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Abstract

The amount of anthropogenic greenhouse gas emissions has seen a substantial increase the past decades resulting in record-high CO₂-levels in the atmosphere. In an effort to reduce emissions, several organizations established guidelines to achieve net zero emissions by 2050. The World Resources Institute and the World Business Council for Sustainable Development established The Greenhouse Gas Protocol in 1998, which required every participating company to report direct and indirect emissions. Its goal is to reach net zero emissions by 2050, and it rapidly became one of the most adopted protocols in the world.

Due to its global significance, it was desired to analyse the impact the Protocol has had on investment companies. In this thesis, we looked at certain investment companies whose primary source of income has been the oil and gas industry. These investment companies need to refocus their investment strategy to meet the emission targets. In this thesis, the following research question was derived:

“How can investment companies adhere to the Greenhouse Gas Protocol while maintaining their profit and risk profiles?”

Three focus questions were analysed to further reveal what options the investment companies have. Their potential for future performance through the methods described in the Protocol was discussed, as well as new methods highlighted in this study. In addition, the Protocol was put into question to whether it will suffice in order to meet net zero emissions by 2050. The results were based on qualitative measures conducted through interviews with three investment companies and presented with the support of a quantitative overlay.

The study highlighted the importance for the investment companies to reduce emissions, and how these positive effects will be significant for their reputation and competitive advantage. However, the guidelines in the Protocol cannot predict profit and risk profiles due to its lack of future forecasting. In this study, a new method of reporting gives the possibility of making predictions by its ability to forecast future outcomes. The significance of this, is how it potentially can increase investment companies' profitability. In conclusion, maintaining profit and risk profiles while adhering to the Greenhouse Gas Protocol is possible through new methods of reporting.

Preface

This thesis marks my final study at the University of Stavanger, concluding my Master of Science in Industrial Economics, with a specialization in Investment and Finance. The emphasis of this thesis was to address the impact that the Greenhouse Gas Protocol has on investment companies' efforts of maintaining their profit and risk profiles. Throughout the research period, I have learnt a great deal about investment companies, and the ongoing sustainable development. In addition, I have met inspiring people along the way, with great intentions of contributing to a better environment.

I would like to thank the participants representing the investment companies, who willingly contributed to the thesis. Without their inputs and reflections, this thesis would lose its purpose.

I would also like to thank my supervisor at the University of Stavanger, Knut Erik Bang, for his guidance and help during the process, and Frida Layti, for always contributing with good help when I needed it.

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Maria Poole
Stavanger, 15.06.2023

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1 Introduction

The world is facing a revolutionary change with respect to the earth's well-being. News and media have actively engaged in a narrative emphasizing the catastrophic consequences our increased comfort and standard of living can have. Humanity over the past half century, has seen a tremendous increase in the demand for high-polluting energy resources associated to the ever-increasing mechanization of intensive manual labour. In recent decades, this has also been affected by the technological revolution, where we have evolved into using equipment and heavy machinery with features making it easier to fulfil tasks and operations. In fact, we are extracting energy from the planet, to ease our personal efforts in creating a harmonious well-being.

Unfortunately, this has taken a tremendous toll on the natural balance in the atmosphere. We are seeing an increase of 50% in CO₂ levels since the industrial age (Change, n.d.). With the current trends forecasted to grow, we are facing a potential 63% increase from 2023 levels by 2050 based on a business-as-usual scenario (*OECD Environmental Outlook to 2050*, n.d.).

The dramatic changes are causing red flags within global institutions and nations believing that substantial efforts must be made to prevent climate shifts. If changes are not made, this could have dire consequences for the quality of life. It is generally believed that CO₂-emissions must decrease in the near future to see a realistic change being made globally. High-impact energy companies have pledged to have net zero emissions by 2050 and have already established sustainable strategies and business plans to achieve this. However, in the bigger picture, there are other contributors that are vital to set this plan into action. The global market is powered by capital, with investors as the backbone. In other words, strategies and plans are only written on paper and must be supported by leading financial contributors to be realized.

In this thesis, the objective is to study the role of investors in the private sector and how they are adapting to the green development in their business. The intention is to get a better insight on how they make investment decisions, what they look at, their future forecasts, and their determination to contribute to reducing emissions. Through thorough analysis, the goal is to determine whether the impact of regulations and expectations associated with scope emissions are too significant, and if this will affect their profit and risk profiles negatively. Data collected

from first-hand sources will be the objective to the analysis, contributing with realistic expectations and direct interpretations of the development.

1.1 Motivation

Considering the drastic transition, the world has seen the past half century, there is no doubt that the climate has suffered from the actions of humanity. Although emissions have been around since the beginning of man through fires and the expansions of humanity, it was not until the industrial revolution during the 18th century, when the spark grew out of control. The increasing use of coal, oil, and gas fuelled the economic growth of the world, especially the western world, developing new industries. These energy sources also established multiple areas of opportunities beside energy, such as plastics and transport. Although the benefits were many, we quickly saw the burden it had on the planet. NASA identified the problems of climate change in the 1980's (chapter 1), creating a clear depiction of the effects it has on us. It was clear that the route we were on would lead to devastating consequences.

Even though the consequences have been identified and known of for many years, fossil fuel production is staying strong and is at an all-time high, surpassing 100 million barrels of oil per day (IEA, 2023). It is true that some modifications have been made but corporate greed has prevailed. The major oil producers have been stamped as the main source to the problems involving climate change and, in the most direct perspective, are responsible for the increase in carbon emissions. However, there is a lot more underneath the surface than what can be viewed by the open eye. It is easy to blame the practical contributor, but without the support of investors, these oil companies would never have seen the light of day. Someone saw a great opportunity in reaching higher revenues by building something that would expose the resources deep beneath the ocean-ground.

The increased attention and awareness to the climate problem has given birth of innumerable associations and activists, most of the perceptions have changed with younger generation which we could refer to as the millennial shift, the philosophy of promoting a more sustainable earth has taken root. In 2015, the United Nations published its “sustainable development agenda” in which 17 goals were identified, named “UNs sustainable development goals” (Nations, n.d.). During the same year, 196 countries adopted The Paris Agreement, under which the goal is “*to limit the temperature increase [of the earth] to 1.5°C above pre-industrial levels.*” (*The Paris*

Agreement | UNFCCC, n.d.) in which greenhouse gas emissions is a crucial determinant. There is no question of the shift and the dedication of global organizations in the development of more sustainable industries. It is clearly formulated that the production and usage of fossil fuels must improve to reach the goal, and there is a growing demand from the public that the related contributors must show action. Therefore, it is interesting to understand the strategies of the different investment companies, some which still back the fossil industry, and how they respond to the challenge of keeping the industry afloat while creating a better global environment.

1.2 Objectives

The goal of this thesis is to examine certain investment companies in Norway, how they position themselves in respect to the Greenhouse Gas Protocol, and whether their investment strategy will contribute to the long-term goal of being net zero by 2050. The chosen approach of my thesis is focused on deriving determining aspects influencing the complete process of sustainable development. In this section, I will elaborate on these aspects, giving a clear image on what is the aim of the research.

1.2.1 Research Question

“How can investment companies adhere to the Greenhouse Gas Protocol while maintaining their profit and risk profiles?”

The chosen research question aims on achieving an insight on how investment companies operate, how they take their stand on minimizing greenhouse gas emissions, and their approach on maintaining profit margins while keeping their risk profile at an adequate level. The goal is to obtain a direct perception on how the industry will evolve towards 2050 and whether the insistency from global organizations will be a deteriorator in the sense that costs will override earnings. Through focused questions, fundamental knowledge will be established around the research question which in turn will give a depiction of how the investment companies should adapt to the sustainable development while also maintaining profit and risk profiles.

1.2.2 Focus Question I – What are Their Options

The first focus question aims on giving a clear overview of the investment companies' strategy towards adapting to the GHG Protocol:

“How must the companies' investment strategy adapt to fully contribute towards net zero by 2050?”

This focus question is derived on the principal of how the investment strategies are identified presently. The GHG Protocol requires all investment companies to account and report on scope 1 and scope 2 emissions. Although these are requirements which need to be followed, there are many other factors outside the Protocol which must also be respected. In addition, the shift towards greener investments have set tougher boundaries whereby investment companies are forced to satisfy a set of sizeable criteria. Through analysis of past performances, the development towards lower scope emissions and how it affects their profit and risk profiles will give a depiction of whether they are eligible to continue adhering to the GHG Protocol while also maintaining profitability.

1.2.3 Focus Question II – Other Options of Higher Efficiency

In this focus question, we will investigate the new guidelines which are implemented in their investment strategies, and further analyse their importance in reaching net zero by 2050:

“Are there any other strategies not yet accounted for that can contribute more?”

While it is explicitly defined that scope 1 and 2 reporting will suffice for net zero contribution, it is possible that the GHG Protocol can become less relevant as we continue down the path of the green development. While the goal remains the same, some companies have implemented new strategies for reporting emissions, which potentially have more benefits than just following the GHG Protocol. It is therefore necessary to analyse their effects and understand whether the companies have been correct in choosing new reporting methods. This focus question will challenge the research question, analysing the efficiency of new methods and whether a new method of reporting is necessary to reach net zero by 2050.

1.2.4 Focus Question III – Superior Role of Scope 3

The last focus question will question whether scope 3 should be considered in the reporting of emissions:

“Will it be necessary to make scope 3 a requirement in order to reach net zero by 2050?”

The focus question is obtained from the ongoing discussion on whether scope 1 and scope 2 will suffice for an overall sustainable reduction in carbon emissions given that every part of the supply chain diligently report their scope 1 and scope 2 emissions. An understanding for what threshold of reporting is required to reach the net goal by 2050. The GHG Protocol will be put into question, and it will be discussed whether all three scopes are necessary to report to achieve sustainable levels of energy production and consumption. It is important to keep an objective perspective, regardless of the level of precision put into developing the Protocol.

1.3 Abbreviations

GHG – Greenhouse Gas

ESG – Environmental, Social, and Governance factors

KPI – Key Performance Indicator

DD – Due Diligence

ICEV – Internal Combustion Engine Vehicle

BEV – Battery Electric Vehicles

LCA – Life-Cycle Analysis

1.4 Structure of the Thesis

The thesis is set up in a way that will benefit the readers’ ability to understand the research comprehended. The research question is built around investment companies’ ability to adhere to the GHG Protocol, and how this will affect their overall business performance. Therefore, an elaborative description on the fundamental boundaries of the Protocol is presented. It answers the questions why, who, when, and how, which are important to understand as the GHG Protocol is vastly discussed in the analysis.

The focus questions are thoroughly analysed and discussed based on information gathered from the interview processes as well as research from secondary sources. Each focus question is concluded with a summary, where the results of the findings will be presented to further answer the focus questions.

As the final part, an overall conclusion will be presented. This will be built on the findings from the analysis and discussion, and further respond to the research question. In summary, the reader should be left with a clear understanding of whether investment companies can adhere to the GHG Protocol and maintain their profit and risk profiles simultaneously.

2 The Greenhouse Gas Protocol

To understand how investment companies will accomplish coherent profit margin from their portfolio contributors in the current environment, it is crucial to gather relevant knowledge on what exactly is expected from a climate point-of-view. In this chapter, we will deep-dive into the true meaning of the greenhouse gas protocol and all its surroundings.

2.1 The Birth of a New Framework

In 2001, the World Resources Institute and the World Business Council for Sustainable Development, release the first publication of the GHG Protocol. (*About Us | GHG Protocol*, n.d.). Three years after their initial agreement for cooperation on the matter, a clear guideline was discussed and developed, allowing the companies who had signed the Protocol to fully execute an integration of it into their overall business model. In this sub-chapter we will gain a detailed understanding of how the Protocol was built, and what it intends.

2.1.1 Development

Businesses all around the world have greenhouse gas (GHG) emissions. Whether it is from producing energy or using it, they are all contributors to the development of higher GHG levels in the atmosphere (Carter et al., 2010). The need for a long-term plan to reduce the effects of greenhouse gas emissions arose as early as in the 1990s. A recognition was made by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) on “*the need for an international standard for corporate GHG accounting and reporting*” (*About Us | GHG Protocol*, n.d.). The WRI, who is an activist for sustainable development in global frameworks and policies (Dooley, 2007), released a public report in 1998 on how the global economic welfare can be kept proficient while contributing to ease the growing strain on the Earth’s climate. (Cook & Petroleum, 1998). The report was released after close collaboration with upper tier companies in the energy industry: “*British Petroleum, General Motors [and] Monsanto [...]*” (Cook & Petroleum, 1998). The four companies involved in the collaboration resulting in the report, saw an increased need for taking precautions as the effect the GHG emissions had on the earth were not sustainable for the long-term well-being of humanity. By enlisting different requirements to countries depending on their present and forecasted emissions, the aim was to reduce the net global emissions by 5%

below the levels in 1990, resulting in a 25% reduction without the Protocol (Cook & Petroleum, 1998). Up until the publishing date, “57 of the 174 countries that are parties to the Framework Convention on Climate Change have signed the Protocol, including the European Union, Japan, Canada, China, and Brazil” (Cook & Petroleum, 1998). These countries count for a large piece of the global contributors to energy production and usage, and the incentive of the initiation of the protocol was met as the requirement was that 55 of 174 countries shall sign the agreement (Cook & Petroleum, 1998).

On the other hand, WBCSD were constructing procedures which would result in similar effectiveness as the report published by WRI, and proceeded to cooperate with them on establishing a non-governmental-organization-partnership (*About Us | GHG Protocol*, n.d.).

2.1.2 The Founders

The World Resources Institute (WRI) is a global research organization dedicated to improving sustainable and political management regarding the global environment (Dooley, 2007). Founded in 1982, the WRI has been a driven contributor and has developed several climate protection programs since. Through their work, WRI has identified which areas are in a need for change and are key factors in the earth’s climate. Therefore, their programs “*focus on solving seven major challenges at the intersection of environment and human development: Cities, Climate, Energy, Food, Forests, the Ocean and Water*” (*WRI Develops Practical Solutions That Improve People’s Lives and Ensure Nature Can Thrive.*, n.d.). Within each program, there are several specified initiatives to tackle the challenges that are met according to the field of exposure. Within the Climate program, we find the initiative of the Greenhouse Gas Protocol, established, and developed in close collaboration with the World Business Council for Sustainable Development (WBCSD).

The WBCSD is a council containing highly influential affiliates from companies across the globe. The members are CEOs or board-members of companies, and as of today, the council consists of more than 200 companies (Anders, 2016). The first notion for the quest was made in 1990 when the Under-Secretary-General of the United Nations, Maurice Strong, wanted to establish a role of responsibility for whom the individual’s sole task was “*to spread the concept of sustainable development among the world’s business leaders and companies ahead of the [United Nations Conference on Environment and Development]*” (*Our History*, n.d.). The role

was handed to Stephan Schmidheiny, a Swiss businessman, who continued to recruit 48 CEOs from different companies globally, forming the “Business Council for Sustainable Development”. The foundation continued to grow, recruiting more CEOs and board-members. After appointing its first president, they merged with the World Industry Council for the Environment (WICE) in 1995, on which the World Business Council for Sustainable Development was officially founded (*Our History*, n.d.).

2.2 Scopes

The GHG Protocol is a long and complex standard. To make it easier to specify what should be included when reporting the climate-related factors, three different scopes have been derived from the corporate standard: scope 1, scope 2, and scope 3.

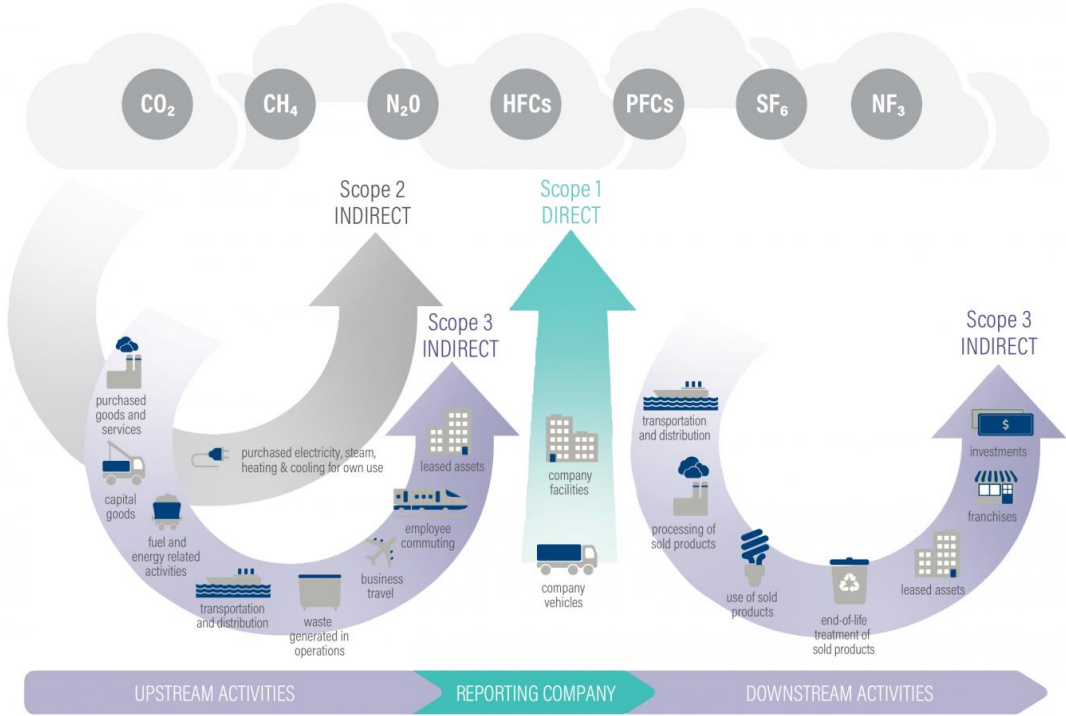


Figure 1 Scope emissions

Extracted from (*Greenhouse Gas Protocol*, 2023)

2.2.1 Scope 1

Scope 1 refers to the “direct GHG emissions [that] occur from sources that are owned or controlled by the company [...]” (*Ranganathan*, n.d.). These will differ depending on which industry the company operates in. For example, an oil and gas company will have direct

emissions from extraction of fossil fuel sources, chemical combustion, and refining. At a more general perspective, heating and power production that run on gas, and emissions related to vehicles owned by the company fall under the same categorization. In simpler terms, direct emissions are those in which are necessary to keep the company operating according to their purpose. Scope 1 emissions account for all emissions of Greenhouse Gases: carbon-dioxide (CO₂), methane (CH₄), nitrogen (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulphur hexafluoride (SF₆) (Carter et al., 2010). In other words, scope 1 accounts for all emissions caused by company operations, except those related to electricity usage which are defined as scope 2 emissions.

2.2.2 Scope 2

Any purchased electricity that is used by the company should be reported for in scope 2. These are considered indirect emissions due to them being purchased from a supplier, and not generated by the company themselves (Ranganathan, n.d.). However, scope 2 can be considered as the second factor for emissions encountered by the company, which are not directly connected to Greenhouse Gases. Examples of emissions under this categorization are heat generated from lighting and electrical heating applications. In simpler terms, sources that are used for improving living and working facilities should be reported in under scope 2 emissions.

2.2.3 Scope 3

Scope 1 and scope 2 emissions account for all emissions related to company occurrence. These do not consider the emissions caused by any related company, such as suppliers and transporters. For example, an investment company who holds interest in a company producing solar power, will not have to report for the emissions caused by their suppliers. These can be related to transportation of solar cell panels from the factory to the facility, the production of steel and aluminium used to construct the panels, and the transportation of energy from the panels to the point of usage. This is why there is a third scope. Any emissions caused further down the value chain, which are not directly related to the company, are considered scope 3 emissions. These are very hard to quantify due to the challenge of keeping a full overview of all emissions within the value chain. Therefore, it is considered “*an optional reporting category for the treatment of all other indirect emissions*” (Ranganathan, n.d.).

2.3 Methodology

It is important to understand every step of tracking and reporting emissions to be as precise and diligent as possible. Knowing the procedure at the preferred level will count for benefits such as precise calculations, avoidance of double-counting, cost-efficiency, and a better overview for mapping future values.

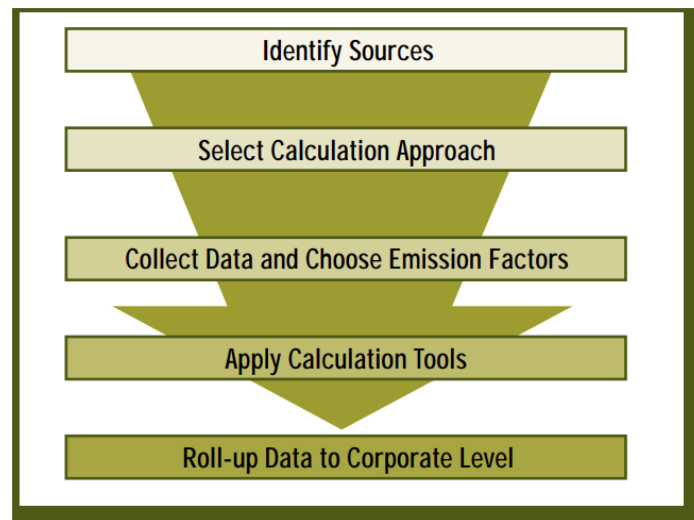


Figure 2 (Ranganathan, n.d., p. 40)

The GHG Protocol has defined the steps necessary for correctly identifying and calculating emission sources, which can be seen in Figure 2. This section will reveal the crucial factors and methods that must be considered in order to maintain adherence to the Protocol.

2.3.1 Emission Sources

The first step to mapping a company's contribution to GHG emissions is to identify the sources involved. These can vary depending on the industry, but in a general view "*GHG emissions are estimated using emission factors that relate the quantity of a pollutant emitted to a unit of activity [...]*" (Turner et al., 2015). This is done by boundary-setting which occurs in two different steps: Organizational and operational boundaries. The former includes mapping the parties that should be included in an organization's total GHG emissions. For an investment company, this will include any companies they hold certain interest in. Once these have been set, emission sources can be identified within the boundary. Operational boundary are the actual sources within the organizational boundary that contribute to GHG emissions (Ranganathan, n.d.). These can occur within different categories, and are defined by Ranganathan in Table 1:

<i>Stationary combustion</i>	<i>Combustion of fuels in stationary equipment such as boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc.</i>
<i>Mobile combustion</i>	<i>Combustion of fuels in transportation devices such as automobiles, trucks, buses, trains, airplanes, boats, ships, barges, vessels, etc.</i>
<i>Process emissions</i>	<i>Emissions from physical or chemical processes such as CO₂ from the calcination step in cement manufacturing, CO₂ from catalytic cracking in petrochemical processing, PFC emissions from aluminium smelting, etc.</i>
<i>Fugitive emissions</i>	<i>Intentional or unintentional releases such as equipment leaks from joints, seals, packing, gaskets, as well as fugitive emissions from coal piles, wastewater treatment, pits, cooling towers, gas processing facilities, etc.</i>

Table 1 (Ranganathan, n.d., p. 41)

Once every source has been identified, they can be categorized into one of the three scopes elaborated on in section 2.2 of this paper. The GHG Protocol have established guidelines on how to report and account for scope 1; scope 2; and scope 3 emissions, and these will be further presented in section 2.4.

2.3.2 Choice of Calculation Method

Deriving results from a specific set of emission factors can be done in many ways. The GHG Protocol does not require a specific approach to be used, but rather the one that will achieve the highest precision of emission calculations (Ranganathan, n.d.). Depending on the sector of operation, some approaches are more relevant than other. Agent-based models are widely used in residential sectors where the primary motivator is energy consumption. Moreover, these models have been revised and further developed to become one of the most precise models simulating real data almost perfectly (Bourdic & Salat, 2012). Another method, more frequently used by companies with direct and indirect emissions, is the measurement-based methodologies. These “*determine emissions by means of continuous measurement of the*

exhaust stream and the concentration of the relevant GHG(s) in the flue gas” (Tornek et al., 2010). Continuously monitoring emission factors and their GHG emissions and performing disclosure practices will count for precise measurements when calculated properly through datasets. Nevertheless, this method allows implementation of internal calculations developed by the company themselves which is why it is so versatile as well as credible due to its high potential of precision.

When using methodologies, doing so by each scope category has become more admired throughout the recent years. Categorizing each individual emission source contributes to a more comprehensible understanding of companies’ total emissions and helps depict the progress in simpler terms. The GHG Protocol has identified their reporting and accounting requirements for each scope, which makes it even more distinguishable to follow a calculation method for GHG emissions in each scope. The principal criteria for accounting and reporting GHG emissions are further elaborated on in section 2.4.

2.3.3 Activity Data

When the organizational and operational boundaries are set, as well as the calculation method, the actual measurements of emissions must be collected. Also known as activity data, this step is also defined by Carter et al. as *“often the most time-consuming part of developing a GHG inventory, simply because company records might not have captured this data in a systematic way”*(Carter et al., 2010). The results of a company’s total emissions are based primarily on activity data, and collecting accurate data might be very challenging in cases where emissions have not been counted for. If this be the outcome, estimates must be used which will harm the credibility of precision. Taking precautionary actions to avoid these situations have been incorporated by several companies, especially large ones with several companies to report for. Pre-set forms for data collection have been widely used in which companies require smaller entities within the boundary to report the expected data with detailed description. Thus, the chance of falling short on precision decreases as well as making reporting for total emissions more efficient. Once the activity data has been documented, the procedure of calculating the relative emissions associated with it can start.

2.3.4 Calculating Emissions

There are many different approaches to calculating emissions. While The GHG Protocol offers different tools and methods that can be used, this is optional for the user and they are entitled to use their own methods if they generate appropriate results for reporting emissions. (Ranganathan, n.d.). The Protocol has established and identified different methods for different industries. However, one company will most likely have to incorporate several of these methods as they are extremely specific on the different categories of emission sources. The GHG Protocol has identified two tools as the most relevant to majority of the companies: Cross-sector tools and sector-specific tools. As the names entail, the former can be used regardless of the industry in which the company operates, whereas the latter is specific. The different tools under sector-specific however, comply to a vast range of companies due to the calculations being relevant to the majority of suppliers within the supply chain. (Ranganathan, n.d.). Table 2 represents which areas the tools can calculate emissions on:

<i>Cross-Sector Tools</i>	<i>Sector-Specific Tools</i>
<i>Stationary Combustion</i>	<i>Aluminium and other non-Ferrous Metals Production</i>
<i>Mobile Combustion</i>	<i>Iron and Steel</i>
<i>HFC from Air Conditioning and Refrigeration Use</i>	<i>Nitric Acid Manufacture</i>
<i>Measurement and Estimation Uncertainty for GHG Emissions</i>	<i>Ammonia Manufacture</i>
	<i>Lime</i>
	<i>Adipic Acid Manufacture</i>
	<i>Cement</i>
	<i>HFC-23 from HCFC-22 Production</i>
	<i>Pulp and Paper</i>
	<i>Semi-Conductor Wafer Production</i>
	<i>Guide for Small Office-based Organizations</i>

Table 2 Most common tools for emission calculation (Ranganathan, n.d., p. 44)

While some of the tools, especially those categorized as cross-sector, are very relevant to any company with physical inventory, having to fill out several different outlines can be tedious.

Therefore, it is understandable that companies choose to develop their own approach where all required calculations for their business are listed on the same place.

Whether a company chooses to adapt one of the prebuilt tools, or develop one themselves, the most crucial part of the calculation tool, is to include all relevant activity data (section 2.3.3). Carter et al. presented the emission calculation through a basic formula:

$$(activity\ data) * (emission\ factor) = GHG\ emissions$$

(Carter et al., 2010)

Activity data is collected, and emission factors are (in most cases) constant across industries. It is therefore a straightforward process once all the elements which need to be included in the reporting are identified. However, getting there can be a tedious process, especially for large corporations with a complex supply chain (Ranganathan, n.d.). To put it into perspective, one emission source which needs to be included in a reporting, is a hand-dryer in one of the bathrooms of the company's building. Therefore, it is not the actual calculation that is challenging, but the preparation.

2.3 Accounting and Reporting

What can probably be considered the most important part of the GHG Protocol, is the accounting and reporting aspect of it. It is the fundamental boundary of what is necessary to include in order to adhere to the GHG Protocol. To get a better overview of what the expectations from the Protocol entail, the characteristics of which they are built on must be understood in their entirety.

2.3.1 Principles

Gillenwater says “*clearly defined principles are essential elements of GHG accounting and reporting guidelines [..]*” (Gillenwater, 2022). Having a distinguished strategy which includes each element, will count for a more precise and reliable measure of the GHG emissions.

2.3.1.1 Transparency

When reporting GHG emissions, it is important to make sure that the findings are adequate for clear interpretation. This entails that all relevant data and information must be reported in a comprehensive way, assuring that every detail related to the process of extracting the emission values are included (*GHG Accounting and Reporting Principles*, 2004). According to the GHG Protocol, “*the information should be sufficient to enable a third party to derive the same results if provided with the same source data*” (*GHG Accounting and Reporting Principles*, 2004).

It is therefore crucial to understand the expectations completely, to avoid the risk of obtaining an unfulfilling GHG emission report.

2.3.1.2 Completeness

As mentioned, having a complete report with all data is crucial for maintaining a solid contribution to the finite goal of the GHG Protocol. This also includes keeping irrelevant numbers and values out of it (Gillenwater, 2022). Due to its tedious procedure of fulfilment, some values can easily be duplicated, which in turn can count for misconceptions and wrong calculations.

Due to challenges of quantifying measures in reporting, some companies see a benefit of defining a “*minimum emissions accounting threshold [...] stating that a source not exceeding a certain size can be omitted from the inventory*” (*GHG Accounting and Reporting Principles*, 2004). Although it might seem as an easier way out, the data must still be measured and collected in order to prove that they are under the threshold, which counter acts with the reason for doing it in the first place; avoiding calculations of all emissions (*GHG Accounting and Reporting Principles*, 2004).

2.3.1.3 Consistency

The first step to achieving a good reporting method, is to establish a detailed overview which covers all the relevant data. This will give an opportunity to start strong, covering all requirements from the GHG Protocol. However, it must not be forgotten that the sole reason for why the Protocol was established, was to guide companies on the path to reaching net zero by 2050. The analysts who look at the development and determine the pattern of the emissions

over time are dependent on working with updated numbers and information (Gillenwater, 2022). Reporting emissions must therefore be done consistently in order to interpret whether the efforts made, satisfy the required levels for future expectations (*GHG Accounting and Reporting Principles*, 2004).

2.3.1.4 Relevance

The principle entailing relevance gives a similar description as the combination of transparency and completeness. In short, it reflects the importance of avoiding irrelevant data (Gillenwater, 2022). Although it is reasonable to think that a user would only report the data in which contributed to the presentation of the company, the GHG Protocol see it necessary to include “Relevance” as a separate principle. They describe it as identifying “*choosing [an] inventory boundary, [where] a number of factors should be considered, such as:*

- *Organisational structures: control (operational and financial), ownership, legal agreements, joint ventures, etc.*
- *Operational boundaries: on-site and off-site activities, processes, services, and impacts*
- *Business context: nature of activities, geographic locations, industry sector(s), purposes of information, and users of information*

(GHG Accounting and Reporting Principles, 2004)

2.3.1.5 Accuracy

Accuracy is the last accounting principle identified by the GHG Protocol and speaks for itself. The data presented in a company’s report must be accurate so that it can be used as a reliable source by the analysts doing the evaluations (*GHG Accounting and Reporting Principles*, 2004).

2.3.2 Reporting measures

When it comes to the information that needs to be included in the report, the GHG Protocol has listed one set of required data, and one on what is optional for the company. While the report must consider all accounting principles, it must also obtain relevant information for calculating

scope 1 and 2 emissions, which has been mentioned earlier as their primary requirements. Due to the iterative process of identifying and collecting all the necessary data, the GHG Protocol has published a guideline for what needs to be included. These are represented below in a simplified version:

- *An outline of the organizational boundaries chosen [...]*
- *An outline of the operational boundaries [...]*
- *The reporting period covered.*
- *Total scope 1 and 2 emissions independent of any GHG trades such as sales, purchases, transfers, or banking of allowances.*
- *Emissions data separately for each scope.*
- *Emissions data for all six GHGs separately [...]*
- *Year chosen as base year [...]*
- *Appropriate context for any significant emissions changes that trigger base year emissions recalculation [...]*
- *Emissions data for direct CO₂ emissions from biologically sequestered carbon [...]*
- *Methodologies used to calculate or measure emissions [...]*
- *Any specific exclusions of sources, facilities, and/or operations.*

(Ranganathan, n.d.)

While these are very specific criteria, they will all cover the necessary information needed to satisfy reporting expectations and contribute to adequate evaluation of emissions. The optional information for reporting includes more elaborative data within each of the requirements above as well as those related to scope 3 emissions. However, the information is much more challenging to quantify, resulting in several companies choosing not to include it (Ranganathan, n.d.).

Reporting tools are also recommended as this helps on the transparency of the content. To further assess the emissions within different industries, ratios are recommended to increase consistency and further make it easier for the interpreter to understand. The recommended ratios to use are:

- *Productivity/efficiency ratios*
- *Intensity ratios*
- *Percentages*

(Ranganathan, n.d.)

2.4 Benefits of Following the GHG Protocol

The advantages of following a the GHG Protocol are conveyed to be of great significance in the green development. While there are many, the following are the most outstanding and beneficial for the companies.

Firstly, it holds the companies accountable for self-inflicted emissions as they get a much simpler and organized overview of them. In addition, this further assists the companies in managing their emissions to the best of their knowledge. Having no defined reporting strategy would result in a chaotic overview of data collections, and significantly increase the risk of wrong calculations (Ranganathan, n.d.).

Secondly, the overall costs of running the business will be reduced due to the evolution towards greener operations. This will include the costs related to waste management and energy efficiency, as these are factors which are thoroughly involved and monitored by the analysts. Although the cost savings will continue to increase over time, having a detailed overview now will give the companies the opportunity to eliminate unnecessary cost contributors (Carter et al., 2010).

Lastly, their position in the market will grow. Not only towards customers and cooperatives, but also individuals. Conveying their commitment to contribute to a better climate will gain attention among the society, and ultimately gain a leadership role within the green transition. People, communities, and industry leaders strive to be a part of the change. By following the GHG Protocol, the companies will set a standard for themselves and others, ultimately gaining trust and attraction.

3 Supplementary factors

It is important to have a fundamental understanding of the different terminologies included in a research paper. Not only will it strengthen one's knowledge around the topic, but it will also assist in gaining a better analysis of the question raised. In terms of the analyst, having a thorough understanding of all related aspects will strengthen the analytical skills and results due to a higher degree of trustworthiness. From a reader's perspective, getting a quick introduction of the aspects will position them to make analytical decisions themselves and challenge the analyst with their own conclusions. In this chapter, I will elaborate on the theoretical elements that are presented in this thesis.

3.1 ESG

Environmental, Social, and Governance factors have been around since before the millennial shift. However, the weight of the factors as a criterion from investment companies have grown immensely since and is now some of the most valued criteria for investment companies, both in new and existing investments. Due to businesses' dependency on investment companies, they must make sure that they are careful with where they use their resources as this will have major impact on their potential ESG-rating. Failure to do so can cost them important funds and harm their business' development (Dolan & Zalles, 2021).

ESG covers any factors who show impact on the environment, social, and governance regulations. They are representation of a company's impact on "*climate change, population growth, and their detrimental impact on the natural environment*" (Armstrong, 2020). The most common factors related to ESG are presented in Figure 3 below:

Environment	Social	Governance
Carbon emissions	Corporate culture	Board structures
Water use	Working conditions	Board independence
Pollution	Training	Accountability
Climate change	Motivation	Compliance with law
Energy	Rewards	Risk management
Waste	Gender equality	Reporting systems
GRI	Health and safety	Stakeholder management
	Fair trade	
	Diversity	
	Impact on communities	

Figure 3 ESG contributors

Extracted from (Armstrong, 2020)

However, ESG factors are hard to define due to their ability of measurement in many different areas (Dolan & Zalles, 2021). In some situations, they are used alternatively to one another, causing the definition to suffer even more due to the lack of consistency (Trahan & Jantz, 2023). Nevertheless, the factors are used widely in investment decisions to further assess the environmental impact of companies. Dolan et al. says *“the most productive ESG implementation will not only establish an adequate risk management framework to prevent and mitigate scandals but also proactively integrate ESG into the very DNA of business model”* (2021). The benefits of incorporating ESG measures into investment strategies can count for great return in the future. However, it is crucial to establish a concise definition of the expectations relevant to ESG in order to obtain success. (Dolan & Zalles, 2021)

ESG ratings have become a growing tool for value estimation, incorporated and assessed by external rating agencies (Clementino & Perkins, 2021), especially considering the ongoing development of more sustainable investment. A company who has incorporated sustainable development in their core activities will therefore earn a higher interest from investment companies due to their lower risk for environmental downturns (Dolan & Zalles, 2021).

3.2 Scope 4 Emissions

Scope 4 is a newly defined term not yet identified by the GHG Protocol. It is so fresh that peer reviewed sources are hard to find. The graph below shows the amount of online sources in Norway who mention “scope 4 emissions”:

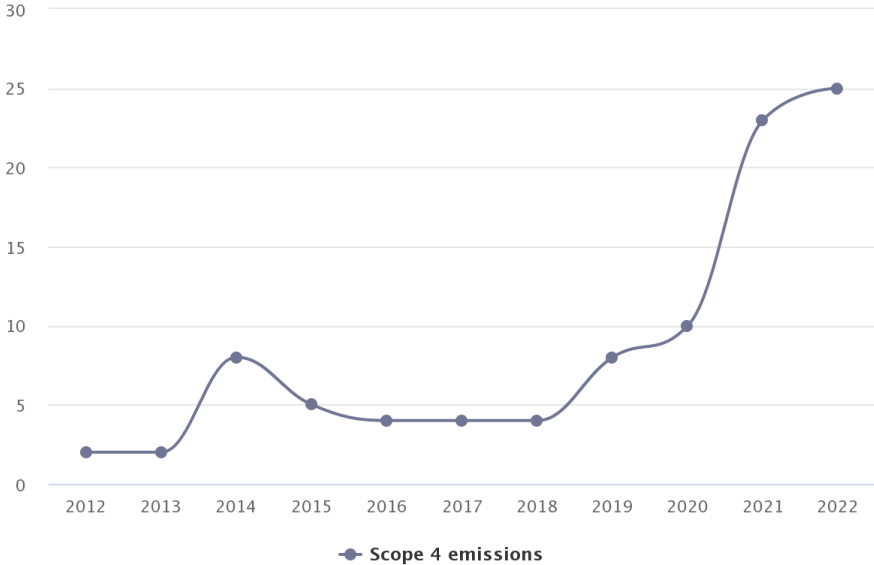


Figure 44 Number of times "Scope 4 emissions" mentioned in online sources in Norway

(n.d.)

As illustrated in Figure 4, scope 4 emissions have not been up for discussion until recently. Even in 2022, only 25 sources had a mention of it in their publicity. However, it has already been incorporated in investment strategies (section 5.3).

Nevertheless, the scope is derived from parts of the GHG Protocol not included in the other three scopes. A framework for avoided emissions has been established in which “*positive differences [of greenhouse gas emissions impact of a product, relative to the situation where that product does not exist] are frequently called “avoided emissions”*”(Russell, 2019). It is therefore a tool for companies to measure the potential climate impact of a product and can further assist in decision-making.

A key element described by Russell, is the use of life-cycle analyses (LCA) (2019). By assessing a LCA on the product, and another on the emissions if the product did not exist, a depiction of the avoided emissions can be illustrated. In Figure 5, a simplified example of how it can look like is presented:

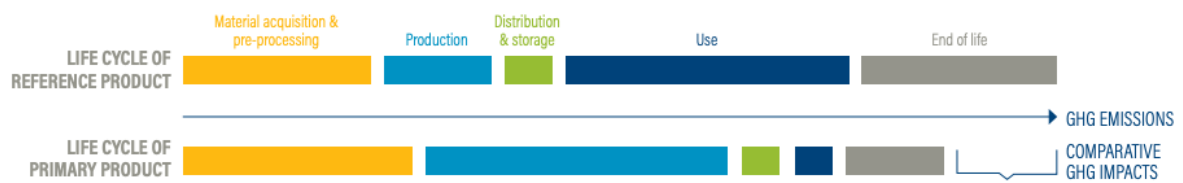


Figure 55 LCA example (Russell, 2019)

In this example, we see that the product (primary) will achieve substantially reduced emissions when in use, while those generated during the production are much higher. However, there is a positive difference in the overall life cycle. (Russell, 2019) Therefore, the product is avoiding emissions – hence a subject for scope 4 reporting. Another example is presented in section 5.3.1.1 with thorough description on how the analysis works.

4 Methodology

Within the premises of research, a clear and concise methodology for interpretation and guidance towards a finite conclusion is necessary to add depth and legitimacy to a study. Making the choice of one specific methodology depends solely on the desired outcome. In this chapter, I will elaborate on my chosen methodology and reasons why it is most suitable for this thesis.

4.1 Overview

There are innumerable ways to approach an issue. Depending on whether the outcome is motivated by numerical statistics, social qualifications, or predictions of future outcomes, there will always be a methodology more competent than the other. Within research, there are two main categories for methodologies: Qualitative research and quantitative research. The former takes a more open approach by including the respondents' own reflections and perspectives surrounding the issue, while the latter is commonly associated with big data and a thorough analysis of numerical statistics.

4.2 Qualitative Research

“Qualitative research begins with one or more relatively broad research questions that may be revised iteratively as the research is carried out to narrow the research aim or purpose” (Denny & Weckesser, 2022). With a broader base, the expected outcome may differ at several points during the research period. Therefore, if the result relies heavily on bound values, a qualitative approach could result in an unresolved issue. *“Qualitative research is inductively grounded and based on philosophical and ethical grounds”* (Cypress, 2018) and should therefore rely more on experience and input from external partners rather than numerical measures.

According to Leavy (2014) qualitative research can be categorized into three main elements: philosophical, praxis, and ethics. The philosophical substructure focuses on how *“beliefs about how research should proceed, what can be known, who can be a knower, and how we come to know”* (Leavy, 2014, p. 3). The context elaborates on the paradigmatic, ontological, and epistemological belief systems of the research and helps form the paper from start to finish. Praxis includes the actual work required to form the research paper. Everything associated with

collecting data, analysis, and forming the theoretical aspect is associated with the element. The last element, ethics, is not associated with any specific part of the research paper, but rather serves as a common factor of consideration throughout the whole period from identifying the issue to concluding the research. It is a conscious factor of the behaviour reflected towards others involved. (Leavy, 2014, pp. 3–5)

In the extent of using a qualitative methodology, there are several methods to gain qualitative measures of data. Unlike quantitative research, there is not a set amount of data needed to comprehend a concise result. Rather, the data is collected until the researcher sees fit to stop, arguing any additional information will not contribute to a more comparative result. Within qualitative research, there are three main methods utilized in majority of research cases: Interviews, focus groups, and observation (Denny & Weckesser, 2022).

4.2.1 Choice of Research Design

Choosing a design for research depends solely on the intention of the research and the outcome intended. While it might lack controversy, research design and method are completely different. According to Joshi, “[*Design*] is a way of planning things” (2019, p. 74). In other words, it is not a detailed recipe on how to go about your research, but rather a thumbnail on the origin of you presented topic. Whether the topic is an elaboration of previous findings, hypothesis-testing, or exploring new unsolved queries, most can be categorized into three different research designs: exploratory, descriptive, or casual/experimental (Thomas & Lawal, 2020).

If the topic has a lack of background information or has never been thoroughly proven or unproven, the research will follow an exploratory design. It is all about finding new things, whether it is based on previous unconcluded research, or depicting future findings (Joshi, 2019). Thomas et al. elaborates on the fact that any research topic following this design is of risky nature as it is not guaranteed to result in highly innovative findings or ground-breaking revolutions. However, this can only be depicted by going to depths of the research surrounding it and is therefore an approach which is of great attraction to curious researchers. Regardless, qualitative approaches are of great assistance of interpretation as it allows first-hand sources to be used. This will help form depth to the thesis and bring out the logos in a rather unconventional and open-minded research approach.

This thesis is based on the exposition of industrial behaviours and attitudes towards an emphasized global issue. Using strategical approaches to grasp the respondents' true aim and belief in the situation counts for a descriptive method of comprehending knowledge. Therefore, a qualitative research study with quantitative supporting evidence will aim for a more thorough and versatile perspective as to completely understand the matter.

4.3 Data Collection

When conducting samples of data, it is important to recognize which methods will contribute to the most thorough analysis and presentation of the thesis. Within the premises of what I will be conducting through my research, there is a high demand for qualitative approaches as the intention is to elaborate on the justification of ethical and sociobehavioral approaches towards a highly focused issue.

Within the premises of exploratory research, I will be conducting my knowledge through qualitative interviews and through a selection on existing literature to build a strong foundation around my findings (Thomas & Lawal, 2020).

4.3.1 Interviews

Cypress says, "*The interview is the favourite methodological tool of the qualitative researcher*" (2018). Interviews are a great and efficient way of collecting data. It requires a few prepared questions, a meeting, and some communication skills. In other words, it is a "low work-high reward" method of achieving any relevant input for your research. It is expected that the knowledge gained will be first-hand, upper tier information as the respondent should be within the expert levels of the topic in general. Therefore, one should always depict that the answers will be based on personal experiences and perceptions, knowledge gained while working in the field, and their own thoughts and opinions about it. Interviews can be a tool for both qualitative and quantitative research. Even so, the purpose is widely distinct. A quantitative approach aims to gather information for a topic with low flexibility, whereas a qualitative approach is more open, allowing the respondent to lead the focus on the path of their choice rather than the interviewers (Barbour, 2014, p. 18).

There are two different approaches to the interview, a semi-structured and unstructured. The former contains prepared and set questions, in which the different respondents involved in the research study will be asked the exact same question. Unstructured interviews are more open-ended where one question can lead to other questions being answered, where these are not prepared for beforehand (Denny & Weckesser, 2022). The difference in these two approaches is aimed towards the purpose of the study. If the goal is to enhance the support on a pre-determined issue, a semi-structured interview will be more appropriate. However, if the aim is to rather learn more about the topic, and draw a conclusion based on the data collected throughout the process, an unstructured interview should be prioritized.

4.3.1.1 Justification of Interview Guide

In this thesis, I used semi-structured interviews as it allowed me to be in control of directing the respondents through the dialogue while allowing them to elaborate at the same time. Barbour (2014, p. 120) says, *“The key [...] is with balancing the researcher’s agenda with the capacity to leave some room for the interviewee to provide her/his own insights and reflections.”* Semi-structured interviews should be done with a good amount of preparation before-hand. Questions should be constructed before entering the interview, but in a way that leaves room for elaboration. The key is to find a good balance in which you leave the interview with the answers you came for, while also being left with good perspectives from the respondent. This structure of interviewing is the most common technique of all types of interviews. It allows the interviewer to focus their questions rather than building on them in the sake of the respondent’s answers (Leavy, 2014).

When constructing the interview guide, my aim was to cover all topics that were necessary to accomplish a thorough analysis. Fifteen questions were pre-determined and used in all interviews, except for making each of them more directed to each specific company. By reading through the company profile and their publications that were relevant for my research, I would word each question in a way to make them more centralized for each individual company. However, the structure and elicit aim for an answer were the same for each interview. From my experiences, this made me connect more with the respondents as I knew the company from an external point of view and gave them the impression that they could answer on behalf of their company and not the general industry. The basic structure of the questions is listed in Appendix A.

Interviews can be done both individually and in groups, and the use of group interviews have become more common to use. However, for my thesis I wanted to capture each respondent’s independent perspective on the topics that were brought to the table. Although group interviews may count for more discussion and more distinct insight on advantages and disadvantages, the method is very similar to focus groups in which the interviewer becomes more of a moderator than a leader of the dialogue (Leavy, 2014, p. 289). It is commonly used to clarify any existing data, and the outcome is usually like interviewing stand-alone individuals except the fact that there are several perspectives to consider when raising a question in a group of more than one person (Denny & Weckesser, 2022). Therefore, to be able to achieve the answers I needed, individual interviews were conducted.

4.3.1.2 Recruitment Process

It is essential to target the most relevant group of informants when conducting qualitative interviews as you want to achieve data that will contribute the most to your research (Kristensen & Ravn, 2015). Therefore, it is important to consider a small population of potential informants, but with high expertise in the field of study in which your topic belongs.

When choosing who to take part in my data collection, it was obvious as to which industry I would approach. My research is based on the perspective of investment companies, so naturally my informants had to fall in this category. There is a big spectrum of investment companies. Some are family-owned, investing in smaller start-ups, while others have large private equity funds and holds interest in some of the largest corporates in the country. In addition, each company has a different focus, such as oil and gas, new energy, transportation, real estate, etc. For my thesis, I chose companies in different parts of the spectrum, to get different perspectives to a specific topic. By doing so, it gave me a good distinction of data to strengthen my goal even more. The informants are listed in Table 3:

Investment Company	Participant’s Role
A	Partner
B	Associate
C	Director

Table 3 Companies represented and associated participants' roles

4.3.1.3 Implementation of Interviews

Being familiar with the criteria I had set for my informants; I started the recruitment process by reaching out to them personally through e-mail correspondence. For increasing my chances of getting them to agree to an interview, I gave them an introduction to some of the major topics that would be touched upon, giving them a feeling of familiarity. This made me achieve three successful informants in a rather narrow industry, where all were of most relevancy. All interviews were conducted face-to-face, to build a better connection with the respondents. When choosing to meet in person, the information presented is much more than just words. Body language, gestures, facial expressions, and what mood is reflected are all features one can only interpret when being in the same room physically (Leavy, 2014, p. 290). This allowed me to guide the respondent by elaborating on the topics they expressed good comfort in talking about. By doing so, I accumulated knowledge that was not set forth in advance, which would not perhaps have been the case if the interview was done through a phone call, or written correspondence.

Each interview lasted for approximately 40 minutes, of which was enough to give me a good and concise understanding on the matters that were addressed. As a tool for saving the information gathered for future references and use, audio recording was used when interviewing company A, upon allowance from the participant. This method of recording allows the interviewer to save the exact data, including vocal gestures such as pitch, pace and pauses, for future use (Cypress, 2018). However, I found it more beneficial to take notes when interviewing company B and C. I was still engaged in the interview, responding to the participant in situations necessary. This method kept me more focused on exactly what was being discussed, without having to mentally prepare for the next question. It added a better flow to the conversation.

4.3.2 Secondary Research

According to Mouton, “[the] aims of exploratory studies is to include establishing of facts, gathering new data and determining meaningful patterns or themes in a relatively unknown research area, hoping to gain new insight into the phenomenon being researched” (Thomas & Lawal, 2020). Although we are in the premises of a qualitative method, secondary research can be considered the quantitative support to a strong qualitative pillar. Research such as articles, case studies, journals, newspapers, documentaries, books, etc. are all considered secondary data

as it has already been written and published prior to the current researchers collection (Thomas & Lawal, 2020).

In this thesis, I used different sources, both online and through books, which were beneficial for the content. However, one must be very critical on referencing, as many sources will not be viable for a research paper. Although a lot of secondary data expresses skills and knowledge, it can be very limited to the topic it entails. For instance, if one were to use the same data used for researching the contributing factors to the oil price's fluctuation in the US for research aimed to interpret the oil price's fluctuation in Europe, the results would be incorrect in relation to its topic's perspective. For matters like these, the origin of secondary data is extremely exposed to the chance of misinterpretation (Smith, 2008). I have conducted sources in the form of scholar articles, governmental publications, and books. In the sense of eliminating the chance of misinterpretation, my secondary data will comprehend the factors in which are set-in-stone and with a total lack of flexibility to mislead me in my research.

In the next section, I will discuss the results and analysis through my assembly of research. Information gathered from my interviews will have a central role, with a strong back-up from secondary research. This will support me in formulating my findings in the most comprehensive way possible.

4.4 Quality of Research

4.4.1 Validity

Validity is the ability to capture results that are legitimate and fulfils the duty of its role to the research (Mohajan, 2017). It reflects the proper distinction of the accuracy regarding the knowledge conceived. In qualitative research, the measurement of validity is determined through the interviews strategies and approach to collect the most precise answers. There are two essential parts to validity; credibility and; transferability (Mohajan, 2017). The former is the validity measured in the preliminary phase of the procedure: how informants are chosen and interviews conducted. The latter regards the amount of transferability the results have to other populations (Mohajan, 2017).

Throughout this research paper, validity was consciously upheld through thorough planning, implementation, and analysis. By using enhanced qualitative methods, the background for the results were of great validity as they demonstrate knowledge from first-hand sources. The quantitative method of secondary research can be a risky field as they come from second-hand sources and the justification of their origin can be hard to demonstrate. However, keeping validity as a high priority for the selection of my references, they were picked from an esteemed range of peer reviewed and quality-controlled sources. Therefore, the validity of the research is not a subject of caution, but rather one of great robustness.

4.4.2 Reliability

When conducting data collection, especially with qualitative methods, reliability can be hard to uphold throughout the entire process. It encompasses the collectors ability to stay consistent and precise to achieve results that are objective (Mohajan, 2017). In qualitative interviews, staying consistent with each respondent can be challenging as there is a chance that the conversation will lose its planned path. When faced with one-to-one situations, the subjectivity of the informant can be a cause of concern as it may repattern the approach of the researcher and make it more subjective (Mohajan, 2017). It is therefore crucial to be prepared with predetermined questions and stay in control of the interview.

By preparing an interview guide that is objective towards the whole industry, the interviews conducted did not face any concerns regarding reliability. Staying focused throughout the process allowed me to be in control of the whole interview and stay on-topic with the informant. This resulted in high quality data which I then backed up with reliable sources which were gathered from trusted and controlled platforms. Therefore, the content within this research paper can be considered reliable based on consistent results and precise implementation.

4.4.3 Uncertainty

While the topic can be explored significantly through first-hand sourcing from the industry, literature, publications, etc., we are trying to get a good prediction of future outcomes, based on previous experiences. Although we can achieve a depiction of what can be expected, and methods to achieve these goals, there is no way of a guarantee to what it will be next year, in ten years, or in 2050. The global market and industry experiences daily anomalies, and in a

worst-case scenario, these can be of significant matter. Therefore, it is impossible to depict what will happen. However, this thesis aims on arriving to a conclusion on what investment companies' business performance will look like if the Greenhouse Gas Protocol is implemented into their business plan, or if the Protocol extends the requirements to include scope 3, and potentially new methods of reporting.

5 Results and Analysis

This chapter aims to give a clear analysis of the results obtained from conducting the interviews. The scope of the analysis will be presented in respect to the focus questions presented earlier in the thesis. While each focus question contributes to a mutual research question, it is important to grasp an understanding on the crucial elements that will contribute to a conclusion.

5.1 Company Profiles

In this thesis, three participants from three different companies were interviewed. The title of position was also different, as shown in Table 3. However, their level of knowledge and demonstration of enthusiasm and consideration for the topic was highly reflected, leaving good inputs and strong answers to the questions brought up. In this section, each company participating in the research will be presented on an introductory level.

5.1.1 Company A

Company A is an investment company engaged in allocating private equity. Therefore, their primary role is to investigate and discover the highest potential investments for their private parties. Their primary motivation behind decision-making is to make money, as it is for any investor. Previously, their spectrum of portfolio companies has been vast, ranging from brown to green energy. However, what was deeply elaborated on was their ongoing effort to invest in more sustainable activities. The future is green and therefore their focus has seen a shift, where they have established certain requirements every potential company must meet to be evaluated for further investment opportunities. These will be further discussed in section 5.2.2.2.

In the aspect of their internal process for sustainable development, they clearly express their dedication through firmly developed investment and sustainability strategies. When conducting the interview, it was elaborated on the importance of maintaining ESG-factors at an adequate level to further contribute to reducing emissions. In continuum, goals for future sustainability from operations within the organizational boundary have been defined based on realistic expectations and backed with evident methodologies. One fact enhancing their dedication is how they have defined separate goals based on the operation of their investments. Through quarterly reports from their companies, with every smallest detail described, they keep stringent control of their performance. Company A was very clear on how they use their role of power to

influence their companies' climate policy, further enhancing their credibility as a company who act on their goals instead of just having them written on paper. It shows that they are serious actors who intend on following through with their strategies and goals, and not only because of the external expectations from people and organizations.

The ongoing effort to contribute to the common goal of reaching net zero emissions by 2050 is consciously accounted for in their business. Company A has identified their sustainability strategy with clear and attainable goals. Due to their position in the market, it will be interesting to see if they are able to use their power to influence their related companies on the path to net zero by 2050.

5.1.2 Company B

The second company in the research paper, company B, is also an investment company but on the contrary of company A, they are state-owned and are therefore allocated resources from the government to invest in prospects and companies. While an investment company is usually subject to invest in any company they see fit, company B is entitled to only make sustainable investments who contribute firmly to the green development globally. They do not consider companies without a substantial motivation and strategy to undertake further contributions to increased sustainability levels. When it comes to internal procedures for accounting and reporting, they have also established certain goals and requirements to handle scope emissions. In the interview, the seriousness around the topic was well expressed through all the guidelines pertained in their investment strategy. ESG-factors are highly valued and therefore a criterion from their portfolio companies for reporting scope 1 and 2 emissions. Furthermore, when asked which scope was most focused on in the company, neither scope 1, 2, or 3 were mentioned. Company B has in recent times evolved to prioritize the relevance of reporting avoided emissions, so called scope 4 emissions. What makes this interesting is how this newly defined scope is very little known of in any industry, let alone accounted or reported for. This will be further discussed in section 5.3.

The person participating in the interview was extremely knowledgeable about the topic. In addition, the participant was very enthusiastic, expressing a high sense of interest and influential motivation for the topic. This gave a good sense of how the different individuals working in the company have a mindset which is driven and engaged in finding solutions to the ongoing

conflict of the sustainability stance in the world. While they are an investment company, with a sole purpose of investing in green technology, the people working there show appearance of being personally invested in contributing to more sustainability. The importance of this will be further discussed in section 5.2.2.3.

5.1.3 Company C

The third investment company participating in this research paper, company C, is a family-owned business. The money they invest are derived from their own fund, which is generated from private fortune. What makes this stand out from the other two is that in general, they are entitled to make investments solely based on their own ethics and beliefs. They are not dependent on following certain requirements from external sources, other than the GHG Protocol, to be granted money for investments. If they wanted to invest in a carbon-intensive production company, such as an American refinery based in a national park in the USA, they could. Not saying they would but putting it into extreme context shows how they hold all the power for the future development of the company.

With that said, they do not hold any interest in any company whose business is flooding with carbon emissions. On the contrary, they focus strictly on sustainable development, and are represented in a variety of industries. This is why they manage and maintain their scope 1 and 2 emissions and report them once a year. Through KPIs from their current investments, and DDs from potentially new investments, they track the performance of their whole organizational boundary.

ESG-factors are the main source of reporting for company A and B, and company C is no exception. What was somewhat differently expressed, was how much they value the S in ESG. In the past years, they have worked consciously to improve diversity, inclusion, and justice in their workplace. Although this is not directly related to the GHG Protocol, it gives a good depiction of what the company believe are important factors to establish in order to become more sustainable.

During the interview, it was mentioned at numerous occasions how much the board values sustainability. In recent years, they have made several efforts to enrich the future development of carbon-neutral industries. The workers at the company have all been assigned ESG-related

tasks and have therefore been guided towards learning more about it. In addition, they have established their own ESG-report which is published once a year. Therefore, there is no question that green development is of the highest priority, and how they engage every party in the company to further evolve towards a carbon-neutral investment company.

5.1.4 Summary

By evaluating each investment and comparing them on the central topics that will be discussed in this research paper, it gives a clearer view of the perspectives the input has come from. By deconstructing the investment companies down to the fundamental bricks, they are built on, the results derived from the analysis become more interpretable based on the source they come from.

It is evident that the goal and mindset of all three investment companies are very similar. They all want to invest in more sustainable companies and do so by analysing and reporting the ESG-factors within their organizational boundary. Also, each investment company has established goals towards reducing scope 1 and scope 2 emissions. However, the primary scope in focus somewhat differentiated. Company A and company C valued scope 1 and 2 above any other, while company B saw scope 4 as the most beneficial to focus on. What is clearly mutual for all companies is that scope 3 is not included in their reporting due to its extreme time-management and risk for error. Rather, they all rely on subsidiaries along the supply chain to conduct scope 1 and scope 2 reporting.

In the following sections, three focus questions will be discussed and analysed based on the discoveries conducted during the interviews and the theoretical background. The aim is to gain an understanding for whether it is possible for investment companies to adhere to the GHG Protocol while also maintaining their profit and risk profiles.

5.2 Focus Question I

“How must the companies’ investment strategy adapt to fully contribute towards net zero by 2050?”

Expressed in chapter 1, the past 50 years have been dominated by the heavy carbon-intense industries, as these have been contributed to higher welfare and better quality of life in major parts of the world. However, this has taken a toll on the environment and the consequences

from extracting fossil fuels are coming back to get us. The need for change has never been greater, and this counts for all industries as emissions are a central factor for most operations today.

Investment companies are no exception. In fact, they hold a great responsibility as their business operations are strictly investing capital in newly established companies. The investment companies included in this analysis are all very focused on the energy industry – whether it be oil and gas, renewables, battery technology, or infrastructure – the companies they invest in all have in common their dependability on energy. Therefore, following the green transition, which is already under way, changes in their investment strategy must be made to both follow the GHG protocol and still make a sufficient profit margin. In this section, these changes will be discussed in several aspects to further reveal what their options are, and which will contribute the most. The analysis will be based on what was conducted in the interviews as well as secondary research to further strengthen the credibility of the assumptions.

5.2.1 How Capital is Obtained and Their Limits

To further understand the investment companies' business and how they are generating returns, we must first account for the sole contributors to their success – the investors. People and organizations with large funds seek guidance and resources to further grow their fortune. This is where the investment companies come in. Their purpose is to take the capital handed to them from investors, allocate it in assets with high potential, and follow the development of the assets before selling at a high return. The investment companies count for almost all the work related to growing the businesses. Furthermore, the supplied capital usually comes with additional requirements other than just a positive investment return. These requirements can vary, for example, the level of the expected return, the length of the investment, the risk associated with the investment, or the industry in which they wish to invest in. If the investment company is unable to meet the specific requirements, they will not go through with the deal. Therefore, investment companies must be stringent to the requirements of the investor.

The requirements of the investors operate on different premises. However, the investment company must make sure that their business adheres to the GHG Protocol's requirements on scope 1 and scope 2. Further on, each investment company will be presented on the different

requirements they are presented from their investors, and whether these will cause long-term benefits for them in the ongoing green transition.

5.2.1.1 Private Investors and Funds

There are numerous ways of investing: Real estate, bonds, options, etc. are some of many examples on what opportunities there are for a private investor. Anyone can become an investor, no matter how much money one wishes to allocate, it could be ten dollars or 10,000 dollars, numbers do not matter to call oneself an investor. One way is to invest directly in publicly listed companies, also referred to as public trading. As mentioned, the amount one chooses to invest can vary in large proportions. Nevertheless, if you hold interest in a company on the stock market, you are considered a private investor. Another common method for investing is through funds. While public trading can be highly profitable, it is a high-risk activity due to its exposure to global volatility. Anything can influence a stock and cause a swift downturn with subsequent substantial loss. Funds, on the other hand, drastically decrease the risk as it is closely monitored and controlled by experts of the field and investments are made on a broad scale. Therefore, many private investors use this as a method for long-term saving as the probability for growth is substantially higher.

The private investors and funds with whom the investment companies described above are associated usually account for substantially larger amounts of capital and seek larger equities in a company. In such cases, they seek investment companies who particularly invest with private equity, such as company A. As mentioned above the requirements of the investment are defined by the investors. Company A, who allocates private equity, are significantly more dependent on meeting the requirements from their investors. During the interview, it was revealed what the main criteria of the investors were, and how these have evolved during the past few years. Company A controls both legacy companies (mostly within the fossil fuels industry) but are now actively looking at new investment opportunities within the renewable segment. The requirements vary depending on whether the investors are already engaged in companies owned by company A or if they are new investors looking to invest in start-ups.

As mentioned in section 5.1.1, company A has a vast portfolio containing companies in each corner of the energy sector. Therefore, the requirements will vary between new investors and those who have been involved over the past years. However, there was a clear agreement on

two factors: It must maintain a profit and it must be a contributor to the sustainable development of the sector. Company A has set an expected yearly return of 25% for their investments. All the investment companies agree that an investment must show beneficial performance and a sustainable importance. However, it was highlighted how a large part of the investor community were not willing to involve themselves in anything related to the oil and gas industry. A full stop, to say the least, and with good reason as any active party who has an impact on the global carbon-emissions must follow the GHG Protocol and further contribute to a reduction in the greenhouse gases. While the main motive for the abandonment was heavily related to the negative effect it has on the earth and how it will contribute to a reduction in our general well-being, it was also demonstrated that it was politically motivated. There was a general negative perception of being related to the oil and gas industry, both among governments and especially the public. In recent years, the number of climate activists has grown tremendously and are taking a far more active stand against the industry by demonstrating directly towards the biggest actors within the oil and gas industry. A shame-stamp has been created by those who are dedicated to putting an end to carbon emissions. It is obvious that this has become more visible. Media is writing more about it, influencers have become more dedicated and are in turn using their social power to communicate on the matter, and more importantly, it has become a priority for the state. It has, without a doubt, changed the perception of the wider audience.

On the back of this, investors are also influenced by the amount of negativity surfacing with the oil and gas industry. There is no secret that producing and selling fossil fuels creates high profit margins, it is the world's largest industry. Additionally, it is the primary source of energy across the globe, and is used, in one way or another by most people. However, the opportunity of making great profits on investments has been down-prioritized for the benefit of contributing to something larger than individual profit and avoiding the shame-stamp. The desired effect is related to future professional relationships, and future investment opportunities. Continued investment in the fossil fuel industry jeopardises the investors reputation and in worst case they can lose their position in the market.

Like playing dominos, this has a direct effect on the investment companies as they are obligated to meet the investors' requirements and must therefore take these factors into strong consideration when making investment decisions. While they are entitled to share their own reflections around the matter and whether the requirements are too demanding for the purpose

of making the desired profit margin from their investments, at the end of the day, the investors giving them the capital needed to purchase companies have the last say.

Although the general trend is towards a total shut down of the oil and gas industry, some investors are still somewhat more liberal. If we were to abandon the oil and gas industry today, it would cause devastating problems for the global economy. Although oil and gas production and usage are the biggest influencers on carbon emissions, there are ways of making it more sustainable. The GHG Protocol never states that oil and gas must be abandoned, but rather how it must be maintained at appropriate levels. The goal stated in the Protocol is not “Zero by 2050”, it is “Net Zero by 2050” (Section 2.1.1). This does not mean that there cannot be any carbon emissions at all, but rather that there must be a balance between emissions released and emissions avoided. For these reasons, some investors are open to allocating money in oil and gas investments. Company A presented how the investors they work with allocate their money. Their total allocation used in investments are divided into bulks. These bulks each represent a different industry where they wish to allocate X% of their fortune. Figure 6 shows an example of how it could look like:

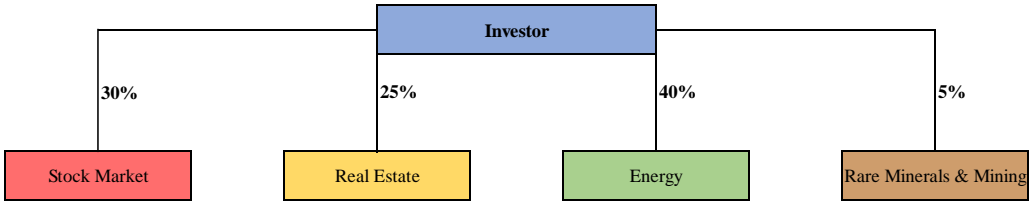


Figure 66 "Bulks of money"

Figure 6 illustrates how an investor distributes their funds. For instance, they allocate 30% to the stock market, and 40% to companies in the energy sector. The percentages are random, but what was clearly described by Company A, was that the bulk of oil and gas investments (which falls under the category “Rare minerals and mining”) is substantially smaller today than it has been. The consequences following the investors’ ongoing exit from the industry, is that oil and gas companies will no longer receive funds from private investors. In the same way, investment companies will be affected if their portfolio consists of such companies. They are categorized on the percentage of investments they hold in each category. For example, if their total portfolio consists of 60% oil and gas related companies, they will fall under “Rare minerals and mining” and lose a great deal exposure to investors. Therefore, investment companies are actively

working towards greener investments in order to be replaced in another category, and further build their investor relations.

5.2.1.2 Government and State

When looking at where the state derives their revenue and assets from, the sources are many. For instance, the Norwegian pension fund's primary money-maker are through activities related to the oil industry. However, these earnings originate from state-owned companies, where majority of the income comes from Equinor which is a state-owned exploration and production company with assets and reserves across all continents. It is no secret that the Norwegian welfare is a global leader and that this is entirely related to the success we have seen ever since oil and gas was discovered in 1969. However, as the energy revolution is already in progress, the Norwegian state must seek other opportunities. As an attempt on becoming carbon-neutral by 2050, state-owned investment companies have been established, and their responsibility is to maintain the cash flow through green investments.

Company B is state-owned and is therefore presented with a certain percentage of the state pension fund which is designated to investment companies. Although some of the requirements are very similar to those of private investors (section 5.2.1.1), seeing that the resources are coming from the state themselves count for a rather different focus as to what the benefits of the investments must be. Every investment company has a required rate of return, and company B is no exception. They still need to make money on their investments. However, it was clearly elaborated on how they also actively map the effects of their investments. Both direct climate effects, but also the potential long-term effects they will have on the GHG emissions. Through stringent reporting and calculations, they must identify the whole spectrum of the emissions that will follow their investments. This will be more discussed in section 5.4, but these are standards that are identified by company B in collaboration with their owner, the state. They need to follow the identified protocol to stay alive. Although it might seem as if the state is requiring carbon-neutral emissions as well as a set rate of return, they are merely more focused on the long-term aspect. Yes, they must maintain a profit margin through investments, but as for the emissions, they just need to make qualitative decisions and back them with evident reporting on the long-term effects they will have on reducing GHGs. The purpose is to be

involved in the sustainable development, earn money of carbon-neutral activities, and contribute to the ultimate goal of being net zero by 2050.

5.2.1.3 Family Office

Company C is an interesting subject as they are a family-owned investment company. The authority lies within themselves, and they do not have any owners to report to as they already work in the company and are a part of the daily operations. Also, compared to private investors, funds, and the state, the owners account for a substantially smaller group of individuals. As mentioned in section 5.1.3, the money they allocate to their portfolio companies come from their private accounts. Therefore, the requirements they need to follow are those defined by themselves. As for any active company, they must still follow the GHG Protocol, and report on scope 1 and scope 2 emissions. But who gets these reports? The owners do. In other words, they report to themselves. Therefore, they can invest in whatever they want. If they are strong believers in the oil and gas industry, they can put all their money in it. All in all, it falls on the ethical piece of it: The owner's opinions, their beliefs on the effects of GHG emissions, and their own goals for the company.

5.2.2 Accounting and Reporting

Accounting and reporting are the main methods for conducting emission controls. There are several ways to go about it, and the participating investment companies all have different methods to report their emissions. However, they must all be able to calculate the necessary measurements to present scope 1 and 2 emissions. It is therefore important that their methods are precise and reliable in the efforts of contributing to net zero by 2050.

5.2.2.1 Protocol Demand of scope Emissions

In section 2.2, the scopes in the GHG Protocol were presented. The importance of documenting emissions by the investment company was a decisive factor for the further development of GHG emissions. However, as stated by the Protocol, only scope 1 and scope 2 is a requirement to reach the goal by 2050. Scope 3 is optional mainly due to reasons mentioned previously, and the associated reporting would cover every source of emissions throughout the value chain (section 2.2.3). For example, an investment company who holds interest in an oil and gas company would have to cover the whole spectrum, from themselves to the facility who

constructs the pipes used in oil extraction, to the production of the hydrocarbons. It is a time-consuming process, which therefore is extremely prone to missed data and errors in measurements. In some ways, one might argue that including scope 3 in reports would be neglecting the importance of control and management of emissions due to its high risk of miscalculation. However, it is interesting that both company A and B include scope 3 emissions in their reports, even though they specifically said that they do not do the calculations for the companies outside their organizational boundary. Therefore, what they report as scope 3 emissions are measurements gathered and calculated by the subsidiaries and suppliers themselves. If the investment companies were to go further down the supply chain themselves, it would be too time-consuming which would further affect their business performance. They want their portfolio companies to express ownership and manage their own boundary's emissions. Figure 3 gives an illustration of what the investment companies expect from their whole corporate structure when it comes to reporting emissions:

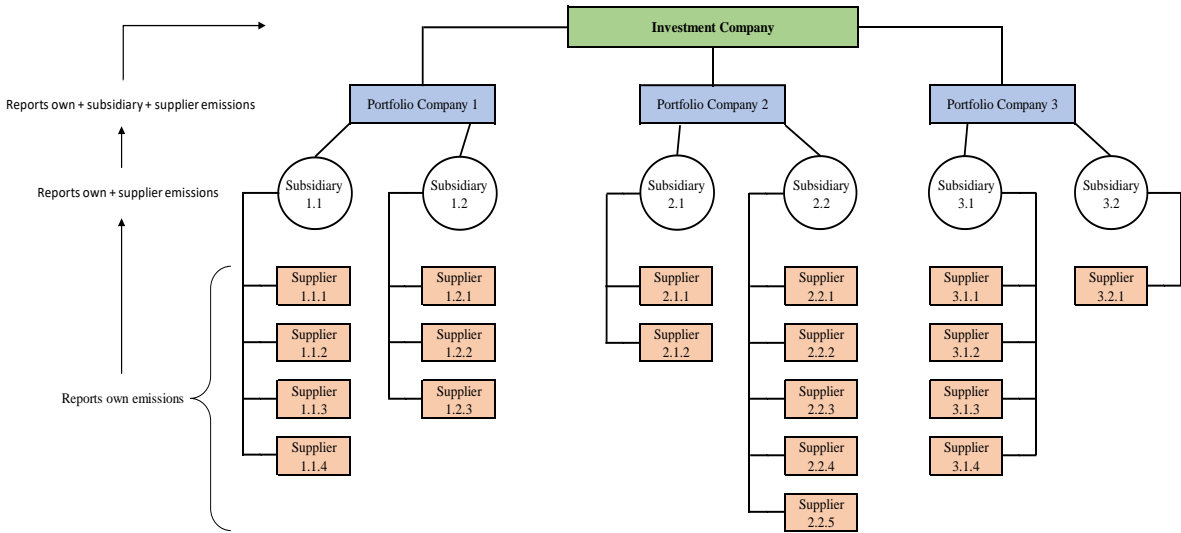


Figure 77 Illustration of reporting expectation

This method relieves the investment companies from having the full responsibility to do all the data collection and calculations for every party in the supply chain. Rather, they rely on their subsidiaries and suppliers to keep control of their own emissions. There are arguments for and against this being the most efficient method for keeping stringent control of emissions. For instance, a certain level of trust is required that the data received is correct. Although it is possible to detect whether numbers are far from realistic values, there is still a fair bit of wiggle room. The investment companies could go back and thoroughly control the numbers, but none of them do as this would go against the whole reason for using this method: avoiding scope 3

reporting. In addition, they elaborated on the risks of assessing reports on scope 3. The high work capacity needed was a main reason for not doing it themselves. The amount of time it would take from the individuals who would be taking on the analyst roles would be to such an extent that they would not be able to cover their main tasks at work.

However, they are not violating the GHG Protocol through these methods. Rather, they are meeting the requirements as they are reporting extensively on scope 1 and scope 2 as these count for themselves and the next leg in the corporate structure, the portfolio companies.

5.2.2.2 ESG-Reporting

To further understand how investment companies are exposed to ESG, the reporting method is fundamental in understanding the path the companies' investments are taking. ESG-reporting has therefore become an essential part of their total reporting, and most companies publish these reports with an elaborative description of each portfolio company. The interesting aspect is what impact extensive reporting will have on creating additional investment optionality and whether their dedication to following the GHG Protocol will count for more market advantage. ESG (Section 3.1) are factors that have become central for the reporting on sustainability. All investment companies in this study have developed their own ESG-report where they present different calculations and measurements related to GHG emissions, social regulations related to the working environment, and regulations related to legal requirements. More defined examples are listed in section 3.1. While the investment companies all reported on important factors, there was a big difference in what they published. For instance, one investment company reported all data relevant to emission numbers, giving a summarized overview of how each portfolio company's emissions had developed over the past years, and what they expect them to be in the future. There were good depictions of the "E", "S", and "G" all around. Another company was only focused on reporting the "S" and "G", giving a clear overview of what the company's focus was. However, the values related to their emissions were not disclosed, giving an impression of them wanting to keep them hidden. The third company was very similar to the one reporting on all three ESG-factors. However, most values were represented through words and not numbers.

Throughout the interviews it was described how they exactly calculate the reported measurements. Company A and company B had developed their own methodology where the

requirements from the GHG Protocol, their investors, and themselves were documented. The data was reported from portfolio companies every quarter by company A, and every year by company B. Company A documented their results through an extensive spreadsheet, processing data and giving them a unified result by assessing an ESG-ranking ranging between 1 and 5, where 5 is the highest grade. When asked if there were any individual factors that were more valued than others, both company A and company B replied that all factors were equal, and no factors could compensate for another. In the aspect of the Protocol, this is extremely important as there are regulatory factors which count towards the required reporting, and other factors that do not.

In the following example, the importance of keeping the ratings individual is described: Investment company T have assessed a rating on the data accounted for by Company XYZ, who they are looking into investing in:

Environment	2
Social	5
Governance	5
Total	4

Table 4 4 Example on ESG-rating for Company XYZ

If all factors are considered equally, the average of the three would form a total rating of grade 4, the second-highest achievable. However, factors that fall under “Environment” have received a grade 2. The reason being that their emissions were much higher in the first, second, and fourth quarter, preventing them from meeting the scope 1 and 2 requirements for the year as defined by the GHG Protocol. It is evident that company XYZ did not meet the GHG Protocol requirements. However, since investment company T only considered the total rating, they evaluated it to be above investment grade and decided to go through with the investment. Later, they would realize that their emission-levels are far from acceptable and are now involved in the problem, having to pay unnecessary carbon taxes, and finding a solution to something that could be easily avoided.

This is the outcome of letting the “S” and “G” factors compensate for “E”. Scope 1 and 2 only count for direct and indirect emissions which are only accounted for under the Environment-factor. Yes, there are Social- and Governance-factors that can have a slight influence on future

emission-control, such as climate policy, but nothing that contributes significantly to emission reduction. It is therefore needless to say that evaluating each individual factor is necessary to operate in accordance with the GHG Protocol.

Company C reports their own emissions as well on a yearly basis. However, within the corporate structure, only two of their portfolio companies accounted for their own GHG emissions. Therefore, there are several companies who are excluded from the overall GHG reporting. Although this might sound like a violation of the Protocol, nothing unlawful has been done in this context. There are several legitimate reasons why some companies do not have to report on their emissions. For one, they are already carbon neutral. Many companies do not actually have emissions to report because their operations do not have carbon footprints. In fact, some companies enhance the balance within the corporate structure because their operations count for a reduction in emissions in other companies' activities, contributing towards a net zero carbon emission. This is the case for company C. Their greatest revenue-contributors are in fact the two companies who report on GHG emissions. While the others are smaller in size, all of them either have sustainable core-activities, and they are contributing significantly to the corporate's sustainable development. Therefore, their method of reporting does adhere to the GHG Protocol although it does not include all parties. However, there are scopes and measures that pertain to the Protocol which are neglected when not accounted for. These will be further discussed in section 5.4.1.

5.2.2.3 Analysis of Past and Future Development

While there are methods for predicting future development of the company's GHG emissions, and how it will affect the profit and risk profiles, it is impossible to obtain a precise and trusted depiction. However, analysing past results and identifying what can be future influential factors may set a standard for assumption. Net zero by 2050 is a long-term goal, dependant on consistent and updated reporting and that companies actively engage in lowering emissions. While there are no guarantees that future predictions will reflect the actual outcome, it can serve as a guideline for companies to make sure they follow the right path.

To start with, it is crucial that the data collected, and the calculated results are precise. In addition, the appropriate data must include all aspects considered in the GHG Protocol, which is why all the investment companies collect ESG-measures. To use an example, we will look at company A’s reported emissions and profit to depict how it will develop in the future. Figure 8 represents the trendlines of Company A’s scope emissions and profit since 2019:

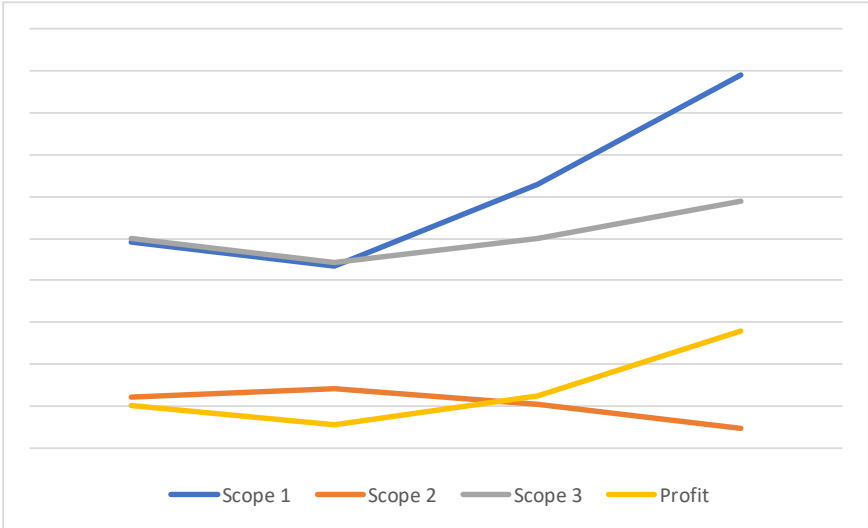


Figure 88 Company A total emissions and profit, 2019-2022

Extracted from company A’s published ESG-reports from 2021 and 2022.

Trendlines are a great indicator when making predictions on development and which factors are the most influential. What is important is to investigate whether there are other factors not included in the graph that can have been a strong influence on the outcome. For instance, there was a decrease in scope 1 and 3 emissions between year-end 2019 and year-end 2020. In March 2020, there was a pandemic outbreak worldwide, causing immense restrictions among all countries in the world. This had a substantial impact on all industries. Company A also mentioned the oil price dropping to a very low level, significantly affecting the investment company’s profit. There was a strict quarantine-rule, which affected the physical workers on-site. Home-office became a new lifestyle, and it was acknowledged by company A that there were hardly any work-related flights in the period, contributing to the reduction of scope 1 emissions. Imports and exports were strictly delayed due to diverse restrictions on port-authority and the availability of products. The world was in crisis which in turn developed a demand shock in the global market. Less availability of services, reduced access on goods, and a social isolation consequently developed a suffering among communities. These were also affecting the operational performance of many production companies which in turn had a direct

effect on their total income. What is interesting is that in the same period, scope 2 emissions saw a slight increase. These emissions are related to purchased energy such as electricity and heating used on-site. With the absence of maintained levels of operations, it seems counter-active as to why these emissions went up. However, there are factors that can be put into consideration. The most evident one would be increased power consumption. Although the performance declined, it was never due to the fact of a complete shutdown. Rigs, platforms, buildings, and other locations were still active. However, due to the experienced delays, these locations had to run for longer periods of time. For example, oil extracted from the sub-surface had to be stored for longer and maintained adequately. This counted for higher levels of required power, increasing the related emissions.

For the following two years, 2021 and 2022, scope 1 and 3 saw a substantial increase, following a higher profit. For 2021, this was mostly related to the world slowly opening back up after a tough year in lockdown. However, the trend kept increasing throughout 2022, and what happened in 2022? Russia invaded Ukraine, resulting in a massive global protest and a unified effort on weakening one of the leading oil and gas suppliers through a large variety of sanctions. The sanctions in turn led to a supply shock among consumers due to the substantial decrease in available energy. As a consequence, we saw a rapid increase of the oil-price, which had a great effect on the profit of oil and gas industry. This increased the scope 1 and 3 emissions as more oil and gas was being produced.

Nevertheless, scope 2 emissions decreased, mainly due to increased regulations internally. The investment companies agreed on how they have significantly reduced physical business meetings, saving travel-related emissions. In addition, company A highlighted that the energy consumption has consistently decreased the past three years, mainly due to the electricity prices rapidly increasing in 2022. Alongside company B and company C, the emphasis on the change in priorities among their co-workers were extensive. People are more aware of the common effects they have on the overall emissions. Spreading more knowledge about the topic has further enhanced their unified effort towards a sustainable contribution. Company C are more cautious on waste management, recycling everything on the workplace. Although these factors may seem small, they are contributors to the bigger picture. When the aim is to make a permanent change, starting small is often the best starting point.

Looking at all scope emissions gives a good indication on where the whole supply chain is heading in terms of sustainable activities. However, as we already know, the GHG Protocol identifies scope 1 and 2 as the most crucial for reaching carbon-neutral levels. As can be seen in Figure 8, scope 2 emissions count for a fraction of the total, making it clearer that scope 1 is the most influential factor on the total emission scope. Company A has different companies in different industries. In Figure 9, six of the companies with the highest scope 1 emissions are represented:

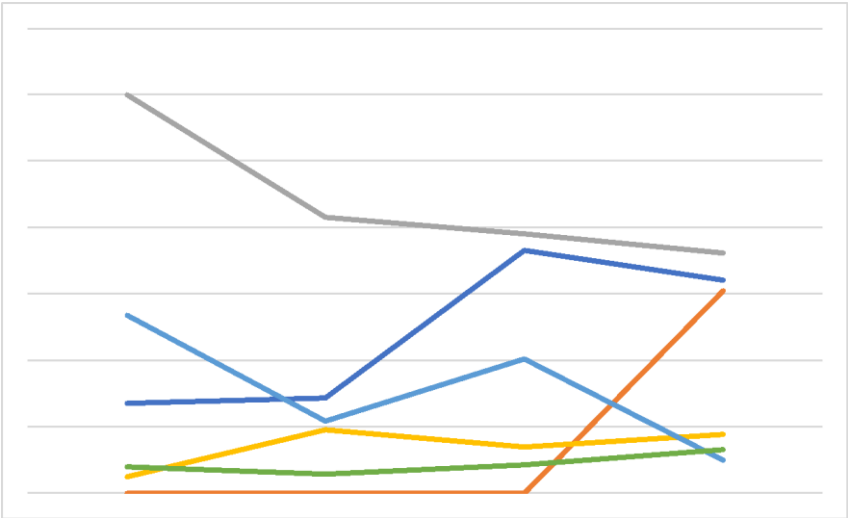


Figure 99 Company A scope 1 emissions, 2019-2022

Extracted from company A's published ESG-reports from 2021 and 2022.

Six trendlines show the various developments of six companies scope 1 emissions. While some are dropping, others are rapidly increasing. However, the biggest emission contributor, represented by the upper trendline, continued to decrease their carbon footprint. The most carbon-intensive company has substantially decreased their direct emissions, causing a great effect on the total emissions profile of the investment company. In addition, there is clear evidence that reducing scope 1 emissions contributed to company A making a larger profit. What must not be misunderstood is the fact that company A's development towards carbon-neutral levels is a portfolio effort. No single company can be the sole bearer of the development. For example, the company represented on the top trendline of Figure 9 is not an indicator of company A's scope 1 development. Every company must contribute in order to meet the ultimate goal. Therefore, interpreting each scope on a company level will not contribute to a sustainable plan for development. Rather, the total emissions must be interpreted and further break them down to see which companies have the most potential to reduce emissions without

it affecting the total profit. For an investment company, several factors must be considered. For instance:

- When the company was established
- Which industry they operate in
- When they started producing at the expected level
- The suppliers

These are some of many factors company A identified as crucial for further planning of emission reduction. A newly established company will experience more emissions than a well-developed one. They need experience in order to target the main contributing factors which is dependent on generating enough data. In addition, it is highly relevant as to which industries the companies operate in. Comparing emissions from a company producing wind-power to a company heavy on refineries will not give a good perspective on the total necessity for change for the investment company. While the GHG Protocol does not count for reporting further down the supply chain (suppliers, developers, etc.), it might have to be questioned whether this is an essentiality to meet net zero by 2050. This will be further discussed in section 5.4.

5.2.3 Summary

The ongoing effort towards reaching the mutual goal of net zero by 2050 has seen great fluctuations in business strategies among all industries who need to adapt to the GHG Protocol. While the Protocol has identified its requirements, it is up to the companies to seek the most beneficial strategy to adhere to them. For companies such as company A, the biggest priority is towards the investors as they are dependent on them to even stay in business. However, family offices, such as company C, do not necessarily have to meet any other requirements except those identified in the GHG Protocol because they are in complete control of the money being allocated.

There are many factors to determine when making an investment decision. A clear and well-structured strategy with attainable goals is crucial for the development towards greener investments. It is evident that all companies have a structured plan on how they will reach net zero by 2050, although there were some divergences among them. It is impossible to say who has the most efficient and realistic strategy as they have defined it according to their own factors

which must be satisfied. It is no secret that company A had a more detailed plan going forward compared to company C. However, company C has a different exposure, with a smaller portfolio where most of their companies already engage in sustainability development in their core-activities. Therefore, their emissions will be at a much lower starting point to begin with. company A, who have investments throughout a spectrum of industries, will need to account for their existing companies' emissions while actively seeking greener investments so their emissions can meet a balance, and furthermore reach net zero. Company B had a much higher emphasis on the climate impact following the investment. While they do account for the investment being a contributor to their overall profit, there was a larger focus on the direct climate effects they will obtain in a long-term perspective. To assess this, they have implemented scope 4 as one of the main methods for depicting these effects. While some may find it a high risk to incorporate a new way of accounting for emissions, it might also be the determining factor. Nevertheless, they are expected to invent an entirely new strategy which focuses on a primary exposure to a new and unpredictable industry: renewable and green energy.

Choosing the right investment strategy is purely based on the fundamental requirements which must be met. Analysing past emissions and highlighting major events that have had an empowering effect on the development can be a tool for further assumptions. However, what was explained as most efficient in the ongoing transition was to be fully updated on the individual developments of each company. This would further contribute to a better overview of what efforts were necessary to continue the reduction of emissions. Therefore, an investment strategy which emphasizes the importance of consistent data collection and reviewal of performance will contribute to higher control, easier establishment of forward regulations, and a more predictable future outcome. In addition, actively seeking potential investments with a clear vision on their contribution to the green development, with proof of results, will be a game-changer for the future of investment companies.

5.3 Focus Question II

“Are there any other strategies not yet accounted for that can contribute more?”

The scopes identified in the GHG Protocol are deliberate as they account for all emissions related to any operation throughout the global market. In chapter 2, a full description on how the Protocol was built, what the requirements are, how to report them, and what the benefits are

was highlighted. We must however take into account when the GHG Protocol was published. The GHG protocol is 25 years old and has not undergone any significant changes. The Protocol is based on the perspective back in 1998. The world has seen a significant change since, including numerous discoveries within new technologies, and an ever-growing demand for efficient energy sources. The Protocol is a long-term plan counting for general perspectives of emissions. What if the energy shift has unveiled new findings which are not accounted for in the Protocol? What if scope 1, 2, and 3 do not account for all emissions both now and in the future? What if there are better methods for reporting which will further enhance emission control? This section will discuss a newly identified scope which is not included in the GHG Protocol: scope 4.

5.3.1 A New Methodology for Emission Measure

In section 3.2, we described what scope 4 emissions are, where they are derived from, and their role in relation to the GHG Protocol. One interpretation is that scope 4 is not a new method for measuring emissions, but rather a rephrased representation of what has already been identified. Nevertheless, it has not been deemed a significant factor in the GHG Protocol and is therefore not considered a requirement. Due to the Protocol's age and the new factors that have taken a bigger role in the ongoing green development, the potential of including scope 4 on the same level as scope 1, 2, and 3 might be a necessity. Company B certainly thinks so.

The state-owned investment company with a primary purpose of investing in green and innovative technologies, have concluded that scope 4 must be accounted for in the same manner as scope 1 and 2. Being fully aware that it is not a requirement, they still believe that a higher focus on the reporting of avoided emissions will count for a better perspective in investment decisions, and therefore show positive long-term effects. When elaborating on the topic, they highlighted how it was challenging to quantify the climate effects that follow the activities which was the primary motivation of finding new methods for reporting.

Using an alternative method to those represented in the GHG Protocol turned out to ease the challenges of quantifying the climate effects. When asked how this contributes more in relation to scope 1, 2, and 3 reporting, the answer was by comparisons. By measuring the effects of a new technology compared to the one used today, the benefits of investing became clearer, and

it was easier to interpret the long-term effects. In Example X, which was first presented by company B, we get a clearer depiction of the essence of scope 4 reporting.

5.3.1.1 Example X – Scope 4 Emissions

Passenger cars alone count for 15% of the total emissions generated by the European Union (Fontaras et al., 2017). Reducing the number of cars that run on fossil fuels may only represent a small fraction of the emissions, however it would have a substantial impact on the demand for oil and gas. To further evaluate the scope 4 reporting method, we will consider an example comparing the total emissions through the lifetime of internal-combustion engine vehicles (ICEV) and battery electric vehicles (BEV). The aspect is an investment opportunity in a car-producing company of electric vehicles.

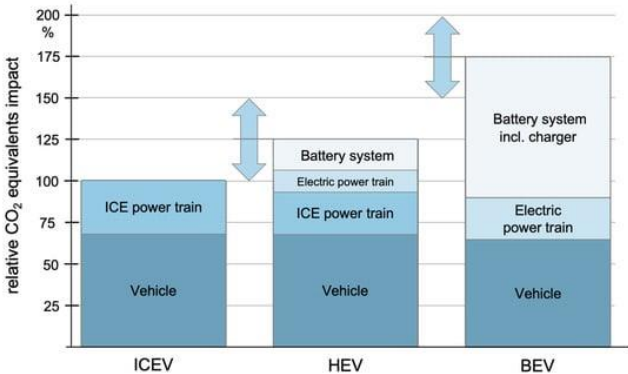


Figure 1010 Carbon-emissions during vehicle production (Hirz & Nguyen, 2022)

Figure 10 represents the total emissions of producing vehicles running on 1) fossil fuels alone (ICEV) 2) both electricity and fossil fuel (Hybrid Electric Vehicles (HEV)) and 3) only electricity (BEV). From the graph we can see that battery systems generate substantial amounts of carbon emissions when produced, counting for 50% of the total emissions when producing the vehicle, resulting in a 75% higher total emission in the production of BEVs compared to ICEVs. This is a very important factor to include when assessing a scope 4 calculation. To be able to represent a legitimate picture of avoided emissions, one must include the total emissions of the whole life cycle of the product, bringing us to the next aspect, carbon-emissions released through the use of the product:

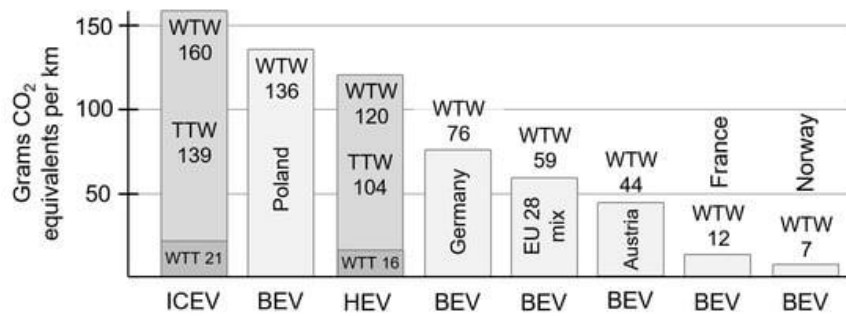


Figure 1111 Total emissions through usage (g/km) (Hirz & Nguyen, 2022)

WTW – Well-to-wheel: Total emissions related to usage.

TTW – Tank-to-wheel: Emissions related to energy fuelling and usage.

WTT – Well-to-tank: Emissions related to the production of fuel/electricity to the insertion of it in fuelling tanks.

(Hirz & Nguyen, 2022)

As represented in Figure 11 we can see that there are substantial differences in which country the vehicle is located. The average CO₂ emissions per km for BEVs in the EU is calculated to be 59 grams. This is 63% less than those generated by ICEVs. Figure 12 shows how much CO₂-emissions are saved when using a BEV instead of an ICEV in the EU:

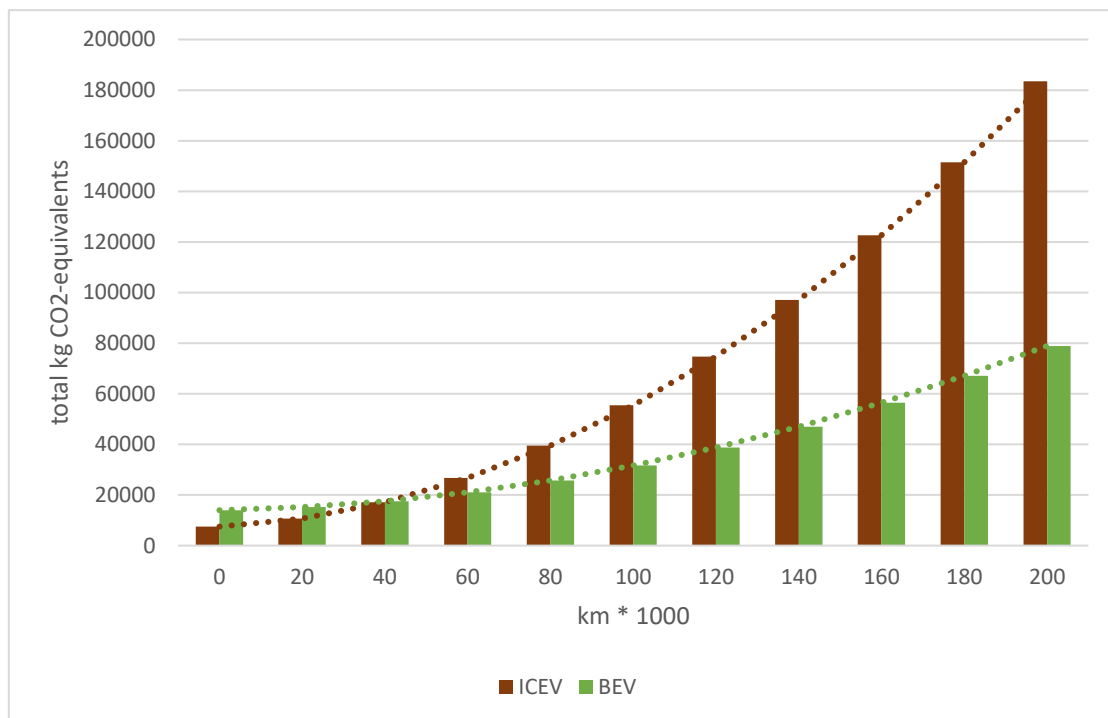


Figure 1212 ICEV emissions vs BEV emissions in the EU

Data extracted from SOURCE

In Figure 12 we can see that the total emissions caused by an ICEV surpasses the BEV after approximately 40 000 km. Assuming the average driver drives 15 000 km per year, it would translate to 3 years in service. Today’s vehicles are robust and can last several years before becoming incompetent. Assuming that both vehicles reach 200 000 km, the BEV will have emitted ~58% less CO₂-equivalents than an ICEV. As mentioned above however, this will vary depending on the country in which they operate:

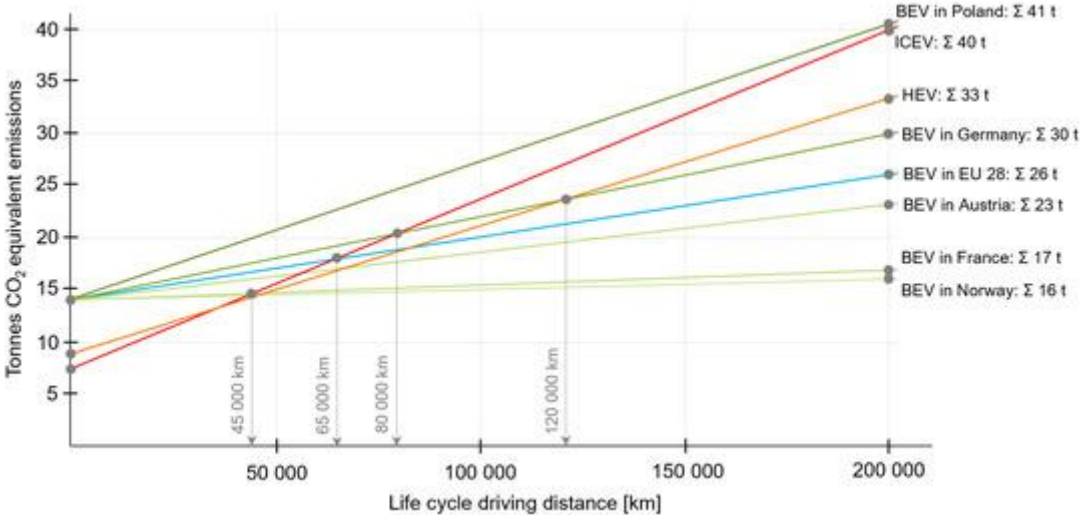


Figure 1313 Vehicle emissions in geographical boundaries (Hirz & Nguyen, 2022)

A car operating in Poland will give significantly increased emissions compared to the EU, emitting more than an ICEV during the same life-cycle. This is mainly due to the emissions caused during the WTT procedure as Poland has significantly higher GHG emissions in the production of electricity. (SOURCE) Therefore, it is important to consider all factors that affect the emissions of a product. Otherwise, scope 4 reporting can fail to meet the principles of accuracy (section 2.3.1.5) and completeness (section 2.3.1.2).

5.3.2 Grade of Efficiency

By using these methods, it is possible to predict future emissions and further evaluate which is the most valuable investment in terms of contribution to net zero. This will gain a great significance for investment companies as it can assist them in making very accurate presumptions on how an investment will affect their profitability. As mentioned, the primary goal for almost all investment companies is to earn a profit on their investments. However, they are now forced to change their strategy from investing in industries with high potential for economic growth (oil and gas) to new technologies which is yet to be utilized to its full potential

(renewables). The future development within the global energy sector has become a risk for investment companies due to its high uncertainty and lack of predictability. Nevertheless, scope 4 reporting could be a significant tool to use in order to reduce the risk and contribute to a better outcome for business development.

It cannot be neglected that it might be more an advantage for reporting on product emissions than operational activities. Physical products with limited operations are more predictable. For instance, reporting scope 4 emissions on the vehicles used in the example in section 5.3.1.1 are much more reliable as their operational limits are defined: They can only be used for road transportation. However, if scope 4 reporting were to be assessed on an oil company, there are many more factors that must be accounted for. Reporting the avoided emissions of one platform, or a pipe supplier's factory will only count for a fraction of the total production site. It was previously mentioned that the investment companies avoided scope 3 reporting due to its time-consumption. Therefore, it can be perceived that they do not wish to spend more time on emission reporting than necessary. However, if scope 4 emissions were to become a part of the reporting process, this would further add on to an already iterative process, resulting in a higher workload.

The fact that company B has identified scope 4 as their main reporting is important. While the GHG Protocol has been a good starting point, company B have evolved it further and derived a new methodology from it to present emissions in a clearer and more elaborate way. Presenting avoided emissions gives company B a better perspective on how full cycle emissions influences the investments. Instead of just stating the reduction of emissions, they have established a strategy which compares the long-term emissions contribution with the relative solution used today. This adds depth to the analysis and underlines the efficiency of each investment. Furthermore, it can be a reputation builder and further elevate their position in the market and possibly attract more investors or co-investors.

The method of scope 4 reporting is also a good indicator for predicting the profitability of the investment. An LCA will give an illustration of the different segments a product will go through during its existence. While it contributes to give an overview of the expected emissions that will occur, it can also be used as a tool for forecasting costs and further calculate its predicted return on investment. Although some events can not be predicted, factors such as price

escalation, increased carbon taxes, and other regulatory modifications can be added as possible contributors to the overall costs. An illustration is presented in Figure X:

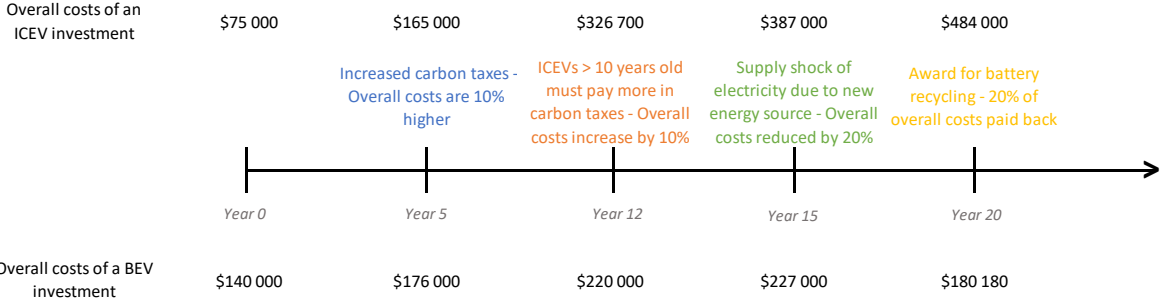


Figure 1414 Cost development of ICEV vs BEV - Values and announcements in the example are purely fictional, following the same trend as figure 13

The example shows how different change of events can impact the overall cost of an investment. Figure 14 represents an ICEV investment vs a BEV investment. When comparing them, the ICEV investment is only affected by the increases in costs, while BEV investments get the benefit of reducing them. Similar assessments can be done for other investments. By extracting the costs from the predicted profit, an assumption of what the expected return might be, can be made.

5.3.3 Summary

There is a growing evolution within the energy sector and investment companies need to actively contribute to the transition to be able to survive in the new business environment. Although the requirements are clearly presented through the GHG Protocol, finding new ways of reporting can both reduce risk and enhance profitability due to its higher degree of certainty. Scope 4 reporting is a tool which can be used in making future predictions, both in terms of emissions and expected earnings. By comparing different technologies towards each other, it becomes clearer which will be the most efficient investment to make, further enhancing their chances of increasing profits.

Although new methods for analysis rarely come without drawbacks, scope 4 counts for more opportunities than challenges. Because it is a tool for mapping long-term effects, it limits the risk of being influenced by unexpected events, as these can be counted prior to them happening. Not saying that investment companies can predict an economic crisis or natural disasters, but they can include any predictions which have the potential of occurring to the best of their

knowledge today. Although it does not distinguish efficiency in the reporting procedure, and is dependent on consistent updates and maintenance, the benefits of using this method should overrun the tedious process it comes with.

We cannot predict how the energy sector will look in the future. Maybe oil and gas will keep dominating for decades to come, or maybe we have extracted a new energy source which is ten times as efficient. However, it cannot be neglected that when a reporting method can assist in predicting future developments, it must not go to waste. The fact that companies can take a small breath of relief by predicting future profit and risk outcomes should be of high priority, even if it comes with a slightly higher workload.

5.4 Focus Question III

“Will scope 3 have to become a requirement in order to reach net zero by 2050?”

As it has been pointed out numerous times, the GHG Protocol identifies scope 1 and scope 2 reporting as a requirement to be able to reach net zero by 2050. Although three scopes are included in the Protocol, the third is optional due to its time-consuming efforts and risk for error calculations. While this is true, net zero by 2050 is no less of a challenge than scope 3 reporting is and requires loyalty and consistent efforts towards reducing emissions. This is dependent on frequent measurements and calculations to gain the most precise trends and verifying that the development is on the right path towards net zero emissions. If the investment companies must collect data at a consistent rate, the workload will automatically increase and become more time-consuming. Why not include scope 3 emissions while they are at it?

Gaining an insight on the necessity of scope 3 reporting is essential to draw conclusion on whether it should become a requirement or not. Therefore, we will discuss its benefits and disadvantages, and whether scope 3 emissions cannot be neglected due to its size in the total picture.

5.4.1 Scope Reporting for the Entire Supply Chain

As defined by the GHG Protocol, scope 1 and 2 are reporting requirements, and scope 3 is optional due to its high maintenance and challenges of completion. The concept of data

collection and calculations are in principle the same for all three scopes. The difference was the degree of detail, and the sources of emissions. Scope 3 sources are a collection of all scope 1 and 2 sources. Thus scope 3 emissions count for the whole supply chain, and not only those directly generated by or affecting the individual company. As pointed out by the investment companies, and further discussed in section 5.2.3, scope 3 will require more capacity than what they are willing or able to use on something that is not required. While elaborating that scope 1 and 2 reporting gives them enough data to be able to track emissions development.

In Figure 15, it was distinctly represented that scope 3 emissions counted for a high percentage of the total profile. Although these numbers were not evaluated entirely by company A, it gives a good prediction as to how they are developing compared to scope 1 and scope 2 emissions. However, the uncertainty due to the lack of control obtained by company A results in an unreliable depiction of the trend. In order to get a precise enough representation of the entire supply chain’s emissions, every source must be counted for by the subject themselves. Figure 15 shows a representation of how this would look like for an investment company reporting from emissions from one supplier:

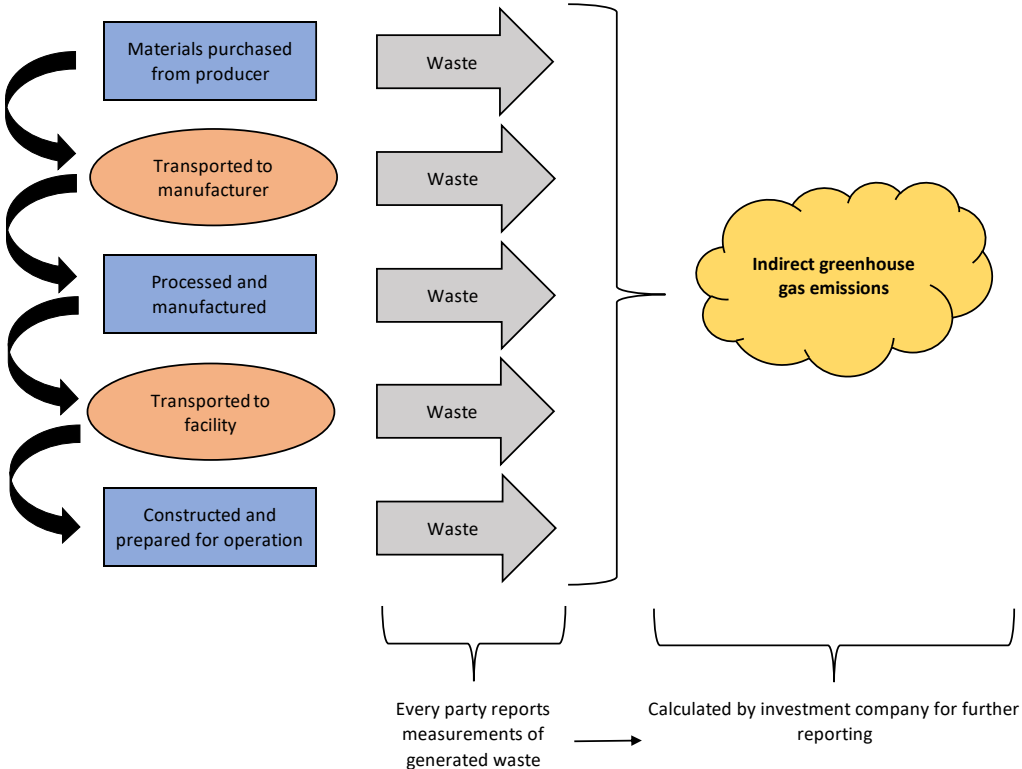


Figure 1515 Supply chain representation: One supplier in a windmill project

While the figure only shows a general overview of some contributing factors from one supplier, it is obvious how much detail is involved. It includes all the emissions generated from the process of producing a windmill. What was clearly communicated through the investment companies and also stated within the GHG Protocol is that this is a process where the individual affiliates need to own, thus relieving the highest party in the supply chain from having to report. They heavily rely on trust. The drawback is that in the event where there might be issues due to numbers being wrong, the investment company will have no control of where the problem originates. If a company were to be confronted with submitting the wrong numbers, they would only know the source it came from, which in the case of Figure 15 would be “the supplier” and not i.e., “the manufacturer”. Therefore, if this were to happen, they would end up having to spend large amounts of time to find a solution to the problem, which could be prevented by spending more time on reporting in the first place.

The higher risk for error which can occur during scope 3 reporting is an issue to consider. When addressing the issue, company A mentioned that due to its tedious process, the exposure to errors was too significant and was thus neglected. Company B highlighted the challenges of quantifying the effects of every single contributor, which was also one of the main reasons for implementing scope 4 reporting instead. Company C had no explicit reasons on the challenges of scope 3 reporting. However, their portfolio is of a different size than company A’s and company B’s. In addition, the majority of their companies are of smaller size, counting for a smaller number of actors in the supply chain. Therefore, it can be argued that scope 3 reporting will not have the same influential power as it will for company A and B, bringing up a new factor to consider: The size of the complete supply chain.

The majority of the investment companies identified the challenges of quantification due to the numerous actors in the supply chain. It was highlighted that while some will deliver good numbers for further reporting, those of smaller size were more unpredictable. In some cases, they would not have procedures for collecting data from their own company, making it even harder for the investment companies to calculate the total effect.

5.4.3 Summary

When reporting emissions, scope 3 has been neglected due to it not being identified as a requirement in the GHG Protocol. While it can be understood due to reasons discussed earlier,

its vast coverage of the whole supply chain puts it up to questioning for whether it should be a requirement in order to meet net zero by 2050. Scope 3 has been proven to be a large part of the total picture, so in one way or another it must be reduced to make up for the ongoing efforts of scope 1 and 2 reductions.

It has been identified that the significant workload following scope 3 reporting is one of the main reasons for why it is kept out of the strategy to the investment companies. However, the time saved may as well have to be used in later stages if controls are made and errors are discovered. With that being said, there are numerous errors more likely to be made if scope 3 emissions are to be a required factor in the Protocol due to uncertainty of reported data across the value chain.

Deciding on whether scope 3 reporting is necessary in order to meet net zero emissions is a conflictual debate due to there being both benefits and drawbacks weighing up against each other. While it can give a better overview of the total emissions across the value chain, it will demand more time on reporting and further affect the business' core activities. This can in turn affect the profitability, and in worst case harm the income of the investment companies. An outcome which was certainly not counted for prior to the analysis – That the Protocol itself will not have an impact on the profit margins, but rather the efforts it requires to fulfil its demands.

6 Conclusion

The ongoing efforts to reduce GHG emissions and increase the quality of global sustainability has become a high priority among immeasurable companies across all industries. In an attempt to positively influence the strategies of businesses across nations, the GHG Protocol was founded, giving considerable tools and requirements to measure emissions and further assist in reducing them. Consistent data collection and reporting have become essential in the core operations of companies, as the requirements following the Protocol have influenced greater factors within business development. Highly influential contributors, such as governments, funds, and investors, have opted to require a diligent effort to decrease climate effects from companies, forcing them to alter their strategy to further secure the future of their business.

Investment companies are highly exposed to the requirements presented. Their main task is to allocate capital on behalf of funds and investors, and further grow their profit. However, this calls for an immense effort due to their exposure to the oil and gas industry. New requirements must be met and implemented in their investment strategy, while also making sure that future profit margins are not reduced. Making an extensive effort to seal out future investments in the oil and gas industry is possible. The question is whether fulfilling the requirements stated in the GHG Protocol will cause a decrease in their overall performance and cost them important sources of income.

This thesis aims on answering the research question of how investment companies can adhere to the GHG Protocol and maintain their profit and risk profiles simultaneously. To get a more elaborate and clear answer to the research question, three focus questions have been derived in which each count for crucial elements that will further assist in the final conclusion. The first focus question takes perspective in the existing methods for reporting emissions and how investment companies obtain to the requirements of the GHG Protocol. The second focus question discussed new methods for reporting which were discovered during the interviewing process. Lastly, the third focus question presents a critical view of the Protocol and whether the requirements are enough to reach the goal of net zero by 2050. Due to its high demand for analysing ongoing efforts in the industry, a qualitative research method, with quantitative representations was used to further reveal the perspectives each investment company had on the topic.

Each company's strategy for reporting emissions varied due to the different requirements from their investors. While the majority of the investment companies needed to fulfil certain criteria in order to receive funding for their business, the remaining had no one but themselves to answer to as their activities rely on the company's own funds. Therefore, the level of consistency and precision in their reports were of some divergence. However, none of the investment companies adhere to the optional reporting of scope 3 emissions, due to its time-consumption and potential risk impact. While they all followed the GHG protocol's requirement of reporting scope 1 and 2 emissions, one investment company had evolved and added a new method for calculating emissions. Although it has not yet been identified by the GHG Protocol, scope 4 emissions were of great influence on their investment strategy, making it easier to quantify the climate effects.

There is no doubt that there are several considerable measures that must be counted for in order to adhere to the GHG Protocol. While they all had them identified and implemented in their investment strategy, the extensive efforts of finding profitable investments are of some uncertainty. Going from a reliable energy sector dominated by the high profits obtained by oil and gas can offer rigorous challenges due to the lack of knowledge surrounding new technologies. However, the newly implemented method of scope 4 reporting can be a determinant tool in the efforts of maintaining profit and risk profiles. Due to its predictability of technologies' future outcomes, investment companies can use it to determine which investments will predict the highest profits without increasing the associated risk.

What was gathered through the analysis, is how much scope 3 emissions count for the total picture, even though it is optional to report. It covers the emissions for the entire supply chain, making it a great illustration of their development. Therefore, it would seem reasonable to make this an additional requirement regardless of the workload it requires. However, the response from the investment companies did not express a need for it. Methods were already put in use to illustrate a similar approach – holding the companies accountable to measure and calculate their own scope 1 and 2 emissions. Therefore, there is no necessity for making scope 3 reporting a requirement as of now.

The reason for analysing the content through three different focus questions was to go more in depth of how present and future developments are affected by the GHG Protocol to further get a clear conclusion to the research question. Saying that investment companies will maintain

their profit and risk profiles while adhering to the GHG Protocol will only be assumption. Whether it is made by a student or an expert. There is no way of guaranteeing future outcomes, as unpredicted factors can suddenly make their appearance, changing the direction of the development. However, through this thesis, different methods that can strongly assist in the efforts of keeping profit from reducing and risk from increasing were discovered. Adhering to the GHG protocol is important for investment companies to ensure emission reduction, keep their position in the market, and maintaining good relationships with their investors. However, it has become clear that there are other methods of emission reporting that can contribute to even more. If scope 4 has already been identified as a massive contributor to profitability, there will most certainly be other methods discovered before 2050.

In conclusion, investment companies can adhere to the GHG Protocol while maintaining profit and risk profiles, if they are willing to use other methods than those included in the conservative route.

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Sources of Confidentiality:

Source	Type	Base year
Company A	ESG-report x2	2021 (1), 2022 (2)
Company B	ESG-report	2021
Company C	ESG-report	2021

Appendix A

Interview guide:

Strategy and Development:

1. Have you established a sustainability strategy?
2. If not, are you planning to do so?
3. Will this strategy create more benefits than drawbacks in a short-term perspective?
4. How about in a long-term perspective?

Greenhouse Gas Protocol

5. Are you familiar with the Greenhouse Gas Protocol?
6. Have you identified your scope 1, 2, and 3 emissions?
7. When were they first conducted?
8. How have they developed since?
9. What methods do you use to measure them?
10. Do you have specific requirements to potential new investments?
11. What about companies already in your portfolio?
12. Do you use your role of power to influence your companies?

Impact of recent events

13. How has your performance been impacted by recent events?
14. Are investors more interested in sustainable investment?
15. How do they respond to the uncertainty on how this will impact their return?

Investment return

16. What is the company's expected return on investment?
17. Has it changed the past recent years?
18. Do you predict that it will change towards 2050?
19. Are there other criteria that have been established?