



**TURUN  
YLIOPISTO**  
UNIVERSITY  
OF TURKU

# ESG and Sustainable Finance

Navigating Networks, Examining  
Hypocrisy, and Promoting Prosociality

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Zachary Sherman





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Zachary Sherman

## **University of Turku**

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Turku School of Economics  
Department of Accounting and Finance  
Sustainable Finance  
Doctoral Programme of Turku School of Economics

## **Supervised by**

---

Associate Professor, Jan Pfister  
Turku School of Economics  
University of Turku  
Finland

Professor Emeritus, Kari Lukka  
Turku School of Economics  
University of Turku  
Finland

## **Reviewed by**

---

Professor, Jari Huikku  
Aalto University School of Business  
Aalto University  
Finland

Assistant Professor, Michelle van  
Weeran  
NEOMA Business School  
France

## **Opponent**

---

Professor, Jari Huikku  
Aalto University School of Business  
Aalto University  
Finland

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*For the love and patience of my mother and father*

UNIVERSITY OF TURKU

Turku School of Economics

Department of Accounting and Finance

Sustainable Finance

ZACHARY SHERMAN: ESG and Sustainable Finance: Navigating  
Networks, Examining Hypocrisy, and Promoting Prosociality

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## ABSTRACT

To address the rising tensions between ESG reporting aspirations and practice, marked by hypocrisy and unfair opportunism, this thesis examines the networks and notion of Environmental, Social, and Governance (ESG) in the global finance industry. ESG literature in finance largely relies on quantitative analyses of performance metrics but new inspiration is drawn from qualitative traditions in accounting, such as sustainability accounting and social and environmental accounting, to better understand the tensions of ESG as practised. Actor-Network Theory (ANT) serves as a method theory to inform key steps in conducting the research and following both human and non-human actors in the industry. The prosocial paradigm is employed to provide a framework to distinguish exploitative gaming behaviours from cooperative actions and apply its adapted core design principles for collectives to ESG as practised. This research differs from quantitative finance studies that largely highlight market performance, motivated by the gap between ESG reporting aspirations and ESG as practised. It adopts an interpretive qualitative design, using semi-structured interviews with ESG stakeholders and document analysis, to investigate network structures, discourses, gaming patterns, and prosocial responses. Findings map the key actors in the ESG networks and portray the notion of ESG as three contested black boxes. A dominant ‘Specified ESG’ focuses on ratings and reporting and prevails among seasoned professionals and academics. In contrast, a competing ‘Broad ESG’ equates the concept with broader sustainability efforts and is prevalent among students. An emerging hybrid perspective also appears. The analysis further identifies distinct instances of both gaming behaviours and prosocial behaviours associated with ESG as practised. The thesis contributes an interpretive perspective to finance literature and illustrates the potential for prosocial sustainability reforms.

**KEYWORDS:** ESG, sustainability, sustainable finance, greenwashing, hypocrisy, gaming, prosocial behaviours, networks, ANT, actor-network theory, prosocial paradigm, prosociality

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## TIIVISTELMÄ

Kasvavien jännitteiden käsittelemiseksi ESG-raportoinnin pyrkimysten ja käytännön välillä, joita leimaavat tekopyhyys ja epäreilu opportunisti, tämä tutkielma tarkastelee verkostoja sekä Environmental, Social, and Governance (ESG) -käsitettä globaalilla rahoitusalueella. ESG-kirjallisuus rahoitusalueella nojaa suurelta osin kvantitatiivisiin analyyseihin suorituskykymittareista, mutta uutta inspiraatiota ammennetaan kirjanpidon laadullisista perinteistä, kuten kestävyyslaskennasta sekä sosiaalisesta ja ympäristölaskennasta, jotta ESG:n käytännön jännitteet voidaan ymmärtää paremmin. Toimijaverkkoteoria (ANT) toimii menetelmäteorianä, joka ohjaa tutkimuksen keskeisiä vaiheita, sekä ihmis- että ei-inhimillisten toimijoiden tarkkailemista alalla. Prososiaalista paradigmaa käytetään viitekehyksenä erottamaan hyväksikäyttävä epäreilu opportunisti yhteistyöhön perustuvista toimista sekä soveltamaan sen mukautettuja ydinsuunnitteluperiaatteita kollektiiveille ESG:hen käytännössä. Tämä tutkimus eroaa kvantitatiivisista rahoitustutkimuksista, jotka korostavat pääasiassa markkinasuoriutumista, ja se on motivoitunut ESG-raportoinnin pyrkimysten ja ESG:n käytännön välisestä kuilusta. Tutkielma omaksuu tulkitsevan laadullisen tutkimusasetelman käyttäen puolistrukturoituja haastatteluja ESG-sidosryhmien kanssa sekä dokumenttianalyysia tutkiakseen verkostorakenteita, diskursseja, epäreilun opportunistin kuvioita sekä prososiaalisia käyttäytymismalleja. Löydökset kartoittavat ESG-verkostojen keskeiset toimijat ja kuvaavat ESG-käsitettä kolmena kiistanalaisena mustana laatikkona. Vallitseva 'Specified ESG' keskittyy luokituksiin ja raportointiin ja on yleinen kokeneiden ammattilaisten ja akateemikkojen keskuudessa. Kilpaileva 'Broad ESG' rinnastaa käsitteen laajempiin kestävään kehitykseen liittyviin pyrkimyksiin ja on yleinen opiskelijoiden keskuudessa. Myös nouseva hybridi-näkökulma ilmenee. Analyysi tunnistaa lisäksi selkeitä esimerkkejä sekä epäreilusta opportunistista että prososiaalisista käyttäytymismalleista, jotka liittyvät ESG:hen käytännössä. Tutkielma tuo tulkitsevan näkökulman rahoituskirjallisuuteen ja havainnollistaa prososiaalisten kestävyysuudistusten potentiaalia.

ASIASANAT: ESG, kestävä kehitys, kestävä rahoitus, viherpesu, tekopyhyys, epäreilu opportunisti, prososiaalinen käyttäytyminen, verkostot, ANT, toimijaverkkoteoria, prososiaalinen paradigma, prososiaalisuus

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*Zachary Sherman*

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# 1 Introduction

At the heart of the global finance industry, a potentially powerful and transformative force has emerged and demands attention, Environmental, Social, and Governance, known colloquially as ESG. These three concepts were once confined to niche areas like ethical investing or corporate responsibility (van Duuren et al., 2016), but they have transcended those boundaries to become integral to the global finance markets (Edmans & Kacperczyk, 2022; Zairis et al., 2024). The rise of ESG and sustainable finance represents a profound shift in which principles governing the evaluation and allocation of investments have been reshaped. Today, the acronym ESG is a fashionable and widely used term in the finance industry, associated with sustainable concepts and practices that go beyond the traditional asset assessment. The purpose of this doctoral thesis is to examine the networks and contested notion of ESG in the global finance industry. It investigates the key actors and their discourses, and identifies both gaming behaviours that create hypocrisy and prosocial behaviours associated with ESG as practised.

At its most basic and widely accepted level, ESG is understood as a three-pillar framework for assessing corporate behaviour beyond financial metrics (van Duuren et al., 2016). The Environmental pillar centres on firm-level impacts on the planet, such as carbon emissions, water usage, waste management, biodiversity loss, and the broader reduction of carbon in the economy. The Social pillar concerns relationships with people, labour standards, human rights in supply chains, diversity and inclusion, community relations, and customer responsibility. Governance, often the least visible yet most foundational, covers the quality of leadership, board independence, transparency, anti-corruption measures, and the protection of shareholder rights. Together, these pillars are presented as a tool, comprised of ratings and reporting standards, for identifying material non-financial risks and opportunities that can affect long-term value creation (Zairis et al., 2024). These pillars now seem to even influence the legitimacy of firms in the eyes of investors, regulators, and society.

ESG nonetheless faces a major hurdle, the role of opportunism. Opportunism refers to the practice of taking advantage of situations or circumstances. This is not always negative in competitive markets. Requesting business loans, creating a new product or service, and adapting to market circumstances are all aspects of necessary

opportunism. However, when opportunism becomes exploitative in competitive markets, this thesis refers to it as ‘unfair opportunism’. This type of opportunism typically involves exploiting the flexibility of ESG for self-serving ends by manipulating ratings or engaging in greenwashing and other non-prosocial efforts to craft a positive public image. The term non-prosocial used in this way refers to behaviours that prioritise self-interest at the expense of genuine collective sustainability goals and planetary stewardship. Moving forward, throughout this thesis, the term opportunism refers specifically to the more exploitative form. As noted by Pfister et al. (2024) and other prosocial scholars, these types of behaviours prioritise self-interest, which creates tensions with the collective dynamics observed in ESG networks (Chaffee, 2021). Despite regulators' and policymakers' advocacy for detailed ESG standards through various frameworks, ESG often struggles to fulfil its intended purpose. These standards can be undermined by unfair opportunism, or gaming, creating a gap between aspirations and results in practice. The term “gaming” is used interchangeably with “unfair opportunism” in this thesis. Gaming refers to strategic behaviours in which actors exploit the flexibility and ambiguities of ESG frameworks for self-serving gain. These gaming patterns are central to the study and are directly examined through the second pair of research questions (B1, B2), which explore how such behaviours cause ESG as practised to deviate from its ideal expectations, as well as the prosocial behaviours that can counteract them.

ESG is now a more mature concept and is thought to drive change through sustainable practices across the global finance industry. At the same time, it is understood and interpreted differently by various stakeholders. Just like other highly influential forces, ESG’s ascendancy is accompanied by critics and sceptics. There is a complicated relationship with inconsistencies, potential hypocrisy, and the fluid interpretations of a diverse set of industry stakeholders beneath the promise of sustainable finance and ethical investing. An ongoing debate among academics and finance professionals illustrates this point. Proponents argue that ESG provides a framework for evaluating firms and supports responsible and authentic sustainable practices, bringing together various stakeholders, including ESG-related financial professionals, consultants, policymakers, and academics (Mgbame et al., 2020; van Duuren et al., 2016; Vecchi et al., 2022). They believe that the rise and adoption of ESG concepts is pivotal in shifting industries toward a more sustainable future. In contrast, sceptics highlight concerns regarding ESG practices and implementation, such as subjective and inconsistent criteria, questionable effectiveness, short-term focus, the concept of greenwashing, and lack of general oversight (Chaffee, 2021; Friede et al., 2015; Hawn & Ioannou, 2016; Kotsantonis & Serafeim, 2019). They argue that ESG might not be as straightforward as it initially appears, overlooking many problematic issues associated with this alleged force of sustainability. The debate between these opposing views shapes the discourse surrounding ESG,

emphasising the need for a critical analysis of the finance industry (Chatterji et al., 2007; Ishaq & Di Maria, 2020). Outside of this debate, there are many alternative views that land somewhere in between. A critical examination of this grey area, in both professional discourse and academia, deepens our understanding of the networks it fosters and the dynamics of ESG as a notion.

Economic assumptions play a pivotal role in market behaviours related to ESG and the finance industry. Traditionally, neoclassical economics assumes that incentivising individual self-interest will naturally result in the best collective outcomes. It also incentivises individuals to align with organisational goals, assuming that this alignment too leads to globally optimal outcomes. However, this approach has the potential to reinforce selfishness and antisocial behaviour by strengthening self-interests through the systems created (Wilson & Wilson, 2007). Recent prosocial research challenges these assumptions and highlights a different perspective based on evolutionary biology.

Prosocial theory offers another framework for analysing opportunism in ESG networks by highlighting the role of cooperative, self-governing groups in balancing individual and collective interests. Building on evolutionary theory, it employs Ostrom's (1990) core design principles and is generalised by Wilson et al. (2013) for larger collective groups. The prosocial paradigm developed in Pfister et al. (2024) applies this generalisation to the sustainability context, interpreting CDP 1 (shared identity and purpose) as requiring aligning with planetary stewardship. This is precisely the direction called for by Pfister et al. (2024), who argue that the paradigm "offers a way to scrutinise the authenticity of ESG reporting and sustainability efforts, something critical to the prosocial market economy." This application creates a natural alignment with the ideals and goals of ESG. The paradigm draws on insights from evolutionary science and shows that groups prioritising prosocial behaviours, such as cooperation, mutual support, and a long-term vision, tend to achieve better outcomes over time (Wilson et al., 2013; Pfister et al., 2024). Prosocial groups thereby build trust, accountability, and a sense of shared purpose, enabling them to thrive even in competitive and opportunistic environments (Pfister et al., 2024). The approach directly challenges the traditional neoclassical view of competitive markets and provides a powerful lens through which to examine ESG networks.

The prosocial paradigm is grounded in several key premises that challenge prevailing economic models. First, multilevel selection theory asserts that evolutionary pressures favour groups exhibiting cooperative behaviours over those driven solely by individualism, because prosocial traits enhance group-level adaptability (Wilson & Wilson, 2007; Wilson et al., 2013). Second, it integrates Ostrom's (1990) core design principles, generalised by Wilson et al. (2013), which outline practical mechanisms for sustainable collective action that prevent free-

riding and support enduring cooperation. Third, Pfister et al. (2024) apply these generalised principles to contemporary sustainability challenges by interpreting CDP 1 (shared identity and purpose) as requiring alignment with planetary stewardship, enabling prosocial systems to self-organise so that individual incentives and self-governance are aligned with collective welfare and superior long-term performance. Together, these premises provide a unique and structured framework for this research, treating ESG as a domain in which prosocial behaviours can combat exploitative practices and amplify genuine cooperation, thereby supporting network dynamics consistent with a sustainable, prosocial market vision (Pfister et al., 2024).

This thesis focuses on the domain of ESG in finance research, with inspiration from accounting streams of research, and builds on the existing empirical qualitative tradition of applying actor-network theory (ANT) in accounting research (Huikku & Lukka, 2016). It uses ANT as a method theory (Lukka & Vinnari, 2014) in a ‘light,’ yet rather faithful manner. This approach differs from most mainstream ESG research in finance by embracing an interpretive, qualitative lens (Liu et al., 2022; Nirino et al., 2021). This research explores the concept of ESG and sustainable finance, paying close attention to its intricacies and underlying assumptions. To accomplish this, ANT provides a theoretical toolset to analyse sustainable finance and the complex web of relationships that define it. It maps out the ESG networks in the finance industry and analyses the interactions of actors to provide a comprehensive understanding of these relationships. This research also aims to uncover potential tensions between ESG-related unfair opportunism and prosocial behaviours in the finance industry. Certain instances of opportunism work against the implementation of ESG and its stated goals. For example, hypocrisy in the context of ESG refers to a misalignment between the stated concepts or principles and the reality as practised, undermining the integrity of sustainable investment (Chaffee, 2021). Hypocrisy can manifest in various ways, spurred on by the rapid rate of adoption and hype driven by exaggerated expectations or idealistic views (Baid & Jayaraman, 2022; Kester et al., 2020). This research aims to examine the phenomenon of ESG by analysing actors and instances of opportunism and prosocial behaviours within finance industry networks.

Empirically, this thesis examines the ESG and sustainable finance networks in the global finance industry. This requires navigating a diverse landscape, populated by finance professionals, consultants, academics, students, technologies, and tools, each contributing to the concept of ESG. There is an aim to understand its impact on the finance industry and its future by providing a unique and comprehensive view of how these networks operate. The following two research questions guide this exploration:

A1. What are the networks of ESG stakeholders like in the finance industry?

## A2. What are the discourses like within these ESG networks?

These questions address the web of actors involved in the ESG networks. Thereby, it is possible to construct a comprehensive overview of the ESG-related networks in the finance industry and reveal key actors, roles, and responsibilities by identifying and understanding how these various stakeholders interact with the notion of ESG. The objective extends to exploring the different discourse groups within the ESG networks and how exactly they understand the notion of ESG and what it represents. Understanding these groups and their interpretations aims to capture the diverse nature of ESG in finance.

Building on this, the research sets out to explore potential instances of unfair opportunism and genuine prosocial behaviour in the finance industry. This research presents an opportunity to contribute to the broader ESG debate and provide an example of how the prosocial lens can be applied in the context of ESG and finance research. The following research questions represent this idea:

- B1. What kind of gaming patterns within the ESG network make the ESG as practised deviate from the ideal expectations of the notion?
- B2. What kind of existing prosocial behaviours counteract gaming patterns and align ESG practices with ideal expectations?

While many researchers use quantitative research methods to evaluate the various results of ESG investing, these studies are weak in shedding light for instance, on the relevant interactions, processes, and mechanisms of various networks. It is possible to explore these elements of ESG networks in the finance industry by using qualitative techniques such as in-depth semi-structured interviews of ESG stakeholders, combined with the collection of relevant documents.

The early work of Michel Callon and other ANT founders has demonstrated the strength of ANT in describing intricate network arrangements (Callon, 1984; Latour, 1987). ANT is an approach to social theory that studies shifting networks of human and nonhuman actors to describe a social phenomenon (Latour, 2005). This thesis, which employs ANT as a method theory in a ‘light,’ yet rather faithful manner, borrows from ANT primarily the empirical approach of following the actors comprehensively. This is useful because it enables analysis of the finance industry’s dynamic web of arrangements, without requiring the intensive ethnographic fieldwork of the classical ANT works of Callon, Latour, or others (Callon, 1984; Latour, 1987). For instance, Preston’s work on the process of informing, when assessed retrospectively, aligns with ANT’s empirical methodology in a rather similar ‘light’ manner, yet without explicit mention (Preston, 1986). This concept of following actors relates directly to the first aim (A1, A2). In addition, an ANT approach is particularly well-suited for research characterised by a very limited set of preconceived assumptions or expectations, and notable uncertainty regarding the

potential findings. ANT, in a 'light' or 'heavy' application, is useful when dealing with the often-unpredictable nature of social phenomena and uncovering these types of connections. The second aim (B1, B2) of this research then builds on this discussion of networks and adds the prosocial lens to contribute to the ongoing ESG debate.

ANT can be thought of as a versatile and fluid way of viewing the world. The ideas of ANT have been constructed over many iterations of observations, case studies, and conceptual pieces. During the examination of the classical examples of ANT being used in the field to map organisations and industries, a pattern emerges, which can be seen in most of the well-known applications of ANT as a method theory (Callon, 1984; Latour, 1987; Latour, 2005; Law, 1987; Alcouffe et al., 2008). This way of viewing the world, including the main assumptions, views, and specific vocabulary of the theoretical lens, helps frame the questions most regularly posed by researchers in past iterations of ANT-based qualitative research (Callon, 1984; Latour, 1987). There are several common questions that these studies tend to address in an iterative fashion when reviewing the historical and classical examples of ANT research. To illustrate these shared elements, they are organised into a list of common steps seen in Table 1 below.

**Table 1.** Typical steps and questions of analyses based on ANT

Steps	Questions
1. Defining the research focus	What is the focus of the research? What are the objectives, target phenomena, and specific networks of interest?
2. Identifying actors	What are the various human and non-human entities that contribute in some way to the networks?
3. Tracing associations and relationships	How do the actors relate to each other within the dynamic networks? What are the various interactions and connections?
4. Mapping translation processes	How do actors bring their interests, perspectives, and intentions into mutual alignment? What negotiations and compromises are found in the process?
5. Analysing mediation and agency	How do non-human actors mediate interactions within the networks? How do both human and non-human actors exercise their own agency?
6. Identifying black boxes	What elements or processes of the networks are often taken for granted or not fully understood? Which parts of the networks are most intricate and complex?
7. Exploring controversies	What controversies and disputes arise within the networks? What different viewpoints and interests of various actors are revealed?
8. Hybridisation and stabilisation	How do the networks stabilise over time and how do hybrid entities contribute to this stability of continuously evolving networks?
9. Reflecting on transformations	How have the networks evolved over time? What are the changes, adaptations, and shifts in dynamics and composition?

\* These steps are implicitly or explicitly evident in many ANT works (e.g., Callon, 1984; Latour, 1987; Law, 1987), though this list is not exhaustive or followed in a strict linear order.

These simplified steps of the more rigorously conducted ANT studies are designed to address these key questions, particularly when the research takes place in an open and accessible setting that allows for in-depth observation and comprehensive analysis over an extended period. The systematic application of ANT implemented in the most faithful way in previous iterations of ANT-based field studies would thoroughly explore each of these questions organically. However, this research aims to provide a more detailed understanding of the ESG networks in the finance industry by using ANT in a more focused and condensed manner, given data collection limitations and the unique nature of ESG. ANT will be utilised as a methodological framework, or method theory, that extends beyond the capabilities of other

theoretical frameworks (Lukka and Vinnari, 2014). This approach attempts to capture the complexities of the networks and generates new insights by concentrating closely on these key ANT questions (Table 1) as a guide while remaining neutral empirically.

Thus, this research employs a qualitative cross-sectional study of the finance industry relating to ESG and sustainable investing stakeholders as actors, employing an abductive mode of reasoning (Lukka and Modell, 2010; Sætre and Van de Ven, 2021). This methodology fits with ANT, a method theory that helps in identifying the networks the ESG actors inhabit, aided by the use of ANT, in a more focused manner (Lukka and Vinnari, 2014). This research describes and produces contextual knowledge about the behaviours, connections, and communication between these actors, which propagate ESG concepts and sustainable investing practices using qualitative techniques. The empirical data consists mainly of semi-structured interviews with finance industry professionals, academics, and students engaging with the notion of ESG and ESG as practised. These participants represent the diverse groups that comprise and influence the finance industry by interacting and constructing their perceptions of ESG through routine activities. The analysis identifies emerging themes and connections within the ESG landscape, guided by the more focused ANT approach.

Consistent with the abductive, exploratory, and qualitative nature of this ANT-informed study, the precise contributions could not be fully predetermined before entering the field. This thesis contributes to the limited body of interpretive research in sustainable finance, adds an ANT lens to the analysis of ESG networks and stakeholder discourses in the finance industry, and extends prior literature by bringing the prosocial paradigm into conversation with ESG as practised, thereby opening new ways of distinguishing between gaming behaviours and genuine prosocial behaviours.

In this introduction, the foundation is laid for an inquiry into the evolving landscape of ESG in the finance industry. While ESG was once considered to be a fringe topic within finance, it has now redefined the rules and practices of the industry and represents complex networks with many key actors.

This thesis is structured as follows. Chapter 1 presents the introduction and typical steps of ANT research. Chapter 2 sets the stage for an exploration of the ESG and sustainable finance industry by reviewing ESG and finance literature, along with the prosocial paradigm, and introducing ANT as the method theory. It then discusses the limitations of previous research, paying close attention to the unique opportunity that ANT provides as a theoretical framework with applicable concepts and vocabulary. The chapter examines research conducted using ANT as a theoretical framework in finance and other domains, along with the advantages of this approach. The research focus is then defined, beginning with an examination of the abstract

concept of ESG and the local interpretations and discourses within networks related to sustainable finance. It emphasises the guiding role of ANT in shaping the research process and its ability to generate unique insights about ESG with the help of the prosocial paradigm. Chapter 3 is dedicated to describing the empirical research design and explaining the data collection methods employed. It also discusses the techniques for data analysis, generating meaning, and research validity.

Chapter 4 begins exploring and discussing the main focus of the thesis, using ANT to generate a unique understanding of the concept of ESG in finance. It starts the process of employing ANT in the field by identifying the key actors within the ESG and sustainable finance industry, an industry comprised of many different actors, with roles played by professionals, academics, students, groups, technologies, and tools in different contexts. This includes subsections on professionals and consultants, academics and students, investors and investees, and non-human actors. It then proceeds by tracing the associations and relationships of these actors, analysing how ESG becomes associated with practices, behaviours, and organisational practices. These associations are examined to build a more comprehensive understanding, including a subsection on regional assumptions of ESG. Next, it examines mediation and agency, including the mediation roles of technologies, policies, and organisational narratives. It also explores the concept of both human and non-human agency within the networks, as well as collective groups, covering non-human actors and mediation, and ESG reporting regulation. It then moves to examining competing black boxes, including the notion of ESG as ratings and reporting, ESG as broader sustainability, and ESG as a hybrid notion. It continues with the exploration of controversies, disputes, and hypocrisy relating to the concept of ESG and the application of sustainable practices. Conflicting perspectives and competing notions among actors and organisations within the finance industry are also discussed, as well as the ethical dilemmas currently affecting public perception of ESG. Points of hypocrisy are addressed to understand the concerns of actors when examining these controversies.

Chapter 5 presents a discussion on the unique perspective of ANT and what it reveals about the concept of ESG. It explores ESG as contested black boxes (Specified ESG, Broad ESG, and an emerging hybrid), including a subsection on the observed negotiations concerning ESG's meaning. The chapter then examines regional differences between Europe and North America, with subsections on regulatory-driven versus market-driven approaches and regional non-human actors. It continues with an analysis of the views of seasoned and junior human actors concerning ESG, covering experience-based perspectives, agency and hierarchy, and the generational shift. The complexity of non-human actors is addressed, including regulation as non-human actors, contradictions, authenticity, confusion, and reliability. The chapter discusses gaming versus prosocial behaviours in ESG,

followed by the application of the prosocial paradigm. Finally, the role of ANT in the analysis is examined, along with the influence of the current political climate.

Chapter 6 contains the conclusion, effects of adopting an interdisciplinary and qualitative perspective to explore ESG, with subsections on the helpfulness of using ANT as a methodological lens, the advantages of looking at finance as combined with accounting research, and summing up the claims on ESG and the prosocial paradigm. It then addresses implications, covering theoretical developments, finance professionals and practice, and policy and regulation, followed by the references and appendix.

## 2 Literature review

This chapter reviews the extant literature on ESG, drawing on insights from finance, accounting, and interdisciplinary perspectives to contextualise the study's foundation. It begins by surveying key developments in finance scholarship, where ESG has transitioned from a partial consideration to a central player in investment strategy and risk assessment. It then turns to accounting literature, particularly streams in sustainability and social-environmental accounting, which emphasise reporting, disclosure, and accountability that detail ESG implementation. To address tensions between opportunism and sustainable actions in ESG, the prosocial paradigm is introduced as a lens for evaluating cooperative governance in complex systems. Finally, ANT is presented as the methodological framework guiding this analysis, with a focus on its core principles, historical evolution, and applications in organisational and economic contexts. This literature review problematises prevailing assumptions in ESG research and establishes the conceptual groundwork for the empirical exploration in Chapters 4 and later discussions.

### 2.1 Finance literature on ESG

ESG has now become one of the pivotal themes in the finance industry, evolving from niche ethical considerations to a mainstream investment strategy (Edmans & Kacperczyk, 2022). Initially, ESG principles were primarily associated with ethical investing, where investors sought to align their portfolios with their personal values, particularly around environmental stewardship and social responsibility (van Duuren et al., 2016). Over time, the concept of ESG has transformed into a comprehensive set of criteria used by investors to assess corporate behaviour and financial performance, with research in this domain echoing that fact. This evolution reflects a growing recognition of the impact that ESG can have on a company's public perception, risk profile, and long-term sustainability.

ESG criteria are increasingly seen as more than measures of ethical alignment; they are seen as critical indicators of a company's ability to manage risks and take advantage of market opportunities (Edmans & Kacperczyk, 2022; Zairis et al., 2024). The focus has expanded beyond the traditional financial metrics, including non-financial factors that affect a company's industry competitiveness or reputation in

the form of public perception mentioned earlier. This broad approach is particularly apparent in the strong emphasis on risk management and transparency of data in finance literature and the industry (Kotsantonis & Serafeim, 2019). ESG criteria have become more integral to investment analysis and decision-making processes as investors become more aware. The question then becomes, how do ESG criteria accomplish this in practice?

Literature reviews by Hastalona and Sadalia (2021) and Zairis et al. (2024) indicate that the primary focuses in finance literature concerning ESG have been on value creation, ESG ratings, and performance, as well as sustainable finance and green bonds. Hastalona and Sadalia (2021) emphasise how ESG integration can lead to reduced risks and enhanced long-term sustainability in their review. This potentially improves financial outcomes for companies with strong ESG performance, such as lower costs of capital and securing debt (Zairis et al., 2024). Complementing this, Zairis et al. (2024) provide a systematic literature review that maps trends in sustainable finance and ESG from 2011 to 2021. They note challenges like inconsistencies in implementation and identifying subthemes such as green bonds and value creation as key areas for future research (Zairis et al., 2024). The literature also discusses how ESG ratings are used to evaluate companies' adherence to sustainability principles and their overall impact on society and the environment (Hastalona & Sadalia, 2021).

Sustainable finance, particularly through instruments like green bonds, has been highlighted by both reviews as a key area where ESG researchers show a great deal of interest (Hastalona & Sadalia, 2021; Zairis et al., 2024). Green bonds, for example, are used to finance projects that have positive environmental benefits, such as renewable energy or energy efficiency projects. These financial instruments are designed to attract investors who are interested in supporting sustainable development while also seeking competitive returns. The literature emphasises the growing market for these products, driven by increasing investor demand, and researchers' focus on studying financial performance in relation to ESG criteria (Hastalona & Sadalia, 2021; Zairis et al., 2024).

There is a growing body of literature that questions the sincerity and effectiveness of these efforts despite the emphasis on ESG criteria as a tool for promoting sustainability. Edmans and Kacperczyk (2022) detail the rapid rise of ESG due to its financial relevance and investor preferences but also point to challenges in ensuring alignment between practices and goals, such as the need for better standardisation. Gavrilakis and Floros (2023) empirically examine ESG performance and herding behaviour in European stock markets, finding inconsistencies like negative correlations between ESG scores and returns in some cases. This may indicate implementation challenges or herding biases in the industry among actors (Gavrilakis & Floros, 2023). Poornima and Gopalakrishna (2023)

conduct a review of ESG investment and sustainability reporting and identified gaps in disclosures. They call for future research on these inconsistencies, particularly on how ESG is reported and its impact on performance (Poornima & Gopalakrishna, 2023). This emerging stream of literature opens the door to examining whether ESG in practise exhibits a full spectrum, encompassing genuinely positive contributions, shortcomings, and grey areas.

Few explicit references to hypocrisy within the finance literature exist, however many scholars call for future research into the discrepancies and inconsistencies of sustainable finance practises (DasGupta, 2022; Edmans & Kacperczyk, 2022; Poornima & Gopalakrishna, 2023). For example, Edmans and Kacperczyk (2022) highlight the need to explore how sustainable finance practices may not always align with their stated goals, often due to a lack of standardised criteria and transparent reporting. This call to action suggests that what is often labelled as ESG might be more about marketing than genuine sustainable practice.

Another relevant domain in the finance literature conceptualises ESG primarily as a tool for financial performance optimisation and risk management rather than as a driver of behaviours. Dumas and Louche (2016), for instance, examine the collective beliefs that have shaped responsible investment practices in the finance industry. Revelli (2016, 2017) analyses the gradual shift of socially responsible investing from its original ethical focus toward a stronger emphasis on financial returns and mainstream integration. More recently, Dechow (2023) reviews the sustainability reporting landscape from an accounting perspective and emphasises ESG's role as financially relevant information for investors and risk assessment. This instrumental perspective highlights the ambiguity of the ESG concept and how it is understood by actors. Including this domain alongside the other perspectives reviewed earlier strengthens the problematisation of ESG as practised and provides a clearer rationale for applying the prosocial paradigm in the present study to distinguish genuine cooperation from opportunistic gaming.

There is also research on ESG disclosures and their impact on financial performance, some of which indicate conflicting results that contribute to the perception of hypocrisy (Poornima & Gopalakrishna, 2023). Some studies show a negative correlation between ESG performance and financial returns, suggesting that investors are misplacing their investments, or companies are not balancing their approach (Gavrilakis & Floros, 2023). This contradiction undermines investor trust and raises questions about the overall impact of ESG on corporate sustainability and responsibility (Gavrilakis & Floros, 2023).

Additionally, the literature on ESG in finance mentions controversies in a more general sense. These controversies are noted in the context of financial performance shortfalls (Gavrilakis & Floros, 2023). The shortfalls are often related to how companies may selectively disclose ESG information to portray themselves in a

better light. ESG criteria may also be applied inconsistently across different industries and regions to the same effect. This falls under the umbrella term of greenwashing. Such practices can lead to further scepticism about the true value and impact of ESG in the finance industry and sustainable investments.

This presents an opportunity to contribute to the domain of finance by observing streams of literature, in the domain of accounting in particular, to help inform the problematisation of finance research. New streams of accounting literature, such as sustainability accounting or social and environmental accounting, serve as inspiration for this new form of finance research.

## 2.2 Accounting literature on ESG

In the accounting domain the concept of ESG has evolved in a slightly different way, reflecting a broader shift towards sustainability and integrated reporting. Accounting literature has primarily focused on financial performance and compliance. Recently however, there has been an increasing emphasis on the environmental aspects of corporate behaviour which has gradually expanded to include social and governance dimensions. The integration of ESG into accounting practices has been driven by a demand for greater accountability and transparency from investors, regulators, and other stakeholders who are increasingly aware of the impacts of corporate activities. The development of ESG in accounting literature is comprised of various dimensions such as ESG metrics, reporting, disclosure, and assurance. Accounting researchers seem to have a broader approach to ESG research by focusing on these aspects.

Within the accounting literature domain, ESG often refers to standards for corporate reporting and disclosure that are centred around factors that fall into one of the three pillars (environmental, social, governance). This differs from the financial view that focuses on performance and returns. These standards are designed to provide investors and other stakeholders with a clearer picture of a company's overall performance and its long-term viability. The narrative surrounding ESG in accounting also closely links it to sustainability concepts such as environmental impacts.

This broader interpretation of ESG in accounting encourages companies to adopt more comprehensive reporting practices that include information on labour practices, human rights, community engagement, executive compensation, board diversity, and ethical conduct. The emphasis is placed on creating corporate accountability through transparent reporting and reliable assurance processes, which helps build trust with stakeholders and ensures that companies are not only financially sound but also socially responsible and well-governed. The accounting view seems to be more comprehensive than most research in the ESG finance domain. Streams of accounting research, such as sustainability accounting and social

and environmental accounting, offer examples of how to explore unique perspectives not often found in finance research.

The literature on sustainability accounting primarily focuses on the environmental aspect of ESG. For instance, Addoum et al. (2020) investigate how temperature shocks affect industry earnings news, highlighting the economic impacts of climate-related events on firm performance. This stream of work highlights how companies measure and report their environmental impacts, such as greenhouse gas emissions, resource use, and waste management (Matsumura et al., 2014). Bolton and Kacperczyk (2021) analyse whether investors care about carbon risk, finding that higher carbon emissions are associated with higher stock returns. Such studies demonstrate a prevailing focus on sustainability and environmental factors within the accounting literature. Griffin et al. (2017) examine the relevance of greenhouse gas emission disclosures to investors, showing that such disclosures influence stock prices and investor decisions. Griffin et al. (2019) explore extreme high surface temperature events and their equity-related physical climate risks, documenting negative market responses to such events. Matsumura et al. (2014) study the firm-value effects of carbon emissions and disclosures, revealing that higher emissions decrease firm value while disclosures can mitigate some negative effects. Pankratz et al. (2023) assess climate change's impact on firm performance and investor surprises, finding that extreme temperatures reduce revenues and operating income, with markets underreacting to these risks. Although much research is connected to environmental concerns, some are related to social or governance topics. For instance, Griffin et al. (2024) investigate how free speech law contributes to voluntary corporate social responsibility providing empirical evidence on legal influences on reporting practices. This is often referred to as corporate social responsibility, or CSR. Haase and Hitz (2025) investigate the effects of a mandatory form of CSR in Sweden by using difference-in-differences analyses with matched Danish and Finnish firms as controls. Their research indicates that CSR characteristics like readability improve and lead to economic benefits such as enhanced stock liquidity and increased CSR activities, particularly in social and governance areas. In a more global context, Lu and Wang (2021) analyse the influence of corporate governance structures, legal systems, and cultural backgrounds on CSR disclosure and environmental performance. They find that stronger governance and legal environments seem to positively affect disclosure quality related to social and community practices across diverse countries. These studies underscore the role of institutional and cultural factors in shaping social and governance-oriented reporting beyond environmental focuses.

The research indicates that sustainability accounting research is becoming more sophisticated and varied, incorporating advanced methodologies for tracking and reporting environmental data. Matsumura et al. (2014), for example, discuss the

financial implications of environmental disclosures, revealing that transparent reporting of environmental risks can significantly affect a company's market valuation. Similarly, Griffin et al. (2024) explore how investors use sustainability reports to make informed decisions, suggesting that better environmental performance can lead to improved investor confidence and potentially lower costs of capital. This stream of research seems to be quite like ESG finance literature discussed previously in terms of an investor focus. For instance, Griffin et al. (2017) look at the behaviours of investors, but rather than focusing on their investment returns, they focus on their response to emission disclosures.

Social and environmental accounting, known as SEA, more regularly extends the focus beyond environmental metrics to include social and governance aspects, which is seen as a relatively newer and more fringe area of research within the broader field of accounting. Research conducted by Adams and Abhayawansa (2022), Denedo et al. (2019), Laine et al. (2022), Tweedie and Hazelton (2019), and Vinnari and Vinnari (2022) has explored many different topics in this field. They examine how companies report on social issues like labour practices, human rights, and community engagement, as well as governance practices related to executive compensation, board structure, shareholder rights, and the rights of animals.

This literature highlights the challenges and opportunities associated with integrating social and governance factors into accounting practices. As examples, Adams and Abhayawansa (2022) discuss the difficulties in standardising social impact measurements due to their qualitative nature, while Denedo et al. (2019) emphasise the importance of narrative reporting to convey a company's commitment to social and governance principles. Even novel topics such as the role and rights of non-human animals have been explored in this domain, creating a brand-new stream within social and environmental accounting (Vinnari & Vinnari 2022). These studies suggest that there is a growing interest in social and environmental accounting. Wide acceptance of these unique frameworks and metrics remains a challenge in SEA research but the discipline is growing quickly.

The concept of hypocrisy in ESG, particularly within the accounting literature, is extensively discussed in terms of greenwashing and the challenges of managing ESG-related disclosures and assurances. Authors such as Mahoney et al. (2013), Netto et al. (2020), Delmas and Burbano (2011), and Kurpierz and Smith (2020) focus on the ways in which companies might present themselves as more environmentally or socially responsible than they are in practice. This body of work addresses how greenwashing may occur, what forms it takes, and how to combat it. Companies engaged in selective reporting or using vague and misleading statements to create false impressions of sustainability is an example of a popular greenwashing topic in accounting literature (Mahoney et al., 2013; Netto et al., 2020). Delmas and Burbano (2011) examine the phenomenon of greenwashing in corporate

sustainability reports, identifying the conditions under which companies are most likely to misrepresent their environmental performance. Mahoney et al. (2013) discuss the role of external audits and assurances in managing hypocrisy and argue that independent verification of ESG disclosures can help mitigate the risks of greenwashing by ensuring the accuracy and completeness of reported information. Research by Kurpierz and Smith (2020) also highlights the potential for hypocrisy in voluntary ESG disclosures. They collectively argue that voluntary disclosures can sometimes serve as a tool for impression management rather than genuine transparency.

The literature strongly draws attention to a darker side of ESG practices like greenwashing or impression management, although much of it focuses on the more extreme cases. One way to view this type of accounting research is as an evaluation of ESG and uncovering aspects of ESG standards and reporting that could be refined or adapted.

## 2.3 The prosocial paradigm

The prosocial paradigm applied in this research represents a fundamental challenge to neoclassical economic theory and its foundational assumption of the self-interested “economic man”. The paradigm is further developed in Pfister et al. (2024) for the field of performance management and management control systems, builds on multilevel selection theory from evolutionary science (Wilson & Wilson, 2007, Wilson et al., 2013) and the later generalisation of Elinor Ostrom’s (1990) Core Design Principles (CDPs) for governing common-pool resources to wider collectives (Wilson et al., 2023). Pfister et al. (2024) explicitly orient the new framework toward sustainability challenges and introduce the vision of a “prosocial market economy” in which high economic performance and planetary stewardship are achieved simultaneously.

The core evolutionary premise is straightforward: selfish individuals outperform prosocial individuals within groups, but groups with strong prosocial relations outperform groups organised around selfishness (Wilson & Wilson, 2007). As a result, selection and long-term success operate primarily at the level of group organisation and the relationships that hold groups together. When groups are well designed, they cultivate clear expectations and shared purpose, suppress internal opportunism through relational mechanisms such as monitoring, accountability, and conflict resolution, and strengthen cooperation and trust. They also enable more constructive relations with other groups by reducing incentives for free-riding and shifting costs outward. These relational designs consistently produce superior outcomes in productivity, innovation, resilience, and sustainability. This directly contradicts the neoclassical belief that aligning individual self-interest automatically

produces optimal collective results; in reality, systems built on that belief tend to amplify selfishness, short-termism, and antisocial behaviour (Pfister et al., 2024).

Elinor Ostrom's work (1990) focuses on practical governance and identifies eight Core Design Principles (CDPs) that enable collectives to sustainably manage shared resources and avoid the "tragedy of the commons." Ostrom's CDPs are grounded in economic and institutional analysis and have been extended to practices that promote self-regulation and self-governance across diverse collectives such as teams, organisations, or countries (Ostrom, 1990). Ostrom developed these principles through extensive empirical analysis in her 1990 book, *Governing the Commons: The Evolution of Institutions for Collective Action*. The empirics consists of case studies of common-pool resource (CPR) management systems, such as fisheries, irrigation systems, and forests where she identified the recurring "best practices" that characterised self-governance and cooperation. The eight CDPs below are outlined in Ostrom (1990) as principles illustrated by long-enduring CPR institutions

- CDP 1. Clearly defined boundaries: The users authorised to access and use resources from the CPR, along with the CPR's physical limits, need to be explicitly outlined.
- CDP 2. Congruence between appropriation and provision rules and local conditions: Rules governing how resources are harvested (e.g., limits on timing, location, methods, or amounts) should match the local environment, while rules for contributions (e.g., labour, materials, or funds) should also align accordingly.
- CDP 3. Collective-choice arrangements: Most individuals impacted by rules should have a voice in changing those rules.
- CDP 4. Monitoring: Those who oversee CPR conditions and user actions should be either the users themselves or individuals impacted.
- CDP 5. Graduated sanctions: Rule-breakers should face penalties that scale in severity based on the offense's gravity and circumstances, imposed by fellow users, accountable officials, or a combination.
- CDP 6. Conflict-resolution mechanisms: Users and officials should have quick, affordable local forums to settle disputes among users or between users and officials.
- CDP 7. Minimal recognition of rights to organise: External authorities should not interfere with users' ability to create their own governance structures.

- CDP 8. Nested enterprises: Activities like resource harvesting, maintenance, oversight, enforcement, dispute resolution, and management should be structured in interconnected, layered levels

Wilson et al. (2013) extends Ostrom's eight principles originally derived small-scale common-pool resource groups and demonstrate that the same principles explain successful cooperation in any group context. These group contexts can range from small teams to entire corporations and nations. They show that these principles are not specific to natural resources but are the design features that enable groups to suppress within-group selfishness and function as cooperative units (Wilson et al., 2013). This generalisation is the critical step that makes the CDPs applicable far beyond traditional CPR settings and provides the foundation for their subsequent use in organisational performance management and sustainability contexts (Pfister et al., 2024). The slightly adapted principles developed for more successful cooperation in groups from Wilson et al. (2013) are listed here.

- CDP 1. Clear group identity and shared sense of purpose.
- CDP 2. Equitable distribution of benefits and resources
- CDP 3. Inclusive decision-making
- CDP 4. Transparency of behaviour
- CDP 5. Graduated responding to helpful and unhelpful behaviour
- CDP 6. Fast and fair conflict resolution
- CDP 7. Autonomy and authority to implement
- CDP 8. Appropriate relations with other groups

Pfister et al. (2024) is the key paper that integrates the previous elements and gives the framework its final form. This publication proposes the term “prosocial paradigm” and develops it for the fields of accounting and management. The paper combines multilevel selection theory, the generalised core design principles (CDPs), and a clear sustainability focus by interpreting CDP 1 (strong shared identity and purpose) as necessarily including planetary stewardship, positioning sustainability as the non-negotiable boundary condition of prosocial organising. In Pfister et al.'s (2024) sustainability-oriented adaptation, this shared purpose constrains what counts as “prosocial”: relations within groups and relations across groups are only prosocial insofar as they do not undermine planetary stewardship (i.e., they cannot violate sustainability principles). This constraint applies to all stakeholder relationships—including those with customers, investors, regulators, suppliers, and even competitors—rather than only to internal organisational relations. The paradigm's particular strength lies in its interdisciplinary nature: scholars from accounting,

management control, evolutionary science, public administration, and related disciplines each provide dedicated reflections on the paradigm's relevance to their respective fields in Pfister et al. (2024). This extensive cross-disciplinary engagement illustrates that the prosocial paradigm is not confined to any single area or organisational type, as it constitutes a versatile framework capable of operating across contexts.

Pfister et al. (2024) transform the preceding theoretical and empirical foundations into a fully operational paradigm that is purposefully tailored to sustainability goals. It serves as a credible alternative to neoclassical assumptions and charts an actionable way toward the prosocial market economy. In such an economy, superior economic performance and authentic planetary stewardship are mutually reinforcing rather than contradictory. The prosocial paradigm therefore equips this thesis with another robust and widely applicable analytical lens that can be deployed directly against the empirical realities of ESG networks and ESG as practised in the finance industry. It also enables differentiation between genuine prosocial cooperation and opportunistic gaming and exposes the tensions that emerge when prosocial and self-interested motivations coexist within the same networks.

In this thesis, the prosocial paradigm is used as a diagnostic framework. The CDPs serve as analytical tools for identifying where ESG networks enable or constrain cooperation. Specifically, they help diagnose instances of within-group opportunism (e.g., weak monitoring or sanctioning) and across-group misalignment (e.g., conflicting aims among investors, investees, and regulators). This diagnostic use links the paradigm directly to the empirical investigation of ESG coordination.

## 2.4 Problematisation of domains

The existing finance literature on ESG has mostly concentrated on the relationship between ESG factors and financial performance, emphasising metrics such as risk management, transparency, and the impact of ESG on investment returns (Hastalona and Sadalia, 2021; Zairis et al., 2024). This narrow focus on financial outcomes has led to a limited exploration of the broader implications and potential controversies associated with ESG practices. Accounting literature frequently investigates ESG reporting, transparency, and the risks of greenwashing, while finance research often is focused on financial performance and stakeholder behaviours (Mahoney et al., 2013; de Freitas Netto et al., 2020). This presents an opportunity to challenge and expand the current understanding of ESG in finance.

The finance literature's primary focus on financial performance and metrics has reduced its ability to engage with ESG in a more comprehensive manner. There are anecdotal indications of hypocrisy and controversy of ESG practices and beliefs

within the finance industry, but these issues are rarely the central focus of finance research. The emphasis tends to remain on how ESG affects financial returns and investor behaviour rather than investigating the integrity of ESG claims and practices (Edmans & Kacperczyk, 2022; Gavrilakis & Floros, 2023).

The accounting literature provides a useful contrast by offering a wider and more varied exploration of ESG practices, including the potential for hypocrisy, such as greenwashing (Delmas & Burbano, 2011). Smaller accounting research communities, such as sustainability accounting or social and environmental accounting, demonstrate a broader approach to understanding ESG, considering both the positive contributions and the potential issues.

The analysis of this thesis is interdisciplinary in the sense that it aims to use insights from accounting literature to take a closer look at ESG practices in the domain of finance. Specifically, the accounting literature contributes by providing detailed examinations of ESG reporting mechanisms, transparency standards, and risks like greenwashing, which reveal discrepancies between reported and actual practices. This helps problematise the finance domain's narrower focus on performance metrics by introducing qualitative insights into authenticity and accountability, inspiring a more critical evaluation of ESG's implementation. The prosocial paradigm serves as a theoretical framework to promote self-governance and mitigate opportunism within ESG networks (Pfister et al., 2024). In this thesis, the framework will be used with ANT to evaluate the authenticity of ESG efforts by distinguishing between gaming behaviours, or unfair opportunism, and prosocial behaviours. It will guide the empirical analysis to identify tensions and propose ways to align practices with the stated purpose of ESG.

It is important to note that this exploration is not solely focused on uncovering negative aspects. It also seeks to identify the genuine and positive aspects of ESG practices in finance, as well as the grey areas where the effectiveness and authenticity of these practices are ambiguous or perhaps contested (Griffin et al., 2019; Adams and Abhayawansa, 2022). Griffin et al. (2019), for example analyse physical climate risks from extreme temperatures and illustrated contested areas in ESG's disclosures, while Adams and Abhayawansa (2022) discuss challenges in sustainability reporting amid crises like COVID-19. The aim is to build on these concerns and provide a balanced view that captures the full spectrum of how ESG operates and is perceived within the finance industry by examining all aspects of ESG as practised.

## 2.5 The actor-network theory (ANT) framework

This section provides a more comprehensive exploration of ANT through focusing on its core principles, reviewing its applications over the decades, and discussing how this lens can be used within the domain of ESG finance. Revisiting the founding

works that initially propelled ANT help explain the current framework and views that remain today. Key early works, such as *Science for Social Scientists* (Law & Lodge, 1984) or *Science in Action* (Latour, 1987), play a significant role in ANT's formative stage. The theory has been adapted and applied across various domains to help shed light on the dynamics of networks and their actors. This continuous evolution illustrates ANT's adaptability and relevance in future research. And highlights the theory's potential in offering fresh insights into the notion of ESG.

### 2.5.1 Introduction to ANT thinking

So, what is ANT, or actor-network theory? Understanding ANT first begins with recognising it as a theoretical and methodological approach that treats the world as a dynamic network of relationships. In this way, ANT is very much a constructivist approach. It is able to explain or describe how, not why, by studying and understanding the combinations of influencing interactions (Muniesa, 2015). Every element, known as an actor or actant, that imparts some amount of influence on the structure of the relationships is referred to as being on the same ontological level. This means elements such as objects, ideas, and others are considered just as influential in the creation of social situations as the humans that participate (Latour, 2005). However, it is important to note that this aspect of the approach has received criticism from scholars deeming it too forceful a critique of conventional sociology. This criticism is later discussed in greater detail.

Contributors of ANT such as Callon, Latour, and Law, have continued to frequently revise or rework different aspects of the theory. Examples of this iterative process and the historical account of various applications of ANT are explored later in this chapter. Although there has been this element of instability with ANT, the basic understanding of the theory and what it can accomplish has remained relatively constant. Some of the key concepts that have remained unchanged over recent iterations are depicted in Table 2 below which has been adapted from Walsham's work on the prospects of ANT (Walsham, 1997).

**Table 2.** Key ANT concepts and vocabulary

Concept	Description
Actor (or Actant)	Both human beings and nonhuman actors such as technologies or objects.
Actor-network	Heterogeneous network of aligned interests, including people, organisations, and standards.
Enrolment & Translation	Creating a body of allies, human and non-human, through a process of translating their interests to be aligned with the actor-network.
Delegates & Inscription	Delegates are actors who “stand in and speak for” viewpoints which have been inscribed in them, e.g., software as frozen organisational discourse.
Black Box	A frozen network element, referred to as “a fact”, often with properties of irreversibility.
Trials of Strength	Situations or processes that test the stability of black boxes, challenging relationships, assumptions, and alignments, leading to “a fact”.
Immutable Mobile	Network element with strong properties of irreversibility, and effects which transcend time and place, e.g., software standards.
Punctualisation	Seen as the effect of larger actors formed from a sum of smaller actors.

\* These key ANT concepts and vocabulary are adapted from Walsham (1997) and represent core elements referenced across foundational ANT literature.

These main concepts are briefly introduced to support the major empirical focus of ANT and explain the processes of creating and maintaining networks or explaining the failure to establish a network (Muniesa, 2015). These concepts and other key principles are explored next, detailing the theoretical framework supporting this research, the historical applications and its criticisms and finally articulating how a focused version ANT will be applied in this context.

## 2.5.2 Early ANT literature

Before the term ANT was formally adopted, there were many notable early works that started to build its foundation. Regarded as one of the first examples, Bruno Latour and Steve Woolgar’s *Laboratory Life: The Construction of Scientific Facts*, presents laboratory science in a new and unique way (Latour & Woolgar, 1979). They envision laboratory science as a network of practices, instruments, and actors that work together to produce what is then later accepted as a fact. They suggest that laboratories do not produce discoveries, rather, they produce attempts to construct pieces of stabilised knowledge (Latour & Woolgar, 1979). In this early publication,

the ANT lens can already be seen taking shape. Referring to some of the vocabulary mentioned in the previous section, this work illustrates how laboratories serve as sites where black boxes are formed through trials of strength, where things become simplified and solidified as facts. Latour and Woolgar demonstrate the fluid nature of knowledge production, which is further explored in future ANT works (Latour & Woolgar, 1979).

The 1984 book, co-authored by John Law and Peter Lodge, *Science for Social Scientists* (Law & Lodge, 1984), is another one of the most notable examples of an early exploration into the interactions of actors and networks. This is then closely followed by Latour's 1987, *Science in Action* (Latour, 1987), which depicts the now well-known and widely cited ANT tools, such as translation and generalised symmetry, that developed during the 1980s (Walsham, 1997; Muniesa, 2015). Although at the time this approach to qualitative research was recognised as ANT, it laid the groundwork for its evolution and development. These early works of Law, Lodge, and Latour emphasised the interactions between actors of all kinds, human and non-human, in various scientific and technological networks. They explored the relationships that constituted scientific practice, going beyond the traditional sociological approaches that focused solely on the human actors.

John Law and Peter Lodge made significant contributions through *Science for Social Scientists* (Law & Lodge, 1984). This text views the construction of scientific facts through the lens of complex interactions between human and non-human actors within extensive networks. The authors propose a compelling and new argument that scientific knowledge is not just an outcome of discovery, but it is ultimately created through network interactions (Law & Lodge, 1984). This means that they believed that network interactions have the ability to shape what is accepted as scientific truth.

Law and Lodge also introduce the concept of "heterogeneous engineering", where diverse social and technical elements are woven together to create the mentioned stable networks (Law & Lodge, 1984). This concept already shows some theoretical similarities with what would later evolve into the full-blown ANT, a more comprehensive application of the theoretical lens largely used in complex observational settings. Their book illustrates the negotiation of power, knowledge, and negotiation that unfold within scientific communities, and then across more general societal interactions (Law & Lodge, 1984). They broaden the scope of analysis in the sociology of science and pave the way for greater understanding of an already established field of actor networks.

The discussions found in *Science for Social Scientists* provide a foundational insight for ANT by illustrating the link between social arrangements and non-human technical elements in the production of knowledge (Law & Lodge, 1984). This insight is essential in providing a platform for other scholars, such as Latour, who later built upon these initial concepts into a more concrete framework.

*Science in Action* (Latour, 1987) builds on these concepts and focuses on the complexity of science applications and interactions of actors related to research and discoveries. This serves as tool for researchers interested in studying complex interactions among actors that occur when scientists make discoveries or when engineers innovate. Latour gives the first definition to the concept of a black box. As mentioned earlier, the term black box is used when there is a frozen network element that has survived trials of strength thus becoming a fact for the time being. A 'black box' is drawn around this entity and the only known aspects of the item in question would be the inputs and outputs (Latour, 1987). In Latour's mind, the only way to describe the term in full is to combine the social interactions of actors and the physical object, components, and abstract concepts. This combination of human and non-human actors is a core tenet of ANT and played a role in its development. Latour includes the descriptions of the Rules of Method and Principles that construct the framework of Latour's contribution in this publication. The rules below are paraphrased "rules of method" for ANT adapted and simplified from *Science in Action*, with each chapter discussing a specific rule. These rules begin to lay the groundwork for what will eventually become known as ANT (Latour, 1987).

- Rule 1. Focus on science and technology as they unfold in real time, not after they've become established. Observe before facts or machines get black-boxed, or track controversies that reopen them (Introduction).
- Rule 2. Judge a claim's objectivity or subjectivity, or a mechanism's efficiency or effectiveness, by examining how it changes in the hands of later users (Chapter 1).
- Rule 3. A controversy's resolution creates our view of nature. Never rely on nature itself to account for how or why a controversy ends (Chapter 2).
- Rule 4. A controversy's resolution stabilises society, so don't use society to explain the resolution. Treat efforts to enrol human and non-human resources with equal attention (Chapter 3).
- Rule 5. Remain as open-minded as the actors you're following. Whenever an inside/outside boundary forms, examine both sides at once and list every contributor of who or what does the work (Chapter 4).
- Rule 6. When facing charges of irrationality look at the observer's shifting position and direction, along with the scale of the network being constructed (Chapter 5).
- Rule 7. Before crediting people's minds or methods with special traits, investigate the various ways inscriptions are collected, linked, and circulated. Only turn to cognitive explanations if something remains unclear after studying the networks (Chapter 6).

These rules of method provide a practical guide for researchers to approach the study of science without preconceived notions and an emphasis on empirical tracing (Latour, 1987). They outline ANT's focus on description by prioritising the observation of transformations and associations of actors. Complementing these methodological directives, Latour also lays out a series of principles that frame how facts emerge from network interactions. These paraphrased ANT "Principles" are also adapted and simplified from *Science in Action* (Latour, 1987). They offer a conceptual elements that align closely with the rules.

- Principle 1. Facts and machines succeed or fail based on how later users handle them. Their qualities arise as results of group efforts (Chapter 1).
- Principle 2. Scientists and engineers act as voices for the new allies they've formed and enrolled. (Chapter 2).
- Principle 3. We face a range of looser and tighter connections, grasping what facts and machines are means doing the same work as figuring out who the people involved are (Chapter 3).
- Principle 4. The more specialised science and technology get, the more they reach outward. so, "Science and technology" is just part of technoscience (Chapter 4).
- Principle 5. Accusations of irrationality are tactics used by network-builders against obstacles in their path. No fundamental divide exists between minds, just shorter or longer networks. Hard facts are exceptions, deployed only when needed to redirect others on a large scale (Chapter 5).
- Principle 6. Technoscience's history largely traces the resources along networks that enhance the mobility, faithfulness, combination, and cohesion of inscriptions, allowing action at a distance (Chapter 6).

*Science in Action* (Latour, 1987) marks a key turning point for ANT, when the early ideas start to come together. The book changes how we look at science, moving away from seeing it as a series of separate discoveries to viewing it as a constant building of connections between human and nonhuman actors. Latour defines the black box as a temporary fact that gets locked in after surviving trials of strength, where social dealings mix with real-world elements. This definition stresses the importance of following these delicate steps through observation, without relying on big ideas like Nature or Society to explain things. The rules of method in the book direct this process by pushing researchers to track controversies. At the same time, the principles strengthen the focus on relationships. This focus on symmetry, translation, and tracing networks makes technoscience clearer. It also gives a way to explore the 'how' behind complicated systems and shows the connected elements that make up the heart of ANT.

Michael Callon's influential and memorable publication, *Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay* (Callon, 1984) is an example of these ideas in practice, just a few years before they were cemented in Latour's work. This publication demonstrates early ANT-like principles through its detailed analysis of various types of actors (Callon, 1984).

In Callon's study, he illustrates the formation of a network that includes fisherman, scallop larvae, ocean currents, and parasites. This unique network of relationships highlights the ANT principle that both human and non-human entities collaboratively determine their identity and actions within a network. Callon's narrative focuses on critical moments of translation within the network, which includes processes such as *interressement* and *enrolment* (Callon, 1984). Translation refers to the process by which actors within a network redefine and align their interests to establish roles and relationships (Callon, 1984). *Interressement* and *enrolment* are stages of translation where actors are first encouraged to become part of a network by defining their identities, and then successfully integrated into the network, adopting the roles and tasks necessary for the network's function (Callon, 1984). These processes are pivotal as they enable scientists to emerge as spokespersons for a diverse range of actors within the network. The case study adheres to the three main principles below that Callon identifies as foundational to ANT's methodology in this context.

- **Generalised Agnosticism:** "An unbiased and open approach, where no prior judgments or interpretations are allowed to cloud the observation of actor-network interactions" (Callon, 1984).
- **Generalised Symmetry:** "This involves treating all actors—whether they are human, such as fishermen, or non-human, like sea creatures—equally in the analysis. The principle underscores the ANT belief in the equivalence of all categories of actors" (Callon, 1984).
- **Free Association:** "The roles of actors as representatives and spokesmen are considered fluid, allowing for the natural revelation of complex and unpredictable relationships within the network (Callon, 1984)."

This publication shows a practical application of ANT and enhances understanding of how networks are constituted and maintained. It serves as an important source within the scholarly discourse on ANT, frequently cited in subsequent research that employs similar methodological frameworks or ethnographic techniques. Such a detailed exploration illustrates the robustness and adaptability of ANT principles when applied to diverse and complex environments.

Following the foundational works discussed, ANT has seen substantial evolution in both theory and application, incorporating the culmination of ideas and stretching

across many different domains. This is an iterative process with many publications building upon the previous ideas. Michel Callon's 1998 publication, *The Embeddedness of Economic Markets in Economics*, marks a significant milestone in this progression (Callon 1998). In this work, Callon applies ANT principles to economic contexts, revealing the intricate interplay of what he describes as "calculative agencies" within markets (Callon 1998). He emphasises three crucial points about these markets that build on the principles explained in his ethnography of St Brieuc Bay.

- **Calculative Agencies:** Suggests that markets are not just about exchange but involve complex decision-making entities which he terms "calculative agencies".
- **Organised Markets:** Stresses the need to view markets as organised systems where these agencies are strategically distributed.
- **Processual Nature of Markets:** Markets are seen as dynamic networks where calculative agencies negotiate without physical violence to find acceptable compromises through contracts or pricing.

This highlights the shift in ANT from purely sociological explorations to broader economic and network applications, showing how markets themselves can be viewed as networks of interacting agents (Callon, 1998).

In later publications, ANT contributors refine this new view of the world and its processes. Bruno Latour's *Reassembling the Social: An Introduction to Actor-Network-Theory* further cements ANT's foundational principles, essentially acting as a guide for understanding the "social" as a complex network of interactions (Latour, 2005). This Latour's work shows a more mature ANT approach, focusing on methodological clarity and the practical implications of seeing through the ANT lens. This can be seen in the five uncertainties he proposes should always be addressed when applying ANT: the constant formation and reformation of groups, the nature of agency, whether human or non-human, the distinctions between "matters of fact" and "matters of concern," approaches to research writing, advocating for meticulous descriptions over interpretive narratives, and the methodological shifts needed to trace connections and articulate the network's scope.

Another example of ANT's iterative development is Graham Harman's 2009 book *Prince of Networks: Bruno Latour and Metaphysics*. This publication offers the first sustained philosophical reading of Latour and positions ANT firmly within metaphysics (Harman, 2009). Harman enthusiastically defends Latour's flat ontology and his refusal to reduce objects to either their components or their effects. Yet, he also criticises Latour for making objects too shallow, treating them as fully deployed in their relations. Harman insists against this purely relational view, positing that objects must possess a non-relational core that is never exhausted by

any of their alliances or translations. He believes there must be a real object lying behind the sum of its qualities and interactions (Harman, 2009). This is the crucial adaptation that allows Harman to develop his own object-oriented ontology, where objects are real whether they currently affect anything else, and real apart from the relations they happen to enter. Harman claims this amendment actually radicalises Latour's insights and protects them from the accusation of occasionalism or taxidermy (Harman, 2009). Such critical engagements ultimately reinforce ANT's enduring influence, showing how its core principles continue to provoke new metaphysical positions.

Many of the so-called founders of ANT vary slightly in their understanding or application of ANT but a long history of collaboration has resulted in the creation of this unique lens. These publications, concepts, and principles showcase ANT's flexibility in addressing different a wide variety of domains and through understanding networks. This evolution from an early theoretical foundation to a more comprehensive framework on how to view the world continues today with new iterations.

### 2.5.3 Ways of employing ANT

ANT provides a set of principles and concepts that form a robust framework, or lens, for studying what happens in the world, in various environments, and how it evolves. Specifically, ANT seeks to make sense of how facts are built in the world through studying networks. However, a major challenge for researchers applying ANT in contemporary research domains is to integrate this lens while managing the inherent tensions between empirical and theoretical focuses. Drawing insights from the analytical work of Lukka et al. (2022) in accounting research and the theoretical discourse by Lukka and Vinnari (2014), these concerns are not only acknowledged but also strategically addressed to employ ANT effectively. The goal is to outline strategies that ensure adherence to ANT principles without compromising the integrity of the research or the validity of the results.

Several scholars in accounting and finance have applied ANT to various contexts. For instance, Christensen and Skærbæk (2007) use ANT to trace how accountability innovations in public sector settings in Denmark and Australia shape performative outcomes through actor-networks. They use descriptive empirical analysis and inductive gap-spotting in domain theory. MacKenzie (2009) applies ANT to carbon markets and emphasises how accounting calculations performatively construct market realities with the research adhering closely to ANT's empirical roots. Millo and MacKenzie (2009) investigate the emergence of financial risk management, employing ANT to examine how inaccurate models become useful and performative in financial markets. They blend ANT with other method theories to

critique embeddedness views while problematising ANT itself and offering limited methodological reflections. Roberts and Jones (2009) analyse the role of economic theories in the global financial crisis and using ANT's descriptive approach to show performative effect. Lassila et al. (2019) explore analytics as a calculative engine in digital gaming environments. They use ANT to describe the intricate processes through which data visualisation and calculative practices performatively shape notions of a "good game" faithfully. This research with digital gaming is highly descriptive in nature. Other notable examples include Skærbæk and Tryggestad (2010) on accounting's role in corporate strategy, Kastberg (2014) on public sector reforms, and Vinnari and Skærbæk (2014) on sustainability accounting, where ANT is used to explore how calculative practices shape dynamic networks.

Analytically examining these applications, Lukka et al. (2022) explores the "theory is king" thesis in accounting research, which posits that theoretical contributions are expected to dominate empirical work under the influence of the normal science tradition. They use ANT as an illustrative "extreme case" due to its prioritisation of detailed, context-specific descriptions over theory-building. The paper analyses how accounting scholars applying ANT navigate epistemological tensions between ANT's flat ontology and normal science's emphasis on generalisation and theorising. This often leads to a blending of epistemologies or, less commonly, faithful adherence to ANT by avoiding forced theory development. One of the strategies identified to navigate this mismatch through a close reading of many ANT-inspired studies in accounting is compartmentalisation. This strategy separates empirical description from theoretical ambitions. In this thesis, these insights manage the tension in applying ANT to ESG networks in finance. This compartmentalisation ensures a 'light' yet faithful implementation that honours ANT's principles of following actors and tracing associations while advancing domain explanations through these ANT descriptions. Adapting Lukka et al.'s (2022) findings to mitigate risks in a field like finance, learning from those who have had success in the past.

This approach aligns closely with the theoretical frameworks outlined by Lukka and Vinnari (2014), who emphasise the importance of distinguishing between domain and method theories in the study of the finance industry. This research focuses on the finance industry, particularly on the notion of ESG and its related networks, serving as the domain with clear theoretical ambitions of explanation through description (Lukka & Vinnari, 2014). ANT is a uniquely well-suited method theory for research in this domain due to its capacity to describe complex networks of diverse actors.

The justification for applying ANT as a method theory in this context stems from its ability to uncover the intricate networks and relational dynamics that define ESG in the finance sector. Lukka and Vinnari (2014) provide a useful framework for

understanding how method theories can be applied to domain-specific research. They discuss three key stages of method theory application: introducing a new method theory, utilising an established method theory without modification, and refining a method theory to better suit specific domain problems (Lukka & Vinnari, 2014). In this research, ANT will be utilised as an established method theory to investigate the finance industry and the notion of ESG. Lukka et al.'s (2022) identified compartmentalisation strategy will also be used to avoid epistemological conflicts and stay true to ANT's empiricist roots.

The theoretical ambition is to trace the notion of ESG, and the networks related to the finance industry with which it interacts. This involves a clear focus on the interactions and discourse among various stakeholders, including professionals, consultants, and academics. ANT, with its focus on describing actions at a distance and its ability to treat both human and non-human actors with equal significance, is particularly well-suited for this task. The method theory will guide the empirical investigation, ensuring that each actor is properly followed through the network.

In line with Lukka & Vinnari (2014), since ANT plays the role of a method theory in this research, it is merely utilised as a tool, without any ambitions for theory advances. The ambition for theory contribution lies in the domain of finance, particularly ESG networks. This research aims to provide a comprehensive understanding of the network dynamics at play by applying ANT to the domain theory. This approach not only aligns with the established theoretical ambitions of exploring ESG practices in finance but also enhances our understanding of these practices through the detailed and descriptive lens that ANT provides. It also strategically addresses the "theory is king" pressures highlighted by Lukka et al. (2022).

#### 2.5.4 Critiques on ANT

While ANT has proven to be a versatile and influential framework in social sciences, including applications in finance and accounting, it has not been without its critics. Scholars have raised several concerns regarding its theoretical foundations, methodological implications, and practical utility. These critiques are drawn from key scholarly works and highlight potential limitations, while proponents continue to defend its evolution in various research fields.

One major criticism is ANT's limited analysis of social structures. Critics argue that ANT overlooks broader macro-level social structures by emphasising flat ontologies and relational networks that shape interactions (Walsham, 1997; Alcadipani & Hassard, 2010). For instance, Walsham (1997) contends that ANT provides a restricted view of enduring social frameworks, such as power hierarchies or cultural institutions, which are often treated as emergent rather than pre-existing

forces. This can lead to analyses that appear overly focused on micro-level associations.

A related critique pertains to ANT's perceived neglect of political bias, morality, and power dynamics. ANT is often seen as apolitical or amoral, promoting a neutral, descriptive stance that avoids more normative judgments or aspects of inequality (Whittle & Spicer, 2008; Alcadipani & Hassard, 2010). Whittle and Spicer (2008) argue that this neutrality risks reinforcing existing power relations by not explicitly challenging them. Some believe this makes ANT less suitable for critical studies aimed at emancipation or social change. ANT's equal treatment of human and non-human actors is criticised for diminishing the role of human agency and intentionality in organisational contexts (Winner, 1993). This is also thought to potentially blur ethical responsibilities (King, 2024).

Methodological ambiguity and complexity are also often critiqued. ANT's concepts, such as "actant," "translation," and "network," being vaguely defined, leading to inconsistent applications and difficulties in applying the theory (Amsterdamska, 1990; Collins & Yearley, 1992). The review of *Science in Action* by Amsterdamska (1990) famously questioned ANT's rigor and arguing that it borders on parody by equating humans and objects. The theory's relativism, treating all perspectives as equally valid, has also been faulted for risking "epistemological relativism," where truth and falsehood become obscured (Bijker, 1993). King (2024) extends this by arguing that ANT's foundational "actor" or "actant" concept is inherently ambiguous.

Finally, ANT is often critiqued for its limited applicability beyond descriptive case studies. Its focus on local, context-specific networks makes it challenging to generalise findings or address global phenomena, such as systemic economic inequalities in finance (Walsham, 1997).

In the context of applying ANT as a method theory in domains like ESG finance, these critiques are not of huge concern for several reasons. First, ANT has evolved through "ANT and After" developments, which incorporate reflexivity to address issues of power and morality (Law & Singleton, 2005). For example, Alcadipani and Hassard (2010) demonstrate how ANT can be reframed to support a "politics of organising" and enable critical interventions without abandoning its relational core. This adaptability allows researchers to complement ANT with other frameworks, to incorporate normative elements where needed.

Second, many critiques are based on misinterpretations of ANT's descriptive intent. It is designed to explain "how" networks form rather than "why" in a normative sense (Latour, 2005). When tracing various actors (e.g., regulations, data tools, and stakeholders) is paramount, ANT's focus on the associations provides unique insights without generalisation (Justesen & Mouritsen, 2011). ANT founders

like Latour (2005) continuously defended its relativism as a tool for empirical openness.

Third, ANT's methodological flexibility has led to many successful hybrid applications. The examples in accounting and finance research use compartmentalisation strategies to mitigate tensions with normal science traditions (Lukka et al., 2022). Empirical evidence from widespread use in diverse fields suggests that ANT's strength in uncovering relationships and networks overcomes many of these critiques (Robson & Bottausci, 2018). These critiques are notable, but they seem to highlight opportunities for refinement rather than structural flaws. The 'light' approach used in this thesis mitigates many of these issues raised by sceptics while remaining faithful to the ANT method theory.

### 2.5.5 Applying ANT to ESG in finance

Current research utilising ANT specifically within the domain of finance is much less common. A factor for this may be a less extensive body of qualitative finance research. However, there is a growing interest, particularly in its application to complex systems and the analysis of networks and technological implementations. ANT is being applied to explore the interconnected roles of technology in financial and organisational settings, focusing on the unique lens through which to visualise these platforms (Shim & Shin, 2016; Teittinen & Kaperi, 2022; Waniak-Michalak & Michalak, 2019). A prominent example is Millo and MacKenzie's (2003) use of ANT to examine the historical sociology of financial derivatives exchanges mentioned earlier. Their research demonstrates how economic theories and calculative devices performatively shape markets through heterogeneous actor-networks (Millo & MacKenzie, 2003). This focus on the role of technology as an actor is something that is seen in other domains as well, such as accounting (Lassila et al., 2019). In the case of finance this growing interest supports research focused on describing the "digital revolution in finance" and contributing in some way to this discipline (Claessens et al., 2002; Gabor & Brooks, 2017). This is a departure from the traditional financial approach that often isolates the financial or technological elements from the network interactions.

Another significant application of ANT that relates to the domain of finance includes its use to study the implications of information technology developments, particularly in healthcare finance (Cresswell et al., 2010). Researchers in this field argue that research on health services benefits from utilising ANT by fully appreciating the complexity of the organisation and the active role that technology plays. This field of finance research falls under the broader umbrella of the finance domain and shows how the application of ANT produces new types of insights. This stream of health finance literature is closely connected to social public health streams

of literature which indicates ANT's selection based on the popular use of social theory (Blaid & Jayaraman, 2022; Potvin et al., 2005).

This research builds on the previous examples of ANT in finance research and the debate surrounding ESG within the finance sector. ANT is a fluid way of viewing, describing, and understanding the complex relationships that define the notion of ESG. The finance industry is global with various actors, all influencing and actively creating ESG through their beliefs and practices. To do this, ANT approaches ESG in a uniquely comprehensive manner by mapping these networks.

As outlined in the introduction (Table 1), classical ANT studies often follow a more comprehensive set of steps (1-9), including defining the research focus, identifying actors, tracing associations and relationships, describing translation processes, analysing mediation and agency, identifying black boxes, exploring controversies, examining hybridisation and stabilisation, and reflecting on transformations.

The 'light' approach in this thesis will only employ a subset of the steps presented in Table 1. Steps 4, 8, and 9 from Table 1 have been omitted because they cannot be effectively addressed with the constraints of limited time for data collection and the cross-sectional nature of the study. Longitudinal immersion is required for the processes of translation, hybridisation, stabilisation, and transformation. This subset aligns most closely with the research questions and is focused on mapping ESG networks, discourses, gaming patterns, and prosocial behaviours. At the same time, this subset accommodates the limitations of a cross-sectional study. This more focused approach for employing ANT is described below as steps 1 through 6, including a more detailed description related to how it aids in the investigation of the ESG networks.

1. **Defining the Research Focus:** This initial step clarifies the scope and aims. It involves defining the main area of investigation, setting specific objectives, and identifying the phenomena and networks that will be examined. This ensures that the research is guided by a clear, focused question(s) that aligns with the broader goals of the study. Questions addressed in this step: What is the focus of the study? What are the objectives, target phenomena, and specific networks of interest?
2. **Identifying Actors:** The research identifies all relevant participants within the network, both human and non-human. This step aims to understand the full range of actors allows for a more comprehensive analysis of their roles and impacts within the network. Questions addressed in this step: What are the various human and non-human entities that contribute in some way to the networks?

3. **Tracing Associations and Relationships:** Mapping how the identified actors interact with one another. This step focuses on understanding the nature of these relationships. The researcher can begin to see how influence and information flow within the network, which is essential for later analysis, by tracing these associations. Questions addressed in this step: How do the actors relate to each other within the dynamic networks? What are the various interactions and connections?
4. **Analysing Mediation and Agency:** Non-human elements within a network influence interactions and outcomes, and both human and non-human actors exert influence and make decisions. This step sheds light on the often-overlooked role of non-human agents in shaping network dynamics, highlighting their capacity to enable or constrain human actions. Questions addressed in this step: How do non-human actors mediate interactions within the networks? How do both human and non-human actors exercise their own agency?
5. **Identifying Black Boxes:** Elements of a network that are generally accepted without question, often because their inner workings are complex or generally obscure. This step involves unpacking these black boxes to understand their composition and function within the network. Questions addressed in this step: What elements or processes of the networks are often taken for granted or not fully understood? Which parts of the networks are most intricate and complex? Are there any new black boxes that are in emergence in the field or existing ones, which are in the process of decline?
6. **Exploring Controversies:** Controversies refer to the tension and conflict within networks. This step focuses on identifying and analysing disputes and the different perspectives that cause them. It helps to highlight the areas of friction that might impact the stability and functionality of the network. Questions addressed in this step: Which kind of controversies and disputes arise within the networks? What different viewpoints and interests of various actors are revealed?

Employing the simplified ANT lens in the systematic manner allows for a deeper appreciation of the complex networks and generation of insights. Pairing ANT with the selected research focus constitutes an opportunity to explore and describe in a way that is faithful to classical ANT literature.

## 2.6 Determining the research focus

The purpose of this doctoral thesis is to examine the networks and contested notion of ESG in the global finance industry. As a notable transformative force in public discourse, and particularly in finance, ESG's rise and integration, is likely not without controversy. The ANT-based steps and questions provide a framework for understanding how the notion of ESG is passed around these networks. This research also seeks to provide a comprehensive description of discourses contained within them by exploring the diverse array of actors that constitute these networks.

This literature review explores complementary domains that together expose a significant gap in ESG research within finance. Finance scholarship has predominantly examined ESG through a quantitative lens, focusing on its relationship with financial performance, risk management, and investment returns (Edmans & Kacperczyk, 2022; Hastalona & Sadalia, 2021; Zairis et al., 2024). While this work is valuable, it has offered limited insight into the actual practices, discourses, and behavioural dynamics that constitute ESG as it is enacted in the industry.

Accounting literature, particularly in sustainability accounting and social and environmental accounting, provides a more qualitative and critical perspective. It examines issues of reporting, disclosure, assurance, and hypocrisy that frequently undermine the credibility of ESG claims (Adams & Abhayawansa, 2022; Delmas & Burbano, 2011; Mahoney et al., 2013).

The prosocial paradigm (Pfister et al., 2024) supplies a powerful diagnostic lens. The paradigm and generalised core design principles (Wilson et al., 2013) offer a structured framework for distinguishing exploitative gaming behaviours from genuine cooperative and self-governing actions. This is a distinction that is especially relevant to the persistent gap between ESG aspirations and ESG as practised.

ANT employed as a method theory in a 'light' yet faithful manner (Lukka & Vinnari, 2014) provides the methodological toolkit to examine these dynamics empirically. ANT enables a detailed description of how the notion of ESG is constructed, contested, and performed within finance-industry networks by following its tradition of tracing human and non-human actors, mapping associations, identifying black boxes, and exploring controversies.

Taken together, these strands reveal a clear research opportunity. What is missing in the ESG discourse is an interpretive, qualitative study that bridges finance and accounting scholarship, applies ANT to map ESG networks and discourses, and uses the prosocial paradigm to differentiate gaming from prosocial behaviours. This thesis addresses that gap by first analysing the networks of ESG stakeholders within the finance industry, exploring the composition, dynamics, and the interactions among different actors (A1, A2). Then it examines the discourses within these ESG

networks, identifying the different interpretations and perspectives on ESG principles and notion of ESG. Building on the initial research, it also addresses behaviours in ESG as practised with help from the prosocial paradigm (B1, B2).

### 2.6.1 The abstract notion of ESG

The notion of ESG serves as an abstract construct that goes beyond standard financial measures. It formed from ethical investing traditions (van Duuren et al., 2016) and has developed into a seemingly broad framework for directing investments towards long-term benefits for society and the environment (Mgbame et al., 2020; Vecchi et al., 2022). In this abstract sense, ESG initially seems to act as a stabilised black box that offers risk reduction, improved reputation, and ethical alignment in investment choices (Zairis et al., 2024). Supporters view it as a stable finance network component, where diverse actors such as firms, investors, regulators, and metrics align to convert abstract goals into practical actions. This mirrors Latour's (1987) account of knowledge creation in science and technology.

However, this contains underlying uncertainties that ANT may reveal as points of possible contention. ESG's flexibility arises from its use of generalised symmetry, in which human intentions, such as policy goals, and non-human elements such as rating tools, contribute equally to its formation (Callon, 1984; Latour, 2005). Finance literature frequently treats ESG as a measurable input-output system, associating scores with financial outcomes (Hastalona & Sadalia, 2021; Gavrilakis & Floros, 2023). This financial perspective ignores the fact that ESG does not exist as a fixed object and forms through continuous translations in networks. Therefore, the abstract notion of ESG requires ANT-based examination.

### 2.6.2 Networks of ESG interpretations and behaviours

Local interpretations of ESG appear as networks where the abstract concept adapts through actor-driven discourses that align or conflict. ANT suggests that these networks lack rigid structures and instead consist of changing collections of human and non-human actors. In finance, these networks function as spaces for discourse. Rating agencies and consultants, for example, incorporate ESG metrics to create more consistent assessments. Meanwhile, investors and firms discuss its extent under regulatory influences (Edmans & Kacperczyk, 2022). This mapping of relations reveals how discourses, from compliance-focused accounts in Europe to market-oriented language in North America, form ESG's different interpretations.

Critics in the literature might view this variation as evidence of hypocrisy, with local discourses concealing inconsistencies (Chaffee, 2021; Poornima & Gopalakrishna, 2023). In contrast, prosocial approaches indicate possibilities for

collective-choice mechanisms that reconcile differing perspectives (Wilson et al., 2023). This directs the investigation towards examining the behaviours associated with ESG in practise and meeting the need for greater qualitative insight in the domain of finance.

# 3 Research methodology

The dynamic nature of ESG itself, a concept continuously shaped by various types of stakeholders, requires a methodological approach that can address stakeholder actors and their interactions, practices, and discourses is essential in understanding and its ability to shape the finance industry (Ahrens and Chapman, 2006; Lukka and Modell, 2010). This chapter details the investigative path taken to describe the ESG networks in the finance industry through integrating ANT with qualitative research methods (Callon, 1984; Latour, 1987; MacKenzie and Millo, 2003). This choice and application of methodology reflect both the complexity of the topic and offers a lens that enables this type of research.

## 3.1 Research design

This research is designed as an explorative qualitative cross-sectional study of the finance industry. However, this was not always the case (Ahrens and Chapman, 2006; Lukka and Modell, 2010). The current design was finalised after two years of development involving trial and error regarding gaining access and formulating the appropriate research questions. This evolution of the design, best described as a journey, is of key importance in exploratory qualitative research across all domains, including finance.

The original plan was designed as an ethnographic field study, one where it is possible to embed within an organisation such as an investment firm or public bank. In such an environment, the study would have had the full range of ethnographic tools and a broad selection of finance professionals that would be available for interviews, as well as the benefit of on-site observations and document collection. This environment was expected to provide rich data to answer the earlier formed research questions. Soon after recruitment attempts and initial interviews, two things became apparent. First, the open access to these organisations is difficult for a researcher to obtain. This type of access was first received positively by a major bank before ultimately being denied due to proprietary information and level of access concerns for example. Other organisations had similar concerns and were less receptive. Second, the actors in the ESG networks seemed to be a broad coalition consisting of more than just professionals at a single large investment firm or bank.

A full ethnographic study was not pursued due to these two realisations, the difficulty of access and the broad nature of ESG networks. At the time, it seemed best to open the scope of the plan and conduct a cross-sectional study that included a more diverse group of actors in hopes of more thoroughly describing what is happening in ESG networks in the finance industry. This remedied the situation and made the recruitment of interviewees more effective. The research encompasses a wider range of actors, from finance professionals and consultants to academics and students, each contributing to ESG networks. This methodological adaptation overcame practical barriers related to organisational access and enriched the research by providing a more comprehensive view of the nature of ESG engagement in the financial sector. This adjustment was a pivotal moment in the research process and led to further development of the research questions. The more traditional ethnography approach would also have demanded extensive time and resources, impractical for a PhD thesis. Instead, the cross-sectional design with semi-structured interviews and document analysis allowed for a 'light' adaptation of ANT, capturing essential network elements while maintaining feasibility and enabling a wider empirical reach.

In either scenario, whether it is the initial attempt at an ethnographic field study or the final cross-sectional study, employing an abductive mode of reasoning is naturally aligned with the exploratory process characteristic of this project (Lukka and Modell, 2010; Sætre and Van de Ven, 2021). This alignment is evident when observing the complex and emergent nature of ESG as a concept within the global finance industry, since the abductive approach allows for the generation of new hypotheses through the observation of surprising facts or contradictions. However, through engagement with ANT and extensively applying the ANT concepts and vocabulary, the rich detail in following the actors is not just a preparation for theorisation but is the core of the explanation itself (Latour, 2005). Using ANT in this way is a departure from traditional abductive research, where initial insights slowly evolve into more structured theories (Pfister et al., 2022). ANT proposes that the detailed observations effectively serve as the explanatory mechanism, which moves away from the continuous testing of abduction. ANT aims to explain phenomena through thick description, demonstrating that explanation lies in the description itself by mapping the relationships and interactions of the actors (Latour 2005).

Considering both the domain and method theories that support the approach was important from the beginning. This is crucial in aligning the research methodology with the complex nature of ESG. Lukka and Vinnari's (2014) framework helps outline the importance of this relationship, offering a way to integrate domain-specific knowledge with the appropriate method theory. In this research, domain theory pertains to understanding the intricate and emergent nature of ESG practices within finance, a sector that is characterised by diverse stakeholders and

interconnectivity (Lukka and Vinnari, 2014). The method theory guides the selection of qualitative methods and the use of ANT, emphasising how these methods can effectively capture the experiences and interactions of actors within finance networks. When employing ANT there is adherence to an established method theory that values thick description and the following of actors within their natural settings, thus enabling a deeper understanding of the notion of ESG and ultimately contributing to the domain of ESG and finance (Lukka and Vinnari, 2014).

In this research, purposive sampling was used for most of the participants. This method was chosen due to its effectiveness in identifying individuals and data sources that are especially knowledgeable about, or have experience with, ESG or sustainability concepts relating to the finance industry. Purposive sampling targets a specific range of stakeholders from various organisations and universities, ensuring that the data collected is relevant and rich in context for addressing the research questions. In some cases, new participants were suggested by previous interviewees. This is especially true for the academics and students. This type of snowball sampling not only increased the number of interviews but remained faithful to the principles of ANT and allowed for the natural expansion of the ESG networks. The three main selection criteria used for the purposive sampling are listed below.

- **Professional Affiliation:** Individuals working in finance firms of varying sizes (from small to large), consultancy firms specialising in ESG and sustainability, and academics and students engaged in research or studies related to sustainability.
- **Geographical Diversity:** Inclusion of participants from both North America (NA) and Europe (EUR). This diversity allowed for expanded ESG networks and regional approaches or variations in sustainability within the finance industry.
- **Role and Experience:** Inclusion of individuals with a range of roles and experiences, varying levels of ESG and sustainability experience and practice, and diverse roles in ESG networks.

Ethical considerations in the recruitment and interview process were meticulously adhered to. Participation was entirely voluntary, with the assurance that individuals could withdraw at any point without repercussions, and considerations of their autonomy and confidentiality. Each participant was given an information sheet outlining the details of the study, as well as a consent form confirming their data, audio recorded and transcribed, would be anonymised and pseudonymised to remove the possibility of identification. This research follows 'Good Scientific Practice' outlined by the Academy of Finland and the National Advisory Board on Research Ethics in Finland. The research follows the Finnish Data Protection Act when

collecting, processing, and storing sensitive personal information about the interviewees and other similar participants (e.g., names, emails, job titles).

## 3.2 Data collection methods

The primary data source for this research consists of an extensive body of audio calls and online interviews using various applications (e.g., Zoom, Microsoft Teams, Google Meet) most of which have been recorded, transcribed, and prepared for data analysis. Notes were also taken during the interviews to record initial thoughts and visual information about the participant, such as body language, facial expressions, and general attitudes. During the recruiting process, participants were informed the semi-structured interviews would preferably be around 45 minutes in length and questioning would explore their backgrounds, communication networks, duties, and personal thoughts about ESG and sustainability topics.

Two main interview guides were used to provide a consistent yet flexible structure to the conversations (Appendix 1 and 2). The first guide was tailored specifically for industry professionals and consultants (Appendix 1), focusing on their current role, internal and external communication patterns, ESG awareness and usage in practice, and experiences of successful or problematic ESG implementation. The second guide was designed for academics and students (Appendix 2), emphasising their academic background, research focus, engagement with the broader ESG scholarly community, and perspectives on the value and limitations of ESG within academia and beyond.

The first few professional participants were recruited as a part of the initial attempt at an ethnographic study, but as the scope of the research widened, professionals and consultants from other firms were added before also recruiting academics and students as participants. Once a strong base of interviews with industry professionals and members of academia was established, the main task shifted to adding more relevant participants until the generation of new data slowed and interviews became repetitive.

## 3.3 Data analysis and validation

The data analysis was conducted iteratively and flexibly, beginning with open coding during the interview process to identify initial themes and guided by the focused ANT approach and its guiding questions. The analysis began with few preconceived notions about what might be found in these networks, with expectations of a wide range of positive, negative, and more intricate aspects of ESG within the network that fall somewhere in between. Employing an abductive reasoning approach helped maintain openness to these aspects of ESG. Moving continuously between the data

and theoretical concepts provided by the ANT approach allowed the empirical findings to shape and refine the theoretical perspective.

Empirical sources were selected according to explicit criteria designed to capture the diversity of actors within ESG networks in the finance industry. Purposive sampling targeted participants on the basis of two main dimensions: professional or academic role (finance professionals and consultants, academics, and students) and geographical location (Europe and North America). The level of experience with ESG and sustainability topics in this group of participants naturally varied. This selection was then supplemented by snowball sampling, allowing the network of relevant actors to expand naturally in line with ANT principles until data saturation was reached. The analytical procedures combined inductive and deductive approaches in a complementary manner. The analysis was primarily inductive for the exploration of ESG networks, discourses, black boxes, controversies, and gaming behaviours, by conducting open coding of the interview transcripts. With this approach, network structures, regional and generational differences, differing ESG interpretations, controversies, and instances of unfair opportunism/gaming emerge directly from the participants' accounts. In contrast, the examination of prosocial behaviours was primarily deductive. The prosocial paradigm (Pfister et al., 2024) served as a theoretical framework that was systematically applied to the data to identify and evaluate behaviours that aligned with, or deviated from, cooperative, self-governing practices.

After the interviews were completed, a second round of focused coding was conducted to further explore the key themes which emerged while examining ANT-based questions related to mediation, black boxes, and controversies. This flexible approach ensured that new insights were thoroughly incorporated while addressing the core ANT questions in the context of ESG and the related networks in the finance industry. The following table (Table 3) lists the interviews supporting this research and other important details.

**Table 3.** Interview participants and descriptions

#	Title	Type	Location	Minutes	Date
1	Managing Director	Professional	EUR	30	04.06.2022
2	Head of ESG & Asset Management	Professional	EUR	35	04.11.2022
3	Head of ESG & Asset Management Active Ownership & Engagement	Professional Professional	EUR EUR	57	21.11.2022
4	Portfolio Manager	Professional	EUR	63	29.11.2022
5	Associate Analyst	Consultant	EUR	34	08.03.2023
6	Financial Advisor <sup>1</sup>	Professional	NA	44	08.05.2023
7	Associate	Professional	NA	49	16.05.2023
8	Financial Advisor <sup>1</sup>	Professional	NA	34	17.05.2023
9	Staff Accountant	Professional	NA	43	17.05.2023
10	Financial Advisor <sup>2</sup>	Professional	NA	50	18.05.2023
11	Financial Advisor <sup>3</sup>	Professional	NA	49	30.05.2023
12	Business Owner & Consultant	Consultant	NA	42	02.06.2023
13	Associate	Professional	EUR	40	06.06.2023
14	Financial Advisor	Professional	NA	51	08.09.2023
15	Master's Student <sup>1</sup>	Student	EUR	~30	13.09.2023
16	MBA Student <sup>1</sup>	Student	NA	~30	14.09.2023
17	Master's Student <sup>2</sup>	Student	EUR	~30	10.10.2023
18	Master's Student <sup>3</sup>	Student	EUR	~30	17.10.2023
19	Master's Student <sup>4</sup>	Student	EUR	~30	30.10.2023
20	ESG Analyst & Portfolio Manager	Professional	EUR	49	06.11.2023
21	MBA Student <sup>2</sup>	Student	NA	~30	14.11.2023
22	MBA Student <sup>3</sup>	Student	NA	~30	17.11.2023
23	Master's Student <sup>5</sup>	Student	EUR	~30	20.11.2023
24	Master's Student	Student	NA	~30	05.12.2023
25	University Lecturer	Academic	EUR	49	26.01.2024
26	Associate Professor <sup>1</sup>	Academic	NA	52	02.02.2024
27	Professor <sup>1</sup>	Academic	EUR	57	05.02.2024
28	Associate Professor	Academic	EUR	50	07.02.2024
29	Professor	Academic	NA	62	14.02.2024
30	Professor <sup>2</sup>	Academic	EUR	60	23.02.2024
31	Assistant Professor	Academic	NA	49	23.02.2024
32	Investment Advisor	Professional	NA	55	26.02.2024
33	Postdoctoral Researcher <sup>1</sup>	Academic	NA	40	27.02.2024
34	Associate Professor <sup>2</sup>	Academic	NA	43	27.02.2024
35	Professor <sup>3</sup>	Academic	EUR	49	06.03.2024
36	Postdoctoral Researcher <sup>2</sup>	Academic	NA	44	14.03.2024
37	Postdoctoral Researcher <sup>3</sup>	Academic	NA	51	15.03.2024
38	Professor <sup>4</sup>	Academic	EUR	39	02.05.2024

\* Interview participants were selected primarily through purposive sampling to ensure diversity in roles, regions, and experience levels.

This list provides an overview of the 38 semi-structured interviews conducted for this research, detailing each participant's title, type (e.g., professional, consultant, academic, or student), location (EUR or NA), and date. It also presents a clear timeline and distribution of stakeholder perspectives across the finance industry and academia. The third interview shown in Table 3 involved two colleagues from the same firm with complementary roles. This list illustrates the geographical diversity of the participants by balancing European and North American perspectives, and the progression from early professional-focused interviews to later incorporating more academics and students. The natural development of participants reflects the iterative expansion of the research and its evolution.

In qualitative research, particularly within an interpretive and abductive framework as employed in this thesis, validation is reconceptualised as an ongoing process of establishing trustworthiness, emphasising authenticity and plausibility rather than positivist notions of replicability and generalisability (Lukka & Modell, 2010). The combination of semi-structured interviews with diverse ESG stakeholders, such as finance professionals, consultants, academics, and students, with the collection of relevant documents and observations supports authenticity. This cross-verification of various emergent themes and discourses within the ESG networks is done while still preserving the actors' experiences and meanings. Given the relatively small number of participants within each actor category, the findings cannot be generalised statistically across these groups. Consistent with the interpretive qualitative design and the 'light' ANT approach, the aim instead is broad network mapping, thick description of discourses and practices, and the identification of patterns and tensions within ESG networks in sustainable finance.

The abductive mode of reasoning (Sætre & Van de Ven, 2021) further supports plausibility by iteratively refining what Lukka and Modell (2010) explicitly termed "thick explanations", a concept they coined to extend the earlier and more well known idea of "thick description" (Geertz, 1973). Whereas thick description seeks to provide rich and contextual detail of social action, thick explanation demands that those details are systematically connected to broader theoretical insights without losing their grounding in the actors' lived understandings (Lukka & Modell, 2010). These cycles of data collection and analysis, guided by ANT as a method theory, encouraged following actors without preconceived assumptions and tracing associations to uncover network interactions (Latour, 2005; Lukka & Vinnari, 2014). Trustworthiness is also ensured through detailed records, including interview recordings and transcripts, researcher notes, and data coding. This type of approach produces findings grounded in empirical evidence. Thick descriptions of the ESG networks in the global finance industry enable readers to assess the credibility of the explanations and generalisations. It must be noted that limitations still persist. For instance, the cross-sectional design's snapshot tendency to miss longitudinal shifts in

discourses, or the potential of purposive sampling to introduce selection bias. However, the 'light' yet faithful application of ANT helps mitigate this by prioritising comprehensive actor tracing and future iterations of qualitative research could address longitudinal discourse questions.

### 3.4 Disclosure of artificial intelligence use

In line with new academic standards on transparency in research methodologies, this section discloses the ethical integration of artificial intelligence (AI) tools throughout the research process. The use of AI in this thesis served solely as a supportive tool to enhance efficiency and clarity of the research, without aiding in theorisation or core contributions. This type of approach aligns with Finland's Committee on Publication Ethics and the University of Turku's ethical research policies, which emphasise responsible AI adoption in scholarly work and an overall focus on transparency. AI tools were employed purposely and selectively to streamline some of the more administrative tasks. Below, specific applications are discussed while emphasizing preserving the authenticity of the research.

AI-powered transcription tools were utilised to convert audio recordings of the semi-structured interviews and constructive supervision meetings into labelled text documents. This greatly reduced the time required for the process in comparison to manual transcription or costs associated with paid services. The AI-generated transcripts were reviewed and edited for accuracy and context. Similarly, AI-assisted notetaking during meetings helped organise key points in real-time.

Grammar and sentence structure editing was supported by AI large language models, which provided suggestions for clarity, conciseness, and stylistic improvements. AI tools provided suggestions for structuring the chapters, including recommendations to merge related subsections and to separate certain content into new subsections. However, all final decisions on content and presentation were based on research expertise and supervisory feedback.

Most importantly, AI tools were not used to generate original theoretical contributions, conduct empirical analyses, generate interpretations central to the findings of this thesis. AI tools also did not replace key researcher duties, such as participant recruitment, interview conduction, or thematic coding and analysis. The role of AI in this thesis is to enhance the research process while upholding the principles of originality and accountability in interpretive qualitative research.

# 4 Employing ANT in the finance field

This chapter employs the 'light' version of ANT adapted for this thesis to analyse empirical data gathered from semi-structured interviews with ESG stakeholders, document collection, and observations. Networks are traced by following the actors as described by interviewees, revealing how the concept of ESG is understood by actors. The analysis proceeds through key ANT steps, including identifying actors, mapping their associations and mediations, unpacking black boxes, and examining controversies with guidance from the adapted methodological framework (Table 1). This analysis attempts to address the main research questions that frame the thesis.

## 4.1 Identifying actors in ESG networks

In line with ANT's principle of following the actors, this section begins the empirical mapping of ESG networks by identifying the key human and non-human actors that shape sustainable finance globally. The analysis reveals the diverse roles and contributions through tracing these actors, which constitute the notion of ESG as an assembly.

### 4.1.1 Professionals and consultants

At the top of the finance industry, there are high-level executives who shape the strategic direction of sustainable investing. These roles include positions such as Managing Directors of major financial firms, who are responsible for overseeing the development and integration of ESG financial products, such as sustainable funds and investment portfolios. They set the vision and drive the adoption of ESG principles across the organisation's offerings and financial decision-making processes.

“I set the direction really, I guess it is in the name. It is not just me though...”

– Managing Director (EUR)

Heads of ESG or similar executive ESG positions in financial institutions play a critical role in formulating and implementing ESG strategies across all asset classes.

They are tasked with developing comprehensive ESG policies, guiding investment teams on sustainability issues, and ensuring that the firm's asset management practices align with both regulatory requirements and the expectations of sustainability investors' new options. Communication of these important items is one of the most important jobs.

“We have to disclose a lot of very detailed information on a product level and on a company level... So, we really have to rethink our processes and how do we explain those in an understandable way for our teams or a retail investment customer.”

– Head of ESG & Asset Management (EUR)

Roles such as Heads of Active Ownership & Engagement are focused on influencing corporate behaviour through active stewardship. They continue based on guidance set by the executives and engage with companies based on their performance in ESG and sustainability. They actively aim to achieve improved sustainability practices and governance standards by coordinating dialogues with corporate boards and management teams.

“My background is heavily on the ESG data and research. And naturally due to that background, I've also been heavily involved with our reporting work. As one example, before going into the specifics, we renewed our ESG report that we provide to our institutional clients.”

– Head of Active Ownership and Engagement (EUR)

Portfolio Managers, if they specialise in ESG and sustainability funds, are mostly in charge of constructing and managing investment portfolios that meet specific ESG criteria. They are not tasked with influencing the companies that are part of their portfolios. They conduct analyses of potential investments and assess them based on both financial and ESG performance. Their main work is balancing the pursuit of competitive returns, supporting companies that focus on meeting various ESG standards, and providing a sustainable product easily understood by a generally less-informed public. In most cases, these managers treat the financial evaluation of companies as the main focus, with ESG and sustainability factors being incorporated and evaluated in the process.

“The ESG is not the highest topic when I meet a company, but it's part of the investment process. It's not that I would not contact them, just asking about some ESG matters, but we go through the balance sheet, and we go through the views and we go through the market situation and then the ESG questions are sort of in that process.”

– Portfolio Manager (EUR)

These executive roles in the ESG networks are followed by other common professionals who support the direction and strategies set by those in senior leadership roles.

Financial Advisors play a crucial role in connecting a firm's products with clients' investment goals. They work directly with individuals and institutions to understand their values and financial objectives, providing guidance on investment options. These advisors may specialise in ESG and sustainability products, or they might adopt a more balanced approach to what they provide for their customers. In most cases it seems their ESG investment advice is highly dependent on what the customer wants.

“So, I have about three hundred clients that I deal with directly. That is just making sure I meet with them twice a year to at least to go over their financial statements, make sure their investments are in line and also just to check in on them, make sure they have everything they need.”

– Financial Advisor <sup>1</sup> (NA)

“There are a few clients that we have that do participate in ESG in those portfolios. There are options available. But again, we also have clients who are see the word sustainable in the fund name and say get that out of my portfolio. So yeah, it is all depending on the person.”

– Financial Advisor <sup>2</sup> (NA)

Finance Associates are less customer-facing and support portfolio managers and analysts by conducting research and managing data related to investments, bonds, or loans. Depending on their assignments, these associates work with firms of varying sizes. This associate specialises in large companies.

“So, my group is called originations, we help companies originate or issue bonds or loans and these are largely pretty sizable companies. We kind of frame it as 500 million plus in revenue can get a little bit lower but mostly 500 million and up and revenue.”

– Finance Associate (NA)

Those who specialise in ESG assist in the evaluation of companies based on ESG reporting criteria and help in the preparation of reports that help inform decisions related to green bonds or loans. Not every associate is familiar with sustainability financing; this is viewed essentially as a specialty in the industry. These associates are less focused on those consuming their financial product and more focused on what their firm, and their competitors, are providing to the market.

Accountants are responsible for ensuring that financial records related to ESG funds are accurate and comply with regulatory standards. They handle the accounting aspects of sustainable investment products, including tracking

performance metrics and financial reporting. Depending on their specific role in a company, professionals may be experts in ESG reporting or rarely engage with ESG or sustainability topics, especially those working in small firms in North America.

“I would say pretty unfamiliar [with ESG]. Um, honestly, before you asked for this, don't think that I had honestly ever even thought about it... at least directly related to my job.”

– Staff Accountant (NA)

Consultants differ from other finance professionals in the network by specialising in ESG and sustainability. They typically operate as independent third parties, unlike the finance associates or analysts who are most often employed within finance firms of various sizes and focus on other non-ESG-related tasks. These consultants bring their specialised ESG knowledge to evaluate companies and assist professionals. They provide two key functions. First, they conduct independent and objective analyses to assign ESG scores to firms. Second, they assist finance professionals by evaluating and auditing the accuracy and reliability of reported ESG activities. These consultants are considered more independent, operating outside of finance firms and separated from professionals. In practice, they operate closely with professionals in the industry.

“Mostly we provide expertise, not every firm is always an expert in terms of ESG scores, or reporting, or general sustainability topics. They want our help with these things, or I guess they would like a second opinion.”

– Associate Analyst (EUR)

While these actors and their roles are generally similar across the industry, the extent to which they engage with ESG topics varies by individual and is greatly influenced by their geographic location. For professionals in particular, this means that finance firms and their employees in Europe are much more involved with ESG and sustainability topics than those in North American finance firms. This is evident in the interviews with the participants and aligns with public perception.

#### 4.1.2 Academics and students

In academia, a wide range of professors and researchers across North America and Europe are deeply engaged in ESG and sustainability research. These scholars often operate within sustainability-focused circles that are internationally connected and collaborate on global challenges in many different domains which are not particularly limited to just finance. These academics position themselves as experts who can advance ESG adoption and practices. They research and discuss issues like climate change, social justice, and governance internationally and in some cases, they operate as spokespeople for these causes and attempt to recruit the public. In

their roles as teachers, they integrate ESG and sustainability principles into finance and business programmes and mentor their students. Some academics are even involved in activism or actively recruit students for such organisations. A key responsibility in relation to the finance industry involves their professional or governmental engagement. Some of these experts work with finance professionals or government agencies to apply their research findings to influence sustainable practices or reporting.

“So if I get to stand in the classroom and talk to one hundred people, and then talk to them about a social movement like Degrowth, and they're business students and they've never heard of Degrowth, then that's quite a good platform that I'm going to use that opportunity to try to engage them.”

– Professor <sup>2</sup> (EUR)

“Some people might say I've been an activist as in as my life being an intellectual figure, it's just like being engaged with your knowledge and shape the opinion and shape a policy making because of this. I've done that in the past I've been quite involved in France with regular regulatory processes.”

– Associate Professor <sup>2</sup> (NA)

Master's students in Europe are sufficiently familiar with ESG and sustainability topics due to their curriculum. ESG principles are not just occasional topics for these students. These topics are often included in many of their courses in some capacity. Furthermore, many universities offer specialised master's degrees focused entirely on sustainable finance, environmental economics, or CSR topics. These students frequently engage with ESG-related projects, and many students select ESG or sustainability topics for their theses.

“ESG topics come up in almost every business class I'm taking.”

– Master's Student <sup>2</sup> (EUR)

“Most people are focused on either Artificial Intelligence, ESG, or sustainability for their theses.”

– Master's Student <sup>4</sup> (EUR)

In contrast, master's students in North America do not seem to encounter ESG topics as frequently, depending on their programme and institution. While some programmes include courses on sustainability, ESG is rarely a central component in the curriculum. Students interested in ESG often must seek out opportunities themselves, such as elective courses or organisations, or by participating in workshops and seminars outside of their regular classes. There are fewer specialised master's programmes dedicated solely to ESG or sustainable finance compared to

Europe which is reflected in student interviews. As a result, ESG topics might appear as an additional course or valued in particular organisations, rather than being integrated into the core courses of their studies.

"To be honest, ESG isn't a big part of our core classes... If you're interested in it you kind of have to go out of your way."

– MBA Student <sup>1</sup>(NA)

"I don't know much... It's not really my thing."

– MBA Student <sup>2</sup>(NA)

These academics contribute to ESG networks through their research advancements, curriculum integration of sustainability principles, and collaborations with industry and government. Regional variations, especially among students, reveal a stronger emphasis on ESG in European curricula compared to North America, indicating differences in exposure that shape the perspectives of future finance professionals and sustainable practices in the finance industry.

### 4.1.3 Investors

Although investors were not interviewed directly, responses from other actors indicate that they, too, play a significant role in the ESG networks by either advancing or hindering sustainable finance. Access to institutional investors and large asset owners proved particularly challenging due to strict confidentiality policies and limited availability. Moreover, smaller retail investors generally exert limited influence on broad equity market trends and ESG integration practices. The market is instead shaped primarily by hedge funds and institutional investors, whose perspectives and expectations are routinely channelled and translated by the finance professionals and consultants interviewed here. These professionals work closely with the dominant institutional actors on a daily basis, advise on ESG integration, and directly implement client-driven investment decisions.

Investors often rely on financial advisors to align investment options with their goals, including whether to opt for ESG-focused funds or portfolios. Some investors actively seek out sustainable investments and are drawn to supporting companies with strong ESG performance. Others remain sceptical or prefer traditional financial products, as professionals frequently note.

"Everybody comes because they want a better outcome for themselves in the future. Whatever that means to them. You know, everybody is different and what that outcome means."

– Financial Advisor <sup>2</sup>(NA)

Portfolio managers interact regularly with investors through tools like ESG ratings from agencies to build portfolios that cater to investor preferences or manage their lack of interest in ESG. Investors also encounter non-human actors related to communication (e.g., sustainability reports or marketing materials) that executives use to promote their products and influence investors' perceptions or decisions. These interactions demonstrate how investors' priorities form a large focus of the network, although their engagement varies depending on personal values, geographic location, and professional guidance.

“They don't know the companies and that's why they are using our products. They don't need to know the companies and the risks involved in those companies. If they would know, they would do the investment processes by themselves, but they are buying expertise also in ESG questions.”

– Portfolio Manager (EUR)

Investors shape ESG networks by either supporting sustainable finance through demand for aligned products or sustaining traditional approaches due to scepticism. Their engagement is mediated by the professional guidance of other actors and communication tools. This type of central influence impacts the network, with a diverse range of individual values.

#### 4.1.4 Investees

Companies receiving investments, known as investees, interact with these human and non-human actors. They communicate directly with professionals specialising in active ownership & engagement. These professionals engage in different forms of dialogue with the investees and their boards and addressing various aspects of ESG practices.

“The one-on-one dialogues that are purely focused on ESG matters are mainly concentrated and focused on the companies that are breaching global laws. Where we have decided that we think it would be beneficial to have a dialogue with the company and try to push them to set better standards.”

– Head of Active Ownership & Engagement (EUR)

While this type of dialogue is often quite direct, portfolio managers indirectly influence investees by deciding whether their ESG performance meets the criteria for sustainable funds or investment products offered to their customers, the investors. Based on both direct and indirect pressure, investees are essentially required to engage with ESG rating agencies like MSCI or collective groups like the Sustainability Accounting Standards Board (SASB). Non-human actors also play a

significant role. Regulatory frameworks, such as the European Union (EU) SFDR, mandate disclosures that compel investees to adapt their reporting practices if they aim to attract investment from ESG-focused funds. The extent of an investee's engagement with these actors often depends on the pressure applied by investors and professionals, as well as their regulatory environment. Some professionals believe there are still ways investees may be misleading investors.

“...Like anytime... that the profitability and then the ESG mission gets too far apart then they're probably focusing on the wrong things and just want to look good in certain investors eyes... companies are doing something not material to their business it's probably better use to reallocate the time to other uses.”

– Financial Associate (NA)

All of these human actors, and the tools they use, create dynamic networks in the finance industry. Identifying them in this way illustrates just how interconnected they are and also serves as a starting point for the ‘light’ ANT approach. The subsequent analysis of empirical data further describes the ESG networks and ESG as practised.

#### 4.1.5 Non-human actors

In addition to the human actors in the finance industry ESG networks, there are several non-human actors that play a significant guiding role within these networks. These include ESG reporting standards, regulatory frameworks, rating agencies, investment products, and technology platforms. Each of these elements influences how the notion of ESG is understood, implemented, and communicated. More generally, these different forms of regulation are particularly important. Regulations serve as a mediator that establishes the rules for other actors in the network. They help shape the actions of human actors and non-human actors alike.

ESG reporting standards and frameworks, such as those from the Global Reporting Initiative (GRI) and SASB provide guidelines for companies to disclose their ESG performance. These frameworks serve as essential tools for professionals such as heads of ESG and heads of asset management, who rely on them to develop comprehensive ESG policies and ensure transparency in reporting.

Regulatory frameworks and policies also have a significant influence, impacting how finance professionals engage with ESG. Regulations like the EU's Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy for Sustainable Activities mandate ESG disclosure requirements for financial institutions. This regulatory environment forces portfolio managers and financial advisors in Europe

to integrate ESG considerations more thoroughly compared to the professionals in North America.

There are also ESG rating agencies and scoring tools, such as MSCI ESG Ratings, that provide data and assessments that influence investment decisions. Portfolio managers specialising in ESG funds depend on these ratings to evaluate potential investments and construct portfolios that meet specific ESG criteria. These tools also aid consultants and analysts in offering expertise to finance firms seeking to make sense of constantly evolving ESG ratings.

Various technology platforms and software tools, such as ESG data analytics platforms, allow for the analysis, reporting, and integration of ESG factors. These tools are used by finance associates and portfolio managers who need to manage vast amounts of ESG data efficiently and help navigate the frameworks, standards, and ratings mentioned earlier. They enable professionals to assess companies' ESG performance, monitor regulatory compliance, and make informed investment decisions. Human actors without these tools at their disposal would have reduced ability to perform and act in the network.

Adding to these ESG-related platforms, there are also more general communication channels and media, such as corporate sustainability reports, investor presentations, and marketing or social media posts. These play a role in how ESG information is disseminated and consumed by all actors. These channels help executive roles communicate their ESG strategies and performance to other finance professionals and stakeholders, influencing public perception and investor decisions.

A more comprehensive picture of the ESG networks within the finance industry begins to form when acknowledging these non-human actors that play different roles. These various non-human actors shape the networks and influence how human actors (e.g., professionals, academics, and students) interact with ESG concepts and collectively form sustainable finance practices.

## 4.2 Tracing associations and relationships among actors

The integration of ESG principles is reshaping how organisations operate and make investment decisions in the finance industry. Mapping the network of human actors who drive and influence ESG initiatives is essential for understanding this shift. This section presents the actors interviewed for this research, first sorted into their participant clusters and then further divided into geographic locations. The development and implementation of ESG as a notion and its principles can be attributed to these actors. The participant clusters (Table 4) represent the role types and the number interviewed. The participant clusters are further divided into two geographic groups (Table 5 and 6) to visualise the sampling of participants.

**Table 4.** Participant clusters

<b>Professionals / Consultants</b>	<b>Academics</b>	<b>Students</b>
Active Ownership & Engagement	Assistant Professor	Master's Student (6)
Associate Analyst	Associate Professor (3)	MBA Student (3)
Business Owner & Consultant	Postdoctoral Researcher (3)	
ESG Analyst & Portfolio Manager	Professor (5)	
Financial Advisor (3)	University Lecturer	
Financial Associate (2)		
Head of ESG & Asset Management		
Investment Advisor		
Managing Director		
Portfolio Manager		
Staff Accountant		

\* All participants, or human actors, are categorised alphabetically based on their self-reported roles.

The international participants are arranged alphabetically by job title and are grouped by their designation, professionals and consultants, academics, or students. These participant clusters are further divided by geographic distribution in the tables (Table 5 and 6) below.

**Table 5.** European participants

<b>Professionals / Consultants</b>	<b>Academics</b>	<b>Students</b>
Active Ownership & Engagement	Associate Professor	Master's Student (5)
Associate Analyst	Professor (4)	
ESG Analyst & Portfolio Manager	University Lecturer	
Financial Associate		
Head of ESG & Asset Management		
Managing Director		
Portfolio Manager		

**Table 6.** North American participants

<b>Professionals / Consultants</b>	<b>Academics</b>	<b>Students</b>
Business Owner & Consultant	Assistant Professor	Master's Student
Financial Advisor (3)	Associate Professor (2)	MBA Student (3)
Financial Associate	Postdoctoral Researcher (3)	
Investment Advisor	Professor	
Staff Accountant		

Participants from Europe (EUR) and North America (NA) comprise most of the international ESG and sustainable finance industry. All clusters of actors connect

through a variety of means, including international conferences, workshops, collaborative initiatives, social media, and publications. The international ESG networks are constructed from these connections in and contribute to the pursuit of sustainability.

A notable finding when examining these relationships is the close connectivity among academics from both regions. Sustainability scholars from Europe and North America form a tight-knit community comprised of smaller specialised research groups such as the Centre for Social and Environmental Accounting Research (CSEAR). These research groups have members from around the world, frequently collaborating on research projects, co-authoring papers, and participating in cross-regional academic events.

“As a PhD student, I became a member of CSEAR. And that was one of the first places that I presented one of those working papers on the benefit corporations. So yes, I'm a part of CSEAR North America and then the original CSEAR... that meets in Scotland.”

– Assistant Professor (NA)

“After thirty years, we're still running conferences that are about 120 people. And, you know, there's maybe an argument that we are talking to ourselves a bit too much and we're not possibly talking outside of our network. But that's maybe that's a separate issue.”

– Professor <sup>2</sup> (EUR)

Although some concerns exist regarding not communicating outside their networks, others seem to believe that international academic communities can connect with professionals and students. Academic connections advance research and shape how ESG and sustainability topics are understood and implemented in educational and professional settings in both Europe and North America.

“So, I'm usually working with the Spanish associations of CSR managers, because to me it's quite important to connect academia with practice. So also, these Spanish associations of CSR managers allow me to identify what are the key issues they are interested in, to try to tackle them in my research.”

– Professor <sup>1</sup> (EUR)

“And I've got a lot of other like pedagogical projects as well, where it's about teaching... how do we revise accounting education? I see that a lot more like the praxis of the critical dialogic work that I do, where it's for educators. I feel like the easiest way to have impact is to change the way you teach and you try to affect the students that are in your class.”

– Associate Professor (EUR)

The integration of this type of research into educational systems varies. In Europe, ESG is a standard component of finance and more general business curricula. This prepares students to apply ESG principles more seamlessly once they begin their early careers.

“Well, sustainability is a part of every class, I guess.”

– Master’s Student <sup>1</sup> (EUR)

The North American students report that their education does not have much of an ESG or sustainability focus. Students often need to seek out ESG-related topics through electives or extracurricular activities if they want to learn more about the topic or network. This indicates that there is a gap between ESG and sustainability academics in North America and students enrolled in business programmes. When these students become professionals, they initially lack the expertise and training to engage with ESG concepts.

“I know there were some clubs or events outside of class, on campus...”

– MBA Student <sup>3</sup> (NA)

“I don’t think I will need to know it for what I want to do.”

– MBA Student <sup>2</sup> (NA)

“...my undergrad is in accounting, and the master’s is an MBA... I feel like they had something to do with environmental and government-related things, but don't think I actually took the course.”

– Staff Accountant (NA)

Financial professionals and consultants from Europe and North America typically engage in interactions shaped by their geographic location and local regulatory frameworks. Finance professionals, such as financial advisors and associates, may occasionally become more closely connected because of changes in these frameworks, stemming from shifts in global regulation or attending international conferences. These global changes bring professionals closer as they make sense of and adapt to this new guidance. Otherwise, their daily work remains heavily influenced by their geographic location and their more local practices.

Participants also exhibit distinct attitudes toward ESG influenced by their regional contexts. These attitudes, or assumptions, contribute to the notion of ESG and ESG as practised and help shape the relationships of the actors in constructing ESG networks.

European professionals and students seem to view ESG as a more fundamental and emergent pillar of finance, often citing regulatory frameworks and a culture of sustainability. This reflects the more mandatory nature of ESG in Europe, where it is considered essential to responsible financial practice. Sustainable Finance Disclosure Regulation, or SFDR, is one of these regulatory frameworks. In this case,

SFDR compels financial institutions to transparently report how ESG factors influence their investment decisions.

“We serve clients from Australia to South Korea... Germany, Scandinavia. I mean across all jurisdictions and all regulations and there are differences when it comes to ESG regulations across those countries, but SFDR has been like a huge tsunami, the elephant in the room.”

– ESG Analyst & Portfolio Manager (EUR)

“ESG and sustainability focus is a great thing, it is a culture thing. I know that it is very much strong for us...”

– Master’s Student <sup>3</sup> (EUR)

In contrast, North American participants tend to perceive ESG as a flexible tool or sustainability niche applied because of market demands or stakeholder pressures. ESG is generally present in publicly listed companies along with financial reports, but participants note that it is largely supplemental in nature and can even be seen as quite political.

“I also think ESG wasn't really forefront with regards to when I was in school from 2014 to 2018, it almost seemed like 2019. It almost seemed like as soon as I entered the finance world three years ago, just before COVID is when it started to really explode, ESG investing, ESG practices, what does this mean?... And I'm not sure anyone actually has an idea minus just the name at this current state.”

– Financial Advisor <sup>1</sup> (NA)

“Especially uh, stateside. I think ninety-five percent of our conversations go politically [when discussing ESG] within the first fifteen to twenty minutes, whether it's for or against the current party in office.”

– Financial Advisor <sup>3</sup> (NA)

The second quote is from an interview conducted in mid-2023, a U.S. election year. This period of intensified political discourse likely contributed to increased consumer engagement with ESG issues. The perception of ESG as a politically charged topic is even more apparent during election cycles. The divide in understanding due to regional differences contributes to the creation of subnetworks within the ESG finance industry.

### 4.3 Mediation and agency of actors

The interactions between human actors and non-human actors are central to understanding how the network operates. This section concentrates on the

relationships that enable or constrain different actors' influence regardless of their status and examines how all actors coordinate or clash within the network.

### 4.3.1 Human actors and their agency

Human actors navigate, negotiate, and sometimes redefine the boundaries set by non-human tools and frameworks. Non-human actors, such as rating systems and reporting guidelines, can channel or constrain behaviour, but it is ultimately individuals and groups who decide on implementing ESG reporting standards in practice. These human actors enact change or sustain the status quo based on their agency in the face of existing structures or power dynamics.

Individuals occupy positions that grant them varying degrees of influence over decision-making and discourse within the network. On one end of the spectrum, senior professionals, such as managing directors, heads of ESG & asset management, and portfolio managers, tend to have direct control over resources, strategic direction, and policy formation. A managing director can champion a new sustainability initiative or allocate funds toward ESG-compliant portfolios without needing extensive approval from higher-level authorities. These senior figures can more easily reinforce or reshape norms within their organisations thanks to their hierarchical status. The following quote from a Head of ESG illustrates the depth of involvement among senior professionals.

"So I've been really tightly part of all of that almost a bit too much in some sub-areas, and then that also requires building new processes and things. So, kind of making sure that we have people understanding what is changing and what is needed in there. I also work closely with our executive management team, part of that team, we are basically trying to understand where ESG is, where it's going, what we should be doing, where we should be concentrating our efforts..."

– Head of ESG (EUR)

Mid-level professionals like associate analysts, financial advisors, and staff accountants often work within more rigid frameworks set by upper management. Although they may apply or refine the notion of ESG in their day-to-day tasks, their capacity to create broader shifts are comparatively limited. An associate analyst might recognise shortcomings in a rating methodology but lack the organisational structure to introduce major changes. Similarly, an accountant could see opportunities for more robust ESG reporting or transparency but remain restricted by established guidelines and reporting obligations. When asked about ESG and potential input at the business level, a staff accountant indicated that they view it as outside their direct responsibilities.

"If it is directly related to my job. Um, I didn't even necessarily think of it in the aspect of business. I guess that's kind of pretty narrow-minded thinking, not holistically about a business versus just what I do specifically."

– Staff Accountant (NA)

In more academic settings, senior roles (e.g., various levels of professors and researchers) can teach, shape curricula, conduct research, and influence policy or regulators through scholarly publications. For example, a tenured professor might host workshops or conferences that frame the ESG discussion for students and industry partners. Such activities exert a significant influence. Postdoctoral researchers, university lecturers, or staff may propose innovative perspectives related to ESG topics, but they typically lack the influence and authority to make change possible. These academics share their thoughts.

"I am tenured, it can be difficult for the university to fire me. So, I can be more in the political game than others. So, I've been quite vocal...."

– Associate Professor <sup>2</sup> (NA)

"There was an opportunity to develop this sustainability accounting course at the undergrad level. And this course is to this day mandatory for all of our undergraduate students. So, I've been teaching that ever since."

– Professor (NA)

"So essentially the way in which the regulators, the policy makers, the companies, the careers participate in that field of sustainability reporting regulation, which is currently what I'm working on right now."

– Professor <sup>1</sup> (EUR)

At the bottom of this hierarchy that influences actors and their agency are the students. MBA candidates and master's students represent future stakeholders in the ESG conversation and finance industry network. They often show a strong desire to broaden the notion of ESG beyond ratings and reports, even though their current power to enact change is limited. These emerging professionals may be highly motivated to promote sustainability but require assistance. This assistance could include internships, mentorships, or supportive institutional structures that aid those lower in the organisational structure.

"I am not sure exactly what I see myself doing with ESG and sustainability. I want to feel like I am making some type of difference once I am doing with school."

– Master's Student <sup>2</sup> (EUR)

"You need to get an internship or some experience if you want to be taken seriously. It is competitive."

– MBA Student <sup>1</sup> (NA)

These different positions demonstrate how agency is somewhat unevenly distributed and often dependent on factors like organisational hierarchy, academic rank, and professional networks. Although each actor can participate in ESG discourse, the scope of their influence is shaped by the structural opportunities, constraints, and expectations tied to their specific role in the network. However, in this digital era, there are tools such as online discussion platforms and podcasts that facilitate wider engagement in the ESG discourse. These tools can enable actors beyond the traditional hierarchical structures to contribute to the networks. Their ability to achieve meaningful change is still constrained by existing power dynamics or professional authority, but it is certainly easier now for these actors to amplify their voices.

### 4.3.2 Non-human actors and mediation

Human actors do not operate in isolation. According to ANT, non-human entities also exert significant influence by mediating how ESG is defined, practised, and communicated. These mediators take many forms that actively guide the flow of information and shape decision-making processes. For example, A key non-human actor in the European ESG landscape is the Corporate Sustainability Reporting Directive (CSRD). Adopted in 2022 and phased in from 2024, the CSRD significantly expands mandatory sustainability reporting and assurance requirements for large and listed companies, replacing and broadening the earlier Non-Financial Reporting Directive (NFRD).

Table 7 below provides a concise overview of similar key non-human actors that shape, enable, or constrain the ESG discourse alongside human stakeholders. Each entity in the table serves as a mediator, offering reporting frameworks, setting standards, or providing a platform that influences how professionals, academics, and students interact with and understand the notion of ESG. These types of actors largely represent regulation as an integral non-human actor. It is possible to see more clearly how ESG practices and definitions are reinforced or contested in the network by mapping out these non-human actors.

**Table 7.** Roles of non-human actors

<b>Actor</b>	<b>Description of role / mediation</b>
Global Reporting Initiative (GRI)	Offers widely adopted guidelines for sustainability reporting that structure the way companies and institutions disclose ESG data.
Corporate Sustainability Reporting Directive (CSRD)	Provides a regulatory framework mandating standardised sustainability disclosures for companies in the EU, enabling them to report on ESG performance.
Carbon Disclosure Project	Collects and analyses environmental data (e.g., carbon emissions) through annual surveys, mediating how climate impact is communicated.
ESG Databases & Software Tools	Platforms that aggregate and interpret sustainability data, guiding investment strategies and corporate benchmarking.
Institutional Guidelines (e.g., SEC Proposals/Regulations)	Regulatory frameworks that dictate mandatory ESG disclosures and shape how organisations prioritise and report on ESG.
Professional Codes of Conduct (e.g., CFA Institute Ethics)	Establish ethics and standards for ESG integration into financial practice and reinforce norms and expectations across the industry.
Peer Communication Tools (Slack Channels, LinkedIn Groups, Professional Forums)	Provide platforms for informal discussion and knowledge exchange on ESG issues among human actors. Facilitate real-time collaboration, networking, and shared best practices.
Online Learning Platforms	Deliver professional development and ESG training, serving as a mediation tool for spreading frameworks or changing attitudes.
Non-Governmental Organisations (NGOs) Guidelines	Publishes white papers and toolkits that highlight environmental and social challenges and push for higher industry standards.

Non-human actors do more than record or transmit information. These actors actively configure the conditions under which ESG is debated, adopted, or resisted in the network. For instance, ESG ratings or sustainability reports can help stabilise certain corporate behaviours as desirable or problematic which influences how organisations allocate resources. Meanwhile, institutional guidelines, such as SEC proposals and regulations, and professional codes of conduct (e.g., CFA Institute Ethics) outline boundaries within which actors must operate. The Global Reporting Initiative (GRI) provides standardised guidelines for disclosing ESG data, while other guidelines might touch on the notion of materiality within specific industries. Even non-human actors that share a topic, such as climate disclosure, function very differently. The frameworks released by the Task Force on Climate-Related Financial Disclosures (TCFD) zero in on climate risk, pushing firms to evaluate and communicate the financial implications of climate change, while the Carbon Disclosure Project compels organisations to collect and share detailed environmental

data. Both disclosure frameworks emphasise disclosure but their mediation approaches are tailored to specific aspects of climate impact.

Even seemingly informal mediators, such as peer communication tools (e.g., Slack channels, LinkedIn groups, and ESG forums), play a significant role by sorting discussions into particular channels, highlighting certain topics, and glossing over others. A similar dynamic is found in conferences and industry events where new frameworks and trends are showcased. These interactions are further shaped by investor coalitions, such as PRI, which create platforms for exchanging best practices and defining new responsible investment norms. Together, these non-human entities bring a sense of structure to ESG discourse but also create friction. Conflicting methodologies across different rating agencies can produce inconsistent assessments and confusion among both professionals and academics. Also, multiple frameworks competing to define what is material show just how contested the concept of ESG remains. These non-human actors work closely with human actors and help construct the network by collectively mediating the flow of information.

In addition to these non-human actors there is a separate category described as collective actors, comprised of human and non-human actors, who often create frameworks, rating systems, or guidelines that constitute non-human actors. These are listed in Table 8 below.

**Table 8.** Roles of collective actors

Actor	Description of role / mediation
ESG Rating Agencies (e.g., MSCI, Sustainalytics)	Provide standardised scoring systems and metrics that shape how companies are evaluated on ESG criteria and heavily influence investment decisions and strategies.
Investor Coalitions & Platforms (e.g., PRI)	Collaborative groups that encourage members to adopt responsible investment principles while often providing frameworks and guidelines for ESG integration.
Task Force on Climate-Related Financial Disclosures (TCFD)	Sets frameworks for climate-related financial disclosures and steers how firms discuss risks and opportunities related to climate change.
Sustainability Accounting Standards Board (SASB)	Establishes sector-specific standards for ESG disclosures and shapes how financial materiality is assessed and reported.
Conference Proceedings & Industry Events	Gatherings where current frameworks, best practices, and emerging ESG trends are debated to build consensus and encourage new collaborations.
International Sustainability Standards Board (ISSB)	Develops and maintains standards to help companies provide consistent, comparable, and reliable sustainability-related financial information to investors.

Collective actors shape the ESG network alongside the non-human mediators. These examples illustrate how ESG is constructed through a dynamic and complex network of human actors, including larger human collectives, and the non-human mediators that shape their decisions. The human actors seem to have hierarchical structures with positions varying in their power to define, interpret, and operationalise ESG. Non-human mediators, including standards, ratings, and other standards from GRI and the SEC, actively influence these processes but exist outside hierarchical structures, produced and shaped by collectives of human actors. Each human actor's ability to influence is based on access and communication with all types of other actors with all positions within the human actors' hierarchical structure contribute uniquely to shaping ESG practices, constrained or enabled by their specific roles and contexts. These actors share standards, ratings, and regulatory frameworks that operate as active mediators, which are produced by collectives of human actors. The notion of ESG cannot be understood as a perfectly stable concept when looking at all actors as the notion emerges from continuous re-negotiation within the network.

### 4.3.3 Regulation on ESG reporting

The regulatory frameworks, functioning as non-human actors, differ significantly between Europe and North America and influence how ESG is practised and perceived. The mandatory nature of ESG reporting and assurance contributes to the dynamics of ESG networks and how actors interact within the networks.

Countries in Europe that are members of the EU impose a mandatory obligation for ESG reporting on a wide range of companies under the CSRD. The CSRD was adopted in 2022 replacing NFRD, requiring them to disclose detailed information on their ESG practices. This directive attempts to standardise reporting to ensure consistency and comparability for companies operating in most European countries. Forms of mandatory requirement reflect a stricter commitment to ESG reporting and ESG networks in Europe. The CSRD regulation and similar regulations act as non-human actors in the ESG networks. These regulations quickly become a compelling force in mobilising other human and non-human actors.

In contrast, North America adopts a more voluntary and fragmented approach to ESG reporting. The United States lacks a comprehensive mandatory framework at the federal level. The SEC adopted rules in 2024 requiring public companies to disclose climate-related risks and greenhouse gas emissions, but these rules faced legal challenges, leading the SEC to end its defence in 2025. Their status is uncertain amid ongoing litigation and potential revisions. Additionally, there are arguments about debates regarding enforceability. The situation is similar in Canada, with most standards, such as Canadian Sustainability Disclosure Standards (CSDS), currently being voluntary. Some provincial securities regulators in Canada have introduced

guidelines for climate-related disclosures in addition to CSDS, but there is a lack of a national mandate. ESG reporting in North America largely relies on this concept of voluntary frameworks that are adopted at the discretion of companies based on market pressure. North American companies face no strong obligation. This lack of mandatory requirements results in inconsistent ESG reporting, and the regulations acting as non-human actors are much weaker in their ability to mobilise other actors.

Understanding the mandatory nature of the two very different regulatory landscapes is crucial for interpreting the interactions and assumptions of actors in the networks. This is especially important for multinational firms that operate in both regulatory environments, as regulation acting as a non-human actor has implications for the notion of ESG and its implementation.

## 4.4 Differing ESG black boxes

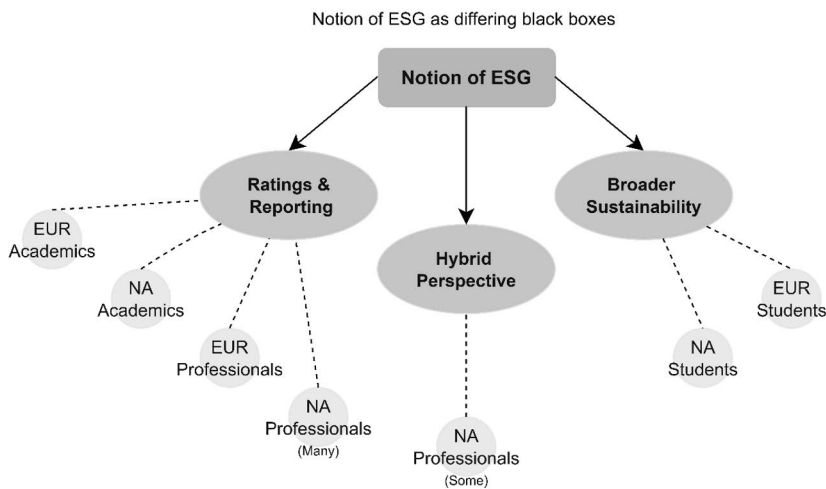
A black box represents a concept, practice, or system that has become established, accepted, and largely unquestioned within a network. When an idea becomes a black box the intricate details of its origins and complexities become more obscured and it is treated as a unified concept. However, black boxes can obscure significant underlying disagreements or complexities that may resurface when different actors interpret or interact with the black box in varied ways. The notion of ESG first appears to be black-boxed, but this view is challenged in light of the empirical findings.

### 4.4.1 The varying notions of ESG

The notion of ESG does not operate as a single black box containing different interpretations. ANT reveals two well-stabilised, and largely incompatible black boxes that have successfully enrolled major parts of the network. Alongside them, one much weaker hybrid black box seems to be gaining traction. The first dominant black box, referred to as ‘Specified ESG,’ has firmly enrolled most seasoned professionals (especially in Europe), academics, stabilising ESG as a tool for ratings, reporting, and compliance. The second black box, ‘Broad ESG,’ has captured the majority of students across both regions and a portion of North American professionals, successfully translating ESG into something essentially synonymous with long-term sustainability effort. This notion of ESG is far beyond metrics or disclosure. There is a fragile hybrid version between these two competing black boxes where mostly North American professionals try to fuse elements of both. This third black box remains weak with low network stability and does not currently challenge the entrenched notions.

This distinction between the two dominant black boxes seem to closely relate to the single- versus double-materiality debate in sustainability reporting (Dechow, 2023). The ‘Specified ESG’ black box corresponds closely to a single-materiality logic, in which ESG information is considered relevant only as it affects the firm’s financial performance and shareholder value. In contrast, the competing ‘Broad ESG’ black box reflects something resembling a double-materiality perspective that incorporates both financial materiality and the firm’s outward impact on society and the environment. Perhaps the emerging hybrid black box represents an attempt by some actors to reconcile these two materiality conceptions within the same network.

Figure 1 offers a mapping of the competing black boxes that currently make up the notion of ESG in the finance industry. The left side shows the strong and well-established ‘Specified ESG’ black box focused on ratings and reporting and the right side captures the equally stabilised ‘Broad ESG’ black box. In the middle, there is space for the weaker hybrid black box. Under each of the interpretations of ESG are the actors that have negotiated their meaning, noting their type and their geographic location.



**Figure 1.** Notion of ESG as differing black boxes

The figure (Figure 1) also makes a particular point of tension more obvious. Today’s students are almost completely enrolled in the ‘Broad ESG’ black box, but when they graduate and enter the industry, they will mostly end up in environments still dominated by the ‘Specified ESG’ network. It is possible that this gap will simply be remedied through more day-to-day interaction or exposure. However, it is also

likely to create miscommunications and frustrations as the two strong black boxes keep trying to enrol the opposing actors and stabilise their respective black boxes.

#### 4.4.2 ESG as ratings and reporting

The implementation of ESG ratings and reporting had the potential to form a single well-established black box within the finance industry. Its introduction represented a standardised and generally accepted means of assessing companies on environmental, social, and governance factors. This also simplified more complex sustainability data into digestible metrics for investors and stakeholders. This type of black-boxed approach provided a framework that attempted to reduce ambiguity and helped companies demonstrate their commitment to sustainability. Many focused on the scores or ratings rather than looking more closely at the detailed practices of companies for this reason. However, this notion of ESG ratings and reporting as a reliable, definitive measure is now challenged.

For now, many in the industry seem to still strongly believe the notion of ESG to be closely related to ratings and reporting, reflected on the left side of Figure 1, and can be thought of as the ‘Specified ESG’ subnetwork. Even if they have some issues with the effectiveness of the real outcomes of ESG, they still recognise it as criteria, ratings, and reporting specifically. Professionals and academics currently in the field are still careful about terminology and definitions. This assistant professor gives a good example when talking about knowledgeable professionals in the network.

"So for them, it's, it's all about the disclosures and the reporting. And they prioritise this, the shareholders. So shareholder primacy is real, like you can feel it, you can touch it."

– Assistant Professor (NA)

They believe professionals focus on disclosure and reporting and would define the notion the same way. Academics also state this could be because they prioritise shareholders and their returns, a topic echoed by other participants. What do the participants feel about the specificity of terms? One academic talks about how ESG and other terms should always be respected.

"I suppose I do see conflicts more now because, you know, we could be talking about something like ESG and clearly some people would tend to, you know, use ESG and CSR or sustainability reporting kind of interchangeably. But, you know, that's not really appropriate."

– University Lecturer (EUR)

Actors in academia, and many professionals who work with sustainability in the finance industry agree strongly that the term should not become something broad

and unspecific, ultimately losing its original meaning. Professionals, in particular, frequently talk about how ESG teams are focused specifically on ESG topics, not broad sustainability, and even that some firms are changing team and group names from ESG to something more closely related to sustainability to keep definitions clear.

"I also work closely with our executive management team, part of that team, we basically trying to understand where ESG is, where it's going, what we should be doing, where we should be concentrating our efforts on."

– Active Ownership & Engagement (EUR)

"Now maybe they changed ESG. The ESG group or their company and call it corporate responsibility or change in responsible business or maybe they're just changing the title or they're messaging less but still doing the same amount of work."

– Associate (NA)

Even some professionals who do not work with ESG or sustainability topics as a core job duty still understand how their colleagues operate with the notion. They even take it upon themselves to learn the material in some cases.

"So the idea was, hey, let's get let's get in front of this. Let's make sure we know what we need to know. So if people bring that up, we know what it means. And it's fun..."

– Financial Advisor<sup>1</sup> (NA)

These industry voices reflect the most stable understanding of the notion of ESG understood by most actors. Many professionals and academics tend to agree that ESG should be thought of as standardised reporting and grading and should be referred to as such. However, there is a competing view worth exploring on the right side of Figure 1, as well as some disagreement among professionals in North America, seen at the bottom of the figure. The term's association with broader sustainability appears to be emerging as well as some of these professionals that fall somewhere between the two main interpretations in a hybrid subnetwork.

#### 4.4.3 ESG as broader sustainability and a hybrid notion

Interviewing master's students in business and finance has shown that they often bring a different perspective, forming another kind of competing black box. Rather than seeing ESG as primarily about reporting metrics and company grades, the students talk about ESG as if it could be synonymous with broader sustainability efforts. This is reflected on the right side of Figure 1 and can be thought of as the

‘Broad ESG’ subnetwork. The students view the notion as extending far beyond its original definition.

Two master’s students shared their thoughts on what ESG means to them, focusing heavily on the change they want to make in the name of sustainability. They both see the notion as a part of sustainability, but the focus is not necessarily on the ratings or reporting. It is a much broader concept to them.

"It is a big deal if you want to make change with sustainability. It is all about the results and changing how companies behave."

– Master’s Student <sup>5</sup> (EUR)

"I am focused on making a better world and learning how to do that. ESG is one way. So, it is something that helps sustainability efforts."

– Master’s Student <sup>2</sup> (EUR)

For them, it seems that ESG is just a feature or catalyst of sustainability efforts. This is much different than the way academics and most knowledgeable professionals in the industry. An MBA student had something similar to say when asked how they felt about this type of discussion.

"ESG is about the environment, social, and governance sustainability topics. It’s a way to get companies to act differently on these topics and make decisions."

– MBA Student <sup>1</sup> (NA)

This indicates that students understand ESG can influence companies' decision-making, which implies knowledge of the scores and reporting. Also, the focus remains on sustainability efforts and making some type of impact. Some might think that these students are uninformed, but this does not seem to be the case. Instead, their broader interpretation reflects an evolving understanding of ESG that encompasses both specific metrics and wider sustainability goals. These students have more exposure to ESG and sustainability during their formal education than previous generations, yet they see the notion broadly. For this reason, it seems incorrect to attribute this to lack of awareness.

Finance professionals also play a role in this network, with some interpreting it more flexibly as part of a hybrid perspective that bridges both specific metrics and broader sustainability concepts. This can be seen at the bottom of Figure 1 with a hybrid perspective, where some North American finance professionals fall somewhere between the two notions of ESG. In some cases, this was evident when participants were unable to answer specific reporting questions. They focused on the broad sustainability goals they were more familiar with. Others, like this financial advisor, share that they are uncertain about ESG topics when discussing with others who may consider themselves to be ESG specialists.

"...their sole responsibility is to find investment opportunities that abide by the guidelines of ESG or whatever that means to, you know, that group of individuals."

– Financial Advisor<sup>2</sup> (NA)

The hybrid perspective also appears when these North American professionals navigate regional politics. Understanding ESG as a more fluid notion seems to be beneficial for professionals when they are communicating with a broad set of clients or colleagues.

"So obviously oil and gas on the utility side and in Texas is a very much politicized topic. So, I really don't use the term ESG, don't talk about social initiatives. I really just focus on the green side and more so focus on the risk mitigation and transition need versus the some other benefits that sustainability can bring."

– Financial Associate (NA)

Essentially, newer entrants to the field are challenging the first two well-established black boxes, by redefining the notion of ESG in this hybrid direction. They suggest that the notion represents more than issues related to the three categories of environmental, social, and governance, extending to broad-based sustainability. These discussions point to a new tension, as more of these students and junior professionals join the workforce, they will bring their ideas with them into the network. This broader view may not yet be able to fully reshape the current black-boxed notion, but it is certainly interesting and acts against the current understanding of the finance industry.

What does this mean for the notion of ESG? The well-established black box of ratings and reporting remains intact, with most industry professionals and academics in agreement. Yet, there is a growing body of students and younger professionals who have a broader, or hybrid, understanding of ESG. These new actors place a greater emphasis on broader sustainability, and the finance industry may begin to feel increasing pressure to reconcile these two perspectives. The fact that there is evidence of students that are actively questioning or reshaping the concept signals that ESG may not be as black-boxed as it once was.

## 4.5 Controversies, disputes, and hypocrisy in ESG

The integration of ESG principles into the finance industry has brought about many changes, and these changes come with a range of controversies, disputes, and instances of hypocrisy. ESG's implementation is framed as a pathway to sustainable and responsible business practices but it is not perfect. The tension between genuine commitment to ESG goals and the pressures of financial return

has generated many different behaviours. These behaviours range from opportunistic gaming that undermines credibility to prosocial practices that advance ESG objectives. Gaming behaviours highlight the darker side of ESG practices, where opportunism and hypocrisy can erode trust. Conversely, prosocial behaviours represent the opposite, efforts to foster transparency, collaboration, and long-term value creation.

This section examines these two sets of behaviours independently. The following tables, "Gaming Behaviours in ESG as Practised" (Table 9) and "Prosocial Behaviours in ESG as Practised" (Table 10) provide a detailed overview of these opposing sets of behaviours. They highlight not only the actors involved and the specific practices undertaken but also the broader impact these behaviours may have on the finance industry's ESG network. The themes presented were derived through thematic analysis of the semi-structured interview transcripts. Consistent with the analytical procedures described in section 3.3, the gaming behaviours (Table 9) were identified primarily through inductive open coding that focused on deviations from ESG ideals as expressed by participants. In contrast, the prosocial behaviours (Table 10) were identified through a primarily deductive approach, using the core design principles of the prosocial paradigm (Pfister et al., 2024) as a framework.

Before presenting the specific gaming behaviours, it is useful to clarify two key conceptual distinctions among the themes identified in Table 9. "Greenwashing" refers specifically to misleading or exaggerated claims about a company's environmental performance that are designed to improve its public image without corresponding substantive action. In contrast, "hypocritical practices" represents a broader misalignment between publicly stated ESG commitments or values and the organisation's actual internal behaviours or decisions. Similarly, "exploiting ESG reporting" involves the active manipulation of ratings, selective disclosure, or strategic gaming of existing reporting mechanisms, while "inconsistent standards" highlights how actors capitalise on the systemic ambiguities, fragmentation, and lack of enforcement across the multiple ESG frameworks and regulations that currently exist.

This first table (Table 9) focuses on the opportunistic gaming behaviours that exploit ESG principles for financial or other gain, revealing how some actors undermine the integrity of ESG initiatives and erode credibility within the network.

**Table 9.** Gaming behaviours in ESG as practised

Theme	Unfair opportunism	Impact on network
<b>Exploiting Reporting</b>	<b>Rating Systems:</b> Companies manipulate ESG ratings by strategically focusing on specific categories.	<b>Erodes Trust:</b> Investors become sceptical of ESG claims and sustainability financial products.
	<b>Greenwashing:</b> Using sustainability as a marketing gimmick without substance	<b>Hinders Progress:</b> Genuine sustainability efforts are overshadowed.
	<b>Selective Disclosure:</b> Reporting only on favourable ESG metrics to appear compliant.	<b>Market Scepticism:</b> Questioning the validity of ESG investments.
<b>Misaligned Incentives &amp; Hypocrisy</b>	<b>Short-Term Focus:</b> Prioritising immediate financial gains over long-term sustainability.	<b>Undermines Credibility:</b> ESG initiatives are seen as disingenuous.
	<b>Rebranding Harmful Activities:</b> Polluting companies and industries obtaining high ESG scores through minimal adjustments.	<b>Misleads Stakeholders:</b> Investors and the public are deceived.
	<b>Hypocritical Practices:</b> Firms publicly endorse ESG while internally neglecting sustainable practices.	<b>Regulatory Backlash:</b> Potential for increased regulation due to unethical practices.
<b>Inconsistent Standards</b>	<b>Lack of Clear Standards:</b> Companies exploit ambiguities in ESG criteria.	<b>Consistency Issues:</b> Non-standardisation decreases comparability and transparency.
	<b>Fragmented Frameworks:</b> Multiple reporting standards create loopholes.	<b>Facilitates Loopholes:</b> Unclear guidelines support inauthentic practices.
	<b>Regulatory Challenges:</b> Inconsistent enforcement or restrictions allow unfair practices to persist.	<b>Reduces Confidence:</b> Investors trust ESG investments, standards, and regulations less.

\* The themes in this table were derived through thematic analysis of interviews transcripts while focusing on deviations from ESG ideals

The first prominent theme displayed in Table 9 is the exploitation of ESG reporting through tactics such as manipulation of rating systems, greenwashing, and selective disclosure. Some actors exploit ESG principles for financial or reputational gains, often at the expense of trust and long-term sustainability. These practices allow companies to appear compliant or progressive on ESG issues while masking harmful

activities or inadequate commitments. Some firms manipulate rating systems by cherry-picking data to inflate their ESG scores, presenting themselves as responsible. This critical analyst believes the whole foundation of ESG scoring is flawed, and what allows some firms to manipulate the rating systems.

“They were creating something with very shaky foundations, but they had nothing else to do, they wanted to create a business and to provide investors with something that was quantified using numbers... to use something that they would be comfortable with, and they connected the dots.”

– ESG Analyst & Portfolio Manager (EUR)

Still within the theme of exploiting ESG reporting, greenwashing has always been a topical term. This emerges as companies inflate their sustainability efforts while most operations remain unchanged. Many professionals and academics in the industry are quick to mention this, some even place the responsibility on consumer knowledge.

“Companies are focused on what would look good or what they think would look good to the investors or to the public and to what would look good in a news story. And maybe that's not the most kind of core issues to address. Right?”

– Financial Associate (NA)

“But what if more of the responsibility was placed on the consumer to know? And if it was less about labelling the products and all the manoeuvring that these companies use with lawyers to be able to get around some of these things.”

– Postdoctoral Researcher <sup>1</sup> (NA)

Selective disclosure sees firms spotlighting positive metrics while overlooking the negatives. Investors are equally as complicit in many cases, often overlooking these negatives because of financial gain. A well-cited example of this would be the oil and gas industry. Some professionals are trying to remedy this problem with disclosure initiatives that challenge these companies to do more.

“But as of today, we are involved with supporting three different initiatives. Two of them being very much climate change focused, an initiative called Climate Action 100 Plus, and then Carbon Disclosure Project. We are a member of their Capital Markets Group. And they have different types of initiatives, one focusing on pushing companies to report more on climate change, and one pushing for companies to set a salary and speed targets. And that's the initiative that we're currently supporting.”  
– Active Ownership and Engagement (EUR)

Shifting to the second theme of gaming behaviours, misaligned incentives and hypocrisy sees another three categories of unfair opportunism. A short-term focus driving actors to chase quick profits over enduring sustainability represents the first. This is in direct contrast to the stated goals of ESG which includes a more long-term vision. Companies continue to convince consumers they need certain products just for the sake of the sale. Professionals and academics both monitor the market for instances such as the shift to single-use packaging.

“Back in the days where the first like disposable plastic containers were proposed to customers basically customers didn't want them because they thought it was wasteful to use that and then throw it away, so the marketing people had to teach them and sell them the idea that it was okay it was more convenient...”  
– Professor (NA)

Next, rebranding harmful activities allows industries associated with high pollution to make minor changes to receive good ESG ratings. The oil and gas industry is again a well-cited example of this, and one that the general public might be more familiar with. This professor thinks companies focused on animal production resist and rebrand instead of focusing on real substantive change, followed by a financial advisor with a similar opinion.

“We have companies whose business model is still based on oil and gas and companies whose business model is based on animal production, they could be innovating instead of dragging their feet and resisting the change all the time.”  
– Professor <sup>3</sup> (EUR)

“Something that I've noticed from an investment perspective is some companies who aren't as ESG friendly as they may seem find their way into these portfolios through investment screeners because of their ESG score that is completely out of whack from their nature of business.”  
– Financial Advisor <sup>2</sup> (NA)

Hypocritical practices are also a form of misaligned incentives. These practices flourish as firms broadcast ESG commitments to the public while quietly ignoring unsustainable actions. Essentially, it is saying one thing but doing another or omitting information on purpose. This portfolio manager walks through a company's reasoning for selling a hybrid car even though its fuel efficiency when driven without battery power is notably worse.

“These hybrid cars, so they are supposed to be very ecological because you can charge electricity and drive part of them with electricity, but at the same time you have very heavy batteries when you are not using the electricity. So, the consumption of the pool is much higher just because of the extra weight. So, it's about how you market things. It's about what kind of subsidies you get.”

– Portfolio Manager (EUR)

The last theme, inconsistent standards, first addresses the problem of lacking clear standards. This occurs when vague or poorly defined ESG criteria create loopholes that firms can exploit to their advantage. This often allows companies to bend the rules in ways that are unfair to competition. As a result, this exploitation undermines the overall integrity of ESG frameworks and erodes trust among stakeholders. It also diminishes the effectiveness of these systems in promoting genuine sustainability. This ESG analyst shares their own perspective on the problematic state of ESG standards and mentions the ambiguity in the industry.

“The issue that we have had with ESG ratings or ESG scores is that I mean there was no clear definitions, theorisation of what was the phenomenon but those writers or those ESG agencies were trying to measure... I mean it was very blurry.”

– ESG Analyst & Portfolio Manager (EUR)

Fragmented reporting frameworks result in similar exploitation. A collection of various guidelines enables firms to choose what they see fit, when they see fit. This makes it hard to enforce ESG standards. Academics have been watching and evaluating this stream of new reporting standards.

“So, I think now that more and more reporting standards and frameworks are coming in. I think we'll see an uptick of disclosure again. And I think to some degree we will need that once we have this... but if you ask me now, yes, I think it's overdone.”

– Assistant Professor (NA)

Last, regulatory challenges arise from uneven or incorrect enforcement and lack of auditing assurance. This allows opportunists to move to places without strict

regulation without punishment, or ineffective regulations that seem to hinder sustainable practices. A portfolio manager mentions German solar panel regulations.

“They have helped their clients to save some energy costs and how they have new solar panels in those buildings and what kind of problems they have depending on the country. For example, in Germany you need to register yourself as an energy company. If you generate energy, even it's through the solar...”

– Portfolio Manager (EUR)

These opportunistic behaviours are acknowledged and discussed openly by the actors in the finance industry. According to these actors, these exploits and gaps exist in ESG as practised and threaten its effectiveness. If there are so many problematic behaviours associated with ESG, it still capable of fulfilling the promise of sustainability and long-term change, and if so, how?

Table 10 perhaps offers an answer by shifting the focus from negative gaming behaviours to the constructive actions and practices that strengthen the integrity and effectiveness of ESG. The prosocial behaviours outlined in this table emphasise transparency, collaboration, and long-term value creation. These behaviours, or main themes, demonstrate how organisations and stakeholders can work together to foster meaningful progress toward sustainability and prosociality. These behaviours can also counteract the scepticism caused by gaming ESG practices and attempt to set a standard for authentic ESG implementation.

**Table 10.** Prosocial behaviours in ESG as practised

Theme	Prosocial behaviours	Impact on network
<b>Transparency &amp; Accountability</b>	<b>Comprehensive Reporting:</b> Full disclosure of positive and negative impacts.	<b>Builds Trust:</b> Stakeholders and investors gain confidence in ESG practices.  <b>Enhances Comparability:</b> Enables benchmarking and informed decision-making.
	<b>Independent Verification:</b> Partnering with third-party auditors to validate ESG claims.	
	<b>Standardised Metrics:</b> Using global frameworks to ensure consistency.	
<b>Collaboration &amp; Knowledge Sharing</b>	<b>Partnerships:</b> Collaborating with NGOs, governments, and industry peers to address ESG challenges.	<b>Promotes Action:</b> Solves systemic challenges through shared resources.  <b>Builds Relationships:</b> Strengthens trust across the ESG finance industry.  <b>Aligns Goals:</b> Involves all stakeholders
	<b>Sharing Best Practices:</b> Active participation in coalitions to spread innovative solutions.	
	<b>Stakeholder Engagement:</b> Involving investors, employees, and communities in ESG goal setting.	
<b>Long-Term Value Creation</b>	<b>Sustainable Investments:</b> Prioritising ESG objectives alongside financial returns.	<b>Encourages Adoption:</b> Innovations and forward-thinking solutions are adopted.  <b>Improves Credibility:</b> Companies are seen as authentic in their ESG efforts.
	<b>Innovation:</b> Investing in technologies and processes reducing environmental and social risks.	
	<b>Inclusive Practices:</b> Strengthening organisational culture and inclusion.	

\* The themes in this table were derived through thematic analysis of interview transcripts while focusing on behaviours that counteract unfair opportunism in ESG and align with Ostrom's (1990) core design principles as generalized by Wilson et al. (2013).

As outlined in Table 10, these prosocial behaviours offer ways ESG earns trust and drives sustainable outcomes. Each theme and its associated behaviours is explored to highlight how actors work to align ESG with its stated goals.

The theme of transparency and accountability begins with comprehensive and honest reporting, where firms disclose both successes and shortcomings, providing

a full picture that builds confidence among stakeholders. This postdoctoral researcher recounts the shifting discussion around materiality, a way to ensure more comprehensive reporting.

“If you just look at the discussion around materiality it shifted really quickly around double materiality and now, we're onto something different... just a discussion about sustainability reporting even like ISSB.”

– Postdoctoral Researcher <sup>1</sup> (NA)

Independent verification brings in third-party auditors to validate ESG claims, ensuring accuracy and fighting against some forms of exaggeration or unfair opportunism. Firms conduct much of their research by reaching out to independent third parties to verify the accuracy of reports.

“We conduct the research, also ourselves, utilising third party sources.”

– Head of ESG & Asset Management (EUR)

Standardised metrics are global frameworks used to unify ESG assessments. According to actors in the network this makes comparability and clarity across the industry much easier and less susceptible to abuse. This portfolio manager talks about MSCI's influence on companies and their ESG decisions.

“If MSCI has decided for example, that electric vehicles are better than the old-fashioned vehicle so I just can't fight against that kind of institute. Even if by myself I would think that I'm right...”

– Portfolio Manager (EUR)

Next, collaboration and knowledge sharing create strong partnerships between firms, NGOs, regulators, and peers to pool resources and tackle ESG challenges collectively. The university academics tend to be quite connected to NGOs and regulators and motivated to act on students.

“But I don't know, I just think education itself is actually quite a radical thing.”

– Professor <sup>2</sup> (EUR)

“I've been quite invested in the Principles for Responsible Investments... involved in France with the regulatory processes... I think this is where it's not the most exciting job, it's really slow, but I see some value in regulation.”

– Professor (NA)

Sharing best practices sees actors engage with these partnerships in various coalitions related to ESG and sustainability goals. This builds innovation, trust, and long-term sustainability across networks. Sometimes it is easy as just reaching out to your clients and communicating directly with them.

“Prospective clients are usually briefed on a monthly basis...through an email or call. Sometimes an automated email platform... It’s usually more sales oriented than educational, but it’s a hybrid or cross between educational and sales-oriented.”

– Financial Advisor <sup>3</sup>(NA)

Stakeholder engagement invites investors, employees, and communities into ESG goal setting and aligns efforts with broader societal needs. Together, through collaboration and knowledge sharing, the network promotes positive ESG and sustainability action. These opportunities for engagement take different forms.

“We’ve done a golfing event, we’ve done a fishing event, we’ve done a skiing event. Um, so there’s something that appeals to everybody, but we do enjoy gathering groups of clients together to not only have face time with us but face time with each other.”

– Financial Advisor <sup>2</sup>(NA)

Last, the theme of long-term value creation prioritises sustainable investments by balancing financial returns with ESG goals. This concept of sustainable investments is closely tied to the perception of sustainability and instilling a culture of responsibility. This culture is referenced by academics and professionals.

“Sustainability is all about adopting some kind of a planetary perspective on what the state of the planet is, what are the challenges. ESG stuff is basically, the way I see it, really about what are the social and environmental risks that are likely to affect the profits of corporations in the future and how can we mitigate those risks.”

– Professor (NA)

“As you know, it [ESG] is very much core to thinking and culturally in Scandinavia, Switzerland, Spain, and other regions... [referring to ESG disclosures] here they call it corporate responsibility or change it to responsible business or... maybe they’re just changing the title or their messaging but still doing the same.”

– Financial Associate (NA)

Innovation drives investment in technologies and processes that mitigate environmental and social risks, pushing the finance industry towards a variety of solutions. According to this ESG analyst, one solution might be to start from the ground up with a completely new framework.

“I have regretted somehow, that they were extremely successful at building that kind of business [ESG ratings] and when I started in 2008, I mean the train has left the station and it wasn't stoppable. I mean everybody was using that kind of scores so yeah, I mean those things [ESG ratings] are total nonsense.”

– ESG Analyst & Portfolio Manager (EUR)

The final behaviour in long-term value creation can be referred to as inclusive practices. This general concept strengthens organisational culture and promotes an environment where all participants feel welcome and united with common goals. Many of the actors find themselves in close-knit, small teams.

“There's only five of us in the advising office, so it's a pretty small team. So mostly whatever information one has, all of them, all of us have and that's the structure of it. We are close, if not, we jump on a Zoom call.”

– Financial Advisor <sup>1</sup> (NA)

“We do have a small four-person kind of niche team called Sustainable Finance which I'm a part of.”

– Finance Associate (NA)

These prosocial behaviours, transparency and accountability, collaboration and knowledge sharing, and long-term value creation, oppose ESG's exploitation by working towards the collective good. These behaviours represent the more authentic and reliable side of ESG and sustainable finance.

Opportunistic behaviours, such as manipulating ratings, greenwashing, or short-term profiteering, exploit ESG's weaknesses. Finance industry actors candidly admit these behaviours erode trust in both sustainability effort and ESG as practised. Prosocial behaviours offer a way to counter with the main themes of transparency, collaboration and knowledge sharing, and long-term value creation. These themes act to continually rebuild credibility in ESG and sustainable finance. An accurate reflection of the current academic and public discourse seems to be that these opposing behaviours reveal ESG as a contested space. It also appears that ESG is exploited by some but also upheld faithfully by others. The future of ESG in the finance industry relies on the state of these opposing behaviours and the actors that construct these networks.

## 5 Discussion

This chapter discusses the empirical findings from Chapter 4 by mobilising the ‘light’ ANT lens and the prosocial paradigm, first analysing ESG as contested black boxes, then examining regional and generational differences among actors, the complexity of non-human actors, the tension between gaming and prosocial behaviours, and finally reflecting on the broader theoretical, practical, and political implications of the study.

The empirical evidence reveals several key findings that underscore the complexities of ESG networks in the finance industry. First, the notion of ESG does not constitute a single black box. It appears as multiple contested black boxes, a dominant ‘specified ESG’ black box (centred on ratings, reporting, and compliance), a competing ‘broad ESG’ black box (equating ESG with sustainability efforts), and an emerging, weaker hybrid black box that blends elements of both. Second, regional variations illuminate divergent ESG perceptions, where Europe's stringent regulatory frameworks (e.g., SFDR and CSRD) foster structured yet complex mediation, contrasting North America's fragmented, market-driven, and politically polarised environment, which amplifies inconsistencies and erodes trust. Third, actor-based distinctions highlight a possible generational divide, as seasoned actors perpetuate ‘specified ESG’ norms through established practices, while junior actors like students advocate for ‘Broad ESG,’ potentially reshaping future networks toward broader prosociality. Fourth, non-human actors such as regulations, standards (e.g., GRI, TCFD), and rating systems (e.g., MSCI) mediate ESG interactions but introduce contradictions, including overlapping requirements, selective disclosure, and authenticity challenges. Finally, the presence of gaming behaviours (e.g., greenwashing, hypocrisy, and exploitation of ambiguities) and prosocial behaviours (e.g., transparency, collaboration, and long-term value creation) exposes tensions between unfair opportunism and self-governing authenticity. The prosocial paradigm offers opportunities for mitigating exploitation and fostering cooperative sustainability in finance.

## 5.1 ESG as contested black boxes

Drawing on ANT, ESG first seems to operate within the finance industry as a black box defined as the stabilised network of practices accepted without full scrutiny of its internal mechanisms (Latour, 1987). However, this research reveals that what at first appears to be a black box under strain, is actually multiple competing black boxes. ESG's meaning is contested between 'specified ESG' and 'broad ESG' as the two dominant black boxes, alongside a weaker emerging hybrid interpretation (Chapter 4, Figure 1). These views of ratings and reporting, and broad sustainability goals challenge the finance literature's portrayal of ESG as a straightforward set of criteria for risk management and performance evaluation (van Duuren et al., 2016; Zumente & Bistrova, 2021), and support critiques of its subjective and inconsistent nature (Chaffee, 2021; Kotsantonis & Serafeim, 2019).

The 'specified ESG' interpretation dominates among seasoned professionals and academics, who view ESG primarily as a compliance tool for disclosures and standardised metrics. For instance, executive professionals emphasise detailed reporting at product and company levels to meet regulatory, and shareholder demands. This aligns with finance research on ESG's role in enhancing transparency and financial performance (Mgbame et al., 2020; Vecchi et al., 2022). North American professors similarly frame ESG as a disclosure mechanism, acknowledging broader associations but prioritising the evaluations of firms. This perspective echoes quantitative studies linking ESG ratings to returns (Friede et al., 2015). The qualitative lens challenges their assumption of uniformity by highlighting how such views reinforce narrow, self-interested practices critiqued in neoclassical economics (Wilson & Wilson, 2007).

Students and some North American professionals differ. This group represents the 'broad ESG' interpretation, which focuses on its role in advancing sustainability and societal impact beyond reporting. European and North American graduate students mention the significance of ESG in driving sustainability changes, stress the importance of results, and shift the public's perception. This challenges the finance literature's broad short-term focus (Edmans & Kacperczyk, 2022). While some students note that ESG is a particular tool for reporting, the notion of ESG is focused on the results of reporting and not the process. This view challenges the more specific definition and seems to be more ambitious. This view resonates with more critical sustainability accounting, which scrutinises ESG disclosures for authenticity (Matsumura et al., 2014; Adams & Abhayawansa, 2022).

A third, hybrid perspective is also visible among some professionals who combine elements of both 'Specified ESG' and 'Broad ESG,' although this interpretation remains weaker and less stabilised. This hybrid black box is most clearly supported by a smaller group of mid- to senior-level North American professionals who explicitly describe ESG as both a reporting exercise and a broader

move towards sustainability. They seem to understand the ratings, SFDR labels, and regulatory disclosures (Specified ESG) while simultaneously insisting that the main aspect for them being sustainability outcomes (Broad ESG). For these actors, non-human mediators such as integrated reporting templates (e.g., combined GRI and SASB standards), serve as translation devices that try to enrol both black boxes at once. The hybrid interpretation is still emerging and has not yet achieved the same level of stabilisation as the two dominant black boxes, making it more fragile.

Human actors and human collectives shape the notion based on their roles and perspectives. These actors collectively negotiate the notion of ESG, with non-human elements acting as mediators that both stabilise and challenge these black boxes. Experienced professionals, such as portfolio managers and directors, tend to view ESG as a component or tool of their investment strategies rather than the primary focus. These actors incorporate it into established financial frameworks, promoting a practical, compliance-focused perspective on ESG. In contrast, newer voices, such as graduate students, advocate for a more ambitious approach that focuses on the results, echoing calls for broader accountability in the accounting literature (Denedo et al., 2019).

Non-human actors, such as ESG regulations and rating systems, play a critical role in mediating this negotiation. Rating agencies like MSCI provide standardised scores that support 'Specified ESG,' offering a framework for evaluation that professionals and investors rely on. Professionals concede that these rating agencies are hard to overrule. Even in cases where actors disagree about specific ratings, they still operate as if they are correct. They may see the scoring systems or overlapping standards as flawed and contested, but in most cases, human actors feel as though they must still follow it. Regulations operate in much the same way. Regulations set a non-negotiable compliance standard for the industry and set rules of compliance for all other actors. These non-human actors related to regulation and ratings help support 'specified ESG' with structure. Some non-human actors, such as peer communication tools, provide platforms for broader discussions, potentially supporting the 'broad ESG' view.

The tension between these interpretations pressure ESG networks. This contests the literature's optimistic view of ESG as a transformative force (van Duuren et al., 2016), instead aligning more closely with sceptics who highlight greenwashing and oversight gaps (Hawn & Ioannou, 2016; Ishaq & Di Maria, 2020), and positions this work as a qualitative bridge to inform more about ESG as practised.

## 5.2 Regional differences between Europe and North America

The empirical findings reveal contrasts in how ESG is viewed and practised in Europe and North America. These differences are driven by regulatory, market, and socio-political contexts. These are divergent ESG perceptions, Europe's regulatory-driven approach differs from North America's market-driven and more politically contested perspective. The empirics also suggest that distinct regional non-human actors mediate ESG practices and shape the behaviours of human actors within these networks.

### 5.2.1 Regulatory-driven vs. market-driven approaches

In Europe, ESG is deeply rooted in a regulatory-driven view where sustainability is positioned as an integral and non-negotiable component of the finance industry. This perspective is heavily influenced by robust frameworks such as SFDR and CSRD. These frameworks were introduced by the EU to standardise and enhance ESG disclosures. The SFDR mandates that financial institutions classify their investment products based on sustainability criteria to ensure that ESG considerations are embedded in decision-making. The CSRD, effective from 2024, broadens the scope of sustainability reporting by requiring a wider range of companies, including large non-listed firms and smaller listed firms, to disclose detailed ESG performance data. These complex nature of regulations and their implementation help confirm accounting critiques of regulatory burdens creating complexity (Mgbame et al., 2020; Poornima & Gopalakrishna, 2023). This approach reflects Europe's broader commitment to sustainability and is reinforced by other policies like the European Green Deal, which solidifies ESG as a fundamental pillar of economic activity.

North America's ESG landscape is quite different. The North American approach is predominantly market-driven and politically charged. ESG is largely shaped by voluntary initiatives, investor preferences, and a polarised political environment. The absence of comprehensive regulatory frameworks similar to those found in Europe results in a more fragmented approach to compliance. This results in a wide range of ESG practices and corporate priorities. For instance, many large corporations embrace ESG to enhance brand value and attract ESG-focused investors. These corporations may make changes like introducing renewable energy targets and supply chain transparency into their operations. These sustainability changes are driven by market pressures and seldom by regulation due to political resistance to ESG mandates. This political resistance to ESG in North America, particularly in the United States, complicates its adoption. The states of Arizona, Florida, Idaho, Kentucky, Missouri, Ohio, Oklahoma, Texas, West Virginia, and Wyoming all have passed forms of anti-ESG legislation. For example, recent efforts

in Florida and Texas attempt to restrict ESG by limiting the influence of ESG factors in state pension funds. This type of environment contrasts with Europe's regulatory consensus, something not seen at the federal level in North America. Europe views ESG as a regulated necessity, and North America treats it as a market opportunity. This environment challenges the literature's portrayal of ESG as a relatively uniform market opportunity (van Duuren et al., 2016) and confirms sceptics' arguments on oversight gaps and its short-term nature (Edmans & Kacperczyk, 2022). These approaches may reflect deeper cultural and structural differences, but they certainly affect their views and implementation of ESG.

Multinational firms operating across both regions must bridge these environments through hybrid strategies. These firms adhere to the more stringent European regulations while also adapting to the North American market and political pressures, confirming global ESG challenges in the literature (Zairis et al., 2024). This often requires flexibility among some actors (e.g., executives or consultants) who navigate different non-human actors like SFDR mandates and voluntary TCFD frameworks. However, the analysis is conducted at the actor level where most align with one regional context, even if their firm is active globally.

These divergent approaches are further illuminated by the single- versus double-materiality distinction in sustainability reporting (Dechow, 2023). Europe's CSRD and SFDR explicitly adopt double materiality, requiring firms to report both on how sustainability issues affect their financial performance and on their own impacts on the environment and society. North America's historically market-driven and voluntary landscape has instead been shaped predominantly by single-materiality frameworks such as the SASB standards, which prioritise financially material information for investors. This materiality divergence seems to help explain why the 'Specified ESG' black box remains more entrenched among seasoned professionals in both regions, while the 'Broad ESG' interpretation finds stronger resonance among students and some North American actors.

## 5.2.2 Regional non-human actors

Non-human actors, and their roles, differ significantly between Europe and North America. Examining these non-human actors extends ANT applications in accounting and finance that emphasise how non-humans influence diffusion and ESG practices (Alcouffe et al., 2008; Shim & Shin, 2016).

For many parts of Europe, EU regulations act as central non-human actors that structure the ESG network by establishing rules, metrics, and obligations. These regulations effectively enrol human actors like fund managers, executives, and consultants into compliance systems (Callon, 1984). For instance, the SFDR mandates standardised ESG scoring and disclosure templates, which themselves

become non-human actors. A practical example is the adoption of the Carbon Disclosure Project framework by European corporations. This framework aligns with SFDR to emphasise sustainability outcomes like emissions targets. These regulatory actors construct the network by defining rules and aligning participants to overcome ESG challenges and prevent deviations from standards (Mgbame et al., 2020). However, this structure again confirms accounting critiques where non-human actors become too complex and too numerous, failing to become “harmonised” (Adams & Abhayawansa, 2022). This failure to harmonise potentially enables gaming behaviours acting against prosocial accountability in self-governed markets (Pfister et al., 2024).

In North America, the ESG network is mediated by a more diverse and decentralised set of non-human actors, lacking the authoritative enrolment seen in Europe. The Securities and Exchange Commission (SEC) proposals are one of the closest examples related to the approach in Europe. Their 2022 proposal for climate-related disclosures represents one of their attempts to introduce a regulatory structure. However, this proposal is non-binding, and ongoing revisions and negotiations limit its influence compared to Europe’s more comprehensive frameworks. Market-driven actors, such as ESG ratings in the form of MSCI ESG scores or investor-driven standards like the TCFD, play a large role in shaping practices instead. For instance, the growth of ESG-focused exchange-traded funds (ETFs) has incentivised companies to enhance their sustainability profiles to attract capital. This type of market-driven approach is one way that corporate behaviour is affected in the absence of specific regulation. While Europe has similar funds and non-human actors, the North American approach continues without strict regulation. This absence of comprehensive standards or mandates again confirm concerns over data inconsistencies and oversight gaps (Kotsantonis & Serafeim, 2019). It also challenges the portrayal of ESG as a reliable market tool in finance and the investment management process (van Duuren et al., 2016). North America’s ESG network appears to have non-human actors facilitating a broader set of practices compared to Europe’s regulatory focus. This decentralisation has the potential to amplify ESG fragmentation and hypocrisy cited by Chaffee (2021). More simply, Europe’s ESG network is primarily stabilised by authoritative regulatory actors that can enforce, while North America’s network is shaped by a wide range of market actors.

### 5.2.3 Regional prosocial behaviours

The divergent regulatory and market logics that distinguish European and North American ESG networks (5.2.1) also shape the manifestation and strength of prosocial behaviours identified in Table 10. Importantly, these regional differences

should not be interpreted as the be-all-and-end-all determinant of prosocial behaviours in ESG networks; rather, geographic context appears to exert only some influence, shaped by the regulatory environments, non-human actors, and actor perspectives discussed below.

In Europe, the regulatory-driven environment is anchored by mandatory frameworks such as the SFDR and CSRD. These function as a powerful non-human actor that attempts to institutionalise several prosocial practices. Transparency & Accountability (Table 10) are largely enforced through double-materiality requirements and standardised disclosure templates. This attempts to reduce opportunities for selective disclosure and greenwashing, aligning with the prosocial paradigm's emphasis on transparency of behaviour (CDP 4). Collaboration & Knowledge Sharing is also seemingly strengthened by EU-level coalitions and the PRI, where professionals and academics described structured stakeholder engagement and cross-border partnerships that foster inclusive decision-making (CDP 3) and appropriate relations with other groups (CDP 8). Long-Term Value Creation is further embedded through the European Green Deal, which supports planetary stewardship as the shared purpose (Pfister et al., 2024). Therefore, European actors predominantly operating within the dominant 'Specified ESG' black box appear better positioned to translate regulatory pressure into sustained prosocial outcomes.

In contrast, North America's market-driven and politically polarised context relies more heavily on voluntary, emergent prosocial behaviours. Here, Transparency & Accountability (Table 10) often depend on third-party assurance and investor pressure rather than mandates. This has the potential for making these practices more fragile and susceptible to gaming). Collaboration & Knowledge Sharing manifests more strongly through NGO partnerships, investor coalitions, and client-facing events. Long-Term Value Creation is most visible among the subset of North American professionals who adopt a hybrid perspective and among students who equate ESG with broader sustainability. These actors appear to navigate a more contested environment and political landscape. Consequently, prosocial behaviours in North America tend to be more dependent on individual or organisational agency which show a potential for self-governance envisioned by the prosocial paradigm (Pfister et al., 2024).

These regional differences illustrate how non-human actors mediate the enactment of the core design principles and the balance between gaming and prosocial behaviours. Europe's structured approach may more reliably suppress opportunism, while North America's context places greater weight on the voluntary cultivation of prosocial practices.

## 5.3 Seasoned and junior human actors

The notion of ESG and its implementation is shaped by diverse actor perspectives at different career stages, revealing a potential generational divide that extends literature on stakeholder heterogeneity in ESG (Mgbame et al., 2020; Vecchi et al., 2022). There are contrasting views held between seasoned actors (e.g., executives, professors) and junior actors (e.g., students), contributing to ESG as a contested notion by showing how experience influences interpretations. Seasoned actors favour ‘specified ESG’ and junior actors favour ‘broad ESG’. This challenges finance literature's uniform treatment of investors (van Duuren et al., 2016; Zumente & Bistrova, 2021), confirming generational differences where younger cohorts prioritise ethical impacts in investing and finance (Berk & van Binsbergen, 2022; Marjerison et al., 2025), while extending accounting critiques of authenticity by linking seniority to opportunistic vs. prosocial behaviours (Mahoney et al., 2013). Junior actors' long-term influence as they transition could foster prosocial self-governance, aligning with the prosocial paradigm's emphasis on cooperation, and a shared sense of purpose (Pfister et al., 2024).

### 5.3.1 Experience-based perspectives

Seasoned actors draw on their extensive professional backgrounds and tend to favour the notion of ‘specified ESG’ in the finance industry. Their focus is practical and informed by their experience with the notion in the field. For example, a managing director of sustainability funds only obtains such a position after working closely with the notion. One of the job responsibilities is to stay up to date with regulatory demands and industry benchmarks so their financial products can be trusted by customers. Managers of these funds need to understand how ESG scores evaluate the companies included in the financial product and how to read ESG reports and disclosures. They also need to be knowledgeable enough to explain specific details to their customers. This reflects expert network communication and commitment to structured practices for effectiveness, supporting literature discussing professionals' focus on metrics (Edmans & Kacperczyk, 2022).

Junior actors, such as master's students, lean toward ‘Broad ESG,’ the more flexible and more comprehensive view of ESG as sustainability. These actors reflect a broader range of environmental and sustainability concerns, including those not yet covered by regulations. A common idea coming from European students was the importance of moving beyond a basic compliance framework and creating a shift in organisational culture where sustainability is a leading metric. Students also believe that the notion of ESG is a transformative opportunity rather than just reporting. They are bringing perhaps a more idealistic perspective to their networks in holding these beliefs. These contrasts arise from their experiences. The perspective of juniors

in this thesis again seem to confirm generational gap research, in this case where younger investors prioritise societal impact (Berk & van Binsbergen, 2022; Marjerison et al., 2025) and suggests the potential of the prosocial paradigm to counter the gaming behaviours (Pfister et al., 2024).

### 5.3.2 Agency and hierarchy

The network positions of seasoned and junior actors influence their roles in shaping ESG practices. Seasoned actors are deeply integrated into well-established networks that may include other experienced professionals, regulatory authorities, or other human collectives, reinforcing ‘specified ESG’ through alignment with norms. They are also far more likely to be familiar with non-human actors like various ESG reporting frameworks and regulations. These connections reinforce ‘specified ESG’ by aligning their efforts with prevailing norms and expectations, something that is shared with their peers and customers. This gives these actors the authority to sustain the notion of ESG through ratings and reporting, but also incentivises conformity and possibly a divide between internal and external practices (Hawn & Ioannou, 2016). This also extends to ANT research on agency in finance (Shim & Shin, 2016), challenging uniform stakeholder assumptions.

Junior actors’ marginal role also grants them the freedom to propose fresh ideas inspired by academic discussions or societal trends, acting as potential innovators. Their outsider status could evolve ESG implementation over time, again confirming previous research in generational shifts where younger actors challenge established norms and finance behaviours (Berk & van Binsbergen, 2022; Wang et al., 2024).

### 5.3.3 Possible generational shifts among students

Junior actors will eventually enter the workforce, and their preference for ‘broad ESG’ could potentially influence ESG practices in varied ways. They may become acculturated to the prevailing norms of seasoned actors and adopt a more compliance-focused ‘specified ESG’ view. Alternatively, they could act as change agents by pushing for the more general sustainability emphasis of ‘broad ESG’ present among some of the junior actors. This could possibly expand the focus of ESG strategies by blending reporting with more creative solutions to new challenges after transitioning from students to professionals or academics. However, the actual outcome remains uncertain and depends on many factors, such as the juniors' ability to elevate their ideas and enrol others. The speculative nature of this generational shift presents an opportunity for future empirical research and extends calls for tracking evolutions in finance (Nirino et al., 2021). Examples such as the study by

Wang et al., (2024) examining the ESG of future generations of family firms illustrate some future possibilities.

## 5.4 Complexity of non-human actors

Non-human actors are essential for structuring and guiding ESG efforts, but their number and interconnectedness create a complex landscape. This complexity is particularly present in regulation and poses significant challenges to the implementation and realisation of ESG principles. This contributes to ESG's inconsistencies in standards and disclosures (Kotsantonis & Serafeim, 2019) partially inspired by accounting critiques of both fragmentation, hypocrisy and inauthenticity in reporting (Delmas & Burbano, 2011; Mahoney et al., 2013).

### 5.4.1 Forms of regulation as non-human actors

Regulation plays an important role in laying the ground rules and ensuring compliance. The SFDR in Europe is just one of these regulations that mandates specific disclosure requirements. This type of actor collectively establishes the rules, metrics, and narratives that human actors navigate in their ESG networks. This mediation aligns with both ANT's emphasis on non-humans enrolling actors into networks (Latour, 2005) and finance literature on regulatory frameworks enhancing transparency (Mgbame et al., 2020), even though they may contribute to contested interpretations.

This attempt at providing clarity through regulations like SFDR and the CSRD can inadvertently create confusing complexity for firms and actors alike. This complexity is even more pronounced for those who operate in multiple regions. These frameworks aim to standardise ESG reporting, but their detailed and sometimes overlapping requirements confuse companies and stakeholders. A company might need to comply with both SFDR and CSRD, with each employing different metrics for similar ESG factors. Inconsistency and redundancy that arises from these metrics hinders stakeholders' ability to compare ESG performance across companies in the same region. Those simultaneously navigating both European and North American regions have even more difficulty. Ultimately, this weakens the reliability of these regulations as mediators of ESG practice, while human actors observe the regulatory landscape and can be confused in these situations.

A key source of this complexity lies in the tension between single- and double-materiality approaches embedded in the non-human actors themselves (Dechow, 2023). As stated earlier, standards such as the GRI and the EU's CSRD and SFDR largely embody double materiality, while frameworks such as SASB, and TCFD to a large extent, were originally designed around single materiality. These competing

materiality logics are inscribed into the very tools, templates, and rating methodologies that mediate ESG practice. The tension therefore may generate confusion across the network with overlapping requirements and selective disclosure opportunities.

#### 5.4.2 Other contradictions

Many non-human actors challenge both the practical implementation of ESG and its authenticity. The number of non-human actors alone, ranging from reporting standards (e.g., GRI, SASB, TCFD) to regulatory mandates (e.g., SFDR, CSRD) and rating systems (e.g., MSCI, Sustainalytics), results in complications due to companies facing overlapping, repetitive, and sometimes contradictory requirements. This fragmentation confuses firms as they attempt to align with multiple sets of standards and proves especially difficult for those operating globally. A multinational firm might comply with the SFDR in Europe while adhering to voluntary, market-driven frameworks like the TCFD in North America. This would lead to inconsistent ESG practices across its operations, and the focus would move away from authentic sustainability improvements. This extends finance literature's concerns over fragmented standards reducing comparability and herding behaviours of investors (Gavrilakis & Floros, 2023; Kotsantonis & Serafeim, 2019). This complexity also confirms implementation gaps discussed by Hawn and Ioannou (2016) and contributes to the discussion of ESG hypocrisy (Chaffee).

The regulatory non-human actors add further strain through their compliance demands. Regulations like SFDR and CSRD aim to enforce accountability, but their detailed requirements can overwhelm smaller firms or those in less developed regions. This regulatory burden creates an uneven playing field in some situations where larger firms with greater capacity can afford to devote more resources to ESG compliance and reporting, while smaller firms may be at a disadvantage because of the complexity of regulations.

Navigating ESG regulations across Europe and North America exemplifies a core contradiction in the non-human actor network, particularly for multinational firms. As discussed previously, Europe has stringent mandatory frameworks that impose more uniform and detailed disclosure requirements that still apply to US-based subsidiaries or firms with significant European operations. In contrast, the North American landscape remains predominantly voluntary and fragmented, especially at the federal level of the United States. State-level ESG mandates in states like California (e.g., emission reporting) coexist with anti-ESG legislation in conservative states like Texas and Florida that aims to restrict ESG. This can be exceptionally complicated for multinational firms and actors. Adhering to multiple sets of rules and regulations is costly for the firm and introduces further

inconsistency in ESG practices, even within a single firm. This regional divide confirms global challenges in ESG finance literature reviews (Zairis et al., 2024) and extends hypocrisy discussions (Edmans & Kacperczyk, 2022).

### 5.4.3 Questions of authenticity

These non-human actors can also obscure the authenticity of ESG practices. The number of standards and ratings enables selective disclosure and gaming behaviours, as detailed in Table 9 (Chapter 4). Companies can exploit ambiguities in ESG ratings or cherry-pick metrics to present a favourable. Human actors mentioned their disappointment in the lack of clear definitions in ESG scoring and noted how this allows firms to manipulate their rating. Regulatory frameworks like the SFDR are more rigorous, but they can exacerbate this problem by incentivising firms to focus on meeting thresholds. The companies may not address the underlying sustainability issues if they operate this way. This confirms the concerns of accounting research examining greenwashing (Delmas & Burbano, 2011; Mahoney et al., 2013) and may offer a partial explanation for finance's inverse ESG correlations (Friede et al., 2015). Inauthenticity and ESG ambiguities fuelling opportunism also has the potential to contribute to the ongoing review of sustainable finance (Edmans & Kacperczyk, 2022).

### 5.4.4 Issues of confusion and trust

The complexity of this non-human actor network stems from the sheer volume and interaction of regulations, reporting standards, and rating systems. This creates confusion among investors, analysts, and other stakeholders by presenting fragmented or contradictory information that is difficult to reconcile. This is partially informed by accounting literature focused on hypocrisy in reporting (Delmas & Burbano, 2011; Netto et al., 2020). This confusion then erodes trust as human actors question whether ESG data accurately reflects reality. The inconsistency of rating agencies and the dense regulatory requirements can make it difficult to understand a company's true ESG performance. Some clients reject ESG-labelled products outright due to scepticism about their validity, which could be reflecting a broader market distrust fuelled by this complexity. Stakeholders might also struggle to make informed decisions without expert help due to these issues. This can weaken ESG's credibility as a tool for sustainable finance. The difference in international markets can also be confusing for some actors. In Europe, the SFDR's mandatory nature contrasts sharply with North America's reliance on market pressures and optional standards. This global patchwork of non-human actors continues to challenge multinational firms and investors alike. The conflicting regulations and numerous

standards for ratings make it difficult for the finance industry to apply ESG consistently and authentically. This mainly extends to quantitative research on ESG hypocrisy (Chaffee, 2021) and greenwashing (Kurpierz & Smith, 2020) in finance critiques.

## 5.5 Gaming vs. prosocial behaviours in ESG as practised

The analysis of ESG practices in the finance industry presented in Table 9 and 10 (Chapter 4) reveals a contrast between opportunistic gaming behaviours and prosocial behaviours that advance sustainability goals. This duality highlights both the challenges and opportunities in implementing effective ESG initiatives. The tables contribute implications for trust, credibility, and long-term impact and add to the second main focus of this research by indicating ESG is a contested notion. The concepts of opportunistic and prosocial behaviours in ESG extending finance literature's debates on ESG effectiveness and hypocrisy (Edmans & Kacperczyk, 2022; Chaffee, 2021), and challenging quantitative assumptions of performance (Friede et al., 2015; van Duuren et al., 2016) through a qualitative lens. It confirms accounting critiques of inauthenticity via greenwashing and disclosures (Delmas & Burbano, 2011; Mahoney et al., 2013), while proposing the prosocial paradigm as a tool to foster combat unfair opportunism (Pfister et al., 2024). Table 9 identifies three main themes of gaming behaviours that undermine ESG practices.

1. **Exploiting ESG Reporting:** Companies manipulate rating systems by focusing on easily improved metrics, engage in greenwashing to market superficial sustainability efforts, and practice selective disclosure to highlight only favourable outcomes. Actors such as investee firms, investor firms, consultants, rating agencies, and investors contribute to or are affected by these practices, resulting in eroded trust, hindered progress toward genuine sustainability, and increased market scepticism.
2. **Misaligned Incentives and Hypocrisy:** A short-term focus prioritises financial gains over sustainability, firms rebrand harmful activities, adopt hypocritical practices, or publicly endorse ESG while neglecting internal action. This involves or affects executives, investors, portfolio managers, and academics, leading to undermined credibility, misled stakeholders, and potential regulatory backlash.
3. **Inconsistent Standards:** Ambiguities in ESG criteria, fragmented reporting frameworks, and regulatory challenges create loopholes for exploitation. Regulatory bodies and ESG evaluators are largely to blame for

contributing to inauthentic practices, while portfolio managers, academics, and consultants see reduced investor confidence.

These behaviours collectively erode the legitimacy of ESG frameworks and create distrust and impede meaningful progress towards sustainability goals. This erosion seems to confirm sceptics' arguments on ESG's questionable effectiveness (Hawn & Ioannou, 2016; Ishaq & Di Maria, 2020), challenging proponents of ESG to respond to this new descriptive methodology (Mgbame et al., 2020; Vecchi et al., 2022). ESG appears to be contested, with opportunism, presented as gaming behaviours, playing a significant role in widening the gap between ideals and practice. In contrast, Table 10 outlines three main themes of prosocial behaviours that strengthen ESG practices.

1. **Transparency and Accountability:** Comprehensive reporting of both positive and negative impacts, independent verification by third-party auditors, and the use of standardised metrics enhance credibility. Finance firms, rating agencies, consultants, auditors, and investors drive these efforts, building trust and improving comparability across ESG initiatives.
2. **Collaboration and Knowledge Sharing:** Partnerships with NGOs, governments, and industry peers, sharing best practices through coalitions, and engaging stakeholders (e.g., investors, employees, communities) to foster collective action. Companies, NGOs, regulators, investors, academics, and students participate, promoting action, building relationships, and aligning goals.
3. **Long-Term Value Creation:** Sustainable investments balancing ESG and financial returns, innovation in risk-reducing technologies, and inclusive practices strengthen organisational culture. Executives, portfolio managers, analysts, and HR teams lead these efforts, encouraging adoption and enhancing credibility.

These behaviours reinforce ESG's authenticity, aligning stakeholder interests and driving sustainable outcomes. The prosocial paradigm offers a framework for evaluating the viability of self-governance in the context of ESG, noting the presence of prosocial behaviours already established in the notion (Pfister et al., 2024). Informed by Ostrom (1990) and Wilson et al. (2013), such behaviours are reflections of operationalised core design principles (CDPs) to contract gaming tendencies and nurture genuine sustainability. The further integration of CDPs in ESG is a practical application called for by Wilson et al. (2023) and the paradigm (Pfister et al., 2024).

## 5.6 The prosocial paradigm and practical opportunities for self-governance

The prosocial paradigm provides a new lens to interpret the empirical findings. It enables a deeper discussion of persisting gaming behaviours in ESG networks while simultaneously highlighting the already present prosocial behaviours that can suppress them and foster authentic self-governance. ESG networks can be compared to multi-level selection systems with this lens, a place where individual and collective interests can coverage on a shared purpose. The paradigm also provides a framework for incorporating prosocial behaviours in ESG as practised that amplify cooperation and shared stewardship through building on the adapted core design principles by Wilson et al., (2013).

Within this analysis, the core design principles function diagnostically. Principles such as clear group boundaries, monitoring, sanctioning, and conflict resolution illuminate the quality of within-group relationships—for example, how fund managers, analysts, and sustainability officers coordinate their practices. Meanwhile, CDP 8 (‘Appropriate relations with other groups’) helps to diagnose between-group relations—for instance, how investors interact with regulators, auditors, and rating agencies. Taken together, the CDPs thus reveal how prosocial or self-interested dynamics manifest both within and across organisational boundaries.

Gaming behaviours, as captured in Table 9, represent the expression of within-group self-interest and unfair opportunism. Exploitation of reporting loopholes, misaligned incentives and hypocritical divergence between public sustainability commitments and private practices, and inconsistent application of ESG criteria across regions or industries all generate short-term ESG-related gains (e.g., higher ratings, lower capital costs, reputational protection). These gains come at the expense of the collective long-term sustainability goal. For instance, professionals interviewed repeatedly described instances of firms that selectively disclose favourable metrics to rating agencies, or that publicly champion net-zero ambitions while continuing carbon-intensive operations. These patterns of destructive self-interest are exactly what the prosocial paradigm predicts when core design principles are absent or weak, far from the stated goals of ESG collective benefit (Pfister et al., 2024).

The contrasting prosocial behaviours in Table 10 emerge precisely where actors have begun to implement the core design principles in their daily ESG-related practices. This implementation is often done intuitively by actors or firms but is incomplete. The transparency and accountability theme found in the empirics implicitly enacts transparency of behaviour (CDP4) and graduated responses (CDP 5). Professionals described self-regulated comprehensive reporting that includes both positive and negative ESG impacts and voluntary use of independent third-party assurance even when not required. They also noted that some firms implement

internal practices that validate ESG claims before their release. These behaviours create a type of monitoring that is accountable to the group itself, making gaming more visible and more costly within professional networks.

The collaboration and knowledge-sharing theme seems to attempt the operationalisation of inclusive decision-making (CDP 3) and appropriate relations with other groups (CDP 8). Professionals and academics described participation in Principles for Responsible Investment (PRI) initiatives, investor coalitions and various collaborative engagements with investee companies. These structures represent industry-wide knowledge-sharing related ESG and sustainability goals. They allow participants to modify operational rules collectively, resolve disputes quickly and at low cost, and build forms of governance that organisations can achieve alone. These precursors to direct CDP implementation already align with the prosocial paradigm and work to reduce free-riding and increase the relational cost of hypocritical behaviour. In Pfister et al.'s (2024) sustainability-bounded version of the framework, CDP 8 ("appropriate relations with other groups") can diagnose the character of cross-group coordination, while also clarifying that such coordination counts as prosocial only insofar as it remains compatible with planetary stewardship.

The long-term value creation theme aligns with the central importance of Pfister et al.'s (2024) adaptation of CDP 1, a shared identity and purpose at a planetary level. The higher purpose that explicitly incorporates stewardship through sustainability is vividly present in the stated goals of ESG and appears in the empirics. Students almost universally framed ESG as synonymous with sustainability for future generations, with many fully committed to the shared purpose. A minority of professionals, particularly in North America, expressed a hybrid view that incorporates this belief with ESG reporting and rating. Some students and professionals remained sceptical as to how well ESG operates in practice, however, perhaps in large part due to gaming behaviours detailed in Table 9. The prosocial paradigm emphasises that when a shared purpose is strongly internalised, actors voluntarily accept short-term costs (Pfister et al., 2024). These short-term costs could manifest as divestment from lucrative but unsustainable positions, investment in unproven sustainable technologies, or commitment to strengthening organisational culture. Where shared purpose remains weak or contested, common in much of the 'specified ESG' subnetwork, gaming behaviours will persist.

The prosocial paradigm thus transforms our understanding of ESG's persistent hypocrisy from inevitable market gaming into culture and design challenge. It indicates that gaming behaviours flourish because current network structures lack the core design principles that successful commons institutions required (Wilson et al., 2023). The empirical evidence shows that where there is clear evidence of even some CDPs, gaming is selected against and ESG authenticity increases. When external standards and enforcement are inconsistent, a viable path to credible

sustainability practice could be deploying the full set of CDPs themselves in the finance industry.

The latent prosociality already visible in the data constitutes the beginnings, or foundation, for this shift. If deliberately strengthened through application of the CDPs, especially the adapted CDP 1 that makes planetary stewardship the explicit shared purpose, ESG networks can evolve into self-regulating systems. These systems would then selectively disadvantage gaming while rewarding genuine and prosocial cooperation. These fortified networks and ESG would be able to better combat the current hypocrisy and become the transformative force its stated goals claim it to be. The financial commons could be governed mutual accountability, and collective stewardship.

A potential ontological tension exists between the two theoretical lenses employed in this study. ANT adopts a flat ontology and a strictly descriptive stance by tracing associations and controversies without imposing normative judgements on which practices are preferable (Latour, 2005). In contrast, the prosocial paradigm is explicitly normative. It predicts that groups organised around the adapted core design principles will, in the long run, outcompete groups characterised by selfish or opportunistic behaviour and become dominant within their respective selection environments (Wilson et al., 2013; Pfister et al., 2024).

This distinction clarifies the earlier claim that prosocial practices strengthen networks while opportunistic ones create instability. The ANT-informed analysis shows that, at any given moment, both types of behaviour coexist and produce observable effects on network stability. However, the prosocial paradigm offers a forward-looking view where networks that successfully operationalise the core design principles are expected to gain a selective advantage over individuals and their gaming behaviours. The cross-sectional data collected in this study cannot confirm this long-run dynamic, but the presence of latent prosocial behaviours already visible among junior actors and in certain collaborative practices provides an encouraging empirical foundation for such speculation.

The claim that ESG networks could evolve into self-regulating systems is grounded in the empirical observation that several prosocial behaviours already visible in the data (Table 10) reflect Wilson et al.'s (2013) generalis CDPs as adapted by Pfister et al. (2024). When deliberately strengthened and institutionalised, these principles have the potential to transform the current fragmented and opportunism-prone networks into more robust, internally governed collectives. Specifically, a clearly articulated shared purpose anchored in planetary stewardship would provide the overarching boundary condition, while other CDPs are deployed to create the relational infrastructure necessary for a self-regulating system. In practice, this would mean various actors intentionally designing and reinforcing such a framework.

An evolution like this would not require perfect external regulation. The inconsistencies and political pressures discussed create space for bottom-up self-governance. Where external scaffolding is weak or contested, the CDPs offer a proven, scalable alternative that has enabled long-enduring cooperation in diverse collective-action settings (Ostrom, 1990). The latent prosociality already emerging, particularly among junior actors operating within the ‘Broad ESG’ black box, suggests that the foundations for this shift are already present. If the finance industry were to adopt and operationalise the full set of CDPs, ESG networks could move to a self-regulating system capable of aligning individual incentives with planetary stewardship.

## 5.7 The role of ANT

ANT enables a more nuanced view of how these dynamics emerge from interactions among various human and non-human actors. ANT facilitates the identification of behaviours that either undermine or enhance ESG by treating ESG as a network of associations rather than a static framework, as detailed in Table 9 and 10 of Chapter 4. Specifically, the steps of ANT's ‘light’ approach allow for mapping how actors like rating agencies (e.g., MSCI) and regulations (e.g., SFDR) mediate exploitative practices. Tracing associations and relationships (Step 3 in Table 1) helps reveal these practices, such as greenwashing or selective disclosure, where firms find ways to exploit ambiguities. This tracing also helps in recognising opportunistic patterns as disruptions in the ESG network’s stability, like inconsistent ESG criteria that enable gaming. Exploring competing black boxes reveals a contested nature of the notion of ESG among actors in the finance industry (Step 6). This refers to ANT debates by confirming its empirical strength in describing phenomena without preconceptions (Walsham, 1997), and its ability to expose hypocrisies overlooked in the application of other methods (Muniesa, 2015).

Outside of this research, ANT may also be able to highlight prosocial behaviours through processes like mapping translation (Step 4). This step could be used in future research to show how actors negotiate mutual interests and stabilise networks around the shared purpose of sustainability and reporting. Researchers could extend this by answering questions related to hybridisation and stabilisation (Step 8), how ESG networks achieve stability over time, and the role of hybrid entities. Additionally, reflecting on transformations (Step 9) offers another opportunity for investigation, tracking how ESG networks have evolved in longitudinal studies due to adaptations to political shifts, and changes in actor roles and relationships. These extensions align with ANT's iterative evolution and adaptability across domains (Law & Lodge, 1984; Harman, 2009), and challenging fixed ontologies (Latour, 2005) by integrating prosocial elements to evaluate network self-governance.

Employing ANT in the 'light' fashion also proves helpful in distinguishing these behaviours empirically also by drawing directly from the common steps of ANT. For instance, exploring controversies (Step 7) uncovers tensions where gaming behaviours exist and leads to decreased credibility of ESG (Table 9). Analysing mediation and agency (Step 5) further illustrates how non-human actors, including reporting standards (e.g., GRI) or technologies, exercise agency to either amplify opportunism or support prosociality (Table 10). In future research, hybridisation and stabilisation (Step 8) could be used to reveal how prosocial practices contribute to network strength, while opportunistic ones lead to instability. This step-based approach to ANT follows actors through interviews and exposes the discourses and hypocrisies that quantitative methods overlook.

A full-blown ANT study with intensive fieldwork in works like Callon (1984) or Latour (1987) demands prolonged immersion to trace every association exhaustively. This proves to be impractical for a global concept of ESG that involves diverse actors across regions. The 'light' version is focused on key steps shared in most ANT research listed in Table 1. This allows for a condensed, yet comprehensive analysis primarily based on semi-structured interviews to capture the essential network elements in a practical and manageable way. This step-by-step process enables analysis of a broad network, such as regional comparisons (e.g., EU regulatory vs. U.S. market-driven approaches) or possible generational divides, while remaining faithful to ANT. This approach is more feasible for such a broad industry. It reveals actor-driven behaviours and network evolutions that full ANT might achieve but at greater cost, and that quantitative studies cannot access at all. This adaptation supports previous strategies for ANT in organisational studies (Lukka et al., 2022) and contributes by enabling insights into network tensions inaccessible to quantitative methods (Muniesa, 2015).

## 5.8 Political climate and effects on ESG

It is fitting to reflect on the rapidly shifting political landscape that continues to reshape ESG practices. The political climates in Europe and North America are being influenced by distinct governance structures, ideological divides, and recent electoral outcomes. In the EU, ESG remains a regulatory framework that has largely withstood most external pressures. The United States (US) is a much more fragmented and polarised environment. This polarisation is worsened by the 2024 presidential election of a Republican administration. The current administration has intensified anti-ESG sentiments and questions the framework's viability. Exploring this climate and speculating on its implications for the ESG networks is important for such a politically charged framework.

In the European Union, ESG politics have advanced through an apparent commitment to sustainability and ongoing refinements. Key regulatory frameworks have been implemented, such as the CSRD taking effect in early 2024, while the SFDR has experienced continued development aiming to reduce redundancies and align with the European Green Deal. Despite some rising scepticism from economic and geopolitical tensions, such as backlash from the current U.S. administration, the EU appears to remain committed. At the same time, adjustments like easing burdens on non-EU entities reflect a willingness to respond to friction from other regions. It seems the EU is trying to maintain these frameworks even if that means some form of concessions. This flexibility may be something to observe in the future.

The U.S. presents as much less united. Federal-state tensions and ideological polarisation challenge ESG as practised and its future. The US's federal system is unlike the EU's more unified and centralised approach. For example, while the federal government under the current administration has pursued deregulation (e.g., freezing SEC climate disclosure or Paris Agreement withdrawal), states operate separately. Republican-led states like Texas, Florida, and others have enacted various forms of anti-ESG legislation that aim to restrict ESG. Democratic states like California do not share this view and continue to push for pro-ESG mandates and legislation. The current administration has speculated on potentially federalising anti-ESG measures through executive orders limiting states' ability to self-govern. These executive orders would roll back prior policies and prioritise fossil fuels, which would have many downstream effects. This could manifest in reduced federal subsidies for clean energy, heightened scrutiny of ESG funds, or cultural backlash that rebrands sustainability efforts and avoids the politicised "ESG" label.

More speculatively, the current administration's influence may accelerate ESG's perceived decline in the U.S. through gradual marginalisation. This type of phasing out of ESG might force corporations to pivot toward voluntary, less controversial sustainability initiatives. For multinational firms navigating both regions, this makes complexity an even greater issue. This could also potentially amplify gaming behaviours over prosocial ones. It is important to recognise that it is possible that as global pressures like climate risks persist, ESG's core principles may adapt and take a new form. Longitudinal tracking will be essential to observe the impact the current political situation has on the notion of ESG and ESG as practised.

## 6 Conclusions

Having examined the networks and contested notion of ESG, the thesis considers the value of blending finance with accounting insights and the promise of the prosocial paradigm shown for reshaping related sustainable practices. In doing so, it also outlines avenues for advancing scholarly research and offers guidance for practitioners in the field and those shaping regulatory landscapes.

### 6.1 Adopting an interdisciplinary and qualitative perspective to explore ESG

The qualitative approach in this thesis differs from ESG finance literature, which is predominantly quantitative in nature. The opportunity to also integrate accounting insights and the more novel prosocial paradigm into finance research allows for a new way to view the phenomenon and contribute to the intensifying debate that surrounds ESG and the finance industry. In addition to this new view of the industry, a more critical stance regarding ESG as a practice also presents an opportunity to evaluate and improve its implementation.

A deliberate choice was made in the introduction not to offer a single, neatly explained definition of ESG. Such an approach would have been counterproductive for a study with a central aim to explore how the notion is interpreted, negotiated, and enacted within the finance industry. Instead, ESG was presented in its abstract form as a three-pillar framework while leaving its meaning open to empirical investigation. The findings now seem to confirm the value of this strategy as ESG emerges as three contested black boxes in this thesis. The notion of ESG in sustainable finance is inherently fluid and contested, and any attempt to impose a singular definition risks influencing or obscuring the very dynamics being studied.

#### 6.1.1 ANT as a methodological lens

ANT reveals aspects of ESG that quantitative methods often overlook. Human actors are examined alongside non-human actors such as ESG reporting standards, rating systems, and regulatory frameworks (Table 7 and 8). This modified approach performs well, for example, when examining the interactions that construct ESG as

a notion (Figure 1). Again, quantitative methods focused on standardised metrics cannot examine interpretations and negotiations among actors in the same way. This research uncovers the contested and interpretive nature of ESG as competing black boxes, revealing the competing perspectives of ‘specified ESG’ and ‘broad ESG’ shaped by actor networks, and tensions between gaming and prosocial behaviours. It also indicates that there are some professionals that have a broader hybrid understanding of the notion. These are all insights into dynamic interactions and discourses that cannot be observed in quantitative finance studies, which typically reduce ESG to static metrics and correlations with financial performance.

A unique feature of ANT is its equal treatment of human and non-human actors, which allows for an exploration of how ESG is constructed through their interactions. For instance, ESG rating methodologies and sustainability reports are not just tools or objects. These ratings and reporting standards serve as active mediators that shape behaviours and decision-making (Table 7). This perspective also demonstrates how non-human actors, such as the GRI standards or the TCFD frameworks, influence the network. Quantitative approaches largely fail to capture these qualitative aspects of ESG. ANT’s emphasis on following the actors in this way provides a richer understanding of the roles and relationships that define ESG networks. The contested nature of the notion of ESG, such as the tension between viewing it as a reporting tool versus a broader sustainability concept (Figure 1) can be captured with this type of approach.

A significant advantage of this study’s approach is the ‘light’ application of ANT noted throughout, which captures the complexity of ESG networks without the exhaustive ethnographic fieldwork characteristic of classical ANT studies (e.g., Callon, 1984; Latour, 1987). The vast nature of the international finance industry would require a full-scale ANT investigation that would be impractical for this thesis. Instead, this research adopted a focused and condensed methodology, borrowing key ANT concepts like tracing associations and identifying mediators, while relying on semi-structured interviews and document analysis. This approach proves to be highly effective in constructing the empirics, asking the appropriate questions, and following the actors. It represents a positive adaptation and also demonstrates ANT’s flexibility as a method theory, one that can be adapted for studying complex environments like ESG in finance.

This qualitative lens also facilitates a more interpretive understanding of ESG. It can be seen as a contested and evolving concept, rather than a static element related to financial performance. Quantitative studies often reduce ESG to a fixed set of scores or correlations, implying a uniform understanding among everyone (e.g., Hastalona & Sadalia, 2021). In contrast, ANT reveals the notion of ESG is better described as two main competing black boxes coexisting within the industry (Figure 1). For instance, established professionals and academics largely view ESG as a tool

for ratings and reporting, or the ‘specified ESG’ subnetwork, which is more related to evaluation, reporting, and compliance. In the ‘broad ESG’ subnetwork, the other interpretation, most students interpret it much more broadly as synonymous with sustainability. Some North American professionals fall somewhere between. These differing perspectives uncovered through ANT’s tracing of actor interactions highlight why ESG should be seen as a contested notion. Its meaning can change depending on which actors are engaging with it and how they interact with mediators like rating systems or educational platforms. This interpretive approach challenges the notion of ESG as a stable and defined concept and indicates that it might be experiencing an evolution. This shift from viewing ESG as ratings and reporting to ESG as broader sustainability might be driven by new actors such as students since they seem to be entering the industry with a new perspective that is different than the established norms (Figure 1).

### 6.1.2 Finance combined with accounting research

As explored in Chapter 2 of this thesis, these accounting streams bring a qualitative focus that contrasts with the predominantly quantitative focus of traditional finance literature. While finance research often focuses on financial performance metrics and shareholder returns (e.g., Hastalona & Sadalia, 2021; Zairis et al., 2024), the accounting research literature offers examples of lenses and methods to scrutinise the authenticity of a variety of practices.

Sustainability accounting emphasises the measurement and reporting of environmental impacts, such as carbon emissions and resource use (Matsumura et al., 2014). SEA extends this to social and governance dimensions, including labour practices and board diversity (Adams & Abhayawansa, 2022; Denedo et al., 2019). These two domains highlight the processes behind ESG practices and reporting, revealing the potential for insights that quantitative finance studies overlook. This thesis discusses how sustainability accounting’s focus on environmental disclosures can expose discrepancies between a firm’s reported ESG performance and its actual practices. These types of mismatches indicate that something is happening beneath the surface, which could possibly be explained by purposeful greenwashing or unintended hypocrisy. This limited domain indicates that there is an opportunity for applying this type of approach.

Accounting literature’s emphasis on transparency, reporting, and assurance practices also provides inspiration for this research. Studies such as Delmas and Burbano (2011) investigate the drivers of greenwashing, demonstrating how firms may exaggerate environmental efforts without substantive action. Similarly, Mahoney et al. (2013) analyse standalone CSR reports to determine whether they reflect genuine commitment or serve as impression management tools. These

insights emphasise the need for reporting, independent verification, and auditing. These key principles are central to accounting domains but receive much less focus in finance research.

In the finance industry, actors such as ESG rating agencies, investors, and portfolio managers navigate these reporting and assurance practices to evaluate firms. However, as described in Chapter 4, inconsistencies often exist between reported ESG metrics and the actual practices of firms. The theme of exploitation of ESG reporting in Table 9 serves as one example of how firms selectively disclose favourable metrics or manipulate ratings. This suggests that ESG reporting is complex and vulnerable to manipulation, which may obscure authentic sustainability efforts. This research draws on accounting literature and its focus on transparency and assurance to propose that qualitative finance research adopt a similar focus to enhance the reliability of ESG as practised and sustainability efforts.

This interdisciplinary approach combines finance with accounting insights and reveals significant tensions between the stated goals of ESG frameworks, their reporting and assurance practices, and their practical implementation. Finance literature often assumes ESG metrics are reliable indicators of sustainability (van Duuren et al., 2016), but the qualitative approach of some streams of accounting indicates vulnerabilities. Chapter 4's analysis of gaming behaviours (Table 9) illustrates how firms can be exploitative and undermine ESG's intended purpose. Yet, prosocial behaviours (Table 10) suggest a way to mitigate these gaming behaviours and align more closely with accounting research's assurance goals.

These findings contribute a novel perspective to finance research by challenging quantitative domains and emphasising the qualitative methods required for describing ESG networks and ESG as practised. The competing perceptions of ESG as a reporting tool versus a broader sustainability concept (Figure 1) highlight the need for such an examination. This interdisciplinary approach exposes limitations in current ESG practices and also enriches the academic debate by integrating focuses present in accounting research.

### 6.1.3 Prosociality in ESG and sustainable finance

This thesis demonstrates that the prosocial paradigm is a promising framework for diagnosing ESG against instances of gaming and increasing its effectiveness. Neoclassical economics might assume that self-interest incentivised through ratings and regulations, or reputational mechanisms, will naturally align with sustainability goals, but the empirical evidence presented shows the opposite. In the absence of core design principles, self-interest presents as unfair opportunism, producing the hypocrisy, inconsistent standards, and rating manipulation that now define the critiques of ESG practice. The prosocial behaviours uncovered in the networks

reveal a different possibility. When actors begin to enact even partial versions of the CDPs, gaming is suppressed, trust emerges, and ESG appears to function as it claims to.

The critical insight is that prosociality is already latent in the system. Transparency and accountability practices that voluntarily embrace third-party assurance, collaborative engagements that recruit competing institutions, and the growing internalisation of long-term value creation through sustainability as a shared purpose are all aspects of emerging self-governance. Pfister et al.'s (2024) adaptation of CDP 1, a clear group identity and shared sense of purpose, defines the explicit higher purpose as planetary stewardship in the name of sustainability. Accordingly, prosocial cooperation in ESG—both within organisations and across coalitions—cannot be treated as “prosocial” if it violates sustainability, because planetary stewardship is the non-negotiable boundary condition of the paradigm (Pfister et al., 2024). This proves particularly powerful and complement of ESG and explains why some actors have internalised a purpose that goes further than immediate self-interest.

Combining ANT's ability to follow and describe the relationships of actors with the prosocial paradigm in this thesis could offer finance researchers a genuinely new theoretical foundation. Traditional ESG scholarship and practice remains embedded by neoclassical logic, endlessly refining incentives, metrics, and disclosure rules while gaming behaviours and unfair opportunism persist and actively work against the stated goals. The prosocial paradigm challenges this by showing that the problem might not be insufficient incentives but the wrong model entirely. Finance markets could be viewed as multi-level selection systems in which suppressing within-group opportunism systematically would have the potential to outperform current expectations. The empirical patterns documented here, gaming dominant where CDPs are weak and cooperation emerging where they are strengthening, provide the first qualitative examination of this dynamic in sustainable finance contexts.

It seems ESG's future could depend on deliberately cultivating the full set of core design principles within its networks. This does not require waiting for perfect global regulation or ratings. The current political fragmentation, U.S. federal and state-level polarisation and resistance to complicated EU regulations, actually creates a clear opening for self-governance. Where external authority is failing, a credible path forward could be internal. The PRI collaborations, investor coalitions, voluntary assurance practices, and intergenerational transmission of broader ESG interpretations already visible in the data are the mechanisms through which networks can strengthen transparency and responses (CDP 4 and 5), conduct inclusive decision-making (CDP 3), and appropriate group relations (CDP 8). Most crucially, the adapted CDP 1 makes planetary stewardship the non-negotiable shared purpose.

In a more general sense, fostering prosociality in ESG means shifting from a defensive, compliance-oriented mindset to an offensive cultural strategy. This is something already reflected in the empirics. Funds, rating agencies, consultants, and professional bodies could explicitly design interventions around the adapted CDPs. They could create spaces for peer monitoring of claims, build collaboration platforms, and actively nurture the narrative of finance as stewardship rather than extraction. The generational shift seems to already be underway. Students entering the industry with the notion of ‘broad ESG’ represents an opportunity to counter the industry entrenched notion of ‘specified ESG’.

ESG does not need another rating methodology or an improved disclosure framework, it needs something that could be best described as an upgrade or form of fortification. The prosocial paradigm supplies a scientifically grounded, empirically supported path to transform sustainable finance from hypocrisy-prone market into a self-governing commons. Some elements are already present in the networks, but the question is whether the industry will recognise it before the window closes.

## 6.2 Implications

There are broad implications of the findings for theory, practice, and policy in the finance industry due to the insights gained into the ESG networks, gaming behaviour, and prosocial behaviours. These insights inform future research and have the potential to aid in improving and implementing ESG.

### 6.2.1 Theoretical developments and contributions

The approach in this thesis contrasts with the predominantly quantitative focus of existing ESG research, which previous authors have pointed out often centres on financial performance or other similar metrics (Hastalona & Sadalia, 2021; Zairis et al., 2024). Mapping the interactions among human actors (e.g., finance professionals, academics, and students) and non-human actors (e.g., reporting standards, rating systems) explores the dynamic nature of ESG networks. ANT’s emphasis on tracing associations and mediations reveals insights into how the notion of ESG is constructed and how ESG is implemented. This qualitative perspective provides a clearer understanding of ESG by highlighting diverse actors and the relationships that shape ESG practices, something lacking in traditional financial metrics research.

The integration of the prosocial paradigm into finance research represents a departure from the traditional “economic man” assumptions that prioritise individual self-interest (Pfister et al., 2024). In the context of ESG, it provides a structured lens for probing authenticity, distinguishing exploitative gaming behaviours from those that cultivate self-regulating networks capable of bridging ideals and practice.

This framing directly confronts neoclassical tendencies, proposing instead adaptive structures in the form of Wilson et al.'s (2023) adapted CPDs that embed prosocial principles to temper opportunism and nurture prosociality. As evidenced in the empirical themes of transparency and accountability, collaboration and knowledge sharing, and long-term value creation (Table 10), these behaviours operationalise CDP-like aspects of ESG to counteract gaming. Prosocial behaviours detailed in the empirics also attempt to align ESG with a core focus of planetary stewardship, something shared by the prosocial paradigm and the sustainability movement. By introducing this paradigm to ESG discourse, the thesis enriches finance scholarship with qualitative tools for dissecting network tensions and opens pathways for reimagining economic evaluation through self-governing, collective lenses that prioritise ESG's original stated goals.

This research, through its focus on gaming behaviours (Table 9) and prosocial behaviours (Table 10), adds to the ongoing academic debate about ESG and its effectiveness. Documenting gaming behaviours in the form of major themes (e.g., exploitation, hypocrisy, and inconsistency) sheds light on ESG practices, in instances where unfair opportunism undermines authenticity and the purpose of ESG. These findings align with similar perspectives in both critical finance and accounting literature, which have highlighted inconsistencies and hypocrisy in ESG as practised (Edmans & Kacperczyk, 2022; Mahoney et al., 2013). However, all is not lost. The identification of prosocial behaviours introduced by the new paradigm illustrates the potential for genuine sustainability efforts. There are both exploitative and authentic dimensions of ESG, and this research describes the phenomenon as dual perspective that positions this research directly in the middle of the ongoing ESG debate in finance, accounting, and various sustainability domains.

More specifically, this thesis makes three primary academic contributions to the fields of sustainable finance, accounting, and interdisciplinary ESG research. First, it introduces ANT as a method theory (Lukka & Vinnari, 2014) in a 'light' yet faithful manner to the study of ESG in finance. While finance scholarship has overwhelmingly relied on quantitative performance metrics and correlations (see Section 2.1), this study demonstrates how this research utilised adapted ANT empirical steps of following actors, tracing associations, identifying mediators, unpacking black boxes, and exploring controversies can generate rich interpretive insights. By applying this lens, the thesis reveals ESG not as a single stabilised framework but as three contested black boxes, 'Specified ESG' focused on ratings and reporting, 'Broad ESG' equating the concept with broader sustainability efforts, and an emerging hybrid perspective. (see Figure 1 and Section 5.1). This advances the limited body of qualitative work in sustainable finance (Liu et al., 2022) and bridges the gap between mainstream finance research and the more critical traditions in sustainability and social-environmental accounting (see Section 2.2).

Second, the thesis integrates the prosocial paradigm (Pfister et al., 2024) into ESG and sustainable finance research as an example case. Building directly on the empirical patterns identified in Tables 9 and 10, it shows how the generalised core design principles (Pfister et al., 2024) serve as a diagnostic lens to distinguish gaming behaviours (Table 9) from prosocial behaviours (Table 10). This contribution directly addresses the repeated calls in both finance and accounting literatures for better tools to scrutinise the authenticity gap between ESG aspirations and practice (Chaffee, 2021; Delmas & Burbano, 2011; Edmans & Kacperczyk, 2022;). It also extends the prosocial paradigm itself by illustrating its applicability beyond management control systems to the global finance industry's actor-networks.

Third, it offers a novel interdisciplinary combination of finance and evolutionary/prosocial theory, with particular influence from streams of sustainability accounting. The regional (Section 5.2), generational (Section 5.3), and non-human actor (Section 5.4) dynamics uncovered through a unique implementation of ANT enrich existing literature that has largely treated ESG as a uniform and stable (van Duuren et al., 2016; Hastalona & Sadalia, 2021). This thesis provides a thicker explanatory account (Lukka & Modell, 2010) of why hypocrisy and gaming persist and how self-governance mechanisms could realistically emerge in sustainable finance by mapping these dynamics.

## 6.2.2 Finance professionals and their practices

The findings of this research indicate practical implications for finance professionals implementing authentic and effective ESG practices by identifying both challenges and opportunities for enhancing ESG as practised. These implications are focused on mitigating gaming behaviours, promoting prosocial behaviours, regional differences, and shifts in ESG perceptions. Connections to policy also illustrate how professional practices could align with regulatory efforts.

Gaming behaviours within ESG networks (Table 9) are unfairly opportunistic practices. Greenwashing, for example, is perhaps the most well-known and widely discussed concept among professionals. These professionals could respond by adopting more rigorous and transparent ESG practices to counteract these tendencies. This might involve implementing new reporting mechanisms that disclose both positive and negative impacts comprehensively and act against greenwashing. Additionally, professionals could advocate for and implement more standardised ESG criteria, such as those from bodies like GRI or the SASB.

Prosocial behaviours outlined in Table 10 offer a response to the gaming behaviours and provide some type of guidance in improving trust and credibility in ESG networks. The main themes of transparency and accountability, collaboration and knowledge sharing, and long-term value creation emerge as proponents of

authentic ESG implementation. Finance professionals could draw on these observed behaviours, engage with prosocial principles, and act on them in several ways.

1. **Transparency and Accountability:** Adopt comprehensive reporting practices, validate through audits by independent third parties, ensure ESG claims are credible and comparable, and work toward the standardisation of metrics and scores.
2. **Collaboration and Knowledge Sharing:** Engage in partnerships with NGOs, regulators, and industry peers, exchange and communicate best with other professionals, and participate in investor coalitions and ESG events.
3. **Long-Term Value Creation:** Focus on sustainable investments that balance long-term financial returns with ESG objectives, invest in innovative sustainable technologies, and commit to sustainable practices.

These prosocial behaviours build trust within ESG networks and also position firms to capitalise on possible policy incentives, such as tax breaks for audited ESG disclosures or grants for collaborative initiatives. Professionals might also influence regulations that balance enforcement with flexibility by participating in industry coalitions. These types of policy incentives relate closely to professionals and their practices. The strategies align with the prosocial paradigm's emphasis on cooperation and collective benefit, counteracting the scepticism generated by gaming behaviours in ESG with a shared common focus.

This research also highlights regional variations in ESG perceptions, particularly between Europe and North America, as illustrated in Figure 1. ESG is generally viewed narrowly as a reporting and compliance tool (prevalent among EUR and NA professionals and academics), while for some it is interpreted more broadly as synonymous with sustainability (common among EUR and NA students and some NA professionals). This complicates ESG integration in global markets and might indicate some developments in curricula. Professionals could better understand this situation and tailor their communication and strategies to improve collaboration in ESG networks. Part of this phenomenon seems to be a generational divide in ESG perceptions, with students viewing it as a broad sustainability framework rather than a reporting mechanism, as depicted in Figure 1. This contrasts with the view of professionals and academics. As younger professionals enter the workforce, their holistic perspective may challenge traditional ESG practices, potentially reshaping industry norms. Professionals' awareness of this emerging divide could enable them to better understand and mentor new employees whose broader view of ESG may influence future finance industry networks. Finance professionals may be able to bridge this type of generational gap and prepare for this new and emerging perspective.

### 6.2.3 Changes in ESG policy and regulation

The identification of gaming behaviours (Table 9) and prosocial behaviours (Table 10) provides a more detailed understanding of ESG networks, including their challenges and opportunities for policymakers. Regulators could address the more exploitative behaviours that separate ESG from its as-practised expectations while promoting practices that align with sustainable goals. These implications are grounded in the empirics with an aim to inform possible policy decisions.

Gaming behaviours such as manipulating ESG ratings, greenwashing, and selective disclosure may be due to the lack of consistent guidelines. For instance, firms may cherry-pick favourable metrics or engage in superficial sustainability efforts to boost their ESG scores, as noted by participants such as the financial analysts and portfolio managers. This lack of standardisation reduces trust within the industry and ultimately undermines the credibility of ESG.

To address this, regulators could prioritise the development of further standardised ESG criteria and reporting frameworks. The three main areas for policy in this standardisation are as follows:

1. **Loopholes:** Clear guidelines could reduce the flexibility that enables opportunistic actors to exploit vague standards.
2. **Comparability:** Standardised metrics would allow stakeholders to benchmark firms across industries and regions.
3. **Credibility:** Closely aligning reporting with frameworks and standards from the GRI or the SASB. Focus more closely on auditing and assurance of ESG scores and ratings.

Addressing gaming behaviours is critical, but policymakers could also proactively encourage the prosocial behaviours outlined in Table 10. Transparency, collaboration, and long-term value themes could be cultivated to counteract unfair opportunism and gaming behaviour by more closely aligning ESG practices with their intended purpose. For example, comprehensive reporting and independent verification practised by some firms build confidence in ESG, and partnerships with NGOs and coalitions work towards collaboration goals and long-term value creation. Regulators could design policies that explicitly incentivise the prosocial behaviours such as transparency, collaboration, and long-term value creation. These policies could combine the adapted CDPs from Wilson et al. (2013) with ESG regulations and aim to counteract gaming behaviours while promoting more authentic sustainability efforts within the finance industry. Possible policy areas are explicitly tied to specific CDPs, and these principles might help inform regulators in their decision-making.

- Tax incentives or subsidies: Policymakers could reward firms that demonstrate transparency through audited ESG disclosures or invest in sustainable innovations, as highlighted in the theme of long-term value creation (Table 10). This policy aligns with Ostrom's CDP 4 (Monitoring) by encouraging firms to self-monitor and report their ESG performance transparently. Additionally, it connects to CDP 5 (Graduated Responses) by offering escalating rewards for exceeding standards rather than just tax penalties for non-compliance. For example, firms undergoing third-party or governmental ESG audits might receive benefits such as tax breaks.
- Collaboration grants: Funding industry-wide initiatives that tackle the noted gaming behaviours of ESG challenges benefits collaboration and knowledge sharing efforts (Table 10). These collaborative ESG-specific grants would align with CDP 7 (Recognition of Autonomy) and CDP 8 (Group Relations) by empowering groups to organise independently and collaborate with others.
- Recognition: Highlighting firms that outperform in ESG standards compared to industry norms through forms of public recognition or awards reinforces a culture of prosociality. This relates to CDP 4 (Monitoring) by offering public acknowledgment as a form of oversight where prosocial ESG performance is celebrated. To connect to CDP 5 (Graduated Responses) through positive reinforcement, recognition might also be paired with forms of monetary reward or other firm-level opportunities, such as government contracts.

Perhaps policymakers could help shift the focus from gaming behaviours (Table 9) to prosocial ones (Table 10) by either mandating or rewarding these behaviours. Integrating the CDPs into policies could ensure that prosocial behaviours strengthen the collective aspects of ESG practices.

A more balanced approach towards the enforcement of standards is also required. Strict regulations could deter gaming behaviours but also risk harming innovation or reducing overall ESG engagement. For instance, overly specific or tedious regulatory hurdles that might hinder sustainable practices even if they are well-intentioned. Conversely, relaxed or inconsistent enforcement creates loopholes and encourages gaming behaviours. Therefore, a nuanced and balanced approach from policymakers is required.

Regulatory bodies might adopt a more balanced approach that focuses on a few structural points. First, they could establish baseline requirements for ESG reporting and performance to ensure accountability, addressing the issue of unclear standards (Table 9). Second, they could encourage some level of flexibility to support innovation. Third, they could employ enforcement mechanisms, such as audits or

corrective plans, to guide firms toward genuine sustainability rather than focusing on the penalisation of non-compliance. This type of approach would help ensure that ESG efforts remain authentic without imposing heavy constraints on firms through inflexible rules.

These proposals attempt to foster more authentic and impactful ESG practices by contributing new theoretical insights, practical guidance for professionals, and policymakers. Ultimately, these implications could contribute to enhancing the finance industry's engagement with ESG topics and related sustainability practices.

### 6.3 Limitations

This study has several limitations inherent to its scope and design. The cross-sectional nature of the research offers a snapshot of ESG networks and discourses during the data-collection period. Consequently, it cannot capture longitudinal shifts, translation processes, or the hybridisation and stabilisation dynamics that a classical, long-term ANT study might reveal. The purposive and snowball sampling strategy successfully traced actor-networks and ensured diversity across professional roles, academic positions, and two major regions, yet there is only a modest number of participants per stakeholder category. The findings therefore provide rich, context-specific insights consistent with the interpretive qualitative approach rather than broadly representative results. In addition, the empirical focus on Europe and North America leaves perspectives from emerging markets and other regions unexplored. Finally, the deliberate 'light' application of ANT prioritised feasible breadth across a global industry over the depth of immersive and exhaustive ethnographic fieldwork.

Beyond these methodological constraints, structural and institutional obstacles within financial markets themselves limit the integration of prosociality into ESG practices. Prevailing neoclassical assumptions that prioritise short-term financial returns, combined with fragmented and often inconsistent regulatory frameworks, create an environment in which gaming behaviours remain rational for many actors. Rating agencies, voluntary disclosure standards, and market-driven incentives continue to reward selective compliance and impression management rather than genuine planetary stewardship. Political polarisation, especially in North America, further weakens the non-human actors that could otherwise more effectively stabilise prosocial norms. While the prosocial paradigm offers a promising diagnostic and prescriptive lens, these entrenched institutional features constrain the extent to which self-governing, cooperative practices can currently scale within mainstream finance. The presented thesis can still map and diagnose these obstacles and call for increased attention in addressing them.

These limitations do not undermine the validity of the core contributions, but they do highlight productive avenues for future research, which are outlined in the following section.

## 6.4 Suggestions for further research

Longitudinal tracking of ESG networks would help address important gaps in the predominantly quantitative finance literature, which has largely focused on correlations between ESG metrics and financial performance (Friede et al., 2015; van Duuren et al., 2016). Future studies could reveal patterns of stability, transformation, or decline that remain invisible in cross-sectional designs by continuing to follow the evolution of contested black boxes, regional variations, generational divides, non-human actor complexities, and the ongoing tension between gaming and prosocial behaviours. Such work would extend the present ANT-informed analysis and empirically test whether the prosocial paradigm's vision of self-governance and shared planetary stewardship (Pfister et al., 2024) can take root in practice.

Key areas for longitudinal inquiry include the evolution of ESG interpretations. Will the 'Broad ESG' perspective prevalent among students gradually challenge or merge with the dominant 'Specified ESG' black box as junior actors enter the workforce? How stable or fluid will the emerging hybrid perspective among some North American professionals prove to be? Regional divergences between Europe's regulatory-driven approach and North America's market-driven and politically contested environment also warrant continued attention. Future studies could examine whether anti-ESG policies in the United States lead to greater fragmentation or, conversely, prompt convergence toward EU-style regulation. Generational dynamics also deserve particular focus, it remains to be seen whether the sustainability-oriented ideals of incoming cohorts translate into innovative prosocial practices or are replaced by established industry norms. Finally, the complexity and mediation role of non-human actors (overlapping regulations, rating systems, and reporting standards) could be tracked to determine whether ongoing refinements reduce gaming behaviours or only provide new layers of complexity.

As Sherman reflects in Pfister et al. (2024), the prosocial paradigm offers a powerful diagnostic lens for scrutinising the authenticity of ESG reporting and for distinguishing genuine prosocial behaviour. Building on this, empirical studies could test the practical applicability of the adapted CDPs by examining whether deliberate interventions that strengthen transparency (CDP 4), inclusive decision-making (CDP 3), or graduated responses (CDP 5) measurably reduce opportunism and enhance prosocial outcomes in real-world ESG networks. Mixed-methods designs combining ANT with quantitative performance metrics would also help bridge the current

divide between interpretive and financial approaches to sustainable finance. Extending the analysis to emerging markets or other geographical contexts would further test the generalisability of the contested black box findings and the boundary conditions of the prosocial paradigm.

Such research would deepen qualitative understanding of authenticity and effectiveness in ESG practice (Edmans & Kacperczyk, 2022; Gavrilakis & Floros, 2023) but also evaluate the real-world potential of prosocial self-governance, ultimately determining whether ESG evolves or remains contested.

## 6.5 Closing remarks

This thesis details the intricate networks that underpin ESG as a contested notion within the finance industry. ANT reveals it to be a fluid assembly of contested black boxes, far from a stabilised framework of ratings and reporting. Human actors combine with non-human elements such as technologies, regulatory tools, and rating systems, continuously negotiating, interpreting, and reshaping ESG. The empirical tracing underscores ESG's character as an evolving construct where the promise of responsible and ethical sustainable investment faces persistent exploitative opportunism. These gaming behaviours separate ESG as practised from its stated mission.

These discoveries point to an opportunity. The prosocial paradigm emerges as way to foster cooperation and assist sustainability efforts. This lens illuminates pathways to authenticity, where themes like transparency and collaboration can stabilise the ESG with a long-term, sustainable, planetary focus. Fusing ANT's descriptive ability with prosociality, the analysis explains the 'how' of ESG and its possible future.

In this way, this research adds to the body of finance research by offering a qualitative foundation that connects deeper interpretive insights with practical frameworks, helping to advance the ongoing conversation around ESG. For those working in finance and shaping policy, it points to the need to build up prosocial practices even as opportunism pulls in the other direction. Looking ahead, future studies could take this work in many different directions. As the finance industry confronts its role in broader sustainability efforts, incorporating prosociality can contribute to a fundamental change in understanding and a reevaluation of ESG practices.

This thesis has directly addressed the two pairs of research questions formulated in the introduction. This study has mapped the networks of ESG stakeholders in the global finance industry (A1) and examined the discourses circulating within those networks (A2). The analysis revealed a network of human and non-human actors whose interactions produce three contested black boxes of ESG: the dominant

‘Specified ESG’ focused on ratings and reporting, the competing ‘Broad ESG’ equating the concept with broader sustainability efforts, hybrid perspective that seems to be emerging.

Building on this network and discourse analysis, the research has also identified the specific gaming patterns that cause ESG as practised to deviate from its ideal expectations (B1) as well as the existing prosocial behaviours that counteract those patterns and help realign practice with the notion’s aspirations (B2). By mobilising the prosocial paradigm as a diagnostic lens alongside ANT, the thesis demonstrates both the persistence of unfair opportunism and the latent potential for genuine, self-governing cooperation in sustainable finance. In doing so, it provides an interpretive bridge between finance and accounting scholarship and offers a way toward more authentic and effective ESG practice.

# Abbreviations

AI	Artificial Intelligence
ANT	Actor-Network Theory
CDP	Core Design Principle
CFA	Chartered Financial Analyst
CPR	Common-Pool Resource
CSDS	Canadian Sustainability Disclosure Standards
CSEAR	Centre for Social and Environmental Accounting Research
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
ESG	Environmental, Social, Governance
EU	European Union
EUR	Europe
GRI	Global Reporting Initiative
HR	Human Resources
ISSB	International Sustainability Standards Board
MBA	Master of Business Administration
MSCI	Morgan Stanley Capital International
NA	North America
NFRD	Non-Financial Reporting Directive
NGO	Non-Governmental Organisation
PRI	Principles for Responsible Investment
SASB	Sustainability Accounting Standards Board
SEA	Social and Environmental Accounting
SEC	United States Securities and Exchange Commission
SFDR	Sustainable Finance Disclosure Regulation
TCFD	Task Force on Climate-related Financial Disclosures
U.S.	United States

# List of References

- Adams, C. A., & Abhayawansa, S., 2022. Connecting the COVID-19 Pandemic, Environmental, Social and Governance (ESG) Investing and Calls for ‘Harmonisation’ of Sustainability Reporting. *Critical Perspectives on Accounting*, 82, p. 102309
- Addoum, J., Ng, D., & Ortiz-Bobea, A., 2023. Temperature Shocks and Industry Earnings News. *Journal of Financial Economics*, 150(1), p. 1–45.
- Ahrens, T., & Chapman, C. S., 2006. Doing Qualitative Field Research in Management Accounting: Positioning Data to Contribute to Theory. *Accounting, Organizations and Society*, 31(8), p. 819–841.
- Alcadipani, R., & Hassard, J., 2010. Actor-Network Theory, Organizations and Critique: Towards a Politics of Organizing. *Organization*, 17(4), p. 419–435.
- Alcouffe, S., Berland, N., & Levant, Y., 2008. Actor-Networks and the Diffusion of Management Accounting Innovations: A Comparative Study. *Management Accounting Research*, 19(1), p. 1–17.
- Amsterdamska, O., 1990. Surely You Are Joking, Monsieur Latour! *Science, Technology, & Human Values*, 15(4), p. 495–504.
- Bilodeau, A., & Potvin, L., 2018. Unpacking Complexity in Public Health Interventions with the Actor-Network Theory. *Health Promotion International*, 33(1), p. 173–181.
- Baid, V., & Jayaraman, V., 2022. Amplifying and Promoting the “S” in ESG Investing: The Case for Social Responsibility in Supply Chain Financing. *Managerial Finance*, 48(8), p. 1279–1297.
- Berk, J. B., & van Binsbergen, J. H., 2022. The ESG Generation Gap: Millennials and Boomers Split on Their Investing Goals. *Stanford Graduate School of Business Insights*.
- Bijker, W. E., 1993. Do Not Despair: There Is Life after Constructivism. *Science, Technology, & Human Values*, 18(1), p. 113–138.
- Bolton, P., & Kacperczyk, M., 2021. Do Investors Care about Carbon Risk? *Journal of Financial Economics*, 142(2), p. 517–549.
- Callon, M., 1984. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay. *The Sociological Review*, 32, p. 196–233.
- Callon, M., 1998. Introduction: The Embeddedness of Economic Markets in Economics. *The Sociological Review*, 46(S1), p. 1–57.
- Chaffee, E. C., 2021. Index Funds and ESG Hypocrisy. *Case Western Reserve Law Review*, 71(4), p. 1295.
- Chatterji, A. K., Levine, D. I., & Toffel, M. W., 2009. How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics & Management Strategy*, 18(1), p. 125–169.
- Christensen, M., & Skærbæk, P., 2007. Framing and Overflowing of Public Sector Accountability Innovations: A Comparative Study of Reporting Practices. *Accounting, Auditing and Accountability Journal*, 20(1), p. 101–132.
- Claessens, S., Glaessner, T., & Klingebiel, D., 2002. Electronic Finance: Reshaping the Financial Landscape around the World. *Journal of Financial Services Research*, 22(1-2), p. 29–61.

- Collins, H. M., & Yearley, S., 1992. Epistemological Chicken. In A. Pickering (Ed.), *Science as Practice and Culture*, p. 301–326. University of Chicago Press.
- Cresswell, K., Worth, A., & Sheikh, A., 2010. Actor-Network Theory and Its Role in Understanding the Implementation of Information Technology Developments in Healthcare. *BMC Medical Informatics and Decision Making*, 10, p. 67.
- Dasgupta, P., 2022. The Economics of Biodiversity: Afterword. *Environmental and Resource Economics*, 83(4), p. 1017–1039.
- Dechow, P. M., 2023. Understanding the Sustainability Reporting Landscape and Research Opportunities in Accounting. *SSRN Electronic Journal*.
- Delmas, M. A., & Burbano, V. C., 2011. The Drivers of Greenwashing. *California Management Review*, 54(1), p. 64–87.
- Denedo, M., Thomson, I., & Yonekura, A., 2019. Ecological Damage, Human Rights and Oil: Local Advocacy NGOs Dialogic Action and Alternative Accounting Practices. *Accounting Forum*, 43(1), p. 85–112.
- Dumas, C., & Louche, C., 2016. Collective Beliefs on Responsible Investment. *Business & Society*, 55(3), p. 427–457.
- Edmans, A., & Kacperczyk, M. T., 2022. Sustainable Finance. *Review of Finance*, 26(6), p. 1309–1313.
- Friede, G., Busch, T., & Bassen, A., 2015. ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies. *Journal of Sustainable Finance & Investment*, 5(4), p. 210–233.
- Gabor, D., & Brooks, S., 2017. The Digital Revolution in Financial Inclusion: International Development in the Fintech Era. *New Political Economy*, 22(4), p. 423–436.
- Gavrilakis, N., & Floros, C., 2023. ESG Performance, Herding Behavior and Stock Market Returns: Evidence from Europe. *Operational Research*, 23(1), p. 1–21.
- Griffin, P., Hong, H., Jung, B., Moon, K., & Ryou, I., 2024. Does Free Speech Law Contribute to Voluntary Corporate Social Responsibility Disclosure? Empirical Evidence. SSRN.
- Griffin, P., Lont, D., & Lubberink, M., 2019. Extreme High Surface Temperature Events and Equity-Related Physical Climate Risk. *Weather and Climate Extremes*, 26, p. 100220.
- Griffin, P., Lont, D., & Sun, E., 2017. The Relevance to Investors of Greenhouse Gas Emission Disclosures. *Contemporary Accounting Research*, 34(2), p. 1265–1297.
- Haase, A., & Hitz, J.-M., 2025. Does Enforcement of Mandatory CSR Reporting Work? Empirical Evidence on Reporting and Economic Effects. SSRN.
- Harman, G., 2009. Prince of Networks: Bruno Latour and Metaphysics. re.press.
- Hastalona, D., & Sadalia, I., 2021. Literature Review ESG and Sustainability Finance. *Budapest International Research and Critics Institute-Journal*, 4(3), p. 4471–4480.
- Hawn, O., & Ioannou, I., 2016. Mind the Gap: The Interplay between External and Internal Actions in the Case of Corporate Social Responsibility. *Strategic Management Journal*, 37(13), p. 2569–2588.
- Ishaq, M. I., & Di Maria, E., 2020. Sustainability Countenance in Brand Equity: A Critical Review and Future Research Directions. *Journal of Brand Management*, 27(1), p. 15–34.
- Justesen, L., & Mouritsen, J., 2011. Effects of Actor-Network Theory in Accounting Research. *Accounting, Auditing & Accountability Journal*, 24(2), p. 161–193.
- Kastberg, G., 2014. Framing Shared Services: Accounting, Control and Overflows. *Critical Perspectives on Accounting*, 25(8), p. 743–756.
- King, A., 2024. Disassembling the Actant: A Valediction to Actor-Network Theory. *Qualitative Research*, 24(2), p. 1–20.
- Kotsantonis, S., & Serafeim, G., 2019. Four Things No One Will Tell You about ESG Data. *Journal of Applied Corporate Finance*, 31(2), p. 50–58.
- Kurpierz, J., & Smith, K., 2020. The Greenwashing Triangle: Adapting Tools from Fraud to Improve CSR Reporting. *Sustainability Accounting, Management and Policy Journal*, 11(6), p. 1075–1093.

- Laine, M., Tregidga, H., & Unerman, J., 2022. Sustainability Accounting and Accountability. 3rd ed. Routledge.
- Lassila, E. M., Moilanen, S., & Järvinen, J., 2019. Visualising a ‘Good Game’: Analytics as a Calculative Engine in a Digital Environment. *Accounting, Auditing and Accountability Journal*, 32(7), p. 2142–2166.
- Latour, B., & Woolgar, S., 1979. Laboratory Life: The Social Construction of Scientific Facts. Princeton University Press.
- Latour, B., 1987. Science in Action: How to Follow Scientists and Engineers through Society. Harvard University Press.
- Latour, B., 2005. Reassembling the Social: An Introduction to Actor-Network-Theory. Oxford University Press.
- Law, J., 1987. On the Social Explanation of Technical Change: The Case of the Portuguese Maritime Expansion. *Technology and Culture*, 28(2), p. 227–252.
- Law, J., & Lodge, P., 1984. Science for Social Scientists. Palgrave Macmillan.
- Law, J., & Singleton, V., 2005. Object Lessons. *Organization*, 12(3), p. 331–355.
- Liu, P., Zhu, B., Yang, M., & Chu, X., 2022. ESG and Financial Performance: A Qualitative Comparative Analysis in China’s New Energy Companies. *Journal of Cleaner Production*, 379, p. 134721.
- Lu, J., & Wang, J., 2021. Corporate Governance, Law, Culture, Environmental Performance and CSR Disclosure: A Global Perspective. *Journal of International Financial Markets, Institutions and Money*, 70, p. 101264.
- Lukka, K., & Modell, S., 2010. Validation in Interpretive Management Accounting Research. *Accounting, Organizations and Society*, 35(4), p. 462–477.
- Lukka, K., Modell, S., & Vinnari, E., 2022. Exploring the “Theory Is King” Thesis in Accounting Research: The Case of Actor-Network Theory. *Accounting, Auditing & Accountability Journal*, 35(9), p. 136–167.
- Lukka, K., & Vinnari, E., 2014. Domain Theory and Method Theory in Management Accounting Research. *Accounting, Auditing & Accountability Journal*, 27(8), p. 1308–1338.
- MacKenzie, D., & Millo, Y., 2003. Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange. *American Journal of Sociology*, 109(1), p. 107–145.
- MacKenzie, D., 2009. Making Things the Same: Gases, Emission Rights and the Politics of Carbon Markets. *Accounting, Organizations and Society*, 34(3-4), p. 440–455.
- Mahoney, L., Thorne, L., Cecil, L., & Lagore, W., 2013. A Research Note on Standalone Corporate Social Responsibility Reports: Signaling or Greenwashing. *Critical Perspectives on Accounting*, 24(4-5), p. 350–359.
- Matsumura, E., Prakash, R., & Vera-Muñoz, S., 2014. Firm-Value Effects of Carbon Emissions and Carbon Disclosures. *The Accounting Review*, 89(2), p. 695–724.
- Marjerison, R. K., Dong, H., & Kim, J. M., 2025. Generational Investment Behavior: The Influence of Risk Tolerance and Technology Adoption in an Evolving Financial Landscape. *SAGE Open*, 15(3).
- Mgbame, C. O., Aderin, A., Ohalehi, P., & Chijoke-Mgbame, A. M., 2020. Achieving Sustainability through Environmental Social Governance Reporting: Overcoming the Challenges. In K. C. Yekini, L. S. Yekini, & P. Ohalehi (Eds.), *Environmentalism and NGO Accountability (Advances in Environmental Accounting & Management, Vol. 9)*, p. 9–25.
- Millo, Y., & MacKenzie, D., 2009. The Usefulness of Inaccurate Models: Towards an Understanding of the Emergence of Financial Risk Management. *Accounting, Organizations and Society*, 34(5), p. 638–653.
- Muniesa, F., 2015. Actor-Network Theory. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences (2nd ed., Vol. 1)*, p. 80–84. Elsevier.
- Netto, S. V. F., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. L., 2020. Concepts and Forms of Greenwashing: A Systematic Review. *Environmental Sciences Europe*, 32(1), p. 19.

- Nirino, N., Santoro, G., Miglietta, N., & Quaglia, R., 2021. Corporate Controversies and Company's Financial Performance: Exploring the Moderating Role of ESG Practices. *Technological Forecasting and Social Change*, 162, p. 120341.
- Ostrom, E., 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.
- Pankratz, N., Bauer, R., & Derwall, J., 2023. Climate Change, Firm Performance, and Investor Surprises. *Management Science*, 69(12), p. 7352–7398.
- Pfister, J. A., Otley, D., Ahrens, T., Dambrin, C., Darwin, S., Granlund, M., Jack, S. L., Lassila, E. M., Millo, Y., Peda, P., Sherman, Z., & Wilson, D. S., 2024. Performance Management in the Prosocial Market Economy: A New Paradigm for Economic Performance and Sustainability. *Qualitative Research in Accounting & Management*, 21(5), p. 397–426.
- Pfister, J., Peda, P. & Otley, D., 2022. A Methodological Framework for Theoretical Explanation in Performance Management and Management Control Systems Research. *Qualitative Research in Accounting & Management*, 20(2), p. 201–228.
- Poornima, S. & Gopalakrishna, B. V., 2023. ESG Investment and Sustainability Reporting: A Systematic Review for Future Research. *Digital Economy Post COVID-19 Era*, p. 497–511.
- Potvin, L., Gendron, S., Bilodeau, A. & Chabot, P., 2005. Social Theory and the Renewal of the Foundations of Contemporary Public Health Practice. *American Journal of Public Health*, 95, p. 591–595.
- Preston, A., 1986. Interactions and Arrangements in the Process of Informing. *Accounting, Organizations and Society*, 11(6), p. 521–540.
- Revelli, C., 2016. Re-Embedding Financial Stakes Within Ethical and Social Values: The Case of Socially Responsible Investing (SRI). *Research in International Business and Finance*, 38, p. 1–5.
- Revelli, C., 2017. Socially Responsible Investing (SRI): From Mainstream to Margin? *Research in International Business and Finance*, 39, p. 1–10.
- Roberts, J. & Jones, M., 2009. Accounting for Self Interest in the Wake of the Crisis. *Accounting, Organizations and Society*, 34(6-7), p. 856–867.
- Robson, K. & Bottausci, C., 2018. The Sociology of Translation and Accounting Inscriptions: Reflections on Latour and Accounting Research. *Critical Perspectives on Accounting*, 54, p. 60–75.
- Shim, Y. & Shin, D., 2016. Analyzing China's Fintech Industry from the Perspective of Actor–Network Theory. *Telecommunications Policy*, 40(2-3), p. 168–181.
- Skærbæk, P. & Tryggestad, K., 2010. The Role of Accounting Devices in Performing Corporate Strategy. *Accounting, Organizations and Society*, 35(1), p. 108–124.
- Sætre, A. S. & Van de Ven, A., 2021. Generating Theory by Abduction. *Academy of Management Review*, 46(4), p. 684–701.
- Teittinen, H. & Kaperi, M., 2022. Exploring Dishonest Vulnerability in Digital Finance Platforms — An Actor–Network Theory Approach. *International Journal of Business and Management*, 10(2), p. 67–79.
- Tweedie, D. & Hazelton, J., 2019. Economic Inequality: Problems and Perspectives for Interdisciplinary Accounting Research. *Accounting Auditing & Accountability Journal*, 32, p. 1982–2003.
- van Duuren, E., Plantinga, A. & Scholtens, B., 2016. ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. *Journal of Business Ethics*, 138(3), p. 525–533.
- Vecchi, V., Casalini, F. & Cusumano, N., 2022. Public-Private Collaborations for Long-Term Investments: Converging Towards Public Value Generation. *Edward Elgar Publishing*, p.
- Vinnari, E. & Skærbæk, P., 2014. The Uncertainties of Risk Management: A Field Study on Risk Management Internal Audit Practices in a Finnish Municipality. *Accounting, Auditing and Accountability Journal*, 27(3), p. 489–526.

- Vinnari, E. & Vinnari, M., 2022. Making the Invisibles Visible: Including Animals in Sustainability (and) Accounting. *Critical Perspectives on Accounting*, 82, p. 102324.
- Walsham, G., 1997. Actor-Network Theory and IS Research: Current Status and Future Prospects. *Information Systems and Qualitative Research*.
- Wang, F., Xie, Y., Ye, J., Shinkle, G. & Xu, S., 2024. Institutional Investor ESG Activism and Exploratory Green Innovation: Unpacking the Heterogeneous Responses of Family Firms Across Intergenerational Contexts. *British Journal of Management*, 35(1), p. 298–326.
- Waniak-Michalak, H. & Michalak, J., 2019. Development of a Successful Microfinancing System: Actor-Network Theory Perspective. *Management: Journal of Contemporary Management Issues*, 24(2), p. 39–61.
- Whittle, A. & Spicer, A., 2008. Is Actor Network Theory Critique? *Organization Studies*, 29(4), p. 611–629.
- Wilson, D. S. & Gowdy, J., 2013. Evolution as a General Theoretical Framework for Economics and Public Policy. *Journal of Economic Behavior and Organization*, 90(S), p. 3–10.
- Wilson, D. S., Madhavan, G., Gelfand, M. J., Hayes, S. C., Atkins, P. W. B. & Colwell, R. R., 2023. Multilevel Cultural Evolution: From New Theory to Practical Applications. *PNAS*, 120, p. 1–10.
- Wilson, D. S. & Wilson, E. O., 2007. Rethinking the Theoretical Foundation of Sociobiology. *The Quarterly Review of Biology*, 82(4), p. 327–348.
- Winner, L., 1993. Upon Opening the Black Box and Finding It Empty: Social Constructivism and the Philosophy of Technology. *Science, Technology, & Human Values*, 18(3), p. 362–378.
- Zairis, G., Liargovas, P. & Apostolopoulos, N., 2024. Sustainable Finance and ESG Importance: A Systematic Literature Review and Research Agenda. *Sustainability*, 16, p. 2878.
- Zumente, I. & Bistrova, J., 2021. ESG Importance for Long-Term Shareholder Value Creation: Literature vs. Practice. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), p. 127.

# Appendices

## Appendix 1. Research questionnaire and interview guide for professionals

### Section A – (Background Information)

1. What is your current job title?
2. How long have you been in this role?
3. How would you describe your industry? Do you have other experience?
4. Could you describe your daily duties and responsibilities in your current role?
5. Have you had any training or education related to ESG issues?
6. What does your department look like, what are some of the titles and duties?
- 7a. How do you communicate internally
  - How often?
  - With whom?
- 7b. How do you communicate externally
  - How often?
  - With whom?
8. Anything new and exciting in your field worth sharing?

### Section B – (ESG Awareness and Value)

1. How Familiar are you with the concept of ESG?
2. How is ESG used in your current role?
3. How do you stay informed about ESG developments in your field?
4. How do you compare to your coworkers in this regard?
5. How would you describe your overall level of awareness and understanding of ESG issues?
6. Which ESG issues are the most important for businesses to address, and why?
7. Describe the level of awareness and adoption of ESG practices within your industry?
8. Could you share any experiences of ESG implementation gone right?
9. Could you share any experiences of ESG implementation gone wrong?
10. What aspects have great value and should be a major focus?
11. What aspects have lesser value and should be a smaller focus?
12. What aspects of ESG are hypocritical, non-helpful, non-valuable?

## Appendix 2. Research questionnaire and interview guide for academics and students

### **Section A – (Background Information)**

1. What is your current academic position and current research interests?
2. Can you provide an overview of your academic background and the journey that led you to specialise in this type of research?
3. Have your academic studies included specific training or education focused on ESG issues, or have your expertise mainly developed through research and academic engagement?
- 4a. How do you collaborate and communicate within the academic community?
- 4b. How often do you engage with your academic peers?
5. How do you communicate externally and engage with professionals outside academia?
6. In the realm of ESG and sustainability academia, are any recent developments or research projects particularly noteworthy or exciting for you?

### **Section B – (ESG Awareness and Value)**

1. Would you consider yourself an ESG and/or sustainability specialist in academia, how do you perceive the role of being considered an expert in the field?
2. In comparison to your academic peers (Accounting and Finance colleagues), how would you describe your level of engagement and motivation (how bought in are you)?
3. How is external communication integrated into your academic role, in what ways do you engage with companies, the public, or other sustainability stakeholders in your research?
4. How do you stay informed about the latest sustainability research, trends, developments, within the academic community?
5. Can you discuss your overall awareness and understanding of ESG issues beyond your specific academic responsibilities?
6. How would you describe the current level of awareness and adoption of ESG and sustainability practices within your academic community?
7. How do you think this compares to international academic network?
8. From your academic perspective, which ESG issues do you consider most critical for organisations to address, and what motivates your perspective?
9. Conversely, are there ESG issues that you would consider less critical or insignificant for organisations, something that takes resources from the more critical issues?
10. In your view, which aspects of ESG or sustainability hold significant value and should be a primary focus for academic research?
11. Conversely, are there aspects of ESG or sustainability that you believe hold lesser value and should receive less attention in academic research?





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