ESSAYS ON SUSTAINABLE FINANCE: MOBILIZING CAPITAL FOR IMPACT

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Writing this dissertation has been a demanding but fascinating journey, and I am proud that I have reached my destination. I started this research because I believe that sustainable investing is important and that financial markets play a central role in the transition towards a sustainable future. I finish this dissertation in the same belief, but with a more profound understanding of the challenges and confidence that they can be overcome. This dissertation allowed me to observe and to dive deep. I feel deep gratitude for this opportunity and all the support and encouragement I received on the way.

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Abstract

Humanity is experiencing global challenges such as climate change, biodiversity loss and inequality. While different research disciplines have found solutions to the individual problems, economies struggle to mobilize the required 5-7 trillion USD annual investments to fund the transition towards a sustainable future (United Nations 2022). Despite governments' and NGOs' efforts, the current investment levels are far from the scale needed. Yet lack of capital is not the problem considering the approximately 200 trillion USD in global assets managed by the financial industry (United Nations 2022). However, so far these assets are not mobilized for sustainable development at the speed and scale needed. Effectively channeling these resources into sustainable development could close the 5-7 trillion USD annual funding gap.

One strategy to promote the mobilization of financial assets for sustainable development is sustainable investing. Investors practicing sustainable investing systematically consider environmental, social and governance (ESG) criteria in their investment decisions. The challenge is how to mobilize enough global assets for sustainable investing and to understand how these sustainable investments make an impact. This dissertation investigates the barriers to mobilizing capital for impact in three closely related studies. The first two studies focus on circumstances that limit capital flows into sustainable finance, whereas the third looks at the effectiveness of sustainable investing in contributing to sustainable development by evaluating the impact investors have on publicly listed firms.

In the first study, I examine the expectations of private investors regarding the impact and financial return of sustainable investments. I use a mixed-methods approach to study high-net-worth individuals' (HNWIs) investments into the Sustainable Development Goals (SDGs). The results show large allocations in line with the SDGs and a preference for SDGs with high financial returns. This demonstrates that investors prioritize investments that they perceive as having a positive impact and that they have a preference for investments that are associated with comparatively high financial returns. This expands the literature on the "does it pay to be green" debate by showing to what degree investors expect their sustainable investments to result in financial gains. I also show how these impact and return expectations materialize in terms of the flow of capital into some sustainable development areas, and less into others.

These findings help to determine which global challenges could be funded by private capital and for which global challenges the public sector needs to step up.

In the second study, I investigate the effects of the Sustainable Finance Disclosure Regulation (SFDR) on the availability and accessibility of sustainable investment products. Availability describes the ability to purchase sustainable investment products and accessibility refers to the ability to obtain accurate information about these products. I conduct a mystery-shopping analysis pre- and post-introduction of SFDR which shows that investors have more sustainable investment products to choose from since SFDR is in place, but rarely receive adequate information on these products. Product distributors struggle with the complexity of sustainable investment products which discourages them from recommending sustainable investments to clients. This finding contributes to the barriers to mobilizing capital for sustainable development by showing that market participants' limited sustainable investing literacy restricts the accessibility of sustainable investment products and hinders the effective mobilization of private capital for sustainable development.

The third study looks at the impact of sustainable investing in public capital markets. The paper offers an analysis of the effects of sustainable investing from the firm's perspective by showing how publicly listed firms process and prioritize different ESG signals and to what degree different investor actions influence corporate decision making. I conduct qualitative interviews with IR professionals, sustainability officers and board members to understand how firms evaluate and respond to variations in urgency of investor requests. I show that firms prioritize requests that appear important to the investor, which is assessed through the investor's resource commitment to the request. The more resource-intense the request and the clearer the consequences, the more substantial is the firm's response. I contribute to the literature by showing that investors can increase their impact by being explicit about their expectations and following through with buying and selling decisions accordingly.

The overarching implication of these studies is that to IVobileze private capital, it is important to understand investors' motivations and to translate them into explicit expectations. To guarantee that this capital has an impact, investors need to be explicit about the environmental, social, governance (ESG) performance they expect from companies and communicate how and when they will reward or sanction a company's performance. The studies hold four main lessons. For private investors, I highlight the importance of focusing

on why they want to invest sustainably. For financial advisors, I point at the relevance of understanding investors' sustainable investment motivations and expectations. For asset managers desiring to drive positive change, I underline the necessity to inform companies about ESG expectations and consequences. For companies that want to successfully navigate sustainable investors, I emphasize the relevance of understanding what really matters to their investors and how investors integrate sustainability data in their investment decision.

Zusammenfassung

Die Welt steht vor globalen Herausforderungen wie dem Klimawandel, Biodiversitätsverlust und sozialer Ungleichheit. Wissenschaftler aus unterschiedlichen Disziplinen haben Lösungswege für die einzelnen Herausforderungen aufgezeigt, doch es gibt Schwierigkeiten, die jährlich notwendigen 5-7 Billionen USD zur Finanzierung der Transformation aufzubringen (United Nations 2022). Trotz intensiver Ressourcenmobilisierung von Regierungen und gemeinnützigen Organisationen ist das derzeitige Investitionsniveau nicht ausreichend. Kapitalmangel ist jedoch nicht das Problem, berücksichtigt man die rund 200 Billionen USD im Finanzmarkt verwalteten Vermögen (United Nations 2022). Bisher scheitert es allerdings an der Mobilisierung dieser Ressourcen. Würde man diese Gelder in nachhaltige Entwicklung fließen lassen, könnte dies die jährliche 5-7 Billionen USD Finanzierungslücke schließen.

Ein Ansatz, um private Kapitalmarktressourcen für nachhaltige Entwicklung zu mobilisieren, ist nachhaltiges Investieren. Nachhaltige Investoren berücksichtigen systematisch Umwelt-, Sozial- und Unternehmensführungsaspekte (ESG) in ihren Investitionsentscheidungen. Die Herausforderung besteht darin, ausreichend Kapital für nachhaltiges Investieren zu mobilisieren, und zu verstehen, wie nachhaltige Geldanlagen konkret eine positive Wirkung in der Realwirtschaft erzielen. Diese Dissertation beschäftigt sich in drei eng verbunden Studien mit den Barrieren zu Mobilisierung von wirkungsorientiertem Kapital. Die ersten beiden Studien beschäftigen sich mit den Umständen, die Kapitalflüsse in nachhaltiges Investieren einschränken. Die dritte Studie evaluiert die Effektivität von nachhaltigem Investieren durch die Analyse der Wirkung, die Investoren auf börsennotierte Firmen haben.

In der ersten Studie beschäftige ich mich mit den Wirkungs- und Renditeerwartungen von Privatinvestoren in Bezug auf Nachhaltige Geldanlagen. Mit Hilfe eines mixed-methods Ansatzes analysiere ich die Investitionen von vermögenden Privatpersonen in die Nachhaltigen Entwicklungsziele (SDGs). Die Ergebnisse zeigen große Allokationen in die SDGs mit Präferenzen für SDGs mit hohen Renditeerwartungen. Dies zeigt, dass Investoren Anlagen priorisieren, die sie als wirkungsvoll empfinden und von denen sie vergleichsweise hohe Renditen erwarten. Mit dieser Erkenntnis erweitere ich die Literatur zur Frage nach der Rentabilität von nachhaltigen Geldanlagen, indem ich darstelle, inwieweit Investoren Renditen erwarten. Außerdem zeige ich auf, wie Wirkungs- und Renditeerwartungen sich auf

die Kapitalflüsse in verschiedene Themengebiete auswirken. Diese Ergebnisse helfen bei der Bestimmung, welche globalen Herausforderungen mit der Hilfe von Kapitalmärkten gelöst werden können und für welche Bereiche der öffentliche Sektor einspringen muss.

In der zweiten Studie untersuche ich die Effekte der Sustainable Finance Disclosure Regulation (SFDR) auf die Verfügbarkeit und Zugänglichkeit von nachhaltigen Geldanlageprodukten. Verfügbarkeit beschreibt die Existenz eines Angebots von nachhaltigen Geldanlageprodukten. Zugänglichkeit bezieht sich auf Möglichkeit akkurate Information zu den Produkten zu erhalten. Anhand einer Testkaufanalyse vor und nach SFDR Einführung zeige ich, dass Investoren mehr nachhaltige Anlageprodukte zur Auswahl haben, seitdem SFDR in Kraft ist, allerdings erhalten sie kaum adäquate Informationen zu den Produkten. Kundenberater haben Schwierigkeiten mit der Komplexität der Produkte, was sie davon abhält, ihren Kunden nachhaltige Geldanlageprodukte zu empfehlen. Diese Ergebnisse tragen zur Literatur, die sich mit den Barrieren der Mobilisierung von Kapital für nachhaltige Entwicklung beschäftigt, bei. Ich zeige, dass das eingeschränkte Wissen von Marktteilnehmern zu nachhaltigen Geldanlagen die Zugänglichkeit von nachhaltigen Geldanlageprodukten massiv einschränkt und damit die Mobilisierung von Privatkapital für nachhaltige Entwicklungsziele behindert.

Die dritte Studie beschäftigt sich mit der Wirkung von nachhaltigem Investieren in börsennotierten Unternehmen. Ich analysiere die Auswirkungen von nachhaltigem Investieren aus Firmenperspektive, indem ich zeige, wie Firmen unterschiedliche ESG-Signale verarbeiten und priorisieren und inwieweit unterschiedliche Investorenentscheidungen sich auf Entscheidungsprozesse in Unternehmen auswirken. Durch Interviews mit Investor Relations-, Nachhaltigkeitsabteilungen und Vorstandsmitgliedern, zeige ich, wie Firmen die Dringlichkeit von ESG-Anfragen evaluieren und wie dies die Reaktion der Firma beeinflusst. Die Ergebnisse zeigen, dass Firmen Anfragen priorisieren, die für den Investor von Wichtigkeit sind. Der Grad der Wichtigkeit wird aus der Ressourcenintensität der Anfrage abgeleitet. Je ressourcenintensiver die Anfrage ist und je klarer die Konsequenzen einer ungenügenden Unternehmensreaktion, desto substanzieller ist die Antwort der Firma. Investoren können ihre Wirkung erhöhen, indem sie ihre Erwartungen explizit kommunizieren und Kauf- und Verkauf Entscheidungen darauf stützen.

Die zentrale Aussage dieser Studien ist, dass man sich über die Erwartungen und Motivationen von Investoren bewusst sein muss, um Kapital für nachhaltige Entwicklung zu mobilisieren. Um sicherzustellen, dass dieses Kapital die erhoffte Wirkung erzielt, müssen Investoren explizit sagen, welche Umwelt-, Sozial-, und Unternehmensführungspraktiken (ESG) sie von Firmen erwarten. Investoren sollten klar kommunizieren, wie und wann sie die ESG-Leistungen von Firmen sanktionieren oder belohnen werden. Meine Studien halten vier zentrale Empfehlungen fest. Private Investoren sollten sich bewusst sein, warum sie nachhaltig investieren möchten. Kundenberater sollten aktiv die Motivationen und Erwartungen ihrer Kunden in Bezug auf nachhaltiges Investieren erfragen. Asset Manager, die positive Veränderungen vorantreiben möchten, sollten Firmen über ihre ESG-Erwartungen und zu erwartende Konsequenzen aufklären. Firmen, die erfolgreich mit Nachhaltigkeitsinvestoren zusammenarbeiten wollen, sollten versuchen zu verstehen, welche Nachhaltigkeitsthemen wirklich für Investoren zählen und wie genau Investoren ESG-Daten in ihre Anlageentscheidungen integrieren.

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1. Introduction

Researchers from various disciplines warn that global challenges like inequality, climate change, and biodiversity loss will have existential effects on society, but also on firms (IPCC 2022; Rockström et al. 2009; Stern 2007; Whiteman, Hope, and Wadhams 2013). While firms are exposed to these social and environmental risks, they are also responsible for many of these challenges in the first place. The corporate world has a track record of overexploitation of natural resources (Jackson et al. 2001), emitting disproportionate amounts of global greenhouse gases (Heede 2014), undermining governments through corruption (Misangyi, Weaver, and Elms 2008) and causing life-threatening working conditions and accidents (Song 2012).

Yet since negative impacts are externalities, the firms that cause them are not necessarily the ones that suffer from them the most. Additionally, there is a time lag before consequences manifest. Considering this time delay, the risk for the firm causing negative impacts is not the sustainability issue itself, but society's reactions to the issue. Investors' reactions are among the most critical for firms as they can inflict serious damage. Investors can sell their position within days and have a say on a variety of critical issues including the election of directors (Cai, Garner, and Walkling 2009; Del Guercio, Seery, and Woidtke 2008).

Investors are increasingly recognizing their power and the role they play in transforming firms for a sustainable future (Mallin 2012; PRI 2021). With financial markets starting to price-in sustainability issues, investors are also starting to wonder about the implications on the value of their investment (Friede, Busch, and Bassen 2015; Revelli and Viviani 2015). This gave rise to the practice of sustainable investing. Sustainable investing describes the systematic consideration of sustainability risks and opportunities. Investors consider sustainability risks to improve their financial performance (Atz et al. 2021; Friede et al. 2015), to align their investments with their values (Colonnello, Curatola, and Gioffré 2019; Lewis 2001; Niszczota and Białek 2021), or to drive positive change (Busch et al. 2021; Kölbel et al. 2020). For investors' sustainability considerations to impact firms' behavior, sustainable investors need to represent a certain market share. If the market share of investors considering sustainability risks is too small, sustainability risks won't have an effect on prices (Pástor, Stambaugh, and Taylor 2021) and votes on sustainability issues will not pass.

To mobilize capital for impact it is crucial to understand what drives investors to consider sustainability issues, what their expectations are, and what barriers hinder them from

investing sustainably. Beyond that, it is important to understand how the variety of investor reactions to sustainability issues lead to improvements in firms. As with many issues, it is hard to predict for firms when and how different investors will react and how these reactions materialize for the firm. To work towards such an understanding, this dissertation is guided by the overarching question: What are the barriers to mobilizing capital for impact?

This introduction chapter will provide an overview of the dissertation's content and how the three papers relate to each other. I will start by introducing the research framework which presents the central building blocks of this dissertation. Next, I will position my papers in this research framework, explain the methodologies employed, and give a glimpse into the findings and contributions.

2. Research Framework

All investments have an impact on society and the natural environment. At the same time, society and the natural environment have an impact on the value of investments. This guiding principle is illustrated in Figure 1 with firms as the connecting element between the two.

Investments impact firms by providing them with capital to expand their activities. By choosing in which firms to invest, investors pick the activities and business practices they want to support. Firms' activities then have an impact on society and the natural environment (Brest and Born 2013; Brest, Gilson, and Wolfson 2018). These impacts can be positive or negative depending on the activity. Finally, the well-being of society and the natural environment determines the stability of financial markets and the value of investments, which closes the cycle. In this dissertation, the research questions and analysis will look at the link between investments and firms in public markets.

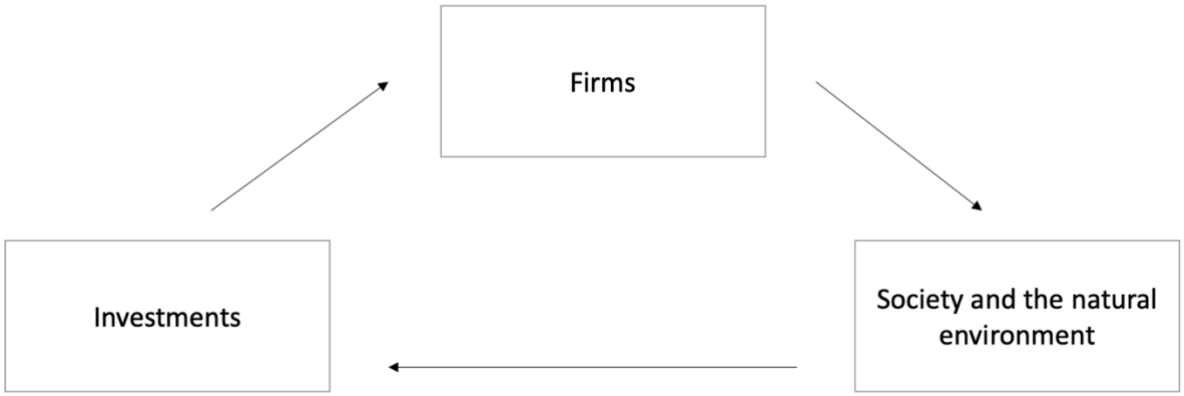

Figure 1: Research Framework

For investments to have an impact on firms, two conditions must be fulfilled. First, a certain share of investors must recognize sustainability as a risk (Heinkel, Kraus, and Zechner 2001). Issues that are supported by a large coalition of investors are more likely to pass than issues that only a small minority cares about (Kölbel et al. 2020). The size of the market share of sustainable investors also determines whether sustainable investors' portfolio choices affect firms' valuations or cost of capital. In equilibrium, the valuation of green firms would be higher and the valuation of brown firms would be lower (Pástor et al. 2021). The rationale is that every investor needs a counterparty for their trades. ESG investors that want to sell a brown stock need a non-ESG investor that is willing to buy it. As buying the brown stock would deviate from their optimal portfolio, non-ESG investors will only buy the brown stock if they can buy it at a discount (Fama and French 2007; Luo and Balvers 2017). Similarly, non-ESG investors will only sell their green stocks if they receive a premium. As a result, green firms' stock would experience a sustainability premium, while brown firms' stock would suffer a discount. The strength of this effect fundamentally depends on the market share of ESG investors. On a similar note, the market share of sustainable investors also affects the pricing of green bonds and sustainability-linked bonds (Kölbel and Lambillon 2022; Zerbib 2019).

Researchers have looked at different conditions that affect the market share of sustainable investors and investors' portfolio choices, including sensitivity to fees (Riedl and Smeets 2017), financial literacy (Filippini, Leippold, and Wekhof 2021), demographics (Hafenstein and Bassen 2016; Junkus and Berry 2010; McLachlan and Gardner 2004; Nilsson 2008; Williams 2007), or social preferences (Hafenstein and Bassen 2016; McLachlan and Gardner 2004; Nilsson 2008; Williams 2007). Part of this research highlighted the different interpretations of sustainable investing (Berry and Junkus 2013). This could mean that a large share of investors considers ESG criteria, but they all do it in a different way (Beal, Goyen, and Philips 2005) or based on different information (Berg, Kölbel, and Rigobon 2022). As a consequence, not all sustainable investors consider the same companies investable. The literature on the nuances of investor behavior highlights the limitations of economic models and indicates that market share alone is not a sufficient condition for investors to have an impact on firms.

The second condition is that investors' actions and portfolio choices trigger change in firms. This could happen through improved practices or accelerated growth (Kölbel et al. 2020). Investors can improve firms' practices by voting their shares and engaging with companies on critical issues (Barko, Cremers, and Renneboog 2021; Dimson, Karakaş, and Li 2015; Dyck et al. 2019). The success of rate of engagements depends on a variety of factors such as the characteristics of the engagement request, the company being targeted, the investor who is engaging, and the engagement tactics used (Goranova and Ryan 2014). Yet overall there is considerable evidence that engagements have an impact on firms (Barko et al. 2021; Dimson et al. 2015; Dyck et al. 2019). Changes in firm valuation as a result of divestments might also trigger companies to improve. Evidence for the impact of divestment is much scarcer though. Some scholars argue that if the price discount is significant enough, firms will implement reforms (Edmans, Goldstein, and Jiang 2012; Heinkel et al. 2001). However, the cost of the reform compared to the expected reward is also likely playing a role in the firm's decision-making process (Durand, Hawn, and Ioannou 2019; Heinkel et al. 2001; Kölbel et al. 2020). The alternative to improving practices is accelerating the growth of impactful companies by improving their financing conditions (Kölbel et al. 2020). The most straightforward way to do so is providing capital on concessionary terms (Brest and Born 2013; Brest et al. 2018; Chowdhry, Davies, and Waters 2019). This is a common practice in development finance where it has proven to enhance corporate investment (Cravo and Piza 2016; Kersten et al. 2017). Yet the effects in developed markets are much more limited. For changes in financing conditions to translate into corporate investments, it is necessary that the company depends on external capital to finance these investments (Baker, Stein, and Wurgler 2003) which decreases with increasing firm size and age (Hadlock and Pierce 2010). This suggests that impact through accelerating growth is limited to small and young firms as well as firms operating in less mature financial markets where growth constraints due to the cost of external financing are more present (Beck et al. 2006; Beck, Demirgüç-Kunt, and Maksimovic 2008; Rajan and Zingales 1998).

To summarize, investors' impact depends on the market share of investors considering sustainability criteria and their ability to trigger change in firms by accelerating the growth of impactful firms with financing constraints or engaging with firms to improve their practices. This dissertation will study the barriers to mobilizing capital for sustainable investing to increase the market share and the barriers to sustainable investments having an impact on publicly-listed companies.

3. Overview of Papers

This cumulative dissertation investigates the barriers to mobilizing capital for sustainable development in three separate papers (see Table 1 below). In this section, I will present a basic description of each study and introduce the questions they are trying to answer. Afterwards, I will discuss the methods employed and summarize the findings and contributions.

Table 1: Overview of dissertation papers

#	Title	Authors	Status
1	Between impact and returns: Private investors and the sustainable development goals	Falko Paetzold Timo Busch Sebastian Utz Anne Kellers	Published in Business Strategy and the Environment
2	The effects of the sustainable finance disclosure regulation (SFDR) on product accessibility: A mystery shopping analysis	Anne Kellers	Submitted to Corporate Social Responsibility and Environmental Management
3	Investors pushing for sustainability: How firms assess the urgency of stakeholder requests	Anne Kellers Julian Kölbel Falko Paetzold	Working paper targeting Organization Studies

Papers one and two focus on the market share condition by studying the barriers to mobilizing capital for sustainable investing. The first paper examines the return expectations of sustainability-oriented high-net-worth individuals (HNWIs) and how their expectations affect their investment selection. In order to mobilize private capital for sustainable development, it is important to understand the expectations of investors (Hafenstein 2015; Riedl and Smeets 2017; Widyawati 2020). In particular the effects of sustainability considerations on financial performance is a central debate in the field. Despite extensive research on the question whether "it pays to be green" (Atz et al. 2021; Friede et al. 2015), many scholars claim that the results are ambiguous, inconclusive, or contradictory (Aupperle, Carroll, and Hatfield 1985; van Beurden and Gössling 2008; Griffin and Mahon 1997; Revelli and Viviani 2015; Rowley and Berman 2000). While the performance debate is ongoing, more recent works portray an interest in sustainability considerations beyond its effect on financial performance. The desire to use one's investments to drive positive change has become a rising theme in financial markets (Busch et al. 2021). However, it is still unclear how investors' desire for

impact affects their financial performance expectations. In the paper I ask: What are the impact and financial return expectations of impact-oriented HNWIs?

In line with paper one, paper two also focuses on barriers to mobilizing capital for sustainable investing. Paper two studies how the European Union's Sustainable Finance Disclosure Regulation (SFDR) affects the availability and accessibility of sustainable investment products for retail investors. While some sustainable investments, e.g. ESG integration products, show outstanding growth rates, others like impact investments remain marginal (GSIA 2020). To mobilize private capital for sustainable investing, it is necessary that different sustainable products are equally accessible to investors. The European Union introduced SFDR to make product differences more transparent and investment opportunities for different investment objectives more accessible. In paper two, I compare the availability and accessibility of sustainable investment products through a mystery-shopping analysis with the first round of data collection taking place a year prior to the introduction of the regulation and the second round a year after the regulation came into effect. In the paper I ask: How has SFDR affected the availability and accessibility of sustainable investment products for retail investors?

Paper three focuses on the second condition introduced in the research framework namely that investors' sustainability considerations trigger change in firms. Firms receive a variety of signals and requests from investors on sustainability matters. Yet not all these requests are relevant or have an effect on investors' investment decision-making. Firms have to assess which requests are urgent and require a substantive response and which requests can be ignored or answered symbolically (Durand et al. 2019). In the paper I ask: How do firms evaluate the urgency of stakeholder requests? The paper offers an analysis of the effects of investor actions from the firm's perspective by showing which requests firms pay attention to, how they trigger actions within firms, and how firms respond.

4. Methods and Data

The three papers adopt different methodologies to appropriately engage with their individual research objectives. The first paper adopts a mixed-methods approach that combines a portfolio analysis with survey data and interviews. The second paper applies a mystery-shopping methodology and for the third paper I conduct semi-structured interviews. This section provides a general overview of the data that I collected and how this data allowed me

to generate unique insights. Specific details about the methodology of each paper are provided at length in the individual papers.

The first paper's data set consists of three parts: portfolio holdings, a survey, and interviews. The administrative portfolio data and survey responses were sampled from 60 high-net-worth individuals (HNWIs). As the wealthiest top 1% of the world's population holds about half of the global wealth (Credit Suisse Research Institute 2018), HNWIs are a powerful yet overlooked investor segment that play a key role in financing the path to a sustainable future and represent a great unit of analysis. The portfolio data provided insights into investors' investment selection for a reporting timeframe of up to 5 years. In addition, the data comprised the Sustainable Development Goals (SDGs) associated with the individual securities and the expected portfolio return. Through the survey, I gathered personal data, information about perceived barriers to deploying capital via impact investments, and return expectations for sustainable investments compared to conventional investments. I also gained insights into the investors' investment experience, net worth, and personal characteristics as age, gender, and educational background. To better understand the emerging findings and patterns obtained in the portfolio data and survey, I conducted semi-structured interviews to gather data around investors' general thoughts, expectations, and attitudes towards investment decisions, the specific barriers they face, and their values and beliefs.

The second paper is a mystery-shopping study. Mystery shopping collects controlled data of private encounters by using test shoppers that act as customers to observe the quality of processes and procedures used in the delivery of a service. The aim was to capture the availability and accessibility of sustainable finance products before and after the introduction of the Sustainable Finance Disclosure Regulation (SFDR). I collected the first round of data a year prior to SFDR introduction and the second round a year after SFDR was in place. The collected data came from a total of 18 appointments at 8 identical banks in Germany.

The third paper is based on qualitative interview data. The options to quantitatively measure the impact of investors' processes on firms are scarce. Semi-structured interviews allowed me to collect data on details of interactions and the underlying thoughts of firms' decision-making processes. I collected a total of 40 interviews with investor relations professionals, sustainability offices and board members of publicly listed firms in Europe and the United States. My sample focused on climate-relevant industries where an increased degree of

confrontation with ESG investors was expected. Broadly, the interviews are conversations about the drivers of strategic change towards a more sustainable way of doing business and the realistic influence of investors in the greater process. Specifically, we discussed what requests firms receive from sustainable investors, how they evaluate these requests in terms of urgency, and how they respond to them.

5. Findings and Contributions

The dissertation offers three main contributions. The first study shows that HNWIs prioritize investments that they perceive as having a positive impact and simultaneously have a preference for investments with high financial return. This finding expands the literature on the financial return debate of sustainable investing by showing to what degree sustainable investors expect financial returns from their investments. It also has important implications on the capital flows into sustainable development. I show that these impact and return expectations materialize by funding some financially-more-attractive sustainable development goals while restraining from others. These findings indicate that private investors have great potential to close the funding gap in financially-attractive sustainable development areas. At the same time, it highlights the need in other areas for the public sector to step in where support from financial markets is unlikely.

My second paper shows that regulatory interventions have made sustainable investment products more available but had only marginal effects on the accessibility. Market participants struggle to differentiate between impact, return and value alignment motivations. Despite SFDR's efforts to increase the disclosure on product objectives, market participants' limited knowledge about sustainable investments causes them to combine and confuse motivations, thereby creating unrealistic expectations and criticizing products' inability to meet them. This restricts the accessibility of sustainable investment products and hinders the mobilization of private capital for sustainable development. To increase the accessibility of sustainable investment products, it is important to be clear about investors' motivations to consider sustainability criteria in investment decisions and know what investors expect from their investment.

My final contribution is to the literature on the impact of sustainable investing. I offer an analysis of the effects of investor actions from the firm's perspective by showing how firms process different investor signals and how this assessment affects firms' responses. I show

that firms carefully analyze the urgency of investors' sustainability demands before committing resources to improve their environmental, social and governance performance in substantive ways. The key determinant of the urgency of the request is the degree to which the request is critical to the investor. The criticality is determined by the investor's resource commitment to the request. Put simply, if investors don't invest in their ask, firms don't invest in the response either. This has several implications for the effectiveness of different sustainable investing tactics. I show that engagement activities are effective as they are resource-intensive and demonstrate the investor's commitment. Divestment might be more effective than previously assumed as it shows that investors are willing to escalate for ESG reasons. ESG integration could be more effective if investors would communicate how they integrate ESG data and follow through with their buying and selling decisions.

6. Practical Implications

These findings have several practical implications for investors, financial advisors, asset managers, and firms. For investors, I highlight the importance of knowing why they want to invest sustainably. Investors should be clear whether they are considering sustainability risks to enhance their financial performance, whether they aim to have a positive impact, or whether they want to align their investments with their values by abstaining from certain industries or practices. Being clear about their investment motivation enables investors to avoid many challenges in the sustainable investing space and simplifies the investment selection process.

For financial advisors, I underline the relevance of understanding clients' sustainable investment motivations and expectations. Similar to capturing a customer's risk profile, advisors should explore what a customer considers sustainable. This includes discussing different exclusion criteria, ways to assess ESG performance, and stances on voting and engagement. Being aware of what customers are looking for will allow advisors to successfully navigate investors through the selection process and helps to set realistic expectations. Furthermore, financial advisors should have a good understanding of how the sustainable investment products they are selling integrate sustainability at a technical level. This includes the awareness of exclusion criteria, being able to explain the products' ESG integration processes, and how potential impact claims are proven.

For asset managers that want to increase their impact, I point to the need to communicate investment criteria and expectations with firms. Asset managers should let firms know which ESG metrics they consider in their investment analysis, what performance they expect in the individual metrics and what will happen in response to the firm's failure to meet the expected performance. Firms receive many requests about ESG, but they don't know how these requests affect asset managers' investment decisions. Firms also don't know for which reasons investors invest or divest unless the asset manager tells them. This means whenever an asset manager's investment decision was impacted by ESG considerations, the asset manager should inform the firm about the specific reasons for their decisions. This will help firms identify which issues are material. Asset managers can further increase their impact by aligning their expectations with other investors.

For firms that want to successfully navigate sustainable investors, I highlight the benefits of having a clear ESG strategy and the need to understand which ESG issues really matter to their investors. Firms that have a vision for their ESG strategy can focus on the issues that are most relevant to their business and engage more effectively with investors. To sufficiently respond to investors' requests, firms should try to understand which ESG issues are material to the investor. Firms should ask investors how investors are implementing the information they are asking for, what performance they would like to see in the issue raised, and how the information will affect their investment decision. Whenever investors express an expectation, firms should ask by when they expect their request to be implemented and what consequences can be expected.

7. Limitations and Future Research

I acknowledge some limitations to my research. First, my analyses are focused on certain investor groups like high net-worth individuals in my first paper or certain regions like Germany in my second paper. This might limit the universal applicability of my findings. I therefore encourage future research to apply the research questions in broader contexts, on other populations, and in other geographical areas.

Second, my research on the impact of sustainable investing is limited to the investigation of direct effects of investor actions. However, my own work as well as recent other research indicates that corporate ESG decision making is often affected by spillover effects and the interplay of a multitude of ecosystem activities. For a more holistic understanding of

investor's impact on companies, I encourage further research to study these ecosystem activities and their impacts on firms. This may include the systematic collection of investors' ESG expectations and investment criteria to better understand what investors are asking for and then studying how these expectations translate into investment and voting decisions. I encourage to study how investment and voting decisions affect targeted as well as not targeted firms to track spillover effects and indirect impacts. Furthermore, I encourage to take other stakeholder activities in particular media and regulatory activities into account. A better understanding of the different influence factors will allow investors to be more strategic about their demands and eventually increase their impact.

Outlook to the Appendix

This chapter served as an overview of the questions on which the dissertation focuses and gives a glance at the findings and contributions that have been produced. The following three papers represent the main body of the dissertation and are included in the appendix in the following order:

Paper 1: Between impact and returns: Private investors and the sustainable development goals

Paper 2: The effects of the sustainable finance disclosure regulation (SFDR) on product accessibility: A mystery shopping analysis

Paper 3: Investors pushing for sustainability: How firms assess the urgency of stakeholder requests

References

Atz, Ulrich, Jongyuan Zoe Liu, Christopher Bruno, and Tracy Van Holt. 2021. "Does Sustainability Generate Better Financial Performance? Review, Meta-Analysis, and Propositions." *SSRN Working Paper*.

Aupperle, Kenneth E., Archie B. Carroll, and John D. Hatfield. 1985. "An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability." *Academy of Management Journal* 28(2):446–63. doi: 10.5465/256210.

Baker, Malcolm, Jeremy C. Stein, and Jeffrey Wurgler. 2003. "When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms*." *The Quarterly Journal of Economics* 118(3):969–1005. doi: 10.1162/00335530360698478.

Barko, Tamas, Martijn Cremers, and Luc Renneboog. 2021. "Shareholder Engagement on Environmental, Social, and Governance Performance." *Journal of Business Ethics*. doi: 10.1007/s10551-021-04850-z.

Beal, Diana J., Michelle Goyen, and Peter Philips. 2005. "Why Do We Invest Ethically?" *The Journal of Investing* 14(3):66–78. doi: https://doi.org/10.3905/joi.2005.580551.

Beck, Thorsten, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2008. "Financing Patterns around the World: Are Small Firms Different?" *Journal of Financial Economics* 89(3):467–87. doi: 10.1016/j.jfineco.2007.10.005.

Beck, Thorsten, Aslı Demirgüç-Kunt, Luc Laeven, and Vojislav Maksimovic. 2006. "The Determinants of Financing Obstacles." *Journal of International Money and Finance* 25(6):932–52. doi: 10.1016/j.jimonfin.2006.07.005.

Berg, Florian, Julian F. Kölbel, and Roberto Rigobon. 2022. "Aggregate Confusion: The Divergence of ESG Ratings." *Review of Finance* (ID 3438533). doi: https://doi.org/10.1093/rof/rfac033.

Berry, Thomas C., and Joan C. Junkus. 2013. "Socially Responsible Investing: An Investor Perspective." *Journal of Business Ethics* 112(4):707–20. doi: 10.1007/s10551-012-1567-0.

van Beurden, Pieter, and Tobias Gössling. 2008. "The Worth of Values – A Literature Review on the Relation Between Corporate Social and Financial Performance." *Journal of Business Ethics* 82(2):407. doi: 10.1007/s10551-008-9894-x.

Brest, P., and K. Born. 2013. "Unpacking the Impact in Impact Investing." *Stanford Social Innovation Review* 11(4):22–31.

Brest, P., RJ Gilson, and MA Wolfson. 2018. "How Investors Can (and Can't) Create Social Value." *SSRN Scholarly Paper, Social Science Research Network, Rochester, NY*.

Busch, Timo, Peter Bruce-Clark, Jeroen Derwall, Robert Eccles, Tessa Hebb, Andreas Hoepner, Christian Klein, Philipp Krueger, Falko Paetzold, Bert Scholtens, and Olaf Weber. 2021. "Impact Investments: A Call for (Re)Orientation." *SN Business & Economics* 1(2):33. doi: 10.1007/s43546-020-00033-6.

Cai, Jie, Jacqueline L. Garner, and Ralph A. Walkling. 2009. "Electing Directors." *Journal of Finance* 64(5):2389–2421. doi: https://doi.org/10.1111/j.1540-6261.2009.01504.x.

Chowdhry, Bhagwan, Shaun William Davies, and Brian Waters. 2019. "Investing for Impact." *The Review of Financial Studies* 32(3):864–904. doi: 10.1093/rfs/hhy068.

Colonnello, Stefano, Giuliano Curatola, and Alessandro Gioffré. 2019. "Pricing Sin Stocks: Ethical Preference vs. Risk Aversion." *European Economic Review* 118:69–100. doi: 10.1016/j.euroecorev.2019.04.006.

Cravo, T. A., and C. Piza. 2016. "The Impact of Business Support Services for Small and Medium Enterprises on Firm Performance in Low- and Middle-Income Countries : A Meta-Analysis."

Credit Suisse Research Institute. 2018. "Global Wealth Report 2018."

Del Guercio, Diane, Laura Seery, and Tracie Woidtke. 2008. “Do Boards Pay Attention When Institutional Investor Activists ‘Just Vote No’?” *Journal of Financial Economics* 90(1):84–103. doi: 10.1016/j.jfineco.2008.01.002.

Dimson, Elroy, Oğuzhan Karakaş, and Xi Li. 2015. “Active Ownership.” *Review of Financial Studies* 28(12):3225–68.

Durand, Rodolphe, Olga Hawn, and Ioannis Ioannou. 2019. “Willing and Able: A General Model of Organizational Responses to Normative Pressures.” *Academy of Management Review* 44(2):299–320. doi: 10.5465/amr.2016.0107.

Dyck, Alexander, Karl V. Lins, Lukas Roth, and Hannes F. Wagner. 2019. “Do Institutional Investors Drive Corporate Social Responsibility? International Evidence.” *Journal of Financial Economics* 131(3):693–714. doi: 10.1016/j.jfineco.2018.08.013.

Edmans, Alex, Itay Goldstein, and Wei Jiang. 2012. “The Real Effects of Financial Markets: The Impact of Prices on Takeovers.” *Journal of Finance* 67(3):933–71. doi: https://doi.org/10.1111/j.1540-6261.2012.01738.x.

Fama, Eugene F., and Kenneth R. French. 2007. “Disagreement, Tastes, and Asset Prices.” *Journal of Financial Economics* 83(3):667–89. doi: 10.1016/j.jfineco.2006.01.003.

Filippini, Massimo, Markus Leippold, and Tobias Wekhof. 2021. “Sustainable Finance Literacy and the Determinants of Sustainable Investing.” *Swiss Finance Institute Research Paper No. 22-02*.

Friede, Gunnar, Timo Busch, and Alexander Bassen. 2015. “ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies.” *Journal of Sustainable Finance & Investment* 5(4):210–33.

Goranova, Maria, and Lori Verstegen Ryan. 2014. “Shareholder Activism: A Multidisciplinary Review.” *Journal of Management* 40(5):1230–68. doi: 10.1177/0149206313515519.

Griffin, Jennifer J., and John F. Mahon. 1997. “The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research.” *Business & Society* 36(1):5–31. doi: 10.1177/000765039703600102.

GSIA. 2020. “Global Sustainable Investment Review 2020.”

Hadlock, Charles J., and Joshua R. Pierce. 2010. “New Evidence on Measuring Financial Constraints: Moving Beyond the KZ Index.” *The Review of Financial Studies* 23(5):1909–40. doi: 10.1093/rfs/hhq009.

Hafenstein, Andrea. 2015. *Nachhaltigkeitsinformationen in Der Anlageentscheidung - Eine Analyse Der Nicht-Professionellen Anleger*. Springer Gabler.

Hafenstein, Andrea, and Alexander Bassen. 2016. “Influences for Using Sustainability Information in the Investment Decision-Making of Non-Professional Investors.” *Journal of Sustainable Finance & Investment* 6(3):186–210. doi: 10.1080/20430795.2016.1203598.

Heede, Richard. 2014. “Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010.” *Climatic Change* 122(1):229–41. doi: 10.1007/s10584-013-0986-y.

Heinkel, Robert, Alan Kraus, and Josef Zechner. 2001. “The Effect of Green Investment on Corporate Behavior.” *The Journal of Financial and Quantitative Analysis* 36(4):431–49. doi: 10.2307/2676219.

IPCC. 2022. *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Working Group II contribution to the Sixth Assessement Report of the Intergovernmental Panel on Climate Change.

Jackson, Jeremy B. C., Kirby Michael X., Berger Wolfgang H., Bjorndal Karen A., Botsford Louis W., Bourque Bruce J., Bradbury Roger H., Cooke Richard, Erlandson Jon, Estes James A., Hughes Terence P., Kidwell Susan, Lange Carina B., Lenihan Hunter S., Pandolfi John M., Peterson Charles H., Steneck

Robert S., Tegner Mia J., and Warner Robert R. 2001. “Historical Overfishing and the Recent Collapse of Coastal Ecosystems.” *Science* 293(5530):629–37. doi: 10.1126/science.1059199.

Junkus, Joan C., and Thomas C. Berry. 2010. “The Demographic Profile of Socially Responsible Investors” edited by M. Hoque. *Managerial Finance* 36(6):474–81. doi: 10.1108/03074351011042955.

Kersten, Renate, Job Harms, Kellie Liket, and Karen Maas. 2017. “Small Firms, Large Impact? A Systematic Review of the SME Finance Literature.” *World Development* 97:330–48. doi: 10.1016/j.worlddev.2017.04.012.

Kölbel, Julian F., Florian Heeb, Falko Paetzold, and Timo Busch. 2020. “Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact.” *Organization & Environment* 33(4):554–74.

Kölbel, Julian F., and Adrien-Paul Lambillon. 2022. “Who Pays for Sustainability? An Analysis of Sustainability-Linked Bonds.” *SSRN*.

Lewis, A. 2001. “A Focus Group Study of the Motivation to Invest: ‘ethical/Green’ and ‘Ordinary’ Investors Compared.” *The Journal of Socio-Economics* 30(4):331–41.

Luo, H. Arthur, and Ronald J. Balvers. 2017. “Social Screens and Systematic Investor Boycott Risk.” *Journal of Financial and Quantitative Analysis* 52(1):365–99. doi: 10.1017/S0022109016000910.

Mallin, Chris. 2012. “Institutional Investors: The Vote as a Tool of Governance.” *Journal of Management & Governance* 16(2):177–96. doi: 10.1007/s10997-010-9137-2.

McLachlan, Jonathan, and John Gardner. 2004. “A Comparison of Socially Responsible and Conventional Investors.” *Journal of Business Ethics* 52(1):11–25. doi: 10.1023/B:BUSI.0000033104.28219.92.

Misangyi, Vilmos F., Gary R. Weaver, and Heather Elms. 2008. “Ending Corruption: The Interplay Among Institutional Logics, Resources, and Institutional Entrepreneurs.” *Academy of Management Review* 33(3):750–70. doi: 10.5465/amr.2008.32465769.

Nilsson, J. 2008. “Investment with a Conscience: Examining the Impact of pro-Social Attitudes and Perceived Financial Performance on Socially Responsible Investment Behavior.” *Journal of Business Ethics* 83(2):307–25.

Niszczota, Paweł, and Michał Białek. 2021. “Women Oppose Sin Stocks More than Men Do.” *Finance Research Letters* 41:101803. doi: 10.1016/j.frl.2020.101803.

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. 2021. “Sustainable Investing in Equilibrium.” *Journal of Financial Economics* 142(2):550–71. doi: 10.1016/j.jfineco.2020.12.011.

PRI. 2021. “Principles for Responsible Investment Annual Report 2021.” Retrieved October 23, 2021 (https://www.unpri.org/annual-report-2021).

Rajan, Raghuram G., and Luigi Zingales. 1998. “Financial Dependence and Growth.” *The American Economic Review* 88(3):559–86.

Revelli, C., and J. L. Viviani. 2015. “Financial Performance of Socially Responsible Investing (SRI): What Have We Learned? A Meta-Analysis.” *Business Ethics: A European Review* 24(2):158–85.

Riedl, A., and P. Smeets. 2017. “Why Do Investors Hold Socially Responsible Mutual Funds?” *Journal of Finance* 72(6):2505–50.

Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric F. Lambin, Timothy M. Lenton, Marten Scheffer, Carl Folke, Hans Joachim Schellnhuber, Björn Nykvist, Cynthia A. de Wit, Terry Hughes, Sander van der Leeuw, Henning Rodhe, Sverker Sörlin, Peter K. Snyder, Robert Costanza, Uno Svedin, Malin Falkenmark, Louise Karlberg, Robert W. Corell, Victoria J. Fabry, James Hansen, Brian Walker, Diana Liverman, Katherine Richardson, Paul Crutzen, and Jonathan A. Foley. 2009. “A Safe Operating Space for Humanity.” *Nature* 461(7263):472–75. doi: 10.1038/461472a.

Rowley, Tim, and Shawn Berman. 2000. “A Brand New Brand of Corporate Social Performance.” *Business & Society* 39(4):397–418. doi: 10.1177/000765030003900404.

Song, L. 2012. “Status and Future Tasks of Coal Mining Safety in China.” *Safety Science* 50(4):894–98.

Stern, Nicholas. 2007. *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge University Press.

United Nations. 2022. “The Sustainable Development Agenda.”

Whiteman, Gail, Chris Hope, and Peter Wadhams. 2013. “Vast Costs of Arctic Change.” *Nature* 499(7459):401–3. doi: 10.1038/499401a.

Widyawati, Luluk. 2020. “A Systematic Literature Review of Socially Responsible Investment and Environmental Social Governance Metrics.” *Business Strategy and the Environment* 29(2):619–37. doi: 10.1002/bse.2393.

Williams, Geoffrey. 2007. “Some Determinants of the Socially Responsible Investment Decision: A Cross-Country Study.” *Journal of Behavioral Finance* 8(1):43–57. doi: 10.1080/15427560709337016.

Zerbib, Olivier David. 2019. “The Effect of Pro-Environmental Preferences on Bond Prices: Evidence from Green Bonds.” *Journal of Banking & Finance* 98:39–60. doi: 10.1016/j.jbankfin.2018.10.012.

Annex 1: First Research Paper

Between Impact and Returns: Private Investors and the SDGs

Abstract

We investigate the expectations of wealthy private investors regarding the impact and financial return of sustainable investments. Our paper focuses on the Sustainable Development Goals (SDGs) as a framework for investors' attempts to create impact. We analyze the behavior of 60 high-net-worth individuals (HNWIs), a powerful yet overlooked investor segment. Our results show large allocations in line with the SDGs, which demonstrates these investors' aim of achieving real-word changes. Furthermore, we show that these "impact investors" have a clear preference for SDGs that are associated with high financial returns. As such, we confirm that both impact and attractive financial returns are expected. Our findings provide rich, deep insights into how HNWIs practice impact investing and their underlying motivations. We outline practical implications for different stakeholders, notably regarding the fact that financially attractive SDGs are likely to attract substantial amounts of capital, with other SDGs remaining underfunded.

Keywords: Impact Investments, Sustainable Development Goals, Financial Return Expectations, HNWIs

Introduction

Corporate social responsibility (CSR) is a an important topic for many stakeholders (Aguinis and Glavas, 2012; Andreu, Casado-Díaz, and Mattila, 2015; Campbell, 2007; Ruiz, Romero, and Fernandez-Feijoo, 2021; Schiehll and Kolahgar, 2021; Soler-Domínguez et al., 2021) and has a positive influence on a company's ability to attract investors (Flammer, 2012; Kim, Terlaak, and Potoski, 2021; Mackey, Mackey, and Barney, 2007; McGuire, Sundgren, and Schneeweis, 1988). Market reports illustrate that investors increasingly integrate social and environmental aspects in their investment appraisals (Cubas-Díaz and Martínez Sedano, 2018; GSIA, 2018; Swiss Sustainable Finance, 2020). While this boost for sustainable investments (SIs) is good news, the United Nations (UN) has estimated that additional investments of around USD 2.5 trillion per year are required to finance international sustainable development goals (UNCTAD, 2014). Thus, in addition to accelerating public aid programs, it is essential to further mobilize private capital to close this massive funding gap.

In order to mobilize private capital, it is important to understand the expectations of sustainability-oriented investors (Hafenstein, 2015; Riedl and Smeets, 2017; Widyawati, 2020). In particular, the effects of CSR considerations on corporate financial performance (CFP) are a central debate both among investors and in academia. Scholars have sought to theorize and empirically determine if and when CSR efforts create a competitive advantage. Within this so-called business case debate, researchers often claim that the results are ambiguous, inconclusive, or contradictory (Aupperle, Carroll, and Hatfield, 1985; van Beurden and Gössling, 2008; Griffin and Mahon, 1997; Revelli and Viviani, 2015; Rowley and Berman, 2000). Different meta-studies have responded to these doubts, showing that the majority of academic studies finds a positive relation between CSR and CFP and that, more specifically, the consideration of CSR in stock portfolios does not result in an advantage or a disadvantage compared to a conventional investment approach (Atz et al., 2021; Friede, Busch, and Bassen, 2015; Revelli and Viviani, 2015). While the business case of CSR – specifically the when and how – is still an ongoing debate, more recent works portray an interest in CSR beyond its effects on CFP. The desire to use one's investments to drive and stimulate positive change has become a rising theme in financial markets (Busch et al., 2021). Yet it remains unclear how investors' desire for impact affects their financial performance expectations.

In this paper, we study the return expectations of impact-oriented high-net-worth individuals (HNWIs) and how their expectations affect their investment selection. More specifically, our paper asks: What are the impact and financial return expectations of impact-oriented HNWIs?

To answer this question, we look at the SDGs as a new reference point for "impact investors." Prior work has demonstrated the importance and feasibility of integrating sustainability as a further objective in addition to financial objectives in portfolio selection, whereas the main purpose is to screen firms regarding their social and environmental performance (Dorfleitner and Utz, 2012; Hirschberger et al., 2013; Utz, Wimmer, and Steuer, 2015). Based on these screenings, investors compile portfolios that contain more responsible firms. Such screening efforts do not, however, contribute to the search for new ways to meet social or environmental challenges, and are therefore not aligned with the clear objective generally referred to as impact generating investment. One way to address that objective is for investors to map the contributions of the investee firms in their portfolio to the SDGs (GIIN, 2016).

We chose HNWIs as our unit of analysis due to their potential to play a key role in financing the path to a sustainable future. The wealthiest top 1% of the world's population controls about USD 158.5 trillion – so, about half of global wealth (Credit Suisse Research Institute, 2018). HNWIs are a powerful yet overlooked segment in impact investing research; overlooked mostly because researchers have no access to this segment (Paetzold and Busch, 2014). We were given a unique opportunity to study this investor segment, and to collect rare data on impact-oriented HNWIs' investment preferences and expectations.

We applied a mixed methods approach. Our data set compromises three parts: portfolio holdings, a survey, and interviews. First, we collected administrative portfolio data and survey responses from 60 high-net-worth individuals by working with the 100% Network subcommunity of Toniic. Toniic is an international community of impact investors. Members of the 100% Network are USD millionaires or billionaires who are committed to deploying 100% of their investments to achieve a positive net impact. Second, we gathered interview data from 21 members of the 100% Network in order to better understand the emerging findings and patterns obtained from the portfolio and survey data. Our results show that, ceteris paribus, investments that contribute to achieving one or more SDGs have higher portfolio weights in the portfolios of HNWIs. Moreover, we find that investors invest more capital into SDGs where they expect higher financial returns.

These findings contribute to the literature in two ways. First, we contribute to the broader literature on the question of whether it actually pays to be "good", specifically in regard to whether investors expect a premium when investing via an impact agenda. Our results provide a rich empirical account showing that impact investors do indeed prioritize investments that they perceive as having a positive impact and that they have a clear preference for SDGs that are associated with comparatively high financial returns. They intend to contribute to a sustainable future, but aim to do so in the most profitable way possible. Second, our findings show how these impact and return expectations materialize in terms of the flow of capital to some SDGs, and less so to other SDGs. Regarding the latter SDGs, there seems to be a clear limitation when it comes to achieving sustainable development through private investors. Our findings will help the field of impact investing to evolve, and to set more clear expectations for stakeholders—from regulators and actors such as the UN to product providers and private investors themselves.

Literature and Hypotheses

The effect of CSR considerations on CFP is the subject of a central and ongoing so-called business case debate in management research. Under the overarching slogan "Does it pay to be green?" (e.g., Ambec and Lanoie, 2008; Barnett and Salomon, 2012; Hart and Ahuja, 1996; King and Lenox, 2001; Orsato, 2006) finance, accounting, and management scholars have tried to theorize and empirically assess the competitive advantage provided by CSR efforts. While the consideration of CSR has grown in popularity among investment practitioners seeking outsized financial returns, related research results are often ambiguous, inconclusive, or contradictory (Aupperle et al., 1985; van Beurden and Gössling, 2008; Griffin and Mahon, 1997; Revelli and Viviani, 2015; Rowley and Berman, 2000).

From an accounting perspective, in every company there are plenty of opportunities for win-win solutions, e.g., in the energy efficiency context. At the same time, however, CSR-related investments can also have a negative effect on short-term, accounting-based CFP (Iwata and Okada, 2011; Lee, Min, and Yook, 2015; Wang, Li, and Gao, 2014). Including due to the fact that stakeholders do not immediately notice improvements in CSR-performance and that it takes time for the benefits of CSR-related differentiation to materialize (Brammer and Millington, 2008). Competitors, meanwhile, may still be benefiting from avoiding CSR expenditures (Misani and Pogutz, 2015). Furthermore, cost savings due to better CSR

performance often depend on savings in terms of liability and compliance costs, which are hard to realize in the short term (Delmas and Montiel, 2009).

From a market perspective, which captures the long-term effects on market-based CFP—in the form of the stock price—findings are also mixed (Albertini, 2013; McWilliams and Siegel, 2000; Wood and Jones, 1995). In the Friedman logic, CSR activities create costs, which will have a negative impact on a company's earnings, which will in turn affect market-based CFP, in the form of the stock price. Other scholars argue that active implementation of CSR measures reduces costs and risk, and benefits a company's reputation, creating competitive advantage (Hart, 1995; Kurucz, Colbert, and Wheeler, 2008; Orsato, 2006; Sharma and Vredenburg, 1998). These latter works find that CSR improves a company's image, makes for good publicity, which can help the company gain access to new sources of capital, and can even justify a high price policy. It is also argued that an enhanced CSR-performance improves relationships with legislators, reduces material and energy inputs, decreases the cost of capital, reduces waste, enhances legitimacy, and improves relationships with employees, eventually leading to more efficiency, which leads to higher earnings and ultimately to better market-based CFP (Ambec and Lanoie, 2008; Carroll, 1999; Heal, 2005; Kassinis and Vafeas, 2006; King and Lenox, 2002; Klassen and Whybark, 1999; Russo and Fouts, 1997; Shrivastava, 1995).

In sum, some studies show a positive relation between CSR and CFP (Hart, 1995; Hart and Ahuja, 1996; King and Lenox, 2002), others a mixed one (Elsayed and Paton, 2005), and others a negative relation (Cordeiro and Sarkis, 1998; Hassel, Nilsson, and Nyquist, 2005). In a meta-study, Revelli and Vivani (2015) show that the consideration of CSR in stock portfolios does not result in a financial advantage or a disadvantage as compared to a conventional investment approach, and that consequently, investors can earn financial returns alongside social returns. Further meta-studies have confirmed these results (Atz et al., 2021; Friede et al., 2015).

While the business case debate has been ongoing for over 40 years, more recent debates explore CSR considerations beyond its effects on CFP. The question around driving positive change with one's investments has become a rising theme in the field (Busch et al., 2021). Yet it remains unclear how investors' desire for impact affects their financial return expectations. Research on green bonds, for example, finds that at issue yields of green bonds are on average

0.06 % below the yields of comparable non-green bonds, meaning investors pay a premium for their green investments (Baker et al., 2018). This green bond premium increases with the existence of what Dorfleitner, Utz, and Zhang (2021) refer to as external greenness validations of green bonds, and with how high that externally validated greenness indicator is. At the same time, other research on investor preferences indicates that investors' willingness to pay more for investments with higher impact is mixed (Barber, Morse, and Yasuda, 2021; Heeb et al., 2022).

By studying HNWIs, we gain insights into the perspectives and expectations of investment decision makers with substantial economic weight and freedom with regard to how their assets are deployed. And we get to study how they interpret impact investing, how they practice it, and what their corresponding impact and financial return expectations are.

Investors Seek Impact by Aligning Their Portfolios with the SDGs

As a generic umbrella term, sustainable investments (SI) have been defined as investments that consider environmental, social, and governance aspects as part of the investment decision (Busch, Bauer, and Orlitzky, 2015). This generic description enables a variety of interpretations of how SI are practiced. For some investors, such investments may be solely about applying exclusion criteria and thereby avoiding unethical behavior. For these investors it is about bringing individual responsibility into focus by refraining from financially supporting certain business activities. Other investors use CSR-related information to improve their financial risk analyses or to determine sources of better CFP. When this is the approach, SI have a clear instrumental agenda. A further, newer perspective has also gained traction, whereas investors expect SI to generate real-world change in terms of solving social challenges and mitigating ecological degradation. This approach is based on the desire that an investment has additionality in terms of providing capital to a positive cause that otherwise would not have been provided for, and thus contribute to a better world. As such, the concept of additionality describes the claim that an investment generates a real-world change that would not have occurred without this particular investment. This perspective involves investors triggering material change in a company's performance. The mechanisms by which investors can exert such real-world impact are a topic of increasing prominence in academic research. Many questions remain unanswered, such as how investors that want to have an impact can do so when, for example, trading public stock equity (Busch et al., 2021; Kölbel et al., 2020).

Due to the variety of expectations with regard to sustainability and the fact that the notion of impact is an evolving concept (Gond & Crane, 2010), it is difficult for investors and other market participants to define what impact investing means precisely, and to know how to navigate the space. These varying expectations and interpretations of sustainability can also be observed in the divergences between sustainability ratings (Berg, Kölbel, and Rigobon, 2020; Chatterji et al., 2016) making it difficult to find consensus around expectations and which actions to take.

In light of the above challenges the Sustainable Development Goals (SDGs) have become a valuable framework within impact investing. The UN announced the SDGs as a framework to address global challenges, including poverty, inequality, climate change, and environmental degradation, for the period 2015–2030. The SDGs compromise 17 core goals and 169 associated targets, which together provide a roadmap to a sustainable future (GIIN, 2016). The UN has calculated that additional annual investments of about USD 2.5 trillion are required to finance the SDGs (UNCTAD, 2014). To close this gap, a shift of private assets towards investing into the SDGs is essential (SSF, 2019). This can, for example, take the form of investing in firms that are SDG-aligned or firms that have clear change objectives quantified in specific SDG sub-targets or in commitments to science-based targets (Busch et al., 2021). Mapping how an investment fund contributes to achieving the SDGs is one way of demonstrating the impact of that fund (GIIN, 2016).

We investigate impact as a new expectation in financial markets by analyzing the allocation of capital in the portfolios of impact investors. Large allocations to investments— so, securities—that are associated with the SDGs would demonstrate impact investors' interest in promoting progress in sustainable development and in achieving real-world impact with their investments. By investing significantly in the SDGs, investors would demonstrate that sustainable investments are expected to enact change, and ultimately to contribute to a better world. In sum, we hypothesize that:

> **Hypothesis 1:** Securities with a contribution to one or more SDG have higher portfolio weights in impact investors' portfolios, ceteris paribus.

Return Expectations of Impact Investors

The emergence of impact expectations among investors goes hand in hand with the debate around the financial returns of impact investing. Studies have discussed how firms with superior CSR are able to increase their market value (Derwall et al., 2005; Edmand, 2012; Edmans, 2011; Mackey et al., 2007; Margolis and Walsh, 2003; McGuire et al., 1988; Orlitzky, Schmidt, and Rynes, 2003) and to decrease their cost of capital (Bhojraj and Sengupta, 2003; Cheng, Ioannou, and Serafeim, 2013; Dhaliwal et al., 2011; Ghoul et al., 2011; Schneider, 2011; Sharfman and Fernando, 2008). However, these insights cannot be transferred to the question of what investors expect financially, which becomes especially difficult when an investor has the clear ambition of generating impact alongside a specific level of financial return. Thus, a central question is: Are investors willing to pay more if their investment makes an impact? (Heeb et al., 2021; Riedl and Smeets, 2017). Could they even "expect" the same financial returns as for non-impact investments in order to validate the case for impact investments towards non-impact investors? Or, on the contrary, should investors forgo returns to some degree in order to create financing conditions for impactful ventures that otherwise, under regular market conditions, would not have access to capital?

In the section outlining the literature and our hypotheses, we divided the academic business case debate into two schools of thought. For one school, impact and financial returns go hand in hand, while for the other school maximizing financial returns comes at the cost of impact, and vice versa. Within the first school, investors focus on impact since they perceive efforts to overcome social misery or to contribute to ameliorating environmental issues as financially material. Such efforts would therefore be beneficial for financial returns. This view is based on the idea that addressing sustainability challenges creates a win–win situation since risks are mitigated and new business opportunities can be pursued.

Investors from the second school of thought turn this perspective around. In their view, instead of searching for the business case to support sustainability, they search for sustainability in the business case (Weber and Feltmate 2016). This perspective looks for an additionality of capital. Additionality in this perspective implies that an investment that can be financed under regular market conditions by regular market participants will also be made in the absence of an impact investor. And thus that, in this setting, the capital of an impact investor would, if invested, not have additionality. In essence, additionality presumes that

impact investors are willing to invest at non-market rates and accept poorer financial returns (Barber et al. 2021).

These competing schools of thought make it difficult for impact investors to know what to expect financially from their impact investments and how to navigate the impact investing market. The notion of additionality and the related presumed expectation of the lower financial returns of impact investments bring with them the risk that many investors will walk away from the idea of focusing on impact generation. At the same time, the notion that impact happens alongside similar or even superior financial returns relative to non-impact investments can serve as a legitimization of impact investments in financial markets. The latter understanding is reflected by many impact investing organizations, including the Global Impact Investing Network (GIIN). We propose, therefore, that financial returns similar to non-impact investments—so, market-rate or commercial returns—are a typical expectation among impact-oriented investors. As a result, investors might pick impact investments—in our case, expressed in the form of investments associated with the SDGs—with higher financial return expectations. Thus, we hypothesize:

> **Hypothesis 2:** The higher the expected financial return of investments that make a contribution to a specific SDG, the more of their capital impact investors will allocate to investments related to that SDG.

Data and Methods

We follow a mixed methods approach working with a data set that consists of three parts: portfolio holdings, a survey, and interview data. We obtained anonymized portfolio data and survey answers from members of the 100% Network group of private high-net-worth impact investors, a subset of the Toniic global investor community. Toniic collected the data using its portfolio tool and by surveying its 100% Network group members.

We merged the portfolio and the survey data sets based on the anonymized identifier for individual investors contained in both sets. The obtained sample consists of quantitative data from 60 private impact investors. We conducted interviews with 21 of these 60 impact investors to understand the underpinnings of their investment decisions in detail. We are—compared to the authors of the extant literature—fortunate to be able to provide insights from

such a unique data set. HNWIs form a very selective group and are often reticent to share information about their investment portfolios, or their personal details. Indeed, to the best of our knowledge, we are the first to have access to a data set that contains the information necessary to study the motivations, argumentations, and actual investment decisions of wealthy private impact investors.

Toniic and the 100% Network

Toniic is an international community for impact investors made up of more than 400 individuals, family offices, foundations, and funds. Only private high-net-worth owners of capital are allowed to join the community's 100% Network subgroup. Members may only join this subgroup if they meet two prerequisites: The first is that they are the ultimate principals and decision makers regarding their investable wealth, which must exceed USD 1 million. The second is that they commit to working toward deploying 100 % of the investments in at least one of their portfolios with the aim of achieving positive net impact, across all asset classes, and in alignment with their ethical, social, and environmental priorities. The group was founded in 2013 and is managed out of the USA and Germany. By 2019, the 100% Network had brought together private investors from around 16 countries, and they had cumulatively committed around USD 6 billion to impact investing. Before providing their impact portfolio data and survey responses, the 100% Network participants were informed both verbally and in writing by the Toniic management team that their anonymized data would be used for the research purposes of this paper.

Portfolio Data

The administrative data follows a portfolio–year–security hierarchy for each investor for the years 2014 to 2019. In all, we obtained an unbalanced panel of 136 different portfolio–year compositions. A total of 31 investors provided portfolio data for one year, 29 investors provided data for two years, 14 investors provided data for three years, and 1 investor provided data for five years. In line with the terminology employed by Toniic, we call these obtained portfolios "impact portfolios" while we recognize that this does not qualify the impact a portfolio has or how that portfolio incorporates the concept of impact. For each portfolio—so, for each investor—and for each year in which the respective portfolio was reported, the data set included all the securities that, collectively, made up that portfolio, as well as the weight of every single security. These weights express the amount of capital invested in any given security as a proportion of the entire portfolio wealth. For instance, and

to keep things simple, let us assume a hypothetical portfolio with a total wealth of USD 1 million consisting of three different securities, securities A, B, and C. Assume that the amount of capital invested in security A (B and C) is USD 300K (500K and 200K, respectively). Hence, the weight of security A in the portfolio is 30% of the entire portfolio, the weight of security B is 50%, and the weight of security C is 20%. These weights represent the actual investment decisions of each impact investor in our sample.[1] In sum, the total panel includes over 4,000 security–year observations—that is, the individual observations for each security in the sample, per year.

Table 1 contains summary statistics on average values of selected variables (self-reported by the investors) from the portfolio data set. The panel *financial profile* shows that about 81% of the wealth in an average portfolio is invested in securities that generate commercial returns according to the investors' expectations. The term commercial returns refers to the same financial returns as those that are expected of traditional non-impact investments. Only a tiny proportion (0.18%) of portfolio wealth is allocated to securities with an expected *(partial) capital loss*. Moreover, the prevailing asset class in the portfolios is *public equity*—so, stocks publicly listed on a stock exchange. The HNWIs in our sample invest, on average, 28.21% of their portfolio wealth in this asset class. Together with *fixed income* (so, debt) and *private equity* investments (so, direct investments in privately held firms), these three asset classes are targeted by more than two-thirds of the investments in an average portfolio. Further, we observe a bimodal liquidity distribution in the portfolios. Almost half of the investments exhibit short-term liquidity (*i.e., investments that can be sold within less than 30 days*), while another quarter have a long-term investment focus with a liquidity of *more than five years*.

In the Toniic portfolio tool, investors also indicated with which SDGs they associate individual securities. This is a subjective grading, and the investors were allowed to select up to three SDGs per security. The variable *Number of SDGs linked to securities* summarizes this selection decision. About 38.9% of the wealth of an average portfolio is not linked to any SDG. About half of the wealth (49.85%) is linked to one SDG, 3.8% is linked to two SDGs, and 7.5% is linked to three SDGs.

[1] These weights are particularly important for determining the expected returns of any portfolio. We calculate the expected portfolio return as the weighted sum of each security's return; i.e., as the sum of all securities' returns combined. The proportion of each security in the portfolio as outlined above acts as the respective weight in this calculation. Let, in a given period, the return of security A be 10%, the return of security B be 14%, and the return of security C be 5%; then, the expected portfolio return in this period is 30% x 10% + 50% x 14% + 20% x 5% = 11%.

Finally, Table 1 contains summary statistics for the *Expected portfolio return* and the *Number of securities* in an average portfolio. Portfolios generate an average expected annual return of 6.95%. The positive minimum of the expected return (0.04%) indicates that HNWIs aim to achieve at least capital preservation with their investment portfolios. On average, these portfolios consist of 30 different securities, with the lowest number of securities being three and the largest portfolio (in terms of number of securities) being made up of 356 securities.[2]

-- Table 1 about here --

Survey Data

All 100% Network members who had previously provided portfolio data were invited to participate. Toniic sent an email to 75 members of the 100% Network containing a link to an online survey. The response rate was 80%; so, 60 members out of the 75 who had provided their portfolio data also completed the survey. Respondents showed similar characteristics relative to the overall sample (see Table 7 in the appendix for a comparison of the survey respondents and the overall sample regarding portfolio wealth, investor type, and investor geography).

The survey allowed us to gather personal data, information about perceived barriers to deploying capital via impact investments and return expectations for impact investments compared to conventional investments. In particular, we were able to collect information about important control variables, such as the experience investors have with impact investing (in years), portfolio size in terms of amount of investment capital, the investor's gender, age, and level of education, and whether the Network member works with an investment advisor.

[2] Note that the opportunity for investors to invest in securities that are aligned with SDGs is not limited to a small number of investment targets. The portfolio data contains around 2,500 different securities in total. Table 1 shows us that around 50% of these securities are aligned with at least one SDG. Meaning that the minimum SDG investment universe is made up of more than 1,200 different securities—sufficient potential variability, then, for investors to choose their portfolios. Plus, not all securities are public equity assets, and not all investments are made with financial profit maximization as the primary objective. Meaning that the investment universe is not limited to a possibly small number of profitable, publicly listed firms, but is also open to private equity and debt projects and investments with below-market rates of expected financial return.

Table 2 reports details of investor characteristics derived from the survey. Our sample contained HNWIs from 16 different countries, the majority from the US (32 investors). In general, the investors were well educated (66% were postgraduates) and middle-aged, and about half invested more than USD 10 million. The majority (36) worked together with an investment advisor. The investors had a long history with sustainable investments, 37 stating that they had at least five years of related experience.

-- Table 2 about here --

Interview Data

To corroborate and further understand the emerging findings and patterns obtained from the administrative and survey data, we used interviews with 21 members of the 100% Network. This provided us with further evidence of specific aspects as well as surprising insights. Table 3 provides an overview of these interviewees' profiles. The interviews followed a semi-structured approach and involved discussion of the interviewees' general thoughts, expectations, and attitudes toward investments, the specific barriers they face, and their values and beliefs. The interviews were recorded, transcribed, and coded using the software NVivo in an iterative process guided by the Gioia methodology principles (Gioia, Corley, & Hamilton, 2013). Based on the outcomes of this process, we arrived at richer, deeper, and more fine-grained insights that complement the evidence obtained from the administrative and survey data.

-- Table 3 about here –

Results

Investors Prefer SDG-aligned Investments

Based on the portfolio data, we investigate whether securities that are indicated as serving a specific SDG have higher portfolio weights than comparable securities with no impact characteristics. Our variable of interest is a measure for what we call the resulting impact alignment of each security. We calculate variables for the impact alignment of each security in two different ways. Our first impact variable is a categorical variable. We determine the

impact of a security by the number of SDGs it is aligned with. The resulting variable, *Nr of SDGs*, represents whether a security contributes to zero, one, two, or three different SDGs. Our second impact variable is a dummy variable with a value of 1 for a security that serves at least one SDG and a value of 0 if the security serves no SDG.

Table 4 presents the results of different OLS regression models with fixed effects for the reporting year and portfolio-clustered standard errors. The dependent variable in each model is the weight of the securities in the portfolios. We explain the variation in the weights as a function of SDG-alignment measures, the logarithm of the number of stocks in the portfolio, the financial characteristics of the respective security, and investor-specific characteristics (see Table 4 for a detailed explanation). For each model specification—reflecting our two measures of SDG alignment—we analyzed the SDG measure's main effect and the interaction term between the respective SDG measure and the logarithm of the number of stocks in the portfolio. We included the interaction term to capture the possible effect that investors focusing on SDG-aligned investments selected a different number of securities compared with average investors—that is to say, a lower (or higher) number of securities would be directly related to a higher (or lower) average weight in the portfolio.

-- Table 4 about here --

The results show clear evidence of a positive main effect of the SDG measure, a negative interaction term, and a negative relationship between the number of securities in a portfolio and the portfolio weights. Thus, securities with an alignment with one or more SDGs had higher portfolio weights in general. However, the marginal effect of the interaction term suggests that SDG-aligned securities had higher (or lower) weights in portfolios with a low (or high) number of stocks compared to non-SDG-aligned securities (unreported results).

As a robustness check, we added the financial control variables *financial profile* (FP) and *liquidity* (LIQ) to the model (see columns 3 and 4 in Table 4). We found no substantial changes in the coefficients of the SDG measures and the interaction terms under consideration. The variable *financial profile* acted as a measure for the financial return that investors would expect from a security. The variable *liquidity* measuring how quickly

investors expect to be able to sell a security. The models explain about 20% of the variation in the portfolio weights, which is rather high. The coefficients for the control variables are reasonable. For instance, the reference category of the variable *financial profile* is capital preservation, referring to the expectation of maintaining the value of an investment stable over time. Securities for which investors expected a full capital loss showed significantly lower portfolio weights, while securities for which investors expected to generate extraordinarily high financial returns exhibited significantly higher portfolio weights than the reference category. According to the variable *liquidity*, the portfolio weights are higher for securities with high liquidity and low for securities with low liquidity.

Although we control for several influencing variables in the regression models described above, our results might be exposed to reverse causality. This would be the case if investors focus on the large portfolio positions (i.e., securities with high weights in the portfolios) and mainly ignore the small positions in their portfolios. Such a pattern might result in investors knowing a lot about the large position and therefore being able to assign one or more SDGs to such a security, but having almost no knowledge about the small positions and therefore not assigning an SDG to such a position. In this hypothetical setting, we would also observe the results presented above—that is to say, higher portfolio weights for securities that are aligned with an SDG. To mitigate this concern, we make use of the distributions of the portfolio weights of SDG-aligned and not SDG-aligned securities. The mean portfolio weight of an SDG-aligned security is 3.36%; the equivalent figure for a not-SDG-aligned security is 3.10%. Other descriptive statistics of each distribution are also similar, including the standard deviations of the portfolio weights of SDG-aligned (7.36%) and not-SDG-aligned (7.24%) securities and the maximum portfolio weights (SDG-aligned, 73.2%; not SDG-aligned, 74.0%). Thus, the weights of not-SDG-aligned assets are not substantially smaller than those of SDG-aligned assets on the entire cross-section of weights without controlling for portfolio size and the financial characteristics of the assets. This is an indication that the reverse causality concern can be discerned to some extent in our setting. Additionally, the membership criteria of the 100% Network is another qualitative argument against the fact that investors only consider assets with large proportions in their portfolios when assessing SDG alignment. Members of this group have promised to evaluate the entire portfolio regarding impact. This “100%” assessment is only possible if they assess each asset (including those with a low portfolio weight) regarding its impact.

In summary, our results confirm our first hypothesis, that securities that contribute to the achievement of one or more SDGs have higher portfolio weights in HNWIs' portfolios, ceteris paribus. This means that if an impact investor can choose between security A, which serves an SDG, and security B, which does not, the investor would allocate more capital to security A than to security B. Additionally, we show that the smaller the number of different securities in a portfolio, the larger the difference in the portfolio weights of SDG-aligned securities and non-SDG-aligned securities.

-- Table 5 about here --

Our qualitative interview data supports these results and shows that the portfolios' SDG alignment is not random but is based on intentional decision-making. Investors pick certain areas or objectives that they would like to contribute to and then make their investments accordingly. As one interviewee put it:

> Member 15: You start off with a set of objectives that you're trying to achieve with your money. [You start with a set] of issue areas that matter most to you.

On average, 61.1% of the invested assets are aligned with at least one SDG (see Table 5). Among the SDGs, SDG 11 (Sustainable Cities and Communities) and SDG 17 (Partnerships for the Goals) are the SDGs most frequently invested in by the investors in our data set. SDG 14 (Life below Water) is the least represented Goal. SDGs 15 (Life on Land) and 5 (Gender Equality) are also at the lower end of the investment spectrum. SDGs 7 (Affordable and Clean Energy) and 13 (Climate Action) are in the upper-middle range. Some portfolios are highly concentrated in certain SDGs, as the maximum column indicates. For instance, one portfolio invested 81.3% of its wealth in securities aligned with SDG 17. Another portfolio invested all its capital in securities that were aligned with the Goal Affordable and Clean Energy (SDG 7). The decision to focus on a specific theme is usually motivated by a personal connection, such as professional experience or an individual passion. As outlined by another interviewee:

> Member 18: The ocean has a big part in my heart now [and] I see it as largely unaddressed. [That's why] I want to get more involved with this space.

We find that many impact investors intentionally invest in an SDG-aligned manner. In order to foster the sustainability theme that they prefer, some focus on individual SDGs while others include a number of SDGs covering a similar theme. In the words of an interviewee:

> Member 5: So, in public equity, climate change is one of my big things. […] SDG number 7, clean energy and resource efficiency is the major impact theme I went for and SDG 13, climate action […] What I'm really interested in is carbon footprint and so getting clear about that in public equities especially.

The interviewees point out that their investments are driven by impact motivations. Investors pick investments that maximize the impact on their chosen SDGs. They focus on social and environmental outputs and avoid investments that they do not think will live up to these goals:

> Member 19: I will sort my deals according to which [investment] would maximize the impact on that SDG. Because I had a health background, I was thinking that SDG 3 [Good Health and Well-Being] will be my focus. […] So, finding products that are not greenwashed but actually have a positive impact no matter what therefore dominates what I choose.

Beyond that, we observe a tendency for clusters around specific topics. By looking at the count variable, representing the number of different SDGs in one portfolio, we see that an average portfolio contributed to almost six different SDGs (mean 5.956) (see Table 5). The maximum number of SDGs captured in one portfolio was 15 of the 17 different Goals. Since the median of this distribution was 6, the majority of the portfolios addressed at least one-third of the 17 SDGs. The qualitative data confirms that these clusters are not random but are based on intentional choices with the goal of targeting and solving a specific problem:

> Member 7: One of our key investment areas is renewable energy […] about 70% of our impact investments are in that field. Once again, we link to the global goals. Of the whole portfolio I think we have investments that cover three global goals.

Expected Returns Determine SDG Engagement

In order to test our second hypothesis, we investigate the relationship between the expected financial return of a security and its SDG alignment. Specifically, we explain the variation in the cross-section of the expected returns by dummy variables for each of the 17 SDGs and the "non-SDG" variable (which is omitted as the reference category in Table 6).

Impact investors have clear preferences when it comes to promoting specific SDGs (see Table 6). The results presented in Table 6 document that the SDGs differ significantly in regard to the financial return that investors associate with them. A positive coefficient of an SDG dummy indicates that investors in our sample expect a higher financial return for a security that is aligned with that SDG compared to a security with no SDG alignment. The results show that the top three SDGs in terms of average weights (SDGs 11, 7, and 17, as indicated in Table 3) exhibit significant positive coefficients. Moreover, SDG 8, Decent Work and Economic Growth, also has a significant positive coefficient—meaning that impact investors associate it with higher financial returns compared to other SDGs. The same holds for SDGs 14 (Life below Water) and 15 (Life on Land). Furthermore, we find that impact investors associate SDG 7, Affordable and Clean Energy, with relatively high financial returns, while this does not apply to the closely related Goal SDG 13, Climate Action. Apparently, renewable energy solutions are perceived as being more profitable compared to other climate mitigation efforts.

In summary, our results indicate that although, in general, impact investors allocate a higher proportion of their wealth to securities with SDG alignment, they tend to focus on a few SDGs that they associate with high financial returns. We tested whether the Pearson correlation coefficient, ρ, between the average SDG portfolio weights and the respective SDG average expected return is higher than zero. To do this we ran 10,000 bootstrap simulations and found the correlation coefficient ($\rho = 0.303$) to be higher than zero at a 5% significance level (bootstrap p-value = 0.027). This finding supports the argument that impact investors, in general, prefer to invest in the SDGs that they expect to generate the highest returns, and therefore confirms our second hypothesis.

-- Table 6 about here --

Our qualitative interview data supports these results. Investors tend to pick SDGs that promise higher returns. These SDGs tend to relate to clear business opportunities. One interviewee describes why SDGs 6, 7 and 9 are interesting by stating that these are the Goals where investments are economically driven, therefore implying higher return potentials compared to SDGs that lack business cases:

> Member 10: We're basically into three areas, SDGs 6, 7, and 9, [as] these are the ones that are being driven economically.

While investors are moving away from traditional investing and toward impact, their financial return expectations appear to remain the same. Many expect such investments to achieve market-rate financial returns alongside social and environmental returns:

> Member 19: We are replacing the original (non-impact) portfolio, [but] we want the same return as before.

These expectations are explained in different ways. We specifically found evidence of a desire to validate the business case for impact investments. The interviewees want to demonstrate that investors do not have to sacrifice return to invest with impact. They want to prove that it can be done at market rate in order to motivate more investors to get into impact investing:

> Member 15: I'm tired of hearing people say there has to be a sacrifice in return. I know it could be done with market rate.

By tracking their portfolios, members of the 100% Network want to provide data that demonstrates that impact does not come at the cost of financial return. They want to show that there is no trade-off between the two and that both can be achieved at the same time:

> Member 12: I think right now what the space needs is just data and proof of—sort of dispelling this myth that there's a trade-off between impact and financials.

The presence of this desire also makes it clear that a social or environmental return alone is not enough to please such impact investors. Once the expectation of financial returns has been set, non-financial returns cannot outweigh this expectation. If there is an opportunity to attain both impact and financial return, investors expect to attain both. If this expectation is not met, there is clear dissatisfaction and disappointment:

> Member 16: I have [seen] things across the whole spectrum from 0% return to double digit return […] I just met with one of the fund managers [and] I had an expectation that it was going to be sort of an 8–10% return fund, and I really invested on that basis. […] I think it's going to turn out to [be] maybe half of the returns that I was expecting […] Of course [impact] makes me feel better but I was really hoping it was going to be more like an 8–10% return piece of my portfolio. So, I said I'm really excited about all of the amazing environmental and social return we're having and also, to be really honest, I'm really disappointed about the financial side. […] I feel really good about helping catalyze capital in those cases, but I can't do that all day long.

To summarize, our results confirm both of our hypotheses. Securities that contribute to one or more SDGs have higher portfolio weights in HNWIs' portfolios, ceteris paribus, and investors choose SDGs that are associated with higher financial returns.

Discussion

In this paper, we studied how HNWIs practice impact investing and what the corresponding financial return expectations are. We investigated the SDG alignment of the portfolios of HNWIs and analyzed their return expectations. Our results show large allocations toward certain SDGs, which demonstrate investors' interest in promoting progress in sustainable development as well as their aim to achieve real-word impact with their investments. Simultaneously, by investing significantly in efforts to achieve the SDGs, investors substantiate the perspective that sustainable investments are expected to enact change and ultimately contribute to a better world. Furthermore, we are able to confirm our expectation that, for the studied HNWIs, both matter—adequate financial returns and impact. Investors therefore tend to choose impact investments—in our case expressed in the form of SDG orientation—with higher financial return expectations.

Our findings make two contributions. First, we contribute to the literature on the business case debate. Alongside the debate over whether or not it actually pays to be good, it is so far unclear whether impact investors expect higher or lower financial returns from impact investments. In one school of thought, impact and financial returns are viewed from an either-or perspective, meaning that if investors seek to make an impact, they sacrifice on return, or, vice versa, if they maximize their return, they sacrifice their intention to make an impact. Our results support a different school of thought. We show that impact investors have a clear preference for SDGs that are associated with high financial returns. They intend to contribute to a sustainable future but aim to do so in the most profitable way possible. This reconfirms the value of past efforts to explore the business case of sustainability (Friede et al., 2015; Orlitzky et al., 2003; Rosenbusch, Bausch, and Galander, 2007). We highlight the distinction between philanthropy and impact investing by showing that impact investors do indeed aim to achieve attractive financial returns.

Second, our findings show how impact expectations are practiced. For investors and other market participants it can be difficult to precisely define what investing with impact means and what qualifies as an impact investment beyond any considerations of financial return. As emphasized earlier, for some investors it might be solely a question of the individual investor's sense of societal responsibility. For others there might only be an instrumental agenda. Investors of a third type might expect their investments to lead to real-world change. Our findings show the significance of this third investment goal. We show that impact is of relevance to investors, and that they think strategically about the impact themes that they prioritize, as well as about how those themes relate to a framework like the SDGs. They think about how to allocate their assets accordingly, alongside broader thinking about making sure one's investments drive effective change, including finding ways to bring more investors to impact investing.

In terms of practical implications, the outlined findings can help the field of impact investing evolve in multiple regards. For stakeholders focused on accelerating impact through capital markets—such as actors that, like the UN, are interested in our achieving the SDGs—our results indicate an opportunity and a potential risk. The opportunity lies in our finding that substantial flows of private capital can be attracted to several specific SDGs, in particular those SDGs that investors expect attractive financial returns from. The risk lies with SDGs for which such returns are not expected or are unclear. For the latter, financially less attractive

SDGs, relying on (private) investors to provide the necessary capital may result in their continued underfunding. Actors interested in steering (private) capital toward those SDGs might have to explore avenues that lead either to making the prospect of consequent attractive financial returns clearer to investors or to improving financial returns. Innovative structures to improve financial returns in such situations are being developed and include the field of blended finance and outcomes-based funding structures, where third parties interested in impact provide additional financial returns or mitigate financial risks for investors. For asset managers interested in selling impact investing products and services to HNWIs, our results indicate that it is advisable to emphasize both attractive impact and financial returns rather than relying on one or the other as a selling argument. Further, it is important that asset managers communicate clearly about what they mean by the term "impact," as we find that their clients think strategically about the topic and about how to allocate their funds accordingly. Our results may also imply that asset managers are likely to focus on the promotion of investment offerings and services focused on those SDGs that promise attractive financial returns, in the process neglecting the other goals. For private investors, our results show that the strategies chosen amongst their peers differ substantially in how they integrate impact into their portfolios. Private investors who want to maximize the additionality of their capital for positive change it may be advisable to be very aware of their financial return expectations and related investment decisions, similar to the question of which impact themes to focus on. Some investors might decide to focus on SDGs that appear to be neglected by most other private investors. The same applies to investor networks such as Toniic, for which educating their members regarding our and others' findings and aligning their platforms and activities accordingly might be relevant to their achieving their goal of advancing positive impact to the fullest. In sum, our findings provide rich, deep insights into how HNWIs practice impact investing and why, and what this implies for actors that want to benefit from that interest commercially, actors that are concerned with the achievement of the SDGs, and HNWIs themselves.

Limitations and Future Research

We acknowledge certain limitations of our study and research approach. One limitation is that we focused our analysis on one investor group, albeit a particularly powerful one. We chose private HNWIs as our unit of analysis as they have outsized relevance to the mobilization of funding for sustainable development due to their economic significance and flexibility in how their capital is deployed. However, this can limit the universal applicability of our findings to

investors more broadly. We therefore encourage further research, on other impact-oriented investor groups.

Furthermore, we did not differentiate between different types of impact-related investments. On the one hand, there are impact-aligned investments in which materiality is provided through past investment results, proved through benchmarked analysis or SDG alignment. Here, impact is defined by the output of the investment generally, but not by the impact that the specific investor achieved herself by deploying her specific sum of capital into that investment. On the other hand, there are impact-generating investments in which additionality is provided by the causal effect between the output and the underlying investment—that is to say, if the investment had not been made, the output would not have materialized. While we show that investors aim to make a positive impact with their investments, our research results say little about the depth of impact they are trying to achieve. While our results point to the prevalence of impact-aligned strategies across the SDGs, the investors could also intend to go beyond that and to be fully impact generating. This, however, is hard to measure—impact measurement in terms of causality between investment and change is a broad problem in research and practice. Furthermore, measuring the causality and depth of impact is not of direct relevance to our research question. Regardless of whether an investor aims for impact alignment or for impact generation, their interest in impact is motivated by a desire to effect positive social and environmental change and therefore confirms our research question that impact has become an important theme in financial markets.

In this vein, one might argue that our measure of impact, SDG alignment self-reported by HNWIs, limits confidence in our results. We agree that scholars should continue to find better approaches to measuring impact. Nevertheless, we also see some arguments in favor of our approach. Although the SDG alignment variable is derived from self-reported data, we find high intercoder reliability—that is to say, different investors mainly assigned the same SDG to the same security.[3] Once the impact measurement question has been better researched and

[3] This weakens concerns regarding the subjective grading of SDG alignment. For this test, we identified 231 unique securities that occur more than once in the data set and thus are candidates for a study of intercoder reliability. The different investors in our data set share the same association of specific SDGs with the majority of these securities (139 securities). We calculated the Herfindahl Index as a measure of the intercoder reliability for each security, meaning the level of agreement amongst investors regarding which SDGs relate to which securities. If all investors share the same opinion regarding one security, the Herfindahl Index would be 1; if all investors that invest in a specific security have distinct opinions on the SDG alignment of that security, the Herfindahl Index would be 1/18 (with 18 being 17 different SDGs plus 1 non-impact category). I.e., the higher the Herfindahl Index, the more the investors agree on the same SDG(s). The summary statistics of the Herfindahl Index for the 231 securities that more than one investor invests in show an average Herfindahl Index of 0.78 and

there is better knowledge of how to capture impact-generating investments, portfolios should be studied to determine whether investors expect impact alignment or impact generation.

Conclusion

Our results show that high-net-worth individuals aim to achieve real-word impact with their investments rather than merely making value-aligned investments or instrumentalizing sustainability for financial risk purposes. They predominantly invest in securities that make contributions to one or more SDGs in order to mobilize capital for sustainable development and to close funding gaps. At the same time, there is a clear preference for SDGs that are associated with high financial returns. As such, we confirm that the studied HNWIs expect attractive financial returns as well as impact. This points to a great potential for attracting (private) capital and closing the funding gap for some—mostly financially attractive—SDGs. But also to the likely risk that other—financially less attractive—SDGs remain underfunded.

a median of 1. Moreover, the 25% quantile of the Herfindahl distribution is 0.63 and the minimum Herfindahl Index is 0.18. In summary, these statistics show that there exists high intercoder reliability in the data set.

References

Aguinis, H., and A. Glavas. 2012. “What We Know and Don’t Know about Corporate Social Responsibilty: A Review and Research Agenda.” *Journal of Management* 38(4):932–68.

Albertini, Elisabeth. 2013. “Does Environmental Management Improve Financial Performance? A Meta-Analytical Review.” *Organization & Environment* 26(4):431–57. doi: 10.1177/1086026613510301.

Ambec, Stefan, and Paul Lanoie. 2008. “Does It Pay to Be Green? A Systematic Overview.” *Academy of Management Perspectives* 22(4):45–62. doi: 10.5465/amp.2008.35590353.

Andreu, Luisa, Ana B. Casado-Díaz, and Anna S. Mattila. 2015. “Effects of Message Appeal and Service Type in CSR Communication Strategies.” *Journal of Business Research* 68(7):1488–95. doi: https://doi.org/10.1016/j.jbusres.2015.01.039.

Atz, Ulrich, Jongyuan Zoe Liu, Christopher Bruno, and Tracy Van Holt. 2021. “Does Sustainability Generate Better Financial Performance? Review, Meta-Analysis, and Propositions.” *SSRN Working Paper*.

Aupperle, Kenneth E., Archie B. Carroll, and John D. Hatfield. 1985. “An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability.” *Academy of Management Journal* 28(2):446–63. doi: 10.5465/256210.

Baker, Malcolm, Daniel Bergstresser, George Serafeim, and Jeffrey Wurgler. 2018. *Financing the Response to Climate Change: The Pricing and Ownership of U.S. Green Bonds*. National Bureau of Economic Research, Inc.

Barber, BM, A. Morse, and A. Yasuda. 2021. “Impact Investing.” *Journal of Financial Economics* 139:162–85.

Barnett, Michael L., and Robert M. Salomon. 2012. “Does It Pay to Be Really Good? Addressing the Shape of the Relationship between Social and Financial Performance.” *Strategic Management Journal* 33(11):1304–20. doi: 10.1002/smj.1980.

Berg, Florian, Julian F. Kölbel, and Roberto Rigobon. 2020. *Aggregate Confusion: The Divergence of ESG Ratings*. *SSRN Scholarly Paper*. ID 3438533. Rochester, NY: Social Science Research Network. doi: 10.2139/ssrn.3438533.

van Beurden, Pieter, and Tobias Gössling. 2008. “The Worth of Values – A Literature Review on the Relation Between Corporate Social and Financial Performance.” *Journal of Business Ethics* 82(2):407. doi: 10.1007/s10551-008-9894-x.

Bhojraj, S., and P. Sengupta. 2003. “Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors.” *Journal of Business* 76(3):455–575.

Brammer, Stephen, and Andrew Millington. 2008. “Does It Pay to Be Different? An Analysis of the Relationship between Corporate Social and Financial Performance.” *Strategic Management Journal* 29(12):1325–43. doi: 10.1002/smj.714.

Busch, Timo, Rob Bauer, and Marc Orlitzky. 2015. “Sustainable Development and Financial Markets: Old Paths and New Avenues.” *Business & Society* 55(3):303–29. doi: 10.1177/0007650315570701.

Busch, Timo, Peter Bruce-Clark, Jeroen Derwall, Robert Eccles, Tessa Hebb, Andreas Hoepner, Christian Klein, Philipp Krueger, Falko Paetzold, Bert Scholtens, and Olaf Weber. 2021. “Impact Investments: A Call for (Re)Orientation.” *SN Business & Economics* 1(2):33. doi: 10.1007/s43546-020-00033-6.

Campbell, J. L. 2007. “Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility.” *Academy of Management Review* 32(3):946–67.

Carroll, Archie B. 1999. “Corporate Social Responsibility: Evolution of a Definitional Construct.” *Business & Society* 38(3):268–95. doi: 10.1177/000765039903800303.

Chatterji, Aaron, Rodolphe Durand, David I. Levine, and Samuel Touboul. 2016. “Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers.” *Strategic Management Journal* 37(8):1597–1614. doi: 10.1002/smj.2407.

Cheng, Beiting, Ioannis Ioannou, and George Serafeim. 2013. “Corporate Social Responsibility and Access to Finance.” *Strategic Management Journal* 35(1).

Cordeiro, James J., and Joseph Sarkis. 1998. “Environmental Proactivism and Firm Performance: Evidence from Security Analyst Earnings Forecasts.” *Business Strategy and the Environment* 6(2):104–14.

Credit Suisse Research Institute. 2018. “Global Wealth Report 2018.”

Cubas-Díaz, Maite, and Miguel Ángel Martínez Sedano. 2018. “Measures for Sustainable Investment Decisions and Business Strategy – A Triple Bottom Line Approach.” *Business Strategy and the Environment* 27(1):16–38. doi: 10.1002/bse.1980.

Delmas, Magali, and Ivan Montiel. 2009. “Greening the Supply Chain: When Is Customer Pressure Effective?” *Journal of Economics & Management Strategy* 18(1):171–201. doi: 10.1111/j.1530-9134.2009.00211.x.

Derwall, J., N. Guenster, R. Bauer, and K. Koedijk. 2005. “The Eco-Efficiency Premium Puzzle.” *Financial Analysts Journal* 61(2):51–63.

Dhaliwal, D. S., O. Z. Li, A. Tsang, and Y. G. Yang. 2011. “Voluntary Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting.” *The Accounting Review* 86(1):59–100.

Dorfleitner, Gregor, and Sebastian Utz. 2012. “Safety First Portfolio Choice Based on Financial and Sustainability Returns.” *European Journal of Operational Research* 221(1):155–64. doi: 10.1016/j.ejor.2012.02.034.

Dorfleitner, Gregor, Sebastian Utz, and Rongxin Zhang. 2021. “The Pricing of Green Bonds: External Reviews and the Shades of Green.” *Review of Managerial Science*. doi: 10.1007/s11846-021-00458-9.

Edmand, A. 2012. “The Link Between Job Satisfaction and Firm Value, WIth Implications for Corporate Social Responsibility.” *Academy of Management Perspectives* 26(4):1–19.

Edmans, A. 2011. “Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices.” *Journal of Financial Economics* 101:621–40.

Elsayed, Khaled, and David Paton. 2005. “The Impact of Environmental Performance on Firm Performance: Static and Dynamic Panel Data Evidence.” *Structural Change and Economic Dynamics* 16(3):395–412.

Flammer, Caroline. 2012. “Corporate Social Responsibility and Shareholder Reaction: The Environmental Awareness of Investors.” *Academy of Management Journal* 56(3).

Friede, Gunnar, Timo Busch, and Alexander Bassen. 2015. “ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies.” *Journal of Sustainable Finance & Investment* 5(4):210–33.

Ghoul, S. E., O. Guedhami, C. C. Y. Kwok, and D. R. Mishra. 2011. “Does Corporate Social Responsibility Affect the Cost of Capital?” *Journal of Banking & Finance* 35:2388–2406.

Gioia, D., K. Corley, and A. Hamilton. 2013. “Seeking Qualitative Rigor in Inductive Research.” *Organizational Research Methods* 16:15–31.

GlIN, (Global Impact Investing Network). 2016. “ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS: THE ROLE OF IMPACT INVESTING.”

Gond, J. P., and A. Crane. 2010. “Corporate Social Performance Disoriented: Saving the Lost Paradigm?” *Business & Society* 49(4):677–703.

Griffin, Jennifer J., and John F. Mahon. 1997. “The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research.” *Business & Society* 36(1):5–31. doi: 10.1177/000765039703600102.

GSIA. 2018. “Global Sustainable Investment Review 2018.”

Hafenstein, Andrea. 2015. *Nachhaltigkeitsinformationen in Der Anlageentscheidung - Eine Analyse Der Nicht-Professionellen Anleger*. Springer Gabler.

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

Hart, Stuart L. 1995. “A Natural-Resource-Based View of the Firm.” *The Academy of Management Review* 20(4):986–1014. doi: 10.2307/258963.

Hassel, Lars, Henrik Nilsson, and Siv Nyquist. 2005. “The Value Relevance of Environmental Performance.” *European Accounting Review* 14(1):41–61. doi: 10.1080/0963818042000279722.

Heal, G. 2005. “Corporate Social Responsibility: An Economic and Financial Framework.” *The Geneva Papers on Risk and Insurance - Issues and Practice* 30(3):887–409.

Heeb, Florian, Julian F. Kölbel, Falko Paetzold, and Stefan Zeisberger. 2022. “Do Investors Care About Impact?” *Available at SSRN: Https://Papers.Ssrn.Com/Sol3/Papers.Cfm?Abstract_id=3765659*.

Hirschberger, Markus, Ralph E. Steuer, Sebastian Utz, Maximilian Wimmer, and Yue Qi. 2013. “Computing the Nondominated Surface in Tri-Criterion Portfolio Selection.” *Operations Research* 61(1):169–83. doi: 10.1287/opre.1120.1140.

Iwata, Hiroki, and Keisuke Okada. 2011. “How Does Environmental Performance Affect Financial Performance? Evidence from Japanese Manufacturing Firms.” *Special Section - Governing the Commons: Learning from Field and Laboratory Experiments* 70(9):1691–1700. doi: 10.1016/j.ecolecon.2011.05.010.

Kassinis, George, and Nikos Vafeas. 2006. “Stakeholder Pressures and Environmental Performance.” *The Academy of Management Journal* 49(1):145–59. doi: 10.2307/20159751.

Kim, Seonghoon, Ann Terlaak, and Matthew Potoski. 2021. “Corporate Sustainability and Financial Performance: Collective Reputation as Moderator of the Relationship between Environmental Performance and Firm Market Value.” *Business Strategy and the Environment* 30(4):1689–1701. doi: 10.1002/bse.2702.

King, Andrew A., and Michael J. Lenox. 2001. “Does It Really Pay to Be Green? An Empirical Study of Firm Environmental and Financial Performance: An Empirical Study of Firm Environmental and Financial Performance.” *Journal of Industrial Ecology* 5(1):105–16. doi: 10.1162/108819801753358526.

King, Andrew, and Michael Lenox. 2002. “Exploring the Locus of Profitable Pollution Reduction.” *Management Science* 48(2):289–99.

Klassen, Robert D., and D. Clay Whybark. 1999. “The Impact of Environmental Technologies on Manufacturing Performance.” *The Academy of Management Journal* 42(6):599–615. doi: 10.2307/256982.

Kölbel, Julian F., Florian Heeb, Falko Paetzold, and Timo Busch. 2020. “Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact.” *Organization & Environment* 33(4):554–74.

Kurucz, E., B. Colbert, and D. Wheeler. 2008. “The Business Case for Corporate Social Responsibility.” Pp. 83–112 in *The Oxford Handbook of Corporate Social Responsibility, Oxford University Press*. Oxford: A. Crane, A. McWilliams, D. Matten, J. Moon, D.S. Siegel (Eds).

Lee, Ki-Hoon, Byung Min, and Keun-Hyo Yook. 2015. “The Impacts of Carbon (CO2) Emissions and Environmental Research and Development (R&D) Investment on Firm Performance.” *International Journal of Production Economics* 167:1–11. doi: https://doi.org/10.1016/j.ijpe.2015.05.018.

Mackey, Alison, Tyson B. Mackey, and Jay B. Barney. 2007. “Corporate Social Responsibility and Firm Performance: Investor Preferences and Corporate Strategies.” *Academy of Management Review* 32(3).

Margolis, J. D., and J. P. Walsh. 2003. “Misery Loves Companies: Rethinking Social Initiatives by Business.” *Administrative Science Quarterly* 48:268–305.

McGuire, Jean B., Alison Sundgren, and Thomas Schneeweis. 1988. “Corporate Social Responsibility and Firm Financial Performance.” *Academy of Management Journal* 31(4).

McWilliams, A., and D. Siegel. 2000. “Corporate Social Responsibility and Financial Performance: Correlation or Misspecification?” *Strategic Management Journal* 21:603–9.

Misani, Nicola, and Stefano Pogutz. 2015. “Unraveling the Effects of Environmental Outcomes and Processes on Financial Performance: A Non-Linear Approach.” *Ecological Economics* 109:150–60. doi: 10.1016/j.ecolecon.2014.11.010.

Orlitzky, M., F. L. Schmidt, and S. L. Rynes. 2003. “Corporate Social and Financial Performance: A Meta-Analysis.” *Organization Studies* 24(3):403–41.

Orsato, Renato J. 2006. “Competitive Environmental Strategies: When Does It Pay to Be Green?” *California Management Review* 48(2):127–43. doi: 10.2307/41166341.

Paetzold, Falko, and Timo Busch. 2014. “Unleashing the Powerful Few: Sustainable Investing Behaviour of Wealthy Private Investors.” *Organization & Environment* 27(4):347–67.

Revelli, C., and J. L. Viviani. 2015. “Financial Performance of Socially Responsible Investing (SRI): What Have We Learned? A Meta-Analysis.” *Business Ethics: A European Review* 24(2):158–85.

Riedl, A., and P. Smeets. 2017. “Why Do Investors Hold Socially Responsible Mutual Funds?” *Journal of Finance* 72(6):2505–50.

Rosenbusch, Nina, Andreas Bausch, and Anne Galander. 2007. “THE IMPACT OF ENVIRONMENTAL CHARACTERISTICS ON FIRM PERFORMANCE: A META-ANALYSIS.” *Academy of Management Proceedings* 2007(1):1–6. doi: 10.5465/ambpp.2007.26530718.

Rowley, Tim, and Shawn Berman. 2000. “A Brand New Brand of Corporate Social Performance.” *Business & Society* 39(4):397–418. doi: 10.1177/000765030003900404.

Ruiz, Silvia, Silvia Romero, and Belen Fernandez-Feijoo. 2021. “Stakeholder Engagement Is Evolving: Do Investors Play a Main Role?” *Business Strategy and the Environment* 30(2):1105–20. doi: 10.1002/bse.2674.

Russo, Michael V., and Paul A. Fouts. 1997. “A Resource-Based Perspective on Corporate Environmental Performance and Profitability.” *The Academy of Management Journal* 40(3):534–59. doi: 10.2307/257052.

Schiehll, Eduardo, and Sam Kolahgar. 2021. “Financial Materiality in the Informativeness of Sustainability Reporting.” *Business Strategy and the Environment* 30(2):840–55. doi: 10.1002/bse.2657.

Schneider, T. E. 2011. “Is Environmental Performance a Determinant of Bond Pricing? Evidence from the U.S. Pulp and Paper and Chemicals Industries.” *Contemporary Accounting Research* 28(5):1537–61.

Sharfman, M. P., and C. S. Fernando. 2008. “Environmental Risk Management and the Cost of Capital ^.” *Strategic Management Journal* 29:569–92.

Sharma, Sanjay, and Harrie Vredenburg. 1998. “Proactive Corporate Environmental Strategy and the Development of Competitively Valuable Organizational Capabilities.” *Strategic Management Journal* 19(8):729–53. doi: 10.1002/(SICI)1097-0266(199808)19:8<729::AID-SMJ967>3.0.CO;2-4.

Shrivastava, Paul. 1995. “Environmental Technologies and Competitive Advantage.” *Strategic Management Journal* 16(S1):183–200. doi: 10.1002/smj.4250160923.

Soler-Domínguez, Amparo, Juan Carlos Matallín-Sáez, Diego Víctor de Mingo-López, and Emili Tortosa-Ausina. 2021. “Looking for Sustainable Development: Socially Responsible Mutual Funds and the Low-Carbon Economy.” *Business Strategy and the Environment* 30(4):1751–66. doi: 10.1002/bse.2713.

SSF. 2019. “Swiss Sustainable Investment Market Study 2019.”

Swiss Sustainable Finance. 2020. *Swiss Sustainable Investment Market Study 2020*. Zurich, Switzerland: Swiss Sustainable Finance.

UNCTAD, United Nations Conference on Trade and Development. 2014. *World Investment Report 2014 - Investing in the SDGs: An Action Plan*. New York/Geneva: United Nations.

Utz, Sebastian, Maximilian Wimmer, and Ralph E. Steuer. 2015. “Tri-Criterion Modeling for Constructing More-Sustainable Mutual Funds.” *European Journal of Operational Research* 246(1):331–38. doi: https://doi.org/10.1016/j.ejor.2015.04.035.

Wang, Lei, Steven Li, and Simon Gao. 2014. “Do Greenhouse Gas Emissions Affect Financial Performance? – An Empirical Examination of Australian Public Firms.” *Business Strategy and the Environment* 23(8):505–19. doi: 10.1002/bse.1790.

Weber, O., and B. Feltmate. 2016. “Sustainable Banking: Managing the Social and Environmental Impact of Financial Institutions.” *University of Toronto Press*.

Widyawati, Luluk. 2020. “A Systematic Literature Review of Socially Responsible Investment and Environmental Social Governance Metrics.” *Business Strategy and the Environment* 29(2):619–37. doi: 10.1002/bse.2393.

Wood, Donna J., and Raymond E. Jones. 1995. “STAKEHOLDER MISMATCHING: A THEORETICAL PROBLEM IN EMPIRICAL RESEARCH ON CORPORATE SOCIAL PERFORMANCE.” *The International Journal of Organizational Analysis* 3(3):229–67. doi: 10.1108/eb028831.

Tables

Table 1 Characteristics of an average portfolio.

Number of securities in a portfolio					
mean		sd	min		max
30		38	3		356
Asset class					
Cash & equivalents	Fixed income	Hedge funds	Private equity	Public equity	Real assets
11.51	21.27	3.22	19.92	28.21	15.87
Number of SDGs linked to securities					
0 SDGs		1 SDG	2 SDGs		3 SDGs
38.85		49.85	3.80		7.50
Expected portfolio return					
mean		sd	min		max
6.95		5.75	0.04		35.88
Financial profile					
Full capital loss	Partial capital loss	Capital preservation	Sub-commercial return	Commercial return	Extraordinary return
0.05	0.13	5.07	5.97	81.26	7.52
Liquidity					
< 30 days	30 to 90 days		90 days to 1 year	1 to 5 years	> 5 years
49.91	8.38		8.17	4.79	28.76

This table reports a number of summary statistics for an average portfolio. The numbers for the first five variables are percentage values. The first four variables (*Financial profile*, *Asset class*, *Liquidity*, and *Number of SDGs linked to securities*) indicate what proportion of total wealth is allocated to a certain category of a variable. *Financial profile* refers to the risk-adjusted financial outcome expectation that is stated by the investor. *Asset class* refers to the distribution of the investment capital across different asset classes. *Liquidity* refers to the distribution of the different investment horizons in the portfolios. *Number of SDGs linked to securities* refers to the proportion of securities in the portfolios that the investors linked to 0 SDGs, to 1 SDG, to 2 SDGs, and to 3 SDGs. For the fifth and sixth variables (*Expected portfolio return* and *Number of securities in a portfolio*), we report summary statistics (mean, standard deviation, minimum, and maximum) across the portfolios.

Table 2 Investor survey summary statistics.

Variable	Category	Number of investors (N=60)
Domicile	Africa	1
	Asia/Oceania	3
	Europe	17
	Latin America	1
	Middle East	2
	USA/Canada	36
Age	21–30	6
	31–40	10
	41–50	15
	51–60	18
	61–70	8
	71–80	3
Education	High school	2
	College graduate	18
	Postgraduate degree	40
AUM	Single	30
	Double	25
	Triple	5
Advisor	No	24
	Yes	36
Impact tenure	<1 year	3
	1–3 years	5
	3–5 years	15
	5–10 years	17
	10–15 years	8
	15+ years	12

This table reports summary statistics based on survey responses. The variable *Age* refers to the age category stated by the investor. The portfolio value (*AUM*) indicates the dollar amount of the investment, where *Single* refers to a portfolio value of between USD 1 million and 10 million, *Double* refers to a portfolio value of between USD 10 million and 100 million, and *Triple* refers to a portfolio value of USD 100 million or more. Some investors use consulting support (*Advisor—Yes*); others invest independently (*Advisor—No*). *Domicile* is the geographical location of the investor. *Education* indicates the highest academic level achieved by the investor. The time for which an investor had already been engaged in impact investments (*Impact tenure*) is measured in years.

Table 3 Interviewee profiles.

Interviewee	Gender	Age	Nationality	Net worth	Profession	Education
Member 1	M	26–35	Italy	20M–100 M	Private investor	Master's
Member 2	F	20–25	Netherlands	100M–1Bn	Finance professional	Bachelor's
Member 3	F	26–35	Netherlands	100M–1Bn	Manager	Master's
Member 4	F	36–45	Hong Kong	>1Bn	Finance professional	Master's
Member 5	M	45–60	USA		Investment advisor	Bachelor's
Member 6	M	45–60	Australia		Finance professional	Bachelor's
Member 7	M	36–45	Germany	>1Bn	Finance professional	
Member 8	F	60+	USA	>1Bn	Private investor	Master's
Member 9	M	45–60	USA		Finance professional	PhD
Member 10	M	60+	USA		Private investor	Master's
Member 11	F	60+	USA		Private investor	Master's
Member 12	M	45–60	Belgium		Finance professional	Master's
Member 13	F	26–35	Netherlands		Project Manager	Master's
Member 14	M	60+	USA	100M–1Bn	Private investor	PhD
Member 15	M	60+	USA		Finance professional	Master's
Member 16	F	60+	USA		Private investor	Bachelor's
Member 17	F	60+	USA		Manager	Vocational training
Member 18	M	26–35	USA		Private investor	Master's
Member 19	F	26–35	Germany	>1Bn	Private investor	Master's
Member 20	M	36–45	Germany	>1Bn	Private investor	Bachelor's
Member 21	M	26–35	Germany	>1Bn	Private investor	Master's

Table 4 Portfolio weights of SDG-aligned securities.

	Dependent variable: Portfolio weight			
	(1)	(2)	(3)	(4)
Nr of SDGs	0.064***		0.067***	
	(0.011)		(0.012)	
Nr of SDGs x log(Securities)	−0.019***		−0.018***	
	(0.003)		(0.003)	
SDG (yes/no)		0.037**		0.043**
		(0.016)		(0.018)
SDG (yes/no) x log(Securities)		−0.015***		−0.015***
		(0.004)		(0.004)
log(Securities)	−0.019***	−0.025***	−0.020***	−0.025***
	(0.002)	(0.002)	(0.002)	(0.002)
FP.Full Cap Loss			−0.053***	−0.048***
			(0.009)	(0.009)
FP.Part Cap Loss			−0.028***	−0.021**
			(0.01)	(0.01)
FP.Sub-Com Ret			−0.017**	−0.010
			(0.008)	(0.008)
FP.Com Ret			−0.006	−0.002
			(0.007)	(0.007)
FP.Extra Ret			0.037**	0.044***
			(0.016)	(0.016)
LIQ.<30 days			−0.010	−0.013
			(0.008)	(0.008)
LIQ.30–90 days			0.006	0.006
			(0.014)	(0.014)
LIQ.1–5 years			−0.015	−0.017
			(0.011)	(0.011)
LIQ.>5 years			−0.029***	−0.028***
			(0.009)	(0.009)
Constant	0.104***	0.132***	0.123***	0.151***
Time FE	yes	yes	yes	Yes
Observations	4,096	4,096	3,104	3,104
Adjusted R2	0.145	0.141	0.189	0.178
F-statistic	88.058***	85.171***	43.488***	40.616***

The table presents the results of different OLS regression models with fixed effects for the reporting year and portfolio clustered standard errors. For each model specification—reflecting our two measures for SDG alignment—we analyzed the main effect of the measure and the interaction term between the respective measure and the logarithm of the number of stocks in the portfolio. We included this interaction term to capture the possible effect that investors focusing on SDG-related investments selected a different number of securities compared with average investors—that is to say, a lower (or higher) number of securities would be directly related to a higher (or lower) average weight in the portfolio. Our set of control variables therefore contains the number of securities in the portfolio (*log(Securities)*); a measure for the expected risk-adjusted return of the security (*Financial Profile - FP*) with the reference category *Capital Preservation* and the categories in the table being full capital loss (*FP.Full Cap Loss*), a partial capital loss (*FP.Part Cap Loss*), a sub-commercial return (*FP.Sub-Com Ret*), a commercial return (*FP.Com Ret*), and an extraordinary return (*FP.Extra Ret*); and a measure for liquidity with the reference category of a liquidity between 90 days and 1 year and the liquidity ranges indicated in the table. We ran different OLS regression models with time-fixed effects, and we report coefficients and clustered standard errors (the latter in parentheses). The full model with all controls explains around 20% of the variation in the portfolio weights of securities related to the SDGs, which is rather high. The coefficients for the control variables, which are discussed in more detail below, are reasonable. The levels of significance are denoted as follows: * p<0.1; ** p<0.05; *** p<0.01.

Table 5 Portfolio weights separated out by individual SDGs and non-SDG-aligned investments.

	mean	sd	median	max
Non-SDG-aligned	38.9	28.7	32.7	100.0
SDG 01 No Poverty	5.6	10.6	2.1	69.8
SDG 02 Zero Hunger	6.3	9.8	2.5	40.4
SDG 03 Good Health and Well-Being	7.8	11.3	3.1	50.5
SDG 04 Quality Education	5.2	6.6	2.0	26.6
SDG 05 Gender Equality	3.2	5.5	0.8	23.3
SDG 06 Clean Water and Sanitation	7.1	12.3	0.8	45.4
SDG 07 Affordable and Clean Energy	**12.9**	**20.1**	**4.5**	**100.0**
SDG 08 Decent Work and Economic Growth	6.4	15.4	0.9	78.9
SDG 09 Industry, Innovation, and Infrastructure	4.9	8.3	1.8	40.5
SDG 10 Reduced Inequalities	8.7	15.2	2.1	58.9
SDG 11 Sustainable Cities and Communities	**19.1**	**19.7**	**10.6**	**76.6**
SDG 12 Responsible Consumption and Production	6.0	7.8	2.7	32.5
SDG 13 Climate Action	5.9	7.2	3.5	32.3
SDG 14 Life below Water	2.0	2.2	1.5	10.7
SDG 15 Life on Land	2.5	2.7	1.8	10.7
SDG 16 Peace, Justice, and Strong Institutions	3.3	5.7	1.7	28.3
SDG 17 Partnerships for the Goals	**13.0**	**20.2**	**3.5**	**81.3**
Number of different SDGs in one portfolio	5.956	2.735	6	15

This table reports portfolio weights separated out by individual SDG and non-SDG-aligned investments in percentage terms. We aggregate the portfolio weights of the securities that are aligned with each respective SDG for each portfolio. The *mean*, *standard deviation* (*sd*), *median*, and *maximum* (*max*) across the 136 portfolio compositions are presented. The three SDGs with the highest mean values are indicated in bold. Moreover, *Number of different SDGs in one portfolio* illustrates the concentration of portfolios on certain SDGs. To calculate this measure, we generate SDG weight vectors for each portfolio; i.e., we sum the weights of all securities assigned to the same SDG in each portfolio. *Number of different SDGs in one portfolio* is a count variable that equals the number of non-zero SDG weight vector components of each portfolio.

Table 6 SDGs and expected financial security returns.

	Dependent variable: Expected return
SDG 01 No Poverty	0.019
	(0.011)
SDG 02 Zero Hunger	**0.035*** **
	(0.010)
SDG 03 Good Health and Well-Being	**0.067*** **
	(0.010)
SDG 04 Quality Education	**0.027***
	(0.015)
SDG 05 Gender Equality	0.015
	(0.016)
SDG 06 Clean Water and Sanitation	0.014
	(0.013)
SDG 07 Affordable and Clean Energy	**0.044*** **
	(0.007)
SDG 08 Decent Work and Economic Growth	**0.077*** **
	(0.015)
SDG 09 Industry, Innovation, and Infrastructure	**0.042*** **
	(0.012)
SDG 10 Reduced Inequalities	0.001
	(0.024)
SDG 11 Sustainable Cities and Communities	**0.042*** **
	(0.007)
SDG 12 Responsible Consumption and Production	0.017
	(0.011)
SDG 13 Climate Action	0.008
	(0.013)
SDG 14 Life below Water	**0.079*** **
	(0.022)
SDG 15 Life on Land	0.020
	(0.015)
SDG 16 Peace, Justice, and Strong Institutions	0.008
	(0.018)
SDG 17 Partnerships for the Goals	**0.080*** **
	(0.011)
Constant	0.057***
	(0.003)
Observations	2,126
Adjusted R2	0.068
F-statistic	9.566***

This table reports the expected returns of securities separated out by their alignment with one of the 17 SDGs. We estimate the expected return as a function of the SDG category. Each *SDG variable* is a dummy variable that observes a value of 1 if the security is aligned with the SDG and 0 otherwise. The reference category is *non-SDG-aligned*. We ran an OLS regression model with clustered standard errors (security number), and report coefficients and clustered standard errors (the latter in parentheses). We tested whether the Pearson correlation coefficient, ρ, between the average SDG portfolio weights and the respective SDG average expected return is higher than zero. We therefore ran 10,000 bootstrap simulations and found the correlation coefficient ($\rho = 0.303$) to be higher than zero at a 5% significance level (bootstrap p-value = 0.027). The levels of significance are denoted as follows: * p<0.1; ** p<0.05; *** p<0.01. The SDGs with significant coefficients are indicated in bold.

Table 7 Comparison of the 75 100% Network members and our sample.

		75 members		Sample (60 members)	
		Absolute	%	Absolute	%
AUM	Single	37	49.3	30	50.0
	Double	31	41.3	25	41.7
	Triple	7	9.3	5	8.3
Type	Individual	40	53.3	34	56.7
	Foundation	20	26.7	16	26.7
	Family office	8	10.7	5	8.3
	Investment company	7	9.3	5	8.3
Investor geography	Europe	23	30.7	17	28.3
	US & Canada	43	57.3	36	60.0
	Asia & Oceania	3	4.0	3	5.0
	Africa	1	1.3	1	1.7
	Middle East	4	5.3	2	3.3
	Latin America	1	1.3	1	1.7

This table shows how our analyses are based on a representative sample of the 100% Network.

Annex 2: Second Research Paper

The effects of the sustainable finance disclosure regulation (SFDR) on product accessibility: A mystery shopping analysis

Abstract

Sustainable investing is an umbrella term for a variety of investment products that serve different purposes depending on the investor's investment motivation, ranging from increasing financial performance to making value aligned investments to driving positive impact. Yet the disclosure to investors on these central product differences is insufficiently developed and makes it difficult to compare sustainable investment products. In response, the European Union introduced the sustainable finance disclosure regulation (SFDR) to make product differences more transparent and corresponsive investment opportunities accessible. This paper studies the effects of SFDR on the availability and accessibility of sustainable investment products for retail investors. I conduct a mystery-shopping analysis with the first round of data collection taking place a year prior to the introduction of the regulation and the second round a year after the regulation came into effect. The results show that SFDR has increased sustainable investment product availability but had little effect on the accessibility. While banks' offerings have significantly improved, financial advisors remain hesitant about recommending sustainable investment products to their clients due to struggles with product complexity and limited confidence in products.

Keywords: Mystery shopping, SFDR, accessibility, financial advisors, sustainable investing, retail investors

Introduction

Sustainable investing experiences great popularity. Yet despite growing awareness the accessibility of sustainable investment products is unclear. While some sustainable investments, such as ESG integration products show outstanding growth rates, others such as impact investments remain marginal (GSIA 2020). Sustainable investing is an umbrella term for a variety of investment products that serve different purposes depending on the investor's investment motivation (Busch et al. 2021; Hafenstein 2015; Riedl & Smeets 2017; Widyawati 2020). Some investors choose a sustainable investment for risk management purposes to achieve better financial performance (Atz et al. 2021; Friede et al. 2015; Revelli & Viviani 2015), others want to align their values with their investments (Colonnello et al. 2019; Niszczota & Białek 2021), and others aim to drive positive impact (Busch et al. 2021; Kölbel et al. 2020). To mobilize private capital for sustainable development, it is necessary to account for those differences by making them transparent and corresponsive investment opportunities accessible.

The European Union acknowledged that disclosures to investors are insufficiently developed (Recital (5) SFDR) pointing out that divergent disclosure standards and market-based practices make it very difficult to compare financial products and create an uneven playing field for products and distribution channels (Recital (9) SFDR). The challenges can be observed in the divergence of ESG ratings (Berg et al. 2022), low sustainable finance literacy (Filippini et al. 2021) and ongoing confusion about the profitability of sustainable investments (Aupperle et al. 1985; Griffin & Mahon 1997; Revelli & Viviani 2015; Rowley & Berman 2000; van Beurden & Gössling 2008). In an effort to solve these problems, the European Union introduced the sustainable finance disclosure regulation (SFDR) on November 27th, 2019 which requires financial market participants and financial advisors to disclose specific information regarding their approaches to the integration of sustainability risk and the consideration of adverse sustainability impacts (Recital (8) SFDR). Alongside central disclosure requirements, the regulation establishes the distinction between products that promote environmental or social characteristics and products that have as an objective a positive impact on the environment and society (Art.8/Art.9 SFDR). This distinction increases transparency and makes the differences between products more clear. Yet it is uncertain how the regulation affects product availability and accessibility. Availability describes the ability to purchase sustainable investment products and accessibility refers to the ability to obtain accurate information on these products. The aim of this paper is to compare how sustainable

investment consultations are carried out before and after SFDR introduction, as well as showing how SFDR influences the distribution process. I ask: How has SFDR affected the availability and accessibility of sustainable investment products for retail investors?

I performed a mystery-shopping analysis with the first round of data collection taking place a year prior to SFDR introduction and the second round a year after the regulation came into effect. The collected data came from a total of 18 appointments at 8 German retail banks. I find that prior to the introduction of the regulation, in three out of the eight tested banks there was no sustainable investment product available. Four banks offered products later classified under Article 8 SFDR and only one bank had products available later classified under Article 8 and 9 SFDR. In 2021, after the introduction of the regulation, all tested banks had an offering classified under Article 8, but only four of these banks were able to also present a product classified under Article 9. Availability therefore increased substantially.

To study the accessibility beyond just the availability, the paper took an institutional logics perspective to examine financial advisors' recommendations and outlooks related to the investment motivations financial return, value alignment and impact. The goal was to identify practices of boundary blurring and boundary building between the in the financial industry dominant market logic and in sustainable investment products additionally present social welfare logic (Glynn & Lounsbury 2005; Peifer 2014; Risi 2018). Boundary blurring refers to advisors combining market logic beliefs such as profit maximization with social welfare logic beliefs such as reducing suffering, improving human wellbeing, or protecting the natural environment. Boundary building refers to advisors making a sharp distinction between the two logics which presents challenges for the distribution of sustainable investment products. The results show that prior to SFDR introduction, financial advisors were hesitant to recommend sustainable investment products due to performance doubts, struggles with the uncertainty if sustainable investment products meet customers' value expectations, and could not provide information on if and how sustainable investment products make an impact. As a consequence, out of the five banks with an offering, three banks advised against an investment in sustainable investment products, thereby limiting the accessibility. In 2021, doubts about financial performance persisted, value expectations remained largely unconsidered and regardless of whether Article 9 SFDR funds were available or not, the advisors did not discuss impact, impact mechanism or impact limitations. While the availability increased, the accessibility is still limited.

Limited accessibility caused by advisors withholding from recommending sustainable investment products goes largely back to financial advisors struggles with products complexity and lack of confidence in sustainable investment products. Banks preselect their product portfolios and thereby withdraw the advisor from a position of decision making which limits their ability to engage with product features and the inherent institutional complexity. Hesitation about sustainable investment products is not caused by the personal perception of incompatibility of market logic and welfare logic but by the inability to face the institutional complexity more generally. Beyond that, the lack of exploration why investors are interested in sustainable investment products hinders the ability to match investors with a suitable product. Similar to asking an investor about their investment horizon and risk tolerance, advisors should ask investors about their sustainable investment objectives. At this point, motivations are largely ignored, and expression of the investor's motivation had very limited impact on the sustainable investment products offered to the investor. Also, the documentation provided is not systematically transparent making it hard to compare products from different providers.

These findings contribute to the literature in two ways. First, I contribute to the literature on the barriers to mobilizing capital for sustainable development. I show that regulatory interventions impact distribution procedures and improve financial institutions' offerings which supports the mobilization of private capital for sustainable development. At the same time, I shed light on the remaining barriers for mobilizing private capital for sustainable development such as significant differences in availability of products serving different sustainable investment motivations. Especially product serving impact motivations, which are particularly crucial for the financing of sustainable development, are underrepresented.

My second contribution is to the literature on sustainable investment motivations. I show that advisors have difficulty in differentiating impact, return and value alignment motivations and despite clear labels set by the regulator advisors confuse, mystify, and mistake product objectives. Advisors rarely consider sustainable investment motivations and expressed motivations often don't feed into sustainable investment product offerings. This hinders investors from accessing suitable products, it limits capital flows into the intended areas, and it could result in investors withholding future investments due to dissatisfaction.

The Role of Institutional Complexity

Institutional theorists argue that every social context is shaped by broader belief systems and logics. These broader belief systems or logics guide organizations and shape practices and interaction patterns (Friedland & Alford 1991; Reay & Hinings 2009; Risi 2017; Thornton 2002). Friedland and Alford define institutional logic as "supranational patterns of activity through which humans conduct their material life in time and space, and symbolic systems through which they categorize that activity and infuse it with meaning" (Friedland & Alford 1991, p. 232). Contradicting intersection of dominant societal spheres causes institutional complexity. Institutional complexity is present when an organization is subject to more than one institutional logic (Greenwood et al. 2010, 2011; Kraatz & Block 2008; Lounsbury 2007; Schneideberg 2007). Early literature recognized the contradicting intersections, but they thought that isomorphic pressure would dissolve such complexity as one dominant logic quickly diffuses across an organizational field (Greenwood et al. 2011; Lounsbury 2007). Today, scholars acknowledge institutional complexity and study multiple logics in consensus and conflict, institutions in other societal or geographical settings, and the hybridization of logics. Their studies tend to focus on field-level logics which are nested within large societal logics (Greenwood et al. 2010). By looking at multiple competing logics and the contestation of meaning they are able to develop a more pluralistic approach (Lounsbury 2007; Marquis & Lounsbury 2007; Schneideberg 2007).

In this paper, I focus on a case of conflicting logics in the financial market. The dominant logic in the financial world is the market logic (Glynn & Lounsbury 2005). However, sustainable investments are subject to more than one institutional logic (Peifer 2014). In addition to the market logic, they also follow a social welfare logic. Usually, the two logics are clearly distinguished from one another (Pache & Santos 2013; Smith et al. 2013) but sustainable investments aim to combine the two. Sustainable investments "aim to blur the boundaries between two distinct social spheres: the financial sector, which is driven by profit maximization, and the welfare sector, which is guided by moral considerations" (Risi 2018, p. 5). This presents a challenge for financial advisors. The problem is that banks themselves traditionally only follow the market logic. As sustainable investing follows an additional logic that potentially, depending on the investors motivation (Riedl & Smeets 2017), doesn't align with the banks logic of profit maximization, it results in hesitation and eventually taking the safe, well-known path of selling a traditional, not sustainable investment product and thereby ignoring certain sustainability preferences, in particular impact ambitions or value

orientations. Paying attention to the institutional complexity can help us to understand financial advisors' difficulties to navigate the sustainable investing space and bring attention to the key challenges.

Sustainable Investing in Retail Banking

The capital market instruments available to retail investors are limited and largely restricted to mutual funds (European Commission 2018). Mutual funds pool the money of different investors which a fund manager invests on their behalf. Depending on the fund's strategy, the fund manager can invest in various types of asset classes, such as equity (i.e., stocks), debt (i.e., bonds) or real estate. Funds have the advantage that investors can achieve high diversification even with small investment amounts and consequently reduce risk. A further advantage is that a professional takes over the responsibility to make the investment decision and chooses the different assets to invest in. Consequently, this also means that investors cannot influence what exactly the fund is invested in. This is especially challenging in the context of sustainable investment funds. Technically every investment procedure that considers more than the conventional criteria (yield, risk, liquidity) could be a sustainable investment (Schäfer 2005, 2009). Yet the personal understanding of sustainability and investors' motivations to invest sustainably varies greatly (Busch et al. 2021; Colonnello et al. 2019; Gabriel 2014; Niszczota & Białek 2021; Paetzold et al. 2022). In order to sell a sustainable investment product, it is essential to be clear which investment motivation the product is serving as different sustainable investment products serve different purposes (Hafenstein 2015; Riedl & Smeets 2017).

There are three main objectives: financial performance, value alignment and impact. Sustainable investors that aim for financial performance integrate sustainability information to reduce investment risks or to seek exposure to sustainable companies to increase returns (Atz et al. 2021; Friede et al. 2015; Revelli & Viviani 2015). The most prominent way to do so is ESG integration. ESG integration systematically considers environmental, social, and governance risks and opportunities in the financial analysis. ESG funds invests in companies that demonstrate leading sustainability practices and are better positioned to benefit from, and build resilience to, long-term societal and economic trends. Simultaneously, they exclude companies that do not meet specific standards. Sustainable investors that aim for value alignment only want to be invested in companies that are consistent with their personal values (Colonnello et al. 2019; Niszczota & Białek 2021). These investors don't want to profit from

economic activities that they find repugnant. Value alignment is irrespective of whether exclusion leads to a better world or not and without consideration of financial implications. Here, screening out or excluding unwanted industries or companies does the trick. Finally, impact motivations are about using capital and influence to drive positive change in the real world (Busch et al. 2021; Kölbel et al. 2020). Investing for impact requires a mechanism through which investments translate into real world change (Kölbel et al. 2020). One common strategy is utilizing shareholder voting rights or engaging with issuers to demand improvements (Bebchuk et al. 2020; Dimson et al. 2015; Hirschmann 1970). Shareholder engagement includes filing shareholder proposals, building investor coalitions, practicing voting rights and shareholder activism. Investing for impact could also be about providing capital to underfunded companies that tackle global challenges (Kölbel et al. 2020). Here, it is important to recognize that there might be a trade-off between impact and financial performance – good engagement, for example, takes resources and is expensive.

In summary, the takeaway is that mobilizing private capital for sustainable development requires to account for those different objectives by making investment strategies transparent and corresponsive investment opportunities accessible.

EU Regulation

The European Union (EU) acknowledged that disclosures to end investors on sustainable investment objectives, as well as sustainability risks and adverse sustainability impacts are insufficiently developed (Recital (5) SFDR). They highlight that divergent disclosure standards and commercially driven market-based practices make it very difficult to compare financial products and create an uneven playing field for such products and for distribution channels (Recital (9) SFDR). Given these circumstances product providers should be required to disclose how sustainability risks and adverse sustainability impacts are considered (Recital (8/12) SFDR). Sustainability risks are defined as an environmental, social and governance event or condition that if it occurs, could cause a negative material impact on the value of the investment (Recital (14) Article 2 (22) SFDR). Adverse sustainability impacts are defined as impacts of investment decisions and advice that result in negative effects on sustainability factors (Recital (16/20) SFDR). Disclosing sustainability risks and adverse sustainability impacts includes publishing policies that specify how fund managers integrate sustainability risks and ensuring the transparency of such integrations (Recital (12/13) Article 3 SFDR).

This disclosure would enable investors to effectively compare different financial products and make informed investment decisions (Recital (9/19) SFDR).

In an effort to achieve more transparency regarding how financial market participants and financial advisors integrate sustainability considerations into their investment decisions and investment advice (Recital (15) SFDR) the European Union introduced the sustainable finance disclosure regulation (SFDR) on November 27th, 2019 which requires financial market participants and financial advisors to disclose specific information regarding their approaches to the integration of sustainability risk and the consideration of adverse sustainability impacts (Recital (8) SFDR). Alongside central disclosure requirements, the regulation introduces the key distinction between products that promote environmental or social characteristics and products that have as an objective a positive impact on the environment and society (Art.8/Art.9 SFDR).

Under the new regulation investment products are labeled under either Article 6, 8 or 9 SFDR. Article 6 SFDR covers products that do not integrate any kind of sustainability risks in the investment process and requires these products to include a clear and concise explanation why the product provider is deeming sustainability risks not to be relevant. Products that consider sustainability risks and promote environmental and social characteristics are classified under Article 8 SFDR. Article 8 SFDR classifies products that invest in companies that follow good corporate governance practices and promote environmental or social characteristics or a combination of both. These products need to disclose how sustainability risks are integrated in the investment decisions and have to disclose information on how environmental and social characteristics are met (Article 8, Article 11 (1a) SFDR). Lastly, Article 9 SFDR classifies investment products that have sustainable investment as its objective. Products classified under Article 9 need to clearly explain how that objective is to be obtained. Product providers need to disclose the overall sustainability-related impact of the product by means of relevant sustainability indicators or "where an index has been designated as a reference benchmark, a comparison between the overall sustainability-related impact of the product with the impact of the designated index and of a broad market index through sustainability indicators" has to be provided (Article 11 SFDR).

Products classified under Article 8 and 9 SFDR need to publish a description of the environmental or social characteristics or the sustainable investment objectives (Article 10

SFDR). Furthermore, they need to provide information on the methodologies used to assess, measure, and monitor the environmental or social characteristics or the impact selected for the product. This includes its data sources, screening criteria for the underlying assets and the relevant sustainability indicators used to measure the environmental or social characteristics or the overall sustainable impact of the financial product (Article 10 SFDR). The information shall be clear, succinct, understandable to investors, published in a way that is accurate, fair, not misleading, simple, concise and easily accessible (Article 10 SFDR). The regulation came into effect on March 10th, 2021 and is binding in its entirety and directly applicable in all EU Member States.

In this paper, I study how SFDR affects the availability and accessibility of sustainable investment products for retail investors. The increased regulatory required transparency should enable investors and other market participants to differentiate products and understand which investment motivation a sustainable investment product is serving. Furthermore, SFDR classifications enable the study of differences in accessibility of sustainable investment products as product providers need to clearly state the products objective and under which article it is classified.

Method

To study the effects of SFDR on the availability and accessibility of different sustainable investment products I take a mystery-shopping approach. The first round of data collection took place a year prior to SFDR introduction, and the second round of data collection took place a year after the regulation came into effect. The collected data came from a total of 18 appointments at 8 banks. The banks are identical in the two rounds and included five private banks, two cooperative banks, and one savings bank.

The analysis focused on the availability and accessibility of sustainable investment products for private investors. Private investors in Europe hold USD 103.2 trillion in aggregate and therefore have significant financial power (Shorrocks et al. 2021). Private investor can be differentiated between retail banking clients and wealth management customers. Retail banking clients are characterized as customers that only have access to standardized products, while wealth management customers due to increased net worth are able to access customized financial products (Paetzold et al. 2015). This paper will focus on retail banking clients. A standard retail investor is likely to seek professional advice in their investment decisions.

This makes appointments with non-independent financial advisors the central distribution channel for retail banking products in Europe (European Commission 2018). The advice should allow investors to consider a wider set of investment products, better understand their features, and ultimately invest in products that best match their individual profile (European Commission 2018). Retail investors rely on advice as most investors are overwhelmed by the sheer complexity of and uncertainty associated with investment products especially in the context of sustainable investing (European Commission 2018; Filippini et al. 2021; Mangot et al. 2022).

This prominence of financial advisors in the product selection process encouraged to take an "inhabited institutions" approach (Binder 2007; Hallett & Ventresca 2006). This approach pays attention to individuals who inhabit institutions and allows to study the thoughts and experiences of individuals who populate organizations (Peifer 2014). Financial advisors are the intersection point between financial market institutions and retail investors (Hackethal et al. 2012). They are the primary contact point between retail investors and the bank and hold a significant role in the investment selection process (Hafenstein & Bassen 2016; Mangot et al. 2022; Pilaj 2015; Schrader 2006; Tedesco et al. 2021). Most investors do not make their investment decision alone but are influenced and mediated by advisors (Hackethal et al. 2012). Many private investors rely on the expertise of financial professionals (European Commission 2018; Filippini et al. 2021; Martenson 2008; von Lüde 2013; Zuber 2005) especially in the context of sustainable investing as product complexity increases (Filippini et al. 2021; Girerd-Potin et al. 2013; Hockerts & Moir 2004; Hummels & Timmer 2004; Mangot et al. 2022; Paetzold et al. 2015; Schrader 2006; Tedesco et al. 2021). The role of advisors is to be aggregators and providers of information (Paetzold et al. 2015) and they are in fact the main information source for private investors (Martenson 2008; Nilsson et al. 2010; Tedesco et al. 2021; von Lüde 2013; Zuber 2005). Financial advisors have to help to differentiate between different motivations (Lewis 2001; Nilsson 2009) to identify the most appropriate sustainable investment product for the investor (Paetzold et al. 2015).

Mystery Shopping

To study the reasoning and actions of financial advisors the paper applies a mystery-shopping approach. Mystery shopping is a common methodology to collect controlled data of private encounters and is regularly applied to assess the effectiveness of consumer protection regulations and to gain insights into financial service quality (European Securities and

Markets Authority 2020; Mangot et al. 2022). Studies applying a mystery-shopping approach use test shoppers that "act as a customer or potential customer to monitor the quality of processes and procedures used in the delivery of a service [...]. The emphasis is on the service experience as it unfolds, looking at which activities and procedures do or do not happen." (Wilson 1998, p. 114). It is not about measuring the individual performance but about identifying systematic errors. Mystery shoppers make exact checks against specific criteria around the standards of service on sustainable investment consultations while being provided the service (Douglas & Douglas 2015). In contrast to real customer surveys, mystery shopping enables a direct recall of the experience and offers a more objective perspective (Finn & Kayande 1999). It aims to obtain facts rather than perceptions (Douglas & Douglas 2015). Forms of mystery shopping vary from telephone calls to email checks and branch visits. The present study is based on branch visits. Mystery shoppers mimic the behavior of a retail investor who is not familiar with sustainable investment products and is seeking guidance on the topic.

The mystery shopping took place in NRW, Germany. Germany was selected as it is among the countries with the highest number of products available for sale to retail investors in Europe (European Commission 2018). NRW is geographically interesting as it is densely populated, and many providers are represented in the area. In the selected area are a total of eight banks with retail banking branches that offer investment consultations. There are a few additional organizations that hold a banking license but do not offer investment services for private retail customers. They for example only provide support for capital market transactions or give out corporate loans. These banks were not considered in this study. Specialized sustainability banks are also not represented in the study in particular because no such bank was represented in the chosen geographical area.

Following the idea of mystery shopping the selected banks were not aware that they were in a test situation. The appointments were arranged under the pretext that the test customer is not fully satisfied at their current bank and wants to learn more about the offers from other providers. In all cases the bank knew that it would be an investment consultation, but they were not informed about the focus on sustainability. The mystery shoppers were recruited among participants in a previous data collection where retail banking customers were interviewed about their investment behavior and interest. There are a number of operational challenges in recruiting mystery shoppers for complex encounters (European Commission

2018; Wilson 1998). Mystery shopping in the financial industry is an inherently complex process as the investment products in the scope of this study are complex and require a substantial level of financial literacy (European Commission 2018; Filippini et al. 2021). Furthermore, mystery shoppers need to disclose personal data and financial details which is often entered in centralized systems. This disables from using the same mystery shopper multiple times (Wilson 1998). Furthermore, the mystery shoppers should not have a previous client relationship with the bank to make sure that the circumstances of the appointment are as neutral as possible.

The first round of mystery shopping took place between March 27th and April 17th, 2019. The second round of mystery shopping took place between November 11th and December 23rd, 2021. The mystery shoppers received a briefing in advance with questions and topics that should be covered during the consultation. Furthermore, to guarantee that all consultations took place under similar conditions a few directions were provided. The mystery shoppers had to express a risk tolerance that would allow them to invest in stock funds with low diversification. The amount of investment was 10.000€ and the investment horizon 7-10 years. This customer profile is based on the customer profile from previous mystery-shopping studies done by the European Commission to enable comparison (European Commission 2018). I accompanied the mystery shoppers during the consultation to evaluate the accuracy of the information provided (Wilson 1998) and push the questions where necessary. To convey a realistic portrayal of a retail investment consultation it was agreed not to be too probing on issues that require a more developed understanding of financial products or sustainable investing. Finally, I do want to acknowledge that the information gathered during the mystery-shopping process are not fully objective. Nuances in mystery shoppers' individual judgement, way of asking questions, personality, or interaction with the advisor will necessarily influence results. Also, the limited amount of time available for the interaction with the advisor, in most cases an hour, makes it difficult to capture all features of the advice. If additional appointments were offered to go into detail, they were accepted by the mystery shopper.

Data Analysis

The banks have proven to be very sensitized to tests due to regular internal testing and national supervisory authorities (BaFin) controls. Voice recordings of the consultations were therefore not possible. Instead, intensive notes were taken during the appointments. To

analyze the collected data each consultation was transcribed in a single word-document. Next, the word-documents were uploaded to NVIVO. NVIVO is a software designed for computer-assisted qualitative and mixed-methods data analysis. The two sets of data from the two rounds of data collection were coded in two separate batches starting with the data collected prior to the introduction of the regulation. The codes that emerged from the first round were used as the coding basis for the data from the second round. The data from the second round was coded into the existing code set. Observations that didn't fit into the existing set of codes let to the emergence of further codes. These new codes represent some of the changes that occurred over the time period during which the regulation was introduced. They describe any kind of observations that occurred in the second round but did not occur in the first round. Further changes can be observed in the volume and depth of data that underlies specific codes. To filter out these changes, the first order codes were aggregated. This aggregation was done separately for each set of data. The differences in the aggregated codes from the first round before the introduction of the regulation and the aggregated codes from the second round after the introduction of the regulation describe the differences in depth and volume. They for example reveal when a particular observation occurred in the first round of the data collection but occurred more often in the second round or vice versa.

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-- Table 1 about here --

Findings

The collected data came from a total of 18 appointments at 8 banks. The banks included five private banks, two cooperative banks, and one savings bank. Through prior online research it was ascertained that all banks had some kind of sustainable investment offering in their product portfolio. However, the information given by the advisor about the bank's offering often deviated from the information given by the bank on their website. In 2019 prior to the new regulation, three out of eight banks stated to not offer any sustainable investment products during the consultations. The remaining five banks offered products later classified under Article 8 SFDR and only one of these banks had products available later classified under Article 8 and 9 SFDR. Out of the five banks with an offering, three banks advised against an investment in sustainable investment products.

In 2021 after the regulation came into effect, all tested banks were able to present an offering. While all banks were able to present a product classified under Article 8, only four of these banks were able to also present a product classified under Article 9. In the following, I will present the results in detail in historical order.

Prior to the Introduction of the Regulation

The consultations were largely shaped by the degree of knowledge that the advisor had about sustainable investing. At three banks, the advisors had never heard of the term. In two banks, the advisors had heard of the term but did not have any further knowledge about it. In one case, the advisor which whom the appointment was scheduled also only had limited experience with the topic, but he could immediately reach a colleague who was specialized in sustainable finance and was able to join the appointment. At the remaining two banks, the advisors had proficient knowledge about sustainable investing.

Across all appointments in 2019, there was no bank that actively encouraged an investment in a sustainable investment products. Only one bank stated that there is no reason not to invest in sustainable investment products as the products don't have disadvantages compared to conventional financial products. However, the bank advisor also noted that offering sustainable investment products is not a standard and that such products are only offered to customers that specifically asks for them. Still, five out of the eight tested banks were able to present a sustainable investment offering. At three banks, there was no offer available. Out of the five banks with an offering, three advisors discouraged an investment in sustainable investment products. This was due to two reasons. The first one being that the bank currently had no sustainable funds on their "buying suggestion list". The advisor explained that advisors are only allowed to promote products that are preselected by the bank for active distribution in the branches. If there is no sustainable fund in the distribution portfolio, the bank can't offer advisory services on them, and they can't be purchased in the branch. This distribution practice was mentioned by two other banks as well to explain why the advisor could only offer a very limited number of sustainable investment products. The second reason to discourage an investment in sustainable investment products was based on the advisor's personal opinion and reasoning. In the following, I will present the central observations along the different investment motivations financial return, value alignment and impact. Overall, I observed that advisors don't differentiate between different sustainable investment product

objectives. During the appointment it seemed to be given that the customer expects market-rate financial performance without potentially controversial positions in the portfolio while simultaneously doing something good for the world. Rather than discussing the customers or the funds objectives in the appointment, the advisors judged the available sustainable investment products against all three dimensions and took non-sustainable products as a benchmark.

Products serving financial return motivations

In 2019, there were mixed perspectives on financial performance. Two bank advisors stated that the consideration of sustainability criteria does not influence the financial performance. Three advisors stated that sustainability and financial return do not generally contradict each other but they still gave the impression that customers must decide whether financial return or sustainability is more important to them. The advisors provided different arguments, for example, one advisor argued that the bank has just more experience with traditional investments, another advisor argued that performance depends on demand, and they expect the sustainability trend to be over soon, and one advisor said that while performance and sustainability don't contradict another, one would have to decide what's more important to oneself. Only one advisor said that traditional investments perform better than sustainable investments. This advisor explicitly said that sustainable investment products are a form of charity that still needs 15-20 years to mature and currently is of higher risk and lower return than conventional financial products. The remaining two banks did not provide any information about expected financial performance.

Products serving value alignment motivations

Generally, there was a reoccurring theme that "nothing bad" is included in a sustainable investment product. What classifies as good or bad was not discussed further. Two advisors argued that it is impossible to guarantee that "bad" companies are not in the portfolio due to a lack of transparency and one never knows what the fund manager decides to invest in. Yet with a closer look at the information material of the promoted products exclusion criteria were clearly defined. Another advisor stated that all funds offered by the bank fulfil certain ethical criteria for example that they don't invest in weapons. This applies for sustainable and non-sustainable investment funds. Subsequently, sustainable funds and non-sustainable are not very different according to the advisor. The advisor recommended to look at what companies are included in a conventional and a sustainable fund as one would then notice that these

companies do not really differ. The sustainable fund offered by this bank was an altered version of their most popular conventional fund. The sustainable fund followed the same strategy as their sister products but excluded some selected companies for ethical reasons. Consequently, the products seemed very similar.

Another observation were reoccurring religious themes. One advisor stated that the bank has noticed demand for sustainable investment products specifically in the Muslim community. Another bank offered a product based on Catholic values. In this case, it was the only sustainable investment product available at the bank. While religious products surely classify as sustainable investments as they consider more than financial criteria, offering a sustainable investment product based on religious values to a customer that did not provide information about their religious identity might be difficult as product criteria can vary widely. In the presented Catholic fund this meant for example the exclusion of anything related to stem cell research, abortion, and birth control. Such exclusion criteria are not among the common exclusion criteria like weapons or tobacco and highlight the need to transparently disclose investment criteria.

Products serving impact motivations

Regarding the impact of sustainable investment products, in 2019 no advisor could explain if and how sustainable investments influence real world business practices. No advisor was able to explain how exactly the presented product works or what defines what qualifies as investable. The advisors said that transparency is tremendously difficult considering how many actors are involved and that there is no supervisory institution in place that could guarantee any minimum standards. None of the advisors were able to name an institution or label that tests and certifies different sustainable products or enables comparison between product providers. This is a surprising observation considering that some advisors presented products which have been certified by external agencies that assess the products.

To summarize the findings from the first round, it seemed that the selection of the presented products was based on selections done by the bank. The advisors could only recommend products that are in the bank's preselected distribution portfolios. If there was no sustainable investment product in this portfolio, the advisor couldn't sell any sustainable investment products to the customer. This came as a surprise considering that these banks have issued a broad variety of products that are not available to customers. Banks use these lists to simplify

the selection process to give advisors the chance to know a few selected funds very well and be able to provide detailed information on them. Yet this significantly decreased the amount of funds to choose from especially since sustainable funds are only a fraction of the product portfolios if represented at all. Even if represented, the selection is unlikely to cover the variety of different objectives or risk profiles.

To conclude, from the eight tested banks five offered a sustainable fund to the customer. In four cases, the customer was able to choose between at least two products at different risk levels or with different sustainability strategies.

After the Introduction of the Regulation

The number of products offered in 2021 was significantly higher than in 2019. All advisors were able to make an offer classified under Article 8 SFDR and four advisors also made offers classified under Article 9. The advisors still appeared to work with preselected lists but had many more products to choose from. One advisor stated that the bank currently has eight funds on their recommendation list with the expectation that in the future all products available will be sustainable. Another advisor stated that the bank can offer a sustainable alternative at every risk level and for every investment objective. Still, only one bank explicitly asked what the investor considers sustainable or what motivates the investor to invest sustainably. Overall, the advisory process appeared very supply driven meaning in most cases it was about presenting what the bank offered instead of asking what the customer is looking for. While the advisors asked many questions on risk tolerance to select a suitable product, they didn't ask about sustainability preferences or motivations. In the following, I will present the findings of data collection round two in more detail. While the investment options available significantly increased, the provided information still varied.

Products serving financial return motivations

Regarding financial performance, two advisors stated that sustainable investment products do not perform as well as conventional financial products. One advisor claimed that sustainable investments underperform by 2-4% but this could change in the future. Another advisor said that sustainable investment products perform worse than conventional financial products as conventional financial products' main focus is to generate financial return. A third advisors claimed that there is no difference in performance but for their personal investments the advisor chose the non-sustainable options as he personally believed the non-sustainable

version to be a little bit more profitable. On the other side, there was also an advisor that stated that there are no performance differences and the advisor rather expected that sustainable investments will perform better in the future as the products consider sustainability risks. The remaining advisors stated that there are no financial performance differences between sustainable investment products and conventional financial products. While the study didn't focus on cost structures, in one bank it stood out that sustainable funds had an initial fee of 5% which the bank didn't have for non-sustainable funds. Keeping this in mind, the performance after costs of the presented sustainable investment products would be lower in comparison. However, no bank backed their statements by pointing at the actual performance of the presented products in comparison to alternative options but rather made generalized assumptions.

While there were mixed perspectives on financial performance, only one advisor discouraged an investment in sustainable investment products. The other advisors argued it is about personal preferences and picking a product that suits oneself.

Products serving value alignment motivations

Statements regarding exclusion criteria or what qualifies as investable remained vague. The less confident the advisor was about explaining sustainable investment processes, the more likely they referred to exclusion criteria. However, some advisors were aware of differences between investment strategies. For example, one advisor explained that ESG products are sometimes criticized because the portfolio includes companies that might not be considered sustainable by all investors. The advisor went on to explain that while such companies might be considered non-sustainable regarding environmental aspects, they might qualify for social reasons. Specialised portfolio managers make these decisions while taking a variety of aspects into account. In various cases, different advisors referred to the expertise and decision-making power of experts in the background.

Products serving impact motivations

In two out of the four cases that offered funds classified under Article 8 SFDR and funds classified under Article 9, the advisor explicitly explained differences between the two product categories. Both advisors used standardized material prepared by the bank to introduce sustainable investing and the bank's offering. The first bank described funds classified under Article 8 SFDR as funds that invest in sustainable companies and funds

classified under Article 9 SFDR as funds that invest in sustainable products. Sustainable companies are companies that have a good ESG performance in peer comparison. The advisor demonstrated this by comparing the ESG performance of the presented ESG fund with the ESG performance of the MSCI world. Investments in sustainable products were described as investments in mostly small and medium size companies that identified a problem, found a solution, and create an impact. Here, the advisor worked with specific examples that demonstrated the problem – solution – impact case. For the second bank, the advisor differentiated between ESG investing (Article 8 SFDR products) and impact investing (Article 9 SFDR products). ESG investing means filtering with ESG exclusion criteria and asking, "What do companies do?". Impact investing means filtering with impact criteria and asking, "What do companies impact?". In these two cases, the banks had observably engaged with the new regulation and took it into account for their distribution strategies.

In all other cases, regardless of whether Article 9 SFDR funds were available or not, the advisors did not discuss impact, impact mechanism or impact limitations at all. We specifically asked for engagement activities as it is a quite common strategy in terms of market share (GSIA 2020) and many of the tested organizations promote their investor activism efforts online. Yet only one advisor could provide information on engagement activities stating that the bank votes and engages on an organizational level for all funds and the client's fund selection won't affect shareholder activism involvement.

Similar to the first round of data collection 2,5 years prior, there was very little chance to compare products offered with those of other providers. If at all, the advisors could provide information on the product's strategy but not how to compare the sustainability performance to other products with a similar strategy or products from other providers. The advisors did not refer to any labels or measures for comparisons. Yet overall, the number of products to choose from significantly increased. In many cases, this allowed to choose sustainable investment products at different risk level and with different sustainability strategies. Sustainable investment products classified as Article 8 SFDR are widely available. Sustainable investment products with an impact objective as defined by Article 9 SFDR are still rarer to find.

Discussion

This paper studied the effects of the sustainable finance disclosure regulation (SFDR) on the availability and accessibility of sustainable investment products for retail investors through a mystery-shopping analysis. Prior to the introduction of the regulation, in three out of the eight tested banks there was no sustainable investment products available. Four banks offered products later classified under Article 8 SFDR and only one bank had products available later classified under Article 8 and 9 SFDR. In 2021 after the regulation came into effect, all tested banks had an offering classified under Article 8, but only four of these banks were able to also present a product classified under Article 9.

To study the accessibility beyond just the availability, the paper looks at financial advisors' recommendations and outlooks related to the investment motivations financial return, value alignment and impact. I take an institutional logic perspective to examine how advisors make sense of their involvement in institutional complexity. The data collection showed that many advisors struggle with the complexity of products and lack knowledge about sustainable investments. As a result, we saw that prior to the introduction of the regulation despite already at the time strong proof that sustainable investment products are equally well performing as conventional investments (Friede et al. 2015; Revelli & Viviani 2015) financial advisors were hesitant to recommend sustainable investment products due to performance doubts. Financial advisors also struggled with the uncertainty if sustainable investment products meet customers' value expectations. Rather than communicating products defined exclusion criteria and asking the customer for compatibility, the advisors were vague about products ambitions and made subjective judgements. Furthermore, the advisors could not provide information on if and how sustainable investment products make an impact. As a consequence, out of the five banks with an offering, three banks advised against an investment in sustainable investment products, thereby further limiting accessibility.

I specifically searched for symbolic boundaries (Lamont 2001) that led the advisors to question the compatibility of market logic characteristics and social welfare logic characteristics. The goal was to identify practices of boundary blurring and boundary building. Boundary blurring means an advisor's efforts to combine market and welfare logic, while boundary building refers to sharp distinction between the logics. One observation in 2019 was that advisors have less control about the selection process than one might assume. Banks drastically limit the availability of sustainable investments by (partly or fully)

excluding them from their product portfolios and thereby withdraw the advisor from the position of decision making. Instead, banks have teams of investment experts constructing on an ex-ante basis a portfolio of products that cover different needs of retail investors, in terms of investment horizon, objectives, and risk tolerance (European Commission 2018). The main role of the advisors is to choose products from this limited portfolio which they consider most suitable for the specific investor. If no suitable sustainable investment product is represented in the portfolio, the advisor can't sell it to the investor.

A second overarching limitation prior to SFDR introduction, this time mostly affecting the accessibility of sustainable investment products, was the advisors' struggles with product complexity. The data collection showed that many financial advisors personally struggle with the complexity of products and lack knowledge about sustainable investments. As a result, they mix and confuse expectations and misunderstand product strategies which leads them to be hesitant about recommending sustainable investment products. Financial advisors can only fulfil their role as market coordinators and help investors pick the most suitable product if they fully understand the product. The advisor must be able to trust the product provider when recommending it to a customer or they risk harming the relationship with the client. Ethical expectations significantly increase the risk for the advisors compared to conventional investments. If a financial advisor sells a sustainable investment product that turns out to implement sustainability differently from what the customer expects, then the customer loses trust and will avoid further investments. As none of the advisors knew how asset managers combine the welfare and market logic on a technical level, they were unable to communicate their personal impression of how successful such sustainability implementations in the financial market are. This caused them to build boundaries between the familiar financial market logic and the unfamiliar welfare logic. It was rather about the fact that something unknown entered the square than that sustainability itself is problematic in a market logic driven environment. As a precautionary measure the advisors hold back from communicating about sustainable investments. This observation aligns with the results of previous studies (Paetzold et al. 2015). The preselected product portfolios also seem to further limit the advisors' knowledge as the advisor is not required to actively watch the market and deal with upcoming trends and new products. This preselection process takes away the personal responsibility to decide whether a product can be recommended or not and therefore also the necessity to engage with products in more detail. At this stage, the advisors are not actually engaging with the clash between two conflicting logics. The boundary building is not caused

by the personal perception of incompatibility of market logic and welfare logic but by the inability to face the institutional complexity in general.

The measures introduced by SFDR have great potential to remove this obstacle. By requiring investment advisors to ask about and then respond to retail investors' preferences about the sustainable impact of their investments, the advisors are forced to face the institutional complexity. By making it a routine component of financial consultations, advisors are eventually compelled to take a position by either blurring or building boundaries between the welfare and market logic. This led to several changes as I will show now.

In 2021 after the SFDR came into effect, the preselection portfolios are still present. However, the number of sustainable investment products available in the portfolios has significantly increased. All tested banks were able to make a sustainable investment offering. Yet only four out of these banks had products classified under Article 8 SFDR and Article 9 SFDR available. This implies that customers with impact motivations would not have been able to access a suitable sustainable investment product at the remaining banks. Availability of sustainable investment therefore remains limited. Still, the overall increased number of products available including at different risk levels and with choices between different exclusion criteria has drastically increased.

The accessibility has also evolved over the 2,5 years between the data collection rounds. However, doubts about the financial performance persisted. Despite prominent advertisement by the banks at an organizational level that customers can do well while doing good, the advisors remained skeptical. This was rarely based on specific examples or reasoning but rather based on the feeling that every investment option would be a sustainable investment if sustainable investments would be equally well performing. There was also the impression that traditional investments have the capacity to fully focus on generating returns while sustainable investments have a variety of objectives that might be contradicting which demonstrates a great example of institutional complexity. Rather than engaging in the complexity and blurring boundaries by considering synergies, the advisors block out social welfare drivers and highlight their perceived incompatibility with market logic objectives. Beyond the effects of such statements on the customer's confidence in sustainable investing, the statements also mess with the product selection process. The customer might go forward with their investment due to primary value alignment or impact motivations but will still

likely be offered a sustainable investment product classified under Article 8 SFDR simply because other sustainable investment products are not available at the bank, or the advisor has trouble telling different product objectives apart. Yet Article 8 SFDR is a classification for products considering sustainability risk with the ambition to eliminate risk and increase financial performance. Advisors that can't grasp the difference between Article 8 SFDR and Article 9 SFDR are unable to match a customer with the right product. Value expectations also remained largely unconsidered by advisors and regardless of whether Article 9 SFDR funds were available or not, the advisors did not discuss impact, impact mechanism or impact limitations. While the availability increased, the accessibility is still limited.

The central remaining barrier in 2021 after SFDR came into effect is a lack of exploration why investors are interested in sustainable investment products. Similar to asking an investor about their investment horizon and risk tolerance, advisors should ask investors about their investment objectives regarding sustainability. Exploring this interest would underline the differences in motivations and allow advisors to pick a suitable product. At this point, motivations are largely ignored, and expressions of the investor's motivation had very limited impact on the sustainable investment products proposed to the investor. Furthermore, the shoppers often did not receive detailed information and formal documentation regarding products (e.g., brochures). Also, the documentation provided is not systematically transparent making it hard to compare products from different providers and to independently gather information. In addition to the inherent complexity, the way how sustainability information is displayed requires investors to gather information from different documents and independently look up information on the organizations' website. The way information is displayed online as well in printed material is also quite inconsistent across distributors.

The findings make two contributions to the literature. First, I contribute to the literature on the barriers to mobilizing private capital for sustainable development. With a 2.5 trillion yearly funding gap for the United Nation's Sustainable Development Goals (UNCTAD 2014; United Nations 2022) mobilizing private capital is essential to achieving a sustainable future. I show that SFDR as a regulatory intervention affects distribution procedures by making more sustainable investment products available which supports the flow of private capital into sustainable development. I also provide insights into the remaining barriers including great discrepancies in availability of products serving different sustainable investment motivations. The availability of Article 9 products serving impact motivations strongly lacks behind the

availability of Article 8 products. Effectively mobilizing private capital for sustainable development will require that investors with impact motivations are able to access impact products. This is not currently the case.

Second, I contribute to the literature on sustainable investment motivations by showing that market coordinators severely struggle to differentiate between impact, return and value alignment motivations. Prior research has demonstrated investors' struggles with sustainable finance literacy and thereby highlighted the need for professional guidance and support (Filippini et al. 2021). In addition, a body of literature explored the different investor motivations (e.g. Hafenstein & Bassen 2016; Heeb et al. 2022; Paetzold et al. 2022; Riedl & Smeets 2017) and SFDR set out clear rules for labeling products to make product objectives more transparent and enable comparability (Recital (9) SFDR). Yet as this paper shows, financial advisors struggle to fulfill their role as market coordinators due to difficulties in telling sustainable investment motivations apart. While advisors perform extensive checks on investors' risk tolerance, sustainable investment motivations are rarely explored and do not inform the decision which sustainable investment product the advisor offers a client. Even if products for all investor motivations are available, advisors do not necessarily match clients with products that align with their motivation. This is problematic for several reasons. First and foremost, it is flawed financial advice which hinders investors from pursuing their investment goals for which they sought financial advice in the first place. Second, it hinders capital flows into the intended areas which could limit sustainable investors' ability to contribute to sustainable development. Third, it might result in customer dissatisfaction which could affect the reputation of sustainable investment products and result in investors withholding future investments.

Limitations

I acknowledge certain limitations to the study and research approach. While SFDR was a central regulatory change between the first and second round of data collection, there are a variety of other factors that likely had an impact on the market environment and influence on product availability and accessibility ranging from a general maturing of the market to increased popularity of sustainability more broadly. Furthermore, there are some limitations in the nature of the methodology. The information gathered during the mystery-shopping process are not fully objective. Nuances in mystery shoppers' individual judgement, way of asking questions, personality, or interaction with the advisor will necessarily influence results.

Similarly, advisors' individual daily performance, personal circumstances or experience will impact the outcome. Also, the limited amount of time available for the interaction with the advisor, in most cases an hour, makes it difficult to capture all features of the advice. If additional appointments were offered to go into detail, they were accepted by the mystery shopper. All questions asked by the advisor, before or during the appointment were answered. While many banks asked for some information prior to the consultation to prepare accordingly, no bank asked for sustainability preferences in advance. In the research setup, the banks were free to choose the advisor that would take over the appointment and we welcomed any additional appointments with specialists or further preparation.

Future Research

I encourage further research in other Member States in which SFDR applies. Furthermore, in addition to research done on the sustainable finance literacy of investors (Filippini et al. 2021), I encourage scholars to look at the sustainable finance literacy of advisors and financial professionals more broadly. I also encourage research that pays close attention to the different investment motivations including investors' willingness to pay for their preferences and the influence of motivations on investment selection.

Conclusion

My results show that between 2019 and 2021 with the introduction of the Sustainable Finance Disclosure Regulation the availability of sustainable investment products has significantly increased. However, the accessibility especially of Article 9 products remains low. Advisors are hesitant about recommending sustainable investment products due to struggles with product complexity and lack of confidence in sustainable investment products. Advisors are uncertain whether the available products meet investors sustainability expectations but simultaneously fail to explore investors motivations to invest sustainably. This points to the importance of being clear about and asking for investors' sustainable investment motivations to effectively channel private capital into sustainable development.

References

Atz U, Liu JZ, Bruno C, Van Holt T. 2021. Does Sustainability Generate Better Financial Performance? Review, Meta-analysis, and Propositions. *SSRN Work. Pap.*

Aupperle KE, Carroll AB, Hatfield JD. 1985. An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability. *Acad. Manage. J.* 28(2):446–63

Bebchuk LA, Brav A, Jiang W, Keusch T. 2020. Dancing with Activist. *J. Financ. Econ.* 137(1):1–41

Berg F, Kölbel JF, Rigobon R. 2022. Aggregate Confusion: The Divergence of ESG Ratings. *Rev. Finance*. (ID 3438533):

Binder A. 2007. For love and money: Organizations' creative responses to multiple environmental logics. *Theory Soc.* 36:547–71

Busch T, Bruce-Clark P, Derwall J, Eccles R, Hebb T, et al. 2021. Impact investments: a call for (re)orientation. *SN Bus. Econ.* 1(2):33

Colonnello S, Curatola G, Gioffré A. 2019. Pricing sin stocks: Ethical preference vs. risk aversion. *Eur. Econ. Rev.* 118:69–100

Dimson E, Karakaş O, Li X. 2015. Active Ownership. *Rev. Financ. Stud.* 28(12):3225–68

Douglas J, Douglas A. 2015. Mystery Customers: An Evaluation of their use as Service Performance Monitors. *ResearchGate*. https://www.researchgate.net/publication/275950624_Mystery_Customers_An_Evaluation_of_their_use_as_Service_Performance_Monitors

European Commission. 2018. Distribution systems of retail investment products across the European Union

European Securities and Markets Authority. 2020. ESMA Strategic Orientation 2020-22. 9 January 2020, ESMA22-106-1942)

Filippini M, Leippold M, Wekhof T. 2021. Sustainable Finance Literacy and the Determinants of Sustainable Investing. *Swiss Finance Inst. Res. Pap. No 22-02*

Finn A, Kayande U. 1999. Unmasking a phantom: A psychometric assessment of mystery shopping. *J. Retail.* 75(2):195–217

Friede G, Busch T, Bassen A. 2015. ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *J. Sustain. Finance Invest.* 5(4):210–33

Friedland R, Alford R. 1991. Bringing society back in: Symbols, practices, and institutional contradictions. In *In W. Powell & P. DiMaggio (Eds.)The New Institutionalism in Organizational Analysis*, Vols. 232–263. Chicago, IL: University of Chicago Press

Gabriel K. 2014. Ethik in der Geldanlage: Grundlagen, Kriterien und Herausforderungen. In *Nachhaltige Geldanlagen - Produkte, Strategien Und Beratungskonzepte*, eds. M Faust, S Scholz. Frankfurt am Main. 2nd ed.

Girerd-Potin I, Jimenez-Garcès S, Louvet P. 2013. Which dimensions of social responsibility concern financial investors? *J. Bus. Ethics*. 121(4):559–76

Glynn MA, Lounsbury M. 2005. From the Critics' Corner: Logic Blending, Discursive Change and Authenticity in a Cultural Production System. *J. Manag. Stud.* 42(5):1031–55

Greenwood R, Diaz AM, Li SX, Lorente JC. 2010. The multiplicity of institutional logics and the heterogeneity of organizational responses. *Organ. Sci.* 21(2):521–39

Greenwood R, Raynard M, Kodeih F, Micoletta ER, Lounsbury M. 2011. Institutional complexity and organizational responses. *Acad. Manag. Ann.* 5(1):317–71

Griffin JJ, Mahon JF. 1997. The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research. *Bus. Soc.* 36(1):5–31

GSIA. 2020. Global Sustainable Investment Review 2020

Hackethal A, Haliassos M, Jappelli T. 2012. Financial advisors: a case of babysitters? *J. Bank. Finance*. 36(2):509–24

Hafenstein A. 2015. *Nachhaltigkeitsinformationen in Der Anlageentscheidung - Eine Analyse Der Nicht-Professionellen Anleger*. Springer Gabler

Hafenstein A, Bassen A. 2016. Influences for using sustainability information in the investment decision-making of non-professional investors. *J. Sustain. Finance Invest.* 6(3):186–210

Hallett T, Ventresca MJ. 2006. Inhabited institutions: Social interactions and organizational forms in Gouldner's Patterns of industrial bureaucracy. *Theory Soc.* 35:213–36

Heeb F, Kölbel JF, Paetzold F, Zeisberger S. 2022. Do Investors Care About Impact? *Available SSRN Httpspaperssrncomsol3paperscfmabstractid3765659*

Hirschmann AO. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Harvard University Press: Cambridge, MA

Hockerts K, Moir L. 2004. Communicating Corporate Responsibility to Investors: The Changing Role of Investor Relations Function. *J. Bus. Ethics*. 52(1):85–98

Hummels H, Timmer D. 2004. Investors in need of social, ethical, and environmental information. *J. Bus. Ethics*. 52(1):73–84

Kölbel JF, Heeb F, Paetzold F, Busch T. 2020. Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact. *Organ. Environ.* 33(4):554–74

Kraatz MS, Block ES. 2008. Organizational implications of institutional pluralism. In *R. Greenwood, C. Oliver, R. Suddaby, & K: Sahlin-Andersson (Eds.), The Sage Handbook of Organizational Institutionalism*, p. pp.243-275. London: Sage

Lamont M. 2001. Symbolic boundaries. In *In N.J. Smelser & P.B. Baltes (Eds.), International Encyclopedia of Social and Behavioral Sciences (Pp.15341-15347)*. London: Pergamon Press

Lewis A. 2001. A focus group study of the motivation to invest: "ethical/green" and "ordinary" investors compared. *J. Socio-Econ.* 30(4):331–41

Lounsbury M. 2007. A tale of two cities: Competing logics and practice variation in the professionalizing of mutual funds. *Acad. Manage. J.* 50(2):287–307

Mangot M, Baadj S, Dubois C, Santacruz T, Koch NS. 2022. Please Don't Let Them Be Misunderstood! 2° Investing Initiative

Marquis C, Lounsbury M. 2007. Vive la Résistance: Competing Logics in the Consolidation of Community Banking. *Acad. Manage. J.* 50:799–820

Martenson R. 2008. How financial advisors affect behavioral loyalty. *Int. J. Bank Mark.* 26(2):119–47

Nilsson J. 2009. Segmenting socially responsible mutual fund investors: the influence of financial return and social responsibility. *Int. J. Bank Mark.* 27(1):5–31

Nilsson J, Nordvall A-C, Isberg S. 2010. The information search process of socially responsible investors. *J. Financ. Serv. Mark.* 15(1):5–18

Niszczota P, Białek M. 2021. Women oppose sin stocks more than men do. *Finance Res. Lett.* 41:101803

Pache A-C, Santos FM. 2013. Inside the Hybrid Organization: An Organizational Level View of Responses to Conflicting Institutional Demands. *ID 2328257*, Social Science Research Network, Rochester, NY

Paetzold F, Busch T, Chesney M. 2015. More than money: exploring the role of investment advisors for sustainable investing. *Soc. Responsib.* 1(1):195–223

Paetzold F, Busch T, Utz S, Kellers A. 2022. Between impact and returns: Private investors and the sustainable development goals. *Bus. Strategy Environ.*

Peifer J. 2014. The institutional complexity of religious mutual funds: Appreciating the uniqueness of societal logics. *Res. N Sociol. Organ.* 41:339–68

Pilaj H. 2015. The Choice Architecture of Sustainable and Responsible Investment: Nudging Investors Toward Ethical Decision-Making. *J. Bus. Ethics*. 140(4):743–53

Reay T, Hinings CR. 2009. Managing the Rivalry of Competing Institutional Logics. *Organ. Stud.* 30(6):629–52

Revelli C, Viviani J-L. 2015. Financial performance of socially responsible investing (SRI): what have we learned? A meta-analysis. *Bus. Ethics Eur. Rev.* 24(2):158–85

Riedl A, Smeets P. 2017. Why do investors hold socially responsible mutual funds? *J. Finance*. 72(6):2505–50

Risi D. 2017. Understanding Financial Intermediaries' Hesitation about Socially Responsible Investing - A Qualitative Investigation of Swiss Banks and Insurance Firms. *Acad. Manag. Proc.*

Risi D. 2018. Time and Business Sustainability: Socially Responsible Investing in Swiss Banks and Insurance Companies. *Bus. Soc.* 0007650318777721

Rowley T, Berman S. 2000. A Brand New Brand of Corporate Social Performance. *Bus. Soc.* 39(4):397–418

Schäfer H. 2005. Wie nachhaltig ist die nachhaltige Geldanlage in Deutschland? *Z. Für Kreditwes.* Jg. 58(11):558–62

Schäfer H. 2009. Verantwortliches Investieren: Zur wachsenden ökonomischen Relevanz von Corporate Social Responsibility auf den internationalen Finanzmärkten. In *Corporate Social Responsibility auf dem Finanzmarkt: Nachhaltiges Investment — politische Strategien — ethische Grundlagen*, eds. G Ulshöfer, G Bonnet, pp. 64–80. Wiesbaden: VS Verlag für Sozialwissenschaften

Schneideberg M. 2007. What's on the path? Path dependence, organizational diversity and the problem of institutional change in the US economy 1900-1950. *Socio-Econ. Rev.* 5(47):80

Schrader U. 2006. Ignorant advice – customer advisory service for ethical investment funds. *Bus. Strategy Environ.* 15(3):200–214

SFDR. Regulation (EU) No 2088/2019 of the European Parliament and of the Council of 27 November 2019 on sustainably-related disclosures in the financial services sector

Shorrocks A, Davies J, Lluberas R. 2021. Global wealth report 2021

Smith WK, Gonin M, Besharov ML. 2013. Managing Social-Business Tensions: A Review and Research Agenda for Social Enterprise. *Bus. Ethics Q.* 23(3):407–42

Tedesco R, Brealey T, Valerius S, Saari SK. 2021. Less than 250 days to go - Are advisors ready for the MiFID and ESG challenge?

Thornton PH. 2002. The Rise of the Corporation in a Craft Industry: Conflict and Conformity in Institutional Logics. *Acad. Manage. J.* 45(1):81–101

UNCTAD. 2014. World Investment Report 2014 - Investing in the SDGs: An Action Plan. United Nations, New York/Geneva

United Nations. 2022. The Sustainable Development Agenda

van Beurden P, Gössling T. 2008. The Worth of Values – A Literature Review on the Relation Between Corporate Social and Financial Performance. *J. Bus. Ethics*. 82(2):407

von Lüde R. 2013. Anlageverhalten auf Finanzmärkten. *Wirtschaftsdienst*. 93(5):328–36

Widyawati L. 2020. A systematic literature review of socially responsible investment and environmental social governance metrics. *Bus. Strategy Environ.* 29(2):619–37

Wilson AM. 1998. The role of mystery shopping in the measurement of service performance. *Manag. Serv. Qual. Int. J.* 8(6):414–20

Zuber M. 2005. Rendite und Qualitätswahrnehmung: Eine Experimentelle Untersuchung zur Anlageberatung. In *Marketing Und Neue Institutionenökonomik, 1st Edition*, p. 244. Deutscher Universitätsverlag: Wiesbaden, Germany

Tables & Figures

Figure 1: Data Analysis

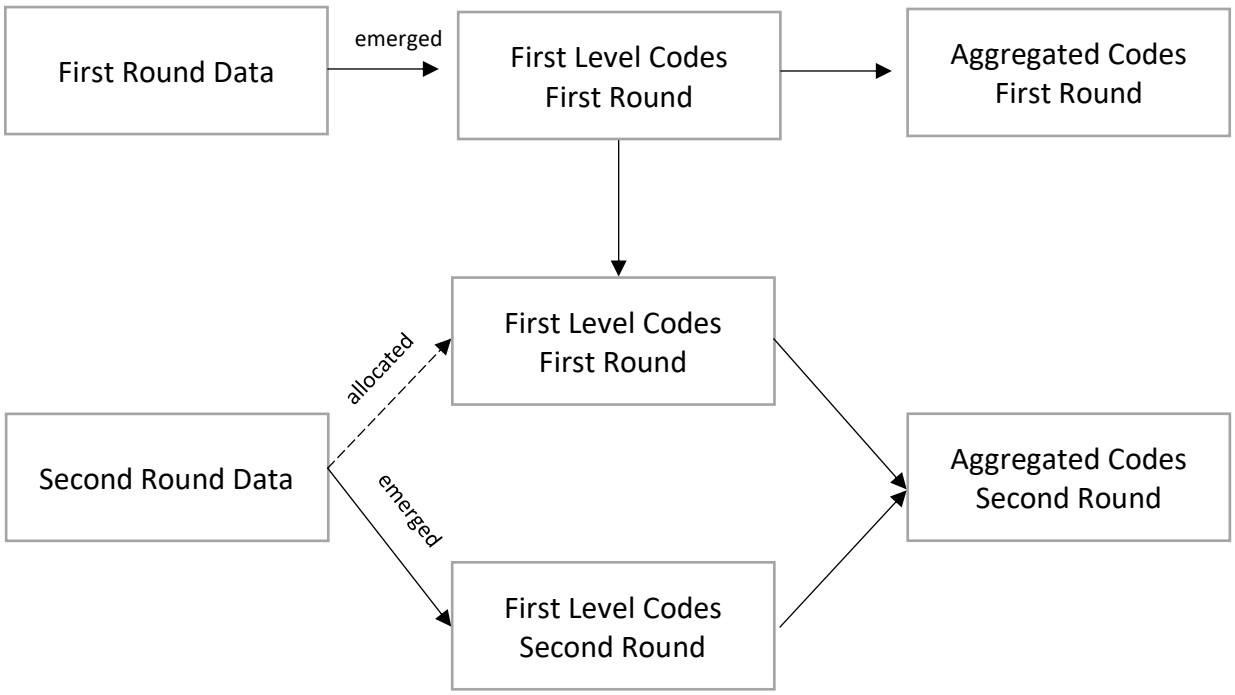
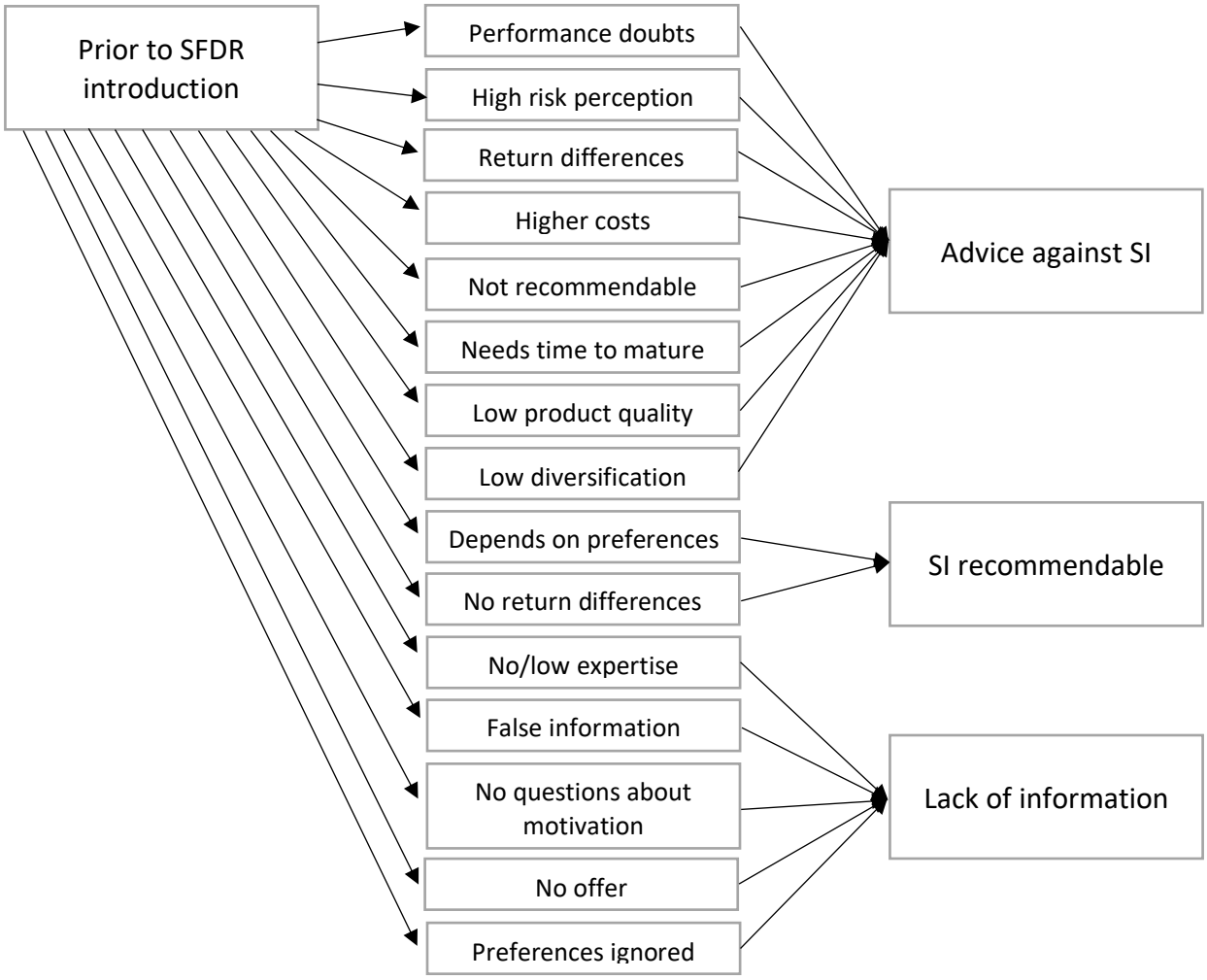
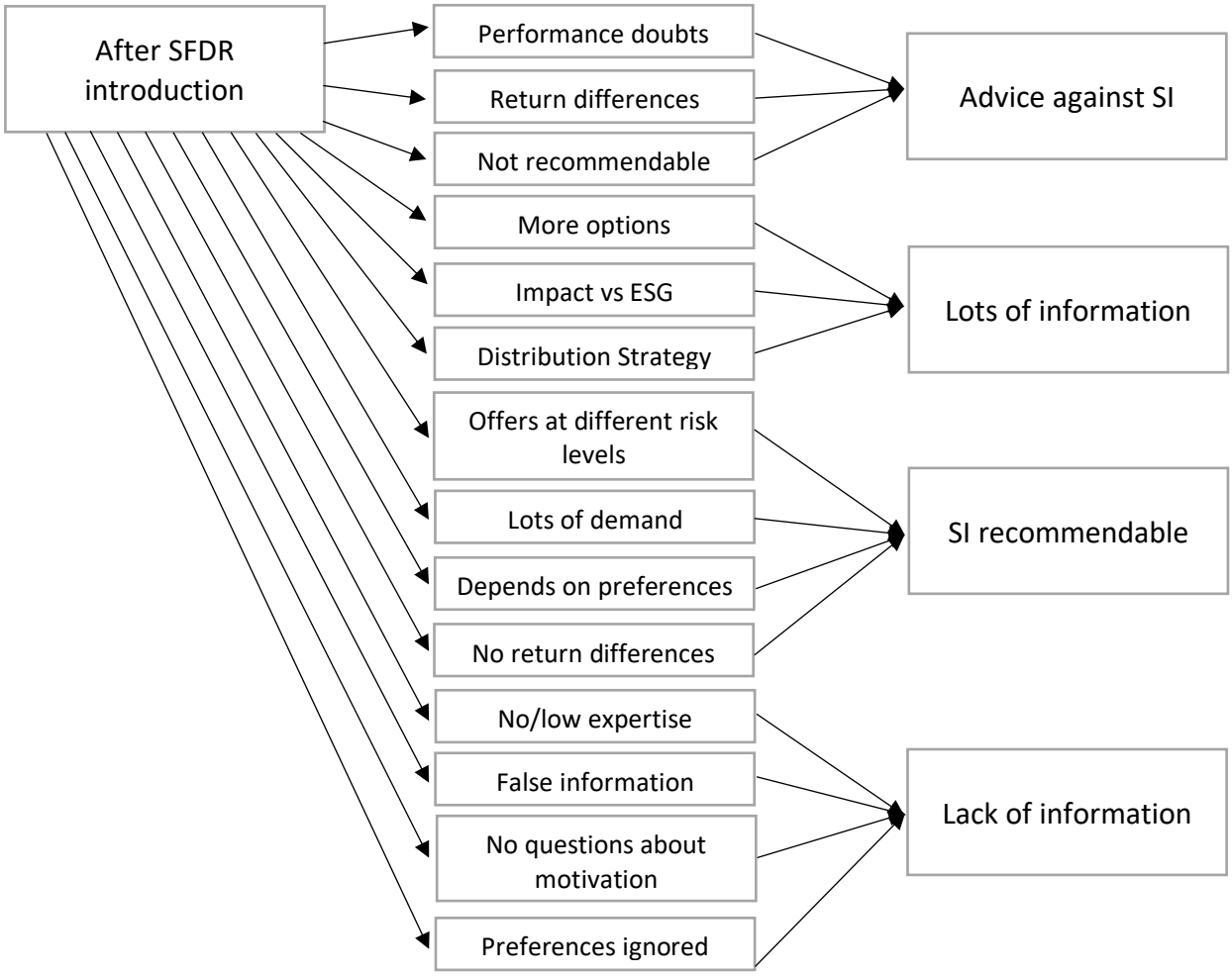


Table 1: Coding Tables

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Performance doubts
Return differences
Not recommendable
More options
Impact vs ESG
Distribution Strategy
Offers at different risk levels
Lots of demand
Depends on preferences
No return differences
No/low expertise
False information
No questions about motivation
Preferences ignored
Advice against SI
Lots of information
SI recommendable
Lack of information

Annex 3: Third Research Paper

Investors pushing for sustainability: How firms assess the urgency of stakeholder requests

Abstract

Urgency, along with power and legitimacy, is one of the key determinants of stakeholder salience and is at the core of the question when and how firms respond to stakeholder requests. Despite its central role in stakeholder theory, urgency and its effects on firms' responses are poorly understood. In the context of sustainable investing, we study how firms evaluate the urgency of investors' ESG requests and how their assessment affects their responses. We conduct a total of 40 interview with IR professionals, sustainability officers and board members which show that firms perceive and respond differently to different levels of urgency. By unpacking the concept of urgency, we identify the criticality of the request to the stakeholder as the key determinant of urgency. Time sensitivity of requests increases the level of urgency, but criticality is the necessary condition for urgency to arise. We contribute to stakeholder theory by being the first study that analyzes urgency, the role of its underlying attributes and their relationship to another. In addition, we contribute to the literature on the impact of sustainable investing by showing that investors need to put their key resources (i.e., money) behind their ESG requests, to convince firms to do the same

Keywords: Stakeholder theory, urgency, sustainable investing, impact, interviews

Introduction

Determining who and what really counts is one of the key problems in stakeholder theory (Driscoll and Starik 2004; Jones, Felps, and Bigley 2007; Neville, Bell, and Whitwell 2011; Neville and Menguc 2006; Parent and Deephouse 2007). According to the seminal paper by Mitchell, Agle, and Wood (1997), the central concept in this problem is stakeholder salience, which is in turn determined by power, legitimacy, and urgency. While power and legitimacy have been studied extensively in prior and subsequent work, urgency remains the least understood of the three underlying attributes (Neville et al. 2011; Parent and Deephouse 2007). This is a problem, because determining which issues have the greatest urgency, and how to respond to them, is a continuous challenge in stakeholder management. In fact, urgency looms large for an entire literature stream that investigates when and how firms respond to different stakeholder requests (Bundy, Shropshire, and Buchholtz 2013; Crilly, Zollo, and Hansen 2012; Durand, Hawn, and Ioannou 2019; Oliver 1991).

Scholars often define urgency based on its dictionary definition as "calling for immediate attention" or "pressing" (Magness 2008; Myllykangas, Kujala, and Lehtimäki 2011). Yet according to the original definition, urgency has two attributes: "(1) time sensitivity – the degree to which managerial delay in attention to the claim or relationship is unacceptable to the stakeholder, and (2) criticality – the importance of the claim or the relationship to the stakeholder" (Mitchell, Agle, and Wood 1997:867). Thus, for a stakeholder request to have urgency, it must not only be urgent in the temporal sense, but the request also needs to be important to the stakeholder. Knowing whether a request is indeed important to a stakeholder seems essential, since a stakeholder will only leverage its resources to reward or sanction a firm's response when the issue at stake has high criticality for the stakeholder itself. This begs the question: how do firms evaluate urgency?

In this paper, we study how firms assess the urgency of stakeholder requests and how their assessment affects their responses. We choose an empirical context where power and legitimacy are given, but variations in urgency are expected: Sustainable investing. Sustainable investing refers to a rapidly growing investment approach where investors integrate firms' environmental, social, and governance (ESG) performance in their decision-making. Currently, investors representing over 110 trillion USD have signed up to the United Nation's Principles for Responsible Investing (PRI 2021). ESG investors are powerful and legitimate stakeholders (Berman et al. 1999) that have a large variety and number of requests

to firms regarding their ESG performance. Yet the urgency of these requests is uncertain. For example, in their 2020 annual report, DWS says that more than half of its assets under management - €459 billion, equivalent to $540 billion - are invested according to an ESG consideration process (DWS 2020). Yet an internal assessment and whistleblowing activities revealed that actually only a fraction of DWS' assets under management are subject to such a process (Kowsmann and Brown 2021; Miller et al. 2021; Walker and Miller 2022). While the asset manager claims that they "have placed [ESG] at the heart of everything [they] do", their former sustainability chief says "the firm [has] no clear ambition or strategy [and] lack[s] policies" (Kowsmann and Brown 2021). A police raid in DWS' Frankfurt office in response to the greenwashing claims and the resignment of the CEO substantiated the allegations (Steinberg and Frankl 2022; Walker and Miller 2022). In consequence, DWS' investees have reason to question the urgency of DWS' ESG requests, both in terms of time sensitivity and criticality.

The paper performs an analysis of interviews with publicly listed firms to understand how firms assess the urgency of investors' ESG requests and how variations in urgency affect firms' responses to investor requests. Our analysis leads to three important insights. First, we show that firms perceive and respond differently to different levels of urgency. This supports the theoretical relevance of urgency. Second, we demonstrate that criticality is a necessary condition for urgency to arise. Time sensitivity increases the level of urgency but there is no urgency without criticality. Third, we find that urgency, and especially criticality, has an important influence on whether firms respond symbolically or substantially.

Our findings contribute to the literature in two ways. First, we contribute to the literature on stakeholder salience by unpacking the concept of urgency and how it affects firms' responses. Urgency has two dimensions, time sensitivity and criticality. Our findings suggest that these two dimensions are not equally important but that there is a hierarchical relationship between the two. While scholars refer to time sensitivity more frequently, our findings suggest that the criticality of the request is the primary determinant of urgency. Criticality means that the stakeholder has a genuine interest in their request being adopted. Requests that are not critical to the stakeholder do not have future implications for the firm as the request is not supported by the stakeholder's internal processes. Stakeholders will not sanction or reward responses to requests that never mattered to them. The firm's response to a non-critical request is irrelevant to the stakeholder. This implies that requests that are not critical cannot be urgent. Criticality is thus a necessary condition for urgency. Only after there is certainty about the criticality of

the request, firms consider the timeline by when a response is expected. Simply said, firms do not worry about deadlines for requests that they do not consider critical enough to respond to. Yet once a request is considered critical, a deadline by when a response is expected can increase the urgency. This indicates that time sensitivity depends on criticality.

Second, we contribute to the literature on the impact of sustainable investing on firms. There are different impact mechanisms, but the level of evidence for their effectiveness varies (Kölbel et al. 2020). Shareholder engagement is relatively well understood (Ferraro and Beunza 2018). Corporate responses to ESG ratings are ambivalent (Chatterji and Toffel 2010; Slager and Gond 2022), in part because there are multiple and inconsistent ESG ratings. The effect of index inclusion/deletion and divestment is so far not detectable (Durand, Paugam, and Stolowy 2019; Hawn, Chatterji, and Mitchell 2018). Meanwhile, theory in financial economics predicts that a large fraction of investors with preferences for sustainability should create incentives for firms to improve their sustainability performance (Pástor, Stambaugh, and Taylor 2021). We offer an analysis of the effects of sustainable investing from the firm's perspective, explaining how firms deal with the direct and indirect requests they receive through various mechanisms ranging from ESG integration to formalized engagement. We suggest that shareholder engagement is effective because it is resource intensive and thereby demonstrates criticality. Divestment is perhaps more effective than previously thought because even without an immediate price effect, it demonstrates to firms that ESG requests are so critical that investors escalate for ESG reasons. Approaches such as ESG integration could be much more effective if investors would communicate to firms which metrics count for them and follow through with their buying and selling decisions. In a nutshell, we suggest that investors need to put their money where their mouth is, to convince firms to do the same.

The Role of Urgency in Stakeholder Salience

Firms give priority to the requests of salient stakeholders (Mitchell et al. 1997). The degree to which firms pay attention to stakeholder requests is defined by the stakeholder's power to influence the firm, the legitimacy of the stakeholder's relationship with the firm, and urgency of the stakeholder's request (Agle, Mitchell, and Sonnenfeld 1999; Mitchell et al. 1997).

Scholars often define urgency based on its dictionary definition as "calling for immediate attention" or "pressing" (Chen, Dyball, and Harrison 2019; Magness 2008; Myllykangas et al. 2011). Mitchell et al. (1997) refer to this definition as well but add that time sensitivity is not sufficient to identify a stakeholder's claim as urgent. It is essential that the stakeholder also

views its claim on the firm as important or critical (Mitchell et al. 1997). While power and legitimacy have been well studied by stakeholder theorists, we know little about urgency, its attributes and how they affect stakeholder interactions (Neville et al. 2011). Despite efforts to further develop the initial power, legitimacy, urgency framework or attempts to questions its central assumptions (Driscoll and Starik 2004; Eesley and Lenox 2006; Jones et al. 2007; Neville et al. 2011; Neville and Menguc 2006; Parent and Deephouse 2007) researchers commonly refer to the original conceptualizations (e.g. Lotila 2010; Menguc, Auh, and Ozanne 2010; O'Higgins 2010).

Different researchers have helped to provide a deeper understanding of the original attributes (Driscoll and Starik 2004; Eesley and Lenox 2006). We ran a scopus search to systematically look for publications focusing on urgency after its initial introduction by Mitchell, Agle and Wood (1997).[4] This led to the identification of 183 publications. Part of this work has emphasized the distinction between the urgency of the stakeholder and the urgency of the claim (Eesley and Lenox 2006). On a similar note, scholars have highlighted that urgency is relevant for prioritizing stakeholder claims but irrelevant for the identification of stakeholders (Neville et al. 2011). This distinction supports our framing in which relevant stakeholders can raise irrelevant claims.

Beyond the questions of the subject of urgency, the role of urgency for determining salience has been controversially debated. While Agle et al. (1999) suggested that "urgency is the best predictor of salience" (Agle et al. 1999:520), Neville et al. (2011) and Parent and Deephouse (2007) suggest that little attention is paid to claimants possessing only urgency. We could identify only one paper that took a closer look at the underlying attributes of urgency and their role in determining whether urgency is present in the first place (Mitchell et al. 2011). The paper concludes that in its empirical context, urgency only occurs in one of four situations, where time sensitivity and criticality are both present (Mitchell et al. 2011). However, the paper goes on highlighting that in its empirical case most claims that are critical are also time-sensitive making it a semi-ideal setting to study the four scenarios.

This encouraged us to take a more detailed look at the two attributes of urgency, the work that has been done to assess them and how they trigger responses in firms. The first attribute, criticality, describes the "importance of the claim or the relationship to the stakeholder"

[4] We looked for all papers citing Mitchell, Agle, Wood (1997) and mentioning urgency in the title, abstract or key words while limiting our search to publications in the subject areas of "social sciences", "business, management and accounting", "economics, econometrics and finance", and "decision science".

(Mitchell et al. 1997:867). This definition essentially points to the likelihood of the stakeholder leveraging their power and resources to reward or sanction the firm's response. Durand, Hawn, and Ioannou (2019) suggest that firms undertake a cost-benefit calculation. In short, their model takes a resource-based view (Barney 1991; Penrose 1959; Peteraf 1993) which predicts that managers consider the cost of responding in relation to the potential rewards that come with a response and the potential sanctions that come with a non-response, or an unsatisfying symbolic response. Crucially, stakeholder rewards and sanctions lie in the future and are uncertain. This means that managers need to predict whether stakeholders will utilize resources to monitor the firm's response, and to reward or sanction it. Criticality offers a powerful basis for such a prediction. Criticality is a central determinant of the stakeholder's reward or sanction and thereby plays a crucial role in firms' cost-benefit calculations.

While criticality defines whether the stakeholder will reward or sanction the firm's response to their request, time sensitivity defines when the stakeholder will do so. Time sensitivity is defined as the "degree to which managerial delay in attending to the claim or relationship is unacceptable to the stakeholder" (Mitchell et al. 1997:867). The challenge is that temporal perceptions are subjective (Mosakowski and Earley 2000). Scholars even noted that differences in the evaluation of time sensitivity could explain managerial errors in evaluating salience (Neville et al. 2011).

Taken together, it seems important that firms assess both criticality and time sensitivity to develop a sense of the likelihood and timing of potential sanctions. Yet there is no empirical work on whether and how firms undertake such assessments. Beyond that, it is uncertain how the assessment of one attribute affects the other and how they individually or in combination impact the level of urgency. It is unclear whether the two attributes are equally important for the assessment of urgency or whether one depends on the other. To understand how firms evaluate urgency, we need to develop a better understanding of the underlying attributes, how they are assessed and how they are in relation to another.

Data and Method

Given the meteoric rise of sustainable investing, the ESG requests of shareholders present an ideal setting to study the role of urgency empirically. Shareholders are a very powerful stakeholder group as they have some legal authority over the firm and the ability to influence the firm's behavior, direction, and outcomes (Berman et al. 1999; Savage et al. 1991).

Shareholders' requests are also legitimate as investors are the ultimate owners of the corporation. Yet there is likely to be variation in the urgency of shareholder requests.

Shareholders may have urgent ESG requests. But shareholders may also raise requests because they themselves strive for legitimacy. Currently there are over 3400 asset managers, representing $110 trillion assets under management, that claim to invest with ESG considerations (PRI 2021). With most asset managers becoming PRI signatories, ESG has become a prerequisite in financial markets to maintain legitimacy. Investors may feel compelled by customers, clients, or partners to take part in ESG investing without actually transforming their internal practices.

We conducted interviews to gain detailed insights into how firms evaluate the urgency of investors' ESG requests. Because of the nascent nature of theory in the context of urgency assessment, it is necessary to take a qualitative approach that enabled us to pay attention to the details in interactions and the underlying thoughts of decision making processes (Edmondson and Mcmanus 2007). At the same time, ways to quantitively measure the impact of investors' processes on firms are scarce. In these circumstances, interviews allowed us to study the firms' perceptions and observations that lead to their evaluations and decision making.

Sampling Strategy and Data Collection

Our sampling strategy aimed at gathering information-rich data sources from which we can learn about issues of central importance to the purpose of the inquiry and that provide insights and in-depth understanding rather than empirical generalizations (Patton 2002). We use a purposeful sampling strategy which implies that the selection of data sources runs parallel to the data collection (Lincoln and Guba 1985). Simultaneously selecting and collecting the data increases the possibility of generating novel concepts and identifying theoretical relationships with information that either substantiates them or provides divergent examples (Nag and Gioia 2012).

Between June 2020 and March 2022, we collected 40 interviews with investor relations professionals, sustainability officers and board members of publicly listed firms in Europe and the United States. For our first round of interviews, we chose a theoretical sample focused on climate-relevant industries, as we expected an increased degree of confrontation by ESG investors. This namely included the automotive industry, energy utilities, oil and gas, industrial firms, mining, construction materials, and chemicals. Within these industries, we aimed to include firms with leader and laggard positions based on MSCI ratings to study

whether the kinds of requests firms receive differ based on the firm's current ESG performance.

After the first round of interviews, we noticed that many firms struggle to grasp what shareholders expect from them. In the second round, we decided to explore this deeper and increasingly focused on firms that have a weaker corporate sustainability performance or are in the process of figuring out how to navigate increasing requests, how to evaluate which request are relevant, who they should report to, what they should report about and where they need to improve.

In addition to conversations with firm representatives, we talked to 6 external experts and analysts covering the firms to be able to put the firms' statements and observations into perspective. Table 1 provides an overview of all our informants.

-- Table 1 about here --

The interviews followed a semi-structured approach. Broadly, they were conversations about the drivers of strategic change towards a more sustainable way of doing business and the realistic influence of investors in the greater process. Specifically, we discussed what requests firms receive from sustainable investors, how they evaluate the urgency of these requests, and how they respond to them. We asked how the firms experience investors' interest in ESG, in what way their interest affects the firms' daily business, and how it has changed over time. We discussed the overall relevance of the growing ESG investor segment for firms and how firms respond to and navigate requests. We asked about the circumstances that enable or inhibit the translation from request to action, the role of a potential ESG premium, and the role of the different dimensions of E, S and G.

As they took place from June 2020 to March 2022 during the COVID19 pandemic all interviews were conducted through online conferencing tools. Recordings started after an introduction round and interviewees were asked for permission to record and process the data. Most interviews included two interviewers from the research team, some interviews were conducted with just one interviewer being present. The recordings were transcribed using the software otter for interviews that were conducted in English, and the software sonix for any

other languages. We manually went through all transcripts to check for errors or correct transcription shortfalls. The transcripts were then imported and coded in NVivo.

Data Analysis

The analysis process followed the Gioia methodology which is tailored to inductive inquiry and comprises three levels of abstraction (Gioia, Corley, and Hamilton 2013). In the *first-order* analysis, we processed the raw interview data to identify a primary set of codes. Those codes are further classified in different groups of descriptions that the interviewees provided. This initial assessment provided insight into the frequency and nature of requests that firms are receiving on ESG topics. We recognized that firms receive too many requests to satisfy them all and must decide strategically which ones to prioritize. We gained an understanding of the degree of relevance that ESG requests have for firms, the degree of pressure firms are facing, their familiarity in processing and responding to requests, and first insights into the degree of change that is caused by investor requests. The result of this initial stage of analysis were several first-order category codes.

Next, we moved to the *second-order* analysis. We analyzed additional data and studied the literature to incrementally move from our first-order insights towards more abstract second-order themes. We continuously iterated back and forth between data and literature, and gradually began to develop theory (Locke 2001). We gained an understanding of how prioritization of requests is done. At this stage, clarity of content and clarity of consequences emerged as important aspects. We noticed that investors' expectations are often uncertain, as well as their investment criteria, including which rating providers matter or what consequences investors might draw if their expectations are not met. We started to acknowledge that firms were facing pressures created by the uncertainty how many investors might divest, how it is going to affect reputation, and what financial consequences it might have. We also started to see patterns in firms' responses and the degree of attention they pay to different requests. The result of this step were 14 second order themes.

On the highest level of analysis, we linked categories to themes and formed six aggregate dimensions. The aggregated dimensions represent three increasing levels of urgency (1) symbolic commitment, (2) time commitment, (3) escalation commitment as well as the corresponding firm responses (1) validation commitment, (2) attention commitment, (3) action commitment. In the following chapter, we present our findings along those aggregate dimensions.

-- Table 2 about here --

Findings

We present our findings along the three levels of urgency and the corresponding firm responses. The first level contains perceptions of symbolic commitment such as general requests in form of questionnaires and ticking the box exercises, which signal low urgency. Firms respond to symbolic commitments with validation commitment by validating the importance of ESG for the firm and referring to existing information material. The second level includes perceptions of time commitment demonstrated by specific requests and engagement. Specific requests and engagement signal some urgency because they show that the investor commits resources to understand a firm's ESG performance. Firms respond to time commitments with attention commitment. The third level contains the perception of escalation commitment which describes the communication of clearly defined exclusion criteria and warnings and execution of divestment. These actions signal urgency because they show that the interest in ESG is supported by binding internal policies at the investor's organization. Firms respond to escalation commitment with action commitment. Based on our findings, escalation commitments are the only investor actions that lead to substantive responses and strategic reconsideration.

-- Figure 1 about here --

Baseline: Market-wide attention to ESG

Throughout all interviews, interviewees described that the ESG trend has hit them like a wave in the past two years. There is a significant rise in interest from capital market actors including investors, ratings agencies, coalitions, or representatives for environmental, social and governance (ESG) information. For instance, this firm told us:

> [CO4]: "I would say [in the last] two years, the attitude has changed considerably. ESG used to be just one of these things that people will ask once in a while, not very

> frequently. Now, there is so much interest in the area and it has become a mainstream topic of discussion in every meeting with every shareholder and with every investor. “

ESG requests are no longer handled exclusively in sustainability departments or investor communication but have reached the boardroom and executive office. A board member of [CO10] described how ESG has become a topic that is getting more fundamental and can’t be ignored by executives.

> [CO10]: „It's quite obvious, from the boardroom standpoint, and also from our executive office, that ESG is a very solid trend in society. It's coming […] from various sources, you just cannot ignore it, it's there”.

In summary, firms experience a significant interest in ESG from investors. They notice that the topic gains traction and firms clearly recognize it as a concern. Firms observe that “[ESG] ratings are important “[CO4], that their investors are forming “sustainability initiatives” [CO9], and that their investors are increasingly “committed” [CO2] to invest according to ESG guidelines.

While firms understand that there is a lot of general interest in ESG and a strong demand for information, they are uncertain to what extent investors expect them to put resources into increasing their ESG performance. Will investors be satisfied with an ESG report and non-financial reporting, or do they expect the firm to transform its business in a substantive way? The following firm described that it is a blackbox to them how investors combine the different information they request and how this information affect their investment decision making.

> [CO9]: „It is a blackbox how different external ESG ratings, engagement activities, and the investor’s own internal research lead to an investment decision.”

Responding to this uncertainty, firms are trying to figure out what exactly investors expect and how critical ESG is to them. In the following parts, we analyze how firms assess different investor requests. We move from requests with low urgency to requests that with high urgency.

Level 1: General requests

Investors’ requests appear least urgent when they come in the form of broad questions, box ticking exercises and unclear expectations. Broad questions are characterized by being very

general und unspecific. The following firm described that many investors frame these questions by asking about the firm's stance on sustainability in general terms without specific expectations what to get out of the conversation.

> [CO17]: „Many investors just want to be fed information. What is our understanding of sustainability? What are the central themes for us? And then they probably start thinking about how they can use this information for their risk assessment."

Broad questions reveal that the investor has not spent time looking into the firm's reporting, which could easily answer those questions. It can be compared to an investor asking the firm "so, how did you do financially last year?". A similar effect to broad questions is achieved by box-ticking exercises. Box-ticking means that investors send questions and questionnaires that are either unsuitable or ask about information that is already available. This firm describes that „many investors send us their questionnaire before even looking at our reporting. "[CO6]. The firm receives standardized questionnaires from investors that completely ignore the firm's own reporting and individual situation. The investor does not consider whether the questions are even relevant for the particular company. As a result, firms receive many ESG requests that are immaterial for their industry or sector. This firm described that they receive whole catalogues of questions that are completely irrelevant for their area of business.

> [CO20]: „Sometimes, we receive whole sections or catalogues of questions that we consider completely irrelevant for our area of business. It is crucial that investors consider companies individual circumstances. They can't send the same questionnaire to every firm."

If an investor requests these box-ticking exercises, it indicates two things to a firm. First, it indicates that investors don't take the time to look at the material that a firm has published on its ESG performance. Second, if the questionnaire contains questions that are irrelevant for the firm, it indicates that the investor is more interested in collecting information than learning something from that information. In both cases, box-ticking exercises signal that the issue at stake is of low criticality to the investor.

The third kind of requests with low urgency are requests with unclear expectations. Unclear expectations indicate that the investor itself does not know which answers or levels of performance would be appropriate. This firm described that "more and more investors […] follow the ESG trend without knowing where they want to go" [CO1]. The same firm pointed

out an example from a roadshow where their sustainability department was asked about management compensation.

> [CO1]: „When my colleagues from the CSR office and I go to conferences, we are often asked about management compensation. We often hear the expectation to link sustainability KPIs to management compensation but when we ask which KPIs they would like us to link – then they can't give an answer."

As the quote shows, unclear expectations suggest that although investors raise a request, they have not formed expectations about what a fulfillment of the request would look like. In other words, investors have not yet figured out what they will do with the information that they are gathering. This signals that the interest in ESG is disconnected from the investor's formal investment processes.

To summarize, general requests such as broad questions, box-ticking exercises and unclear expectations signal low urgency. The investor appears unwilling to commit time and resources into collecting high quality information and has not established how the information will be used. This indicates that the investor's internal investment processes do not support the external expression of interest in ESG.

Firms respond to broad questions, box ticking and unclear expectations with validation that ESG is of high relevance for the firm and refer to existing information about the firm's ESG efforts. The following firm points out that they refer investors to their sustainability report whenever possible, highlighting that the information is already out there, and the investor just has to read it.

> [CO14]: "Usually, I would say, please refer to our sustainability report. So, I would send them a link essentially. We've entertained some [investors] in the past, but a lot of times, we are just pointing them to - hey, we've got this information published, it's out there, you can take a read yourself."

Broad questions about available material are considered but do not provoke further conversations withing the firm or lead to strategic changes as this firm describes: "I would not say necessarily that it leads to strategic changes, I would say, being considered, okay, being considered" [CO10]. Instead, firms take advantage of the investor's lack of knowledge to strategically place the firm's ESG strength. The following firm has a history of environmental

scandals, yet the firm repeatedly points at their social and governance strength to shape the picture.

> [CO10]: "ESG tends to be reduced to environmental, which is absolutely not correct. We've been working on governance for many, many, many years. And you don't hear too much about S. […] The safety performance of this company is just remarkable. All I'm trying to say here is that there is a need to be clear on the ambition, and there is no doubt that each item and specifically climate change […] needs to be considered, but then there is need to take a balanced approach to it […] but also being realistic."

To conclude, firms show validation commitment to symbolic requests by confirming the relevance of ESG and highlighting the firm's existing efforts. However, symbolic requests do not lead to any additional efforts or considerations within the firm. The firms' reactions are limited to low resource responses in form of short time investor relations office attention. Investor relations managers take their calls and provide information, but they do not create further information beyond what already exists and do not consider actions.

Level 2: Informed dialogue

Investors' requests appear more urgent if investors demonstrate that they have invested time and resources into their request by having a clear understanding of the firm's current performance, its challenges, and past efforts. Investors can demonstrate this knowledge in different ways: by asking precise questions in response to ratings or reporting, by clarifying their analysis process, or by formally engaging.

First, we showcase the role of asking precise questions in response to ratings or reporting. The following firm described that they quickly realize when an investor is well versed due to the conciseness of their questions. Such questions enable a mutually beneficial exchange through which the firm gains an understanding of which areas are critical and how the firm's performance is perceived.

> [CO17]: „We notice quickly, which investors are well informed. Questions become specific really fast, and the dialogues help us to gain new perspectives of where the market is heading and what the investors will pay more attention to in the future."

Precise questions demonstrate that the investor has invested time and resources into their own research to understand the firm's current situation and ESG challenges. This effort highlights the relevance of ESG for the investor and signals criticality.

Second, alongside precise questions, multiple firms observed that investors no longer rely solely on the judgements of external rating providers but instead build their own models to assess the firms' ESG performance. The firm below described that investors take the ratings as one source among many to come up with their own analysis. They collect information from multiple sources, including intensively studying the firm's own reporting, to build their own investment decision making framework.

> [CO3]: "It's very clear that investors, serious investors, and the big ones don't rely just on that ESG rating. They will not take a MSCI or a Vigeo report and just take that at face value and make the investment decisions based on that. They use it to inform a decision, but they all build their own models. […] They want to get further details to find out how we are going to manage that transition."

Showing that the investor has their own analysis in place demonstrates a high level of involvement with ESG data and the relevance it has for the investor. It furthermore indicates that the investor has an advanced understanding of what they are looking for in a firm and what their expectations are.

Third, urgency is demonstrated through formal engagement. Investors that formally engage with firms on ESG matters show that they invest time and resources into the interaction. The investors set up or commission specialized stewardship teams that consistently engage with the firm on defined topics on which they must track their progress. As the firm below explained, engagement builds credibility and demonstrates the investors commitment.

> [CO14]: "I think that engagement can be an effective tool. […] Even if they're a small investor, they can demonstrate that they have done their homework. They show that they know the company, the business model, what it does, and that helps to build trust and credibility."

Due to the time intensive nature of engagement, it demonstrates diligence and signals the firm the relevance of the topic the investor engages on. It shows that the investor has invested time into understanding the status quo and clarifying their expectations of where they would like

the firm to be at. The more clearly the investor communicates their expectations, the more authentic is their request about the firm's ESG performance. Clear expectations show that the investor understands what they are looking for and what a firm needs to fulfill to be investable.

To summarize, urgency increases if the investor asks precise questions in response to ratings or reporting, by clarifying their analysis process, or by formally engaging. It signals the firm that the investor has put time and effort behind their request and that there are costs associated with each of these requests.

However, the urgency remains limited. While precise questions, critical feedback and engagement give the firm an impression what the investor expects, it remains unclear what happens if the firm does not meet the expectations. It is not clear whether the investor will draw consequences or let the firm's ESG performance influence the capital allocation process. In other words, the consequences remain unclear. As a result, the firm responds with attention rather than actions. Firms engage in the dialogue with investors but are hesitant to what degree they should invest resources into producing information or taking action. This firm brings it to the point by saying that whenever a good answer to an investor's request is time-consuming or expensive, they reconsider if it will ultimately affect the investor's buying decision or if it is just a box-ticking exercise.

> [CO14]: "In most of investor relations, we get the same questions, and we know kind of where to go about answering it. We do get some stumpers in ESG questions sometimes, where I've got to go spend a lot of time figuring out who in the company would know. And that's okay for some things if they're really important, but if I tell you a really compelling answer, does it make you want to buy our stock? Or is it more just like, a box checking exercise?"

Firms take note of investor requests and feedback to previous reporting and activities and use it as a source to decide how to move forward with future reporting. The following firm describes that the firm aggregates the requests they receive from investors and takes them into account for their future reporting.

> [CO14]: "We do track what they're interested in [and] we aggregate some data there. The sustainability report, I would say, does get a lot of feedback. And we take that feedback into account for future reporting."

Precise questions, engagement, and clarifying the analysis process lead to firms reconsidering their reporting and communication. It starts internal discussions about what to report and how to report it. As this interviewee points out: “there's no doubt that these questions, the continual pressure, and discussions and honestly, very good questions have led to questions internally” [CO14]. It leads to increased transparency and exchange between firm and investor on what areas are important and where work needs to be done. This firm published additional data due to investor requests: “We have made more data available in response to the specific feedback we've received.” [CO22]. In another firm, precise investor requests caused the firm to reconsider their reporting framework and eventually led to a change in the reporting standard “Starting next year, we will report through a standardized framework, most likely GRI, and we hope that will automatically cover 90% of all requests” [CO23].

Time commitment from the investor side in form of precise questions, clarifying the analysis process or engagement leads to attention commitment in firms. If the investor invests time in the issue, the firm proofs to be eager to keep an eye on the issue, make information available and engage in a dialogue. However, as long as it is unclear whether the issue is in any way material to the investor, the firm’s response remains limited to reporting efforts.

Level 3: ESG as a condition

The urgency of investor’s requests increases when the investor communicates ESG as an investment condition. This implies that the investor is willing to draw consequences if the conditions are not met. Investors must clearly communicate these conditions, name potential consequences, and clarify when they will occur. As the following firm pointed out, the final buy or sell decision is what is ultimately relevant for the firm. Letters and requests are considered but the key incentive to engage with investors on ESG aspects is that investors remain invested and don’t decrease their position.

> [CO15]: „It is a risk for sure […] otherwise we wouldn’t pay as much attention to it as we do. What should be my incentive instead? I don’t care if they continue to write nice letters. At the end of the day, it only matters whether they buy or sell our shares.”

Communicating ESG as an investment condition and declaring potential consequences if the conditions are not met shows that the investor is willing to let go of a position that might still be an attractive investment from a purely financial point of view. The willingness to draw consequences for ESG reasons highlights the criticality of ESG to the investor. It signals high

urgency as it shows that there is a process in place to sanction poor ESG performance. It signals that ESG performance is connected to investment decision making and has financial consequences.

Firms take such threats serious which is largely motivated by the fact that firms perceive a correlation between firms' ESG performance and their stock price valuation. Not meeting minimum ESG standards is perceived to have a pricing effect and significant financial impact. This firm describes that their exclusion due to ESG shortcomings has had recognizable negative impact on their debt financing cost and stock price.

> [CO7]: „Companies that are not UN Global Compact compliant are excluded in many portfolios. This means certain assets are not available to us or we are simply excluded from these portfolios. This has a recognizable impact on our refinancing costs. It has a recognizable impact on our share price. "

The firms recognized that competitors with similar credit profiles and cashflows, but better ESG performance have lower capital costs. Most firms agreed that there is an ESG discount in theory, but the size remains uncertain. However, the perception that ESG has financial impact is a key motivation to improve.

> [CO23]: **"**But again, I mentioned that companies […] that have our credit profile, [that] have our cashflow profile, are paying a significant discount versus where we are issuing our debt."

Similarly, firms are aware that a good ESG performance can lead to a financial premium. One firm in our sample estimated their ESG premium at „five to ten percent "[CO2] of their stock price. However, like the discount, for most firms it is hard to pin down the exact size or attribute stock price performance to individual ESG factors. Yet multiple well performing firms in the sample dedicate part of their success to their superior ESG performance.

> [CO19]: "I think quantification is very difficult. And that's not something we've been able to do. But in qualitative terms, we do believe that will be the case. And even to some extent has been the case."

The perception that the ESG performance can affect the valuation of a firm reinforces firms' interest in investment guidelines and conditions. While firms recognize a correlation between ESG performance and financial performance, they don't know how and when potential

consequences take place. The firm depends on the investor telling them how critical individual expectations are to them, how much the investor will buy or sells in response, and at what point in time they will do so. This firm explains:

> [CO15]: „It is not transparent who buys and sells what and when. We don't know that, and others don't know either. This means we depend on investors communicating this information with us. They either tell us or they don't."

Missing or misunderstanding investor signals can have serious consequences. The following firm described their experience of misinterpreting the urgency of an investor's request which resulted in a surprising divestment due to non-compliance with ESG standards. The firm said: "A prominent example was in May when [large pension fund] announced that they […] had removed us from their portfolio." [CO9]. The firm highlighted the investor's key position as a legitimate and powerful stakeholder who "at their peak […] held over 12 million shares" [CO9] but explained that they did not expect the investor to ever sell those shares. The firm described that they had been put on a watchlist two years prior but did not expect any consequences as nothing had happened within these two years. This way the divestment came very surprising.

> [CO9]: „There is an ethics policy at [pension fund], which is publicly available on their website. They put us on their watchlist two years ago. But for these two years nothing happened. That's why the actual divestment in spring came very surprising."

The lack of clear communication of a deadline by when the firm must meet the investor's expectations made the request seem of low time sensitivity and hindered the firm from recognizing the urgency.

To summarize, communicating ESG as a condition and naming potential consequences if the conditions are not met shows that the investor is willing to sanction for ESG reasons. This highlights the criticality of ESG to the investor as it demonstrates the willingness to draw consequences and decrease their own universe. By making ESG a condition and communicating it as such, investors signal that ESG is an essential part of the investment process. In other words, investors reveal that ESG is at the core of their decision-making process, which is a strong signal for criticality.

However, even if expectations and consequences are defined, there remains uncertainty for firms when investors might draw consequences and how strongly that would affect their cost of capital. There also remains doubt whether communicated consequences will be followed through or whether they are just a threat. Ultimately, a deadline at which the divestment will be executed is the strongest signal of urgency an investor can send to demonstrate that ESG considerations affect their capital allocation.

In the case of a divestment taking place, there remains no doubt that the investor's internal processes and decision-making rely on ESG considerations. If an investor sells their position for ESG reasons, it proves that the claim was so urgent that the investor is willing to leverage their resources to sanction the firm's failure to sufficiently respond to the request. While divestment for ESG reasons signals high urgency, the signal can be muted, if the divestment cannot be linked to ESG due to a failure of communicating it. This means that investors that divest for ESG reasons must make sure to communicate their divestment and their reasoning behind it with the firm.

If the signal successfully reaches the firm, the investor has demonstrated escalation commitment which requires the firm to take actions. At this point, communication, validation, or additional reporting no longer has an effect as the only valid response is acting. Instead of communicating, negotiating, and convincing the investor, the firm must decide whether to comply with the investor's expectations or whether to accept that the investor leaves. The following firm describes that in situations where action is required, the investor relations team prepares proposals for the management to decide how to go forward.

> [CO21]: "We develop proposals and present them to the management and then management decides which direction to take."

When the investor has proven escalation commitment, their request leaves the communication level and pushes for a strategic decision outside the investor relations department. In the case of the firm that experienced exclusion due to noncompliance with the UN Global Compact, the firm responded with a precise action plan. In this case, they came up with an action plan to reach a certain performance in different ESG ratings and resolve the issues that led to the exclusion from the UN Global Compact.

> [CO7]: "We saw clear strategic potential. That's why we have defined goals in all essential ratings that we aim to reach by 2025. This includes the development of action

> plans which whom we will successively improve our performance and resolve the issues that led us to being excluded – in particular UN Global Compact."

The following fossil fuel firm also faced the decision what action to take after having faced a public divestment campaign and fearing that more investors might leave for the same reasons. The head of investor relations department describes how he believes investor pressure will rise until they will have to sell their coal business to not put their green business at risk.

> [CO9]: "I believe that the investor pressure will eventually be so high that we will have to let go of coal to eliminate the risk for our clean business. To be honest, our annual result is no longer driven by coal but by offshore wind, onshore wind, solar and modern gas plants. We would rather get rid of coal than put the rest of the business at risk."

Despite significantly increased willingness to act in response to divestment, firms strongly discourage divestment for obvious reasons. As this firm points out: "We are very clear from our perspective that an exclusion does not contribute to any positive change" [CO25]. Escalation commitment puts firms into a situation where reporting and communication no longer keeps the situation under control. Instead, the management needs to take a clear stand on the action they are going to take. Firms need to decide whether they accept the investor leaving or whether they want to respond. In this case, actions resolving the issue at stake is the only response accepted by the investor. To summarize, investors' escalation commitment leads firms to respond with action commitment or accepting the escalation.

Discussion

This paper studied the role of urgency in firm-stakeholder interactions. By exploring firms' evaluation of the urgency of stakeholder requests, we find that a focus on urgency enhances our understanding of when and how firms respond to stakeholder requests.

First, we find that firms perceive and respond differently to different levels of urgency. The analysis of how firms assess criticality and time sensitivity of stakeholder requests led us to identify three levels of urgency that firms differentiate when evaluating how to respond to investor requests. (1) Broad and indiscriminate information requests demonstrate low criticality. Low criticality in combination with low time sensitivity represents a symbolic

request to which firms respond to with validation commitment. This reaction honors the stakeholder's power and legitimacy but recognizes that the request is not material for both sides. (2) Specific requests and informed dialogues are perceived as high criticality. High criticality and low time sensitivity represents time commitment to which firms respond to with attention commitment. This reaction acknowledges that the request is relevant to the stakeholder but recognizes that there are no foreseeable consequences. Here, the firm plays for time. (3) If the stakeholder eventually announces a deadline, we have a case of high criticality and high time sensitivity which represents escalation commitment. Firms respond to escalation commitment with action commitment or accept the consequences. What is left is the case of low criticality paired with high time sensitivity (4). We could not observe such a case in the data. It seems that stakeholders do not announce deadlines for requests that are not critical to them.

This led to our second finding. Criticality appears to be the necessary condition for urgency to arise. Time sensitivity strengthens urgency but there is no urgency without criticality. This suggests a hierarchy relationship between the attributes with time sensitivity depending on criticality. The degree of criticality defines what kind of response is expected by the stakeholder and time sensitivity defines the tipping point of whether consequences will occur if the firm does not meet the stakeholder expectation. The response to a critical but not time-sensitive request can be put on hold.

-- Figure 2 about here –

The third finding is that urgency, and especially criticality, has an important influence on whether firms respond symbolically or substantially. The key distinction between the levels of urgency is the extent to which firms interpret them as a signal for future commitment to the request. Firms interpret stakeholders' resource commitment to the request to estimate the expected reward for fulfilling the request and the expected sanction for failing to fulfill the request properly. This analysis has been theorized by Durand, Hawn, and Ioannou (2019). In short, they predict that firms consider the cost of responding in relation to the potential reward that comes with a substantial response and the potential sanction that comes with a dissatisfying symbolic response. When firms presume that a stakeholder's request is not

urgent, it is reasonable to respond in a purely symbolic fashion that costs little. If the stakeholder has no internal commitment to evaluating a response, a substantial response would be a waste of resources. Vice versa, when firms are convinced that a stakeholder is going to leverage its resources to reward or sanction the firm, it is reasonable to consider a substantial response.

Our findings make two contributions. First, we contribute to the stakeholder salience literature by unpacking the concept of urgency and its effects on firms' responses to stakeholder requests.

We suggest that criticality and time sensitivity are separately considered variables with a hierarchal relationship whose combination affects if and how the firm will respond to the stakeholder. The attribute of criticality – meaning that the stakeholder has a genuine interest in their request being adapted is assessed by the firm through the stakeholder's resource commitment to the request. The attribute of time sensitivity – meaning that the stakeholder will reward or sanction the response at a certain point in time is assessed by the firm by looking out for a communicated deadline. Contrary to common assumption, time sensitivity is not about the temporal proximity between request and expected adoption but rather about the definition of a clear point in time at which consequences will occur if the request is ignored. We find a hierarchy relationship between the attributes with time sensitivity depending on criticality. The degree of criticality defines what kind of response is expected by the stakeholder and time sensitivity defines the tipping point of when consequences will occur if the firm does not meet the stakeholder's expectation.

Our second contribution is focused on the multidisciplinary body of literature that seeks to understand the impact of sustainable investing on firms (for a review, see Kölbel et al. 2020). Scrutinizing the approaches of sustainable investing through the lens of urgency allows us to offer explanations why shareholder engagement is more effective than other mechanisms, how ESG integration could be practiced more effectively, and why exclusion may be more effective than it appears.

The impact of shareholder engagement is relatively well documented. Firms tend to respond to engagement requests, especially when they come from large coalitions of shareholders (Dimson, Karakaş, and Li 2018), and when there is trust between the engaging shareholder and the company (Ferraro and Beunza 2018). Our findings suggests that one reason for the effectiveness of engagement is that it signals a commitment of resources. Engagement takes

time and is resource intensive which shows firms that the investor is genuinely interested in the fulfillment of the request at an organizational level. Our analysis also suggests that there are variations in the effectiveness of shareholder engagement, depending on the level of criticality of the engagement request. Shareholder engagement that comprises sending the same letter to many companies is likely to appear less critical than shareholder engagement that comprises continued and company-specific dialogue. Thus, resource-intensive engagement may be the most effective engagement strategy, especially when the goal is to convince the company to embark on resource-intensive ESG activities. Another way to increase the urgency of engagement requests may be to combine it with a credible threat of exit when the engagement requests are not met, thereby making it time-sensitive, which according to our findings signals an even higher level of urgency.

The impact of capital allocation is less established empirically (Kölbel et al. 2020), although it has been predicted theoretically (Heinkel, Kraus, and Zechner 2001; Pástor et al. 2021). The most prominent approach that relies on this mechanism is ESG integration, which means that investors consider ESG information alongside financial information in their investment process. One problem of this approach is that ESG ratings and metrics diverge, making ambiguous how investors invest and how firms should improve (Berg, Kölbel, and Rigobon 2022; Chatterji et al. 2016). Recent research also shows that firms have developed various strategies to cope with ESG ratings, including to use the existence of multiple ratings to justify inaction (Slager and Gond 2022). Our study suggests that the uncertainty of how ESG requests influence investment decisions is another central problem for ESG integration. Even if managers know exactly which ESG information an investor is considering, there is uncertainty to what extent investment decisions are guided by ESG information versus financial information. This inherent flexibility of ESG integration makes it difficult for investors to make their requests appear urgent. This offers an additional explanation why ESG integration seems to have little observable impact despite trillions of dollars invested following this approach. And yet ESG integration could have substantial impact, if it was practiced in such a way that it confronts firms with concrete, critical and time-sensitive requests. The problem seems to be that most ESG integration policies that are not suited to signal urgency. In some cases, ESG integration may indeed be a rather symbolic gesture. In other cases, however, investors may just not be aware that they need to convince firms that ESG really affects the investment decisions, and to be clear on what they expect firms to do and when they will draw what consequences if the firm does not meet their expectations. According to our study, clear and credible communication how ESG performance affects

portfolio choices is a strong signal of urgency, which might enhance the impact of ESG integration.

Exclusion is a different investment approach that relies on the capital allocation mechanism. Exclusion means that firms that are deemed unacceptable are divested from the portfolio, regardless of financial performance. An immediate impact of exclusion on the firm's share price has been elusive so far (Durand, Paugam, et al. 2019; Hawn et al. 2018). Yet our results suggest that exclusion is the strongest signal investors can send to show that their ESG requests are urgent. Exclusion is a costly move for investors which demonstrates criticality and by drawing consequences also demonstrates time sensitivity.

Limitations and Future Research

We acknowledge certain limitations to our study and research approach. One limitation is that we studied the role of urgency in an empirical setting where stakeholder power and legitimacy were given. We chose this setting to isolate the urgency variable and enable a detailed analysis of our attribute of focus. However, the stakeholder salience attributes power, legitimacy and urgency are interconnected. For example, criticality draws on the ability to leverage stockholder power to reward or sanction a firm's response to a stakeholder request. Urgency thereby strongly depends on power and legitimacy. This encourages future research to study how the other attributes depend on urgency and how differences in power and legitimacy affect the evaluation of urgency.

Furthermore, our analysis was limited to the study of the evaluation of urgency at one point in time. Yet our findings repeatedly hint to the uncertainty of stakeholders' future actions and spillover effects between stakeholder actions. This encourages a longitudinal study looking at the effects of stakeholders following through with their reward or sanctions and how it affects future assessment of urgency. It could also indicate spillover effects in other firms or lead to the identification of further underlying attributes of urgency.

Conclusion

This was the first study investigating the role of urgency in firm-stakeholder interactions. Our results highlight the theoretical relevance of urgency by showing that firms perceive and respond differently to different levels of urgency. Based on our empirically grounded rich

description of how firms assess urgency, we unpack the concept of urgency and its underlying attributes criticality and time sensitivity. We show that criticality, meaning that the request is important to the stakeholder, is a necessary condition for urgency. Time sensitivity, meaning the communication of a deadline to fulfil the requests, increases urgency but depends on the presence of criticality. The combination of the two attributes defines the level of urgency and ultimately affects whether firms respond symbolically or substantially to the stakeholder request.

References

Agle, B. R., R. K. Mitchell, and J. A. Sonnenfeld. 1999. "Who Matters to CEOs? An Investigation of Stakeholder Attributes and Salience, Corporate Performance and CEO Values." *Academy of Management Journal* 45(5):507–25.

Barney, Jay. 1991. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17(1):99–120. doi: 10.1177/014920639101700108.

Berg, Florian, Julian F. Kölbel, and Roberto Rigobon. 2022. "Aggregate Confusion: The Divergence of ESG Ratings." *Review of Finance (Forthcoming)*.

Berman, Shawn L., Andrew C. Wicks, Suresh Kotha, and Thomas M. Jones. 1999. "Does Stakeholder Orientation Matter? The Relationship Between Stakeholder Management Models and Firm Financial Performance." *Academy of Management Journal* 42(5):488–506. doi: 10.5465/256972.

Bundy, Jonathan, Christine Shropshire, and Ann K. Buchholtz. 2013. "Strategic Cognition and Issue Salience: Toward an Explanation of Firm Responsiveness to Stakeholder Concerns." *Academy of Management Review* 38(3):352–76. doi: 10.5465/amr.2011.0179.

Chatterji, A. K., and Michael W. Toffel. 2010. "How Firms Respond to Being Rated." *Strategic Management Journal* 31(9):917–45.

Chatterji, Aaron, Rodolphe Durand, David I. Levine, and Samuel Touboul. 2016. "Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers." *Strategic Management Journal* 37(8):1597–1614. doi: 10.1002/smj.2407.

Chen, Jinhua, Maria Cadiz Dyball, and Graeme Harrison. 2019. "Stakeholder Salience and Accountability Mechanisms in Not-for-Profit Service Delivery Organizations." *Financial Accountability & Management* 36(1):50–72.

Crilly, Donal, Maurizio Zollo, and Morten T. Hansen. 2012. "Faking It or Muddling Through? Understanding Decoupling in Response to Stakeholder Pressures." *Academy of Management Journal* 55(6):1429–48. doi: 10.5465/amj.2010.0697.

Dimson, Elroy, Oğuzhan Karakaş, and Xi Li. 2018. "Coordinated Engagements." *Working Paper*.

Driscoll, Cathy, and Mark Starik. 2004. "The Primordial Stakeholder: Advancing the Conceptual Consideration of Stakeholder Status for the Natural Environment." *Journal of Business Ethics* 49(1):55–73. doi: 10.1023/B:BUSI.0000013852.62017.0e.

Durand, Rodolphe, Olga Hawn, and Ioannis Ioannou. 2019. "Willing and Able: A General Model of Organizational Responses to Normative Pressures." *Academy of Management Review* 44(2):299–320. doi: 10.5465/amr.2016.0107.

Durand, Rodolphe, Luc Paugam, and Hervé Stolowy. 2019. "Do Investors Actually Value Sustainability Indices? Replication, Development, and New Evidence on CSR Visibility." *Strategic Management Journal* 40(9):1471–90.

DWS. 2020. *Geschäftsbericht 2020*. Frankfurt: DWS.

Edmondson, Amy C., and Stacy E. Mcmanus. 2007. "Methodological Fit in Management Field Research." *Academy of Management Review* 32(4):1246–64. doi: 10.5465/amr.2007.26586086.

Eesley, Charles, and Michael J. Lenox. 2006. "Firm Responses to Secondary Stakeholder Action." *Strategic Management Journal* 27(8):765–81. doi: 10.1002/smj.536.

Ferraro, Fabrizio, and Daniel Beunza. 2018. "Creating Common Ground: A Communicative Action Model of Dialogue in Shareholder Engagement." *Organization Science* 29(6):1187–1207. doi: 10.1287/orsc.2018.1226.

Gioia, D., K. Corley, and A. Hamilton. 2013. “Seeking Qualitative Rigor in Inductive Research.” *Organizational Research Methods* 16:15–31.

Hawn, Olga, Aaron K. Chatterji, and Will Mitchell. 2018. “Do Investors Actually Value Sustainability? New Evidence from Investor Reactions to the Dow Jones Sustainability Index (DJSI).” *Strategic Management Journal* 39(4):949–76. doi: 10.1002/smj.2752.

Heinkel, Robert, Alan Kraus, and Josef Zechner. 2001. “The Effect of Green Investment on Corporate Behavior.” *Journal of Financial and Quantitative Analysis* 36(4):431–49.

Jones, Thomas M., Will Felps, and Gregory A. Bigley. 2007. “Ethical Theory and Stakeholder-Related Decisions: The Role of Stakeholder Culture.” *Academy of Management Review* 32(1):137–55. doi: 10.5465/amr.2007.23463924.

Kölbel, Julian F., Florian Heeb, Falko Paetzold, and Timo Busch. 2020. “Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact.” *Organization & Environment* 33(4):554–74. doi: 10.1177/1086026620919202.

Kowsmann, Patricia, and Ken Brown. 2021. “Fired Executive Says Deutsche Bank’s DWS Overstated Sustainable-Investing Efforts.” *The Wall Street Journal*, August 1.

Lincoln, Y. S., and E. G. Guba. 1985. *Naturalistic Inquiry*. Newbury Park, CA: Sage.

Locke, K. D. 2001. *Grounded Theory in Management Research*. London: Sage.

Lotila, Pia. 2010. “Corporate Responsiveness to Social Pressure: An Interaction-Based Model.” *Journal of Business Ethics* 94(3):395–409. doi: 10.1007/s10551-009-0272-0.

Magness, Vanessa. 2008. “Who Are the Stakeholders Now? An Empirical Examination of the Mitchell, Agle, and Wood Theory of Stakeholder Salience.” *Journal of Business Ethics* 83(2):177–92. doi: 10.1007/s10551-007-9610-2.

Menguc, Bulent, Seigyoung Auh, and Lucie Ozanne. 2010. “The Interactive Effect of Internal and External Factors on a Proactive Environmental Strategy and Its Influence on a Firm’s Performance.” *Journal of Business Ethics* 94(2):279–98.

Miller, Joe, Chris Flood, Attracta Mooney, and Morris Stephen. 2021. “DWS Shares Slide after Greenwashing Claims Prompt BaFin Investigation.” *Financial Times*, August 26.

Mitchell, R. K., B. R. Agle, and D. J. Wood. 1997. “Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts.” *Academy of Management Review* 22(4):853–66.

Mitchell, Ronald K., Bradley R. Agle, James J. Chrisman, and Laura J. Spence. 2011. “Toward a Theory of Stakeholder Salience in Family Firms.” *Business Ethics Quarterly* 21(2):235–55.

Mosakowski, Elaine, and P. Christopher Earley. 2000. “A Selective Review of Time Assumptions in Strategy Research.” *Academy of Management Review* 25(4):796–812. doi: 10.5465/amr.2000.3707728.

Myllykangas, Päivi, Johanna Kujala, and Hanna Lehtimäki. 2011. “Analyzing the Essence of Stakeholder Relationships: What Do We Need in Addition to Power, Legitimacy, and Urgency?” *Journal of Business Ethics* 96(1):65. doi: 10.1007/s10551-011-0945-3.

Nag, R., and D. A. Gioia. 2012. “From Common to Uncommon Knowledge: Foundations of Firm.Specific Use of Knowledge as a Resource.” *Academy of Management Journal* 55:421–57.

Neville, Benjamin A., Simon J. Bell, and Gregory J. Whitwell. 2011. “Stakeholder Salience Revisited: Refining, Redefining, and Refueling an Underdeveloped Conceptual Tool.” *Journal of Business Ethics* 102(3):357–78. doi: 10.1007/s10551-011-0818-9.

Neville, Benjamin A., and Bulent Menguc. 2006. “Stakeholder Multiplicity: Toward an Understanding of the Interactions between Stakeholders.” *Journal of Business Ethics* 66(4).

O’Higgins, Eleanor R. E. 2010. “Corporations, Civil Society, and Stakeholders: An Organizational Conceptualization.” *Journal of Business Ethics* 94(2):157–76. doi: 10.1007/s10551-009-0254-2.

Oliver, Christine. 1991. “Strategic Responses to Institutional Processes.” *Academy of Management Review* 16(1):145–79.

Parent, Milena M., and David L. Deephouse. 2007. “A Case Study of Stakeholder Identification and Prioritization by Managers.” *Journal of Business Ethics* 75(1):1–23. doi: 10.1007/s10551-007-9533-y.

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. 2021. “Sustainable Investing in Equilibrium.” *Journal of Financial Economics (Forthcoming)* 142(2):550–71. doi: 10.1016/j.jfineco.2020.12.011.

Patton, M. Q. 2002. *Qualitative Evaluation and Research Methods*. 2nd edition. London: Sage.

Penrose, Edith. 1959. *The Theory of the Growth of the Firm*. New York: Sharpe.

Peteraf, M. A. 1993. “The Cornerstones of Competitive Advantage: A Resource-Based View.” *Strategic Management Journal* 14(3):179–91.

PRI. 2021. “Principles for Responsible Investment Annual Report 2021.” Retrieved October 23, 2021 (https://www.unpri.org/annual-report-2021).

Savage, Grant T., Timothy W. Nix, Carlton J. Whitehead, and John D. Blair. 1991. “Strategies for Assessing and Managing Organizational Stakeholders.” *Academy of Management Perspectives* 5(2):61–75. doi: 10.5465/ame.1991.4274682.

Slager, Rieneke, and Jean-Pascal Gond. 2022. “The Politics of Reactivity: Ambivalence in Corporate Responses to Corporate Social Responsibility Ratings.” *Organization Studies* 43(1):59–80. doi: 10.1177/0170840620964980.

Steinberg, Julie, and Ed Frankl. 2022. “CEO of Deutsche Bank’s DWS Resigns After Police Raid on Offices.” *The Wall Street Journal*, January 6.

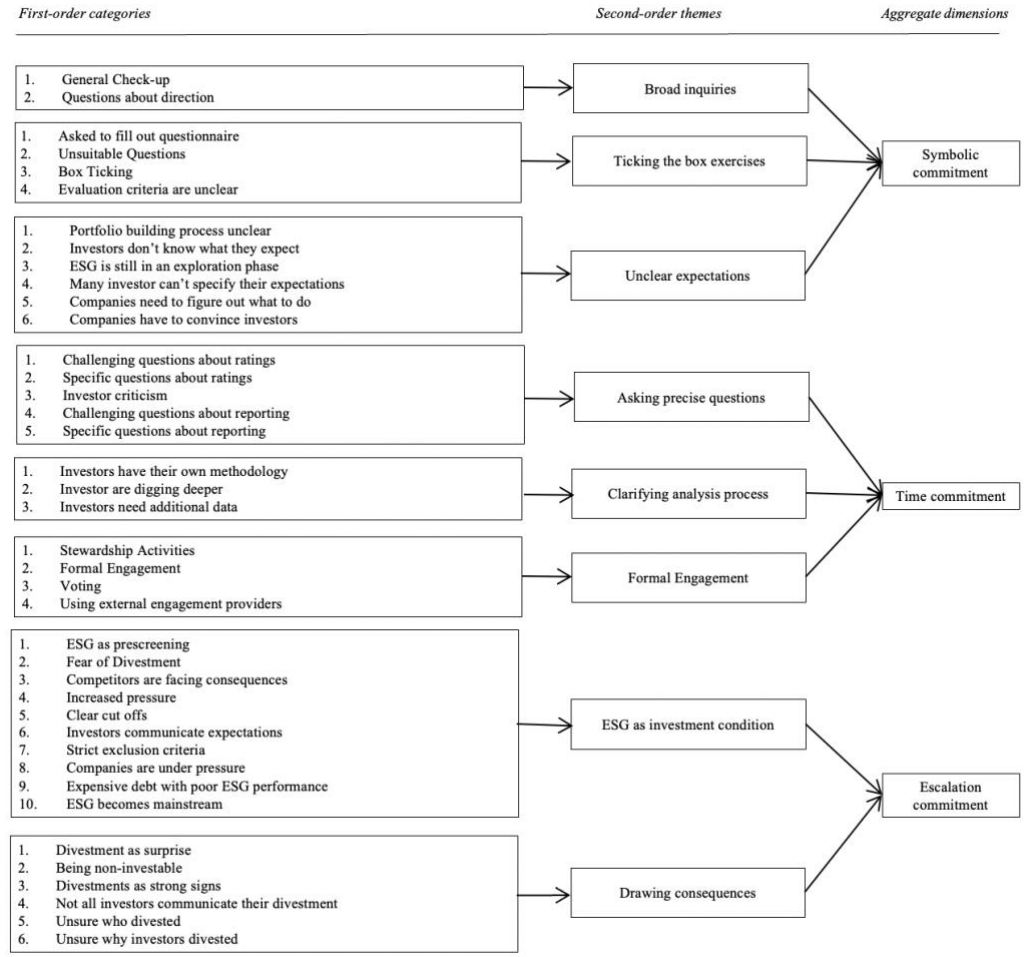
Walker, Owen, and Joe Miller. 2022. “German Police Raid DWS and Deutsche Bank over Greenwashing Allegations.” *Financial Times*.

Tables & Figures

Table 1: Sample

Company #	Interview #	Sector	Rating	Position	Years with company	Length in minutes
[CO1]	1	Industrial Conglomerates	AAA	Investor Relations		57
[CO2]	1	Building Products	AA	Investor Relations	2.1	65
[CO3]	1	Construction Material	BBB	CSO	4.2	57
[CO3]	1	Construction Material	BBB	Sustainability Office	12.1	57
[CO4]	1	Metals and Mining	AA	Head of Investor Relations	1.3	51
[CO5]	1	Biotechnology	BBB	Head of Investor Relations	3.6	55
[CO5]	1	Biotechnology	BBB	Investor Relations	3.6	55
[CO6]	1	Automobiles	A	Investor Relations	5.9	49
[CO7]	1	Automobiles	CCC	Head of Sustainability	17.8	53
[CO7]	2	Automobiles	CCC	Investor Relations	20.11	45
[CO8]	1	Specialty Chemicals	A	Head of Investor Relations	10.3	31
[CO9]	1	Utilities	A	Head of Investor Relations	17.9	58
[CO9]	1	Utilities	A	Head of Fixed Income IR	18	55
[CO10]	1	Oil and Gas	CCC	Board Member	0.7	34
[CO11]	1	Automobiles	A	Head of Investor Relations	3.2	36
[CO12]	1	Building Products	A	Investor Relations	10.2	38
[CO13]	1	Utilities	AAA	Investor Relations	8.6	24
[CO13]	1	Utilities	AAA	Investor Relations	0.4	24
[CO14]	1	Automobiles	B	Sustainability Office	1.1	58
[CO14]	2	Automobiles	B	Investor Relations	7.1	25
[CO14]	2	Automobiles	B	Investor Relations	7	25
[CO15]	1	Utilities	AA	Investor Relations	3.3	52
[CO16]	1	Retail – Consumer Discretionary	AA	Head of Investor Relations	16	28
[CO17]	1	Automobiles	BBB	Investor Relations	13	57
[CO18]	1	Shipping	BBB	Investor Relations	3.9	39
[CO19]	1	Manufacturing	AA	Investor Relations	3.1	30
[CO20]	1	Food Products	AA	Head of Investor Relations	3.1	37
[CO21]	1	Electronic Equipment	AA	Investor Relations	11	29
[CO22]	1	Construction Machinery	A	CFO	9.11	33
[CO23]	1	Tobacco	BBB	CSO	6.5	90
[CO23]	1	Tobacco	BBB	Investor Relations	4	90
[CO23]	1	Tobacco	BBB	Investor Relations		90
[CO23]	1	Tobacco	BBB	Treasury	4.10	90
[CO23]	1	Tobacco	BBB	Investor Relations		90
[EX1]	1	External Expert		Head of Engagement	4.3	53
[EX2]	1	External Expert		Head of Research	6.9	150
[EX3]	1	External Expert		Portfolio Manager	16	60
[EX4]	1	External Expert		Analyst	0.11	30
[EX5]	1	External Expert		Senior Analyst		60
[EX6]	1	External Expert		Senior Analyst	2.7	60

Table 2: Coding Tables



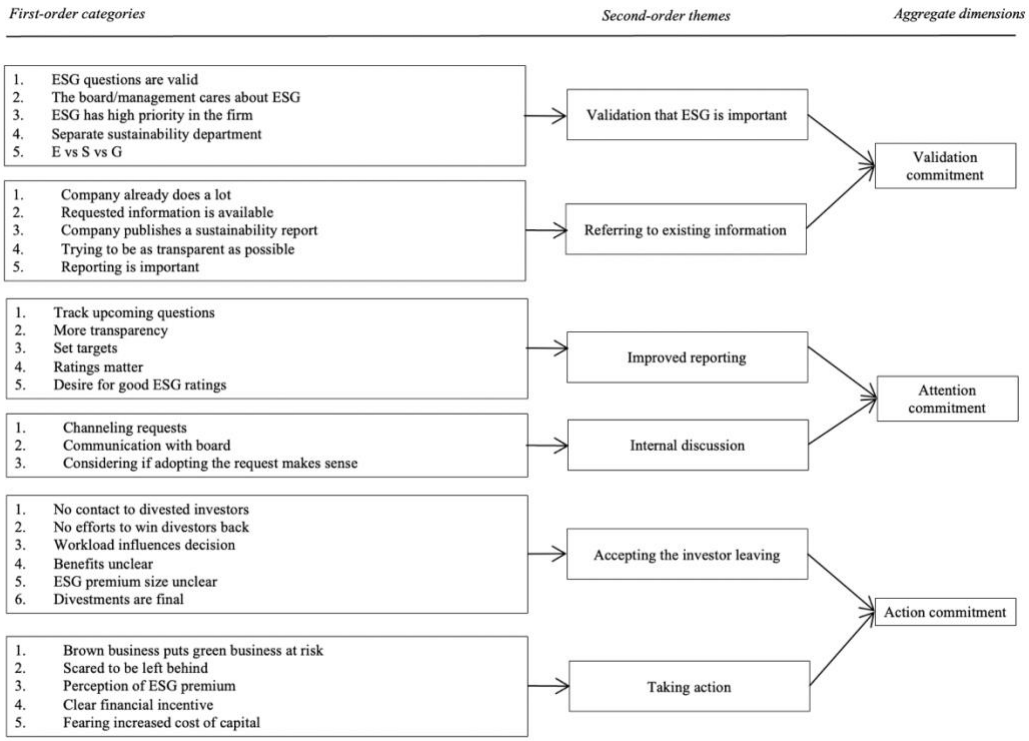


Figure 1: Levels of urgency

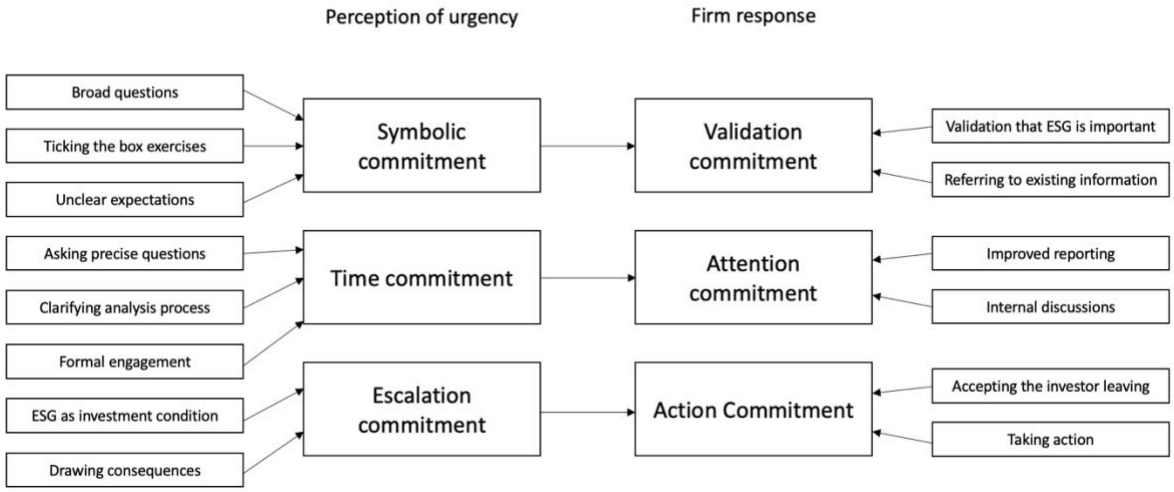


Figure 2: Urgency commitment

			Time sensitivity: No — No schedule for sanctions	Time sensitivity: Yes — Explicit schedule for sanctions
Criticality	High	Core resources leverages	Medium urgency: Attention commitment	High urgency: Action commitment
	Low	Peripheral resources leverages	Low urgency Validation commitment	Not observable

Interview Topic Guide

1) How do you experience ESG requests?

    a) What kind of signals does the company receive from investors on ESG?
    b) What are concrete episodes that illustrate this?
    c) (Where) do you notice the rising ESG trend?
    d) Could you tell us a bit about your roadshow preparation and what is the role of ESG in this process?
    e) Is there a difference between different investors?
    f) What do investor ask for in terms of ESG?

2) How do you process ESG requests?

    a) Who is responsible for ESG requests?
    b) (When) are requests transferred to other business units?
    c) What is the process if an ESG issue comes up?
    d) Who do you talk/report to once an ESG issue comes up?
    e) Who will be informed about ESG requests?
    f) How do you categorize the relevance of upcoming issues?
        i) degree of reputational risk?
        ii) degree of difficulty to change it?
        iii) who it is coming from?
    g) How does the company respond to ESG requests?
    h) How do investors respond to responses?

3) Has anything changed because of investors' ESG requests?

    a) Under what conditions to you implement an ESG ask?
    b) What are the circumstances that enable or inhibit the translation from signals to action?
    c) Under which circumstances is investor action salient?
    d) If investor pressure results in change in the firm what is the exact motivation?
        i) reputational risk
        ii) cost of capital
        iii) reacting to the pressure point

4) Influence of ESG Ratings

    a) Which ratings do you report to?
    b) What ratings or ESG metrics do your investors use?
    c) How does your ESG rating influence decision-making?
    d) Do you experience a correlation between your company's ESG rating and investor interest?
        i) If so, does this reach the management level?
    e) How do you deal with the divergence of ratings?
    f) What do you do to improve your ratings?
    g) How relevant do you consider ratings?

5) What are the financial implications of ESG?

    a) What is your experience with the effect of ESG considerations on cost of capital?
    b) Do you think you trade at a discount/premium because of your ESG performance?
    c) How does this premium/discount affect your decision making?