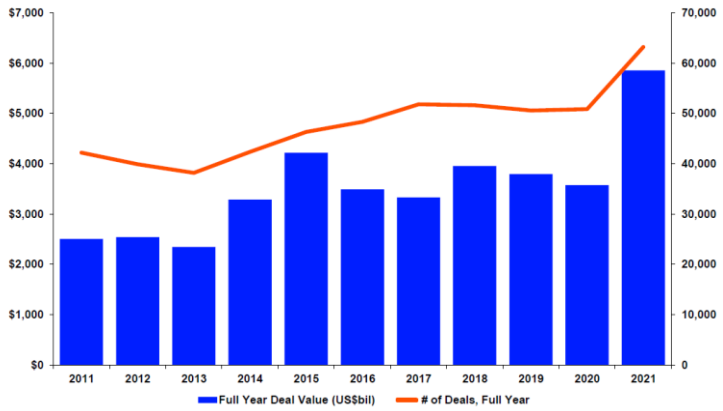
major question mark remains the ongoing conflict in Ukraine which has the potential to drag on in the next years.

Figure 12. Deal value and volume in EMEA

Source: Mergermarket (2022f)

To sum up, global M&A activity surged as soon as the world began to recover in 2021 from the Covid-19 pandemic. Buoyed by the reopening of the world economy, supportive fiscal and monetary policy, and the eagerness of both strategic buyers and private equity investors to deploy capital, deal activity hit record highs (Figure 13). Worldwide M&A activity totalled $5.9 trillion during 2021, an increase of 64% compared to year-ago levels and the strongest annual period for M&A ever. By number of worldwide deals, over 63,000 deals were announced during the year, an increase of 24% compared to year ago levels and an all-time high (Refinitiv, 2022a). In 2021, North America was the top geography by M&A deal value, while Asia Pacific was the top geography by M&A deal volume.

Figure 13. Global announced M&A



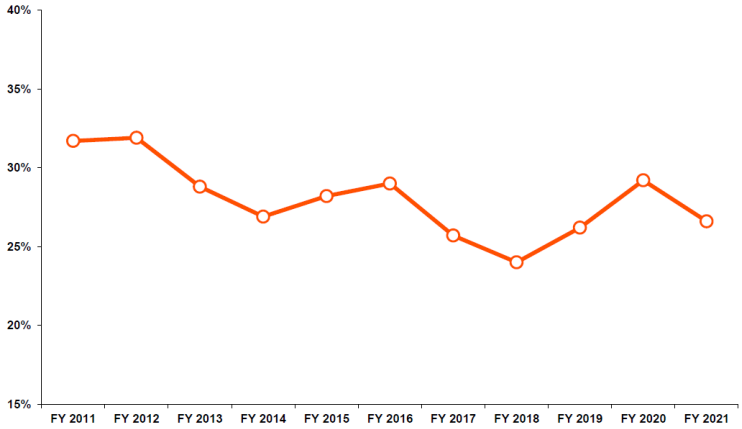
Source: Refinitiv (2022a)

Private Equity-backed still had dry powder to deploy. Their buyouts accounted for 20% of M&A activity during 2021. Overall value reached $1.2 trillion, more than doubling year ago levels, as more than 14,500

private equity backed deals were announced, an increase of 56% compared to last year. SPAC announced 335 initial business combinations during full year 2021, totalling $598.8 billion, or 10% of overall value (Refinitiv, 2022).

Despite the highest level of deal volume and deal value reached in 2021, the global M&A premium (Figure 14) came back to the level of 2019 (i.e., around 25%).

Figure 14. Global bid premium

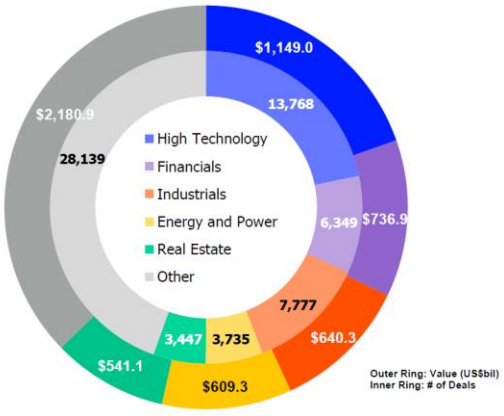


Source: Refinitiv (2022a)

The value of worldwide M&A between $1 and $5 billion totalled $1.9 trillion during 2021, an increase of 115% compared to a year ago and an all-time high. A record 55 deals greater $10 billion totalled $1.1 trillion during the year, a 30% increase compared to full year 2020 and the highest period for mega deals, by value, in two years (Refinitiv, 2022). The fact that both $1-5 bn and >$5bn deals increased largely is explained by the growing numbers of ambitious companies looking to take genuinely transformative decisions about the future of their businesses which considered M&A as a route of substantive and rapid change.

Cross-border M&A activity totalled $2.1 trillion during 2021, a 68% increase compared to 2020 and the strongest annual period for cross-border M&A ever. The Technology, Financials and Industrials sectors accounted for 39% of cross-border deals during the year, up from 38% the previous year (Refinitiv, 2022).

Figure 15. Industry composition of global M&As (FY2021)



Source: Refinitiv (2022a)

The Technology sector was the most active one globally in 2021 (Figure 15), which has significant potential for value creation also in the future. Digital transformation was the key, with businesses in every sector under pressure to innovate. The use of technology in most sectors has driven new deals. The acquisition of technology companies increased because of strengthening the operations of corporate acquirers. Tech deals have continued to dominate thanks to Covid-led acceleration of trends such as the move to online retail and the growth of cloud-based remote working, as well as soaring demand for home entertainment streaming and the telecoms capacity needed to enable the shifts. Businesses in every industry recognize the imperative for digital transformation and are scrambling to secure the technology and talent that can speed their progress (Baker Tilly International, 2022). According to a survey of Aon (2022), more than two-thirds of dealmakers expect the TMT sector to generate the highest levels of deal activity in 2022.

Moreover, digital solutions played a crucial role in facilitating M&A even at the height of the pandemic; having seen the advantages of working this way, dealmakers will continue to invest. Technological innovation has the potential to support M&A in multiple areas, from understanding tax and credit risk to driving valuation models (Aon, 2022).

Another trend in the M&A market involves the pharmaceutical industry which has naturally captured dealmaker attention during the pandemic, as companies in this space develop the vaccines and treatments required to ensure the world can escape the crisis. More broadly, trends such as the rapid expansion of the biotechnology sector, the rise of digital healthcare, and increasing demand for medicines and other drugs in emerging economies with fast-expanding middle-class populations, are all reshaping the industry. The result is ongoing interest in M&A: pharma accounted for 10% of global M&A last year, by both volume and value. In the mid-market, where many of the most innovative pharma, biotech, and healthcare businesses are to be found, the sector accounted for 13% of deal volumes in 2021 and 11% of deal value (Baker Tilly International, 2022).

With respect to other industries, the financial services sector has proven to be more resilient to the negative impacts of the Covid-19 pandemic, though the low interest rate environment poses challenges for profitability for businesses such as banks. Many businesses in the sector now appear to be reassessing their strategy for the coming years, particularly as digitization in the sector continues to accelerate. The fintech sub-sector, in particular, is growing very rapidly. Dealmaking activity in the sector is particularly dynamic to secure new technology and explore growth markets.

The last important trend in the M&A market is horizontal to all industries: the ESG theme. With President Biden more committed to environmental targets than his predecessor, business leaders are under pressure to respond on a wide range of issues. Last year saw ESG or sustainability mentioned in 4.3% of deal announcements in North America, up from 3.2% in 2020 and less than 2% in 2019. The attention to this theme is global, not only US-centric. In fact, in the Aon (2022) survey, the vast majority of dealmakers (90%) predict an increase in scrutiny of deals ESG implications over the next three years; with almost half (48%) believe the increase will be significant. In part, this reflects the growing perception that strong ESG performance and commercial strength often go together.

Referring to the next future of M&A activity, there is still a moderate optimism. More than two-thirds of those taking part in this research (68%) expect global M&A deal numbers to increase over the next 12 months (Aon, 2022). This optimism reflects several different, but complimentary, M&A drivers, such as the consolidation process and digital transformation. More than half of dealmakers identify the APAC region as providing the most supportive environment for M&A over the next 12 months because of its strong resilience and recovery from the initial shock of the pandemic. Some 54% cite it as likely to be the number one market in the year ahead, with a further 20% regarding it as the second most attractive (Aon, 2022).

About the biggest risk for M&A market, the war in Ukraine remains the central topic, particularly in Europe, because its course is very difficult to anticipate. It is notable that 44% of investment bankers surveyed believes that the current environment will lead to a decrease in the volumes of sale processes. Moreover, such geopolitical conditions have increased the attention towards cybersecurity investments.

The economic impacts of this war are already being felt, most notably through a sharp spike in inflation in many economies, prompting monetary tightening; and global growth is likely to be slower than expected this year. Given the increase of interest rates, many respondents (64%) believes that private equity will emerge as primary source of financing in the next 12 months (Aon, 2022). The SPAC phenomenon, instead, seems to come back to pre-pandemic levels after booming last year. 70% of dealmakers expect financing conditions over the next 12 months to become more challenging; that includes 30% whose expectations are for a much more challenging financing environment (Aon, 2022). The shift in monetary policy since the beginning of the year have driven the rush to get deals done, pushing dealmakers to take advantage of the situation before economic condition worsen. In part, this could explain the optimism about the increase in dealmaking activity for the following months.

Chapter 3: Literature Review

3.1. The Relationship between ESG and CFP

In the literature, there are contradicting results among worldwide academics and researchers who studied the relationship between Corporate Financial Performance (CFP) and Corporate Social Performance (CSP). Given this lack of consensus, it is one of the most debated areas in management and financial studies (Perrini *et al.*, 2011; Barnett, 2007).

The fragmentation in the literature can be explained by (a) different theoretical approach used by researchers studying the phenomenon; and (b) different level of analysis (i.e., micro and macro) considered (Aguinis & Glavas, 2012). According to Endrikat (2016), there are also two other possible explanations of the phenomenon: (a) the various measures used to operationalize the selected explanatory variables; and (b) the timeframes used to run the econometric analyses. Salvi *et al.* (2019) share the thought of Endrikat (2016) in explaining the multiple reasons behind such controversial results. In particular, they refer to: (a) differences in the operationalization of CSR, often influenced by the sector in which the firm operates and its size; (b) differences in the operationalization of corporate economic and financial performance; (c) endogeneity issues in the data analysed, attributed to the reverse causality; and (d) omitted variables biases, able to generate inconsistent and distorted coefficients.

However, Friede *et al.* (2015) examine more than 2000 prior studies investigating the link between ESG and CFP and find that over 90% of studies report a non-negative relation between the two. Also Margolis *et al.* (2007) and Kim *et al.* (2014) state that the majority of studies on this matter found a positive and statistically relevant relationship between CFP and CSP.

For completeness, the following table, although not exhaustive, presents an overview of the main empirical works that deal with the relationship between CSP and CFP (*Table 1*). The table shows that most of empirical works find a positive relationship between the two measures. This is in line with the results of the aforementioned studies. Moreover, the analysis of the literature generates two fundamental implications: (a) the need to appropriately measure CSP; and (b) the need to adopt more robust econometric methods of analysis (Salvi *et al.*, 2019).

Table 1. Empirical literature on the relationship between CSP and CFP

Authors	Dataset	CSP measures	CFP measures	Findings
Bragdon & Marlin (1972)	131 pulp and paper companies from Compustat and CEP dataset, 1965-1970	Indices of pollution records	Earnings, ROE, ROC	Positive relationship
Alexander & Buchholz (1978)	U.S. firms, 1970-1974	CSR surveys	Stock market performance	Not significant relationship

Shane & Spicer (1983)	CRSP financial tapes and CEP pollution performance data	Indices of pollution records	Stock market performance	Positive relationship
Cochran & Wood (1984)	75 firms from Compustat, 1970-1979	A specific reputation index	3 accounting return measures	Not significant relationship
Aupperle *et al.* (1985)	Fortune 500 companies	Forced choice instrument administered to corporate CEOs	ROA	Not significant relationship
Jaggi & Freedman (1992)	Monthly pollution report of plants from 13 firms, 1975-1980	Pollution index	Several accounting based measures	Negative relationship
Hart & Ahuja (1996)	127 firms from S&P 500 index, 1989-1992	Emissions efficiency index, equal to the ratio of reported emissions in pounds to the company's revenues	ROA, ROE, ROS	Positive relationship
Klassen & McLaughlin (1996)	NEXI, UPI and CRSP databases, 1985-1991	Environmental award and crisis	Abnormal stock return	Positive relationship
Griffin & Mahon (1997)	7 large U.S. companies in the chemical industries, 1992	Fortune survey, KLD index, TRI index, corporate philanthropy	ROA, ROE, ROS	Positive relationship

Preston & O'Bannon (1997)	67 large U.S. corporations from Fortune survey and Compustat dataset, 1982-1992	3 different social performance reputation ratings	ROA, ROE, ROI	Positive relationship
Russo & Fouts (1997)	243 firms from FRDC rating and Compustat database, 1991-1992	Environmental ratings	ROA	Positive relationship
Waddock & Graves (1997)	469 companies from S&P 500 and KLD, 1989-1990	Customized sustainable index based on KLD ratings	ROA, ROE, ROS	Positive relationship
Balabanis *et al.* (1998)	56 UK based firms listed on LSE, 1984-1994	NCG rating	3 accounting based and 2 capital market based measures	Controversial results
Stanwick & Stanwick (1998)	697 firms listed on Fortune Corporate Reputation Index, EPA's Toxic Release Inventory Report, Fortune 500, 1987-1992	Environmental performance, based on the level of pollution emissions released by the firm	Level of profitability	Positive relationship
Khanna & Damon (1999)	123 U.S. firms from Compustat database	33/50 releases ratio	ROI	Controversial results
Christmann (2000)	88 U.S. chemical companies	Best practices of environmental management	Cost reduction	Positive relationship

Dowell *et al.* (2000)	Firms listed in S&P 500 from Compustat and IRCC Corporate Environmental Profile, 1994-1997	Corporate environmental Standards	Tobin's q	Positive relationship
King & Lenox (2001)	614 publicly traded U.S. manufacturing firms from Compustat database EPA's TRI, 1991-1996	Total, relative and industry emissions	Tobin's q, ROA	Positive relationship
Konar & Cohen (2001)	Corporations listed on S&P 500	Aggregate pounds of toxic chemicals emitted	Tobin's q	Positive relationship
Al-Tuwaijri *et al.* (2004)	198 firms listed on IRRC, 1994	Environmental performance measured as the percentage of total waste generated that is recycled	Industry-adjusted annual stock return	Positive relationship
Lorraine *et al.* (2004)	Public companies from newspapers and Datastream, 1993-2000	CSR related good and bad news	Abnormal stock return	Not significant relationship
Mahoney & Roberts (2004)	Companies listed on TSE 300 from CSID database, 1995-1999	7 CSR dimensions ratings	ROA, ROE, ROS, Earnings	Not significant relationship

González-Benito & González-Benito (2005)	186 industrial companies from Dun&Bradstreet	Environmental proactivity measured using a questionnaire	5 operational performance measures	Controversial results
Hassel *et al.* (2005)	71 firms listed on the stock exchange in Sweden, 1998-2000	Index of environmental performance	Stock market performance	Positive relationship
Wagner (2005)	37 paper firms in four EU countries, 1995-1997	Emission of toxic chemicals and total energy and water input per output	ROCE, ROE, ROS	Controversial results: U-shaped relationship
Brammer *et al.* (2006)	Companies listed on FTSE All-Share Index and drawn from EIRIS database, 2002	Environment, employment and community indicators	Stock market return	Negative relationships
Godfrey *et al.* (2009)	178 negative legal/regulatory actions against firms drawn from different databases, 1993-2003	CSR score provided by Socrates database	Share price	Positive relationship
Lin *et al.* (2009)	33 Taiwanese firms listed on Taiwan stock exchange, 2002-2004	Average donation ratio in the industry	ROA	Positive relationship
Nelling & Webb (2009)	600 U.S. firms from Compustat and KLD databases	Customized KLD index	ROA, stock market return	Controversial results

Barnett & Salomon (2012)	1,214 companies drawn from KLD and Compustat databases, 1998-2006	KLD score	ROA, Earnings	Controversial results: U-shaped relationship
Lioui & Sharma (2012)	Data drawn from KLD STATS	Customized CSR score	ROA, Tobin's q	Negative relationship
Attig *et al.* (2013)	1,585 U.S. firms drawn by different data providers, 1991-2010	Customized CSR score	Credit rating	Positive relationship
Dumitrescu & Simionescu (2013)	Companies listed on BSE, 2009-2013	Customized social variable	ROE, ROA	Positive relationship
Nollet *et al.* (2015)	Firm listed on S&P 500 using Bloomberg database, 2007-2011	Bloomberg' ESG Disclosure score	ROA, ROC, stock market return	Controversial results: U-shaped relationship
Yang (2016)	399 firms from KLD and Compustat databases, 2001-2008	Degree of CSR engagement	Market to book ratio	Controversial results
Blasi *et al.* (2018)	998 U.S. firms from MSCI ESG KLD STATS dataset, 2003-2015	Normalized measure for CSR performance	Stock market-based economic measures	Positive relationship

Cui *et al.* (2018)	Firms from KLD STATS and CRSP databases, 1991-2010	Normalized measure for CSR performance	Stock market return	Positive relationship
Fijałkowska *et al.* (2018)	20 biggest public banks in CEEC, 2012-2016	CSR/sustainable report	ROA, ROE	Controversial results
Salvi *et al.* (2019)	1,223 companies from S&P Global 1200 index and Thomson Reuters' Asset4 database, 2011-2017	ESG pillar score	ROA, Tobin's q	Positive relationship

Source: personal elaboration

There are four main types of findings in the literature: a controversial result, a not significant result, a positive result, and a negative result.

A controversial result typically gives a negative relationship in the short-term and a positive relationship in the long-term or vice versa. In particular, Wagner (2005), Barnett & Salomon (2012), and Nollet *et al.* (2015) implement a non-linear model which provides evidence of a U-shaped relationship between CSP and CFP, suggesting that CSR may require higher costs to be implemented (i.e., the effects are negative in the short-term), but it also brings benefits in the longer run. Others, like Baird *et al.* (2012), talk about the CSP dimension-industry effects on CFP, providing the evidence that a positive relationship exists only in some sectors.

The null result has its root in the neutrality hypothesis postulated by Ullmann (1985) and Waddock & Graves (1997), which assumes the existence of a random link between CPS and CFP. Existing correlations are the result of intermediate variables acting in an unpredictable manner, but which make it possible to link the two constants. Methodological problems in the operationalization of corporate social responsibility variables contribute to hiding this link. The relationship is complex and the links between the two dimensions can be multiple and not direct.

McWilliams & Siegel (2001) sustain this hypothesis talking about an equilibrium between the two dimensions, because the costs incurred to enhance CSP offsets the profits generated.

The positive relationship between CFP and CSP can be explained by the following three theories.

The first one is the social impact hypothesis, formulated by Preston & O'Bannon (1997). This hypothesis is based on the theory of stakeholders who expect CSR to have a positive impact on CFP (Freeman, 1984). Meeting the claims of different stakeholders enhances the image and reputation of a firm in a way that impact positively on its economic performance. The direction of causality is from CSP to CFP.

The other two theories, the slack resources hypothesis and the positive synergy hypothesis, were postulated by Waddock & Graves (1997) and Preston & O'Bannon (1997).

According to the slack recourse theory, better financial performance potentially results in the availability of slack (financial and other) resources that provide the opportunity for companies to invest in social performance domains, such as community relations, employee relations, or environment. Then, better social performance would result from the allocation of these resources into the social domains, and thus better financial performance would be a predictor of better CSP. In this case, the direction of causality has opposite sign with respect to the social impact hypothesis.

According to the positive synergy hypothesis, also called good management theory, there is a high correlation between good management practice and CSP, simply because attention to CSP domains improves relationships with key stakeholder groups, resulting in better CFP. For example, good employee relations might be expected to enhance morale, productivity, and satisfaction. Positive perceptions of the firm by outside stakeholders (about the quality and nature of a company's products, its environmental awareness, and its government and community relations) may lead to increased sales or reduced stakeholder management costs. The relationship between CFP and CSP forms a virtuous circle: better CSP improves CFP, which, in turns, which makes possible to reinvest in socially responsible actions.

The negative relationship between CFP and CSP can be explained by three hypotheses too, formulated by Preston & O'Bannon (1997).

According to the trade off hypothesis, which derives from the neoclassical theory of the firm by Friedman (1970), increasing CSP brings unnecessary costs to the firm which, as a consequence, reduce its profitability and competitiveness. Higher levels of social performance led to lower levels of financial performance, putting the firm in a relative disadvantage compared to firms that are less socially active.

According to the managerial opportunism hypothesis, when CFP are good, managers, pursuing their own private objectives to the detriment of both shareholders and other stakeholders, can try to make private gains in the short-term by reducing their commitment to socially responsible behaviour. Conversely, they may increase their commitment to expensive social programs in order to offset, and sometimes justify, their disappointing results. So, higher levels of financial performance led to lower levels of social performance.

Finally, the negative synergy hypothesis postulates that higher levels of CSP lead to decreased CFP, which in turn limits the socially responsible investments. The negative synergy between CFP and CSP results in a vicious circle.

Despite the sign of the link (positive/negative/neutral) between CFP and CSP, there is still needed to verify the direction of causality (i.e., whether causation runs from CSP to CFP or vice versa), which still represents a disputed issue (Preston & O'Bannon, 1997; Waddock & Graves, 1997; Endrikat *et al.*, 2014). According to

Liang & Renneboog (2017), since most studies analyze the relationship and not the causality between CFP and CSP, the critical question of causality, whether firms "do well by doing good" or "do good by doing well", is still not clear and quite impossible to answer.

Orlitzky *et al.* (2003), conducting a meta-analysis of 52 studies, find out that (a) CSP is positively correlated with CFP, (b) the relationship tends to be bidirectional and simultaneous, and (c) reputation appears to be an important mediator of the relationship. According to them, investments in sustainability can improve image and brand reputation. Also Jo & Na (2012) find out that firms engaging in CSR activities enhance their image and reduce their risk, also in controversial industries. In fact, within strategic management research, CSR activities are often linked to reputation as a resource of competitive advantage (Barney & Hansen, 1994; Aragón-Correa & Sharma, 2003; Martínez-Ferrero *et al.*, 2016). According to Aragón-Correa & Sharma (2003), CSR activities can help firms develop valuable intangible assets such as know-how, corporate culture, and reputation, which can in turn provide many benefits such as increased customer loyalty (Fombrun *et al.*, 2000) or increased in bargaining power with strategic partner (Barney & Hansen, 1994) or the ability to attract and retain valuable employees (Turban & Greening, 1997).

Godfrey *et al.* (2009) find that a better reputation, or goodwill as they call it, acts as insurance-like protection and therefore mitigates risks of the company. The "insurance-link effect" theory postulates that firms with stronger CSR practices can create a form of goodwill or moral capital for the firm that acts as "insurance like" protection when negative events occur, tempering the severity of negative judgments and sanctions, reducing the firm risk, and preserving the firm value for shareholders (Godfrey, 2005; Godfrey *et al.*, 2009).

The disclosure of such CSR practices is the more common way to enhance the image and reputation. In fact, following the "insurance-link effect" theory, Graham *et al.* (2005) affirm that sustainable practices and non-financial disclosure help companies to reduce their riskiness. Burhan & Rahmanti (2012), Khanna & Damon (1999) and Santoso & Feliana (2014) find out that exists a positive relationship between CFP and the disclosure of CSP. Salvi *et al.* (2019) seems to confirm that. According to them, sustainable firms are characterized by superior non-financial disclosure which helps investors to better understand ESG weaknesses and strengths, to take more informed investment decisions, and, finally, to reduce information asymmetries. Moreover, according to Graham *et al.* (2005), these firms characterized by superior non-financial disclosure, can enhance their reputation, and reduce their risk and so the cost of capital. Also Martínez-Ferrero *et al.* (2016) empirically find the link between CSR and reputation and confirm prior research that CSR has a negative relationship with the cost of capital.

Firms with superior CSP have better access to finance because of (a) reduced agency costs, and (b) reduced informational asymmetry due to increased transparency. As result, these firms are perceived less risky (Cheng *et al.*, 2014). Moreover, ESG efforts reduced not only the risk perceived by the public, but also the real one, attenuating operational risk (Orlitzky & Benjamin, 2001), financial risk (Oikonomou *et al.*, 2012) and other risks, such that firm's overall riskiness is reduced (Di Giulio *et al.*, 2011). Conversely, being not compliant to ESG practices may determine stakeholders' disappointment, which in tun may have a negative impact on CFP, by increasing perceived risk and therefore the cost of capital (Cornell & Shapiro, 1987).

Firms with strong ESG ratings have lower measure of risk on both equity and debt side (Bannier *et al.*, 2020).

As regard to the cost of equity, Graham *et al.* (2005) affirm that sustainable firms can reduce it in two ways: (a) decreasing the estimation risk in the capital markets, and (b) mitigating the transaction costs and information asymmetries issue. Firms with higher CSR scores have access to cheaper equity financing, whereas firms in "sin" industries face higher equity costs of capital (El Ghoul *et al.*, 2011).

It is the lower firm riskiness as perceived by markets and investors due to sustainability practices adopted that reduces the cost of equity (Sharfman & Fernando, 2008; Salvi *et al.*, 2018b). In particular, Salvi *et al.* (2018b) find out that sustainable firms generate higher returns and achieve cost cuttings through innovation, reduce their risk as perceived by the stock market and investors benefiting, as a consequence, from a lower cost of equity and better access to finance.

Firm's sustainability can reduce the perceived risk from creditor's perspective, improving the validity of its credit rating process and influencing the company's creditworthiness. This means that sustainability eases the access to capital markets, reduces the cost of debt capital and the impact of any financing constraints (Jensen & Meckling, 1976; Godfrey, 2005; Weber *et al.*, 2010; Brogi *et al.*, 2022).

Companies with high CSR scores pay between 7-18 bp less on bank debt compared to firms with lower scores. However, the relationship between CSR and the borrowing costs are more attenuated for lower quality borrowers, whereas banks seem more indifferent towards CSR levels when facing high-quality borrowers (Goss & Roberts, 2011). Moreover, better CSP are associated to better credit ratings, which in turn reduce the cost of bonds issuance (lower the yields): so, it eases the access to bond markets (Ge & Liu, 2015; Zerbib, 2019). Since loan-rates and bond-yield spreads can be regarded as a sum of the risk-free rate and the default spreads of a company, one could infer that both banks and markets on average deem corporate social responsibility as a default risk dampener. These findings are in line with general theories into the value of CSR that CSR works as a risk-reducing factor (Godfrey *et al.*, 2009) and holds for both developed and developing/emerging countries (Wong *et al.*, 2021).

Investigating the transmission channels through which ESG affects firm value and CFP, Giese *et al.* (2019) show that ESG impacts both the systematic risk profile, lowering the cost of capital and bosting valuations, and idiosyncratic risk profile of firms, increasing profitability and lowering exposures to tail risk.

The reduction of cost of capital as a consequence of the adoption of CSR practices is corroborated by many studies that investigated the relationship between ESG measures and firm value finding a positive relationship (Jensen, 2002; Fatemi *et al.*, 2017). However, in emerging markets, like Brazil and India, it is found out a negative or no significant relationship between firm value and CSR (Crisóstomo *et al.*, 2011; Mulyadi & Anwar, 2012).

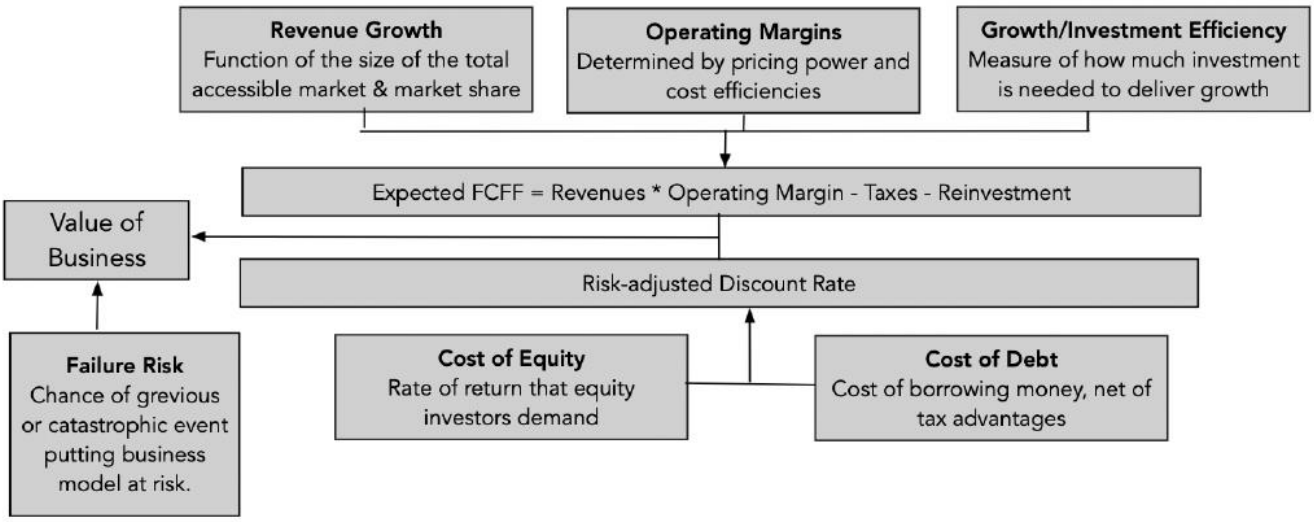
According to Cai *et al.* (2011), companies in "sin" industries can generate value by engaging in CSR activities too. Moreover, Buchanan *et al.* (2018) show that the relationship between CSR and firm value holds, varies with the level of influential institutional ownership, and depends upon economic conditions. Specifically, it is more relevant after the crisis in high institutional ownership firms. In general, well-

governed firms which suffer less from agency concerns engage more in CSR, creating value at the end (Ferrell *et al.*, 2016).

Other studies find out other positive effects of ESG. Yamashita *et al.* (1999), Porter & Kramer (2011), and Jo & Na (2012) observe that firms strongly engaged in CSR activities realize positive stocks returns, while firms characterized by a weak or absent CSR management present negative stock returns. Gregory *et al.* (2013) observe that firms with higher CSR levels are characterized by better long-term growth prospects. Porter & Kramer (2002), Brammer & Millington (2005), and Eccles *et al.* (2014) affirm that sustainability helps firms to enhance operating efficiency and organizational processes which provide cost savings. But sustainability and CSR management, affecting the management system, are able to provide other cost savings, such as less litigations and fines, and market gains at the same time, according to Klassen & McLaughlin (1996) and Zhang *et al.* (2019). Misani (2017) believes that engaging in CSR can be the base of a strong competitive advantage, meeting the expectations of various stakeholders, which leads to a superior financial performance in the long-term.

On the other hand, Damodaran & Cornell (2020) seem to not believe in the positive ESG effect or at least it does not hold for every firm. They said that socially responsible firms have lower discount rates (meaning that firm's risk is reduced), but the mere fact of being socially responsible does not directly deliver growth, profits, and value. The costs of look "good" are futile, both in terms of improving performance and delivering returns. The evidence that markets incorporate social responsibility into pricing is weak, except for companies that are labelled as bad firms.

Figure 16. The drivers of value



Source: Damodaran & Cornell (2020)

In contrast with the findings of Damodaran & Cornell (2020), according to most empirical studies discussed until now, ESG seems to affect the four value drivers of business (Figure 16).

a) Growth lever: customers, attracted by the social mission of an ESG-oriented company, favor its products over its competitors, allowing it to gain market share and to grow revenue;
b) Profitability lever: being ESG-oriented company creates more operating expenses in the short-term, but the company's cost structure adjusts quickly saving costs and allowing for unchanged or even higher margins in the long term;
c) Investment efficiency lever: ESG-oriented company can invest efficiently. For example, they invest more on employees' welfare, which seems a cost initially, but in the long-run employees will work more efficiently to deliver better results;
d) Risk lever: ESG lower company risk measured by the cost of capital (i.e., the discount rate in business valuation). In particular, investors will direct their money towards ESG-oriented companies, potentially driving down the cost of equity, and lenders are willing to provide more attractive terms, also lowering the cost of debt. Moreover, by operating as a good corporate citizen, the company minimizes the chance of a scandal or a catastrophic event that could put its business model at risk.

Finally, the relationship between CSR and CFP is complex and remains an open question since empirical results of the last decades are persistently ambiguous (Aupperle *et al.*, 1985; McGuire *et al.*, 1988).

3.2. The Relationship between ESG and M&A

While the literature about the link between CSR and CFP is extensive and growing, the literature about the link between CSR and M&As is scarce (Gomes & Marsat, 2018) and has been largely neglected (Gomes, 2019). Specifically, the impacts of target firms' CSR performance on acquisition premiums have not been addressed in the literature until the last few years (Malik, 2014). Furthermore, the theoretical impact of ESG on M&A premia is ambiguous. However, until now, most empirical studies found out a positive relationship (Malik, 2014; Choi *et al.*, 2015; Gomes & Marsat, 2018, Ozdemir *et al.*, 2021), focusing on target CSR level and M&A premia.

A series of interviews with corporate buyers conducted by PwC & PRI (2012) reveal that ESG factors could largely impact deal valuation. More precisely, it reveals that good CSP was usually integrated in the valuation of the target company and that poor CSP could be used as a lever in negotiating a discount. Such qualitative evidence suggests CSR plays an important role in M&As (Gomes & Marsat, 2018).

In fact, Gomes & Marsat (2018) find out that there is a positive relationship between CSR commitment and bid premium. Conversely, the bid offer incorporates a discount in case of poor CSP of the target firm. This means that bidders value positively the CSR engagement of the target, also because the latter reduces information asymmetry and targets' specific risk. In particular, they discover that the environmental performance (E factor) is positively associated to bid premia because strong environmental performance reduces specific risk, while the social performance (S factor) is more significant in cross-boarder transactions. In such transactions, the information asymmetry is usually more significant due to, e.g., differing disclosure requirements, regulation, and culture. According to, Choi *et al.* (2015), the effect of CSR on acquisition premiums may be even more prevalent in low-information environments. In such context, target companies tend to send signals to the acquirers in order to maximize the purchase price because acquirers will relay on that in order to make inferences about its quality and the deal's potential value creation. So, relying on signaling theory for acquisition premiums, information on a target's CSR rating scores can send a positive signal about not just its CSR performance but also about its overall quality. So, an acquirer is likely to pay a discount for a target's Corporate Social Irresponsibility and a premium for its Corporate Social Responsibility. These findings emphasize that ESG may be an important determinant of deal premiums by reducing information asymmetry and adverse selection.

In line with the work of Choi *et al.* (2015), also Malik (2014) states that acquisition premium increases in target firms' perceived CSR quality. In particular, targets' environmental performance has positive and the strongest effects on acquisition premiums. Also the S factor affects the deal premium in a relevant way. In fact, during the social and environmental due diligence procedure, which has become an integral part of the M&A process in recent years, acquirers hire experts to quantify and assess the target firm's social and environmental reputation and risk and incorporate these assessments into their valuation process. As a result, acquiring's shareholders, imposing extra emphasis on target firms' CSR activities while valuing the firm, are more likely to pay a larger premium for a high-CSR-target than a low-CSR-target in M&A markets. The

"insurance-like" theory can explain why bidders appear willing to pay a larger premium to acquire targets characterized by superior CSR performance. Such bidders can gain benefits in terms of improved sustainability degree and corporate image fitting, on both a strategic and cultural level, with targets in a long-term view. So, through the merger, bidder firms, enhancing their CSP and CFP, gain a large and hard to imitate competitive advantage (Salvi *et al.*, 2018c).

On the other hand, Chen & Gavious (2015) state that CSR has different value implications to different kinds of shareholders for Israeli companies. Their results reveal that the marginal investor, on average, pays a premium for CSR and therefore values it. However, more sophisticated investors like institutions or M&A bidders show no such relationship and do not seem to believe in the profit potential of CSR.

Investigating the analysis of CSR-orientation of the bidding firms and the size of the bid premium paid to target firms, there are contrasting results too.

Krishnamurti *et al.* (2019) find out that there is a statistically significant negative relationship between bid premium and CSR score of the acquiring firm suggesting that high CSR firms pay lower bid premiums. Under the agency cost hypothesis, managers will pursue CSR activities with the motive of gaining private benefits at the expense of shareholders, paying larger premium. Managers pay huge premium to increase firm size, diversify the business, and make themselves irreplaceable (Shleifer & Vishny, 1988). Thus, the high premium paid is not a valuation error but to reap personal benefits from takeovers by managers. Consistent with this view, Gondhalekar *et al.* (2004) find that agency problem at the acquirer level is the main determinant of the high premium paid in takeovers. Another explanation is that managers, being overconfident, tend to overestimate their ability to obtain acquisition benefits and thus tend to overpay. John *et al.* (2011) find that overconfident CEOs tend to pay a higher premium for acquisitions than their non-overconfident counterparts. In fact, ethical CEOs of CSR-oriented firms are less likely to make overpayment to target firms because they are less likely to possess the traits of overconfidence, hubris or narcissism. Moreover, empirical evidence indicating that mergers of CSR-oriented firms create value for the acquiring firm shareholders (Aktas *et al.*, 2011; Deng *et al.*, 2013) suggest that they must be paying lower bid premiums, ceteris paribus. In addition, also corporate governance is fundamental to lower the bid premium correctly addressing the agency issue. When compensations and corporate governance board oversight are designed in such a way that potentially align the managers' interests with those of shareholders' interests, lower premium is paid for the target (Datta *et al.*, 2001; Bargeron *et al.*, 2008; Levi *et al.*, 2014). In order to strength his arguments, Krishnamurti *et al.* (2019) find out also that high CSR firms tend to use cash only offers and avoid multiple bids. Since cash offers reflect lower agency costs and are less risky than stock deals and multiple bids are mostly agency driven acquisition decisions, the finding suggests that CSR-orientation reduces the managerial tendency of engaging in value-destroying deals.

Contrarily, Hussaini *et al.* (2021) find out that, on a US takeover sample, higher CSR performance at the acquirer level is associated with higher takeover premium. The result is consistent with the shareholder expense view because if CSR practices are voluntary initiatives with a conflict resolution objective among stakeholders while increasing shareholders value, firms with high CSR performance would have lower

agency problems. Therefore, it is reasonable to expect them to opt for value-maximizing investments and accordingly pay lower premium, ceteris paribus. However, if CSR activities are manifestation of the agency problem and managers use them to build reputation and gain private benefits, then we would expect that firms with high CSR performance would further take non-value-maximizing investments and pay higher takeover premium.

The debate around the "stakeholder value maximization" view and the "shareholder expense" view applies to this topic too. The former predicts that high CSR firms undertake mergers that benefit other stakeholders, thus leading to greater stakeholder satisfaction that ultimately benefits shareholders. In contrast, the latter suggests that managers engage in socially responsible activities to help other stakeholders at the expense of shareholders, predicting that the managers of high CSR firms undertake mergers that reduce shareholder wealth. Most of the studies which found out a positive relationship between CSR and M&A supports the "stakeholder value maximization" view. In fact, according to Bettinazzi & Zollo (2017), there is a positive relationship between stakeholder-oriented companies and acquisition performance. In particular, business ethics is one fundamental driver of post-acquisition performance: in these terms, the social factor (i.e., justice, job protection, employee's security) is the most relevant (Lin & Wei, 2006).

One of the most complete study on the matter is the one of Deng *et al.* (2013) who, affirming that CSR creates value for acquiring firms' shareholders, find out that high CSR acquirers: (a) realize higher merger announcement returns; (b) realize larger increases in post-merger long-term operating performance; (c) realize positive long-term stock returns, suggesting that the market does not fully value the benefits of CSR immediately; (d) take less time to complete and are less likely to fail; and finally (e) acquirers' social performance is an important determinant of merger performance and the probability of its completion.

Regarding the announcement return, also Krishnamurti *et al.* (2019) and Aktas *et al.* (2011) find a positive relationship. The former affirms that the announcement period abnormal return is positive and significant when CSR-oriented bidding firms announce an acquisition decision in the market. The latter studies how M&A announcement returns are affected by the CSR engagement of target firms in global deals and reported a positive association between target CSR and M&A wealth creation. They explain this result arguing that acquirers learn from targets' CSR practices, and that more synergistic deals occur with targets that exhibit better CSR performance. In contrast, Harper (2012) find no significant effect from the acquisition of a company with a high CSR performance on the acquirer gains (i.e., stock returns) around the announcement date. Therefore, he concludes that investors in the market do not recognize CSR investments.

For what concerns the impact of CSR on the post-merger performance and on the likelihood of M&A completion, there is a large consensus.

Salvi *et al.* (2018a) find a positive relationship between the operating (and also financial) performance of companies and their sustainability commitment. The operating performance improvement in the post-merger phase is stronger when acquirers buy targets with similar CSR score because they realize higher long-run synergies (Bereskin *et al.,* 2018). Russo *et al.* (2018) observe that high level of sustainability in acquirers smooth the M&A process, and increases their profitability (expressed in terms of ROA) after an M&A. In

another work, Salvi *et al.* (2018c) observe that bidders opting for "green" deals can obtain better financial outcomes compared to firms that perform deals in other sectors. This implies that firms may favor such transactions both to foster their external growth and obtain better operating and financial results, while attributing a green identity to their corporate image and protecting the environment.

Not only the acquiring operating performance is enhanced, but also the non-financial one. According to Tampakoudis & Anagnostopoulou (2020), the ESG performance of an acquirer improves in the post-merger phase following the acquisition of a target company with a high ESG rating. This leads also to an increase of market value of the acquirer in the long-term.

Arouri *et al.* (2019) investigate the relationship between acquires' CSR and M&A completion uncertainty and find that there is a negative relationship between the acquirer's CSR level (also considering every dimensions separately) and the arbitrage spreads[1]: in other words, deal uncertainty seems to be less for socially responsible acquirers. The results are in line with the stakeholder view. Moreover, the negative impact of acquirer's CSR on deal uncertainty holds regardless of the CSR performance of the target. According to Mirvis (2006) and Bereskin *et al.* (2018), the strategic and cultural fit between bidder and target and their integration of CSR in corporate culture are key for the success of any M&A deals, creating long-term value. A proxy of corporate cultural similarity is CSR policy similarity. Deals between firms with similar CSR policies experience higher odds of successfully completing and faster resolution of uncertainty (i.e., faster closing, meaning less time between announcement and completion). So, Bereskin *et al.* (2018) argue that similarity between firms' CSR policies appears to significantly ease integration as two distinct organizations become one.

A branch of studies focuses on the possibility that CSR practices can influence the choice of the target company for an M&A transaction. Since CSR activities can be the source of intangible assets and impact firms' characteristics, it follows that they should have an impact on their appeal to potential acquirers (Gomes, 2019). Harper (2012) has been of one the first author to affirm that the likelihood of a firm to be a M&A target in the market and its CSR engagement are positively related. Krishnamurti *et al.* (2019) find out that CSR score of the bidding firm is positively associated with the chance of choosing a target firm with CSR practice. This result suggests that acquiring firms with a strong CSR performance choose targets based on their CSR-orientation. According to Gomes (2019), there is evidence that CSR performance of firms matters for M&A acquirers and impact the final M&A decisions. In particular, target firms feature on average higher CSR scores than similar non-target firms. He shows that a firm's CSR (in all its dimensions – environment, social, and governance) is positively associated with its propensity to become a M&A target. In contrast, Chen & Gavious (2015) affirm that M&A investment decisions are not affected by CSR. They study the link between CSR involvement and sale price for a sample of 134 Israeli M&A transactions and find no relationship between CSR and target valuation.

[1] The arbitrage spread is the difference between the offer price and the market price of the target immediately following the M&A announcement.

Finally, the relationship between M&A and ESG has been analysed by different points of view in the literature, which is still limited but evolving given the growing importance of ESG in the market, including M&A market. ESG will be one of the critical drivers in the M&A value creation process.

Chapter 4: Data & Methodology

4.1. Research Questions

The main purpose of this study is to analyse the relationship between ESG and M&A. The relationship has been little analysed by the literature, notwithstanding the growing importance of CSR. Instead of evaluating the impact of ESG on firm value from the perspective of marginal investors (as most literature does when investigate the relationship between CSP and CFP), it is better to evaluate the impact of ESG on the value assigned to firms by M&A bidders. According to Gomes (2019), there are two relevant reasons to adopt this approach. First, M&A are characterized by high level of information asymmetry between the acquirer and the target. As a result, bidders perform extensive due diligence analysis of potential acquisition candidates in order to reduce this information asymmetry and obtain a great deal of information about the target that is inaccessible to the public. It can therefore be argued that these acquirers have a deeper understanding of the value of a target than the market, and that they are better able to assess its organizational characteristics such as intangible CSR-related assets. Indeed, according to Deloitte (2009), acquirers hire experts to quantify and assess the target firm's social and environmental reputation and risk during the social and environmental due diligence procedure and incorporate these assessments into their valuation process. Second, bidders are by definition forced to assume a large amount of specific risk because of investment concentration and the high costs associated with the divestiture of acquired businesses. This is in stark contrast with the situation of marginal investors who have the ability to diversify their portfolios and liquidate positions at minimal costs. In other words, while marginal investors are mainly concerned with systematic risk, M&A bidders are largely concerned with targets' specific risks. Because good relationships with stakeholders decrease firm-specific risk insofar as they build goodwill that reduces cash-flow shocks when negative events materialize, the CSR performance of M&A targets should be of particular importance for acquirers (Gomes, 2019).
According to a recent survey made by Deloitte (2022) to 1,300 executives of corporations and private equity firms, ESG is one of the most important issues in M&A, such that will continue to drive M&A activity in the future and ranking it as the fourth most important element after access to technology, market expansion, and product or market diversification. More than 70% of responding organizations reported that they incorporated ESG metrics into target valuations.
This study has the purpose to further investigate globally how ESG metrics affect M&A, and in particular the bid premium. In fact, the first research question addressed by this study is the following:

Q1. How does the ESG score of the acquired company affect the bid premium paid by the bidder in a M&A transaction?

Each region (i.e., AMERS, APAC, and EMEA) approaches to the ESG issue in a different way and this is reflected also in the M&A deals universe. This study wants to investigate any regional differences of the former relationship. Therefore, the second research question addressed by this study is the following:

Q2. How does the former relationship among regions change?

The outbreak of Covid-19 contributed to raise the awareness of the public towards the ESG issue worldwide. This study wants to discover any changes to the relationship between ESG score and bid premium considering a period pre-Covid-19 pandemic breakout (i.e., until the end of 2019) and a period post-Covid-19 pandemic breakout (i.e., from the beginning of 2020). The third research question addressed by this study is the following:

Q3. How has the former relationship changed since the outbreak of the pandemic?

In order to grasp more in depth the previous relationships investigated in Q1, Q2, and Q3, it is fundamental to consider not only the ESG score as a whole but to examine the different three dimensions or pillars that compose the score itself: the Environmental (E), Social (S), and Governance (G) factors, and then investigate how they affect the bid premium in all the three previous models. Therefore, the sub-research question addressed by this study for the three former research questions is the following:

Qa. To which extent do the E, S, and G factors affect the M&A premium?

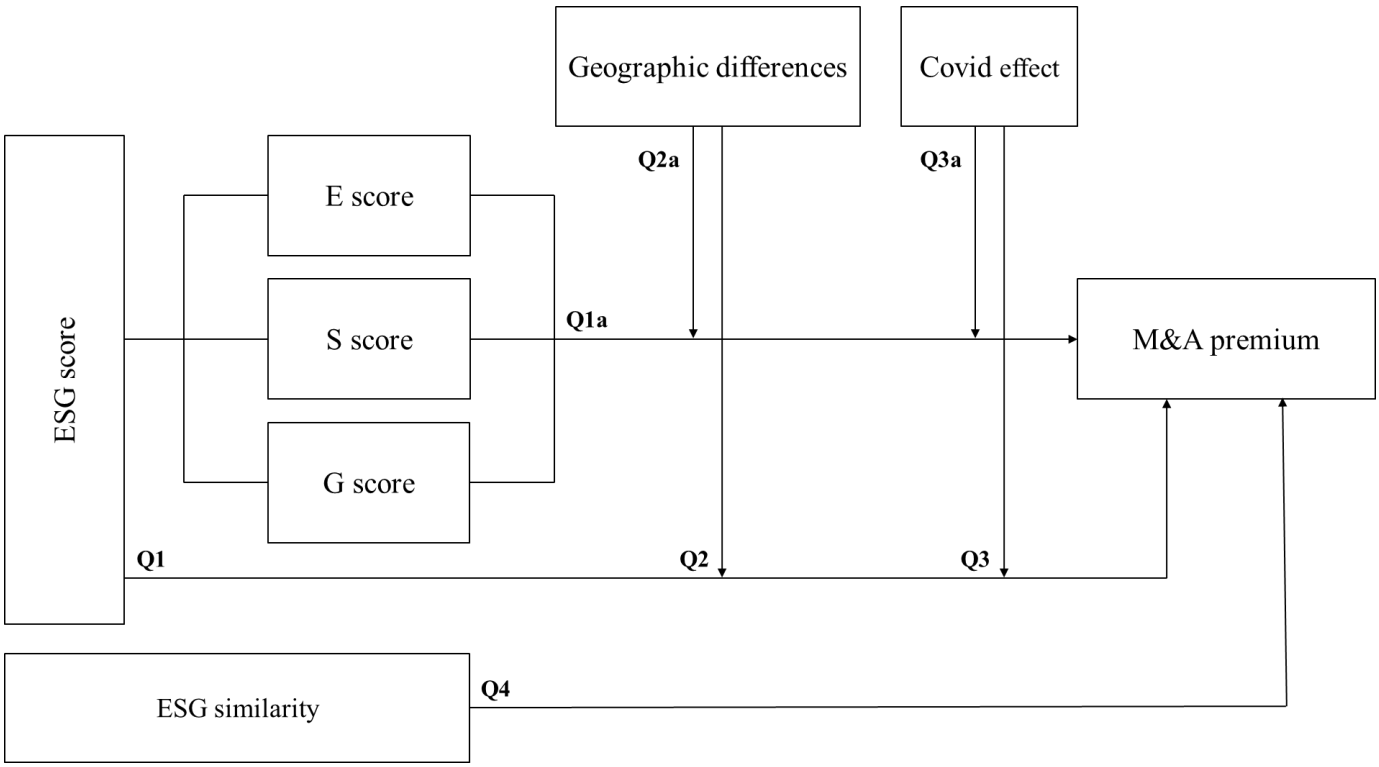
Finally, the last research question focuses on the ESG similarity between the acquired company and the buyer and how this affects the bid premium. In other words, is the higher ESG similarity, the higher the premium paid or the opposite true? The last research question addressed by this study is the following:

Q4. How does ESG similarity affect the premium paid by the buyer?

This research question has no sub-research questions which analyze the similarity between target and buyer's categories of the E, S, and G pillars because of the low number of categories of each pillar. This could have led to deceptive results.

To my knowledge, almost all these questions have never been addressed by the literature so far. The only exception is represented by the Q1 which has been already analyzed in the literature, although few times. Figure 17 summarizes the research model developed in this study.

Figure 17. Research model



4.2. Methodology

A multivariate regression with fixed effect is performed for each research question on the statistical software package Stata/MP.

Following the approach of Gomes & Marsat (2018), the study controls for year[2], country, and industry[3] fixed effects to address unobserved heterogeneity (i.e., the existence of unobserved variables). Year fixed effects are used to control market misvaluation, merger wave cycles, and momentum which significantly affect takeover premia (Rhodes-Kropf *et al.*, 2005; Simonyan, 2014). According to Simonyan (2014), premia tended to be higher during periods of investor pessimism (market undervaluation) and they tended to be lower during periods of investor optimism (market overvaluation). Moreover, merger activity is higher in overvalued markets (Rhodes-Kropf *et al.*, 2005). Takeover premia are higher (lower) during periods when the stock market earned lower (higher) returns and during periods of higher (lower) stock market volatility (Simonyan, 2014). As regard momentum, takeover premia in the current period are positively correlated with the premia paid in other takeovers conducted in the previous year (Simonyan, 2014). The year fixed effects also absorb any macro-economic and systemic shocks like the global financial crisis of 2007-2008, the European debt crisis, and the Covid-19 pandemic which influenced performances. Country fixed effects are used to control similar factor at the geographical level, e.g., local market mispricing and momentum, and local economic conditions. Finally, industry fixed effects are used to correct for sector mispricing, deregulation, and industry consolidation waves. Simonyan (2014) shows that takeover premia differ for firms in regulated industries after deregulation events and between the latter and firms in non-regulated industries. He finds out also that takeovers in industries going through consolidation increases takeover activity and is associated with higher takeover premia compared to other industries.

In all the research questions, the dependent variable is the M&A premium, and a set of relevant control variables is also used.

As regards the independent variable, the ESG score of the target company is used for the Q1, Q2, and Q3. Therefore, the baseline regression model for these three research questions is formulated as below.

$$Premium = \beta_1 ESG\_Target + Control\ Variables + Fixed\ Effect + \varepsilon$$

The independent variables for the sub-research questions Q1a, Q2a, and Q3a are the pillars of the target company ESG score: Environmental (E_Target), Social (S_Target), and Governance (G_Target). In order to test their effect on the bid premium, three different baseline regression models for each sub-research question are formulated as below.

[2] Year fixed effects are based on the announcement year of the deal.

[3] Industry fixed effects are based on The Refinitiv Business Classification (TRBC) Economic Sectors of the target companies (i.e., a group of 13 macro-level industry). This approach is the closest to the one based on two-digit SIC codes.

$$Premium = \beta_1 E\_Target + Control\ Variables + Fixed\ Effect + \varepsilon$$
$$Premium = \beta_1 S\_Target + Control\ Variables + Fixed\ Effect + \varepsilon$$
$$Premium = \beta_1 G\_Target + Control\ Variables + Fixed\ Effect + \varepsilon$$

Finally, for the Q4 the ESG Similarity is used as independent variable, as illustrated in the following baseline regression model.

$$Premium = \beta_1 ESG\_Similarity + Control\ Variables + Fixed\ Effect + \varepsilon$$

In the following paragraphs, the independent, dependent and control variables are discussed in detail.

4.3. Independent Variables

The main independent variable is the ESG score of the target company and its three pillars: E, S, and G. We collected these data from Refinitiv Workspace database. Refinitiv offers one of the most comprehensive ESG databases in the industry, covering over 80% of the global market cap, across more than 630 different ESG metrics, for more than 1,200 private and public companies globally, with history dating back to 2002, longer than other providers (Refinitiv, 2022b).

Refinitiv ESG scores reflect the underlying ESG data framework and are a transparent, data-driven assessment of companies' relative ESG performance and capacity, integrating and accounting for industry materiality and company size biases.

Refinitiv captures and calculates over 630 company-level ESG measures, based on verifiable reported data in the public domain, which are grouped into ten categories that reformulate the three pillar scores and the final ESG score (Table A1).

i. Environmental: the environmental pillar measures a company's impact on living and non-living natural systems, including air, land and water, as well as complete ecosystems. It reflects how well a company usus best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value. This pillar is made up by three categories: (a) Resource use; (b) Emissions; and (c) Innovation.
ii. Social: the social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers, and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate long term shareholder value. This pillar is composed by four categories: (a) Workforce; (b) Human rights; (c) Community; and (d) Product Responsibility.
iii. Governance: the governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long-term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value. This pillar is made up by three categories: (a) Management; (b) Shareholders; and (c) CSR Strategy.

The scores are based on relative performance of ESG factors with the company's sector (for environmental and social) and country of incorporation (for governance). Since each industry has its peculiarities and ESG factors differs across industries, Refinitiv mapped material environmental and social metrics for each industry in order to account for such differences. Instead, scoring in the governance pillar is based on the country of incorporation because governance practices are more consistent across countries than industries.

Thus, industry and country benchmarks at the data point scoring level facilitate comparable analysis within peer groups.

In particular, the ten category scores previously mentioned are rolled up into the three pillar scores, such that the ESG score is a relative sum of the category weights, which vary per industry for the environmental and social categories. For governance, the weights remain the same across all industries. The pillar weights are normalized to percentages ranging between 0 and 100.

Percentile rank scoring methodology is adopted to calculate the ten category scores and is based on three factors: (a) the number of companies with a worse value; (b) the number of companies that have the same value; and (c) the number of companies with a value. So, the percentile score is compute as following:

$$Score = \frac{no.of\ companies\ with\ a\ worse\ value + \frac{no.of\ companies\ with\ the\ same\ value\ included\ in\ the\ current\ one}{2}}{no.of\ companies\ with\ a\ value}$$

Being based on rank, percentile score is not very sensitive to outliers. This methodology enables Refinitiv to produce a score between 0 and 100, as well as easy-to-understand letter grades. For the purpose of this study, all numerical scores have been considered and divided by 100, so that the score range is between 0 and 1.

Refinitiv methodology put transparency at its core, stimulating company disclosure. Not reporting "immaterial" data points doesn't greatly affect a company's score, whereas not reporting on "highly material" data points will negatively affect a company's score. All else equal, it means that a company more willing to disclosure non-financial data to the public will have a higher score than its peers. Refinitiv methodology, accounting for transparency, not only incorporates ESG performance, but also its disclosure.

The advantage of using Refinitiv database which, inter alia, provides ESG data weekly updated, is to rely on a score methodology that is more objective and less biased because it is not Refinitiv which defines what "good" looks like, but it let the data determine industry-based relative performance within a model that accounts also for other non-quantitative metrics.

The last independent variable used in this study is called ESG Similarity. It measures the similarity of the categories which compose each pillar of the ESG score between the acquired and acquiring company and the buyer. Comparing their whole ESG score in order to understand how this kind of similarity affect the bid premium is meaningless because two companies may have the same ESG score as aggregate, but substantially different scores in their three pillars and in the categories that make up each pillar. This implies that the even a target company with a high ESG score does not have necessarily a high score in ESG Similarity if the buyer has a high score in certain categories of each pillar and a low score in others and the target vice versa. Since the same can happen within the categories of a pillar, and also to have a more precise measure, the variable ESG Similarity has been built considering the categories of each pillar, rather than aggregating them at a broad level. This is also consistent with the multidimensional nature of the ESG score and hence could be better examined in a multidimensional setting.

Therefore, in order to compute the ESG Similarity between the target and the buyer, the Jaffe's (1986) distance (also known as cosine similarity) has been employed. According to Bereskin *et al.* (2018), this measure has been used most of the time in the economics and finance literature to estimate the similarity in a certain field between pairs of firms. The cosine similarity of two vectors is simply the quotient between their dot product by the product of their lengths. Given two firms, i and j, the ESG Similarity between the two is given by:

$$ESG\ Similarity_{i,j} = \frac{X_i X_j'}{[(X_i X_i')(X_j X_j')]^{0.5}}$$

Where the vectors X_i and X_j corresponds to the ESG scores of two firms, i and j, in each pillars' categories. Theoretically, the cosine similarity always belongs to the interval [-1,1]: two proportional vectors have a cosine similarity of 1, two orthogonal vectors have a similarity of 0, and two opposite vectors have a similarity of -1. In this case, all the values considered are positive (i.e., the value of each category is bounded between [0,1]) and so the cosine similarity is bounded between [0,1] as well, according to the Cauchy-Schwarz inequality. Therefore, this measure equals one for two firms (*i, j*) whose ESG profiles are identical, and zero for two firms whose ESG profiles are orthogonal.

In this study, for each deal the last available target company ESG score, its pillar E, S & G scores as well as their categories scores before the announcement date of the transaction have been used.

4.4. Dependent Variable

M&A premium is the dependent variable and the data about deal premia are gathered from Refinitiv Workspace database which covers more than 1.2 million deals, including nearly 360,000 U.S. target and nearly 870,000 non-U.S. target transactions since the 1970s. Bid premia are measured four weeks before the announcement date in order to eliminate the effect of any deal rumors (Betton *et al.*, 2008) or insider trading (Jarell & Poulsen, 1989), which can impact severely the price of the target company.

Therefore, following Rossi & Volpin (2004) and Jory *et al.* (2016) approach, the deal premium is the bid price as a percentage of the closing price of the target four weeks before the announcement of the deal.

$$Deal\ Premium = \frac{P_T}{P_{T-28}} - 1$$

Where:

- P_T: is the Target share price on deal announcement date;
- P_{T-28}: is the Target share price four weeks (i.e., 28 days) before deal announcement date.

4.5. Control Variables

Based on the studies in this area of research, the following control variables have been used (Table 2). All the control variables have been sourced from Refinitiv Workspace database.

Table 2. Control variables' definitions and expected signs

Variable Name	Definition	Expected sign
Deal-Specific Variables:		
Horizontal	Dummy equal to 1 if the target and the buyer belong to the same TRBC Economic Sector, and 0 otherwise	+/–
Cross-Border	Dummy equal to 1 if the target and the buyer are incorporated in different countries, and 0 otherwise	+/–
Hostile	Dummy equal to 1 if the acquiring company makes an offer to the target company without prior negotiations, and 0 otherwise	+
Competing	Dummy equal to 1 if a third party launched an offer for the target while this original bid was pending (i.e., there are multiple bidders for the target), and 0 otherwise	+
All Cash	Dummy equal to 1 if the method of payment is cash only, and 0 otherwise	+
Financial Acquiror	Dummy equal to 1 if the acquiring company (considered as financial company, i.e., a buyout firm, a venture capital company, a merchant bank, a commercial bank or an investment bank) is buying a non-financial target company for financial reasons rather than for strategic reasons, and 0 otherwise	–
Blockholder	Dummy equal to 1 if the bidder held more than 5% of the target's shares before deal announcement, and 0 otherwise	–
Financial Variables:		
Size	Natural logarithm of the target's market capitalization at the previous year-end	–
Tobin's Q	Target Tobin's Q computed as the ratio between firm value and total assets at the previous year-end	+/–
Liquidity	Target current ratio (i.e., total current assets divided by total current liabilities) at the previous year-end	+/–
Growth	Growth of target net sales over the five-year period preceding the announcement year	+/–

All the deal-specific control variable are dummy variables (i.e., a numerical variable which take discrete values such as 1 or 0 marking respectively the presence or absence of a particular category). All the financial control variables are, instead, continuous variables. The market-specific variables are controlled by the fixed effect as discussed above. The control variables used in this study are the most widely adopted in this field research.

The first control variable is Horizontal, through which the study control for industry relatedness between the target and the acquirer. Its effect on takeover premia is ambiguous because on the one hand, takeovers of firms in related industries are associated with higher premia because they are expected to generate a greater synergistic effect (e.g., increase the bargaining power, economies of scale and scope), while on the other hand, Ang *et al.* (2008) find out that acquirers engaging in unrelated acquisitions tend to acquire overvalued targets and pay higher premiums and they attribute this to diversifying acquirers being less familiar with their targets compared to non-diversifying acquirers.

The effect of the variable Cross-Border is still not clear too. This type of deals involves additional complexity relative to domestic M&As due to considerable differences across countries. Therefore, cross-border deals embed greater information asymmetry and a higher risk of improper evaluation compared with domestic operations (Gatignon & Anderson, 1988). Consequently, acquiring firms are willing to pay a higher premium to acquire foreign targets when the risks of failing to achieve merger synergies are lower (Maung *et al.*, 2019) and shareholder protection measure are higher (Bris & Cabolis, 2008).

The variables Hostile, Competing and All Cash are all positively related with the takeover premium according to the literature.

Moeller (2005) and Healy *et al.* (1997) find that hostile transactions command a higher premium: it increases as the bargaining power of the target increases. A reaction to a hostile takeover is intended to prevent the acquisition or initiate negotiation of a better offer, although the probability of success of the transaction decreases (Schwert, 2000). Accordingly, hostility is a negotiation strategy intended to increase the price the buyer pays. Also, Jennings & Mazzeo (1993) affirms that management hostility increases shareholder gains in an acquisition.

As the number of bidders increases, the M&A premium increases as well because of competition among buyers (Ayers *et al.*, 2003; Dionne *et al.*, 2015). Similarly, Schwert (2000) shows that multiple bidder takeovers have significantly higher premia. Furthermore, competition among bidding companies increases the returns to targets (Broadly *et al.*, 1988).

The payment method has a significant effect on M&A premium according to the literature. Slusky & Caves (1991), Comment & Schwert (1995) and Betton *et al.* (2008) conclude that a wholly cash payment, which implies a prominent tax effect, increases the premium significantly. Simonyan (2014) affirms that takeovers which use cash as the medium of exchange receive higher premia compared to takeovers with stock as the medium of exchange due to differences in accounting treatments, tax consequences, and other reasons.

The last two deal-specific control variables, Financial Acquiror and Blockholder, negatively affect the takeover premium.

Bargeron *et al.* (2008) find that, on average, target shareholders earn more than 50% higher premium with corporate bidders rather than private equity bidders. Dittmar *et al.* (2012) corroborates this result stating that financial sponsors are skilled at identifying undervalued targets or negotiating lower premia. Moreover, also corporate buyers, when facing financial bidder competition, pay lower premia possibly because financial bidders themselves pay low takeover premia and earn higher abnormal returns. Gorbenko & Malenko (2014) show that average valuations of strategic bidders are higher than those of financial bidders, so that strategic acquirers on average pay larger takeover premiums. Strategic buyers are usually other firms in the industry who are likely to pay higher premium because they redeploy the assets of the target firms close to their best use (Shleifer & Vishny, 1992; Gorbenko & Malenko, 2014). Intuitively, strategic buyers can also afford to pay more because they buy specific assets and will benefit from synergies between their organization and the target firm. In contrast, private equity buyers are usually industry outsiders who typically cannot manage the bought targets well themselves and so face agency costs as they have to hire specialists to run the assets for them (Fidrmuc *et al.*, 2012). They fear overpaying for the target because as outsiders they do not have the knowledge to value the assets precisely (Shleifer & Vishny, 1992) and are expected to pay less than is the value of the target firm's assets in best use.

The variable Blockholder measures the effect of information asymmetry (Dionne *et al.*, 2015) and bidder's bargaining power (Ayers *et al.*, 2003). Dionne *at al.* (2015) show that blockholders pay a much lower premium than do other buyers since they are more informed about the target than other bidders are. Also, according to Betton & Eckbo (2000), greater bidder toeholds (i.e., pre-bid ownership of target shares) reduces both the final offer premium and the initial offer premium. Similarly, Hirshleifer & Titman (1990) and Bris (2002) obtain a negative relationship between bid premium and toehold size. Intuitively, the higher the toehold, the lower the proportion of shares that the bidder needs to acquire in the takeover stage, thus the lower the target shareholders' bargaining power. If the bidder holds a significant part of the target's equity before the offer, it may implement a pressure on target managers.

The first target financial variable that this study control is the Size. In general, larger firms are better managed, have greater bargaining power, and are difficult to acquire, which reduces the expected gains from takeovers of such firms. For exemple, Gondhalekar *et al.* (2004), Moeller *et al.* (2004), Moeller (2005), Alexandridis *et al.* (2013) and Gorbenko & Malenko (2014) find a negative relationship between target firm size and offer premium. Schwert (2000) and Comment & Schwert (1995) conclude that this variable has a significant negative effect on the premium because larger targets are associated with higher integration costs. The effect of the other three target financial variables on takeover premia is debated in the literature.

The variable Tobin's Q usually measures the market and management performance of the target company. A low q-ratio (i.e., between 0 and 1) means that the company is undervalued, while a high value (i.e., greater than 1) implies that the company is overvalued. Usually, shareholders of undervalued companies are not willing to sell their shares until the market recognizes their intrinsic value, so buyers shall offer higher premium in order to convince them. This would explain a potential negative relationship between the ratio and the takeover premium, whereas a positive relationship should be seen if a low ratio signals restricted

investment opportunities (Dionne *et al.*, 2015). A high ratio represents new growth opportunities for companies, so it shall command a higher premium. Overvalued company shareholders are willing to sell their company and are able to require a higher takeover premium because of superior performance or other factors that increase the value of their company according to the market.

The variable Liquidity gives information about the target's financial position. Schwert (2000) documents that target firms with more liquid assets receive lower takeover premia. However, according to Jindra & Moeller (2015), the presence of internal funds means greater financial independence (i.e., less dependence from external financing source) which is associated with higher takeover premia. The main explanation of this effect is that more financially independent targets are in stronger bargaining positions vis-à-vis potential acquirers. Having more liquid assets make a firm more resilient to economic and industry shocks, avoid raising external capital, which is costly, and improve its own credit quality.

The last control variable taken into consideration is the Growth. Buyers may be interested in targets that perform poorly because of the gains that could be realized if the current managers were replaced. In this case, the relation between the performance of the target and the premium should be negative. However, poor performance is often associated with fragile financial health and is therefore likely to hinder the target's ability to negotiate. In this case, the relation between performance and the premium should be positive (Dionne *et al.*, 2015).

4.6. Data Analysis

The sample of mergers and acquisitions was collected from Refinitiv Workspace database. The initial sample included the M&A transactions of all the countries, all the industries, and announced between 01/01 of the first year Refinitiv made available ESG scores and 31/12/2021, and that satisfy the following criteria:

i. The deal is completed;
ii. The target is a public company[4];
iii. The buyer is acquiring an interest of 50% or over in a target, raising its interest from below 50% to above 50% (i.e., the transactions must involve a change of control)[5];
iv. The transactions labelled as below are excluded:
    a. Stake Purchases Deal: all deals in which a company is acquiring a minority stake (i.e., up to 49.99% or from 50.1% to 99.9%) in the target company;
    b. Repurchases Deal: all deals in which a company announces a repurchase program or a repurchase of shares;
    c. Self Tender or Recapitalization Deal: all deals in which a company announces a self-tender offer, recapitalization, or exchange offer.

Subsequently, all the deals in which are missing the target identification code (otherwise would have been not possible add other variables), the deal premium, the ESG scores (and its pillar), and the other deal-specific and financial controls variables, have been removed. This results in the fact that there are no observation at all in some years (i.e., the first announcement year in the sample is 2007), countries (only some little countries are missing) and industries (i.e., Government Activity and Institutions, Associations & Organizations industries). The final sample contains 1,323 deals. The sample distribution by year, industry and country appears in Table 4, 5, and 6 respectively, while Table 3 presents the summary statistics. All the continuous variables have been winsorized at IQR > 150%[6] level in order to minimize the influence of outliers (Table A2) and avoiding deleting them (Powel, 2004). Table 7 contains the correlation matrix.

[4] Only the target companies which are publicly listed have been considered in order to add their financial data as control variables to the models. Since the models do not include buyers' financial variables and Refinitiv ESG scores, pillars and categories are available for both private and public companies (i.e., buyers' ESG categories are used in Q4 in order to compute the variable ESG Similarity), there is no need to exclude private buyers. However, 53% of buyers in the sample are public companies.

[5] This study focuses on control bids following most previous studies on takeover premiums (Ayers *et al.*, 2003; Rossi & Volpin, 2004; Betton *et al.*, 2009; Dionne *et al.*, 2015; Gomes & Marsat, 2018). Since this study wants to assess the impact of target ESG on premiums, it makes sense to focus on deals involving a change in control rather than just the acquisition of minority stakes. Moreover, according to Rossi & Volpin (2004), minority stake deals are likely to be severely affected by cross-country differences in disclosure requirements. Thus, selecting only majority purchases removes this cross-border disclosure bias.

[6] A commonly used rule says that a data point is an outlier if it is more than $1.5 \cdot IQR$ above the third quartile or below the first quartile. Said differently, low outliers are below $Q_1 - 1.5 \cdot IQR$ and high outliers are above $Q_3 + 1.5 \cdot IQR$.

Table 3. Summary statistics

Variable	N	Mean	Std. Dev.	Min.	Q_1	Median	Q_3	Max.
Premium	1323	0.33	0.30	-0.37	0.14	0.30	0.49	1.01
ESG	1323	0.37	0.19	0.00	0.22	0.34	0.51	0.92
E	1323	0.26	0.26	0.00	0.01	0.19	0.44	0.99
S	1323	0.40	0.21	0.00	0.24	0.38	0.55	0.96
G	1323	0.43	0.23	0.00	0.24	0.43	0.61	0.95
ESG Similarity	595	0.77	0.14	0.40	0.66	0.79	0.88	0.99
Horizontal	1323	0.53	0.50	0.00	0.00	1.00	1.00	1.00
Cross-Border	1323	0.45	0.50	0.00	0.00	0.00	1.00	1.00
Hostile	1323	0.13	0.33	0.00	0.00	0.00	0.00	1.00
Competing	1323	0.10	0.30	0.00	0.00	0.00	0.00	1.00
All Cash	1323	0.59	0.49	0.00	0.00	1.00	1.00	1.00
Financial Acquiror	1323	0.24	0.43	0.00	0.00	0.00	0.00	1.00
Blockholder	1323	0.24	0.43	0.00	0.00	0.00	0.00	1.00
Size	1323	7.49	1.42	3.92	6.58	7.54	8.43	11.15
Tobin's Q	1323	1.71	1.22	0.00	0.83	1.28	2.28	4.44
Liquidity	1323	1.87	1.23	0.04	1.00	1.47	2.43	4.54
Growth	1323	0.07	0.13	-0.20	0.00	0.04	0.14	0.35

Table 4. Sample distribution by year

Year	# Deals	Proportion (%)	Avg. Deal Value (USD bn)	Avg. Premium	Avg. ESG	Avg. E	Avg. S	Avg. G	Avg. ESG Similarity
2007	52	3.93	7.67	0.29	0.29	0.15	0.28	0.44	0.70
2008	33	2.49	8.20	0.19	0.36	0.23	0.35	0.47	0.77
2009	29	2.19	6.12	0.39	0.43	0.39	0.45	0.45	0.78
2010	49	3.70	4.25	0.32	0.37	0.32	0.40	0.40	0.80
2011	71	5.37	4.49	0.36	0.38	0.33	0.38	0.42	0.73
2012	53	4.01	3.67	0.40	0.33	0.25	0.35	0.38	0.69
2013	39	2.95	3.62	0.32	0.38	0.29	0.42	0.40	0.76
2014	74	5.59	5.79	0.26	0.37	0.32	0.38	0.43	0.79
2015	99	7.48	9.85	0.27	0.37	0.29	0.39	0.42	0.78
2016	120	9.07	5.77	0.31	0.35	0.26	0.39	0.38	0.77
2017	112	8.47	4.38	0.32	0.33	0.19	0.37	0.40	0.76
2018	141	10.66	4.92	0.28	0.39	0.24	0.44	0.44	0.76
2019	161	12.17	5.02	0.33	0.37	0.23	0.41	0.43	0.77
2020	113	8.54	4.53	0.41	0.40	0.28	0.43	0.45	0.79
2021	117	8.84	3.58	0.36	0.41	0.29	0.46	0.45	0.79
Total	1323	100.00	5.25	0.33	0.37	0.26	0.40	0.43	0.77

Table 5. Sample distribution by industry

Industry	# Target	Proportion (%)	# Buyer	Proportion (%)
Academic & Educational Services	5	0.38	2	0.15
Basic Materials	130	9.83	110	8.31
Consumer Cyclicals	207	15.65	115	8.69
Consumer Non-Cyclicals	91	6.88	67	5.06
Energy	117	8.84	85	6.42
Financials	41	3.10	463	35.00
Government Activity	0	0.00	2	0.15
Healthcare	142	10.73	105	7.94
Industrials	208	15.72	134	10.13
Institutions, Associations & Organizations	0	0.00	1	0.08
Real Estate	93	7.03	41	3.10
Technology	233	17.61	154	11.64
Utilities	56	4.23	44	3.33
Total	1323	100.00	1323	100.00

Industry	Avg. Premium	Avg. ESG	Avg. E	Avg. S	Avg. G	Avg. ESG Similarity
Academic & Educational Services	0.08	0.38	0.22	0.47	0.51	0.90
Basic Materials	0.36	0.38	0.31	0.39	0.45	0.78
Consumer Cyclicals	0.27	0.39	0.28	0.41	0.43	0.77
Consumer Non-Cyclicals	0.32	0.42	0.34	0.42	0.49	0.81
Energy	0.33	0.31	0.24	0.32	0.38	0.77
Financials	0.32	0.33	0.25	0.35	0.38	0.78
Healthcare	0.47	0.34	0.14	0.41	0.39	0.73
Industrials	0.33	0.40	0.30	0.43	0.45	0.78
Real Estate	0.21	0.38	0.30	0.44	0.42	0.79
Technology	0.33	0.36	0.21	0.40	0.39	0.75
Utilities	0.27	0.42	0.37	0.41	0.52	0.81
Total	0.33	0.37	0.26	0.40	0.43	0.77

Table 6. Sample distribution by country

Country	# Target	Proportion (%)	# Buyer	Proportion (%)
USA	570	43.08	504	38.10
Canada	66	4.99	82	6.20
Brazil	21	1.59	21	1.59
Other	15	1.13	27	2.04
AMERS	672	50.79	634	47.92
UK	154	11.64	131	9.90
Germany	32	2.42	38	2.87
France	21	1.59	51	3.85
Italy	21	1.59	16	1.21
Spain	19	1.44	12	0.91
Netherlands	18	1.36	32	2.42
Sweden	14	1.06	16	1.21
Finland	9	0.68	8	0.60
Norway	8	0.60	7	0.53
Austria	7	0.53	5	0.38
Switzerland	6	0.45	19	1.44
Belgium	6	0.45	13	0.98
Ireland	5	0.38	7	0.53
Israel	4	0.30	3	0.23
Greece	4	0.30	4	0.30
South Africa	4	0.30	6	0.45
Other	29	2.19	46	3.48
EMEA	361	27.29	414	31.29
Australia	148	11.19	84	6.35
Japan	44	3.33	59	4.46
Hong Kong	22	1.66	26	1.97
China	16	1.21	31	2.34
Singapore	15	1.13	27	2.04
India	9	0.68	7	0.53
Taiwan	9	0.68	12	0.91
South Korea	7	0.53	10	0.76
New Zeland	7	0.53	5	0.38
Other	13	0.98	14	1.06
APAC	290	21.92	275	20.79
Total	1323	100.00	1323	100.00

Country	Avg. Premium	Avg. ESG	Avg. E	Avg. S	Avg. G	Avg. ESG Similarity
USA	0.33	0.33	0.19	0.38	0.40	0.76
Canada	0.40	0.29	0.18	0.29	0.42	0.71
Brazil	0.23	0.45	0.36	0.49	0.45	0.81
Other	0.22	0.40	0.39	0.40	0.38	0.93
AMERS	0.33	0.34	0.20	0.38	0.40	0.76
UK	0.38	0.43	0.38	0.44	0.45	0.79
Germany	0.31	0.50	0.44	0.56	0.47	0.77
France	0.38	0.56	0.55	0.60	0.51	0.91
Italy	0.15	0.47	0.33	0.55	0.47	0.73
Spain	0.26	0.46	0.42	0.52	0.38	0.67
Netherlands	0.33	0.49	0.43	0.55	0.47	0.85
Sweden	0.49	0.51	0.42	0.49	0.60	0.73
Finland	0.38	0.56	0.50	0.60	0.52	0.93
Norway	0.20	0.34	0.36	0.31	0.34	0.80
Austria	0.14	0.46	0.28	0.47	0.66	0.71
Switzerland	0.50	0.53	0.50	0.58	0.54	0.86
Belgium	0.45	0.32	0.29	0.37	0.29	0.86
Ireland	0.49	0.55	0.44	0.60	0.55	0.97
Israel	0.43	0.32	0.22	0.45	0.29	0.73
Greece	0.21	0.36	0.23	0.28	0.59	0.72
South Africa	0.40	0.41	0.31	0.45	0.45	0.76
Other	0.23	0.39	0.33	0.40	0.42	0.82
EMEA	0.34	0.45	0.39	0.48	0.46	0.80
Australia	0.38	0.34	0.20	0.36	0.42	0.75
Japan	0.17	0.41	0.40	0.36	0.46	0.80
Hong Kong	0.41	0.47	0.48	0.45	0.47	0.88
China	0.07	0.23	0.09	0.16	0.45	0.72
Singapore	0.39	0.36	0.25	0.38	0.46	0.76
India	0.10	0.48	0.38	0.47	0.59	0.90
Taiwan	0.11	0.35	0.32	0.38	0.34	0.80
South Korea	0.08	0.38	0.31	0.37	0.40	0.77
New Zeland	0.40	0.36	0.18	0.34	0.49	0.91
Other	0.18	0.43	0.29	0.49	0.51	0.82
APAC	0.30	0.36	0.27	0.37	0.44	0.78
Total	0.33	0.37	0.26	0.40	0.43	0.77

Table 7. Correlation matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) Premium	1.00																
(2) ESG	-0.02	1.00															
(3) E	-0.04	0.83*	1.00														
(4) S	-0.01	0.87*	0.66*	1.00													
(5) G	0.01	0.70*	0.38*	0.39*	1.00												
(6) ESG Similarity	-0.23*	0.55*	0.50*	0.49*	0.37*	1.00											
(7) Horizontal	0.08*	-0.01	-0.00	-0.02	0.03	0.06	1.00										
(8) Cross-Border	0.13*	0.11*	0.12*	0.10*	0.05	-0.06	-0.01	1.00									
(9) Hostile	0.10*	0.02	0.01	0.01	0.03	0.03	-0.06*	0.14*	1.00								
(10) Competing	0.20*	0.05	0.03	0.04	0.07*	0.01	-0.06*	0.04	0.25*	1.00							
(11) All Cash	0.18*	-0.04	-0.07*	-0.03	-0.02	-0.16*	-0.25*	0.25*	0.08*	0.07*	1.00						
(12) Financial Acquiror	-0.04	-0.04	-0.08*	-0.02	-0.03	-0.01	-0.25*	-0.05	-0.01	0.03	0.20*	1.00					
(13) Blockholder	-0.09*	0.07*	0.14*	0.05	-0.00	0.06	-0.13*	0.10*	0.14*	-0.05	0.14*	-0.10*	1.00				
(14) Size	-0.23*	0.24*	0.23*	0.22*	0.17*	0.27*	0.09*	-0.09*	-0.05	-0.04	-0.22*	-0.10*	0.00	1.00			
(15) Tobin’ s Q	0.21*	-0.14*	-0.21*	-0.05	-0.15*	-0.21*	0.13*	0.04	-0.06*	0.01	0.08*	-0.01	-0.19*	0.19*	1.00		
(16) Liquidity	0.16*	-0.17*	-0.19*	-0.11*	-0.14*	-0.18*	0.15*	-0.02	-0.04	-0.06*	0.09*	-0.06*	-0.06*	-0.08*	0.29*	1.00	
(17) Growth	0.03	-0.16*	-0.16*	-0.12*	-0.14*	-0.13*	0.01	0.01	0.01	-0.04	-0.01	-0.00*	-0.02	0.07*	0.21*	0.01	1.00

Note: correlation coefficients significant at the 5% level are marked with a star (*).

After having winsorized all the continuous variables, they present reasonable values. For example, the main dependent variable, the bid premium, has a mean of 33%, and is between -37% and 101%.

Quite half of the deals in the sample are between companies which belong to the same industry (i.e., horizontal deals) and/or to different countries (i.e., cross border deals) and/or fully paid in cash. Very few deals are characterized by a hostile offer and/or the presence of multiple bidders and/or financial acquiror and/or blockholders.

In the correlation matrix, the first thing which stand out is that the ESG score of the target and its pillars E and S are negatively correlated with the premium, while only the G score is positively correlated with the latter. However, since all the four correlations are weak (i.e., the coefficient is very low) and not significant at 5% level (and neither at 10% level), this information is not sensible to interpret. Among the independent variables, only the ESG Similarity variable is negatively correlated with the dependent variable of the analysis and is, moreover, significant. Since the correlations among this variable, the ESG score and its pillars are substantial and significant, none of these variables are used at the same time in the models in order to avoid multicollinearity.

The sign of the control variables coefficients is in line with prior studies and quite all of them are significant.

The last five years of observations represents nearly the 50% of the sample. This is due to the unavailability of ESG scores in the past: Refinitiv increases its ESG data coverage year by year.

However, the yearly trend of deal numbers and average deal premium in the sample is in line with the real global data represented in Figure 13 and 14.

The first three industries in which there have been more deals are respectively: Technology, Industrials, and Consumer Cyclicals. They represent approximately the 50% of the sample. In reality, these industries, along with the Financial and Healthcare industries, have been the most active in terms of M&A deals in the past years.

The sample is heavily focused on the region AMERS, which is half of the sample, followed by EMEA and APAC respectively. The result is not a surprise since the North America (and, in particular, the USA, which alone represents the 43% of the sample) is the most active market of corporate takeovers, before Europe. There are not many observations for Africa, Middle East, South America, as well as for many countries in APAC, because of their relatively young and underdeveloped corporate markets.

To conclude, it is possible to assume that the sample is a fair picture of the real world of the last years.

Chapter 5: Results

5.1. Research Question 1

The purpose of this study is to investigate whether the ESG performance of a target company pays off in a M&A deal, thus receiving a higher premium. It is also fundamental understand which component of the ESG score (Environmental, Social, and Governance) drives the relationship with the bid premia. Therefore, the study runs the following regressions:

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 ESG_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Environmental_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (2)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Social_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (3)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Governance_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (4)$$

Table 8 displays regression results. The four regression models are characterized by the same results, in terms of signs and significance level for all the independent variables. The target ESG performance and its three pillars, Environmental, Social, and Governance, are positively correlated with the bid premium. This relationship is statistically significant at 1% level for all the four independent variables, meaning that there is a 99% or higher chance of the results being true. Since all the three pillars have the same sign and significance level, they are all three important deal premia driver.

The sign of control variables is in line with expectations discussed in paragraph 4.5. The variable Horizontal is positively related with the bid premium and is significant, so buyers, merging with or acquiring target of the same industry, recognize greater potential synergies and are willing to pay higher premia. The same holds for the variable Cross-Border. This type of deals is characterized by a high level of complexity, then it

is difficult to catch the driver which pushes the takeover premium up. The presence of multiple bidders, hostility and all-cash payment are all three positively related with the takeover premium and highly significant: a hostile offer increases the bargaining power of the target, a competition among bidders lead them to increase the offer in order to win and close the deal, while a wholly cash payment is linked to higher premia due to accounting motives. In general, strategic buyers are willing to pay higher premia because of potential synergies, respect to financial buyers. This expectation is verified since the variable Financial Acquirer is negatively related with the dependent variable and it is significant. Although it is not significant, the sign of the variable Blockholder is negative. When a buyer already holds a great portion of target's shares before the deal, it is more informed about the company and this increases its bargaining power such that it is able to offer a lower premium. The variables Size and Tobin's Q are both highly significant, but have opposite signs. The greater size is generally associated with greater transaction costs and this lowers the premium paid. A high Q-ratio signals a good market performance of the company and this is related to a high bid premium. The last two control variables, Liquidity and Growth, have a positive sign, meaning that growing targets and targets characterized by more liquid assets receive higher premia, but they are not significant.

This study focus on the specific question whether CSR influences M&A premia. This issue has been discussed only by few studies in the literature, since, in general, CSR in the context of M&A is still under-researched (González-Torres *et al.*, 2020; Meglio, 2020). Regarding the acquirer's perspective, there are three studies. While Krishnamurti *et al.* (2019) use an Australian-based sample and find a negative link between acquirers' CSR performance and M&A premia, Hussaini *et al.* (2021) apply a US-based sample and find a positive relationship. Both Krishnamurti *et al.* (2019) and Hussaini *et al.* (2021) explain their findings with shareholder theory, indicating an agency concern at the expense of shareholders. Jost *et al.* (2022) find no significant association between CSR performance and M&A premia, neither from acquirers' nor targets' perspective, supporting the notion of Yen & André (2019) that the relationship between CSR and M&A premia is more complex than expected and cannot be fully explained by the shareholder or stakeholder theory alone. Apart from the recent work of Jost *et al.* (2022), the other studies which just concerns the targets' perspective find a positive association between target's pre-acquisition CSR performance and deal premia (Malik, 2014, Choi *et al.*, 2015, Gomes & Marsat, 2018, Ozdemir *et al.*, 2021). While Malik (2014) and Choi *et al.* (2015) use a sample of U.S. deals, and Ozdemir *et al.* (2021) considers only firms operating in the service industries, the study of Gomes & Marsat (2018) is the first and only study which just concerns the targets' perspective using a sample of global deals as well as this study. They show a positive association between targets' CSR performance (and its two underlying dimensions: environmental and social) and M&A premia. Their studies supports the stakeholder theory, arguing for financial benefits from CSR activities, and, as a consequence, rejects the shareholder theory according to CSR practises absorb financial resources that, at the end, destroy shareholders wealth.

Potential explanations for this finding are that firms with superior corporate social performance are more attractive to the acquirers because of their CSR-related value-enhancing capabilities. Acquisitions serve as

opportunities to increase firm value by attaining different synergistic benefits through competitive capabilities from targets (Zollo & Singh, 2004; Berchicci *et al.*, 2012). The value-enhancing capabilities of CSR provide greater competitive advantages to a target firm to achieve higher synergistic benefits and increase combined-firm value in the post-M&A period. As a result, a target firm with superior ESG performance should receive higher acquisition premiums than a target with inferior ESG performance.

This research question has the same scope of the study of Gomes & Marsat (2018), and the results obtained are also in line with their work. This study supports the signalling and insurance-like theories and ultimately the "stakeholder value maximization" view of the stakeholder theory which see the CSR as a value-enhancing tool. A high ESG performance (as well as in one of its pillars) signals a good overall quality of a firm, and by reducing information asymmetry and adverse selection, the buyer is willing to pay a higher deal premium. The insurance-like theory postulates that firms with stronger CSR practices can create a form of goodwill or moral capital that can reduce firm specific risk, leading acquiring shareholders to pay a larger premium for a high-CSR-target than a low-CSR-target in M&A markets.

According to the stakeholder theory, firms which engage in CSR activities satisfy the needs of all the stakeholders, and ultimately creates wealth for its shareholders. Since there is a positive relationship between M&A premia and CSR, the shareholders of firms with a high ESG performance which are very focus on the interests of all the stakeholders and have a positive impact on the society and the environment, receive higher M&A premia. This provides evidence for the existence of an extra "ESG premium". Thus, targets' shareholders should increase the ESG performance of their firms as this could increase their potential takeover gains in a M&A deal. In other words, improving the ESG performance always pays off and at the end creates value for firm's shareholders.

Table 8. Multivariate analysis of Research Question 1

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1874***	0.1385***	0.1212***	0.1132***
	(0.0473)	(0.0351)	(0.0406)	(0.0347)
Horizontal	0.0329**	0.0328**	0.0352**	0.0322*
	(0.0166)	(0.0166)	(0.0166)	(0.0166)
Cross-Border	0.0346**	0.0341**	0.0356**	0.0375**
	(0.0170)	(0.0170)	(0.0170)	(0.0170)
Hostile	0.0663***	0.0672***	0.0655***	0.0654***
	(0.0238)	(0.0238)	(0.0239)	(0.0238)
Competing	0.1741***	0.1753***	0.1754***	0.1733***
	(0.0251)	(0.0251)	(0.0252)	(0.0252)
All Cash	0.0562***	0.0585***	0.0571***	0.0550***
	(0.0167)	(0.0167)	(0.0168)	(0.0168)
Financial Acquiror	-0.0427**	-0.04224**	-0.0425**	-0.0425**
	(0.0189)	(0.0188)	(0.0189)	(0.0189)
Blockholder	-0.0150	-0.0192	-0.0173	-0.0124
	(0.0206)	(0.0206)	(0.0206)	(0.0207)
Size	-0.0647***	-0.0639***	-0.0609***	-0.0578***
	(0.0067)	(0.0067)	(0.0067)	(0.0063)
Tobin's Q	0.0518***	0.0513***	0.0489***	0.0504***
	(0.0074)	(0.0074)	(0.0074)	(0.0074)
Liquidity	0.0104	0.0103	0.0098	0.0104
	(0.0067)	(0.0067)	(0.0067)	(0.0067)
Growth	0.0582	0.0531	0.0421	0.0438
	(0.0579)	(0.0577)	(0.0577)	(0.0577)
Intercept	0.5496***	0.5787***	0.5478***	0.5224***
	(0.0510)	(0.0518)	(0.0511)	(0.0514)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	1,314	1,314	1,314	1,314
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2625	0.2624	0.2585	0.2596
Max VIF	1.34	1.36	1.30	1.32
Mean VIF	1.20	1.21	1.18	1.17

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5.2. Research Question 2

The second research question has the scope to further investigate the results obtained in the previous study. This study is novel to the literature. In particular, it investigates the geographic effect on the relationship between ESG and M&A premia. For this purpose, the original sample has been divided in three macro-regions according to the country in which the target is based – AMERS (North, Central and South America), EMEA (Europe, Middle East, and Africa), and APAC (Asia-Pacific) – and the following regressions has been run:

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 ESG_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Environmental_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (2)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Social_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (3)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Governance_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (4)$$

Tables 9, 10 and 11 display the regression results for the AMERS, EMEA, and APAC regions, respectively. While the control variables signs are in line with expectations in all the models, it is possible to observe three different results regarding the main independent variables in the three macro-regions.

In AMERS, the ESG performance, as well as for the Environmental, Social, and Governance performances, is positively associated with the takeover premia. Furthermore, the relationship is significant with a 99% confidence level. The EMEA region experiences the same relationship as AMERS, but with different significant levels: ESG and G scores are characterized by a 95% confidence level, while E and S scores have

a 90% confidence level. In APAC, the findings are completely different: all the main independent variables are positive, except for the variable Social. No one of them is significant.

The findings confirmed that the ESG is perceived as a hot topic in the most advanced economies and greater importance is given to it, while in the developing countries or emerging market economies it was not considered a top priority issue in the past years, nor even in their M&A market. The effect of emerging market economies is evident the most in the APAC region where quite all countries are considered developing countries. This happens also in EMEA, although with a low relevance, mainly due to the presence of Africa and Middle East countries and some European developing countries. Instead, this is not true in AMERS, since the most advanced economy of the world, the United States of America, and Canada have a large weight on the regional sample.

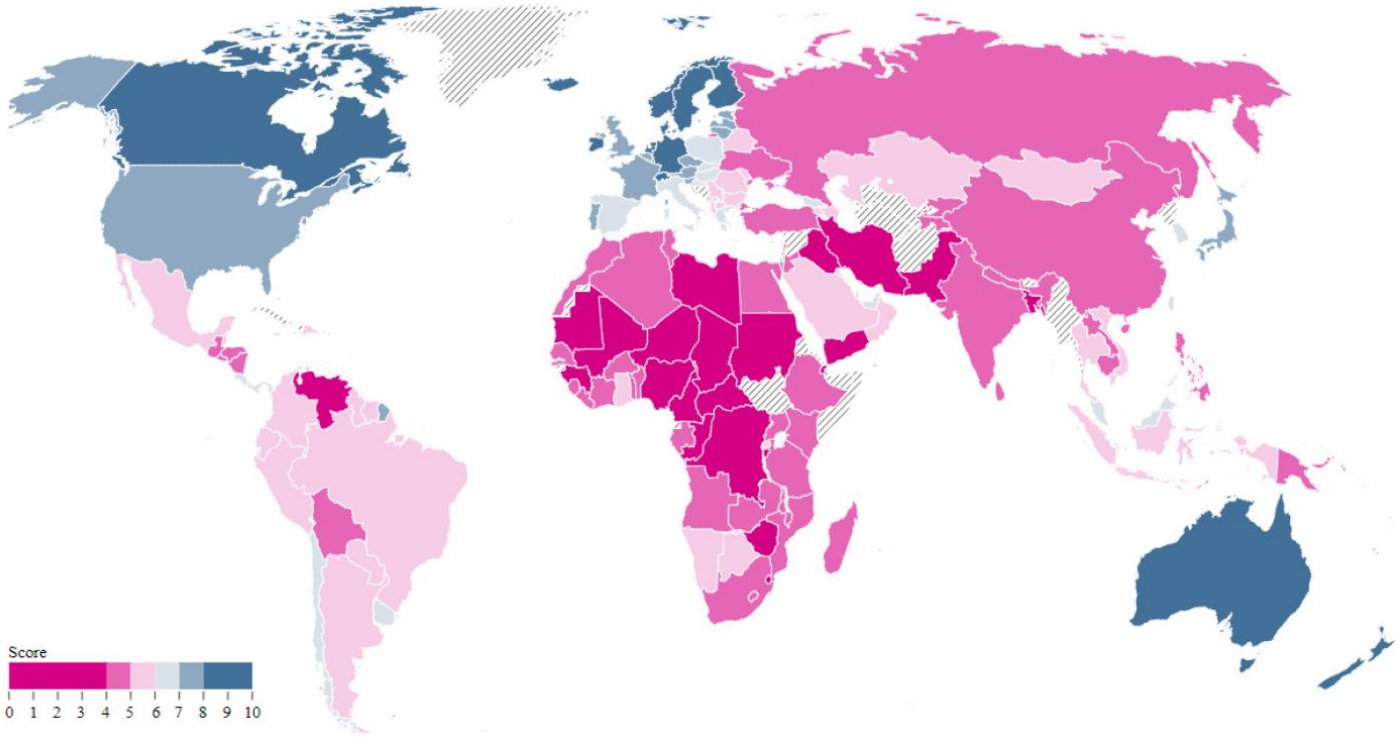
Emerging countries are characterized by rapid population growth and urbanisation which, coupled with rising energy demand, contribute to growing levels of air pollution and pose a challenge to the availability and quality of natural resources. Yet despite hosting two-thirds of the global population, emerging and developing economies, excluding China, currently account for only one-third of global energy investment and an even smaller 20% share of clean energy investment. The green investments will be low also in the near future since the Covid-19 pandemic has weakened corporate balance sheets and consumers' ability to pay, and put additional strains on their public finances. Emerging markets are set to be amongst the worst affected by climate change. Regarding the social aspect of ESG, emerging economies are characterized by large economic inequality, which is related to gender and ethnic disparities, alongside disparities in educational outcomes and in labour market conditions. Moreover, these countries suffer high human rights violation and the status of labour rights is very fragile. This happens because of a weak institutional framework. Their national governance environments are weak because of both their legal framework and their degree of enforcement. In a weak formal institutional environment, dominant shareholders may influence a company's decision-making in order to maximize their own benefits at the expense of minority investors. Additionally, despite the positive evolution of board practices in large listed companies, the convergence of emerging economies toward international best practices may be more formal than substantial. As a final remark, emerging markets generally show low level of transparency and evaluating the real ESG performance of a firm is very difficult, if not impossible, for an investor.

On the other side, generally speaking, developed countries enjoy robust and well-balanced sustainability profiles across all three ESG dimensions and have displayed continuously strong sustainability performance for years. In fact, in developed countries there is the highest concentration of ESG assets and these countries are more committed to reach SDGs, although this requires a global engagement and cooperation among all the countries in the world.

These differences are highlighted in Figure 18, which displays the global country sustainable ranking map and which further supports the results of this research question. The map ranks from 1 (worst) to 10 (best) the ESG profiles of countries around the world. Quite all ESG-oriented countries are present in North America and Europe. This different regional approach toward ESG is reflected also in the M&A market and,

in particular, in the relationship between M&A premia and ESG which differs among AMERS, EMEA, and APAC regions.

Figure 18. Global country sustainability ranking map



Source: Robeco (2022)

Table 9. Multivariate analysis of Research Question 2: AMERS

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.2571***	0.1849***	0.1958***	0.1243***
	(0.0649)	(0.0488)	(0.0571)	(0.0466)
Horizontal	0.0246	0.0235	0.0282	0.0252
	(0.0225)	(0.0226)	(0.0226)	(0.0227)
Cross-Border	0.0407*	0.0380*	0.0430*	0.0440*
	(0.0230)	(0.0230)	(0.0230)	(0.0231)
Hostile	0.1491***	0.1493***	0.1486***	0.1475***
	(0.0413)	(0.0413)	(0.0414)	(0.0415)
Competing	0.1510***	0.1563***	0.1533***	0.1561***
	(0.0395)	(0.0394)	(0.0396)	(0.0397)
All Cash	0.0595***	0.0622***	0.0614***	0.0589***
	(0.0221)	(0.0221)	(0.0222)	(0.0223)
Financial Acquiror	-0.0456*	-0.0455*	-0.0454*	-0.0425*
	(0.0252)	(0.0252)	(0.0253)	(0.0253)
Blockholder	-0.0503	-0.0577	-0.0557	-0.0505
	(0.0392)	(0.0392)	(0.0393)	(0.0396)
Size	-0.0536***	-0.0530***	-0.0505***	-0.0434***
	(0.0096)	(0.0096)	(0.0095)	(0.0091)
Tobin's Q	0.0453***	0.0457***	0.0421***	0.0442***
	(0.0097)	(0.0097)	(0.0097)	(0.0097)
Liquidity	0.0235***	0.0226***	0.0228***	0.0229***
	(0.0086)	(0.0086)	(0.0086)	(0.0086)
Growth	0.0206	0.0042	0.0012	0.0116
	(0.0774)	(0.0771)	(0.0772)	(0.0782)
Intercept	0.4541***	0.5024***	0.4485***	0.4140***
	(0.0770)	(0.0791)	(0.0772)	(0.0777)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	671	671	671	671
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.3020	0.3006	0.2978	0.2927
Max VIF	1.39	1.41	1.36	1.39
Mean VIF	1.23	1.23	1.21	1.21

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 10. Multivariate analysis of Research Question 2: EMEA

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1810**	0.1094*	0.1342*	0.1480**
	(0.0884)	(0.0651)	(0.0758)	(0.0680)
Horizontal	0.0538*	0.0539*	0.0555*	0.0506
	(0.0326)	(0.0327)	(0.0327)	(0.0326)
Cross-Border	0.0195	0.0225	0.0166	0.0223
	(0.0319)	(0.0320)	(0.0320)	(0.0319)
Hostile	0.0808**	0.0760*	0.0797**	0.0757*
	(0.0397)	(0.0397)	(0.0398)	(0.0395)
Competing	0.1963***	0.1999***	0.1979***	0.1946***
	(0.0420)	(0.0420)	(0.0421)	(0.0421)
All Cash	0.1046***	0.1012***	0.1034***	0.0976***
	(0.0342)	(0.0342)	(0.0343)	(0.0340)
Financial Acquiror	-0.0378	-0.0377	-0.0359	-0.0404
	(0.0363)	(0.0364)	(0.0364)	(0.0363)
Blockholder	-0.1360***	-0.1406***	-0.1360***	-0.1299***
	(0.0343)	(0.0343)	(0.0343)	(0.0345)
Size	-0.0428***	-0.0388***	-0.0405***	-0.0388***
	(0.0136)	(0.0132)	(0.0135)	(0.0128)
Tobin's Q	0.0459***	0.0426***	0.0425***	0.0456***
	(0.0165)	(0.0163)	(0.0163)	(0.0164)
Liquidity	-0.0179	-0.0167	-0.0166	-0.0175
	(0.0164)	(0.0164)	(0.0164)	(0.0164)
Growth	0.0317	0.01382	0.0314	0.0109
	(0.1235)	(0.1229)	(0.1244)	(0.1219)
Intercept	0.4428***	0.4582***	0.4476***	0.4308***
	(0.1036)	(0.1039)	(0.1037)	(0.1038)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	355	355	355	355
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2853	0.2820	0.2828	0.2866
Max VIF	1.40	1.36	1.36	1.35
Mean VIF	1.23	1.22	1.22	1.19

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 11. Multivariate analysis of Research Question 2: APAC

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.0256	0.0938	-0.0543	0.0122
	(0.1204)	(0.0846)	(0.1012)	(0.0846)
Horizontal	0.0471	0.0484	0.0473	0.0470
	(0.0373)	(0.0372)	(0.0373)	(0.0373)
Cross-Border	0.0039	-0.0007	0.0060	0.0046
	(0.0401)	(0.0402)	(0.0400)	(0.0400)
Hostile	-0.0493	-0.0483	-0.0460	-0.0489
	(0.0461)	(0.0458)	(0.0461)	(0.0460)
Competing	0.1127**	0.1141**	0.1086**	0.1121**
	(0.0527)	(0.0524)	(0.0528)	(0.0526)
All Cash	0.0370	0.0375	0.0407	0.0376
	(0.0396)	(0.0392)	(0.0396)	(0.0394)
Financial Acquiror	-0.0102	-0.0067	-0.0132	-0.0109
	(0.0468)	(0.0467)	(0.0468)	(0.0467)
Blockholder	0.1217***	0.1219***	0.1200***	0.1215***
	(0.0363)	(0.0361)	(0.0362)	(0.0363)
Size	-0.0865***	-0.0922***	-0.0819***	-0.0855***
	(0.0155)	(0.0151)	(0.0148)	(0.0142)
Tobin's Q	0.0585***	0.0617***	0.0555***	0.0580***
	(0.0180)	(0.0177)	(0.0177)	(0.0176)
Liquidity	-0.0120	-0.0103	-0.0123	-0.0121
	(0.0149)	(0.0149)	(0.0148)	(0.0149)
Growth	0.1434	0.1705	0.1337	0.1401
	(0.1232)	(0.1246)	(0.1221)	(0.1218)
Intercept	0.7132***	0.7284***	0.7139***	0.7109***
	(0.1008)	(0.1015)	(0.1008)	(0.1023)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	287	287	287	287
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.3318	0.3351	0.3325	0.3317
Max VIF	1.42	1.46	1.29	1.27
Mean VIF	1.22	1.23	1.19	1.18

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5.3. Research Question 3

This research question wants to explore the impact of Covid-19 crisis on the relationship between ESG performance and M&A premia. To do this, the original sample has been divided in deals completed during the pandemic (i.e., announcement years 2020 and 2021) and deals completed before the onset of the pandemic (i.e., announcement years 2007 to 2019), and compared the results. For both samples the following regressions has been run:

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 ESG_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Environmental_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (2)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Social_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i \\ & + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i \\ & + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (3)$$

$$\begin{aligned} Premium_i = {} & \beta_0 + \beta_1 Governance_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i \\ & + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i \\ & + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects \\ & + Country\_Effects + Industry\_Effects + \varepsilon_i \end{aligned} \quad (4)$$

Table 12 displays regression results for years 2020-2021, while Table 13 displays regression results for years 2007-2019. The sign of control variables is in line with expectations in both samples.

Comparing the results about the main independent variable of the regressions run for both samples, it is evident that every independent variable has maintained the positive sign and also the respective significance level, except for the Social variable, which is still positive, but increased its significance level in the 2020-2021 sample, passing from 90% to 99% confidence level.

The fact that all the main independent variables in both samples maintained their sign with a certain level of significancy is very important. Global crises, like Covid-19 one, are perceived as an opportunity to promote green economy and social initiatives as part of the stimulation packages put in place to support the economic

recovery (Salvi *et al.*, 2018c). For example, this is true in Europe with the NGEU, which is intended to help repair the economic and social damage brought about by the coronavirus pandemic, but it also represents an opportunity to make Europe greener, more digital, and more resilient. The claim of Salvi *et al.* (2018c) is verified in Table 12. Consequently, all this implies that the results obtained in Q1 would have been biased due to the inclusion of 2020-2021 sample data, instead, Table 13 confirmed the Q1 findings. This established that even before the onset of Covid-19 crisis, it was evident to corporates that a focus on ESG was no longer a question of marketing, but rather an important element to achieving competitive advantage. Corporates have been forced to look at improving their stakeholder governance, to manage their social and human capital closely and revisit their overall corporate purpose, business model and corporate strategy to make sure they are resilient to social and regulatory scrutiny (Backer McKenzie, 2020). It becomes clearer the importance of a good governance which stands as baseline for the environmental and social pillars. The environmental aspect of ESG was put in the spotlight due to increased media attention around climate change also before the pandemic: as well as the ESG overall score and the Governance score, also the Environmental score maintained its significance level in both sample regressions. This means that the target green aspect always received particular importance in M&A transactions, pushing up the premium paid. On the contrary, the Covid-19 pandemic has only now brought attention to the societal aspect of ESG, since it led to significant social disparities and an increase in poverty and unemployment. The Social variable has always been significant, so this do not lead to the conclusion that the main results are biased, but its significant level increases substantially in the 2020-2021 sample. Buyers started to give more weight to the S factor after the pandemic: targets with a superior social performance are rewarded with a high premia in M&A transactions. This finding could be explained by the insurance-like theory: social capital serves as insurance during times of crisis. In fact, recent studies document that firms with high social capital levels are more resilient to systemic shocks than their peers (Lins *et al.*, 2017), so their overall risk is reduced. When this happens, the evaluation of the target company increases. These findings further support the stakeholder theory.

There are no studies in the literature as this one. The only study which investigates the ESG performance in the context of mergers and acquisitions before and during the coronavirus pandemic is the one of Tampakoudis *et al.* (2021). They provide evidence for a significant negative value effect of ESG performance for the shareholders of acquiring firms and this negative effect appears to be stronger, as the onset of the Covid-19 crisis. The difference between this study and the one of Tampakoudis *et al.* (2021) is that firstly, the latter analyze the impact of ESG performance on shareholder wealth measured by the announcement abnormal returns, and not on takeover premia, and secondly, it adopts the acquirer's perspective, and not the target's one. So, this study is novel to the literature.

Table 12. Multivariate analysis of Research Question 3: 2020-2021

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.3784***	0.2677***	0.2853***	0.1925**
	(0.1112)	(0.0955)	(0.1016)	(0.0792)
Horizontal	0.0447	0.0368	0.0498	0.0474
	(0.0412)	(0.0416)	(0.0416)	(0.0417)
Cross-Border	-0.0078	-0.0071	0.0001	-0.0106
	(0.0394)	(0.0397)	(0.0397)	(0.0400)
Hostile	0.1119*	0.1210*	0.1182*	0.1027
	(0.0629)	(0.0634)	(0.0634)	(0.0640)
Competing	0.2244***	0.2195***	0.2268***	0.2274***
	(0.0513)	(0.0518)	(0.0517)	(0.0519)
All Cash	0.1065**	0.1034**	0.1053**	0.0982**
	(0.0421)	(0.0424)	(0.0425)	(0.0425)
Financial Acquiror	-0.0494	-0.0463	-0.0575	-0.0442
	(0.0432)	(0.0436)	(0.0435)	(0.0439)
Blockholder	-0.0062	-0.0072	-0.0023	0.0021
	(0.0470)	(0.0474)	(0.0473)	(0.0475)
Size	-0.0854***	-0.0833***	-0.0824***	-0.07039***
	(0.0148)	(0.0152)	(0.0150)	(0.0138)
Tobin's Q	0.0781***	0.0795***	0.0765***	0.0731***
	(0.0177)	(0.0180)	(0.0179)	(0.0179)
Liquidity	-0.0013	-0.0024	-0.0046	-0.0025
	(0.0164)	(0.0166)	(0.0165)	(0.0167)
Growth	0.1139	0.0820	0.0954	0.0828
	(0.1392)	(0.1394)	(0.1400)	(0.1403)
Intercept	0.5805***	0.6487***	0.5922***	0.5557***
	(0.1065)	(0.1081)	(0.1071)	(0.1095)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	275	275	275	275
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.3388	0.3285	0.3286	0.3229
Max VIF	1.50	1.64	1.48	1.48
Mean VIF	1.30	1.33	1.28	1.25

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 13. Multivariate analysis of Research Question 3: 2007-2019

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1411***	0.1070***	0.0857*	0.1017**
	(0.0540)	(0.0392)	(0.0461)	(0.0398)
Horizontal	0.0389**	0.0389**	0.0406**	0.0376**
	(0.0186)	(0.0186)	(0.0186)	(0.0186)
Cross-Border	0.0448**	0.0442**	0.0456**	0.0475**
	(0.0193)	(0.0193)	(0.0193)	(0.0192)
Hostile	0.0634**	0.0641**	0.0630**	0.0624**
	(0.0266)	(0.0266)	(0.0266)	(0.0266)
Competing	0.1488***	0.1508***	0.1495***	0.1475***
	(0.0296)	(0.0295)	(0.0296)	(0.0296)
All Cash	0.0545***	0.0560***	0.0556***	0.0535***
	(0.0187)	(0.0186)	(0.0187)	(0.0187)
Financial Acquiror	-0.0390*	-0.0394*	-0.0381*	-0.0384*
	(0.0218)	(0.0218)	(0.0219)	(0.0218)
Blockholder	-0.0283	-0.0323	-0.0310	-0.0249
	(0.0239)	(0.0239)	(0.0239)	(0.0240)
Size	-0.0585***	-0.0582***	-0.0553***	-0.0541***
	(0.0079)	(0.0078)	(0.0078)	(0.0074)
Tobin's Q	0.0424***	0.0418***	0.0400***	0.0423***
	(0.0084)	(0.0084)	(0.0083)	(0.0084)
Liquidity	0.0128*	0.0126*	0.0125*	0.01308*
	(0.0075)	(0.0075)	(0.0075)	(0.0075)
Growth	0.0543	0.0539	0.0404	0.0456
	(0.0650)	(0.0649)	(0.0647)	(0.0646)
Intercept	0.5247***	0.5478***	0.5220***	0.4992***
	(0.0607)	(0.0617)	(0.0608)	(0.0609)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	1,022	1,022	1,022	1,022
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2298	0.2303	0.2271	0.2295
Max VIF	1.39	1.37	1.33	1.32
Mean VIF	1.20	1.20	1.18	1.17

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5.4. Research Question 4

The last research question tests the relationship between the bid premium and the ESG similarity among the targets and the buyers, running the following regression:

$$Premium_i = \beta_0 + \beta_1 ESG\_Similarity_i + \beta_2 Horizontal_i + \beta_3 Cross\_Border_i + \beta_4 Hostile_i + \beta_5 Competing_i + \beta_6 All\_Cash_i + \beta_7 Financial\_Acquiror_i + \beta_8 Blockholder_i + \beta_9 Size_i + \beta_{10} Tobin's\_Q_i + \beta_{11} Liquidity_i + \beta_{12} Growth_i + Year\_Effects + Country\_Effects + Industry\_Effects + \varepsilon_i \quad (1)$$

Table 14 displays regression results. It shows that ESG Similarity has a negative and significant (at 1% level) relationship with the takeover premium. The sign of control variables is in line with expectations.
This means that buyers pay lower premia to target companies which have a similar ESG score in the relevant categories, and higher premia to target companies which have different ESG scores.
The issue, as it stands, has never been addressed by the literature, but other authors investigated the impacts of the main independent variable used in this regression (or one of its proxies) over other dependent variables using a sample of M&A deals as well. For example, Vezér & Morrow (2017) compare the post-deal performance of ESG compatible deals (i.e., deals characterized by little difference between the ESG scores of the firms involved) and incompatible deals. They find that the former outperformed the latter on a five-year cumulative return basis.
Bereskin *et al.* (2018) posit that since CSR practices reflect the shared beliefs and values within a firm and thus its corporate culture, the similarity in CSR between an acquirer and its target increases the likelihood of a merger between them taking place and the likelihood of successful integration between them. The average ESG Similarity score in the sample is 0.77: a quite high value considering that the maximum value is 1, which indicate that two companies have identical scores in the relevant ESG fields. Since the sample includes only completed deals, this statistic is in line with the results of Bereskin *et al.* (2018). Alexandridis *et al.* (2021) confirmed the findings of Bereskin *et al.* (2018) showing as cultural misalignment increases the time required to finalise a deal and reduces the likelihood of deal completion. They also find that a wider divergence between the CSR corporate cultures of the acquiring and target firms is associated with lower acquirer announcement and long-run returns as well as synergistic gains for the combined firm. Instead, Hussain & Shams (2022) find that the higher the bidder's CSR scores relative to the target's (i.e., the CSR gap is positive), the higher is the synergy captured by combined cumulative abnormal returns of bidders and targets.
Cho *et al.* (2020) and Hussain & Shams (2022) are the only authors who investigated the relationship between the premium paid and the CSR gap (that could be considered a proxy of ESG Similarity). Cho *et al.* (2020) find that a higher CSR difference, which represents a stronger target CSR performance compared to that of the acquirer, is positively associated with acquisition premiums for target shareholders. Hussain &

Shams (2022) find a negative and significant relationship between the two, meaning that the higher is the CSR gap (so the higher is the buyer CSR score relative to the one of the target), the lower is the premium paid. This study confirms both results. However, the conclusions of this study and the ones of Hussain & Shams and Cho *et al.* (2020) are different. The latter suggest that higher engagement of the bidder in CSR practices enable it to pay fairer premium because of associated risk with exposure to the target's inferior CSR practices. The variable used in this study does not shed a light on this issue: it does not indicate whether buyers with higher/lower ESG score pay higher/lower premia to target companies that have higher/lower ESG score. The variable ESG Similarity is computed using the ESG categories of each pillar for both buyer and target, so it could happen that even whether the firms involved in the deal have a similar ESG overall score (so that the ESG gap between them is close to zero), they may have very different score in each categories. As a result, the variable ESG Similarity signals a low similarity.

The negative sign of ESG Similarity in the regression means that higher premia are associated with deals among firms which have different ESG categories scores. This means that the pre-deal firms characteristics are complementary. Since the relationship between target ESG (as well as its three pillars) and takeover premia has been already demonstrated previously and resulted to be positive and highly significant, the logical consequence is that a target company should receive a higher bid premium when one of its strength is the weakness of the other firm, the buyer, which is confident in more future synergistic gains from the deal. Another reason for this is that bidders, merging with superior ESG performance target firms, enhance their CSP and CFP, gaining a hard to imitate competitive advantage (Salvi *et al.*, 2018c), and thus paying higher premia. Also the findings of this research question supports the "stakeholder value maximization" view.

Table 14. Multivariate analysis of Research Question 4

	(1)
ESG Similarity	-0.2561***
	(0.0845)
Horizontal	0.0259
	(0.0256)
Cross-Border	-0.0006
	(0.0249)
Hostile	0.1073***
	(0.0386)
Competing	0.1419***
	(0.0418)
All Cash	0.0949***
	(0.0242)
Financial Acquiror	-0.0108
	(0.0444)
Blockholder	-0.0071
	(0.0354)
Size	-0.0308***
	(0.0096)
Tobin's Q	0.0389***
	(0.0389)
Liquidity	0.0212**
	(0.0096)
Growth	-0.0728
	(0.0824)
Intercept	0.5687***
	(0.0901)
Year Effects	Yes
Country Effects	Yes
Industry Effects	Yes
Observations	582
Prob > F	0.0000
Adj. R^2	0.2886
Max VIF	1.43
Mean VIF	1.16

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5.5. Robustness

This section has the purpose to verify and demonstrate the goodness of the models. Greater attention will be paid to the Adjusted R^2, the F-test and the VIF (Variance Inflation Factor) of the models. The global crises bias will be tested modifying the original sample and running the same baseline model. Lastly, a new sample of M&A deals will be used to test for the robustness of the main results previously obtained.

R^2 is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable or variables in a regression model. Thus, $R^2 = 1$ indicates that the fitted model explains all variability in y, while $R^2 = 0$ indicates no linear relationship between the dependent variable and the explanatory variable(s). The Adjusted R^2 is a corrected goodness-of-fit (model accuracy) measure for linear models. While the R^2 overestimates the fit of the linear regression as it increases with the number of effects included in the model, the Adjusted R^2 corrects it. Since the Adj. R^2 is a more precise and reliable measure, the focus will be on it. The Adj. R^2 of all the models ranges between 0.2271 and 0.3388. For example, the Adj. R^2 of the main model in Q1 is 0.2625 meaning that about the 26% of the variation in the M&A premium is explained by the variation in the target ESG score and in the other control variables, while the 74% remains unexplained.

However, it is not always the case that a high/low R^2 is good/bad for the regression model. The significance of the model at a global level is a more important indicator. In order to assess it, the F-test has been performed for all the regression. It tests whether a significant relationship exists overall between the dependent variable and the set of all the independent variables. For all the models, the Prob > F is equal to zero, meaning that the null hypothesis of the test is rejected and the models have validity.

Every model has also a very low value of Root MSE (i.e., Root Mean Squared Error), which is the standard deviation of the residual of a model. It is a measure of accuracy, so the lower, the better.

Multicollinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy. In order to address this issue, the study tested econometric specifications for multicollinearity by using the VIF, which quantifies the severity of multicollinearity in an OLS regression analysis. None of the main variables in all the models exceeded a VIF of 1.64, well below the generally perceived cut-off level of 10 (Hair *et al.*, 1995) or the more conservative level of 5 (Ringle *et al.*, 2015). Therefore, it is possible to conclude that multicollinearity is not an issue of concern in this study.

Global crises could have impacted positively on the relationship between M&A premia and ESG performance, increasing the attention towards social and environmental aspects, as well explained in paragraph 5.3. In order to test the robustness of the findings, the 2007-2009 and 2020-2021 deals data have been cut from the original sample and the same regression models have been used. Table A3 presents the results which lead to the conclusion that the main findings are not biased by the inclusion in the sample of global crises events.

A new sample of unsuccessful deals (i.e., withdrawn or pending offers) has been added to the original one, respecting the other criteria set in paragraph 4.6, in order to test the robustness of the models. The results are displayed from Table A4 to Table A10. The robustness test is consistent with the original analysis as the main variables have maintained their sign and most of them also their significance levels. This increases confidence in the correctness of the findings. Also in this case, all the models have validity and no multicollinearity issue. Thus, the final judgment is that the findings are robust.

Conclusion

Thought this study, it has been explored the relationship between firms' ESG performance and premia in the context of M&A. The effect of ESG in M&A transactions is still an under-researched topic in the extant literature and, in particular, the aforementioned relationship is only analysed by only few authors. This study is intended to fill this gap in the literature. The main purpose of this study is to understand how targets' overall ESG performance impacts on buyers' premium paid and how each aspect of the ESG (Environmental, Social, and Governance) contributes to determine the relationship. Subsequently, it has been highlighted the differences in space and time of this relationship in order to broaden the discussion and provide new insights on the topic. Lastly, the study sheds a light on the relationship between buyers and targets' ESG similarity and M&A premia.

The first research question reveals that targets' ESG performance is positively and strongly associated with the M&A premia paid by the buyers. The same holds also for its three ESG pillars, confirming the importance of each of them while assessing the relationship. Therefore, the study provides evidence for the existence of an extra premium that could be called "ESG premium". Consequently, Corporate Social Irresponsible target firms – targets with a low ESG performance – are likely to receive lower premia or even a discount. This study provides empirical evidence supporting CSR as a value-enhancing strategy that target ESG performance is an important determinant of their shareholders' takeover gains. Since M&As serve as opportunities to increase firm value by attaining different synergistic benefits through competitive capabilities from target and the value-enhancing capabilities of CSR provide greater competitive advantages to a target firm to achieve higher synergistic benefits and increase combined-firm value in the post-M&A period, target firms with superior ESG performance receive higher acquisition premiums than targets with inferior ESG performance. The results can be explained also by the signaling and insurance-like theories. The signaling theory claims that a good firm' ESG performance signals to the market its overall quality by reducing adverse selection and information asymmetry. The insurance-like theory argues that a good ESG performance is an intangible asset which acts as an "insurance like" protection when negative events occur. In both cases, the overall firm risk is reduced and, as a consequence, the firm valuation rises. Therefore, the buyer is led to pay a higher premium in the context of a M&A transaction.

The second research question shows that the targets' ESG performance is valued positively around the world, remarking the global importance of such metrics in the context of M&As. But in particular, the significance level of the association between ESG (and its pillars) and deal premia varies among the macro-regions being the highest in AMERS and moderate in EMEA, while the relationships are no significant at all in APAC. These distinctions can be explained mainly by the different economic development level of countries in each geographical region. While AMERS and EMEA have the most developed markets and most of their countries are ESG-oriented, APAC is composed mainly by emerging markets which are still far from the western markets under the Environmental (e.g., high emissions and low green investments), Social

(e.g., inequality and human right violation), and Governance (e.g., weak legal and institutional framework) performances.

The third research question, observing the impact of Covid-19 on the relationship between ESG and M&A premia, finds that the pandemic affected the most the targets' social factor in M&A transactions. Indeed, the societal aspect of ESG was brought to the forefront by the pandemic due to the increase of poverty, disparities, and unemployment. Another possible explanation comes from the literature which claims that firms with high social capital levels are the most resilient companies to systemic shocks. This infers that a high social capital reduces the overall firm risk, thus pushing up the premium paid by the buyer in a deal. Moreover, this research question highlights that, between the two periods considered, the relationship between ESG and premia remains still positive and significant: even before the onset of Covid-19 crisis, it was evident to corporates that a focus on ESG was no longer a question of marketing, but rather an important element to achieving competitive advantage. This further corroborates the first research question results.

The last research question, the fourth, claims that buyers tend to pay higher takeover premia to targets that show a different, but complementary ESG profile. A bidder, when acquiring or merging with another company which presents a superior ESG performance in certain fields that lack to the bidder itself, increases its overall corporate social performance. Since the literature links high CSP with high CFP, the bidder ultimately gains a hard to imitate competitive advantage which justify the higher premium paid.

The results of all the models have been confirmed by the robustness tests and supports the "stakeholder value maximization" view of the stakeholder theory that satisfying stakeholders by investing in CSR ultimately benefits shareholders. In fact, the findings of this study have important managerial implications for target shareholders insofar as increasing ESG performance could increase potential takeover gains.

Avenue for Future Research

As it is common in empirical studies, these results need to be interpreted with caution and considering the study's limitations. The main limitation of this study is represented by the sample size mainly due to the large unavailability of ESG data and other control variables. The final sample is less than one tenth of the original sample size after having set the criteria. However, ESG has become part of the new normal in corporate culture and its importance is expected to continue rising for the foreseeable future. More and more companies will start to disclose their ESG performance. For example, as reported by Backer McKenzie (2020), stock exchanges are demanding transparency, either by putting forward a guide to ESG reporting for voluntary disclosure (e.g., the London Stock Exchange) or by making ESG reporting required as a listing rule (e.g., Euronext France). With a great availability of ESG data, future research will have access to a larger volume of data with better quality to refine the present findings.

This study explores the relationship between ESG (and its pillars) and M&A premia, firstly using a sample of international deals, then dividing the sample in macro-regions and finally dividing the sample in deals completed before and during the Covid-19 crisis. It would be interesting also understand how the former relationship varies among the industries and how it changed in the three macro-regions due to the pandemic. It was not possible to perform this analysis due to insufficient amount of data.

The only scope is to find out whether a firm with a good corporate governance which embed environmental and social initiatives in its strategies, for which invests and allocates a large amount of resources, in other words have a superior ESG performance, is rewarded with higher premia in the context of M&As and, consequently, its shareholders wealth increases. Then, it would be noteworthy to assess whether firms with high ESG performance, not only receive higher premia, but also have a superior post-deal financial performance.

Finally, this study takes in consideration only the targets' perspective which has been examined only by a couple of authors. The other perspective, of the acquirer, is investigated in the literature by very few studies as well, but the authors reach opposite results. It would be also intriguing assessing the relationship between the ESG performance and the takeover premia from the point of view of the acquirer company and investigating, as well, the role of each specific dimensions of buyer's ESG on the premium paid.

Bibliography

Aguinis, H., & Glavas, A. (2012). *What We Know and Don't Know About Corporate Social Responsibility: A Review and Research Agenda*. Journal of Management 38(4): 932-968.

Aktas, N., De Bodt, E., & Cousin, J. G. (2011). *Do Financial Markets Care about SRI? Evidence from Mergers and Acquisitions*. Journal of Banking & Finance 35(7): 1753-1761.

Alareeni, B. A., & Hamdan, A. (2020). *ESG Impact on Performance of US S&P 500-Listed Firms*. Corporate Governance: The International Journal of Business in Society 20(7): 1409-1428.

Alexander, G. J., & Buchholz, R. A. (1978). *Corporate Social Responsibility and Stock Market Performance*. Academy of Management Journal 21(3): 479-486.

Alexandridis, G., Fuller, K., Terhaar, L., & Travlos, N. (2013). *Deal Size, Acquisition Premia and Shareholder Gains*. Journal of Corporate Finance 20: 1-13.

Alexandridis, G., Hoepner, A. G. F., Huang, Z., & Oikonomou, I. (2021). *Corporate Social Responsibility Culture and International M&As*. The British Accounting Review 54: 1-69.

Al-Tuwaijri, S. A., Christensen, T. E., & Hughes Ii, K. E. (2004). *The Relations among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach*. Accounting, Organizations and Society 29(5-6): 447-471.

Amini, C., & Dal Bianco, S. (2017). *Corporate Social Responsibility and Latin American Firm Performance*. Corporate Governance: The international Journal of Business in Society 17(3): 403-445.

Ang, J., Cheng, Y., & Nagel, G. (2008). *An Analysis of Acquirers as Dealmakers: Differentiating Acquirers' Timing, Bargain Hunting and Negotiating Skills*. ICFAI Journal of Mergers and Acquisitions 5(4): 7-33.

Aon (2022). *M&A Risk in Review 1H, 2022*.

Aragón-Correa, J. A., & Sharma, S. (2003). *A Contingent Resource-Based View of Proactive Corporate Environmental Strategy*. Academy of Management Review 28(1): 71-88.

Arouri, M., Gomes, M., & Pukthuanthong, K. (2019). *Corporate Social Responsibility and M&A Uncertainty*. Journal of Corporate Finance 56: 176-198.

Attig, N., El Ghoul, S., Guedhami, O., & Suh, J. (2013). *Corporate Social Responsibility and Credit Ratings*. Journal of Business Ethics 117(4): 679-694.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). *An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability*. Academy of Management Journal 28(2): 446-463.

Ayers, B. C., Lefanowicz, C. E., & Robinson, J. R. (2003). *Shareholder Taxes in Acquisition Premiums: The Effect of Capital Gains Taxation*. Journal of Finance 58(6): 2783-2801.

Backer McKenzie (2020). *Mitigating ESG Risks in M&A Transactions*.

Baird, P. L., Geylani, P. C., & Roberts, J. A. (2012). *Corporate Social and Financial Performance Re-Examined: Industry Effects in a Linear Mixed Model Analysis*. Journal of Business Ethics 109(3): 367-388.

Baker Tilly International (2022). *Global Dealmakers 2022. M&A Market Update*.

Balabanis, G., Philipps, H. C., & Lyall, J. (1998). *Corporate Social Responsibility and Economic Performance in the Top British Companies: Are They Linked?* European Business Review 98(1): 25-44.

Bannier, C., Bofinger, Y., & Rock, B. (2020). *Doing Safe by Doing Good: ESG Investing and Corporate Social Responsibility in the U.S. and Europe*. CFS Working Paper Series 621.

Bargeron, L. L., Schlingemann, F. P., Stulz, R. M., & Zutter, C. J. (2008). *Why Do Private Acquirers Pay So Little Compared to Public Acquirers?* Journal of Financial Economics 89(3): 375-390.

Bargeron, L. L., Schlingemann, F. P., Stulz, R. M., & Zutter, C. J. (2008). *Why do Private Acquirers Pay so Little Compared to Public Acquirers?* Journal of Financial Economics 89(3): 375-390.

Barnett, M. L. (2007). *Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility*. Academy of Management Review 32(3): 794-816.

Barnett, M., & Salomon, R. (2012). *Does It Pay to Be Really Good? Addressing the Shape of the Relationship between Social and Financial Performance*. Strategic Management Journal 33(11): 1304-1320.

Barney, J. B., & Hansen, M. H. (1994). *Trustworthiness as a Source of Competitive Advantage*. Strategic Management Journal 15: 175-190.

Berchicci, L., Dowell, G., & King, A. A. (2012). *Environmental Capabilities and Corporate Strategy: Exploring Acquisitions among US Manufacturing Firms*. Strategic Management Journal 33(9): 1053-1071.

Bereskin, F., Byun, S. K., Officer, M. S., & Oh, J. (2018). *The Effect of Cultural Similarity on Mergers and Acquisitions: Evidence from Corporate Social Responsibility*. Journal of Financial and Quantitative Analysis 53(5): 1995-2039.

Bettinazzi, E., & Zollo, M. (2017). *Stakeholder Orientation and Acquisition Performance*. Strategic Management Journal 38(12): 2465-2485.

Betton, S., & Eckbo, B. (2000). *Toeholds, Bid Jumps, and Expected Payoffs in Takeovers*. Review of Financial Studies 13: 841-882.

Betton, S., Eckbo, B. E., & Thorburn, K. S. (2008). *Handbook of Corporate Finance: Empirical Corporate Finance 2. Corporate Takeovers*. North-Holland.

Billet, M. & Mauer, D. (2003). *Cross Subsidies, External Financial Constraints, and the Contribution of the Internal Capital Market to Firm Value*. Review of Financial Studies 16: 1167-1201.

Blasi, S., Caporin, M., & Fontini, F. (2018). *A Multidimensional Analysis of the Relationship between Corporate Social Responsibility and Firms' Economic Performance*. Ecological Economics 147: 218-229.

Bowen, H. P. (1953). *Social Responsibilities of the Businessman*. Harper & Brothers.

Bower, J. L. (2001). *Not All M&A Are Alike – And That Matters*. Harvard Business Review 79(3): 92-101.

Bradley, M., Desai, A., & Kim, E. H. (1988). *Synergistic Gains from Corporate Acquisitions and their Division between the Stockholders of Target and Acquiring Firms*. Journal of Financial Economics 21: 3-41.

Bragdon, J., & Marlin, J. (1972). *Is Pollution Profitable?* Risk Management 19(4): 9-18.

Brammer, S., & Millington, A. (2005). *Corporate Reputation and Philanthropy: An Empirical Analysis*. Journal of Business Ethics 61(1): 29-44.

Brammer, S., Brooks, C., & Pavelin, S. (2006). *Corporate Social Performance and Stock Returns: UK Evidence from Disaggregate Measures*. Financial Management 35(3): 97-116.

Bris, A. (2002). *Toeholds, Takeover Premium, and the Probability of Being Acquired*. Journal of Corporate Finance 8(3): 227-253.

Bris, A., & Cabolis, C. (2008). *The Value of Investor Protection: Firm Evidence from Cross-Border Mergers*. The Review of Financial Studies 21(2): 605-648.

Brogi, M., Lagasio, V., & Porretta, P. (2022). *Be Good to Be Wise: Environmental, Social, and Governance Awareness as a Potential Credit Risk Mitigation Factor*. Journal of International Financial Management & Accounting 33(1): 1-26.

Buchanan, B., Cao, C. X., & Chen, C. (2018). *Corporate Social Responsibility, Firm Value, and Influential Institutional Ownership*. Journal of Corporate Finance 52: 73-95.

Burhan, A. H. N., & Rahmanti, W. (2012). *The Impact of Sustainability Reporting on Company Performance*. Journal of Economics, Business, & Accountancy Ventura 15(2): 257-272.

Cai, Y., Jo, H., & Pan, C. (2012). *Doing Well While Doing Bad? CSR in Controversial Industry Sectors*. Journal of Business Ethics 108(4): 467-480.

Carroll, A. B. (1979). *A Three-Dimensional Conceptual Model of Corporate Social Performance*. The Academy of Management Review 4(4): 497-505.

Carroll, A. B. (1999). *Corporate Social Responsibility: Evolution of a Definitional Construct*. Business & Society 38(3): 268-295.

Carroll, A. B., & Näsi, J. (1997). *Understanding Stakeholder Thinking: Themes from a Finnish Conference*. Business Ethics: A European Review 6(1): 46-51.

Carroll, A. B., & Shabana, K. M. (2010). *The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice*. International Journal of Management Reviews 12(1): 85-105.

Chen, C. M., & Delmas, M. (2011). *Measuring Corporate Social Performance: An Efficiency Perspective*. Production and Operations Management Society 20(6): 789-804.

Chen, E., & Gavious, I. (2015). *Does CSR Have Different Value Implications for Different Shareholders?* Finance Research Letters 14(1): 29-35.

Cheng, B., Ioannou, I. & Serafeim, G. (2014). *Corporate Social Responsibility and Access to Finance*. Strategic Management Journal 35(1): 1-23.

Cho, K., Han, S. H., Kim, H. J., & Kim, S. (2020). *The Valuation Effects of Corporate Social Responsibility on Mergers and Acquisitions: Evidence from U.S. Target Firms*. Corporate Social Responsibility and Environmental Management 28(1): 1-11.

Choi, G., Petra, C., Guar, A. & Kim, T. (2015). *Target CSR as a Signal in Acquisitions: Its Effect on Acquisition Premium*. Academy of Management Annual Meeting Proceedings 2015(1): 17621-17621.

Christmann, P. (2000). *Effects of Best Practices of Environmental Management on Cost Advantage: The Role of Complementary Assets*. Academy of Management Journal 43(4): 663-680.

Christofferson, S. A., McNish, R. S., & Sims, D. L. (2004). *Where Mergers Go Wrong*. McKinsey Quarterly 2: 92-99.

Clarkson, M. B. E. (1995). *A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance*. The Academy of Management Review 20(1): 92-117.

Clarkson, M. B. E. (1998). *The Corporation and Its Stakeholders: Classic and Contemporary Readings*. University of Toronto Press.

Climate Bonds Initiative (2021). *Sustainable Debt. Global State of the Market 2021*.

Coase, R. H. (1937). *The Nature of the Firm*. Economica 4(16): 386-405.

Cochran, P. L., & Wood, R. A. (1984). *Corporate Social Responsibility And Financial Performance*. Academy of Management Journal 27(1): 42-56.

Comment, R., & Schwert, G. W. (1995). *Poison or Placebo? Evidence on the Deterrence and Wealth Effects of Modern Antitakeover Measure*. Journal of Financial Economics 39: 3-43.

Commission of the European Communities (2001). *Green Paper. Promoting a European Framework for Corporate Social Responsibility*. Brussels.

Cornell, B., & Shapiro, A. C. (1987). *Corporate Stakeholder and Corporate Finance*. Financial Management 16(1): 5-14.

Crisóstomo, V. L., de Souza Freire, F., & de Vasconcellos, F. C. (2011). *Corporate Social Responsibility, Firm Value and Financial Performance in Brazil*. Social Responsibility Journal 7(2): 295-309.

Cui, J., Jo, H., & Na, H. (2018). *Does Corporate Social Responsibility Affect Information Asymmetry?* Journal of Business Ethics 148(3): 549-572.

Dahlsrud, A. (2006). *How Corporate Social Responsibility is Defined: An Analysis of 37 Definitions*. Corporate Social Responsibility and Environmental Management 15(1): 1-13.

Damodaran, A. & Cornell, B. (2020). *Valuing ESG: Doing Good or Sounding Good?* NYU Stern School of Business.

Datta, S., Iskandar-Datta, M., & Raman, K. (2001). *Executive Compensation and Corporate Acquisition Decisions*. The Journal of Finance 56(6): 2299-2336.

Davis, K. (1960). *Can Business Afford to Ignore Social Responsibilities?* California Management Review 2(3): 70-76.

Deloitte (2009). *How Green is the Deal? The Growing Role of Sustainability in M&A*.

Deloitte (2022). *The future of M&A. 2022 M&A Trends Survey*.

Deng, X., Kang, J., & Low, B. S. (2013). *Corporate Social Responsibility and Stakeholder Value Maximization: Evidence from Mergers*. Journal of Financial Economics 110(1): 87-109.

DePamphilis, D. (2010). *Mergers and Acquisitions Basics. All You Need To Know*. Academic Press.

Di Giulio, A., Migliavacca, P., & Tencati, A. (2011). *Corporate Social Performance and Cost Of Capital: A Meaningful Relationship?* Business Ethics and Corporate Sustainability: 132-148.

Dionne, G., La Haye, M., & Bergerès, A. S. (2015). *Does Asymmetric Information Affect the Premium in Mergers and Acquisitions?* The Canadian Journal of Economics 48(3): 819–852.

Dittmar, A., Li, D., & Nain, A. (2012). *It Pays to Follow the Leader: Acquiring Targets Picked by Private Equity*. Journal of Financial and Quantitative Analysis 47: 901-931.

Dowell, G., Hart, S., & Yeung, B. (2000). D*o Corporate Global Environmental Standards Create or Destroy Market Value?* Management Science 46(8): 1059-1074.

Dumitrescu, D., & Simionescu, L. (2013). *Empirical Research Regarding the Influence of Corporate Social Responsibility (CSR) Activities on Companies' Employees and Financial Performance*. The Bucharest University of Economic Studies 49(3): 52-66.

Dyllick, T., & Hockerts, K. (2002). *Beyond the Business Case for Corporate Sustainability*. Business Strategy and the Environment 11(2): 130-141.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). *The Impact of Corporate Sustainability on Organizational Processes and Performance*. Management Science 60(11): 2835-2857.

El Ghoul, S., Guedhami, O., Kwok, C. C., & Mishra, D. R. (2011). *Does Corporate Social Responsibility Affect the Cost of Capital?* Journal of Banking & Finance 35(9): 2388-2406.

Elkington, J. (1997). *Cannibals with Forks: the Triple Bottom Line of 21st Century Business*. Oxford. Capstone publishing.

Endrikat, J. (2016). *Market Reactions to Corporate Environmental Performance Related Events: A Meta-Analytic Consolidation of the Empirical Evidence*. Journal of Business Ethics 138(3): 535-548.

Endrikat, J., Guenther, E., & Hoppe, H. (2014). *Making Sense of Conflicting Empirical Findings: A Meta-Analytic Review of the Relationship between Corporate Environmental and Financial Performance*. European Management Journal 32(5): 735-751.

Fatemi, A., Glaum, M., & Kaiser, S. (2017). *ESG Performance and Firm Value: The Moderating Role of Disclosure*. Global Finance Journal 38: 45-64.

Ferrell, A., Liang, H., & Renneboog, L. (2016). *Socially Responsible Firms*. Journal of Financial Economics 122(3): 585-606.

Ferriani, F., & Natoli, F. (2021). *ESG Risks in Times of Covid-19*. Applied Economics Letters 28(18): 1537-1541.

Fidrmuc, J. P., Roosenboom, P., Paap, R., & Teunissen, T. (2012). *One Size does not Fit All: Selling Firms to Private Equity versus Strategic Acquirers*. Journal of Corporate Finance 18(4): 828-848.

Fijałkowska, J., Zyznarska-Dworczak, B., & Garsztka, P. (2018). *Corporate Social-Environmental Performance Versus Financial Performance of Banks in Central and Eastern European Countries*. Sustainability 10(3): 772.

Fink, L. (2018). *Letter to CEO's: A Sense of Purpose*. BlackRock.

Fink, L. (2019). *Letter to CEO's: Purpose & Profit*. BlackRock.

Fink, L. (2020). *Letter to CEO's: A Fundamental Reshaping of Finance*. BlackRock.

Fleuriet, N. (2008). *Investment Banking Explained: An Insider's Guide to the Industry*. The McGraw-Hill Companies.

Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). *Opportunity Platforms and Safety Nets: Corporate Citizenship and Reputational Risk*. Business and Society Review 105(1): 85-106.

Freeman, R. (1984). *Strategic Management. A Stakeholder Approach*. Pitman/Ballinger (Harper Collins): Boston.

Freeman, R. E., & Reed, D. (1983). *Stockholders and Stakeholders: A New Perspective on Corporate Governance*. California Management Review 25(3): 88-106.

Friede, G., Busch, T., & Bassen, A. (2015). *ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies*. Journal of Sustainable Finance & Investment 5(4): 210-233.

Friedman, M. (1970). *The Social Responsibility of Business is to Increase its Profits*. New York Times Magazine.

Fung, H.-G., Law, S. A., & Yau, J. (2010). *Socially Responsible Investment in a Global Environment*. Cheltenham: Edward Elgar Publishing Limited.

Gatignon, H., & Anderson, A. (1988). *The Multinational Corporation's Degree of Control over Foreign Subsidiaries: An Empirical Test of a Transaction Cost Explanation*. Journal of Law, Economics, & Organization 4 (2): 305-336.

Gaughan, P. A. (2018). *Mergers, Acquisitions, and Corporate Restructurings* (7th Edition). John Wiley & Sons.

Ge, W., & Liu, M. (2015). *Corporate Social Responsibility and the Cost of Corporate Bonds*. Journal of Accounting and Public Policy 34(6): 597-624.

Giese, G., Lee, L., Melas, D., Nagy, Z., & Nishikawa, L. (2019). *Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance*. The Journal of Portfolio Management 45(5): 69-83.

Godfrey, P. (2005). *The Relationship between Corporate Philanthropy and Shareholder Wealth: A Risk Management Perspective*. The Academy of Management Review 30(4): 777-798.

Godfrey, P., Merrill, C., & Hansen, J. (2009). *The Relationship between Corporate Social Responsibility and Shareholder Value: An Empirical Test of the Risk Management Hypothesis*. Strategic Management Journal 30(4): 225-245.

Golubov, A., Petmezas, D., & Travlos, N. G. (2013). *Empirical Mergers and Acquisitions Research: A Review of Methods, Evidence and Managerial Implications*. Handbook of Research Methods and Applications in Empirical Finance: 287-313.

Gomes, M. (2019). *Does CSR Influence M&A Target Choices?* Finance Research Letters 30: 153-159.

Gomes, M., & Marsat, S. (2018). *Does CSR Impact Premiums in M&A Transactions?* Finance Research Letters 26: 71-80.

Gondhalekar, V. B., Sant, R. R., & Ferris, S. P. (2004). *The Price of Corporate Acquisition: Determinants of Cash Takeover Premia*. Applied Economics Letters 11(12): 735-739.

González-Benito, J., & González-Benito, O. (2005). *Environmental Proactivity and Business Performance: An Empirical Analysis*. Omega 33(1): 1-15.

González-Torres, T., Rodríguez-Sánchez, J.-L., Pelechano-Barahona, E., & García-Muiña, F. E. (2020). *A Systematic Review of Research on Sustainability in Mergers and Acquisitions*. Sustainability 12(2): 513-531.

Gorbenko, A. S., & Malenko, A. (2014). *Strategic and Financial Bidders in Takeover Auctions*. The Journal of Finance 69(6): 2513-2555.

Goss, A., & Roberts, G. S. (2011). T*he Impact of Corporate Social Responsibility on the Cost of Bank Loans*. Journal of Banking & Finance 35(7): 1794-1810.

Graham, J., Harvey, C., & Rajgopal, S. (2005). *The Economic Implications of Corporate Financial Reporting*. Journal of Accounting and Economics 40(1-3): 3-37.

Gregory, A., Tharyan, R., & Whittaker, J. (2013). *Corporate Social Responsibility and Firm Value: Disaggregating the Effects on Cash Flow, Risk and Growth*. Journal of Business Ethics 124(4): 633-657.

Griffin, J. J., & Mahon, J. F. (1997). *The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research*. Business & Society 36(1): 5-31.

Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate Data Analysis* (3rd ed). New York: Macmillan.

Hamel, G., & Prahalad, C. K. (1994). *Competing for the Future*. Harvard Business School Press.

Harper, P. (2012). *Two Essays on Firm Strategy and Corporate Social Responsibility*. Rensselaer Polytechnic Institute.

Hart, S., & Ahuja, G. (1996). *Does It Pay to Be Green? An Empirical Examination of the Relationship between Emission Reduction and Firm Performance*. Business Strategy and the Environmental 5(1): 30-37.

Hassel, L., Nilsson, H., & Nyquist, S. (2005). *The Value Relevance of Environmental Performance.* European Accounting Review 14(1): 41-61.

Healy, P. M., Palepu, K. G., & Ruback, R. S. (1997). *Which Takeovers are Profitable? Strategic or Financial?* MIT Sloan Management Review 38(4): 45-57.

Higgins, R. C., & Schall, L. C. (1975). *Corporate Bankruptcy and Conglomerate Mergers*. Journal of Finance 30(1): 93-113.

Hirshleifer, D., & Titman, S. (1990). *Share Tendering Strategies and the Success of Hostile Takeover Bids.* Journal of Political Economy 98: 295-324.

Hussain, T., & Shams, S. (2022). *Pre-Deal Differences in Corporate Social Responsibility and Acquisition Performance*. International Review of Financial Analysis 81(5): 1-17.

Hussaini, M., Hussain, N., Nguyen, D., & Rigoni, U. (2021). *Is Corporate Social Responsibility an Agency Problem? An Empirical Note from Takeovers*. Finance Research Letters 43(1): 102007.

Jaffe, A. B. (1986). *Technological Opportunity and Spillovers of R&D: Evidence from Firms' Patents, Profits and Market Value*. American Economic Review 76(5): 984-999.

Jaggi, B., & Freedman, M. B. (1992). *An Examination of the Impact of Pollution Performance on Economic and Market Performance: Pulp and Paper Firms.* Journal of Business Finance & Accounting *19*(5): 697-713.

Jarrell, G. A., & Poulsen, A. B. (1989). *Stock Trading Before the Announcement of Tender Offers: Insider Trading or Market Anticipation*. Journal of Law, Economics, & Organization 5(2): 225-248.

Jennings, R. H., & Mazzeo, M. A. (1993). *Competing Bids, Target Management Resistance, and the Structure of Takeover Bids*. Review of Financial Studies 6: 883-909.

Jensen, M. (2001). *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*. Journal of Applied Corporate Finance 14(3): 8-21.

Jensen, M. C. (2002). *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*. Business Ethics Quaterly 12(2): 235-256.

Jensen, M., & Meckling, W. (1976). *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*. Journal of Financial Economics 3(4): 305-360.

Jindra, J., & Moeller, T. (2015). *Target Financial Independence and Takeover Pricing*. Journal of Financial Research 38(3): 379-413.

Jo, H., & Na, H. (2012). *Does CSR Reduce Firm Risk? Evidence from Controversial Industry Sectors*. Journal of Business Ethics 110(4): 441-456.

John, K., Liu, Y. L., & Taffler, R. (2011). *It Takes Two to Tango: Overpayment and Value Destruction in M&A Deals*. Working Paper. New York University.

Jory, S. R., Ngo, T. N., & Wang, D. (2016). *Credit Ratings and the Premiums Paid in Mergers and Acquisitions*. Journal of Empirical Finance 39: 93-104.

Jost, S., Erben, S., Ottenstein, P., & Zülch, H. (2022). *Does Corporate Social Responsibility Impact Mergers & Acquisition Premia? New International Evidence*. Finance Research Letters 46(A): 1-9.

Khanna, M., & Damon, L. (1999). *EPA's Voluntary 33/50 Program: Impact on Toxic Releases and Economic Performance of Firms*. Journal of Environmental Economics and Management 37: 1-25.

Kim, Y., Li, H., & Li, S. (2014). *Corporate Social Responsibility and Stock Price Crash Risk*. Journal of Banking & Finance 43: 1-13.

King, A., & Lenox, M. (2001). *Does It Really Pay to Be Green? An Empirical Study of Firm Environmental and Financial Performance*. Journal of Industrial Ecology 5(1): 105-116.

Klassen, R. D., & McLaughlin, C. P. (1996). *The Impact of Environmental Management on Firm Performance*. Management Science 42(8): 1199-1214.

Konar, S., & Cohen, M. (2001). *Does the Market Value Environmental Performance?* Review of Economics and Statistics 83(2): 281-289.

Kotler, P., & Lee, N. (2005). *Corporate Social Responsibility. Doing the Most Good for Your Company and Your Cause*. John Wiley & Sons.

Krishnamurti, C., Shams, S., Pensiero, D., & Velayutham, E. (2019). *Socially Responsible Firms and Mergers and Acquisitions Performance: Australian Evidence*. Pacific-Basin Finance Journal 57(1): 101193.

Lehn, K. & Zhao, M. (2006). *CEO Turnover after Acquisitions: Do Bad Bidders Get Fired?* Journal of Finance 61(4): 1759-1811.

Levi, M., Li, K., & Zhang, F. (2014). *Director Gender and Mergers and Acquisitions*. Journal of Corporate Finance 28: 185-200.

Levy, H. & Sarnat, M. (1970). *Diversification, Portfolio Analysis and the Uneasy Case for Conglomerate Mergers*. Journal of Finance 25(4): 795-802.

Liang, H., & Renneboog, L. (2017). *On the Foundations of Corporate Social Responsibility*. The Journal of Finance 72(2): 853-910.

Lin, C. H., Yang, H. L., & Liou, D. Y. (2009). *The Impact of Corporate Social Responsibility on Financial Performance: Evidence from Business in Taiwan*. Technology in Society 31(1): 56-63.

Lin, C., & Wei, Y. (2006). T*he Role of Business Ethics in Merger and Acquisition Success: An Empirical Study*. Journal of Business Ethics 69: 95-109.

Lins, K. V., Servaes, H., & Tamayo, A. (2017). *Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis*. Journal of Finance 72(4): 1785-1824.

Lioui, A., & Sharma, Z. (2012). *Environmental Corporate Social Responsibility and Financial Performance: Disentangling Direct and Indirect Effects*. Ecological Economics 78: 100-111.

Lorraine, N. H. J., Collison, D. J., & Power, D. M. (2004). *An Analysis of the Stock Market Impact of Environmental Performance Information*. In Accounting Forum 28(1): 7-26.

Lozano, R. (2012). *Are Companies Planning their Organisational Changes for Corporate Sustainability? An Analysis of Three Case Studies on Resistance to Change and their Strategies to Overcome it.* Corporate Social Responsibility and Environmental Management 20(5): 275-295.

Mahoney, L. S., & Roberts, R. W. (2004). *Corporate Social Performance: Empirical Evidence on Canadian Firms*. Research on Professional Responsibility and Ethics in Accounting 9: 73-99.

Malik, M. (2014). *The Impact of Targets' Social Performance on Acquisition Premiums*. Boston University.

Margolis, J., Elfenbein, H., & Walsh, J. (2007). *Does It Pay to Be Good? A Meta-Analysis and Redirection of Research on the Relationship between Corporate Social and Financial Performance*. University of Michigan, Ann Arbor 1001.

Martínez-Ferrero, J., Banerjee, S., & García-Sánchez, I. M. (2016). *Corporate Social Responsibility as a Strategic Shield Against Costs of Earnings Management Practices*. Journal of Business Ethics 133(2): 305-324.

Maung, M., Shedden, M, Wang Y., & Wilson, C. (2019). *The Investment Environment and Cross-Border Merger and Acquisition Premiums*. Journal of International Financial Markets, Institutions and Money 59: 19-35.

McGuire, J., Sundgren, A., & Schneeweis, T. (1988). *Corporate Social Responsibility and Firm Financial Performance*. The Academy of Management Journal 31(4): 854-872.

McWilliams, A., & Siegel, D. (2001). *Corporate Social Responsibility: A Theory of the Firm Perspective*. Academy of Management Review 26(1): 117-127.

Meglio, O. (2020). *Towards More Sustainable M&A Deals: Scholars as Change Agents*. Sustainability 12(22): 1-11.

Mergermarket (2021a). *Deal Drivers: Americas FY 2020*.

Mergermarket (2021b). *Deal Drivers: APAC FY 2020*.

Mergermarket (2021c). *Deal Drivers: EMEA FY 2020*.

Mergermarket (2022a). *Deal Drivers: Americas FY 2021*.

Mergermarket (2022b). *Deal Drivers: Americas Q1 2022*.

Mergermarket (2022c). *Deal Drivers: APAC FY 2021*.

Mergermarket (2022d). *Deal Drivers: APAC Q1 2022*.

Mergermarket (2022e). *Deal Drivers: EMEA FY 2021*.

Mergermarket (2022f). *Deal Drivers: EMEA Q1 2022*.

Mirvis, P. (2006). *Can You Buy CSR?* California Management Review 51: 109-116.

Misani, N. (2017). *The Organizational Outcomes of Corporate Social Responsibility: A Review of the Literature.*

Moeller, S., Schlingemann, F., & Stulz, R. (2004). *Firm Size and the Gains from Acquisitions*. Journal of Financial Economics 73(2): 201-228.

Moeller, T. (2005). *Let's Make a Deal! How Shareholder Control Impacts Merger Payoffs*. Journal of Financial Economics 76(1): 167-90.

Morgan Stanley Investment Management (2020). *The Butterfly Effect & COVID-19: Six Implications for Sustainable Investing in an Interconnected World.*

Mulyadi, M. S., & Anwar, Y. (2012). *Impact of Corporate Social Responsibility toward Firm Value and Profitability*. The Business Review 19(2): 316-322.

Nelling, E., & Webb, E. (2009). *Corporate Social Responsibility and Financial Performance: The "Virtuous Circle" Revisited*. Review of Quantitative Finance and Accounting 32(2): 197-209.

Nollet, J., Filis, G., & Mitrokostas, E. (2015). *Corporate Social Responsibility and Financial Performance: A Non-Linear and Disaggregated Approach*. Economic Modelling 52: 400-407.

Oikonomou, I., Brooks, C., & Pavelin, S. (2012). *The Impact of Corporate Social Performance on Financial Risk and Utility: A Longitudinal Analysis*. Financial Management 41(2): 483-515.

onValues Investment Strategies and Research Ltd. (2005). *Conference Report. Investing for Long-Term Value. Integrating Environmental, Social and Governance Value Drivers in Asset Management and Financial Research. A State-of-the-Art Assessment*. Zurich.

Orlitzky, M., & Benjamin, J. D. (2001). *Corporate Social Performance and Firm Risk: A Meta-Analytic Review*. Business & Society 40(4): 369-396.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). *Corporate Social and Financial Performance: A Meta-Analysis*. Organization Studies 24(3): 403-441.

Ozdemir, O., Binesh, F., & Erkmen, E. (2021). *The Effect of Target's CSR Performance on M&A Deal Premiums: A Case for Service Firms*. Review of Managerial Science 16: 1001-1034.

Paine, L. S. (2020). *COVID-19 Is Rewriting the Rules of Corporate Governance*. Harvard Business Review.

Perrini, F., Russo, A., Tencati, A., & Vurro, C. (2011). *Deconstructing The Relationship between Corporate Social and Financial Performance*. Journal of Business Ethics 102: 59-76.

Porter, M. E., & Kramer, M. R. (2002). *The Competitive Advantage of Corporate Philanthropy*. Harvard Business Review 80(12): 56-68.

Porter, M. E., & Kramer, M. R. (2006). *The Link Between Competitive Advantage and Corporate Social Responsibility*. Harvard Business Review 12: 78-92.

Porter, M. E., & Kramer, M. R. (2011). *The Big Idea: Creating Shared Value. How to Reinvent Capitalism–and Unleash a Wave of Innovation and Growth*. Harvard Business Review 89(1-2): 62-77.

Powel, R. (2004). *Takeover Prediction Models and Portfolio Strategies: A Multinomial Approach*. Multinational Finance Journal 8(1/2): 35-72.

Preston, L. E., & O'Bannon, D. P. (1997). *The Corporate Social-Financial Performance Relationship: A Typology and Analysis*. Business & Society 36(4): 419-429.

PwC & PRI (2012). *The Integration of Environmental, Social and Governance Issues in Mergers and Acquisitions Transactions. Trade Buyers Survey Results.*

Refinitiv (2021). *Sustainable Finance Review. Full Year 2021.*

Refinitiv (2022a). *Global Mergers & Acquisitions Review. Full Year 2021. Financial Advisors*.

Refinitiv (2022b). *Environmental, Social and Governance Scores From Refinitiv*.

Rhodes-Kropf, M., Robinson, D. T., & Viswanathan, S. (2005). *Valuation Waves and Merger Activity: The Empirical Evidence*. Journal of Financial Economics 77(3): 561-603.

Ringle, C. M., Wende, S., & Becker, J-M. (2015). *SmartPLS 3*. Bönningstedt: SmartPLS.

Robeco (2022). *Country Sustainability Ranking*.

Roll, R. (1986). *The Hubris Hypothesis of Corporate Takeovers*. Journal of Business 59(2): 197-216.

Rosembaum, J. & Pearl, J. (2013). *Investment Banking: Valuation, Leverage Buyouts, And Mergers & Acquisitions* (2nd Edition). Jhon Wiley & Sons.

Rossi, S., & Volpin, P. F. (2004). *Cross-Country Determinants of Mergers and Acquisitions*. Journal of Financial Economics 74(2): 277-304.

Russo, A., Vastola, V., & Vurro, C. (2018). *To Be or Not to Be Sustainable? Solving the Dilemma during the Acquisition Process*. Sinergie Italian Journal of Management 36(106): 127-140.

Russo, M., & Fouts, P. (1997). *A Resource-Based Perspective on Corporate Environmental Performance and Profitabilit*y. Academy of Management Journal 40(3): 534-559.

Safari, M., Babania, A., Tive, M., & Mirmehdi, M. (2014). *An Examination to Effects of Gender Differences on the Corporate Social Responsibility (CSR)*. Procedia - Social and Behavioral Sciences 109(8): 664-668.

Salvi, A., Petruzzella, F., & Giakoumelou, A. (2018a). *CSR and Financial Performance: Trick or Treat? A Longitudinal Study on Holistic CSR Practices*. International Journal of Business and Management 13(6): 43-71.

Salvi, A., Petruzzella, F., & Giakoumelou, A. (2018b). *Does Sustainability Foster the Cost of Equity Reduction? The Relationship Between Corporate Social Responsibility (CSR) and Riskiness Worldwide*. African Journal of Business Management 12(12): 381-397.

Salvi, A., Petruzzella, F., & Giakoumelou, A. (2018c). *Green M&A Deals and Bidders' Value Creation: The Role of Sustainability in Post-Acquisition Performance*. International Business Research 11(7): 96-105.

Salvi, A., Petruzzella, F., Doronzo, E., & Giakoumelou, A. (2019). *CSR and Corporate Financial Performance: An Inter-Sectorial Analysis*. International Journal of Business and Management 14(11): 193-208.

Santoso, A. H., & Feliana, Y. K. (2014). *The Association between Corporate Social Responsibility and Corporate Financial Performance*. Issues in Social and Environmental Accounting 8(2): 82-103.

Sassen, R., Hinze, A. K., & Hardeck, I. (2016). *Impact of ESG Factors on Firm Risk in Europe*. Journal of Business Economics 86(8): 867-904.

Schwert, G. W. (2000). *Hostility in Takeovers: In the Eyes of the Beholder?* Journal of Finance, 55(6), 2599–2640.

Shane, P. B., & Spicer, B. H. (1983). *Market Response to Environmental Information Produced Outside the Firm*. The Accounting Review 58(3): 521-538.

Sharfman, M. P., & Fernando, C. S. (2008). *Environmental Risk Management and the Cost of Capital*. Strategic Management Journal 29(6): 569-592.

Shleifer, A., & Vishny, R. (1992). *Liquidation Values and Debt Capacity: A Market Equilibrium Approach*. Journal of Finance 47: 1343-1366.

Shleifer, A., & Vishny, R. V. (1988). *Value Maximization and the Acquisition Process*. Journal Of Economic Perspectives 2(1): 7-20.

Simonyan, K. (2014). *What Determines Takeover Premia: An Empirical Analysis*. Journal of Economics and Business 75: 93-125.

Slusky, A. R., & Caves, R. E. (1991). *Synergy, Agency, and the Determinants of Premia Paid in Mergers*. The Journal of Industrial Economics 39(3): 277-96.

Stanwick, P. A., & Stanwick, S. D. (1998). *The Relationship between Corporate Social Performance and Organizational Size, Financial Performance, and Environmental Performance: An Empirical Examination*. Journal of Business Ethics 17(2): 195-204.

Statista (2022). *ESG Investing.*

Tampakoudis, I., & Anagnostopoulou, E. (2020). *The Effect of Mergers and Acquisitions on Environmental, Social and Governance Performance and Market Value: Evidence from EU Acquirers*. Business Strategy and the Environment 29(5): 1865-1875.

Tampakoudis, I., Noulas, A., Kiosses, N., & Drogalas, G. (2021). *The Effect of ESG on Value Creation from Mergers and Acquisitions. What Changed During the COVID-19 Pandemic?* Corporate Governance International Journal of Business in Society 21(6): 1117-1141.

Tencati, A., Perrini, F., & Pogutz, S. (2004). *New Tools to Foster Corporate Socially Responsible Behavior*. Journal of Business Ethics 53(1): 173-190.

Turban, D. B., & Greening, D. W. (1997). *Corporate Social Performance and Organizational Attractiveness to Prospective Employees*. Academy of Management Journal 40(3): 658-672.

Ullmann, A. A. (1985). *Data in Search of a Theory: A Critical Examination of the Relationship among Social Performance, Social Disclosure, and Economic Performance of US Firms*. Academy of Management Review 10(3): 540-557.

UN Global Compact-Accenture (2010). *A new era of sustainability*.

United Nations (1987). *Report of the World Commission on Environment and Development: Our Common Future.*

Vezér, M., & Morrow, D. (2017). *ESG Compatibility: A Hidden Success Factor in M&A Transaction*s. Sustainalytics. ESG Spotlight 14: 1-7.

Vulpiani, M. (2014). *Special Cases Of Business Valuation*. McGraw-Hill Education.

Waddock, S. A., & Graves, S. B. (1997). *The Corporate Social Performance-Financial Performance Link*. Strategic Management Journal 18(4): 303-319.

Wagner, M. (2005). *How to Reconcile Environmental and Economic Performance to Improve Corporate Sustainability: Corporate Environmental Strategies in the European Paper Industry*. Journal of Environmental Management 76(2): 105-118.

Weber, O., Scholz, R., & Michalik, G. (2010). *Incorporating Sustainability Criteria into Credit Risk Management*. Business Strategy and the Environment 19(1): 39-50.

Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2020). *Does ESG Certification Add Firm Value?* Finance Research Letters 39(5): 101593.

Wood, D. (2010). *Measuring Corporate Social Performance: A Review*. International Journal of Management Reviews 12(1): 50-84.

Wood, D. J. (1991). *Corporate Social Performance Revisited*. The Academy of Management Review 16(4): 691-718.

World Business Council for Sustainable Development (1999). *Corporate Social Responsibility. Meeting Changing Expectations*.

Yamashita, M., Sen, S. & Roberts, M. (1999). *The Rewards for Environmental Conscientiousness in the U.S. Capital Market*. Journal of Financial and Strategic Decision 12(1): 73-78.

Yang, S. L. (2016). *Corporate Social Responsibility and an Enterprise's Operational Efficiency: Considering Competitor's Strategies and the Perspectives of Long-Term Engagement*. Quality & Quantity 50(6): 2553-2569.

Yen, T.-Y., & André, P. (2019). *Market Reaction to the Effect of Corporate Social Responsibility on Mergers and Acquisitions: Evidence on Emerging Markets*. The Quarterly Review of Economics and Finance 71: 114-131.

Zattoni, A. (2020). *Corporate Governance: How to Design Good Companies*. EGEA. Bocconi University Press.

Zerbib, O. D. (2019). *The Effect of Pro-Environmental Preferences on Bond Prices: Evidence from Green Bonds*. Journal of Banking & Finance 98: 39-60.

Zhang, F., Li, M., & Zhang, M. (2019). *Chinese Financial Market Investors Attitudes toward Corporate Social Responsibility: Evidence from Mergers and Acquisitions*. Sustainability 11(9): 2615.

Zollo, M., & Singh, H. (2004). *Deliberate Learning in Corporate Acquisitions: Post-Acquisition Strategies and Integration Capability in U.S. Bank Mergers*. Strategic Management Journal 25(13): 1233-1256.

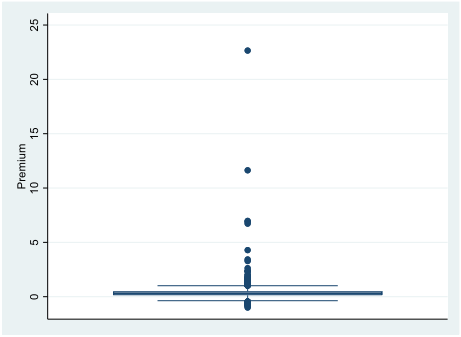
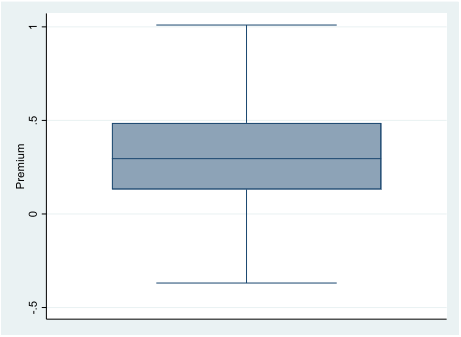
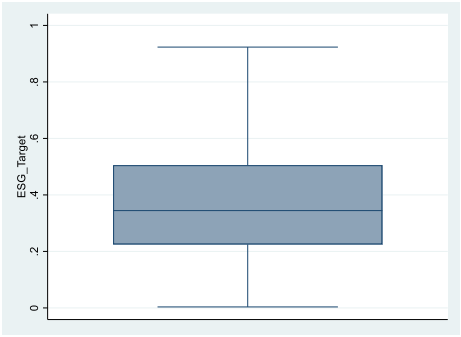
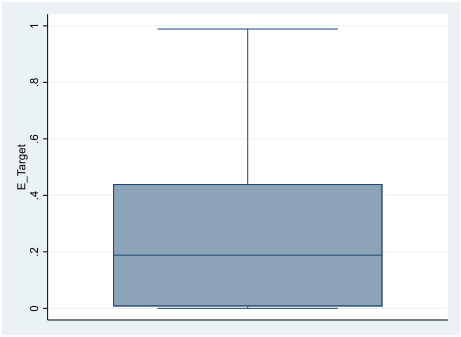
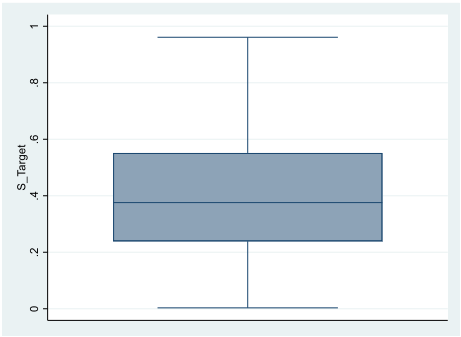
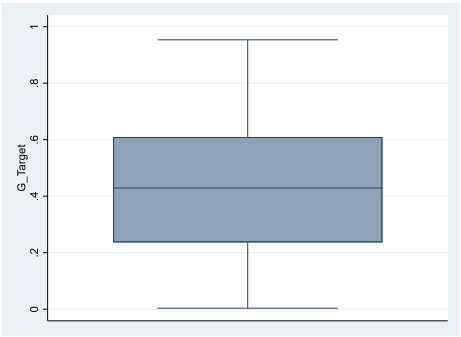
Appendix

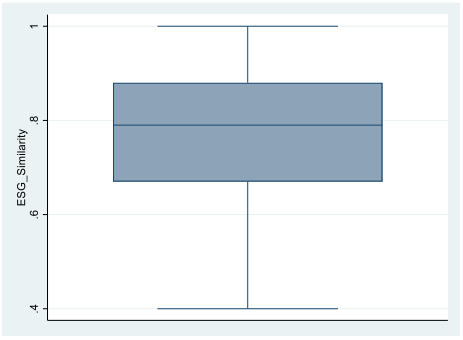
Table A1. Category score

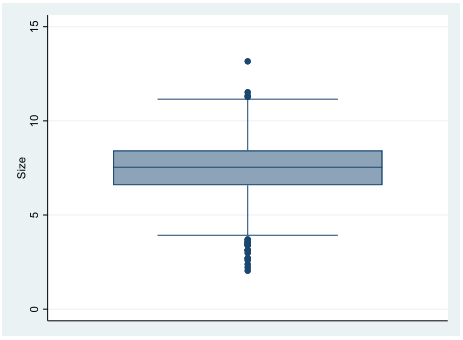
Pillar	Score	Definition
Environmental	Refinitiv ESG resource use score	The resource use score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
	Refinitiv ESG emissions reduction score	The emission reduction score measures a company's commitment and effectiveness towards reducing environmental emissions in its production and operational processes.
	Refinitiv ESG innovation score	The innovation score reflects a company's capacity to reduce the environmental costs and burdens for its customers, thereby creating new market opportunities through new environmental technologies and processes, or eco-designed products.
Social	Refinitiv ESG workforce score	The workforce score measures a company's effectiveness in terms of providing job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
	Refinitiv ESG human rights score	The human rights score measures a company's effectiveness in terms of respecting fundamental human rights conventions.
	Refinitiv ESG community score	The community score measures the company's commitment to being a good citizen, protecting public health and respecting business ethics.
	Refinitiv ESG product responsibility score	The product responsibility score reflects a company's capacity to produce quality goods and services, integrating the customer's health and safety, integrity and data privacy.
Governance	Refinitiv ESG management score	The management score measures a company's commitment and effectiveness towards following best practice corporate governance principles.
	Refinitiv ESG shareholders score	The shareholders score measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices.
	Refinitiv ESG CSR strategy score	The CSR strategy score reflects a company's practices to communicate that it integrates economic (financial), social and environmental dimensions into its day-to-day decision-making processes.

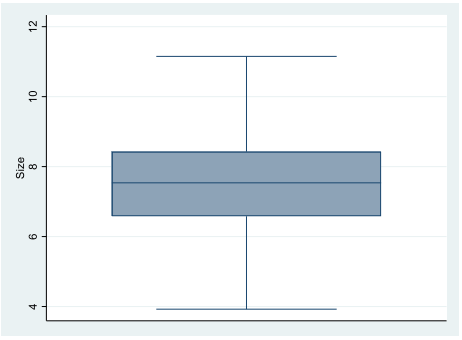
Source: Refinitiv (2022b)

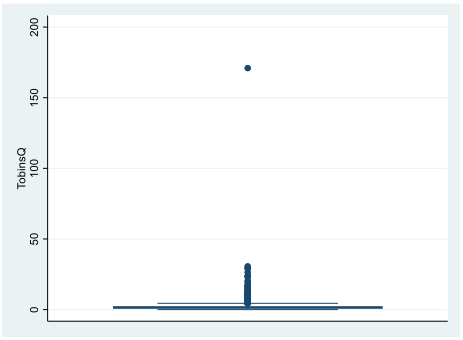
Table A2. Winsorizing continuous variables

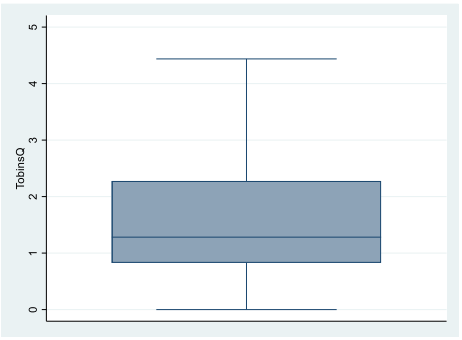
Before	After
	
	
	
	
	

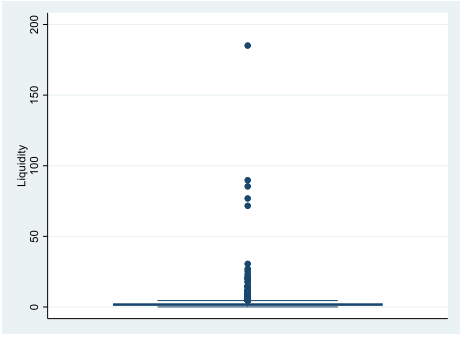

ESG_Similarity
.4
.6
.8
1

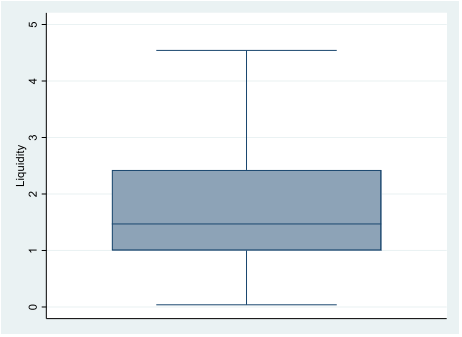

Size
0
5
10
15

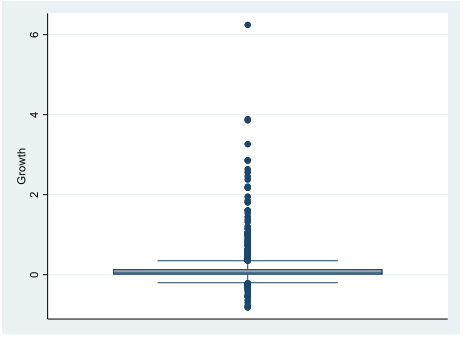

Size
4
6
8
10
12


TobinsQ
0
50
100
150
200


TobinsQ
0
1
2
3
4
5


Liquidity
0
50
100
150
200


Liquidity
0
1
2
3
4
5


Growth
0
2
4
6

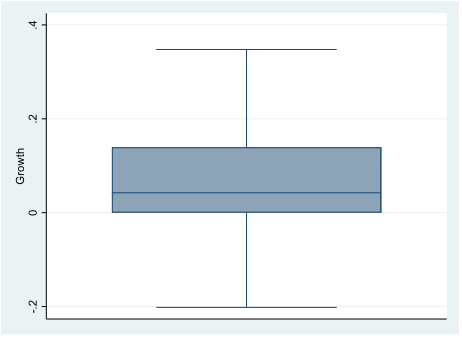

Growth
-.2
0
.2
.4

Table A3. Robustness test: global crises bias

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1643***	0.1376***	0.1032**	0.1009**
	(0.0561)	(0.0411)	(0.0479)	(0.0413)
Horizontal	0.0476**	0.0471**	0.0500**	0.0473**
	(0.0195)	(0.0195)	(0.0195)	(0.0196)
Cross-Border	0.0347*	0.0328	0.0353*	0.0392*
	(0.0203)	(0.0203)	(0.0204)	(0.0202)
Hostile	0.0410	0.0426	0.0412	0.0398
	(0.0283)	(0.0282)	(0.0283)	(0.0283)
Competing	0.1420***	0.1436***	0.1427***	0.1426***
	(0.0317)	(0.0316)	(0.0317)	(0.0317)
All Cash	0.0507**	0.0528***	0.0519***	0.0506**
	(0.0199)	(0.0198)	(0.0199)	(0.0199)
Financial Acquiror	-0.0252	-0.0261	-0.0240	-0.0239
	(0.0226)	(0.0226)	(0.0226)	(0.0226)
Blockholder	-0.0067	-0.0116	-0.0107	-0.0040
	(0.0253)	(0.0252)	(0.0253)	(0.0255)
Size	-0.0587***	-0.0595***	-0.0550***	-0.0528***
	(0.0083)	(0.0082)	(0.0081)	(0.0077)
Tobin's Q	0.0479***	0.0475***	0.0451***	0.0467***
	(0.0089)	(0.0089)	(0.0088)	(0.0089)
Liquidity	0.0148*	0.0145*	0.0144*	0.0151*
	(0.0077)	(0.0077)	(0.0077)	(0.0077)
Growth	0.0746	0.0807	0.0579	0.0613
	(0.0679)	(0.0679)	(0.0675)	(0.0675)
Intercept	0.5021***	0.5332***	0.4983***	0.4754***
	(0.0632)	(0.0642)	(0.0633)	(0.0635)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	907	907	907	907
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2288	0.2312	0.2252	0.2264
Max VIF	1.41	1.40	1.35	1.30
Mean VIF	1.21	1.21	1.19	1.17

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A4. Robustness Test: Q1

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1395***	0.1030***	0.1062***	0.0681**
	(0.0409)	(0.0301)	(0.0301)	(0.0304)
Horizontal	0.0239*	0.0232	0.0243*	0.0245*
	(0.0144)	(0.0144)	(0.0144)	(0.0144)
Cross-Border	0.0492***	0.0487***	0.0499***	0.0500***
	(0.0145)	(0.0145)	(0.0145)	(0.0145)
Hostile	0.0371**	0.0386**	0.0384**	0.0379**
	(0.0160)	(0.0160)	(0.0160)	(0.0161)
Competing	0.1148***	0.1157***	0.1153***	0.1149***
	(0.0176)	(0.0176)	(0.0176)	(0.0177)
All Cash	0.0536***	0.0546***	0.0539***	0.0532***
	(0.0146)	(0.0146)	(0.0146)	(0.0146)
Financial Acquiror	-0.0281*	-0.0270*	-0.0274*	-0.0286*
	(0.0161)	(0.0161)	(0.0161	(0.0162)
Blockholder	-0.0398**	-0.0425**	-0.0413**	-0.0388**
	(0.0171)	(0.0171)	(0.0171)	(0.0172)
Size	-0.0467***	-0.0466***	-0.0449***	-0.0409***
	(0.0056)	(0.0055)	(0.0055)	(0.0051)
Tobin's Q	0.0324***	0.0324***	0.0313***	0.0314***
	(0.0060)	(0.0060)	(0.0060)	(0.0060)
Liquidity	0.0148**	0.0148**	0.0142**	0.0144**
	(0.0060)	(0.0060)	(0.0061)	(0.0061)
Growth	0.0476	0.0453	0.0348	0.0328
	(0.0500)	(0.0499)	(0.0499)	(0.0498)
Intercept	0.4442***	0.4683***	0.4438***	0.4273***
	(0.0424)	(0.0432)	(0.0432)	(0.0428)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	1,863	1,863	1,863	1,863
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.1805	0.1806	0.1794	0.1775
Max VIF	1.28	1.32	1.28	1.28
Mean VIF	1.17	1.18	1.16	1.14

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A5. Robustness test: Q2 – AMERS

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1954***	0.1405***	0.1648***	0.0898**
	(0.0587)	(0.0439)	(0.0511)	(0.0423)
Horizontal	0.0164	0.0165	0.0169	0.0171
	(0.0202)	(0.0202)	(0.0202)	(0.0203)
Cross-Border	0.0371*	0.0355*	0.0387*	0.0381*
	(0.0206)	(0.0207)	(0.0206)	(0.0207)
Hostile	0.0274	0.0291	0.0290	0.0300
	(0.0252)	(0.0252)	(0.0252)	(0.0253)
Competing	0.1342***	0.1371***	0.1339***	0.1396***
	(0.0279)	(0.0278)	(0.0279)	(0.0279)
All Cash	0.0375*	0.0388**	0.0389**	0.0378**
	(0.0197)	(0.0197)	(0.0197)	(0.0197)
Financial Acquiror	-0.0315	-0.0307	-0.0318	-0.0293
	(0.0226)	(0.0226)	(0.0226)	(0.0227)
Blockholder	-0.0394	-0.0431	-0.0428	-0.0405
	(0.0312)	(0.0312)	(0.0312)	(0.0314)
Size	-0.0398***	-0.0397***	-0.0382***	-0.0316***
	(0.0082)	(0.0083)	(0.0081)	(0.0077)
Tobin's Q	0.0373***	0.0376***	0.0354***	0.0363***
	(0.0081)	(0.0081)	(0.0080)	(0.0081)
Liquidity	0.0271***	0.0262***	0.0268***	0.0261***
	(0.0082)	(0.0082)	(0.0082)	(0.0083)
Growth	0.0766	0.0651	0.0588	0.0630
	(0.0706)	(0.0701)	(0.0699)	(0.0709)
Intercept	0.3776***	0.4168***	0.3741***	0.3475***
	(0.0663)	(0.0682)	(0.0663)	(0.0669)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	867	867	867	867
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2271	0.2263	0.2264	0.2209
Max VIF	1.29	1.31	1.27	1.27
Mean VIF	1.18	1.19	1.17	1.16

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A6. Robustness test: Q2 – EMEA

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.1883**	0.1234**	0.1104*	0.1321**
	(0.0744)	(0.0545)	(0.0644)	(0.0583)
Horizontal	0.0371	0.0348	0.0388	0.0370
	(0.0274)	(0.0275)	(0.0276)	(0.0275)
Cross-Border	0.0469*	0.0466*	0.0445	0.0471*
	(0.0272)	(0.0272)	(0.0273)	(0.0272)
Hostile	0.0476*	0.0477*	0.0488*	0.0443
	(0.0281)	(0.0282)	(0.0283)	(0.0282)
Competing	0.1344***	0.1372***	0.1352***	0.1314***
	(0.0318)	(0.0319)	(0.0320)	(0.0319)
All Cash	0.0918***	0.0888***	0.0892***	0.0878***
	(0.0296)	(0.0295)	(0.0296)	(0.0295)
Financial Acquiror	-0.0348	-0.0335	-0.0314	-0.0371
	(0.0312)	(0.0312)	(0.0313)	(0.0312)
Blockholder	-0.1532***	-0.1590***	-0.1549***	-0.1517***
	(0.0294)	(0.0293)	(0.0295)	(0.0295)
Size	-0.0459***	-0.0423***	-0.0416***	-0.0398***
	(0.0111)	(0.0107)	(0.0111)	(0.0103)
Tobin's Q	0.0219*	0.0208*	0.0194	0.0213*
	(0.0124)	(0.0123)	(0.0123)	(0.0124)
Liquidity	-0.0343**	-0.0328**	-0.0328**	-0.0338**
	(0.0139)	(0.0139)	(0.0139)	(0.0139)
Growth	-0.0004	-0.0202	-0.0195	-0.0256
	(0.1018)	(0.1007)	(0.1023)	(0.1003)
Intercept	0.5140***	0.5291***	0.5184***	0.4973***
	(0.0859)	(0.0863)	(0.0863)	(0.0864)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	519	519	519	519
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2290	0.2268	0.2232	0.2269
Max VIF	1.40	1.40	1.40	1.40
Mean VIF	1.21	1.20	1.21	1.18

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A7. Robustness test: Q2 – APAC

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.0288	0.0557	-0.0656	-0.0045
	(0.0942)	(0.0665)	(0.0801)	(0.0698)
Horizontal	0.0374	0.0386	0.0376	0.0377
	(0.0309)	(0.0308)	(0.0308)	(0.0309)
Cross-Border	0.0398	0.0363	0.0405	0.0390
	(0.0308)	(0.0308)	(0.0307)	(0.0307)
Hostile	0.0245	0.0223	0.0253	0.0238
	(0.0337)	(0.0335)	(0.0336)	(0.0338)
Competing	0.0437	0.0446	0.0417	0.0442
	(0.0361)	(0.0360)	(0.0361)	(0.0361)
All Cash	0.0601*	0.0601**	0.0608*	0.0598*
	(0.0325)	(0.0325)	(0.0325)	(0.0326)
Financial Acquiror	0.0131	0.0156	0.0125	0.0135
	(0.0359)	(0.0359)	(0.0359)	(0.0359)
Blockholder	0.0627**	0.0622**	0.0629**	0.0627**
	(0.0311)	(0.0311)	(0.0311)	(0.0312)
Size	-0.0575***	-0.0638***	-0.0558***	-0.0589***
	(0.0117)	(0.0119)	(0.0112)	(0.0107)
Tobin's Q	0.0315**	0.0334**	0.0308**	0.0319**
	(0.0138)	(0.0138)	(0.0138)	(0.0138)
Liquidity	0.0125	0.0150	0.0129	0.0129
	(0.0127)	(0.0128)	(0.0126)	(0.0127)
Growth	0.0659	0.0879	0.0652	0.0701
	(0.0995)	(0.1003)	(0.0984)	(0.0986)
Intercept	0.4991***	0.5098***	0.5015***	0.4991***
	(0.0813)	(0.0824)	(0.0813)	(0.0833)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	477	477	477	477
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.1619	0.1631	0.1630	0.1617
Max VIF	1.29	1.39	1.25	1.26
Mean VIF	1.18	1.20	1.15	1.15

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A8. Robustness test: Q3 – 2020-2021

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.3624***	0.2534***	0.2828***	0.1365*
	(0.0985)	(0.0792)	(0.0865)	(0.0720)
Horizontal	0.0067	0.0023	0.0083	0.0067
	(0.0340)	(0.0342)	(0.0342)	(0.0345)
Cross-Border	-0.0127	-0.0119	-0.0089	-0.0115
	(0.0341)	(0.0342)	(0.0342)	(0.0345)
Hostile	0.0070	0.0213	0.0188	0.0133
	(0.0382)	(0.0379)	(0.0379)	(0.0392)
Competing	0.1862***	0.1847***	0.1844***	0.1782***
	(0.0387)	(0.0388)	(0.0388)	(0.0391)
All Cash	0.0776**	0.0763**	0.0787**	0.0751**
	(0.0354)	(0.0356)	(0.0356)	(0.0359)
Financial Acquiror	-0.0186	-0.0162	-0.0233	-0.0206
	(0.0351)	(0.0353)	(0.0352)	(0.0356)
Blockholder	-0.0636	-0.0661*	-0.0623	-0.0643
	(0.0386)	(0.0388)	(0.0388)	(0.0391)
Size	-0.0664***	-0.0657***	-0.0636***	-0.0504***
	(0.0121)	(0.0124)	(0.0121)	(0.0111)
Tobin's Q	0.0654***	0.0661***	0.0644***	0.0607***
	(0.0141)	(0.0142)	(0.0141)	(0.0142)
Liquidity	-0.0026	-0.0032	-0.0076	-0.0052
	(0.0143)	(0.0144)	(0.0143)	(0.0145)
Growth	0.0320	0.0107	-0.0034	0.0050
	(0.1172)	(0.1171)	(0.1166)	(0.1189)
Intercept	0.4926***	0.5669***	0.5069***	0.4822***
	(0.0893)	(0.0904)	(0.0894)	(0.0926)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	436	436	436	436
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.2148	0.2083	0.2092	0.1947
Max VIF	1.37	1.51	1.30	1.29
Mean VIF	1.20	1.23	1.19	1.17

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A9. Robustness test: Q3 – 2007-2019

	(1) Overall	(2) Environmental	(3) Social	(4) Governance
ESG	0.0906**	0.0730**	0.0675*	0.0568*
	(0.0456)	(0.0330)	(0.0391)	(0.0339)
Horizontal	0.0353**	0.0348**	0.0357**	0.0357**
	(0.0160)	(0.0160)	(0.0160)	(0.0160)
Cross-Border	0.0617***	0.0612***	0.0621***	0.0623***
	(0.0160)	(0.0160)	(0.0160)	(0.0160)
Hostile	0.0413**	0.0417**	0.0419**	0.0411**
	(0.0179)	(0.0178)	(0.0179)	(0.0179)
Competing	0.0885***	0.0891***	0.0889***	0.0890***
	(0.0202)	(0.0201)	(0.0202)	(0.0202)
All Cash	0.0535***	0.0541***	0.0536***	0.0532***
	(0.0161)	(0.0161)	(0.0161)	(0.0161)
Financial Acquiror	-0.0266	-0.0263	-0.0258	-0.0267
	(0.0184)	(0.0184)	(0.0184)	(0.0184)
Blockholder	-0.0354*	-0.0376*	-0.0367*	-0.0333*
	(0.0193)	(0.0193)	(0.0193)	(0.0194)
Size	-0.0393***	-0.0397***	-0.0379***	-0.0360***
	(0.0064)	(0.0063)	(0.0062)	(0.0059)
Tobin's Q	0.0202***	0.0202***	0.0193***	0.0200***
	(0.0067)	(0.0067)	(0.0066)	(0.0067)
Liquidity	0.0182***	0.0181***	0.0180***	0.0182***
	(0.0067)	(0.0067)	(0.0067)	(0.0067)
Growth	0.0492	0.0503	0.0407	0.0403
	(0.0557)	(0.0555)	(0.0551)	(0.0551)
Intercept	0.4057***	0.4231***	0.4038***	0.3906***
	(0.0494)	(0.0505)	(0.0494)	(0.0497)
Year Effects	Yes	Yes	Yes	Yes
Country Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Observations	1,411	1,411	1,411	1,411
Prob > F	0.0000	0.0000	0.0000	0.0000
Adj. R^2	0.1729	0.1735	0.1723	0.1722
Max VIF	1.31	1.31	1.27	1.27
Mean VIF	1.17	1.17	1.16	1.14

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table A10. Robustness test: Q4

	(1)
ESG	-0.1775**
	(0.0716)
Horizontal	0.0139
	(0.0220)
Cross-Border	0.0134
	(0.0215)
Hostile	0.0579**
	(0.0244)
Competing	0.1072***
	(0.0271)
All Cash	0.0963***
	(0.0207)
Financial Acquiror	0.0174
	(0.0389)
Blockholder	-0.0293
	(0.0288)
Size	-0.0130*
	(0.0076)
Tobin's Q	0.0197**
	(0.0085)
Liquidity	0.0264***
	(0.0088)
Growth	-0.0524
	(0.0720)
Intercept	0.3926***
	(0.0767)
Year Effects	Yes
Country Effects	Yes
Industry Effects	Yes
Observations	817
Prob > F	0.0000
Adj. R^2	0.2116
Max VIF	1.22
Mean VIF	1.11

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Executive Summary

1. Corporate Social Responsibility

CSR is an extremely popular and widespread topic worldwide. The increased awareness of the general public into the topic and the spread of specific investment products have determined a growth of its popularity, gaining additional significance and global dimensions. CSR has become a mantra for the 21st century and is considered an "important" or "very important" task for every firm.

Four factors are driving this move towards CSR: (i) new concerns and expectations from the public in the context of globalisation and large scale industrial change; (ii) social criteria are increasingly influencing the investment decisions of individuals and institutions both as consumers and as investors; (iii) increased concern about the damage caused by economic activity to the environment; and (iv) transparency of business activities brought about by the media and modern information and communication technologies.

CSR stands for Corporate Social Responsibility and its definition is not univocal: multiple authors and international institutions define it in different ways.

Nowadays, the approach to CSR should be holistic: management shall include social and environmental aspects into their long-term strategy. CSR shall be based on the concept of sustainable development, which refers not only to environmental preservation, but also to economic development: creating value for shareholders and preserving, at the same time, the environment, social and human capital.

For decades scholars discussed on the reason companies should invest on CSR activities and this debate is characterized by two opposing schools of thought: the "stakeholder value maximization" view and the "shareholder expense" view.

On the one hand, the "shareholder expense" view (Friedman, 1970) claims that the only social responsibility of a business is to increase its profits (within the limits fixed by respect for the law in force). According to Friedman, only people (not firms) have responsibility, and there is no right or wrong in business decisions since ethical principles do not apply to them. This view suggests that managers engage in socially responsible activities to help other stakeholders at the expense of shareholders, resulting in a wealth transfer from shareholders to other stakeholders. Instead, managers must take decisions only aimed at maximizing shareholders value. Therefore, firms can pursue the good of stakeholders, fulfilling their interests, not for its own sake, but only when it is instrumental to create value for shareholders.

On the other hand, according to the "stakeholder value maximization" view (Freeman, 1984), corporate success and social welfare are not a zero-sum game and CSR activities have a positive effect on shareholder wealth because focusing on the interests of other stakeholders increases their willingness to support a firm's operation, which increases shareholder wealth. Thereby, ethical behaviours and profit maximization are not mutually exclusive and engaging in sustainability can allow corporations to enhance profitability.

From the "stakeholder value maximization" view derives the studies on business ethics and CSR. The business ethics approach criticized the "business is business" philosophy of Friedman which may lead firms,

pursuing the profit maximization, to impose negative externalities on stakeholders and community. According to business ethics, managers and entrepreneurs have a moral obligation and cannot avoid their social responsibility towards the latter: they shall take right and fair decisions based on sound moral principles even when these decisions negatively affect shareholders value creation.

While the business ethics approach puts ethics as the main driver of the business whose effect can be detrimental for the shareholders, the CSR view, promoting an integrated approach to achieving a competitive advantage, tends to satisfy the needs of all the stakeholders, including shareholders.

Another theory that opposes the "shareholder expense" view is the "shared value" theory (Porter & Kramer, 2011). In particular, the latter challenge the trade-off of the Friedman's theory between economic performance and social and environmental performance. If it is true for Friedman that managers sacrifice the shareholders value creation engaging in CSR activities, the theory of Porter and Kramer, following the "stakeholder value maximization" view of Freeman, suggests that it is possible to create value for both shareholders and other stakeholders at the same time addressing societal and environmental concerns since firms' competitiveness and communities' well being are strictly linked. Nowadays, there Benefit Corporations and B Corps which, promoting the interests of all stakeholders, are attentive to reach good economic, social, and environmental performances.

While firms started to adopt and integrate into their strategy the CSR principles, the need to measure their impact on society and environment started to grow as well. But what is the corporate social performance (CSP) and how it is measurable were not univocal. Not even easy because the full spectrum of CSP is broad and generating a proxy that can reflect its full scope is challenging. Moreover, due to the qualitative nature of CSP, its assessment relies mostly on ''soft'' indicators related to management practices, rather than the ''harder'' indicators. Elkington (1997) was one of the first scholars to propose an innovative performance measurement called triple bottom line or triple P's (i.e., People, Planet, and Profit). According to this perspective, companies should report their performance on three dimensions: the social, the environmental, and the economic performance. The economic dimension (Profit) refers to the net income, i.e., the bottom line of the Income Statement. Elkington suggested to add other two bottom lines: the social bottom line (People) – the impact of the business on the society – and the environmental bottom line (Planet) – the impact of the business on the environment – because a company can be profitable and at the same time harm the social or ecological environment in which it is embedded. Measuring the economic performance is easy thanks to the accounting principles and because profit has a quantitative monetary nature. The challenge is to measure the social and environmental bottom lines which have no univocal unit measures. Without the latter is difficult for a manager find a balance among these three dimensions. The born of GRI and other standards organization have helped businesses, governments and other organizations understand and communicate their impacts on social and environmental issues. Nowadays, the Sustainability Report is mandatory in EU, UK, US, and other developed countries, notwithstanding regional differences in disclosures, while there is still work to be done in emerging countries.

One of the most prominent and widely accepted hard measure adopted to measure the CSP is the ESG score, developed by third-party rating agencies. The term ESG stands for Environmental, Social, and corporate Governance and was coined in 2005. The E factor evaluates how the business, directly or indirectly, impacts on the environment, manage it, and uses natural recourses. The S factor evaluates how the business, directly or indirectly, impacts on stakeholders on the dimensions of labour and social development, respecting them equally and without discrimination, ethically without undermine their (human) rights, and engaging in charitable initiative. And finally, the G factor evaluates if the company follows the good principle of corporate governance. ESG found immediately space in the financial world being the base of Principles for Responsible Investment and Sustainable and Responsible Investments. The SRI is also known as sustainable finance which is the application of the concept of sustainable development into financial activity. In 2015, the UN set up the Sustainable Development Goals (SDGs) that are intended to be achieved by 2030, which are declined on the economic, social, and environmental dimensions and are intended to deliver to future generations a better and more sustainable world.

Given the tight link to the global capital market and determining the investments-making process, CSR has increasingly gained importance over time: being green or socially responsible is a real trend. So that, the need to disclose and measure the social and environmental performance also fulfils the necessity to crack down one famous attitude nowadays: the greenwashing.

In recent years, we witnessed to different changes in the world, from climate emergency and social injustice to the coronavirus pandemic. And now, we are in the midst of a war at the door of Europe. All these events contributed to raise the awareness of ESG, which had transformed from a niche to mainstream. The coronavirus pandemic (and now the war) further accelerated this process of change. A process which impacted also on our day-to-day behavior and everyday life. The pandemic put the magnifier on the concept of sustainability such that boosts companies to adopt strategies aiming to reduce the negative environmental impact, but also social inequalities. They designed a governance that is attentive to the environment, the society, and the social welfare, embracing a holistic approach towards sustainability. The paradigm of shareholder primacy has been surpassed and reversed.

While the “E” factor was already in the media spotlight, the Covid-19 pandemic has brought to light the importance of the "S" factor because it has led to significant social disparities and an increase in poverty and unemployment. Countries and supernational entities have put in place recovery instruments to answer directly to the difficulties on economic and social levels caused by the pandemic, but also creating an opportunity to be greener.

Covid-19 started as a public health crisis and quickly evolved into an economic crisis of huge proportions. Inevitably, it impacted on the financial industry and accelerated the ESG trend. A great response came from the bond markets, where sustainable finance bonds issuance raised sharply. Low-ESG risk funds experienced positive inflows, being more resilient, and sustainable investment AUM and ESG ETFs grew substantially in recent years. The vast majority of ESG assets are managed in Europe and US.

Coronavirus pandemic served as wake-up call, driving the economy towards a greener and more inclusive model and investments towards a more sustainable investing one. ESG is more than a trend and will help accelerate the global recovery from the pandemic and build a more resilient economy and society for the future.

2. Mergers & Acquisitions

M&A is the acronym of Mergers and Acquisitions which refers to the consolidation process of companies, business units or assets. There are two main ways through which a company can grow: (a) organically: investing in technology, creating new products, and hiring new people; or (b) inorganically: bolt-on acquisitions, alliances and joint venture, strategic acquisitions. Being a synonymous of external corporate expansion, M&A is the opposite of the organic growth. Inorganic growth is considered a faster way for a company to grow compared to organic growth.

A merger is a combination of two or more firms in which all but one cease to exist legally and the combined organization continues under the original name of the surviving firm. An acquisition is when any kind of business purchases another part (or all) of another business which does not change its legal name or structure. An M&A transaction involves an acquirer (buyer) and a firm that has been targeted by another firm for a takeover (seller). There are two types of buyers: strategic buyers and financial buyers.

Usually, the buyer makes an offer to the target called tender offer. When the seller's management and board of directors are willingly acquired by the buyer, the M&A transaction is called friendly takeover. In contrast, it is called unfriendly takeover or hostile takeover. In the latter case the target company can put in place some defensive measures.

The literature has identified six distinct varieties of M&A transactions: (i) overcapacity deals: aimed at reducing capacity and duplication in mature industries through consolidation in order to obtain cost synergies; (ii) product or market extension: the aim is to extend a company's product line or its international coverage; (iii) financial deals in which a multi-business company sold a division to a financial acquirer; (iv) geographic roll-ups: companies with successful strategies expand geographically by rolling up other companies in adjacent territories in order to gain access to a target's customers, channels, and geographies; (v) M&A as R&D: acquisitions as a substitute for in-house R&D is used to build market position quickly in response to shortening product life cycles; and (vi) industry convergence deals: the purpose is to exploit resources from existing industries whose boundaries seem to be disappearing (i.e., the old vertical M&A).

The strategic motives and determinants of M&As are multiple, but there are two most cited ones: faster growth and synergies. Growth is one fundamental reason for M&As. Companies can grow within their own industry (i.e., horizontal deal) or may expand in other industries (i.e., diversification deal), in their own country or in other regions (i.e., cross-border deal – geographical expansion). M&A makes faster grow possible for a company and timing is essential during the expansion phase. The term "synergy", in M&A, refers to the ability of a corporate combination to be more profitable than the individual parts of the firms

that were combined. There are two main types of synergies: (a) operating synergy, which refers to revenue enhancements and cost reductions; and (b) financial synergy, which refers to the possibility that the cost of capital may be lowered by combining one or more companies.

Revenue-enhancing synergies can be difficult to achieve and can come from various sources: (i) pricing (or purchasing) power: it's the ability to raise prices without reducing demand in their products; (ii) combination of functional strengths: each merging company bring important capabilities to the table, which the other lacks; and (iii) growth from faster-growth markets or new markets: companies may be able to achieve important increases in growth by moving into more rapidly growing markets.

If revenue-enhancing synergies are difficult to achieve, this means that the main source of operating synergies comes from cost-reducing synergies. This type of synergies comprises both economies of scale and economies of scope. Economies of scale are cost advantages reaped by companies when decreases in per-unit costs result from an increase in the size or scale of a company's operations. As the production becomes efficient, the level of output rises and the per-unit fixed costs decline. Economies of scope arise when a specific set of skills or an asset currently employed to produce a given product or service is used to produce something else.

Financial synergies refer to the impact of a M&A on the cost of capital which results lower in the acquiring firm or in the newly formed entity. An M&A may reduce firm's risk, decreasing volatility in cash flows which in turns decrease the risk of bankruptcy (i.e., debt coinsurance). As a result, suppliers of capital perceive the firm less risky and the cost of capital decreases. Moreover, in financial markets, a larger company is considered less risky than a smaller firm and it can enjoy better access to financial markets: a larger company experiences lower costs of raising equity and debt capital.

Other motives for M&As can be found in horizontal and vertical merger. In horizontal mergers, companies can realize certain economies since they each know the other's business and they can increase their market share, although the latter depends on the size of the firms involved and the level of competition within the industry. Instead, companies may vertically integrate to be assured of a dependable source of supply, not just in terms of supply availability but also through quality maintenance and timely delivery considerations.

Sometimes, corporate takeovers take place because of the so-called "hubris hypothesis", according to which managers seek to acquire firms for their own personal advantages. Similar motives can be found in the managerial theory such that bidder's management overpays the target to pursue its own gains or in the empire building process that leads bidders' managers to acquire other firms in order to increase the size of their company, which, in turn, allows them to enjoy higher compensation and benefits.

Other motives that could be mentioned as important determinants of M&As are improving management, improving R&D, improving distribution channels, and securing tax benefits.

In a M&A transaction, the stand-alone theoretical value of the target company (i.e., its value before the transaction) is sometimes significant different from the paid price. This positive difference is defined as acquisition premium and can be partially explained by: (a) revenue/cost synergies; and (b) lower risk profile. The acquirer should estimate the appropriate price for the target company on the basis of the Value Creation

rationale, according to which the price is fair if the overall value of the acquirer increases following the acquisition. Generally, the acquisition has a direct impact on the value of the acquirer. There would be value creation for the acquirer if the paid price is lower than the stand-alone value of the target plus the change in value for the acquirer resulting from the transaction (i.e., the difference of acquirer's value after and before the acquisition). In contrast, any other value of the paid price greater than this algebraic sum means value destruction for the acquirer, while the maximum paid price is defined when the two values are equal. The change in value of the acquirer from the transaction is defined by the following three components: (i) the value of revenues and costs synergies obtained with the integration of the target company in the acquiring company; (ii) the value of the real options gained by the acquiring company trough the acquisition of the target company (i.e., growth options, options of flexibility, and selling options); and (iii) the value associated with the change in risk profile of both the acquirer and target company, as a consequence of the transaction.

M&As happen in waves and tend to be caused by a combination of economic, regulatory, and technological shocks. The economic shock comes in the form of an economic expansion that motivates companies to expand to meet the rapidly growing aggregate demand in the economy since M&A is a faster form of expansion than internal, organic growth. Regulatory shocks can occur through the elimination of regulatory barriers that might have prevented corporate combinations. Technological shocks can come in many forms as technological change can bring about dramatic changes in existing industries and can even create new ones. They are called waves because they happen alternating frequency of peaks and drops (i.e., high M&A levels periods are followed by low levels ones). Seven periods of merger activity (i.e., merger waves) have taken place in history. The last wave came to an end with the onset of Covid-19 pandemic. The M&A market has been affected in same way in AMERS, EMEA, and APAC (i.e., all of them experienced a substantial decline in deal value and volume), but the recovery differs among the three macro-regions: it was stronger in AMERS and EMEA compared to that in APAC. Despite this, the technology sector dominated in the dealmaking activity of all the three regions during the pandemic, due to the digital transformation disruption and changing consumer behaviors. This is set to be a trend in the market also for the future. Other trends in the M&A market involve the pharmaceutical and the financial service industries and also the ESG theme. Significant attention to this theme is already given by the parts involved in the transaction and is set to increase in the next future. Current geopolitical tensions around the world and economic slowdown leaves large room for uncertainty in the M&A market.

3. Literature Review

In the literature, there are contradicting results among worldwide academics and researchers who studied the relationship between Corporate Financial Performance (CFP) and Corporate Social Performance (CSP). Given this lack of consensus, it is one of the most debated areas in management and financial studies. However, most studies reports that most empirical works find a positive relationship between the two measures.

There are four main types of findings in the literature: a controversial result, a not significant result, a positive result, and a negative result.

A controversial result typically gives a negative relationship in the short-term and a positive relationship in the long-term or vice versa (a U-shaped relationship) or a negative relationship in some sectors and positive in others.

The null result has its root in the neutrality hypothesis postulated by Ullmann (1985) and Waddock & Graves (1997), which assumes the existence of a random link between CPS and CFP, remarking the complexity of this relationship.

The positive relationship between CFP and CSP can be explained by the following three theories. The social impact hypothesis (Preston & O'Bannon, 1997), based on stakeholder theory, states that meeting the claims of different stakeholders enhances the image and reputation of a firm in a way that impact positively on its economic performance. According to the slack recourse theory (Waddock & Graves, 1997), better financial performance potentially results in the availability of slack (financial and other) resources that provide the opportunity for companies to invest in social and environmental performance. According to the positive synergy hypothesis (Preston & O'Bannon, 1997), also called good management theory, there is a high correlation between good management practice and CSP, simply because attention to CSP domains improves relationships with key stakeholder groups, resulting in better CFP.

The negative relationship between CFP and CSP can be explained by three hypotheses too, formulated by Preston & O'Bannon (1997). According to the trade off hypothesis, which derives from the neoclassical theory of the firm by Friedman (1970), increasing CSP brings unnecessary costs to the firm which, as a consequence, reduce its profitability and competitiveness. According to the managerial opportunism hypothesis, when CFP are good, managers, pursuing their own private objectives to the detriment of both shareholders and other stakeholders, can try to make private gains in the short-term by reducing their commitment to socially responsible behaviour. Conversely, they may increase their commitment to expensive social programs in order to offset, and sometimes justify, their disappointing results. The negative synergy hypothesis postulates that higher levels of CSP lead to decreased CFP, which in turn limits the socially responsible investments.

Despite the sign of the link between CFP and CSP, there is still needed to verify the direction of causality (i.e., whether causation runs from CSP to CFP or vice versa), which still represents a disputed issue: the critical question of causality, whether firms "do well by doing good" or "do good by doing well", is still not clear and quite impossible to answer.

The literature considers CSR activities as a valuable intangible asset which brings numerous positive effects, from image and reputation to bargaining power. In order to bring them to the firm, disclosure of non-financial information is also essential. The "insurance-link effect" theory postulates that firms with stronger CSR practices can create a form of goodwill or moral capital for the firm that acts as "insurance like" protection when negative events occur, tempering the severity of negative judgments and sanctions, reducing the firm risk, and preserving the firm value for shareholders.

Firms with superior CSP have better access to finance because of reduced agency costs, and informational asymmetry due to increased transparency. As result, these firms are perceived less risky and both their cost of equity and debt is reduced. Lowering the systematic and idiosyncratic risks boost valuations.

Other studies find that CSR practices brings also other positive effects. Despite this, the relationship between CSR and CFP is complex and remains an open question.

While the literature about the link between CSR and CFP is extensive and growing, the literature about the link between CSR and M&As is scarce. Specifically, the impacts of target firms' CSR performance on acquisition premiums have not been addressed in the literature until the last few years. However, most empirical studies found out a positive relationship, focusing on target CSR level and M&A premia. This means that bidders value positively the CSR engagement of the target, also because the latter reduces information asymmetry and targets' specific risk. There are two main explanations to this result. Firstly, relying on signaling theory for acquisition premiums, information on a target's CSR rating scores can send a positive signal about not just its CSR performance but also about its overall quality. So, an acquirer is likely to pay a discount for a target's Corporate Social Irresponsibility and a premium for its Corporate Social Responsibility. According to the "insurance-like" theory, bidders can gain benefits in terms of improved sustainability degree and corporate image fitting, on both a strategic and cultural level, with targets in a long-term view. So, through the merger, bidder firms, enhancing their CSP and CFP, gain a large and hard to imitate competitive advantage and are willing to pay higher premia.

Contrasting results are obtained analyzing the impact of bidders' CSR performance on M&A premia. Under the agency cost hypothesis, managers will pursue CSR activities with the motive of gaining private benefits at the expense of shareholders, paying larger premium. Others state that since CSR-oriented firms tend to avoid non-value-maximizing investments, they also do not pay higher takeover premia.

The debate around the "stakeholder value maximization" view and the "shareholder expense" view applies to this topic too. The former predicts that high CSR firms undertake mergers that benefit other stakeholders, thus leading to greater stakeholder satisfaction that ultimately benefits shareholders. In contrast, the latter suggests that managers engage in socially responsible activities to help other stakeholders at the expense of shareholders, predicting that the managers of high CSR firms undertake mergers that reduce shareholder wealth. Most of the studies which found out a positive relationship between CSR and M&A supports the "stakeholder value maximization" view.

Other studies find other positive effects of CSR on M&A transactions such as higher merger announcement returns, higher post-deal performance, less uncertainty and time to complete and so on, which further support the stakeholder view. Similarity between firms' CSR policies, a proxy of cultural similarity, appears to significantly ease integration as two distinct organizations become one: deals between firms with similar CSR policies experience higher odds of successfully completing and faster resolution of uncertainty (i.e., faster closing). A branch of studies focuses on the possibility that CSR practices can influence the choice of the target company for an M&A transaction. Since CSR activities can be the source of intangible assets and impact firms' characteristics, it follows that they should have an impact on their appeal to potential acquirers.

They show that a firm's CSR (in all its dimensions) is positively associated with its propensity to become a M&A target.

The relationship between M&A and ESG has been analysed by different points of view in the literature, which is still limited but evolving given the growing importance of ESG in the market, including M&A market. ESG will be one of the critical drivers in the M&A value creation process.

4. Data & Methodology

The main purpose of this study is to analyse the relationship between ESG and M&A premia. The relationship has been little analysed by the literature, notwithstanding the growing importance of CSR. This study is intended to fill this gap in the literature. Instead of evaluating the impact of ESG on firm value from the perspective of marginal investors (as most literature does when investigate the relationship between CSP and CFP), it is better to evaluate the impact of ESG on the value assigned to firms by M&A bidders because of two reasons. Firstly, M&A are characterized by high level of information asymmetry between the acquirer and the target, but through due diligence the buyer can obtain a great deal of information about the target that is inaccessible to the public: the buyer can assess its organizational characteristics such as intangible CSR-related assets. Secondly, while marginal investors are mainly concerned with systematic risk, M&A bidders are largely concerned with targets' specific risks. Because good relationships with stakeholders decrease firm-specific risk insofar as they build goodwill that reduces cash-flow shocks when negative events materialize, the CSR performance of M&A targets should be of particular importance for acquirers.

The study is composed by four research questions. The first focuses on how targets' overall ESG performance impacts on buyers' premium paid and how each aspect of the ESG (Environmental, Social, and Governance) contributes to determine the relationship. The second and the third research questions highlight, respectively, the differences in space (i.e., among AMERS, EMEA, and APAC) and time (i.e., before and during the pandemic) of this relationship in order to broaden the discussion and provide new insights on the topic. In both cases the impact of the each ESG dimension has been taken into consideration. The last research question sheds a light on the relationship between buyers and targets' ESG similarity and M&A premia. In general, all these specific research questions have never been addressed in the literature so far.

A multivariate regression with fixed effect is performed for each research question. The study controls for year, country, and industry fixed effects to address unobserved heterogeneity.

All the variables have been sourced from the Refinitiv Workspace database, which is one of the most comprehensive ESG databases in the industry. The main independent variables are the ESG, Environmental, Social, and Governance scores and also, for the last research question, the ESG similarity between target and buyer's ESG categories, computed employing the cosine similarity formula. The main dependent variable is the takeover premium, measured four weeks before the announcement date in order to eliminate the effect of any deal rumors or insider trading, which can impact severely the price of the target company. A set of control variables, deal-specific variables and target financial variables, widely adopted in the research in this

field have been employed in this study too. All the continuous variables have been winsorized in order to minimize the influence of outliers.
The sample includes 1323 completed deals in all the industries and counties through 2007-2021, which must involve a change of control and furthermore the target is a public company. After having analyzed the data, it is possible to assume that the sample is a fair picture of the real world.

5. Results

The first three research questions indagates the how the target's ESG performance, declined also in its three pillars (Environmental, Social, and Governance), impact the premium paid by the buyer in a M&A deal, but in three different setting environments: the Research Question 1 considers the whole sample, the Research Question 2 analyzes how the relationships change among AMERS, EMEA, and APAC regions, and Research Question 3 focuses on the impact of the pandemic on the aforementioned relationship. The last research question examines the association between targets and buyers' ESG similarity with M&A premia.
The first research question reveals that targets' ESG performance is positively and strongly associated with the M&A premia paid by the buyers. The same holds also for its three ESG pillars, confirming the importance of each of them while assessing the relationship. The study provides evidence for the existence for a ESG premium. Consequently, Corporate Social Irresponsible target firms are likely to receive lower premia or a discount. This study provides empirical evidence supporting CSR as a value-enhancing strategy that target ESG performance is an important determinant of their shareholders' takeover gains. The results can be explained also by the signaling and insurance-like theories. The former claims that a good firm' ESG performance signals to the market its overall quality, and the latter argues that a good ESG performance is an intangible asset which acts as an "insurance like" protection when negative events occur. In both cases, the overall firm risk is reduced, impacting on firm valuation, and leading the buyer to pay a higher premium in the context of a M&A transaction.
The second research question shows that the targets' ESG performance is valued positively around the world, remarking the global importance of such metrics in the context of M&As. But in particular, the significance level of the association varies among the macro-regions being the highest in AMERS, moderate in EMEA and no significant at all in APAC. These distinctions can be explained by the different economic development level of countries in each geographical region. While AMERS and EMEA have the most developed markets and most of their countries are ESG-oriented, APAC is composed mainly by emerging markets which are still far from the western markets under the Environmental (e.g., high emissions and low green investments), Social (e.g., inequality and human right violation), and Governance (e.g., weak legal and institutional framework) performances.
The third research question, observing the impact of Covid-19 on the relationship between ESG and M&A premia, finds that the pandemic affected the most the targets' social factor in M&A transactions. Indeed, the societal aspect of ESG was brought to the forefront by the pandemic due to the increase of poverty,

disparities, and unemployment. Another possible explanation comes from the literature which claims that firms with high social capital levels are the most resilient companies to systemic shocks. This infers that a high social capital reduces the overall firm risk, thus pushing up the premium paid by the buyer in a deal.

The last research question, the fourth, claims that buyers tend to pay higher takeover premia to targets that show a different, but complementary ESG performance. Bidders, acquiring or merging with another company which presents a superior ESG performance such that one of its ESG strength is the weakness of the other, increase their CSP. Since the literature links high CSP with high CFP, the bidders ultimately gain a hard to imitate competitive advantage which justify the higher premium paid.

The results of all the models have been confirmed by the robustness tests and supports the "stakeholder value maximization" view of the stakeholder theory that satisfying stakeholders by investing in CSR ultimately benefits shareholders. In fact, the findings of this study have important managerial implications for target shareholders insofar as increasing ESG performance could increase potential takeover gains.