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What is an ESG M&A Deal?

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Abstract

Despite the considerable interest in ESG financing, little prior work has investigated sustainability in Mergers & Acquisitions. Currently, data providers only rely on specific industry codes to identify and label ESG in M&A. Based on a review of the scarce prior literature, as well as six expert interviews, the author develops a novel framework to identify ESG elements in M&A transactions and classify these deals as ESG M&A deals. The resulting classification framework relies on four main criteria: the M&A target's industry, the achievement of ESG regulatory goals, the ESG rating, and the respective press releases. In addition, the author proposes additional sub-criteria to prevent greenwashing in the deal classification. Thereby, the offered framework allows for a better classification of ESG deals in M&A. Implementing the framework in practice would motivate banks and corporates to emphasise sustainability factors in M&A, discourage unsustainable divestments, and increase ESG data quality.

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List of Abbreviations

AUM	Assets under management
bn	Billion
Capex	Capital expenditures
CSR	Corporate social responsibility
CSRD	Corporate Sustainability Reporting Directive
DD	Due diligence
e.g.	Exempli gratia (for example)
ESG	Environment, social, and governance
EU	European Union
EUR	Euro
GDP	Gross domestic product
GHG	Greenhouse gas emissions
GRI	Global Reporting Initiative
IEA	International Energy Agency
IFC	International Finance Corporation
IMAA	Institute for Mergers, Acquisitions, and Alliances
m	Million
M&A	Mergers and acquisitions
NFRD	Non-Financial Reporting Directive
Opex	Operating expenditures
PE	Private Equity
PRB	Principles for Responsible Banking
PRI	Principles of Responsible Investment
RDS	Royal Dutch Shell
SDGs	Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
SPA	Sales and purchase agreement
SPAC	Special purpose acquisition vehicle
tn	Trillion
UN	United Nations
UNGC	United Nations Global Compact
US	United States
USD	US dollar

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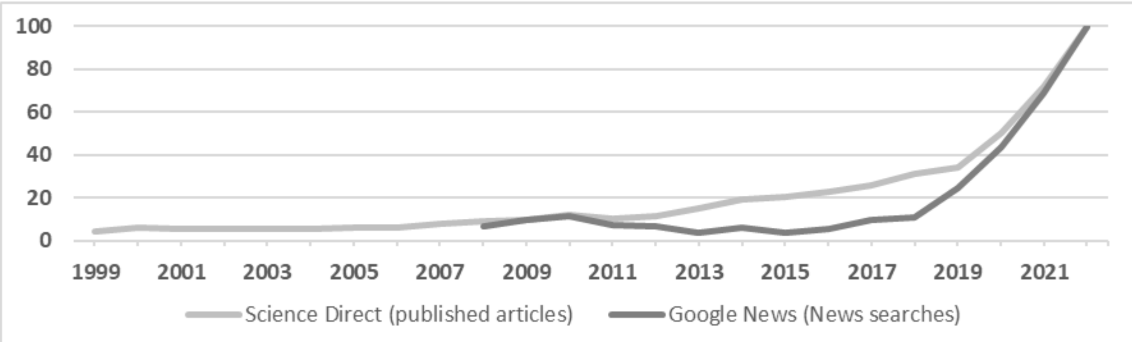
1 Introduction

When reading newspaper or academic articles, one will necessarily be confronted with the topic of sustainability. New sustainability-related regulations are frequently implemented, industry representatives demand higher sustainable investments to reach net zero targets, and researchers claim to speed up climate change innovation in order to reach net zero targets.[1] Sustainability is omnipresent, especially for companies. From a company perspective, sustainability must be understood broadly when assessing a business. Sustainability cannot be reduced to environmental sustainability, which has received increased public interest due to the initiatives to prevent climate change throughout the last few years. The necessity to think broadly leads to the ESG factors: environment, social, and governance. Those three dimensions summarise the most critical sustainability pillars from a corporate perspective. Figure 1 shows the topic's increased relevance for individuals and researchers since 1999, as the number of news searches and published articles has significantly increased over the last few years.

Figure 1: Interest in "ESG" over Time (normalised for Comparability)



Source: Gaganis et al. (2023).

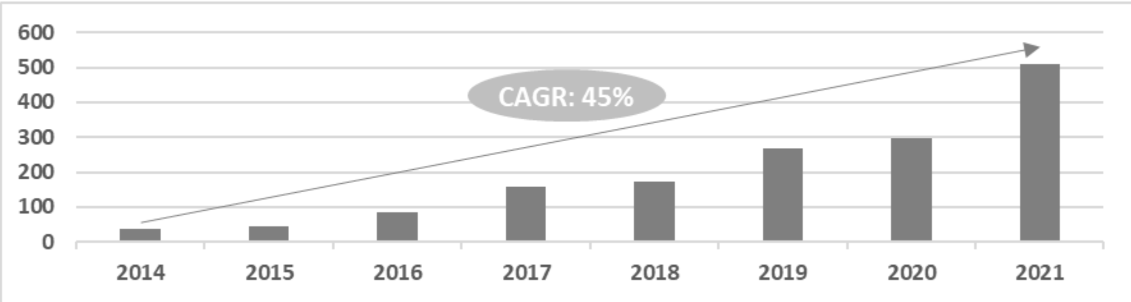
Current litigation results also prove the relevance of ESG for companies. Royal Dutch Shell (RDS) has been sued for an insufficiently ambitious sustainability strategy, potentially representing the first time a company has been held liable for its sustainability efforts.[2] Other companies like RWE or Total Energies are also concerned.[3] These court decisions show the obligation of companies to make an effort to become more sustainable and the need to emphasise the importance of sustainability in their business practices.

If companies pay more attention to their sustainability efforts, their stakeholders, including banks, will also be impacted. Banks support companies, e.g. regarding financing, cash and risk management, or advisory services. Green financing is the topic that likely receives the most attention from researchers

[1] Hancock & Bound (2023), Pike (2023).
[2] Milieudefensie (2023).
[3] Caramel (2022), Hodgson (2022).

and regulators. The EU has just agreed on a European Green Bond Regulation, defining the obligatory characteristics of a green bond. A green bond is a bond whose proceeds are solely used to finance sustainable projects.[4] The European Investment Bank issued the first green bond in 2007 ("Climate Awareness Bond").[5] More recently, the annual issuance volume reached approximately USD 510bn in 2021 (issuance volume development, see Figure 2), showing the strong growth the green bond market has experienced with a compound annual growth rate of 45% since 2014.[6]

Figure 2: Issuance of Green Bonds (in USD bn)



Source: Statista (2022).

In contrast, the research and regulation in the field of financial advisory practices and, more specifically, M&A regarding ESG is still minimal. Dealogic and Refinitiv are the first data providers who recently came up with quantifications of ESG in M&A, which they gained through filtering deals by specific industry codes. However, the lack of regulation leaves the banks with a high degree of uncertainty about how ESG can be measured in M&A and how they could profit from being active in the field. This uncertainty contrasts with the apparent importance of the topic in M&A. According to a survey conducted by *Intralinks*, 97% of M&A managers interviewed were either conscious of ESG issues or even saw ESG as one of the main drivers during their last transaction.[7] The topic is also an object of discussion among practitioners trying to find a solution to measure and monitor their ESG activities.[8] Due to the current uncertainty, banks could even be hindered from moving more actively towards including ESG factors: they would have to reject deals that are not ESG-compliant and favour ESG-compliant deals without having certainty about the incentives to do so.

Therefore, this paper aims to make a first contribution to fill the research gap, solve the issues mentioned above, and answer the research question: What is an ESG M&A deal? Based on a literature review and interviews with M&A managers and ESG experts, a framework to classify M&A deals as (non-) ESG compliant will be presented.

[4] Ehlers & Packer (2017).
[5] Bernabè et al. (2021).
[6] Statista (2022).
[7] Intralinks (2022).
[8] Dealogic (2022b).

Therefore, this master's thesis is structured as follows: in the subsequent paragraphs, the main concepts relevant to the paper, such as the ESG framework and its evolvement over time, the regulatory environment, and the ESG rating industry, are presented. Subsequently, the current M&A environment and the impact of ESG therein are analysed, and the latest ESG identification attempts are described. In the third chapter, potential criteria for identifying ESG in M&A are presented and evaluated based on their theoretical and practical suitability. In the fourth and fifth chapters, exceptions to the criteria presented before will be identified, and the role of the social and governance dimensions will be investigated. Based on the results of chapters three to five, chapter six presents a framework, which could potentially replace the existing frameworks to classify deals as ESG (non-) compliant. Lastly, ideas regarding further regulatory initiatives, potential fields of application, and implementation steps for the framework are discussed.
Whenever it comes to regulations in place and potential criteria related to those, this thesis focuses mainly on European regulations. Nevertheless, other regulations equivalent to European regulations, such as the US or Chinese regulations, might be applicable.[9]

2 Main Part

2. 1 ESG and Sustainable Finance

2. 1. 1 Theoretical Background and Historical Evolution

Today ESG is a highly fashionable term that many companies use. Almost every corporate publishes ESG reports to comply with stakeholder expectations.[10] Especially in finance, ESG has a significant impact, proven by the USD 2.5tn (2022) in global sustainable assets.[11] By 2025, global ESG assets under management (AUM) are expected to reach USD 53tn, approximately 33% of global AUM, emphasising the topic's great importance.[12] Companies use ESG from a financial perspective to attract funding, increase top-line growth, and boost prices. In addition, according to *Brown and Nuttall*, it is used by companies to create a sustainable competitive advantage as companies strong on ESG also tend to have a stronger performance.[13] This raises the question of what hat the concept of ESG means and how the framework evolved.
According to *"Who cares wins"*, a report published by the UN in 2004, due to which the concept of ESG gained popularity, ESG refers to the three dimensions impacting corporate investment and financing

[9] The applicability was not investigated in order to limit the scope of the paper.
[10] Pérez et al. (2022): more than 90% of companies listed in S&P500 publish some kind of ESG report.
[11] Bloomberg (2021).
[12] Intralinks (2022).
[13] Brown & Nuttall (2022).

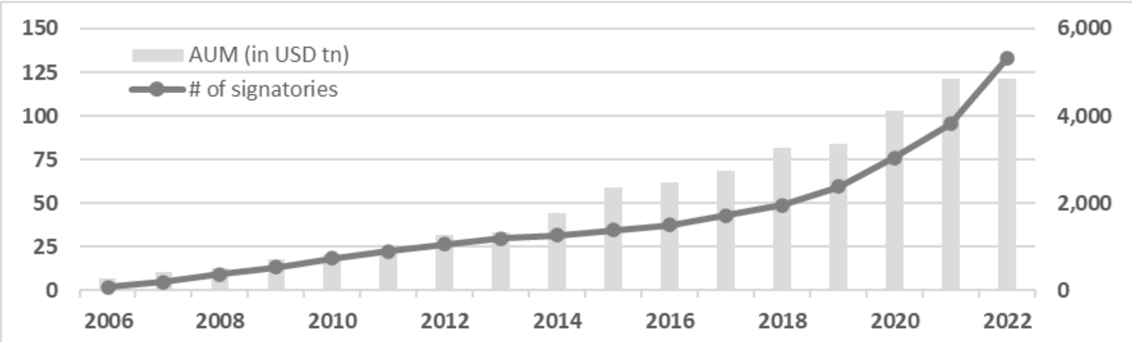
decisions.[14] The first dimension concerns environmental factors such as the threat of climate change and related adverse events, the pressure from regulators and society to improve environmental performance, and the demand of emerging markets for environmentally friendly products and services. The second dimension refers to social factors like human rights compliance, a safe and healthy workplace, the close observation of suppliers' working conditions, and a good relationship with the public community. Lastly, the governance dimension relates to flawless governance of the company, such as having proper accounting and disclosure practices in place that are overseen by independent auditors, applying strict rules to prevent bribery and corruption, and implementing transparent executive compensation.[15] These topics are only examples representative of the three dimensions, as there is no unique definition for what each dimension entails. This creates issues for rating agencies and corporations trying to assess the ESG performance of businesses (for more details regarding these issues, see chapter 2. 1. 3).

The idea of sustainability and responsible behaviour of corporations dates back to the early 1950s when H. R. Bowen first discussed the modern understanding of CSR.[16] However, at that time, CSR was less enacted, and only little efforts were undertaken that exceeded the required minimum. [17] CSR was seen as a "response to the problems and desires of the new modern society"[18], mainly covering the governance and parts of the social dimensions of today's ESG framework. It was not until the 1970s and the publication of the article "Social Responsibilities of Business Corporations" by the *Committee for Economic Development* that the public demanded that companies take over social responsibility.[19] During the 1990s, the "Stakeholder Theory" was first introduced by *Edward Freeman*. With his theory, Freeman emphasised the importance of all the groups influenced by the company's operations and the need for managers to consider each individual group.[20] This approach represented a fundamental change compared to the aforementioned generally accepted Friedman doctrine that limited a company's primary social responsibility to maximising shareholder value.[21] Since the 2000s, the attention paid to CSR has further increased. One significant achievement in the area was the creation of the "United Nations Global Compact" (UNGC), which was supposed to "fill the gaps in governance of the time in terms of human rights and social and environmental issues"[22]. In 2004, the term "ESG" gained popularity through the abovementioned report *"Who cares wins"*, published by the UN and 20 major global financial institutions like BNP Paribas or Deutsche Bank. The report developed the idea

[14] UN Global Compact (2004).
[15] All examples taken from UN Global Compact (2004).
[16] Bowen (1953).
[17] Carroll (2008).
[18] Agudelo et al. (2019), p.4.
[19] Committee for economic development (1971).
[20] Freeman (1994).
[21] Friedman (1970).
[22] Agudelo et al. (2019), p.9.

that financial institutions must take over the responsibility of promoting sustainability to address environmental challenges, leading to a more sustainable and resilient global economy. *"Who cares wins"* is still one of the cornerstones in the area of ESG. The importance of the ESG framework for financial institutions was further promoted by the "*Freshfield Report"* published in 2005.[23] Discussing the legal responsibility of financial institutions regarding ESG considerations, the "*Freshfield report"* increased the awareness of ESG among investors. Together with the *"Who cares wins"* article, the Freshfield report also set the basis for the creation of the *"Principles of Responsible Investment"* (PRI) for financial institutions that were published in 2006. The UN backs these principles that target the implementation of ESG in investment analyses, disclosures, and practices so that financial institutions can fulfil their duty "to act in the best long-term interest of [their] beneficiaries"[24]. Today, more than 5,000 financial institutions with a total AUM of more than USD 120tn have signed the principles, indicating the increasing popularity of ESG in finance (see Figure 3).[25]

Figure 3: Development of AUM and Signatories of PRI from 2006-2022



Source: United Nations Principles of Responsible Investment (2021).

In 2015, the sustainable development goals (SDGs) were implemented, and 197 countries ratified the Paris Climate Agreement. Both of these initiatives are still among the essential guidelines and treaties aimed at promoting the focus on sustainability and CSR topics. But not only on the global but also on the EU level, the topic of sustainability received regulatory attention. In 2020, the EU Taxonomy was published and must be applied from 2023. It defines the term "sustainability" and especially the "sustainable activities" of businesses on the EU level. Furthermore, the EU-wide regulations of the Corporate Sustainability Reporting Directive (CSRD) and the Sustainable Finance Disclosure Regulation (SFDR) came into effect (in Germany) in 2023, specifying the disclosure requirements for corporates (CSRD) and financial market participants (SFDR).

Today, sustainability and ESG also majorly impact financial markets and banks. There are several consequences for banks: academic evidence shows that the performance in terms of ESG and credit

[23] United Nations Environment Programme Finance Initiative & Freshfields Bruckhaus Deringer LLP (2005).
[24] UN Principles of Responsible Investment (2021), p.6.
[25] Eccles et al. (2019), UN Principles of Responsible Investment (2021).

risk are negatively correlated and that considering ESG does create not only social and environmental value but also a superior financial performance of banks.[26] Therefore, sustainable finance is omnipresent in the business world and could be defined as "finance to support sectors or activities that contribute to the achievement of, or the improvement in, at least one of the relevant sustainability dimensions"[27]. The connections between ESG elements and finance show that the ESG framework is the underlying driver for integrating sustainability considerations into financial decision-making. Hence, sustainable finance is essential to the European Green Deal that is aiming at making Europe the first climate-neutral continent in 2050. In this plan, banks are taking over the intermediary role between investor and investment projects due to their ability to gather, and channel capital flows to the projects where the money is required. This is of crucial importance as to reach the EU's goals set for 2030, annual investments by public and private players of EUR 180bn are required, showing the great importance of the channelling function.[28]

In contrast to the definition above, from a practical perspective, *interviewee 1* (p.4)[29] sees the ESG framework slightly differently. According to them, sustainable finance and ESG almost only refer to the environmental and partially to the social dimension. The governance element has always existed from a company's perspective as the company always had to ensure it was well governed. Otherwise, it would not have gotten the appropriate funding from investors because transparency, efficiency, and accountability are the main conditions for investors to inject their money. According to *interviewee 5* (p.29), the companies' historical necessity to comply with the governance dimension is also why it is included in financial ratings, as regulations related to the governance aspect are already more developed. Consequently, companies are much more used to being assessed regarding governance aspects. Furthermore, the social dimension is mainly considered in case of problems or crises, like the pandemic, when the public suddenly starts worrying about social aspects. In addition, according to *interviewee 5* (p.29-30), the social dimension is also less tangible and harder to measure than the environmental aspects, making it more challenging to grasp. Thus, according to *interviewee 1* (p.4) and *interviewee 5* (p.29-30), the environmental aspect is the actual innovation for sustainable finance because it helps the planet move towards the goals set by international organisations such as the UN and stop the currently progressing climate change. Thus, it currently receives the most attention from regulators and governments, increasing the pressure on companies to perform on a high level from an environmental perspective.

[26] Capasso et al. (2020), Weber (2023).
[27] Migliorelli (2021), p.2.
[28] European Commission (2019b).
[29] Page number related to interviewees refers to document with interview transcripts.

2. 1. 2 Current ESG Regulations and Treaties

As the ESG framework and sustainable finance are essential but relatively new and consequently still not clearly defined topics, there is also not one unified regulation controlling the discipline. Several treaties and regulations impact the area. Therefore, the following regulations and treaties will be summarised in the subsequent paragraph, and their impact on sustainable finance will be analysed: the Paris Agreement, the 17 Sustainable Development Goals, the SFDR and CSRD, the EU Taxonomy, and the 2030 Climate and Energy Framework.

The Paris Agreement constitutes the result of the Paris climate conference 2015 and is a legally binding agreement for the 194 countries (plus the EU) that have signed it.[30] The signatories currently emit more than 98% of the global greenhouse gas emissions.[31] It is seen as one of the breakthrough agreements in the fight against climate change because it points out a plan for the next years for avoiding global warming in the long term. The specific goal formulated in the Paris Agreement is to limit global warming to 1.5°C compared to pre-industrial levels.[32] Individual countries commit to undertaking nationally determined contributions to keep global warming low. These contributions will be controlled every five years in the context of a global stock-take. From a financial perspective, Article nine of the Paris Agreement mainly binds developed countries and their financial institutions to provide sufficient monetary support for developing countries so that they can invest in clean technologies. In addition to the Paris Agreement, the sustainable development goals were adopted in 2015. They consist of 17 goals linked to the five P's: people, planet, prosperity, peace, and partnership.[33] The goals are supposed to help end poverty, protect the planet, allow everyone to enjoy prosperity and have a fulfilling life, ensure peace, end violence, and build global partnerships by creating solidarity among countries and cultures.

Even though addressing the whole society and not banks in particular, both the Paris Agreement and the SDGs are of crucial relevance for the area of sustainable finance today as more than 320 banks, representing approximately 50% of global banking assets, have signed the Principles for Responsible Banking (PRB).[34] These principles commit the signatories to align their investment and lending practices with the SDGs and climate agreements such as the Paris Agreement. Therefore, the banks must analyse their impact, set their individual targets, and publish their PRB report annually. The PRB report shows the company's progress in terms of alignment with the six core PRBs. Overall, that means that banks are incentivised to, e.g. issue green bonds to reach their goals in the medium to long term.

To reach the goals fixed in the Paris Agreement and the SDGs, the EU established the European Green

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[30]United Nations Treaty Collection (2023), as of 05.06.2023.
[31] Wikipedia (2023).
[32] United Nations (2015a).
[33] United Nations (2015b).
[34] United Nations Environment Programme (2023).

Deal in 2019, which is supposed to make Europe the first climate-neutral continent in 2050. This European Green Deal includes the SFDR, the CSRD, the EU Taxonomy, and the 2030 Climate and Energy Framework. All four directives and regulations impact the disclosure rules, further specify the term of sustainability, and in the case of the Energy Framework, even set specific sustainability targets.

The SFDR is targeted towards financial institutions and companies that offer financial products. These financial players must comply with the disclosure directive because they must publish the sustainability impact of their activities, such as the CO_2 emissions on the entity level (level 1) from March 10, 2021, and on a more detailed product level (level 2) from January 1, 2022. Besides, companies must show their risk management and prove how they materially mitigate the risk of adverse events. By categorising investment funds into three different categories, the SFDR makes a clear distinction based on the sustainability covering: standard funds without a focus on ESG factors (article 6), funds that promote products with a favourable ESG effect (article 8), and "sustainability funds" that have sustainability investments as their primary objective (article 9). Depending on the fund's category, the fund has individual disclosure requirements. All required information must be published on the company's website, in relevant prospectuses, and in periodic reports.[35]

Replacing the Non-Financial Reporting Directive (NFRD), the CSRD focuses on disclosure requirements for corporates. One significant difference to the NFRD is the scope. The CSRD targets all capital market-oriented companies with more than 500 employees EU-wide, approximately 50,000 companies will fall under the regulation (compared to approximately 11,000 under the NFRD). According to Article 19a of the new regulation, companies must disclose a wide range of non-financial information related to sustainability. Examples are the business model and strategy and its connection to sustainability and related risks, clearly defined sustainability targets for 2030 and 2050, the company's management incentive system, including potential links to sustainability, and an overview of management and supervisory board competencies regarding sustainability-related matters. All described information needs to be published taking into account the whole value chain and must also include the suppliers (if applicable).[36] According to *interviewee 6* (p.39), this new regulation offers lots of benefits as it potentially leads to the creation of more, new ESG data. However, they believe it will be challenging for companies to comply with the vast number of new requirements.

In addition to the disclosure requirements SFDR and CSRD, the EU Taxonomy is another essential part of the European Green Deal that gained popularity through the discussion of whether nuclear energy is considered a sustainable source of energy or not. With the regulation, regulators tried to foster the capital flow towards sustainable investments by implementing a more precise definition of "sustainability". From now on, investments labelled "sustainable" must fulfil four specific criteria:

[35] KPMG (2021).

[36] European Parliament and Council (2022), KPMG (2022).

substantial contribution to climate mitigation or adaptation, no significant harm, compliance with minimum social safeguards, technical feasibility and economic viability. Otherwise, an investment cannot be called a "sustainable investment". By creating this rule, regulators aimed to create certainty for investors, avoid greenwashing, help companies to become more eco-friendly, mitigate market fragmentation, and channel funds to projects where the money is most urgently needed. The EU Taxonomy makes adjustments to the SFDR and the CSRD as well: corporates must, from now on, disclose the share of key figures (revenues, capex, opex) that are related to sustainable activities (CSRD) and players in the financial markets need to clearly label which financial products are in line with the EU Taxonomy and which are not (SFDR). [37]

In contrast to the three other regulations, the 2030 Climate and Energy Framework does not directly impact the disclosure of sustainability-related information. It focuses on setting specific goals regarding the reduction of greenhouse gas (GHG) emissions (by 40% compared to 1990), energy efficiency (improvement by 32.5%), and the expansion of renewable energies (at least 40% of total energy production) for 2030.[38] However, as the targets are binding on an EU level and the progress must be monitored, corporates will be forced to disclose their improvements, indirectly impacting ESG information disclosure.

Overall, even though the presented regulations represent only a few European examples of regulations related to sustainable finance, the regulatory complexity of the topic is visible. According to *Gihr* and *Franklin*, the ambiguousness due to the high number of regulations creates problems for corporates because they cannot simply follow one treaty but must adhere to all of them, increasing the degree of complexity significantly.[39] Consequently, *Gihr* believes the EU Taxonomy is an excellent initiative as it tries to unify the different treaties and create one common standard. Hence, it would be desirable for practitioners like *Gihr* if this standardisation could be expedited because the Taxonomy should only be seen as a start.

2. 1. 3 ESG Ratings

Since the late 1990s, more and more rating agencies have been trying to evaluate companies' non-financial information and present them in a meaningful and easy-to-grasp way for investors: ESG ratings. ESG ratings are fundamentally different from credit ratings, as credit ratings aim to estimate the company's credit risk, which is a reasonably standardised approach. In contrast, ESG ratings try to measure the "magnitude to which a company is exposed to ESG risk and how well the company is

[37] European Parliament and Council (2020), KPMG (2021).
[38] European Council (2014).
[39] Intralinks (2022), Franklin (2019).

managing that risk"[40]. The criteria accounted for vary across different rating agencies as there is, according to *interviewee 2* (p.15), no unique international standard. Thus, ESG rating agencies create different databases for their ratings that hence also lead to differing results as their results are based on, e.g. ESRS or GRI (both guidelines for disclosing sustainability information). Nevertheless, environmental risks are usually related to natural resources, climate change, waste disposal, and pollution; the social factors consider human rights, health and safety, diversity, and community relations; and finally, the governance factors are concerned with compliance, corporate governance, and remuneration.[41] The weight given to every single factor varies across industries, and the factors considered within each dimension also differ.[42] The purpose of these ratings is to reduce asymmetries between corporates and investors, provide information allowing for informed investment decisions, facilitate the performance measurement of ESG funds, and lastly, "mainstream" the ESG framework so that it becomes a standard criterion of each investment and DD process.[43] According to *interviewee 5* (p.30-31), companies also use them for marketing purposes and, ideally, to benchmark themselves with their peers to see in which categories they could optimise their performance. The leading players in the highly fragmented industry with more than 500 ESG rating agencies are MSCI (former KLD), Sustainalytics (part of S&P), RobecoSAM, and Moodys (bought Vigeo Eiris).[44] The industry is currently in the phase of consolidation and mergers between ESG rating agencies, but also acquisitions of ESG rating agencies by major data providers are taking place.[45]

The ESG rating agencies' idea seems pretty simple: the more the company is exposed to ESG risks, the lower the ESG rating. The reality is more complicated. As formerly discussed under 2. 1. 1, there is no unique definition of the ESG framework as it constantly evolves and adapts to changing circumstances. Therefore, each provider is also likely to reach a different result because all providers rely on their individual, potentially different definitions. The result is that the ESG ratings of each agency have a similar mean, which means that, on average, they agree on ESG risk exposure. However, their ratings' standard deviation (the extent to which they deviate from the mean) differs significantly. In addition, the average correlation across ratings is 0.58, and the agencies only agree on 24% of the ratings. These results are inferior compared to what could be expected because the agencies aim to measure the same aspect so that they should approximately reach equal results.[46] The underlying reasons for the divergence are diverse. Two leading causes could be the theorisation and the commensurability problem. The theorisation problem refers to the differences in the definition and the weighing of

[40] Cohen (2023), p.1456.
[41] Billio et al. (2021).
[42] See Appendix 1 for exemplary weights applied by MSCI.
[43] Utz (2019), Cash (2021).
[44] Eccles et al. (2019): numbers as of 2016.
[45] Avetisyan & Hockerts (2017).
[46] Dorfleitner et al. (2015), Billio et al. (2021).

factors; the commensurability problem refers to the differences in the approach (e.g. the number of criteria ranges from 37 to 300) and the underlying sources of information.[47] According to *interviewee 5* (p.35-36), some agencies rely only on public information, some on a mixture of public and private information, and others mainly on private information. This leads necessarily to different results. In addition, users cannot retrace private information, resulting in a transparency issue. Another reason could be a rating bias because analysts do often not work on one category (e.g. risk resulting from climate change) but on particular companies, making them more likely to give similar grades in different categories.[48] Another reason *interviewees 2* (p.14) *and 5* (pp.33-34) mention is that some ESG rating agencies look at companies from different angles and focus only on specific areas of the company (e.g. procurement, supply chain). Hence, within the ESG rating industry, there are many subsectors. This subsector split is often not considered when comparing the results, leading to the "divergence". This divergence could, when taking the different approaches into account, not be considered a divergence but rather as differing results when looking at the company from multiple different angles, leading to complementary results, according to *interviewee 5* (pp.35-36).

Nevertheless, for these reasons, ESG ratings do not seem to play a significant role in M&A yet. As confirmed by *interviewee 1* (p.5), ESG ratings are currently just a starting point for M&A analysts because there is no real alternative that allows for a comparison across industries, as also confirmed by *interviewee 2* (p.13). They help to get an overview of the ESG risks the firm is exposed to and exclude targets that do not fulfil specific criteria. However, *interviewee* 6 (pp.39-40) explains that to evaluate a company's ESG performance in-depth, ESG reports must be read, and DDs conducted. Nonetheless, *interviewee 2* (p.12) states that the importance of ESG ratings has significantly increased over the last few years. They are not seen as "side information" anymore, but companies are showing an increased interest in their ratings.

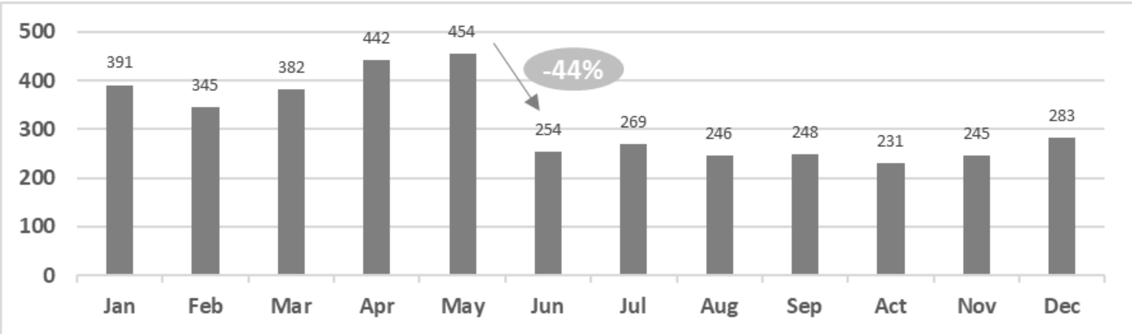
In conclusion, the potential and the difficulties with the current conditions of the ESG rating market are apparent: in an ideal case, ESG ratings could reveal reliable, high-quality information about the company's ESG risks. However, contradicting results are currently creating a higher degree of uncertainty than they are helping investors and, eventually, giving leeway to greenwashing activities because "good" and “bad” ESG activities may hardly be differentiable. In addition, the ESG rating “black box”, as *interviewee 6* (pp.39-40) calls it, is an issue because the transparency required to fully rely on the ratings does not exist yet. Thus, further regulations, such as a standardised ESG definition, could help the industry reach a higher reliability than the current status.[49] The EU Taxonomy can be considered the first important step towards such standardisation.

[47] Abhayawansa & Tyagi (2021), Billio et al. (2021).
[48] Berg et al. (2022).
[49] Cash (2021).

2. 1. 4 Current M&A Environment and the Importance of ESG

The current M&A environment is a challenging one for all participants. After the record-breaking year of 2021, several factors have led to a drop of 36% in M&A value from USD 5.9tn in 2021 to USD 3.8tn in 2022, whereas the volume has only decreased by 12%, showing the tendency of deals to be smaller in size.[50] The drop was especially pronounced in the second half of 2022 after the announcement of higher interest rates by the chairman of the Federal Reserve, Jerome Powell (see Figure 4).

Figure 4: Global M&A Deal Market Value in 2022 (in USD bn)



Source: Baird et al. (2023)

One of the factors leading to the observed decrease is the increased uncertainty and volatility in the market. This uncertainty is a consequence of the central banks' drastic change in monetary policy as it has continuously increased interest rates since last year. Furthermore, the interest rate rise was, besides other reasons, a reaction to higher inflation rates resulting from a spike in raw materials and especially energy prices and a mismatch of supply and demand because of the pandemic. Another factor responsible for creating this uncertainty is the current geopolitical tension. In addition, tighter regulations, especially when looking at SPACs in the US, one of the main drivers of M&A in 2021, have lowered the M&A activity and resulted in many SPACs being dissolved due to them not finding an appropriate acquisition target.[51] Lastly, PEs were impacted by the rise in interest rates as they faced severe capital restrictions. PEs used to be able to lend from banks at very low-interest rates in order to highly lever their investments.[52] However, this is more difficult now, potentially making them more selective regarding investment decisions.

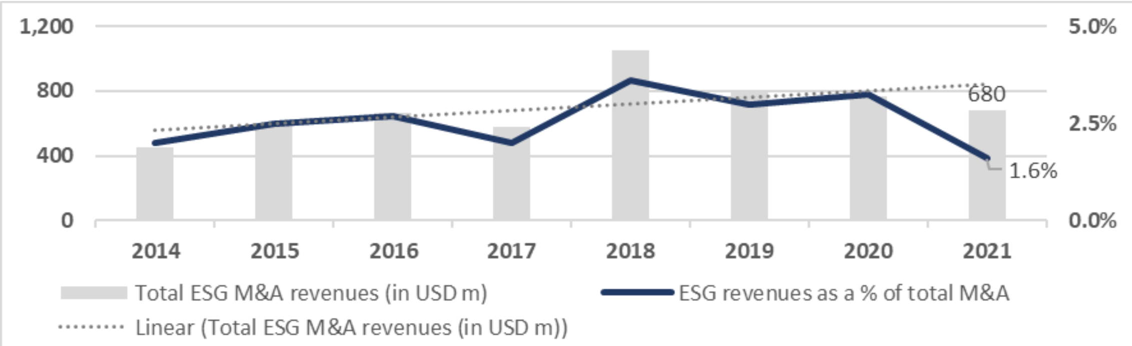
Nevertheless, one could be optimistic when looking ahead as several positive trends can be observed. These trends will not entirely rule out the current and potentially continuing uncertainty, but they give reason to believe in a positive outlook. One reason is the high amount of dry powder that is estimated to be at roughly USD 1.3tn only for US PEs.[53] According to *Miles*, the dry powder might even increase

[50] Most information in the current M&A environment section is taken from Baird et al. (2023).
[51] White & Klasa (2023).
[52] Baird et al. (2023).
[53] Deloitte (2023b).

because many PE funds could exit their investments as soon as the financing market returns to its normal condition, resulting in sufficiently high competition, ensuring stable multiples and hence price levels.[54] Besides, companies continue to strengthen their regional supply chains to avoid supply shortages, such as during the pandemic, which drives M&A activity. Lastly, ESG is one of the main trends in 2023 as the concept will, according to *CMS*, "enter new geographic regions"[55]. In addition, according to *Datasite*, ESG has "limitless potential to spur deal activity in Europe."[56].

Today, bankers agree with Datasite's opinion and are convinced of the importance of the ESG dimensions in M&A: 42% of bankers say it already plays an important role, and 68% believe it will play an even more critical role in the future.[57] Moreover, according to a survey conducted by *Intralinks*, only 3% of bankers are not concerned about ESG, whereas 41% considered ESG elements one of the main drivers of the last deal they worked on.[58] Nevertheless, according to *Refinitiv*, ESG only accounted for 3% of total M&A activity in 2021, and even only for 1.6% (see Figure 5), according to *Dealogic*.[59]

Figure 5: M&A Revenues related to ESG and Share of total M&A Revenues



Source: Dealogic (2022a).

However, these numbers need to be treated cautiously: as observable in the following chapter, the current definition of the ESG framework in M&A seems too restrictive, if not even misleading. Still, even though the number could likely be higher, the overall trend of ESG revenues has been increasing over the years, as shown by the trend line in Figure 5. Nonetheless, it is also subject to fluctuations due to the dependability on big deals. Therefore, one could conclude that the significant influence of ESG elements in M&A is here to stay.

During the transaction, the ESG framework impacts the process at several different stages: during the DD phase, the pricing, and eventually, when it comes to SPA negotiations and the go or no-go decision.

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[54] Morgan Stanley (2023).
[55] CMS (2022), p.4.
[56] Datasite (2022), p.10.
[57] Rothnie (2022), Henry (2022).
[58] Intralinks (2022).
[59] Dealogic (2022a), Rothnie (2022). The difference is explainable due to the broader definition used by Refinitiv as it considers the target's and the acquirer's industry (more details under 2. 3. 1).

Generally, the likelihood of a company becoming an M&A target increases with the CSR performance. Therefore, the higher the CSR performance, the higher the likelihood of being targeted.[60] This being said, according to *interviewees 1* (pp.7-8)*, 4* (p.27) *and 6* (p.37), the ESG framework today mainly impacts the public sector and public M&A. In contrast, the influence on private companies and M&A is still relatively small but growing, especially for PE deals. For PEs, the main goal would be to maximise returns, which means that as soon as ESG investments reach higher returns than "usual" investments, PEs will also be more likely to target those companies. According to *interviewee 1* (pp.7-8), the public-private gap also mainly exists due to the lack of mandatory disclosure requirements in the private market, as companies would have to have an intrinsic motivation to publish that kind of data. Otherwise, they are not obliged to.

During the DD phase, prior literature, as well as *interviewees 1* (p.6)*, 3* (pp.23-24), *and 4* (p.25), agree on the significant influence of ESG aspects. Due to the DD, the potential buyer hopes to better understand the target's situation and business model, identifying risks by asking questions and determining the company's strengths, weaknesses, opportunities, and threats. The results of the DD will eventually affect the pricing. More and more companies also conduct an ESG DD because they no longer accept the ESG reports created by the target but instead, want to review the ESG data themselves.[61] Nevertheless, they include the target's ESG ratings to identify hidden risks as companies with very different ESG standards risk failing to realise synergies due to the striking gap in terms of standards between the two companies.[62] Furthermore, many potential buyers enlarge the scope of their ESG DD and look at the wider business area, including the value chain, to assess the risks.[63] The importance of such an ESG DD is consequently likely to increase in the future. However, it also has a great relevance today: 63% of companies already have a coordinated approach to an ESG DD, showing that most managers already consider the ESG framework an essential part of their target evaluation.[64] Even though it already has a significant impact, the ESG framework also creates additional issues during the DD phase, as integrating financial and non-financial data can create problems, and target companies sometimes might not be able/willing to deliver the required information.[65]

The ESG framework also influences the SPA negotiations and the pricing. Regarding the pricing, *interviewee 1* (pp.6-7) says it can be both a premium in case of an outstanding ESG performance and a discount in case of a bad performance. According to them, these premiums are still somewhat "irrational" because companies simply apply an "X% discount or premium" for the overall company

[60] Gomes (2019).
[61] Intralinks (2023).
[62] Rödl & Partner (2023).
[63] Herbert Smith Freehills (2023).
[64] PwC & PRI (2012).
[65] PwC & PRI (2012).

(even though the company might not be fully ESG-compliant). In their opinion, this approach is not statistically justifiable due to the young nature of the ESG framework and the resulting lack of data. According to *interviewee 1* (p.6), a negative ESG performance can sometimes even lead to a break-up of negotiations as companies know about the importance of maintaining social licenses with stakeholders and do not want to risk them.[66] This view is confirmed by prior literature, which adds that companies without an ESG strategy generally have a lower base valuation than those with a strategy, possibly due to higher uncertainty regarding ESG.[67] Furthermore, during SPA negotiations, over 80% of companies consider ESG factors and allocate risks accordingly with the help of indemnities and warranties.[68] Even though the seller usually avoids these to avoid ongoing liability for environmental or health and safety issues, the importance of reps and warranties, indemnities, and covenants related to ESG factors is predicted to increase.[69] This view is confirmed by *interviewee 6* (p.41), who emphasises the importance of ESG-related guarantees, e.g. on trajectories established in the SPA. Whether these risks are covered can also influence the final decision. An example of this is the case of Glencore trying to take over Teck Resources hostilely.[70] Teck's board defence strategy was to argue with concerns regarding ESG elements, among other reasons and the board consequently rejected the offer. This example shows ESG elements' significant influence on the final decision.

Eventually, the difficult question is whether ESG will foster or hinder M&A activity overall. According to *Rothnie*, ESG factors could hinder bankers from working with clients unwilling to comply with specific ESG standards, as bankers currently usually have personal ESG targets.[71] This view is confirmed by a survey conducted by *Deloitte*, stating that 60% of bankers have already turned down deals due to ESG concerns.[72] Hence, the number of deals could decrease as companies struggle to find advisors to execute the transaction. In contrast, the ESG movement could even foster M&A deal activity as many companies are forced to divest certain assets to improve ratings and comply with the latest ESG standards.[73] In addition, companies could also start undertaking M&A initiatives to improve their ESG ratings through external growth, further fostering M&A activity.

In conclusion, the high importance of the ESG framework in today's M&A transactions becomes apparent. The framework influences the process from the start until the final decision, from looking for suitable targets until the final "go" for the deal. It is not just a framework anymore that a few long-term thinking companies apply to differentiate themselves when it comes to M&A. Instead, it has become

[66] Datasite (2022).
[67] Deloitte (2022), Deloitte (2023a).
[68] PwC & PRI (2012)
[69] PwC & PRI (2012), CMS (2022).
[70] Teck Resources (2023).
[71] Rothnie (2021).
[72] Deloitte (2023a).
[73] Adam (2022).

one of the standard aspects to be considered when making an investment decision and is also essential for the pricing of a target. Due to this high relevance for the deal-making process, it is essential to create uniform standards for how to identify ESG in M&A deals.

2. 1. 5 Current Status of the Identification of ESG in M&A

The status quo of identifying ESG elements in M&A consists of two small frameworks developed by Dealogic and Refinitiv. None of the other data providers, such as Factset or Thomson Reuters, is offering data on ESG factors in M&A. Dealogic implemented a so-called "ESG flag", and Refinitiv has labelled overall 24 of its industry codes as "sustainable" so that the deal is "sustainable" if acquirer or target is active in a "sustainable" industry.[74] When looking for specific deals, both allow the user to filter for transactions deemed ESG-compliant from the data provider's perspective. However, when looking at deal details, it becomes apparent that those deals are almost solely related to sub-segments of the renewable energy sector and thus only represent a sub-segment of the ESG framework. In the best case, it covers the environmental dimension of the ESG framework and thus one-third of the framework; in the worst case, not even the environmental element is fully covered.

On the one hand, implementing an ESG M&A filtering option is an important step: it raises awareness for the topic. It shows that it is possible to identify ESG elements even in M&A. Furthermore, it may also make banks and advisors incentivise their managers to work on ESG-related deals, which was not possible to track before. *Refinitiv* publishes sustainable league tables in its quarterly sustainable finance report, which could become a measurement of success in the future.[75] Lastly, it might also help companies to report their ESG efforts undertaken in terms of external growth and divestitures, giving them an additional chance to differentiate themselves from competitors.

On the downside, the current ESG flag is enforcing the wrong perception of the framework in public: in contrast to the perception, ESG aspects are not only linked to the environmental impact as it represents only one pillar, but it comprises environment, social, and governance aspects. The approach seems too restrictive overall and clearly cannot show the actual ESG M&A activity in the market. It is even misleading because it, as mentioned above, excludes too many deals that should be taken into account and might take deals into account that are not ESG-compliant, as even companies in renewables, generally considered an "ESG" sector, can, according to *interviewee 6* (pp.40-41), do ESG harmful deals. An example of such a potentially wrong categorisation is the acquisition of GMR Kamalanga Energy Ltd., a mostly on coal relying energy producer, by JSW Energy Ltd, a major Indian

[74] Refinitiv (2020), please find the overview of the industry codes and the graphical illustration of the methodologies currently applied by Dealogic and Refinitiv in Appendix 4.

[75] Refinitiv (2020).

power producer.[76] Calling this deal "sustainable", as Refinitiv did, is discussable.[77] Consequently, the flag's name seems misleading and could be called the "Renewable Energy flag". In addition, the current criteria seem to favour companies with high ESG compliance because the deals of companies, such as a company building wind farms, are by default more compliant. In contrast, deals of companies with a pollutive business model, such as chemical companies, are not considered compliant by default. If the current categorisation had an impact on the banker's behaviour, it would discourage them from taking over the mandate for the deals of these firms even though the “polluting” firms are the ones that require a transformation. Such a transformation usually requires transformative transactions. In the extreme case, one could state that the current way of displaying deals could hinder instead of foster the energy transition. Lastly, implementing league tables is yet to be of added value as the statistics are too sensitive to big deals due to the narrow scope of transactions considered. Consequently, the league tables are currently not a suitable tool to compare banks’ performances.[78]

The option to filter for ESG M&A deals implemented by Refinitiv and Dealogic should be considered an essential first step: it can be seen as a "kick-off" for further developments. According to the summary from the M&A forum 2022, the current method for identifying ESG in M&A does not display the real impact of the ESG framework in M&A but should be seen as a first proposal that requires refinement.[79] A dialogue between the different players, such as investment banks, advisors, data providers, and potentially also ESG rating agencies, should be initiated in order to develop a shared understanding and a common approach to identify ESG in M&A. The result should be a more advanced, clearly defined framework that is as objective as possible and allows for the identification of ESG factors across industries without requiring too much research on the data provider’s side. Chapter 2. 3 develops several criteria to create an advanced definition of ESG elements in M&A, allowing for more appropriate identification and classification of ESG M&A deals. Lastly, after identifying the criteria, chapter 2. 4 presents a framework that constitutes an alternative to the current ESG flag.

2. 2 Methodology

Sustainable or ESG Finance is still a relatively new topic in academic research and literature. Still, due to its popularity and relevance for the future, the research has grown extensively over the last few years. Nonetheless, that is only the case for sustainable finance in general, which focuses mainly on sustainable investing and financing from an asset management or corporate perspective.

[76] The deal was terminated after the outbreak of the COVID pandemic. However, it was already displayed in the Refinitiv sustainable league table; a more detailed analysis of the deal can be found under chapter 2. 3. 1.

[77] Refinitiv (2020).

[78] Rothnie (2022).

[79] Dealogic (2022b).

Consequently, for the more general definitions in chapter 2. 1 of the paper, the thesis is mainly based on sources such as academic articles and journals, website articles, corporate deal announcements, books, and newspapers. To find these sources, search engines (for example, Google Scholar) and especially the (online) databases of HEC Paris, the University of Mannheim (Primo), and SSRN were used.

In contrast, the literature on ESG in M&A is limited due to its novelty nature. For that reason, in addition to existing literature, expert interviews with six representatives from different M&A advisories and ESG rating agencies were conducted to understand the needs and requirements of the actors in the field. These interviews also represent the main source for the framework. A list of the interviewees in anonymised form can be found in Appendix 2. Initially, the questions were supposed to be standardised across the interviews, but due to the different nature of positions, the questions were eventually tailored to the expertise of each interviewee. The question bank can be found under Appendix 3 and includes all questions that have been drafted and asked. The experts were interviewed between April 20th, 2023, and June 6th, 2023. Five out of six interviews were recorded and transcribed. The transcripts for all six interviews are kept in a separate document. The exception is *interviewee 4*, who did not consent to record the interview, which is why this interview is based on notes taken during the interview (memory log).[80] The transcripts are all anonymised so that the respondents' answers and names cannot be connected. Furthermore, all responses represent the respondents' opinions, and they have not answered in the name of their company. Lastly, thanks to the efforts of the UBS London office, another source of information is the "ESG in M&A" presentation that was virtually held in May 2023. Overall, the experts' opinions, combined with the literature review on ESG, sustainable finance, and ESG in M&A, form the basis of this report.

2. 3 Criteria identifying ESG in M&A

2. 3. 1 Industry

The only criterion currently in place to identify ESG elements in M&A is, as described under 2. 1. 5, the industry criterion. If the target (in the case of Refinitiv target or acquirer) belongs to an "ESG industry", it is, according to Dealogic and Refinitiv, an ESG M&A deal. As seen above, that logic is the best (and only available) solution today. It is the most objective and the easiest to implement because no detailed analysis of every deal is required. However, this criterion seems to be too restrictive and misleading.[81] It systematically punishes pollutive companies so that applying the industry as the sole criterion seems

[80] Please find the six transcripts in a separate document.
[81] Dealogic (2022b).

inappropriate. Nevertheless, the industry criterion could be combined with other criteria to identify ESG factors in M&A.

On the one hand, one could argue that the industry should not play any role. The current state of identification emphasises the idea that categorisation depending on the industry easily leads to wrong conclusions. Several interviewees, particularly *interviewee 3* (p.22), agree with this misleading function. *Interviewee 6* (pp.40-41) states that even many “green” companies would have problems with their supply chain or other factors leading to non-ESG compliance, and *interviewee 4* adds that renewable energy companies often encounter difficulties with local communities. As a result, no deal should be pigeonholed, and the nature of the deal itself should be analysed unbiasedly.

On the other hand, a clear pattern is observable between the different industries, which is why the industry criterion could add value to the ESG M&A classification. According to the *Bain Global M&A Report*, the share of deals motivated by ESG factors is far higher in the renewable energy industry than in any other. Consequently, the idea that a more sustainable industry will also have more ESG-compliant M&A deals seems to be confirmed.[82] Currently, 90% of ESG M&A deals are energy and industrial deals.[83] That share seems high (as other industries can also have ESG deals), but it confirms the same trend. Furthermore, the industry is the most objective criterion possible and does not leave any possibility for manipulation.

In conclusion, the industry criterion seems essential for determining the presence of ESG elements in a deal. Even though it cannot be used as a stand-alone criterion, it seems very helpful in combination with other criteria. The criterion selects a subgroup of deals that can, with a high degree of certainty, be considered ESG-compliant without having to assess each deal individually. The latter is a crucial aspect as the workload for data providers will increase, as shown under 2. 6. 2. Chapter 2. 6. 1 discusses the exact function and position of the industry criterion in the proposed framework, and under 2. 4 the exceptions to the rule are analysed.

Nevertheless, due to the points *interviewees 4* (pp.25-26) *and 6* (pp.40-41) raise, the industry criterion alone cannot lead to the classification as an ESG M&A deal. A verification criterion is added to prevent unsustainable deals in fundamentally ESG-compliant industries from being classified as ESG M&A. In case of doubt regarding the ESG compliance of the target, the respective past ESG reports should be investigated, and news articles screened to verify whether there are any clear proofs of ESG non-compliance. In that case, the deal should not be classified as an ESG M&A deal. In case of certainty about the ESG compliance of the target, the criterion could also be disregarded.

Moreover, both, Refinitiv and Dealogic only consider renewables as a "sustainable" industry. It is the most striking one, but in the following section, the electric mobility, recycling, and waste management

[82] Baird et al. (2023).
[83] Rothnie (2022).

industries will also be examined regarding their potential to be categorised as "sustainable".

The renewable energy sector is a "sustainable" industry. It aims to minimise the environmental impact of energy production and already constitutes almost 27% of global energy production.[84] In the European Green Deal, the EC emphasises that renewables play an essential role and will be the main component of the energy sector in the long term. *Interviewee 4* (pp.25-26) mentions that even renewable energies could be seen as non-ESG-compliant as they create waste (blades), destroy land (construction), and can lead to tensions with the local community. *Interviewee 6* (p.40) adds that even renewable energy companies can have problems with their supply chain failing to fulfil ESG standards. Nevertheless, compared to any other forms of energy generation available for mass production today, it is still the most suitable one for the energy transition, which is why deals in the industry should be seen as ESG-compliant.[85]

The waste management industry could also be considered sustainable, as it protects the environment and people by adequately managing garbage disposal. The problem is that the industry does not seem to have reached a sufficiently high level of sustainability yet. 22% of global waste is still mismanaged or not collected, 49% is landfilled, and only 9% is recycled.[86] According to *Ho et al.*, particularly in developing countries, inappropriate waste disposal has caused air and groundwater pollution and extensive landfill usage.[87] Consequently, even though the industry is aiming towards sustainable solutions, the sole fact that a company is active in waste management does not justify that a deal is classified as an ESG M&A deal.

In contrast, the recycling industry tries to find solutions for a more sustainable way of dealing with garbage. Using primarily recycled plastic materials instead of newly created products can significantly reduce GHG emissions and reduce the usage of landfills and incineration, reducing the likelihood of environmental pollution.[88] Overall, recycling can contribute significantly to the achievement of the European Green Deal and thus play an important role in avoiding climate change. Furthermore, it is essential to the new "European strategy for plastics in a circular economy".[89] To give an example, Heidelberg Materials recently acquired RWG Holding GmbH, a Berlin-based company specialising in recycling construction materials.[90] This transaction is an example of a deal the current ESG flag would not consider because both companies are initially part of the rather pollutive construction industry. Nevertheless, as the target is a company focussing on developing more sustainable solutions for the construction sector, it should be considered an ESG deal. A remaining problem with the classification

[84] International Energy Agency (2023a).
[85] European Commission (2019a).
[86] OECD (2022).
[87] Ho et al. (2015).
[88] Tonini et al. (2021).
[89] European Commission (2018).
[90] Heidelberg Materials (2022).

is that often (such as in the case of ALBA or Veolia), recycling companies are part of waste management companies because the two businesses are closely interlinked. Consequently, in practice, the criterion might be challenging to apply because the industry criterion would only apply to the recycling industry if waste management companies sold their recycling assets separately.

Electric mobility is one of the new trends that allow the shift away from combustion engines in the longer term. According to *interviewee 3* (p.22), it could also be categorised as an ESG-compliant industry. Potential reasons could be that it generally lowers CO_2 emissions compared to traditional engines and will help achieve the energy transition. However, according to *Onat et al.* and *Augenstein*, like the waste management industry, electric mobility should rather be seen as an industry with the potential to be sustainable but has yet to reach that level. The example used by *Onat et al.* is Qatar. The authors show that electric mobility can lead to better environmental performance but that the decisive factor is the source of electricity. Moreover, *Augenstein* emphasises that increasing mobility efficiency would not be sufficient, but reducing vehicles by strengthening public transportation must also be part of the solution. Therefore, electric mobility in itself cannot be perceived as sustainable, as it needs to be embedded into a broader strategy that ensures additional reductions and sustainable electricity production.

After investigating the sustainability criterion regarding specific sectors, there are three options for how this criterion could be applied: (1) taking only the target industry into account, (2) considering only the acquirer's industry, or (3) looking at both industries. Dealogic applies the first and Refinitiv the third option, which already shows that there is no clear definition on the market. Depending on which option is chosen, the same deal could be ESG-compliant or not. Three deals with different acquirer and target industry characteristics are analysed in the following.

The industry differentiation between acquirer and target is irrelevant in the case of Vestas' acquisition of a significant stake in the SOWITEC Group.[91] Vestas, a global producer of wind turbines, and the SOWITEC group, a project developer specialising in renewable energies, are companies that can be seen as ESG-compliant companies as they are both in the renewable energy sector. Thus, whether the acquirer's or the target's industry is chosen as a criterion, the deal will be categorised correctly as an ESG M&A deal.

It becomes more interesting when looking at BASF's acquisition of a significant stake in the offshore wind farm Hollandse Kust Zuid.[92] On the one hand, BASF, the world's largest chemical company and consequently one of the most polluting companies in Germany, cannot be characterised as generally ESG-compliant from an industry perspective. On the other hand, the offshore wind farm is a sustainable asset. Refinitiv and Dealogic would consider this deal an ESG deal: the acquisition allows BASF to

[91] Vestas (2019).

[92] BASF (2021).

produce sustainable energy that can be used in the plant itself or alternatively be seen as an investment by BASF contributing to the global energy transition. Thus, it would be sufficient if the target solely met the industry criterion to be deemed an ESG M&A deal.

Lastly, the acquisition of GMR Kamalanga Energy Limited by JSW Energy is an example because, in this case, the acquirer is focused on renewables, whereas the target is not. From Refinitiv's perspective, this deal is an ESG M&A deal.[93] GMR Kamalanga's asset is a thermal plant run on coal, which, based on European standards (EU Taxonomy), is not ESG-compliant (although EU Taxonomy does not apply as this is an Indian deal).[94] In contrast, JSW Energy also owns thermal coal plants. Still, a significant part of its portfolio consists of renewable energy plants, which is why considering them as "sustainable" could be understandable, especially in the Indian context (India has been mostly relying on oil and coal during the last few years).[95] Nevertheless, this deal does not necessarily decrease the emissions as the plant will continue operating, and the object of the transaction is a coal power plant and thus clearly not ESG-compliant. Due to the transfer of the asset to a specialised player with more expertise in sustainable energy, one could argue that the plant could be operated more efficiently and sustainably. If that was the goal, the acquirer would potentially explicitly mention it in the deal announcement. It could be an ESG M&A deal as it fulfils other criteria (which will be discussed under 2. 3. 4). However, from a pure industry perspective, it seems inappropriate to consider the acquirer's industry for the industry criterion as only the target's operations are transferred, which should matter for the classification.

In conclusion, using the industry as a criterion for the classification of a deal makes sense due to its objectivity and the industrial trends. It should not be applied by itself, as it is currently the case, but should instead be integrated into a framework with several other criteria as it adds value by simplifying the process due to its objectivity. Nevertheless, Refinitiv's approach seems to be too restrictive and too broad at the same time. On the one hand, it only regards renewable energies as a "sustainable" industry even though the recycling industry could be considered "sustainable" due to its contribution to the European Green Deal as well. At the same time, Refinitiv takes the target's as well as the acquirer's industry into account for the classification, which seems unreasonable for the abovementioned reasons. In contrast, Dealogic's approach to only consider the target's industry seems more reasonable with regard to the examples above. Therefore, the approach follows the correct intuition, but the criterion must be applied more appropriately.

[93] Refinitiv (2020).
[94] GMR Kamalanga: https://www.gmrgroup.in/kamalanga/?prophazecheck=1.
[95] International Energy Agency (2023b), JSW: https://www.jsw.in/energy/jsw-energy-plants-0.

2. 3. 2 ESG Ratings

When thinking about criteria to identify ESG elements in M&A, ESG ratings are probably the most logical choice: they measure the ESG risk that a company is exposed to, which might make one assume that they can also be used for M&A. Thus, it could be argued that if a company with a lower ESG score acquires a company with a higher score, it can automatically be classified as an ESG deal because the acquirer will be more sustainable from an ESG rating perspective after the acquisition. This method could be reasonable if ESG ratings were as accurate as credit ratings. However, as discussed in 2. 1. 3, the current quality and reliability standards of ESG ratings have yet to reach that level due to their divergence.[96] Thus, it is questionable whether ESG ratings should even be considered a criterion for categorising ESG M&A deals.

Due to the different approaches used by the ESG rating agencies, a clear divergence can be observed across ESG ratings. Even though, according to *interviewees 2* (p.14) *and 5* (pp-35-36), this is not necessarily a problem, it could potentially lead to many deals being erroneously categorised as ESG or non-ESG.[97] According to *Billio et al.,* the divergences are not subtle but can instead lead to substantial differences, such as in the case of Nissan, where Sustainalytics assigned a rating of 6 and RobecoSAM of 77 (both out of 100).[98] Furthermore, according to *interviewee 1*, ESG ratings would punish the extremely pollutive companies that have apparent issues with complying with ESG regulations and frameworks and would favour the ones with outstanding ESG performance. Companies with a medium ESG performance might try to boost their rating only by disclosing information that helps to achieve a good rating. Due to these circumstances, *interviewee 1* (p.11) doubts the accuracy of non-extreme cases in ESG in general but also in ESG ratings. Lastly, as *interviewee 3* (p.22) mentions, ESG ratings would still be used mainly by big corporates only, whereas smaller ones are usually, as it is not mandatory, still not rated.

However, applying ESG ratings as a criterion also offers several advantages. First, even though transparency has yet to reach desirable levels, ESG ratings are a precious instrument for understanding companies' degrees of ESG compliance. It can be seen as a "best guess" as it results from ESG analysts' work who are experts in the area. Besides, ESG ratings are, as of now, the only tool that allows market participants to compare the ESG performance of firms. Due to the attempt to quantify non-financial data, the ESG ratings facilitate the analysis of such data. Therefore, even though the ratings could be better, they should be considered a criterion for ESG in M&A according to *interviewee 5* (pp.31-33). In addition, *interviewee 2* (pp.12-13) mentions that it makes sense for ESG rating agencies to comply with specific standards such as GRI, so that they can ensure the rating’s accuracy. In addition, they can also

[96] Cash (2021).
[97] Dorfleitner et al. (2015).
[98] Billio et al. (2021).

be held more and more accountable. Increasing the importance of these standards could increase transparency as well as reliability. Lastly, ESG ratings are particularly beneficial for cross-industry transactions, as comparisons of ESG performances across industries are only possible with a more detailed analysis. As comparability across industries is the goal of ESG ratings, according to *interviewee 2* (p.13). It allows for intra-industrial comparisons as well and saves data providers from having to conduct these detailed analyses themselves.

Overall, despite the problems with ESG ratings, they represent a valuable resource for determining whether ESG aspects exist in M&A. Nonetheless, if these ratings are used to evaluate a deal's ESG compliance, there are several application options. One possibility would be to look at the absolute ESG score of the acquired company. The deal is an ESG deal as soon as the target’s rating surpasses a certain threshold or belongs to a certain "top X %" of companies in terms of the highest ESG score. Alternatively, one could look at the change in ESG rating when comparing the acquirer's score before the acquisition with the overall score after the acquisition. According to *interviewee 2* (pp.16-17), the second option also seems to display the transaction's impact appropriately as it compares the old company with the combined new entity after the acquisition, considering synergies from an ESG perspective. While this approach might sound reasonable, several problems are still connected to applying that method.

The first problem is availability and adaptability. For example, MSCI only reviews its scores annually or in case of exceptional circumstances, and according to *interviewee 5* (p.35), MSCI only creates “unsolicited” scores.[99] Hence, when a deal is announced, the updated ratings will likely not be available immediately. Even if the deal is perceived as sufficiently impactful to meet "exceptional circumstances", according to *MSCI*, evaluating the new group will take time. Obviously, a deal could still be named an ESG deal after several weeks or months, but in the fast-paced M&A environment, that does not seem very meaningful as few people will be interested. This availability problem was also confirmed by *interviewee 2* (pp.16-17). *Interviewee 5* (p.35) added that it might even be possible that the ESG ratings remain separate after the deal so that a common rating is never created and a change in the rating could not be determined. Furthermore, for companies with a high ESG score, it would be significantly more challenging to do ESG M&A as most acquisition targets might have equal or lower scores, making improving the initially high score more difficult. Thus, most deals would not be deemed ESG-compliant, even though they should be, as those companies' acquisitions will likely be more sustainable.[100] Lastly, if a very pollutive company acquired a company with a mediocre ESG score, the acquisition would most likely increase the ESG rating of the combined entity, making the deal an ESG M&A deal. In contrast, if

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[99] MSCI (2023a).

[100] Baird et al. (2023). The underlying assumption is that renewable energy companies have on average higher ESG ratings.

the company was acquired by a company with a high ESG score, it would not be regarded as ESG-compliant as it likely does not improve the ESG score. As it would be arbitrary and hard to explain why an M&A deal with the same target leads to an ESG-compliant acquisition in one and not in the other case, the change in the ESG rating seems to be not ideal for being used as a criterion, which is in line with interviewee 5's reasoning (pp.34-35).

The other criterion that could be applied is a fixed threshold or the target's top rating within "X% of the best-rated companies". On the one hand, it does not consider the potential additional positive effects on the ESG performance due to the transaction ("ESG synergies"). Moreover, *interviewee 2* (pp.16-17) explains that when the transaction takes place, it would not be clear whether the standards of the high-rated ESG target will be applied or whether the potentially lower standards of the acquirer will be kept. Consequently, even high ESG-rated companies would not guarantee better ESG performance after the deal. On the other hand, the criterion could be applied in the moment of the transaction as no post-acquisition effects need to be taken into account, solving the availability problem. In addition, a company's sustainability performance is then perceived as an absolute measure and does not depend on the scores of the acquirer before the deal. Lastly, the "difficulty" of performing ESG M&A would not depend on the pre-transaction rating (a high rating makes it more difficult, a lower rating easier) and would be equal for every company. Hence, it would be significantly harder for specific industries, such as oil and gas, to do ESG M&A because these companies tend to have lower scores. That could contradict the reasoning of equal chances for all companies above. However, it is reasonable as specific industries are clearly polluting from an environmental perspective and can only become ESG-compliant if a complete transition is undertaken, which requires transformative M&A.

In conclusion, considering the change in the rating seems to give a realistic view of the impact of the deal. Nonetheless, it should not be implemented due to the lack of availability combined with the problematic relative approach, potentially leading to confusion. Therefore, even though it does not take the post-acquisition changes into account, the threshold approach seems more appropriate to implement. A fixed threshold could either be applied as an absolute score or of a specific "top X %" of companies in terms of the best ESG score the target needs to belong to.

If a specific absolute threshold is applied, the criterion is independent of developments in the overall ESG ratings (e.g. average ESG rating score drops significantly). It also means that at any point in time before the deal, it could be distinguished whether a deal is ESG-compliant. This would also be interesting from a bank perspective in case a company explicitly wants to do "ESG M&A". *Interviewee 5* (pp.33-34) compares this approach with the "ESG leaders" index published by MSCI for equity and fixed income purposes, which groups the ESG leaders with a rating above a certain threshold into an index. *Interviewee 5* (pp.33-34) believes that applying the same idea in M&A would be plausible. A dynamic threshold, e.g. the best 10% from an ESG perspective, could be a good alternative as it would automatically adjust the threshold to the current market circumstances. Nonetheless, the relative evaluation makes the result again dependent on other companies' scores, leaving more room for interpretation (e.g. threshold could be calculated at signing or closing). Thus, the fixed threshold seems to be the easiest and least manipulatable solution for ESG ratings (as the threshold stays the same as long as no material changes occur).

Another factor further complicating the ESG rating criterion arises when the term "the ESG rating" is used: Due to the problem of divergence when dealing with ESG ratings, there is not one correct score that should be used. It could be the score that Sustainalytics publishes, the MSCI rating, or even another one. It could also be the average of all available scores, or it could always be a different one depending on the industry. According to *interviewee 1* (pp.4-5), MSCI and Sustainalytics are the most reliable ESG ratings, as most others are usually too regionally focused, making it impossible to use them for comparisons. Furthermore, they would be more likely to be biased as they are easier to manipulate. *Berg et al.* also propose two solutions: either taking only one rating or the average. However, they suggest that if a "consensus ESG performance" is supposed to be found, the average should be taken as it indicates the average market perception.[101] *Interviewee 2* (p.14) raises another issue: the importance of considering the methodology of the different rating agencies to ensure comparability. Consequently, in the case of M&A, the average of the leading ESG rating agencies (MSCI, Sustainalytics) could be applied as these two assess ESG from a financial materiality angle and consider thus the financial impact of ESG risks as the most important.

Overall, according to *interviewee 5* (pp.32-33), the ESG-rating criterion is a criterion that should be applied to classify ESG M&A deals. Even though the measure is not perfect due to the described problems and cannot be applied as a criterion on its own because it is almost solely limited to larger companies, it still provides an orientation of a specific company’s ESG standing. Thus, the criterion should be applied on an absolute base: A deal is a sustainable M&A deal as soon as a target has a specific absolute rating.[102] The target’s rating is determined by taking the average of at least the two most important ESG rating providers to create a consensual measure. In addition, another advantage of the criterion is that, according to *interviewee 5* (pp.33-34), ESG ratings allow to apply an industry-independent perspective, as the focus is on industry leaders and not only on green industries. This is important as some industries would be excluded otherwise.

Nevertheless, this paragraph also shows the high degree of complexity around the topic of ESG ratings and the necessity of regulatory intervention. *Billio et al.* call it a “new, insufficiently regulated […] sector”.[103] Consequently, a lack of new regulations could lead to a shrinking or even disappearing

[101] Berg et al. (2022).
[102] A specific value for the threshold could not be calculated due to the lack of freely available data.
[103] Billio et al. (2021), p.1427.

industry, as the added value of ESG ratings might be insufficient.[104] For these reasons, according to *Cash*, regulation is needed so that rating agencies can access high-quality information, which is essential for the rating quality. In line with *interviewee 2's* reasoning (p.15), it could be an idea to make the GRI Standards (or similar standards), which are widely accepted, a mandatory disclosure standard for all companies' sustainability disclosures. Hence, the work of rating agencies would be facilitated as one common definition and standard would be applied so that the data quality could be increased, as all agencies would use the same data basis.

2. 3. 3 Regulatory Frameworks

The number of regulatory frameworks in sustainable finance has increased over the last years, as shown in chapter 2. 1. 2. Companies must comply with more regulations supposedly fostering sustainable economic development. One of them is the aforementioned EU 2030 Climate and Energy Framework in which all EU member states commit themselves to emission targets for 2030. Compliance with these regulations could also be a valuable source of information to distinguish the existence of ESG characteristics in an M&A deal. The question underlying the criterion would be whether the deal brings the company closer to reaching regulatory goals. Or, to make the question more specific for this exemplary case, whether the company becomes more environmentally friendly so that it can comply with the net zero targets as a consequence of the deal.

This criterion makes intuitive sense as a deal that creates a positive environmental impact should also be considered an ESG deal. *Interviewee 1* (pp.9-10) agrees and compares this criterion with the ESG rating criterion. ESG ratings are primarily a reflection of disclosures and especially take a company's future ESG strategy into account. Thus, ESG ratings are mainly about what the company claims it will do, which is not necessarily equivalent to what it is really doing. According to *interviewee 1* (pp.9-10), this is when the regulations criterion comes into play as it is about what the company actually does and how it impacts its environment. Following this reasoning, this criterion would lower the risk of greenwashing because a company that is operating in line with the EU Taxonomy and improving its performance in line with the 2030 Climate and Energy Framework is much less likely to undertake greenwashing activities than one that only discloses its (future) activities.

Sustainable aviation fuel and the airline industry is an excellent example to illustrate this criterion. If an airline acquires a company producing sustainable aviation fuel to use it for its own operations, the emissions resulting from the airline's operations will be significantly reduced, bringing it closer to its

[104] Cash (2021).

2050 net-zero targets.[105] So far, such a transaction has yet to take place, but United Airlines has recently made a USD 5m investment into the startup Viridos, developing algae biofuels.[106] United Airlines has also invested an equity stake in ZeroAvia, a company developing hydrogen engines.[107] In the context of this transaction, United Airlines explicitly mentions the positive impact of this transaction for the company to reach its net zero goals. Another reason why an acquisition targeting compliance with ESG regulations should be used as a criterion could be that the attempt itself undertaken by the company to reduce its emissions can already be seen as an ESG-compliant deal as the firm intends to comply with standards due to the deal. The "adherence to conventions" is one of the criteria of the PRI standards mentioned by *Inderst and Stewart*.[108] However, this reasoning should not be generalised: not every deal supporting compliance with specific regulations is ESG-compliant; it should only be the case if the regulation is ESG-related.

Nevertheless, the regulatory framework criterion shows significant interdependency when considering the press release criterion (discussed in 2. 3. 4). If a company acquires a target that brings it closer to achieving its net zero goals, it will most likely disclose it. Thus, the press release criterion will be fulfilled, and it might even fulfil the ESG-rating criterion as such companies usually have a high ESG rating because of their sustainable activities. In the opposite case, the question could be raised how it would be possible to determine whether the company improved its compliance with ESG regulatory targets if it does not disclose the positive environmental impact of the acquisition. It seems unlikely that external parties (e.g. data providers) would be able to do so without internal information from the acquirer and a significant effort. Moreover, as in the airline industry deal described above, the improvement of the company's performance is only visible over time. Hence, the availability problem faced when looking at the ESG rating criterion is also relevant here. The actual impact can only be observed retrospectively. Lastly, the regulations are often regionally constrained. The example above was related to the European framework, which does not apply in other regions.

However, the unbiased and "true" impact that the criterion measures should play an essential role in the classification of ESG M&A. The intuitiveness of the criterion was also confirmed by the interviewees (e.g. interviewee 3 (p.22)), who mentioned "emissions" as one of the first criteria. The existing availability problem at the moment of the transaction can be overcome by verifying the credibility of the estimated reduction published by the company’s communication department. The deal could be considered ESG-compliant if it is credible, even though the improvement has yet to be realised.

As a side note, it is worth mentioning that in the reasoning above, the examples mainly considered the

[105] The underlying assumption is that the airline had yet to use sustainable fuels before and will only increase the usage and the production as a result of the acquisition.

[106] United Airlines (2023).

[107] United Airlines (2021).

[108] Inderst & Stewart (2018).

environmental dimension for simplicity reasons, as the environmental aspect is usually the easiest to explain. However, the same would apply to deals that refer to the social or the governance element (more detailed information regarding that topic under 2. 5).

2. 3. 4 Press Releases

Press releases are usually issued whenever both parties perceive the likelihood of the deal going through is high enough. Most of the time, this happens between signing and closing, but sometimes also already before the signing (for example, if the information were leaked and companies want to clarify the current status of the negotiations). Both sides issue the press release, and often, they publish the same content in case of a friendly takeover. Thus, the official deal announcement from the companies' side informs their stakeholders about changes in the companies' structure. However, it is questionable whether the press releases are sufficiently reliable to become a valuable resource for the ESG classification of M&A deals.

On the one hand, press releases are sometimes considered "cheap talk"[109] as it is a less regulated form of company statement compared to, e.g. ESG reporting or annual reports. The more pronounced usage of terms emphasising the added value of the transaction can even lead to negative abnormal returns, making it seem quite unreliable as investors seem to distrust that information.[110] Companies cannot necessarily be legally held accountable for what they publish in those statements, and apart from more general regulations such as the Market Abuse Regulations in Europe, there is little regulation on those communications, which is why the added value is questionable.[111]

On the other hand, the deal announcement is an official company statement regarding the deal rationales. Consequently, it could be an essential document for the classification as the company will likely reason why it has undertaken the acquisition and show how the target should be integrated into the overall strategy. The importance of this criterion is also shown by an example given *by interviewee 2* (pp.17-18): they raise the question of whether the deal is ESG-compliant if Patagonia buys H&M. Patagonia is generally perceived as a role model regarding sustainability and ESG performance in the fashion industry, whereas H&M has experienced several scandals in the past related mainly to the social dimension, leading to a pretty negative reputation.[112] According to *interviewee 2* (pp.17-18), it could have a positive impact (and could thus be an ESG-compliant deal) because it would be likely that Patagonia would try to use its influence on H&M and improve the ESG performance of the combined

[109] Wittington et al. (2016).
[110] Vastola & Russo (2019).
[111] European Parliament and Council (2014).
[112] Butler (2016).

entity by applying its standards to H&M. As a consequence, the combined entity would be likely to be more ESG-compliant than the two separate entities, which would mean it could also be an ESG-compliant deal. However, when applying the criteria one to three, the deal would not be considered ESG-compliant: H&M is active in the fashion industry, which is not generally regarded as ESG-compliant, the ESG rating of H&M would likely not be above the threshold, and it would not bring Patagonia closer to reaching its regulatory targets. That is when the press release criterion would come into play: in case of an acquisition in the context of which the acquirer buys a significantly less ESG-compliant company, the company would have to reason why it is undertaking such a transaction to get the public approval and the approval from their shareholders. If it undertakes the acquisition for ESG reasons, following the slogan "Do good and talk about it", the acquirer would most likely mention the advantages for the target accompanying the acquisition and how it aims to ensure positive development from an ESG perspective. Thus, using press releases as one of the criteria could be beneficial as it would recognise another sub-group of ESG deals that none of the abovementioned criteria would cover. In the following, six examples related to different ESG-compliant factors mentioned in deal announcements will be presented.

When looking at the environmental dimension, a deal could be ESG-compliant because of the increased usage of renewable energies as a consequence of the deal. Suppose a deal leads to the replacement of fossil fuels with renewable energy. The deal can be considered ESG-compliant as it helps the company to improve its performance regarding net zero goals. An example is the acquisition of ABO Wind, a company specialising in renewable energies, by Repsol, a Spanish energy company, in 2023.[113] Repsol explicitly mentions the amount of emissions that can be avoided due to the acquisition (which would also fulfil the industry criterion). Similarly, a deal could also be ESG-compliant if the deal announcement implies a change in or an extension of the business model so that it becomes more sustainable relative to the situation before the deal. Uber's acquisition of Social Bicycles is an excellent example of that.[114] With the help of the acquisition, Uber aims to reduce the environmental impact through less congestion and pollution, improving the environmental dimension of the business. Interestingly, Uber even accepted a cannibalisation effect for this acquisition as promoting electric bikes could lead to fewer people booking car rides, underlining the idea that this deal includes an ESG component. Another aspect that could lead to an ESG-compliant deal is the improvement of waste management due to the deal. An example could be the acquisition of Riwald Recycling by ArcelorMittal, due to which the acquirer could significantly reduce the carbon intensity of its products, which Arcelor quantifies with 35% (which would also fulfil the industry criterion).[115] Moreover, the protection of biodiversity is

[113] Repsol (2023).
[114] Uber (2018).
[115] ArcelorMittal (2022).

another crucial dimension. When the acquisition fosters biodiversity protection, it can lead to an ESG-compliant deal. To give an example for that case, Miura Partners, a Spanish PE fund, has acquired a significant stake in Tierra, a company focused on creating green spaces and maintaining biodiversity.[116] The importance of biodiversity protection for the deal is mentioned several times in the corresponding press release.

When focusing on the social perspective, companies usually do not reason that a particular deal, e.g. improves their diversity or gender equality. For those factors, the impact is usually indirect. An example is the acquisition of Marshall, a provider of e-learning software, by Ciphr, a British software-as-a-service provider.[117] The press release explicitly mentions the high relevance of the diversity and inclusion (D&I) solutions that offer potential for future revenue growth. In this deal, the ESG aspect is indirect: it does not improve the social aspect of the acquirer, but it will likely improve the social dimension from a global perspective as the acquirer will foster the distribution of the D&I software. Thus, it can be considered an ESG-compliant deal based on the press release criterion. Another aspect related to the social dimension is the relation to customers. An example of an acquisition focusing on the customer's health is the acquisition of WhiteWave, a US-based producer of plant-based and organic food and beverages, by Danone in 2016.[118] With the acquisition, Danone expanded its sustainable and healthy product lines and consequently increased the share of those products in its overall revenues. Fulfilling the social criteria through increasing or promoting customers' health and taking over social responsibility, the acquisition is mainly driven by sustainability reasons. According to *Emmanuel Faber*, Danone's CEO at that time, the acquisition was also in line with Danone's product portfolio, hence passing the credibility check.[119]

For these six cases, the motivation is either explicitly stated by the company or can be inferred from the reasoning, showing the relevance of the press release criterion. When looking at the number of deals per category, it becomes apparent that environmental aspects and, to a smaller extent, social elements dominate the ESG-compliant deals due to the press release criterion. For the governance dimension, this is more complicated as companies would likely not reason with the independence of the supervisory board from the management, even if this was the case. In addition, these structures and mechanisms are usually developed internally and can hardly be acquired externally. Consequently, the press release criterion relates primarily to the environment and, to a lesser extent, to the social dimension.

Due to the credibility problem regarding press releases, companies' tendency to greenwash could lead to the false classification of a deal as an ESG deal, making the criterion easy to manipulate. Prominent

[116] Miura (2023).
[117] Ciphr (2023).
[118] Danone (2016).
[119] Danone (2016).

examples are the current deals of oil and gas firms divesting their most pollutive assets. Even though companies such as ExxonMobil, Total Energies, RDS, or BP are reasoning with the transition towards a greener economy, these divestitures cannot be deemed ESG-compliant (more details in chapter 2. 4). Thus, for all deals in which a company acquires a target for "ESG reasons", the credibility of the reasoning must be investigated. The credibility check should evaluate the reasoning in the context of the company's overall strategy. As companies could be incentivised to receive the ESG classification, the default case should be that a deal is not ESG-compliant so that false classifications are prevented. The deal is only considered ESG-compliant if there is credible proof that the deal would fulfil the criterion. In case of uncertainty, the classification as an ESG-compliant deal should be denied.

2. 3. 5 Public Annual Statements

In the current regulatory environment (taking the CSRD into account), companies with a specific size (500+ employees) must disclose ESG data annually. Most companies do so in the context of their ESG report, in a separate file, or a section of the annual report. The report could be an excellent source of information, primarily when the CSRD is implemented, which is mandatory for many companies in the EU as it further standardises ESG reporting across companies.[120] Furthermore, because of the EU Taxonomy combined with the CSRD, there are clear guidelines on what companies can label as "ESG" in their reports and which information they need to include. When all companies comply with the CSRD in 2024, that information could be a valuable source for ESG data because the regulation makes the reports comparable and more reliable than before. Moreover, the fact that the ESG reports must comply with the CSRD is also a significant advantage of the criterion compared to the press release criterion, as press releases are not falling under the directive and thus seem less reliable and offer more leeway for manipulation and greenwashing. An exemplary acquisition that was mentioned in an ESG report is Heidelberg Materials' acquisition of the RWG Group, a firm focused on recycling and the circular economy (the deal was already mentioned above in chapter 2. 3. 1). The company reasons with "strengthening its range of circular materials to meet the increasing demand for sustainable building materials."[121], proving that ESG is one of the factors driving the deal. Thus, one could argue that ESG reports help identify ESG in M&A.

Nevertheless, despite their quality and reliability, one practical problem is the reports' availability. Similar to the ESG ratings, a company does not publish a report for every deal individually but only once per year. The annual publication would be sufficient for a deal announced right before the report is published but could mean that the classification can only be done several months after the transaction

[120] European Parliament and Council (2022)
[121] Heidelberg Materials (2023), p.193.

has been executed for other deals. This time lag seems insufficient as the M&A area is a fast-paced environment, as described in chapter 2. 3. 2, where such classifications that are available right away are a lot more valuable. This view is confirmed by *interviewee 5* (pp.34-35). In addition, it would also cause operational challenges for the data providers as they would have to classify all deals within a short time as (non-) compliant. In contrast, they would not be able to classify anything throughout the year due to the lack of data. Besides, the press release and the annual public statement criterion seem somewhat redundant as both represent the company's official communication regarding a deal. However, the press releases are not as reliable but instantly available in exchange. Nevertheless, even though the CSRD does not apply, the content of press releases will likely overlap with that of the ESG reporting as companies would otherwise have to justify why two pieces of information about the same event diverge. As a result, the reliability of the press releases might be indirectly increased because of the CSRD as well.

Due to their reliability and comparability, ESG reports could be a valuable criterion for identifying ESG elements in M&A. However, because of the annual rhythm of their publication and the resulting time lag between the announcement of the deal and the classification, the ESG report does not seem to be able to play a significant role in the framework. Therefore, ESG reports should not be included as an independent criterion. Nevertheless, as shown in chapter 2. 6. 1, ESG reports can serve as a valuable retrospective control mechanism (as part of the "credibility criterion") for the press release criterion in case of uncertainty about the classification of a deal. Consequently, they are indirectly included in the framework as well.

2. 3. 6 Due Diligence

The final criterion to consider is whether the ESG framework's impact in specific steps during the M&A process can constitute a suitable criterion. Paragraph 2. 1. 4 shows that ESG elements extensively impact the acquisition process. The ESG framework does not only lead to the performance of an ESG DD, but it also influences the pricing, the SPA, and the final decision.[122] The following will evaluate the suitability of that impact to be used as a criterion for ESG in M&A. The paragraph focuses on the role of the ESG DD and whether a deal can be classified as an ESG deal because a company conducts an ESG DD.

According to *Gihr*, 65% of companies are today conducting an enhanced ESG DD when analysing the risks of a company.[123] This shows the DD's great relevance in analysing ESG risks and opportunities related to the deal. Due to this relevance, the DD could also be a suitable criterion for the ESG M&A

[122] PwC & PRI (2012).
[123] Intralinks (2022).

framework, as in the context of an ESG M&A deal, an ESG DD will undoubtedly be conducted. Furthermore, it is a very objective "tick-the-box" criterion, which leaves little leeway for manipulation. In addition, it facilitates the work of the data providers as they do not have to dive deeper into the details of the deal to understand whether it is an ESG deal. The realisation of an ESG DD also reveals the consciousness of ESG aspects of the company, which considers them for the final decision. The acquirer wants to have detailed information on the ESG factors of the company before executing the deal so that the acquirer could also stop the deal in case ESG requirements are not met.

However, there are also several problems connected with applying the existence of an ESG DD as a criterion. The first one is related to a survey result presented above: if 63% of the companies are conducting an ESG DD, it would mean that roughly the same share of transactions is ESG-compliant. This high number does not seem realistic when comparing it with the (too) low one-digit percentage numbers that Dealogic and Refinitiv publish.[124] Even though more and more companies are trying to be more sustainable, such a high number has yet to be reached. Therefore, the criterion seems unsuitable as many ESG-conscious deals would be categorised as ESG M&A deals even though they are not. One could even think further and argue that the opposite could be true: when a company conducts an ESG DD, it suspects that ESG risks could exist because the main reason for a DD is to understand the risks of a company to take them into account when it comes to a buy or do not buy decision and the pricing.[125] Thus, conducting an ESG DD should be seen as proof that the buyer considers ESG factors, or as *interviewee 4* (p.25) phrases it, that the company wants to be aware of all ESG risks. However, that does not mean that these factors drive the deal. *Interviewee 3* (pp.23-24) confirms this idea and explicitly states that it is not useful to do an ESG DD in renewable energy, which is also why they have little experience with these DDs. According to *PwC*, companies doing ESG-driven deals potentially also conduct an ESG DD, which shows that in both types of transactions, in ESG-conscious and ESG-motivated deals, ESG DDs could be conducted.[126] This distinction is the last reason ESG DDs should not be considered a criterion: in the global M&A report 2022, *Baird et al.* clearly distinguish between an ESG-conscious and an ESG-motivated M&A deal.[127] An ESG-conscious deal refers to deal processes during which ESG elements are deemed a factor for the analysis and hence for the DD of the target. Nonetheless, ESG aspects are not the actual deal driver that pushes the company towards the acquisition. This type of deal receives more attention as many companies try to assess the ESG consequences of a particular acquisition to avoid negative surprises or disappointed shareholders. According to *PwC*, ESG concerns could arise in all deals, not only those that actually see ESG as a

[124] Dealogic (2022a), Rothnie (2022).
[125] Bonnitcha & McCorquodale (2017).
[126] PwC (2023).
[127] Baird et al. (2023).

driver.[128] The latter type of deals is called "ESG-motivated" deals, where the motivation for the acquisition stems from ESG topics such as reducing emissions or improving the social impact of the company's product. An example could be the acquisition of Lily's, a company specialised in the production of low-sugar products, by The Hershey Company, in the context of which Hershey's explicitly mentions the complementary strategy function of the acquisition (more regarding the function of press releases under 2. 2. 4).[129] When thinking about the characteristics of an ESG M&A deal, one would typically think about the ESG-motivated and not about the ESG-conscious deal. Lastly, the data availability is problematic: unless extraordinary findings lead to changes in the valuation (significant risks or opportunities found), a company does not necessarily publish the fact that it conducted an ESG DD. Hence, the criterion will be challenging to assess.

Overall, the ESG DD criterion seems not sufficiently suitable and reliable for determining ESG in M&A. Due to the difficulty of differentiating between an ESG DD conducted in the context of an ESG-conscious deal and an ESG DD conducted in the context of an ESG-motivated transaction, the reliability of the criterion seems too low to be of added value. The ESG-motivated deals will be identified using other criteria, whereas the ESG-conscious deals are majoritarian not supposed to be categorised as ESG M&A.

As a side note, the same would be true for deals in which ESG elements are part of the SPA through reps and warranties or the guarantees mentioned by *interviewee 6* (p.41). Those reps and warranties often represent a downside risk protection if there are, e.g. existing uncertainties regarding the pollution of the ground. The existence of such “insurances” is often a sign of an ESG-conscious deal as the buyer considers ESG a potential risk and hedges against it. Still, it is not necessarily a driving factor and, thus, not necessarily an ESG M&A deal.

2. 4 Exceptions and Special Cases

After considering different potential criteria, some special cases and exceptions must be discussed to understand the proposed framework's structure.

The first exception that must be addressed is the divestiture of pollutive assets or a pollutive part of the portfolio. Due to the rising pressure on companies from shareholders and international agreements, such as the Paris Climate Agreement or the Energy and Climate Framework, to focus more and more on ESG topics, the divestiture of pollutive or ESG-risky assets is currently an often-observed deal type.[130] Examples are the divestiture of Nigerian onshore oil assets over the last years by oil

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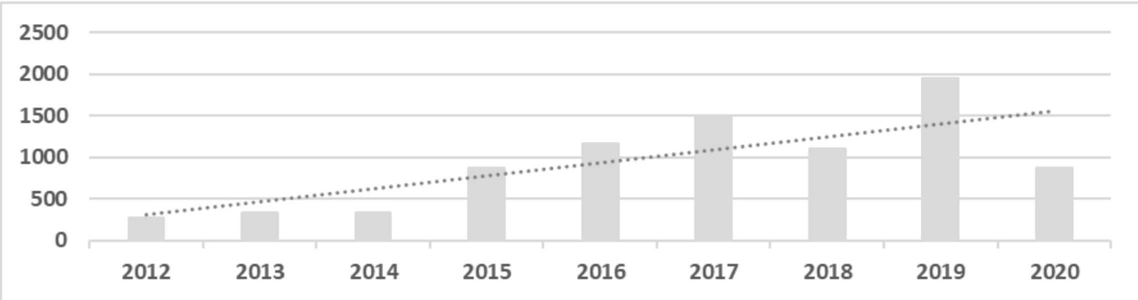
[128] PwC (2023).
[129] The Hershey Company (2021).
[130] See Appendix 5 for overview of all deals, including several divestitures of oil companies.

companies such as ExxonMobil or RDS, Total Energies' divestiture of its gas station portfolio in several European countries in 2023, or BHP's divestiture of coal assets located in Australia in 2022.[131] These examples show the great relevance of this exception in the current business environment. This relevance can also be quantified. Figure 6 shows the steady increase in the average divested pollutive asset deal value since 2012, illustrating the increased importance. Moreover, according to *The Economist*, the oil and gas industry aims to divest an overall sum of USD 128bn in the upcoming years, emphasising the great relevance of the topic in the near future.[132]

Figure 6: Average Deal Value of Divestitures from 2012 - 2020 (in USD m)



Source: Sustainability or Greenwashing: Evidence from the Asset Market for Industrial Pollution (2022).

There are two potential solutions for classifying this kind of deal. On the one hand, the deal could be ESG-compliant. On the other hand, if the deal was, for some reason, not considered ESG-compliant from the buyer's perspective, it could still be a one-sided ESG-compliant deal as the seller divests pollutive assets and consequently lowers its negative impact on the environment.

To illustrate this exception, the merger between the Australian-based energy company Woodside, which specialised in the exploitation of oil and liquid natural gas, and BHP's petroleum arm, an Australian-based mining company and one of the leading global exploiters of iron ore, is taken as an example. After the merger in 2022, the combined entity became one of the top ten oil and gas firms worldwide.[133] After the deal was announced, the *Australian Financial Review* reported the negative consequences for Woodside from an ESG perspective and the positive outcome for BHP as it would be open to a more significant share of investors due to its better ESG compliance.[134] Hence, BHP ensures lowering its environmental impact and further moving towards goals set in, e.g. the Paris Agreement, by divesting its petroleum arm. This environmental improvement shows the importance of the ESG framework in the context of this transaction. It is even likely that this merger can be considered an ESG-motivated deal, especially if, as reported by the *Australian Financial Review,* for ESG compliance reasons, the divestiture of the petroleum arm was a condition set by Vanguard and BlackRock in order

[131] Royal Dutch Shell (2021a), ExxonMobil (2022), BHP (2022a), Total Energies (2023).
[132] The Economist (2022).
[133] Reuters (2022).
[134] Australian Financial Review (2021b).

to retain investors.[135] Therefore, when following the reasoning from section 2. 3. 4, this deal would be regarded as an ESG M&A deal as the ESG motives of BHP that are driving the deal also seem to be reasonable because the company retains or even broadens its investor base and lowers its low-carbon transition risk as mentioned in the annual report 2022.[136] In addition, the lowered emissions resulting from the sale could lead to a better ESG rating of BHP, which would fulfil another criterion. However, it is questionable whether such a deal is in line with the idea of the ESG framework so that it should be deemed ESG-compliant. The title of the UN report *Who cares wins*, which is perceived as one of the cornerstones of the ESG concept, already gives a clue: BHP cares about the deal on hand. The company cares about the capital inflow, which can be enlarged because of the broader investor base, ensuring the availability of financial means for investment projects in the long term.[137] It also cares about the emissions created by the company and, thus, about actual sustainability aspects. But this type of "caring" does not seem to align with the meaning the UN intended. When looking into the UN report's details, one of the critical aspects is the "contribut[ion] to the sustainable development of global society"[138] and "the sustainable development of the planet"[139]. When interpreting "care" from this perspective, BHP does not seem to care in the way the UN report meant it. BHP's sale does neither lower the total emissions nor the environmental impact created by the former petroleum arm of BHP, the remaining business of BHP, or Woodside. Thus, it is a zero-sum game regarding environmental impact, which *interviewee 4* (pp.26-27) also confirms for this type of deal. As the environmental aspect was the driving factor, social and governance elements do not seem to justify an ESG categorisation of the deal. One could even go one step further and say it is worsening ESG compliance: the asset manager Romano Sala Tenna raises the question of whether "we want that oil being produced by companies that are large, […] transparent, that have good corporate governance and good rehabilitation track records, […] or do we want those oil assets in the hands of companies that do the opposite?".[140] *Interviewee 1* (p.7) discusses the same issue and states that from an ESG perspective, it is most likely more sustainable to have the exploitation done by a large, regulated corporation that must publish its ESG data (as this company will do its utmost best to reduce the pollution) than by an unregulated private company that has only a few incentives to act sustainably. *Duchin et al.* confirm this idea in their report and state that buyers would usually be private companies, and the emissions after the deal would, on average, remain at least the same.[141] This might not play a role in the case on hand as both companies are large, public entities and are thus obliged to disclose ESG data. Another good example

[135] Australian Financial Review (2021a).
[136] BHP (2023).
[137] Australian Financial Review (2021a).
[138] UN Global Compact (2004), p.19.
[139] UN Global Compact (2004), p.21.
[140] Australian Financial Review (2021b).
[141] Duchin et al. (2022).

would be the divestiture of Nigerian onshore oil assets by global energy companies that were sold to local companies. A report by *The Washington Post* shows the dramatic consequences of such divestments as Nigerian companies seem unable to operate the business at the same ESG standards as the former owners.[142] The result is a polluted environment and the destruction of the basis of the existence of the local community, thus clearly showing a deterioration of the environmental and social factors. One of the reasons is the lack of ESG disclosure obligations for those companies, which is why they do not have the incentive to act more sustainably. Thus, privatising pollutive assets could be another vital factor to consider.

To generalise these findings: a divestiture of pollutive assets should not be regarded as an ESG M&A deal even if the underlying deal drivers are deemed ESG-motivated. Or as Larry Fink, CEO of BlackRock, puts it: the sale of oil assets would be pure "window dressing"[143]. Consequently, such a transaction can also not be categorised as a one-sided ESG M&A deal from the seller's perspective, as ESG must be analysed from a global perspective rather than from an isolated company's view.

However, the question could be raised how the deal would have to be classified if BHP had decided to only sell the petroleum arm to Woodside under the condition of increasing energy efficiency by, e.g. implementing the latest technology. Alternatively, similar to the first case, if BHP had sold the platform under the condition that it is decommissioned sustainably within the next five years, even though the exploitable oil reserves BHP could have used would have lasted longer. Both examples are fundamentally different from the actual situation because they have one aspect in common: BHP would, in both cases, ensure the more sustainable operations of the oil platform after the sale. The zero-sum game mentioned above would no longer be a zero-sum game, as the emissions could be reduced or even eliminated. Hence, BHP would ensure that the emissions of its operations, including the part for sale, are lower than before the sale. Consequently, the two cases should be seen as an exception to the exception: the divestiture of pollutive assets could be seen as an ESG M&A deal if, and only if, the seller ensures the more sustainable operation or the environmentally and socially conscious decommissioning of the platform. One could argue that it is difficult to determine whether those conditions are embedded in the contract. However, the fact that companies and especially those owning pollutive assets are keen on publishing their ESG efforts might solve this issue. In the case that such an agreement existed, it would most likely be included in a press release.

The last case to consider is how to classify the deal if BHP had committed itself to use the sale's proceeds for sustainability purposes, such as investing in creating renewable energy sources for its mining operations. In the short term, the zero-sum game from above is still applicable as the business is continued. However, in the longer term, BHP's reinvestment of the proceeds will improve the overall

[142] Chason (2023).
[143] Hosking (2021).

environmental impact. Thus, *interviewee 3* (p.24) confirmed that under these assumptions, it could be an ESG M&A deal because only due to the sale, the investment and hence the environmental improvement was possible. The issue with this categorisation is that it is questionable at the closing of the deal whether the seller will actually stick to its commitment as it might not be legally binding. To fulfil the criterion, the seller must be bound to a certain degree to the commitment so that the likelihood that the investment is eventually made is sufficiently high. In addition, it is unclear whether the investment will be successful and efficient and, if so, when it will have an effect. Therefore, this exception is more challenging to assess and is prone to manipulation through a pretended ESG orientation. Nevertheless, the same as for the "sale under conditions" applies: if such an intention exists, it will be published and can be investigated.

Overall, the question of whether divestitures of pollutive assets can be considered an ESG-compliant deal does not have one universal answer. Nevertheless, it should usually be categorised as non-compliant for both seller and buyer. It cannot generally be classified as an ESG deal for both sides because the buyer worsens its ESG impact, and it cannot be a one-sided ESG deal from the perspective of the seller either, as it is a zero-sum game and the sole improvement of the company's emissions does not improve the overall impact. The only existing exceptions are that if the seller ensures the more sustainable operation of its assets after the sale or explicitly mentions that the proceeds of the sale will be used for sustainable projects, the deal can be seen as an ESG M&A deal as the overall impact is lowered.

2. 5 Focus on Social and Governance Aspects

When asking whether a particular deal is ESG-compliant, it is assumed that all three dimensions are equally considered in the analysis. However, as becomes apparent when looking at the criteria presented above and especially when reading through the exemplary deals, the current focus is often on the environmental dimension. Only a few criteria also apply to the social dimension; almost none applies to the governance element.

There are several reasons for that state. The first reason is the nature of the two dimensions. As described by *interviewee 5* (pp.29-30), both dimensions are less tangible than the environmental aspect, making it harder to identify them. Moreover, the governance dimension is mainly about the managerial structure and the company's control systems that ensure that the management acts with integrity and in the best interest of the shareholders. Those aspects can hardly be acquired as such structures are implemented within the company. For the implementation, service providers might be commissioned but not a whole company is acquired.[144] To a similar extent, the same applies to the social dimension: diversity, labour standards, human rights, or customer satisfaction cannot be acquired and are difficult to be improved through acquisitions. In contrast, assets related to the environmental dimension (e.g. wind farms) are often externally acquired, and whole industries such as renewables or recycling are related to the topic. Moreover, as described by *interviewee 2* (p.17), the change in the ESG elements is hard to determine before an acquisition occurs as it is unclear which standards will be applied after the acquisition, the ones of the acquirer or the ones of the target. Thus, while the current status of the social and governance dimensions can be evaluated, the impact of M&A is hard to predict and can hence hardly serve as a source of motivation for a deal. This reasoning is in line with *interviewee 1's* (p.4) opinion, who states that sustainable finance is mainly about the environmental aspect and, to a lesser extent, the social facet depending on the macroeconomic and political circumstances. This opinion is confirmed in the area of M&A, as the governance aspect can barely be identified, and the social element can only be identified to a limited extent. *Interviewees 3* (pp.21-22) *and 4* (pp.25-26) confirm this opinion by not mentioning additional ideas on how to identify social and governance factors but by only talking about why these factors are essential.

Nevertheless, as with the press release criterion, when considering the social element from a broader perspective so that it also integrates the community and clients, it can be identified in a few cases (e.g. Uber deal).[145] After such an acquisition, the company can likely be deemed more ESG-compliant than before. Besides, the ESG-rating criterion also covers the social and governance dimensions. However, the difficulties with the criterion were explained above. Therefore, it is questionable how reliably these two dimensions can eventually be measured.

Overall, as described above, even though the environmental dimension seems to dominate ESG-compliant deals, there are a few ways also to identify social and governance elements. Here, the ESG rating criterion could be a particularly valuable resource.

2. 6 Proposed Framework

2. 6. 1 Evaluation of Factors and Proposed Framework

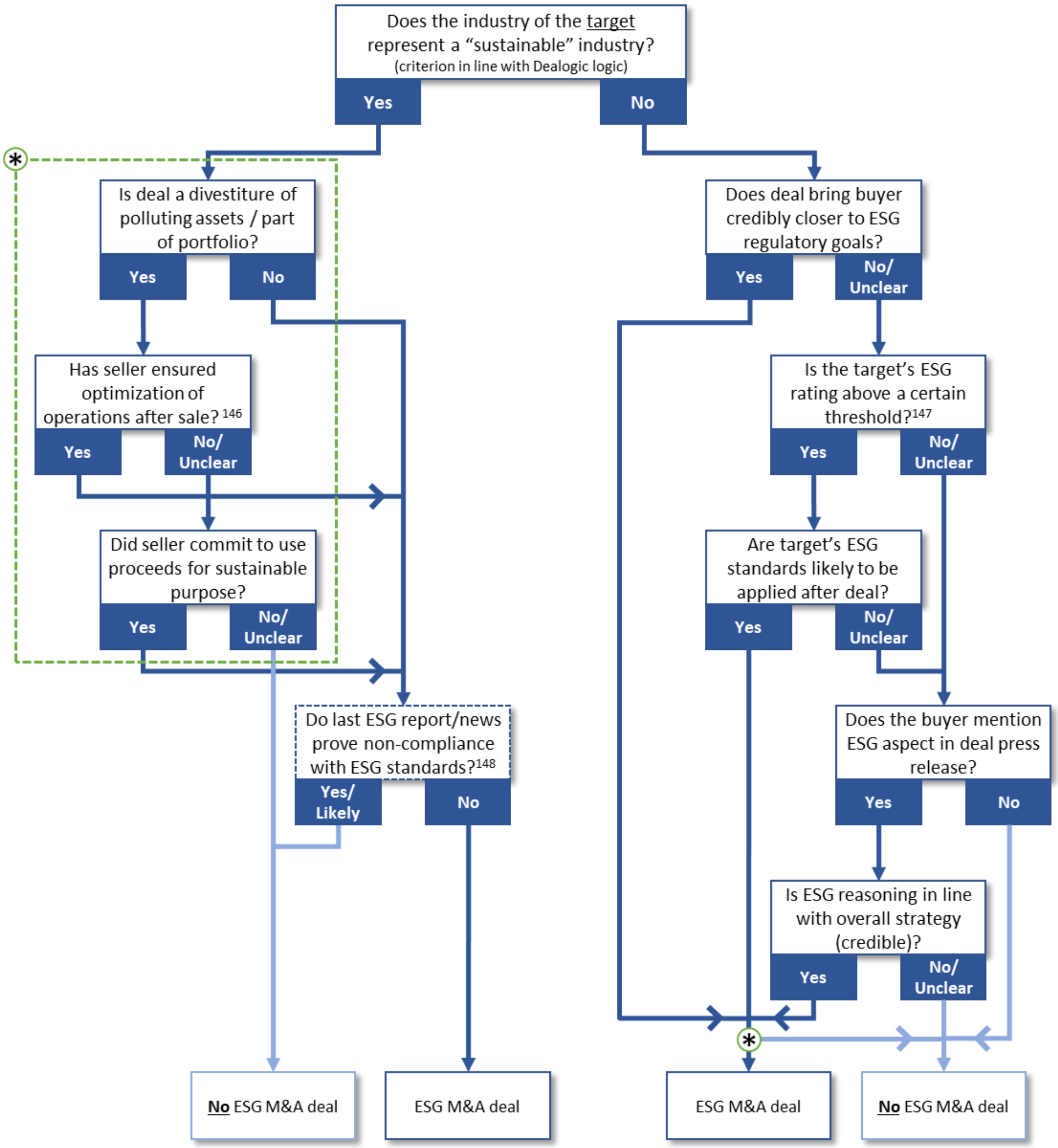
After the analysis and evaluation of the potential criteria above, in the following the criteria are integrated into the proposed framework to show how the criteria could be implemented (see Figure

[144] The acquisition of a service provider to implement ESG-compliant structures would be a hypothetical example that would fulfil the press release criterion, but it seems unlikely.

[145] In line with IFC (2011).

7). The specific position and function of each (sub-) criterion will be explained, and the framework's functioning will be shown by presenting two exemplary deals.

Figure 7: Proposed Framework



Source: Own analysis

[146] Optimisation from a sustainability perspective.
[147] As explained in chapter 2. 3. 2, average of major rating agencies is applied.
[148] Only for the target.
* The asterisk framed with the green circle around it indicates that the "pollutive divestiture" criteria (inside the green box) must be applied before the deal is considered ESG-compliant. If the deal does not fulfil those criteria, it is not an ESG M&A transaction.

As described in chapter 2. 3, the industry, the regulatory framework, the ESG rating, and the press release criteria are suitable for evaluating whether a specific deal is ESG-compliant. In contrast, the existence of an ESG DD and public regulatory statements such as ESG reports are not appropriate for this purpose, which is why these two do not appear in the framework shown above.

The first criterion is the industry criterion. It is the only one already applied by Refinitiv and Dealogic. There are several reasons why this criterion appears in this specific position at the top of the framework. First of all, it is the most objective one. It leaves little leeway for greenwashing as the industry codes are assigned before the transaction based on objective criteria independent of the transaction but dependent on the company's overall business model. In addition, it reduces the effort for the data providers, which is likely one of the reasons why it is currently applied: the data providers do not have to look into the details of each deal, such as the ESG ratings, to verify ESG compliance. Thus, much time can be saved because many deals are classified almost without analysing the transaction's nature. Nevertheless, primarily due to the doubts mentioned by *interviewee 6* (pp.40-41), an additional verification criterion is added to ensure that non-ESG-compliant companies in “sustainable” industries are excluded. Moreover, considering only the target's industry, the industry criterion in this framework is in line with Dealogic's approach but stricter than Refinitiv's. However, as explained above, the industry criterion is not necessarily sufficient by itself: deals also need to fulfil the sub-criteria. If the deal occurs in a sustainable industry, it is only an ESG deal if it is not a divestiture of pollutive assets. Even if it is a divestiture, there are two ways through which the transaction nonetheless could be ESG-compliant: either the seller ensures that the asset is optimised from a sustainable perspective, or the seller commits to use the proceeds for an ESG-compliant purpose that has a positive effect on the overall ESG-compliance. The seller must have a certain degree of commitment, meaning that the criterion is only fulfilled if the probability that the seller keeps up their commitment is sufficiently high. Only when fulfilling at least one of these two conditions the deal is ESG-compliant.

If the target is not active in a sustainable industry, the deal can still be considered ESG-compliant if the transaction fulfils one of the other criteria. The second criterion is the regulatory framework and ESG goal criterion. According to *interviewee 1* (p.9), the criterion measures "what is underneath". Thus, the "true" improvement of the company's ESG performance is the first criterion evaluated after the industry criterion. Most goals are related to the environmental dimension, so the deals fulfilling this criterion are mostly environmental-related. Nonetheless, measuring only the improvement is insufficient as deals like the divestitures by oil and gas companies would be included. Consequently, ESG compliance needs to be confirmed with the same sub-criteria that also apply to the industry criterion so that pollutive divestitures are excluded.[149] This way, a "true improvement" can be distinguished from a pretended improvement.

The subsequent criterion is the ESG rating criterion, which, as described above, must be treated with caution. It has the potential to become a valuable criterion in the future. However, the different approaches ESG-rating agencies apply make it challenging to assess whether any improvement is observable due to the deal. The evaluation of that criterion with a specific threshold, as explained in chapter 2. 3. 2, seems the most suitable approach. However, the approach should be seen as a temporary solution and could be subject to change in case the ESG-rating industry develops tools allowing for a better comparison. Moreover, even if the ESG rating criterion is fulfilled according to the rules explained in chapter 2. 3. 2, it does not necessarily indicate an ESG-compliant deal right away. The deal also needs to fulfil a condition that prevents a misleading classification brought up by *interviewee 2* (pp.17-18). If a low ESG-rated company acquires a high-rated company, it can only be an ESG deal if the higher standards of the target are likely to be applied. Therefore, any communication in the context of the deal (e.g. deal announcement) would have to be considered to clarify this uncertainty. With this criterion, transactions in which the ESG framework did not play any role in the process and in which the high target's ESG rating is more coincidental can be filtered out. In such a deal, the likelihood that the target will eventually lead to higher ESG compliance would be reasonably low. Therefore, a classification as ESG-compliant would not be justifiable. If this criterion is fulfilled, the deal must comply with the "pollutive divestiture" criteria as well, even though it seems unlikely that a high ESG-rated company is a pollutive asset.

Lastly, the press release criterion is applied. The potential leeway for manipulation is much higher for this criterion because the deal announcements are not as tightly regulated as other corporate communications. Consequently, the criterion takes over a "last resort" function. If no ESG compliance is observable due to the three criteria mentioned above, the company can prove the ESG motivation with its press release. This "last resort" function could motivate companies to mention advantages of the acquisition stemming from ESG aspects that are not actually existent so that the deal is considered an ESG deal. As such practices are not supposed to lead to an ESG M&A deal, the press release criterion is also followed by a sub-criterion, the "credibility criterion": only if the acquisition and the reasoning are clearly in line with the overall strategy and, more specifically the ESG strategy of the company, the deal can be considered ESG-compliant. In case of doubt, the deal should not be classified as an ESG M&A deal to prevent greenwashing. Here, the ESG reporting criterion also comes into play. As soon as the CSRD is applied, ESG reporting will represent a reliable source of information. In case of doubt about a classification, it could be confirmed with the ESG report (which may take up to a year).

[149] The asterisk framed with the green circle around it (as explained above).

As a side note, the criteria related to the regulatory goals and the press releases must always be considered from the acquirer's and the seller's sides. E.g. in the case of a pollutive divestiture, the seller usually improves its ESG performance by reducing total emissions. It needs to be evaluated whether such a reduction justifies an ESG classification.

The following paragraph applies the framework to two exemplary deals: the first is RDS's divestiture of its Permian business to ConocoPhillips, a US-based energy producer focusing on oil, for USD 9.5bn in 2021.[150] The Permian basin is located in Texas and has big oil reservoirs that RDS extracted before the divestiture. The other example is the acquisition of Vectura, a UK-based pharma company focused on inhalation and related medical devices, by Philip Morris International, a US-based tobacco company, for GBP 1.1bn in 2021.[151]

When looking at RDS's deal, the Permian business is not a sustainable industry as it is a US oil business. Furthermore, the acquisition will not bring ConocoPhillips closer to ESG goals such as net zero. Whether the acquisition will bring RDS closer to net zero goals could be affirmed as the divestiture significantly reduces RDS's emissions. Thus, the pollutive divestiture criteria need to be investigated. The divestiture of the Permian business is a divestiture of pollutive assets for RDS. In addition, RDS does not mention that it has ensured any form of optimisation from a sustainable perspective after the sale. Moreover, it explicitly mentions in the press release that it will use the sale proceeds to pay a dividend and strengthen its balance sheet, which is not necessarily a sustainable purpose as it cannot be determined what the shareholders will use the money for. Thus, the deal should not be considered an ESG M&A deal.

The acquisition of Vectura by Philip Morris does not fulfil the industry criterion either. The healthcare industry can, in some cases, be sustainable, but this classification cannot be generalised. The regulatory framework and ESG goal criterion are not fulfilled either. It is not mentioned explicitly in the press release, and the deal is unlikely to reduce the emissions of the acquirer. Whether Vectura's ESG rating of "A" by MSCI is sufficiently high to fulfil the ESG rating criterion depends on the exact threshold definition.[152] Therefore, the ESG rating criterion cannot be positively answered in this case. Nevertheless, the deal can still be classified as an ESG M&A deal. Explicitly revealing the underlying ESG considerations of the transactions, the deal announcement shows that Vectura is part of Philip Morris' "Beyond Nicotine" strategy, which should fundamentally change the company's business model. As a result, the credibility criterion is also fulfilled. As Vectura used to be an independent company, the "pollutive divestiture" criteria do not apply, and the acquisition can be classified as an ESG M&A deal according to the proposed framework.

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150 Royal Dutch Shell (2021b).
151 Philip Morris International (2021), Reuters (2021).
152 Vectura (2021).

Overall, the presented framework summarises the criteria proposed in chapter 2. 3. It aims at reducing the effort on the data provider's side by keeping the industry criterion as the first criterion and extending it with criteria allowing transactions not executed in "sustainable" industries to be ESG-compliant. At the same time, it minimises the risk of greenwashing by implementing credibility and pollutive divestiture criteria. The latter is a typical greenwashing activity, especially in today's oil and gas M&A market.[153] This way, far more deals are considered than with the current frameworks, and a more realistic market volume of ESG M&A deals could be determined.

2. 6. 2 Implementation Steps and Fields of Application

When comparing Appendix 4 and Figure 7, contrasting the current decision trees implemented by Dealogic and Refinitiv and the proposed framework explained in chapter 2. 6. 1, the significantly increased complexity becomes apparent. The more sophisticated framework also means data providers will face a significantly higher workload when implementing it. Consequently, the following implementation steps are recommended.[154]

First of all, a team consisting of ESG analysts would have to be formed that takes over the responsibility of classifying the deals. To facilitate the work, a standardised information request should be prepared that would ideally be filled out by the bank reporting the deal. The data provider should request additional information, including the ESG rating of the target, the official press release, and whether, in the case of pollutive assets, the seller has committed to using the proceeds for sustainable purposes or the buyer has committed to optimising the assets from a sustainable perspective. The ideal (and maybe unrealistic) situation would be that the bank provides every piece of information. Nevertheless, as the bank is incentivised to provide this information because it is more likely to be highly ranked in ESG league tables if it provides more information, there is reasonable hope that the banks will cooperate. Any piece of information not provided by the bank needs to be complemented by information gained through research conducted by the data provider. Then, the criteria should be evaluated one by one. In case of uncertainties, the deal should be considered non-ESG-compliant and could be flagged and rechecked with the annual ESG report at the end of the fiscal year. As described in chapter 2. 3. 5, a decreased uncertainty could be achieved due to the more tightly regulated annual report. This way, an ESG classification for M&A deals could be established.

The fields of application for this classification are diverse and show the high relevance of this paper’s topic. Two main presentation forms of the data exist: individual deals labelled as ESG-compliant or league tables, a bank ranking depending on the banks’ advised deal value or the number of ESG-

[153] Duchin et al. (2022).

[154] The following steps could not be discussed with data providers and are based solely on assumptions.

compliant deals.

The focus on a single deal could be of interest to several stakeholders. First, it could be interesting for the acquirer and seller themselves. Before the deal is executed, the transaction can already be classified as (non-) compliant with high certainty, which is particularly helpful for companies pressured to demonstrate high ESG compliance. Thus, the classification can serve as a “go/no-go” criterion for buyers or sellers. A company divesting pollutive assets could, e.g. decide not to sell to a specific bidder because the bidder does not commit to any sustainability optimisation efforts. Vice versa, the bidder could decide not to buy the company because the seller does not commit to using the proceeds for investing in sustainable projects. Furthermore, after the transaction is executed, it allows companies to disclose their ESG efforts, which is proven to have a significantly positive impact on the company's valuation and performance and is an important marketing aspect, according to *interviewee 6* (pp.41-42).[155] In addition, as ESG-compliant companies tend to have a lower cost of capital, firms will be keen on presenting the classification to boost their ESG ratings.[156] According to *interviewee 5 (p.34)*, these favourable (acquisition) financing conditions due to the ESG classification are especially important for pollutive industries undergoing a radical industrial transition, for which significant investments are required. Due to the superior performance of ESG-compliant companies, investors are another stakeholder group that is likely to be interested in the classification. They aim to identify investment targets that meet their selection criteria or find firms with potentially superior performance because of their ESG practices. A company with strong ESG M&A activities could be an interesting target for these investors. Lastly, banks would also be interested in those individual classifications as they could, similar to the involved companies, demonstrate their commitment to supporting the ESG movement and use it as a factor underlining their ESG efforts in their PRB reports. Additionally, banks might also be interested in monitoring the deals for potential future relationships with the seller or buyer because a company's ESG orientation can significantly impact credit risk and interest rates.[157]

League tables are the other form of using the deal information. They are created by grouping the ESG deals according to the banks involved in each deal. League tables can be of particular interest to companies as they can identify highly ranked banks that are likely to be experts in the ESG field, which can be a potential source of trust.[158] For banks, league tables are an essential instrument to differentiate themselves from their competitors to build trust and a sustainable competitive advantage, as the ranking of a bank in league tables is linked to its future performance.[159] It could also lower the regulatory pressure on banks to engage in ESG activities, as *interviewee 6* (pp.37-38) describes. Besides,

[155] Bofinger et al. (2020).
[156] Fernandez & Elfner (2015), Clark et al. (2015).
[157] Henisz & McGlinch (2019).
[158] Boussard et al. (2019).
[159] Derrien & Dessaint (2018).

ESG M&A league tables would allow banks to create incentive structures for their executives linked to those ESG rankings, which could foster sustainable M&A activity. Lastly, regulators could also use the league tables and overall figures on the development of ESG in M&A to determine whether companies' sustainability efforts are sufficiently strong or whether new regulations are required to foster the focus of ESG factors in M&A.

Overall, the efforts required to classify all M&A deals as (non-) ESG compliant represent a real challenge for data providers. Nevertheless, when coordinating the process well with the banks involved, the increased effort could be shared, and both parties could profit. Moreover, the classification would lead to more ESG data that could further improve the framework and potentially lead to a shift towards ESG investments.

2. 6. 3 Fields for Further Research and Regulatory Initiatives

On the one hand, due to the broad nature of the topic and the limited scope of this paper, not all aspects could be analysed with the required depth. Three main fields offer possibilities for research to be conducted. The first one concerns international regulations related to the ESG framework. This paper focuses solely on deals that fall under EU regulation, such as the EU Taxonomy, SFDR, or CSRD. These regulations do not apply to companies located outside of the European Union. Thus, researching how regulations of other jurisdictions could be included would complement the research and extend the framework's scope. Nevertheless, due to the industry, the ESG rating, and the press release criterion, deals from other jurisdictions can broadly be classified with the proposed framework. The second field of complementary research opportunities exists for ESG ratings. Due to the lack of accessibility to detailed ESG data, an in-depth analysis of the exact threshold and the ideal method for taking a single rating or the average of a few ratings could not be determined. Thus, future research should investigate the options for implementing the ESG rating criterion. Lastly, as the availability of M&A managers working in dedicated ESG teams willing to answer questions related to the topic was limited, further research should discuss the ideas with a larger sample of managers to get more feedback, potentially enriching the framework further.

On the other hand, several fields of action were identified that could strengthen the importance of ESG elements and improve the standardisation of the framework, particularly in M&A. The first and most fundamental one is the continued improvement of the standardisation, specification, and uniformity of the definition of the ESG framework. Regulatory changes would not only increase the difficulty of undertaking greenwashing activities, but they would also reduce the uncertainty in the market, ensuring that investors can rely on the ESG-related information published by the companies. According to *Gihr*, the diversity of regulations creates issues as companies must comply with diverging regulations, and the EU Taxonomy is the first important step towards regulatory convergence. However, it can only be the start of a broader standardisation initiative.[160] Furthermore, in M&A, it would facilitate the work of data providers concerned with classifying deals. If these data providers could apply a globally standardised framework, it would significantly reduce the difficulty of classifications. On top of that, ESG ratings could further converge as they would start from the exact fixed definition of ESG, further increasing transparency.[161] According to *Cash*, this standardisation is required to strengthen and prevent the ESG rating industry from failing.[162] Lastly, if the effort is undertaken to create the ESG classification, banks could leverage it to foster their ESG exposure. As described in chapter 2. 6. 2, an incentive structure linked to the ESG framework could help bankers to further focus on ESG aspects and thus contribute to the required shift in the M&A advisory sector. Annual quotas for the number of ESG-linked deals could be implemented, which will then affect the compensation of the concerned managers.

3 Conclusion

The paper shows the large discrepancy between the awareness of the ESG framework, which has risen particularly since the 2000s, and the ESG classification efforts made in the field of M&A. On the one hand, researchers and interviewees are aware of the significant influence of ESG aspects during the M&A process, especially during the DD phase, the SPA negotiations, and the final decision-making. On the other hand, even though the ESG framework is an essential topic in newly applied regulations such as CSRD, SFDR, or the EU Taxonomy, researchers, as well as interviewees, have yet to develop innovative ideas for the classification. The current mechanism is based solely on the industry of the target (for Refinitiv: target and acquirer), which is inappropriate for getting a realistic understanding of the ESG influence on M&A. The recently published one-digit percentage number of the ESG deal volume out of all M&A activity seems to confirm that the currently applied frameworks do not reflect and underestimate the actual impact ESG elements have on M&A when comparing it with numbers from surveys conducted.[163] This thesis proposes a framework that includes several criteria aiming at capturing all ESG-related deals without leaving any leeway for greenwashing. The main criteria of the framework are the industry of the target, the ability of the acquirer or seller to get closer to ESG targets as a consequence of the acquisition, the ESG rating of the target, and the content of the deal announcement. In contrast, the existence of an ESG DD and the annual ESG reporting are not suitable for the classification of a deal. Sub-criteria verifying the credibility and the medium to long-term effects

[160] Intralinks (2022).
[161] Berg et al. (2022).
[162] Cash (2021).
[163] Deloitte (2023a), Intralinks (2022).

of the acquisition complement the main criteria to prevent greenwashing. By conducting interviews and reviewing prior research, it became apparent that researchers and practitioners still need to develop a more sophisticated approach to classify M&A deals as ESG (non-) compliant. Therefore, the proposed framework is supposed to be seen as an advancement of the existing model. Nevertheless, additional M&A managers should be consulted before implementing the model to verify the framework's structure and include potential improvements.

Furthermore, as described in chapter 2. 6, the additional workload to create such a classification is large. Significant additional human resources and an extended collaboration between banks and data providers are required to assess the vast number of M&A deals executed annually, which reached almost 50,000 transactions globally in 2022.[164] Nevertheless, the potential benefits from this classification are also significant because it clearly defines and quantifies the ESG efforts of companies and banks. An ESG classification could motivate the M&A advisory industry to further shift towards advising mainly on sustainability-oriented deals by creating incentive systems for its executives to remain or even become highly ranked within the ESG league tables, which is essential for their competitive position and performance in the long term. The increased focus of M&A advisors on sustainability topics could lead to companies emphasising their ESG exposure in the context of M&A transactions. Moreover, this shift could force companies in pollutive industries to develop ideas on how to divest their assets sustainably, avoiding the unsustainable divestitures that result in natural disasters in countries such as Nigeria. The increased amount of ESG data could, due to the higher interest in ESG topics in M&A, also allow investors to make more informed investment decisions related to sustainability and to reduce the uncertainty and information asymmetry between managers and investors about ESG topics.

Overall, the advantages of creating the classifications seem to outweigh the significant additional effort required, which is why implementing a new, more sophisticated framework is recommended. Nevertheless, further research and new regulations are required to create a more precise definition of the ESG framework, which will help companies understand which actions are required to comply. However, it is not only about new regulations but also about the required standardisation of regulations, allowing companies to abide by all regulations. Lastly, the regulatory alignment that has already been started with applying the EU Taxonomy would strengthen the ESG rating industry as the currently diverging results could converge, creating increased trust in the ratings and making them also a more critical factor for ESG classification in M&A.

[164] IMAA (2023).

Appendix

Appendix 1: Overview criteria weights MSCI [165]

The table shows the diversity of factors included in ESG ratings for exemplary industries. The underlined factors are the ones that are identical across the industries.

Industry	Environmental	Social	Governance
Industrials	**22.5%** (Opportunities in Clean Tech (10.3%), Toxic Emissions & Waste (5.7%), Carbon Emissions (4.6%), Biodiversity & Land Use (1.2%), Raw Material Sourcing (0.4%), Opportunities in Green Building (0.2%), Water Stress (0.1%))	**31.8%** (Labour Management (15.2%), Health & Safety (7.5%), Human Capital Development (3.0%), Privacy & Data Security (2.9%), Product Safety & Quality (1.9%), Community Relations (0.9%), Chemical Safety (0.3%), Consumer Financial Protection (0.1%))	**45.5%** (Governance (45.5%))
Healthcare (Sub-sector: Pharmaceuticals)	9.4% (Toxic Emissions & Waste (8.8%), Water Stress (0.6%))	**57.3%** (Product Safety & Quality (27.1%), Human Capital Development (18.2%), Access to Healthcare (11.9%), Chemical Safety (0.2%))	**33.3%** (Governance (33.3%))
Financials	**10.5%** (Financing Environmental Impact (7.2%), Climate Change Vulnerability (1.9%), Carbon Emissions (1.4%))	**52.2%** (Human Capital Development (18.9%), Privacy & Data Security (11.2%), Consumer Financial Protection (8.7%), Access to Finance (7.7%), Responsible Investment (5.7%))	**37.1%** (Governance (37.1%)

[165] MSCI (2023b).

Appendix 2: List of interview partners

- Senior Associate Investment Banking (interviewee 1)
- Research Expert ESG Rating Agency (interviewee 2)
- M&A Director Renewable Energies (interviewee 3)
- M&A Director Renewable Energies (interviewee 4)
- Vice President ESG Rating Agency (interviewee 5)
- E&S Legal Risk Expert Investment Banking (interviewee 6)

Appendix 3: Interview Template

For all interviews: (with interviewees related to M&A)

1. ESG in general:
    - What is ESG/Sustainable Finance for you? What are the main criteria? Where in Finance is it most important at the moment?
    - How reliable are ESG ratings? Do they allow for appropriate comparisons among companies? (potentially extend the question: could they be applied in M&A?)
2. M&A specific:
    - How do you see the importance of ESG in M&A as we advance? What is the current status? What are the drivers?
    - What distinct features have you experienced in M&A transactions that are ESG-related? What do those transactions have in common?
    - Which criteria would you apply if you wanted to find out whether a specific deal is ESG related? Which information would you consider? (e.g. financial, non-financial)
    - How would it be possible to determine whether "S" or "G" are concerned?
    - How can regulations such as the EU taxonomy, the CSRD (Corporate Sustainable Reporting Directive), or initiatives such as the Paris Climate Agreement help to identify ESG in M&A?
    - Are there any industries besides renewable energy that you would consider "ESG" compliant in general?
    - Could a divestiture that is performed in order to create a better ESG rating/achieve a specific ESG regulation ever be an ESG deal? (to illustrate: Dong Energy sold its upstream oil and gas business to Ineos in 2017; Total Energies is about to sell its gas stations in Germany and Netherlands to Couche-Tard for $3.3bn)
        - Is it an ESG deal for only one side? (is that even possible?)

For interviews with banks:

- How do clients currently see the importance of ESG in M&A? Do they always include the ESG aspect in their press releases?
- During which steps of the M&A process does ESG have the most influence?
- What is the impact of a special deal to be classified as an "ESG" deal? (underlying question: what are the incentives to have a high number of ESG deals?)
    - What is the incentive for the bank?
    - What is the incentive for the company

For interviews with ESG rating agencies:

- How do you see the importance and impact of the ESG framework on company's investment decisions today?
- How do you see the importance and impact of ESG ratings on company's investment decisions today?
- Compared to credit rating agencies, ESG rating agencies rely a lot more on non-financial information and consequently more on qualitative information, making it potentially harder as it is related to interpretation. How do you ensure that the ratings are still accurate?
    - Which data sources do you use?
- Do ESG ratings allow for comparisons among companies across industries?
- When looking at the three factors, is there one that is more or less important as of now?
    - Is one more difficult to analyse than the other?
- Do you see the divergence of ESG ratings as a problem? Do you think the high number of players is an advantage or a disadvantage?
- Which ideas would you have on how to solve this divergence issue? Or create a higher transparency in the industry?
- Would you say that ESG ratings could be used in M&A? Where would you say could they be applied?
- What would be an ESG M&A deal be for you?
- What do you say about the criticism that some ESG ratings "can be bought"?
- Currently, I have two options in mind on how to integrate ESG in M&A. Which one would you prefer and why?
    - Option 1: Has the ESG rating increased thanks to the deal (inferring: is the ESG rating of the target higher than that of the acquirer?)? Yes → ESG M&A deal
    - Option 2: Is the ESG rating of the target above a certain threshold? Yes → ESG M&A
        - Option 2a: fixed threshold
        - Option 2b: company belongs to e.g. top 10% of companies

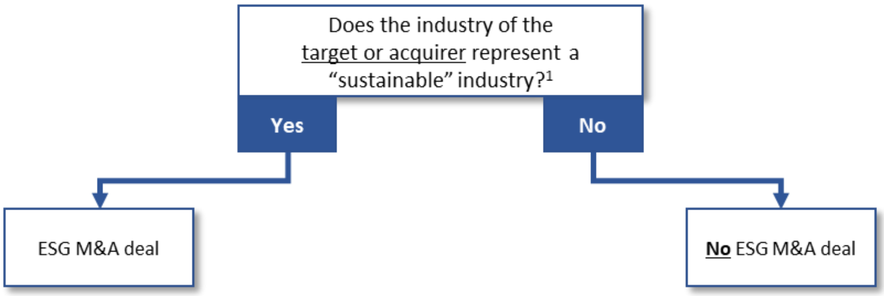
For interviews with ESG experts:

- How do you see the importance and impact of the ESG framework on companies today?
    - More specifically: on company's investment decisions?
- Do you think there is an industry that tends to be by nature ESG-compliant?
- How reliable is ESG reporting today?
    - How reliable do you think are official press releases and deal announcements?

- When analysing ESG risks, do you take ESG ratings into account? How much value add do they offer?
- Do you think that new disclosure regulations such as CSRD or SFDR will improve the quality? Is there even additional regulation required?
- Where in the M&A process have you experienced an impact of ESG?
- How do you think could an identification of ESG in M&A help companies?

Appendix 4: Current ESG criteria in place at Refinitiv and Dealogic

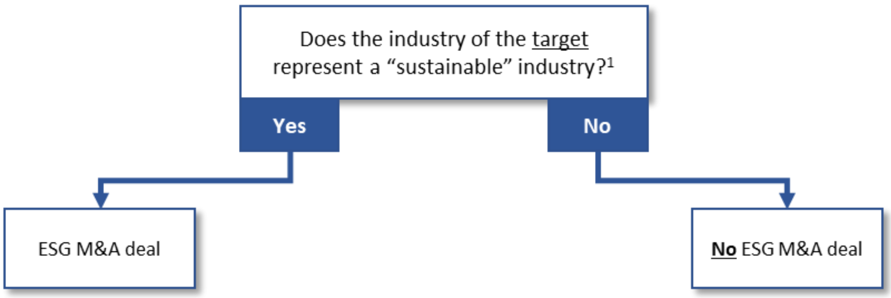
Refinitiv:



Footnotes: (1) A "sustainable" industry is defined by both data providers as a company active in the field of renewable energy. Only companies with a specific industry code are hence considered.

- Relevant industry codes:
    - 5410201023 Organic Farming
    - 5020101010 Renewable Energy Equipment & Services (NEC)
    - 5020101012 Stationary Fuel Cells
    - 5020101011 Wind Systems & Equipment
    - 5020101013 Photovoltaic Solar Systems & Equipment
    - 5020101014 Thermal Solar Systems & Equipment
    - 5020101015 Biomass Power Energy Equipment
    - 5020101016 Waste to Energy Systems & Equipment
    - 5020101017 Hydropower Equipment
    - 5020101018 Wave Power Energy Equipment
    - 5020101019 Renewable Energy Services
    - 5020101020 Geothermal Equipment
    - 5310101014 Electrical (Alternative) Vehicles
    - 5020102010 Renewable Fuels (NEC)
    - 5020102015 Hydrogen Fuel
    - 5910101011 Renewable Utilities
    - 5910102010 Independent Power Producers (NEC)
    - 5910102012 Renewable IPPs
    - 5020102011 Biodiesel
    - 5020102012 Ethanol Fuels
    - 5020102013 Pyrolytic & Synthetic Fuels
    - 5020102014 Biomass & Biogas Fuels
    - 5220301015 Carbon Capture & Storage
    - 5320301014 Sustainable & Energy Efficient Home Builders

Dealogic:



Footnotes: (1) A "sustainable" industry is defined by both data providers as a company active in the field of renewable energy. Only companies with a specific industry code are hence considered.

- Relevant industry codes
  - Renewable Energy: Geothermal
  - Renewable Energy: Biomass
  - Renewable Energy: Solar
  - Renewable Energy: Wind
  - Renewable Energy: Tidal
  - Renewable Energy: Hydroelectric
  - Renewable Energy: Biofuel
  - Renewable Energy: Diversified

Appendix 5: Overview of all deals

Deals are sorted by the year and alphabet.

Deal (Year)	ESG-compliance	Reasoning	Deal Announcement
Danone acquires WhiteWave (2016)	**Yes**	Danone extends its healthy product portfolio because of the acquisition	Danone (2016)
Uber acquires Social Bicycles (2018)	**Yes**	Press release Part of long-term strategy to make business model more sustainable	Uber (2018)
Vestas acquired SOWITEC group (2019)	**Yes**	Industry Target a company in the renewable energy industry, complementing Vestas' portfolio	Vestas (2019)
JSW Energy Ltd. acquired GMR Kamalanga Energy Ltd. (terminated in 2020)	No	Target's main asset is a coal plant, only acquirer is sustainability-oriented	Financial Express (2020)
BASF bought significant stake in Hollandse Kust Zuid (2021)	**Yes**	Industry/Regulatory goals Wind farm is improving BASF's energy mix and reducing the emissions	BASF (2021)
The Hershey Company acquires Lily's confectionary brand (2021)	**Yes**	Press release Hershey explicitly mentions the strategic fit with Lily's as a low sugar producer, improving the health aspect of its products.	The Hershey Company (2021)
Philip Morris acquires Vectura (2021)	**Yes**	Acquisition part of acquirer's long term "Beyond Nicotine" strategy, improving the "S" dimension of its products	Philip Morris International (2021)
RDS divests interest in Nigerian oil asset (2021)	No	Divestiture does not improve situation in Nigeria. Washington Post article shows worsening of situation.	Royal Dutch Shell (2021a)
RDS divests its Permian business to ConocoPhillips (2021)	No	Even though reducing RDS's emissions, it does not reduce overall emissions as no operational improvements are foreseen.	Royal Dutch Shell (2021b)
United Airlines bought equity stake in ZeroAvia (2021)	**Yes**	Regulatory goals/Press release Target is focused on hydrogen engines, allowing for alternative power engines in the future	United Airlines (2021)

ArcelorMittal acquires Riwald Recycling (2022)	**Yes**	Industry/Press release Acquisition reduces the carbon intensity of acquirer's operations significantly	ArcelorMittal (2022)
BHP divests coal assets in Australia (2022)	No	Coal assets are simply transferred to Stanmore SMC Holdings, no sustainability improvement of operations	BHP (2022a)
ExxonMobil divests equity stake in Mobil Producing Nigeria Unlimited (2022)	No	Divestiture does not improve situation in Nigeria. Washington Post article shows worsening of situation.	ExxonMobil (2022)
Heidelberg Materials acquired RWG Holding GmbH (2022)	**Yes**	Industry Target is specialised in recycling, acquisition in line with overall sustainability strategy	Heidelberg Materials (2022)
United Airlines invested into Viridos (2023)	**Yes**	Regulatory goals/Press release Investment into startup concerned with biofuels, potentially improving CO_2 impact in the long-term	United Airlines (2023)
Woodside has merged with BHP's petroleum arm (2022)	No	The petroleum business was simply transferred to Woodside, no improvement in overall emissions. Proceeds are supposed to be used for dividends, not for sustainable purposes.	BHP (2022b)
Ciphr acquired Marshall (2023)	**Yes**	Press release Acquisition supposed to foster D&I software sales	Ciphr (2023)
Miura Partners acquired Tierra (2023)	**Yes**	Press release Target is focused on protection of biodiversity	Miura (2023)
Repsol acquires ABO Wind (2023)	**Yes**	Regulatory goals/Press release Acquisition significantly reduces emissions caused by Repsol	Repsol (2023)
Total Energies sells Dutch and German gas stations to Couche Tard (2023)	No	After the divestiture, the gas stations will remain in operation, Total will likely still supply them, overall not reducing total emissions.	Total Energies (2023)

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