Socially Responsible Investment:

Development & Impact



Frank Wagemans

Propositions

1. Although investors invest globally, Socially Responsible Investing (SRI) requires going local. (this thesis)
2. SRI development does not follow a plan-do-check-act cycle. (this thesis)
3. Mean species abundance is an inadequate indicator for assessing ecosystem health.
4. Science-based dietary interventions pay too little attention to retailers.
5. The Japanese concept of 'Shoshin', or beginner's mind, is essential for improving the health of our democratic system.
6. The common use within the financial sector of a picture which shows a plant growing out of coins does not bode well for how the financial sector will address the topic of biodiversity.

Propositions belonging to the thesis, entitled

Socially Responsible Investment: Development & Impact

F.A.J. Wagemans

Wageningen, March 2026.

Socially Responsible Investment:
Development & Impact

Frank Wagemans

Thesis Committee

Promotor

Prof. Dr *ir*. A.P.J. Mol
Professor in Environmental Policy & Governance
Wageningen University & Research

Co-promotor

Dr *ir*. C.S.A. van Koppen †
Environmental Policy Group
Wageningen University & Research

Other members

Prof. Dr F. R. Alpízar., Wageningen University & Research

Dr E. Eiling, University of Amsterdam

Prof. Dr K. Maas, Erasmus University Rotterdam

Dr R. Sullivan, London School of Economics, United Kingdom

This research was conducted under the auspices of the Wageningen Institute for Environment and Climate Research (WIMEK)

Socially Responsible Investment:
Development & Impact

Frank Wagemans

Thesis
submitted in fulfilment of the requirements for the degree of doctor
at Wageningen University
by the authority of the Rector Magnificus,
Prof. Dr C. Kroeze,
in the presence of the
Thesis Committee appointed by the Academic Board
to be defended in public
on Wednesday 9 September 2026
at 3.30 p.m. in the Omnia Auditorium.

Frank Wagemans
Socially Responsible Investment: Development & Impact
233 pages.

PhD thesis, Wageningen University, Wageningen, the Netherlands (2026)
With references, with summary in English and Dutch.

ISBN: 978-94-6534-502-4
DOI: https://doi.org/10.18174/680843

"The life of money-making is one undertaken under compulsion, and wealth is evidently not the good we are seeking; for it is merely useful and for the sake of something else."

Aristotle, Nicomachean Ethics (Book 1, chapter 5)

PREFACE

This dissertation was written by me as an external PhD student, combining a professional role in the field of Socially Responsible Investing (SRI). This has enabled me to combine a first-hand view into the SRI community with the opportunity to take a step back and reflect with an academic perspective on trends and developments with SRI.

Being an external PhD student also meant this dissertation was written over a longer period of time. The writing of the different chapters coincided with different stages of my professional and personal life. Also, SRI went through different phases of development and through different phases in which the societal context changed. These different development phases and societal contexts are also reflected in each chapter and discussed in Chapter 6 "Conclusion & Discussion". Below is an overview of when each chapter was written, the particular features of the SRI landscape at that time and the professional role(s) I had during that period.

Chapter 2 "*The effectiveness of socially responsible investment: a review*" was published in 2013. It was written when I worked in various roles at the Dutch government in the field of water management and climate adaptation and as project manager at the VBDO, the Dutch association of Investors for Sustainable Development.

Chapter 3 "*Engagement on ESG issues by Dutch pension funds: is it reaching its full potential?*" was published in 2018 and was written while working for the VBDO as well. During this chapter, I was involved in various research projects that were linked with shareholder engagement and the benchmarks on the VBDO on responsible investment practices of insurance and pension funds. Both chapters were written in a period in which SRI was in rapid development and regulation on SRI was still in its development stage.

Chapter 4 "*Institutional investors and the adoption of Socially Responsible Investment*" and Chapter 5 "*Convergence in socially responsible investment?*" were written during my time at Achmea Investment Management, during which I worked in the responsible investment team, with a particular focus on engagement. Chapter 4 was published in 2024, and chapter 5 was submitted in 2026. Additionally, in this period, SRI developed rapidly and professionalized, for example, in the field of Environmental, Social and Governance (ESG) data. In this period, also regulatory frameworks on SRI were being developed, especially in the EU.

The finalization of Chapter 1 "*Introduction*" and the writing of Chapter 6 "*Conclusion & Discussion*" was performed in 2024-2026. In that time, I worked for Achmea Investment Management, with a switch to APG Asset Management in October 2025. This period was characterized not only by a strong development of SRI practices but also by a more critical societal context for SRI.

In weaving together empirical findings, the development of the SRI literature, and practitioner insights gathered across distinct phases of my career, I hope this dissertation provides an interesting and integrated perspective on the development and impact of SRI.

TABLE OF CONTENTS

List of Figures 10

List of Tables 12

List of Abbreviations 13

1. Introduction 15
1.1 Introduction: Sustainability and finance 17
1.2 What is Socially Responsible Investment? 19
1.3 In which ways does SRI manifest itself within investors? 22
1.4 Scientific Context 25
1.5 Research questions 28
1.6 Methodological design and research methods 29
1.7 Outline of the thesis 32

2 The effectiveness of socially responsible investment: a review 35
2.1 Introduction 37
2.2 Socially responsible investment: actors and motives 38
2.3 Strategies of SRI investors 43
2.4 SRI: making a difference? 47
2.5 Theories on SRI and environmental governance 51
2.6 Conclusions for a future research agenda 54

3 Engagement on ESG issues by Dutch pension funds: is it reaching its full potential? 57
3.1 Introduction 59
3.2 Concepts and methods 62
3.3 Organisation and network of engagement of Dutch pension funds 67
3.4 Main trends in SRI engagement 71
3.5 Factors governing effective engagement 73
3.6 Conclusion and Discussion: Is engagement reaching its potential? 76

4 Institutional investors and the adoption of Socially Responsible Investment: An explorative case study of Dutch pension funds 81
4.1 Introduction 83
4.2 Theoretical perspectives 86
4.3 Methodology 93
4.4 Results 96
4.5 Conclusion 101

5 Convergence in socially responsible investment? 107
5.1 Introduction 109
5.2 Applying institutional theory to SRI development 110
5.3 The Dutch pension fund sector 113
5.4 Methodology 115
5.5 Results 119
5.6 Conclusion 127

6 Conclusion & Discussion 131
6.1 Introduction 133
6.2 Research findings 133
6.3 Answering the main research questions 135
6.4 Reflections on the methodology and external validity 144
6.5 Theoretical reflections 146
6.6 Recommendations for research, policy, and practice 150

References 155

Appendices 173

Summary 199

Samenvatting 209

Acknowledgements 219

About the Author 225

Publication List Author 229

Authorship Statement 232

LIST OF FIGURES

Figure 1.1:	Global sustainable investing assets in 2022.)	17
Figure 1.2:	Growth in the number of signatories of the UNPRI and their assets under management	18
Figure 2.1:	Multiple roles of NGOs in socially responsible investment	39
Figure 2.2:	Motivations of different types of shareholders for engaging in SRI	42
Figure 2.3:	Profiling strategies used by SRI investors	47
Figure 3.1:	Main actors in the engagement process	68
Figure 3.2:	Actors involved in the implementation of SRI and engagement	71
Figure 3.3:	Trends in SRI policies of the largest Dutch pension funds	72
Figure 5.1:	Regulatory development in relation to SRI over time	114
Figure 5.2:	Growth of SRI practices between 2010 and 2022 for the 50 largest Dutch pension funds	115
Figure 5.3:	Level of convergence in SRI Policy	120
Figure 5.4:	Level of convergence in the Exclusion practices	120
Figure 5.5:	Level of convergence in ESG-integration	121
Figure 5.6:	Level of convergence for active ownership in public equity	121
Figure 5.7:	Level of convergence in the impact investing: Green & Social Bonds	122
Figure 5.8:	Level of convergence in transparency on SRI	122
Figure 5.9:	Level of convergence in the extent of the SRI Policy for pension funds with the same fiduciary manager	123
Figure 5.10:	Level of convergence in the volume of green and social bonds within the investment portfolio with the same fiduciary manager	124
Figure 5.11:	Level of convergence in the extent of the SRI policy for pension funds with similar coverage ratios	124
Figure 5.12:	Degree of convergence in the volume of SRI policy for pension funds with similar coverage ratios	125
Figure 5.13:	Level of convergence in the volume of green and social bonds within the investment portfolio for pension funds with similar coverage ratios	125
Figure 5.14:	Level convergence in transparency on investments for pension funds with similar coverage ratios	126
Figure 5.15:	Degree of convergence in the Volume of SRI Policy for pension funds with similar AuM sizes	126
Figure 5.16:	Level of convergence in the Exclusion practices in public equity for pension funds with similar AuM sizes	127
Figure 6.1:	A typology of impact pathways for SRI	135
Figure 6.2:	Interaction of SRI effectiveness and organisational, regulatory and societal factors	143

Figure 6.3:	Structuring of theoretical frameworks for understanding SRI development and impact	150
Figure D2.1:	Level of convergence in the extent of the SRI Policy for pension funds with similar characteristics of beneficiaries	189
Figure D2.2:	Degree of convergence in the Volume of SRI Policy for pension funds with similar characteristics of beneficiaries	189
Figure D2.3:	Level of convergence in the Exclusion practices in public equity for pension funds with similar characteristics of beneficiaries	190
Figure D2.4:	Level of convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar characteristics of beneficiaries	190
Figure D2.5:	Level of convergence in the volume of green and social bonds for pension funds within the investment portfolio with similar characteristics of beneficiaries	191
Figure D2.6:	Level convergence in transparency on investments for pension funds with similar characteristics of beneficiaries	191
Figure D3.1	Degree of convergence in the Volume of SRI Policy with the same fiduciary manager	192
Figure D3.2:	Level of convergence in the Exclusion practices in public equity with the same fiduciary manager	192
Figure D3.3:	Level of convergence in the percentage of the public equity portfolio covered by ESG-integration practices with the same fiduciary manager	193
Figure D3.4:	Level convergence in transparency on investments with the same fiduciary manager	193
Figure D4.1:	Level of Convergence in the Exclusion practices in public equity for pension funds with similar coverage ratios	194
Figure D4.2:	Level of Convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar coverage ratios	194
Figure D5.1:	Level of Convergence in the extent of the SRI Policy for pension funds with similar AuM sizes	195
Figure D5.2:	Level of Convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar AuM sizes	195
Figure D5.3:	Level of Convergence in the volume of green and social bonds within the investment portfolio for pension funds with similar AuM sizes	196
Figure D5.4:	Level Convergence in transparency on investments for pension funds with similar AuM sizes	196

LIST OF TABLES

Table 1.1: Overview of aim, empirical focus and methodology 31

Table 2.1: Promising theoretical perspectives on SRI 54

Table 3.1: Sources of shareholder salience 64

Table 4.1: Overview of different stages in CSR stage models 88

Table 4.2: Characteristics of the 50 pension funds 97

Table 4.3: Combinations of SRI instruments used and whether (Y or N) this aligns with expectation 1. 98

Table 4.4: Overview of which asset class has the most developed implementation of SRI instruments and whether (Y or N) this is in line with expectation 2. 98

Table B.1: Overview of questionnaire items operationalisation 177

Table C.1: How do pension funds communicate with their participants and society? 182

Table C.2: Comparison between SRI policies and transparency between pension funds that do or do not consult their stakeholders 182

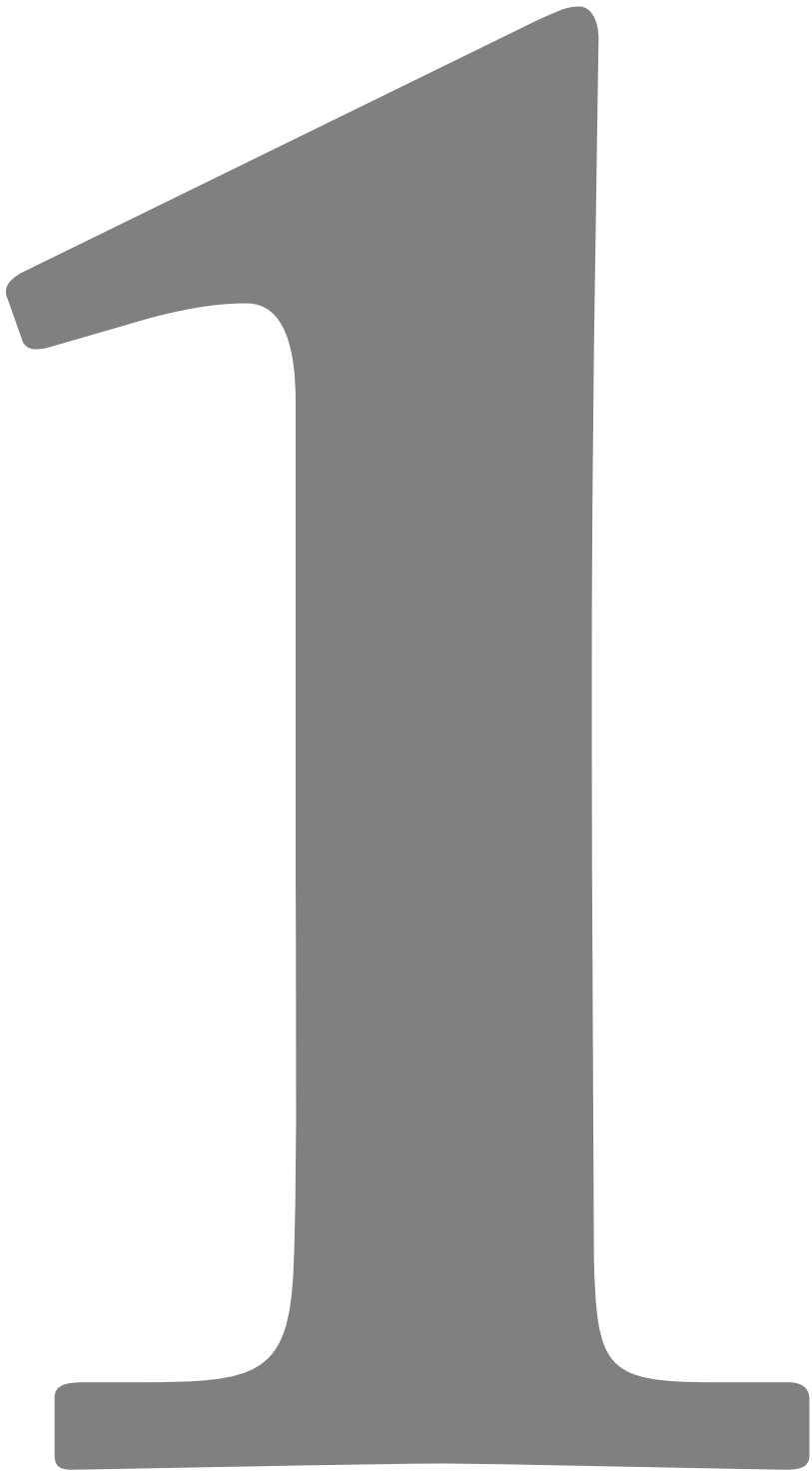
Table C.3: SRI policy maturity in pension funds which do or do not set targets for SRI 184

Table C.4: SRI implementation in pension funds which do or do not set targets for SRI 184

Table D.1: Overview of questions used for each expectation 186

LIST OF ABBREVIATIONS

AOW	Algemene Ouderdomswet/General Old Age Pension Act
AGM	Annual General Meeting
AuM	Assets under Management
ESG	Environmental, Social and Governance
CSR	Corporate Social Responsibility
GSIA	The Global Sustainable Investment Alliance
IIGCC	Institutional Investors Group on Climate Change
IMVO	Internationaal Maatschappelijk Verantwoord Ondernemen/International Corporate Social Responsibility
IMVB	Internationaal Maatschappelijk Verantwoord Beleggen/International Socially Responsible Investment
MVB	Maatschappelijk Verantwoord Beleggen/ Socially Responsible Investment
RI	Responsible Investment
SFDR	Sustainable Finance Disclosure Regulation
SIF	Sustainable Investment Forum
SRI	Socially Responsible Investment or Socially Responsible Investing
UNGP	United Nations Guiding Principles on Business and Human Rights
UNPRI	United Nations Principles for Responsible Investment
VBDO	Dutch Association of Investors for Sustainable Development



Chapter 1

Introduction

1.1 INTRODUCTION: SUSTAINABILITY AND FINANCE

The financial sector is not necessarily the first sector that springs to mind when considering sustainability challenges. Financial flows can be abstract and hidden in Bloomberg terminals or digital transactions at stock exchanges. Nevertheless, financial flows steer decision making and enable resources of sustainable and unsustainable economic activities. Therefore, how the financial sector takes into account sustainability issues, and what effects its decisions have, are important questions. Sustainability is increasingly on the agenda of the financial sector and has translated into different initiatives, policies, and practices worldwide. One manifestation of this trend is Socially Responsible Investing (SRI), which has developed rapidly in the last three decades. For example, a report from the Global Sustainable Investment Alliance (GSIA) revealed that SRI instruments are used in 30 trillion USD assets under management globally, but there are also large differences between regions as shown in Figure 1.1 (GSIA, 2023). Additionally, the number of members of the United Nations Principles for Responsible Investment (UNPRI) has risen from 10 in 2006 to 5261 in 2025, see Figure 1.2 (UNPRI, 2025b).

Figure 1.1: Global sustainable investing assets in 2022. Source: GSIA (2023)

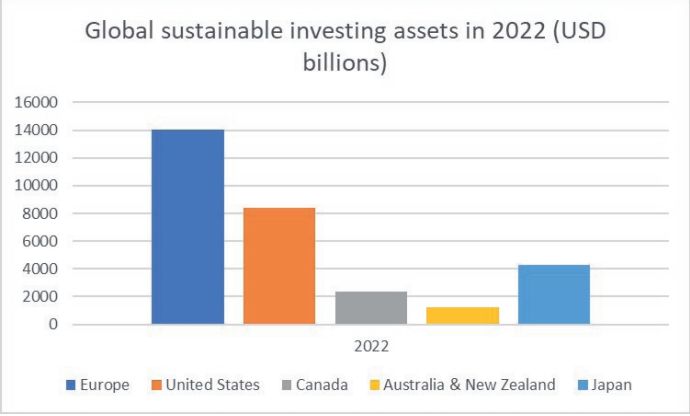
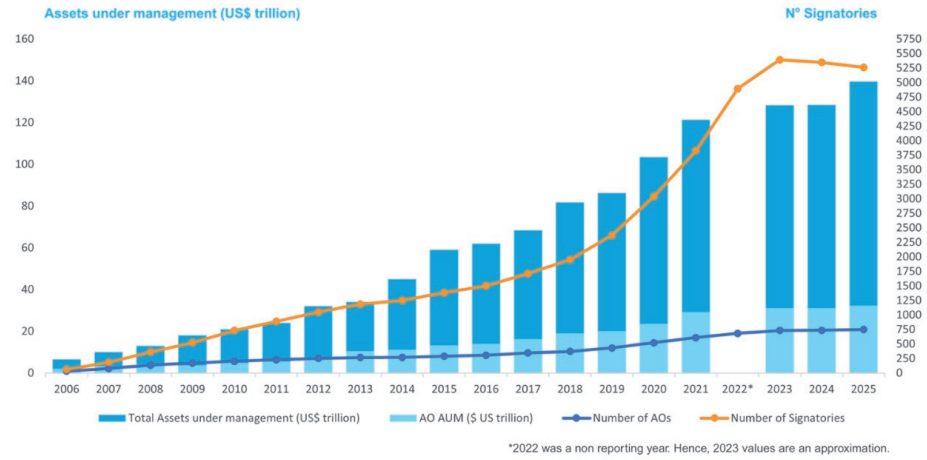


Figure 1.2: Growth in the number of signatories of the UNPRI and their assets under management
Source: UNPRI (2025a)



The development of SRI is not linear, and it waxes and wanes in close interaction with society. Especially in the last year SRI has been at the forefront of societal discussion regarding a range of topics. From investments related to fossil fuel companies, Myanmar, Russia and Israel-Gaza to human rights, and biodiversity to labour rights in the platform economy (Bradford, 2023; FD, 2023; Hurst et al., 2022; NOS, 2021). Especially in recent years, SRI has become part of political discussion and related culture wars, especially in the U.S. (Cheung, 2025).

SRI can be practiced by a range of different types of investors. From small retail investors to institutional investors, such as insurers or pension funds. Specifically, this thesis focuses on institutional investors who manage their investments professionally and diversify their investments across a wide range of asset classes, from shares listed equities, sovereign bonds, and real estate to private equity. Among institutional investors we have a particular focus on Dutch pension funds. With over 1900 billion EUR assets under management, a sizable group of institutional investors that has been at the forefront of SRI (DNB, 2025b; Quak et al., 2014). The Dutch pension funds and institutional investors are introduced in more detail at the end of this chapter.

This chapter starts by defining what SRI is and the different terms used. Second, the development of SRI over the years is discussed, its historical roots, and its catalysts. Third, an overview of the literature, the research gaps, and the research questions are presented. This chapter is concluded with an overview of the methodology, the researcher positionality and providing more background regarding Dutch pension funds, as Dutch pension funds are used as a case-study in three chapters.

1.2 WHAT IS SOCIALLY RESPONSIBLE INVESTMENT?

Socially responsible investment is one of many terms used to describe the integration of societal issues into investment management. Other terms that are commonly used and have similar, or overlapping, meanings include responsible investing, sustainable investing, ethical investment, sustainable finance or Environmental, Social and Governance (ESG) investment. These terms are sometimes used synonymously for SRI, but sometimes they can also have different emphases or describe practices in specific markets. The fact that there are several terms for this process is not surprising, as there are (a) several motivations for practicing SRI, (b) SRI can have different shapes and sizes, and (c) this process is still rapidly developing and branching out in reaction to societal developments and capabilities within the investment community.

The term socially responsible investment (SRI), which is used throughout this thesis for consistency reasons, also has different connotations. Therefore, we start with a discussion of the terms and definitions and the different perspectives they take.

Cowton (1994) defines socially responsible investment as follows:

> *"...the exercise of ethical and social criteria in the selection and management of investment portfolios, generally consisting of company shares (stocks). This contrasts with standard depictions of investment decision-making in finance textbooks, which concentrate solely on financial return in the form of dividends and capital gains, and risk..."*

This definition focuses specifically on the investment process and the role that social and ethical criteria can play in this process. However, SRI has more sides and perspectives, as the definition by the Principles for Responsible Investment (2023) shows:

> *"Responsible investment involves considering environmental, social and governance (ESG) issues when making investment decisions and influencing companies or assets (known as active ownership or stewardship). It complements traditional financial analysis and portfolio construction techniques."*

Responsible investors can have different objectives. Some focus exclusively on financial returns and consider ESG-issues that could impact these. Others aim to generate financial returns and to achieve positive outcomes for people and the planet, while avoiding negative ones (PRI, 2023)

This definition adds to the definition of Cowton (1994) by identifying that SRI can also materialise by using the influence that investors have over their investee companies. Moreover, depending on the investor, SRI can have different objectives, ranging from the goal of having better financial returns, to the goal of avoiding negative impacts and promoting positive societal impacts of its investment.

Other authors have added the specific perspective of norm-based investors to this debate. For example, Beloe (2001) and Sparkes (2001), identify the difference between investors who are market (financially) led and investors who are value (norms) led. For example, Beloe (2001) identifies the so-called "monks" and "crusaders" as SRI investors archetypes at the value side of this range. Investors who are strongly guided by norms and values have played important roles in the historic development of SRI.

The different motivations for investors, being financially driven, impact driven or norm driven, can logically overlap. However, it can be used as a typology for specific SRI investors and specific SRI practices, as is explored in this dissertation.

Historical Roots of SRI

There are different origin stories on SRI that, although they differ, all hold valuable insights on the different roots that are relevant for the development of SRI. These different roots have led to the wide range of SRI practices, practiced by a wide range of investors across different markets. Three categories of roots that are of major relevance to SRI practices today are the financial roots, normative roots and regulatory roots that are discussed in more detail below.

Financial roots

An important root contributing to SRI is the conviction that by integrating sustainability information, or ESG-information, financial decision making is enhanced. For example, because this information is not (yet) taken into account by the broader market or enhances risk management (Silvola & Landau, 2021). Early examples include investors who exclude certain investments, not only because of any normative considerations but also with the conviction that these investments were too risky owing to sustainability-related risks. Another example is taking into account sustainability information along-side the more traditional financial data used in making portfolio decisions. Over time development has resulted in so-called ESG-integration. The integration of environmental, social and governance data into the investment process to enhance investment decisions and portfolio management from a risk-return point of view.

Over time, ESG-integration practices have flourished as shown by the GSIA, who reported that ESG-integration was applied for 5.6 trillion USD AuM globally (GSIA, 2023). It is good to note, however, that different estimations exist of the size of ESG-integration, as definitions of what it constitutes vary widely. This is understandable, as ESG-integration is

not monolithic and takes several shapes and sizes. ESG-integration covers qualitative assessments by portfolio managers of sustainability risks, as well as the integration of ESG data in quantitative models for investments fund. Additionally, ESG-integration can be used for a wide range of asset classes and for each asset class different types of ESG data are material. For example, energy use is an important data point for real estate investments, whereas water shortages can be an important ESG dataset for commodity trading. Additionally, ESG integration can be performed not only for specific investments, but also at a more strategic level on the whole portfolio (Eccles et al., 2017). For example, by setting portfolio wide CO_2-reduction goals or targets related to the Sustainable Development Goals.

What, however, unites all these different practices, is the reasoning that doing so enhances the investment process and leads to better financial and risk-return outcomes, without necessarily the claim of a positive societal impact as well. Alongside the growth of ESG-integration, an ecosystem has developed of ESG data providers, companies that translate data into investment processes. These ESG data providers have developed a wide range of proprietary methodologies to assess and rank ESG risks and opportunities (Dodsworth et al., 2023). The increasing availability of ESG methodologies and data has enabled ESG-integration to play a more prominent role in more traditional financial data provisions (Silvola & Landau, 2021).

Normative roots

Several scholars have identified the role of values and norms in the earliest roots of SRI. An example is the role that religious actors have played in the start of SRI. Already in the 17th century, Quackers excluded investments linked to the slave trade or alcohol. At a later stage, SRI investment funds for retail investors were launched in the late 1960s and early 1970s in several markets. Many of them were launched by religious organisations that excluded certain investments, for example armaments, or alcohol, due to normative motives (Beloe, 2001; Sparkes & Cowton, 2004).

SRI has also been shaped by societal movements on a variety of topics over time. One key example is the anti-apartheid movement, which focused on divestment from South Africa and that pressured financial institutions to do so (Allen et al., 2012; Arjaliès, 2010b; Beloe, 2001). A more recent example is the pressure from societal movements to divest from fossil fuel producers. For example, in the US and UK, where universities were pressured to divest from fossil fuels and in the Netherlands, where several pension funds were targeted (Grady-Benson & Sarathy, 2016; Hunt et al., 2017; NOS, 2021).

A group of actors that historically have played a catalysing role in SRI, particularly at pension funds, are labour unions. Labour unions have increasingly gained influence over the investment policies and practices of pension funds (Yan et al., 2019). How this influence plays out, depends on the position and role of labour unions within society. Arjaliès (2010a),

for example, describes how labour unions in France played a role in establishing SRI labels for SRI employee saving funds. An example from the Dutch context is that the Dutch labour union FNV published a position paper in 2000 on how representatives from labour unions should shape responsible investment practices in the pension funds in which they were board members (van der Zwan et al., 2013). According to Yan et al. (2019), labour unions, as well as green political parties and religious organisations, can present an alternative logic, as opposed to financial logic, in the financial sector and therefore play a steering role in SRI development.

Regulatory roots

SRI has also been shaped by different shapes and sizes of soft law, such as voluntary codes and guidelines, and hard law. Soft law played a key role in the early development of SRI. In 2006 the UNPRI was launched, in combination with 6 principles to which signatories of the UNPRI need to commit. The membership of the UNPRI rapidly increased and the principles played a key role as voluntary guidelines (Martini, 2021; UNPRI, 2024a, 2024c). Additionally, in several countries SRI is shaped by or dedicated codes on SRI, or by the introduction of SRI criteria in existing codes. Examples include the UK stewardship code and the code for Dutch insurers on responsible investing from 2018 (Davies, 2020; Verbond Van Verzekeraars, 2024).

For an extended period, hard law has been relatively absent from SRI development. However, that changed with a push from the European Union, by introducing the EU taxonomy and the Sustainable Finance Disclosure Regulation, which define investments can be classified as sustainable (EU, 2021).

However, when looking at the impact of regulation on SRI it is also important to look at general regulation in the financial sector, as this can also be seen as influencing the development of SRI. There is a long-standing debate, for example, on if and how SRI fits with the fiduciary duty of pension funds. This question has led to different answers across markets and to divergence in SRI practices. This is partly due to different legal systems, policies and societal contexts (Richardson, 2008; UNPRI & UNEP, 2019). More recent developments in the U.S. show that SRI can also become politicized and that regulatory pressure can also reduce SRI practices (Hilson, 2024).

1.3 IN WHICH WAYS DOES SRI MANIFEST ITSELF WITHIN INVESTORS?

As there are different (combinations of) starting points for practicing SRI, this is also one of the reasons why SRI can take different shapes and sizes. Below, the diverse ways in which SRI policies and practices can materialise among institutional investors are discussed.

Policy & governance

An SRI policy defines how SRI is practiced by an institutional investor. It can address and vary along several dimensions. First, the policy may delineate which asset classes fall under its scope, reflecting the investor's type and portfolio composition. The policy may cover equities, fixed income, real estate, or other asset categories. Second, an SRI policy can specify the SRI instruments that are used, ranging from exclusion, ESG-integration to impact investing. Third, the policy can vary according to the ESG themes it addresses, from human rights issues, climate change, animal welfare, water scarcity, to health, and how these themes are implemented. Fourth, the policy can clarify whether SRI considerations are treated as a standalone framework or embedded within broader investment policies and overarching investment beliefs. Finally, the policy may articulate the motivations and objectives behind adopting SRI, whether driven by financial performance, ethical values, desired societal impact, or the preferences of clients and beneficiaries.

With respect to the governance of SRI policies and their implementation there can be differences in where formal decision-making takes place. It can have a formal spot in governance at the board level. However, it can also be delegated to board committees or to more operational levels within the organisation.

SRI instruments and their implementation

SRI can be implemented in different ways by investors as SRI instruments that can be applied in different combinations and ways among investors. Below an overview is provided of the categorisation of SRI instruments used in this thesis and how this approach overlaps or differs from other categorisations:

- ***Exclusion**:* Excluding specific sectors, companies or activities depending on the normative views of investors. Examples include excluding tobacco producers, structural violators of human rights or oil extraction in the arctic. Exclusion can be applied in one or more different asset classes, from listed equity to sovereign bonds. In the categorisation used in this thesis, exclusion due to norm-based screening is included. This is the screening of the investment portfolio for companies or investments that violate (international) norms. For example, due to human rights violations, corruption, or toxic emissions. Norms based screening is seen by Eurosif, the European Sustainable Investment Forum, as a separate SRI instrument (Eurosif, 2018)
- ***ESG integration:*** the integration of environmental, social or governance rationales in investment decisions. A core motivation for ESG integration is to enhance investment decisions and is less shaped by normative or impact considerations. In particular, ESG integration can be practiced in different ways among investors. This can be done in a qualitative way, but also in a quantitative way by integrating ESG data and overweighting/underweighting specific investments on the basis of their ESG profile. ESG integration can be integrated into different asset classes, including real estate, corporate bonds and listed equity (Eurosif, 2018). A best-in-class approach is included in our categorisation.

Best-in-class is investing in a specific part of the investment universe with the highest ESG credentials or giving these investments a higher weighting in the investment portfolio. Eurosif categorises best-in-class as a distinct SRI instrument (Eurosif, 2018).

- ***Engagement:*** Establishing a dialogue with investees to gain more information on their ESG practices or to influence them to improve their ESG practices. Engagement can take place in a wide range of asset classes but can differ due to the role and legal rights of investors. Shareholders in listed equity, for example, have voting rights and are therefore less likely to have access to companies and to be consulted. However, engagement in other asset classes can also take place. So-called sovereign engagement with countries or multinational organisations is also becoming more prevalent (UNPRI, 2024b; van Zanten et al., 2023)
- ***Voting:*** Shareholders have the right to vote at annual shareholder meetings of investee companies. This can be an SRI instrument when shareholders integrate ESG rationales in voting decisions and/or the filing of shareholder resolutions. Voting is restricted to asset classes in which investors have formal voting rights, so this leaves out asset classes such as corporate bonds and sovereign bonds(UNPRI, 2021). Voting and engagement are sometimes jointly categorised as active ownership, in which the dialogue and the use of voting rights come together (UNPRI, 2018).
- ***Impact investing:*** Investment with the explicit goal of reaching societal impact, in addition to financial returns (GIIN, 2023). How financial goals and societal impact goals are balanced can differ and range from investments close to philanthropy (impact first) to investments close to regular market returns (finance first). An explicit requirement for impact investing is that societal goals are intentional and the societal impact is measured (GIIN, 2023). Impact investing can be applied in a wide range of asset classes and type of investments. From microfinance, private equity to corporate bonds. Some categorisations of SRI instruments also identify so-called thematic investments, that is, investments made in specific sectors or in specific sustainability themes. If impact through these investments is intentional and measured, these investments can be a subset of impact investments.

Reporting & Stakeholder dialogue

There are different dimensions in relation to transparency and reporting on SRI policies and practices. Investors can or cannot disclose their SRI policies. Additionally, there can be different levels of transparency regarding the use of SRI instruments. For example, if exclusion criteria and lists of excluded companies and sectors are published, how does the investor vote on ESG resolutions and how ESG integration takes place. Additionally, reporting can be a way to signal future steps, to explain how an investor addresses specific SRI dilemmas or to show compliance with hard or soft law. Therefore, increased reporting does not necessarily have to be linked to actual increases in SRI practices (Bauer et al., 2024).

1.4 SCIENTIFIC CONTEXT

SRI is an emerging research field, and an increasing number of studies have been published on this topic in a wide range of different disciplines, from finance business management to the social sciences (Chalissery et al., 2022; Daugaard, 2020; Koenigsmarck & Geissdoerfer, 2021). However, as noted by Beisenbina et al. (2023), current research on SRI is fragmented and there is little collaboration between different research groups. In this section, the different branches within the SRI literature are identified, the main branches within the SRI literature are summarised and research gaps are identified.

SRI and its relationship with financial returns

Several studies, including bibliometric studies, have identified the heavy emphasis in current research on SRI in the relation between SRI and financial returns (Fabregat-Aibar et al. (2019), Beisenbina et al. (2023) Kapil and Rawal (2023)). Capelle-Blancard and Monjon (2012b) describe and explain the strong attention given to the relation between SRI and financial returns in scientific research. A main explanation is that SRI research is data driven, which drives research on financial returns on which a wide range of data is available.

Within this broad range of relevant studies, some studies that provided new insights or more overarching conclusions are highlighted here. One relevant study is the meta-study of Friede et al. (2015). This study concluded that there was a non-negative relationship between ESG performance and financial performance, with the large majority being positive. Another relevant study is that of Capelle-Blancard and Monjon (2012a) who studied the financial performance of mutual performance in relation to the screening process used. An important outcome was that a stricter screening process led to lower financial performance. Another meta-study is the work of Revelli and Viviani (2015). In their meta-study on the relationship between financial performance and SRI, they conclude that the financial impact of SRI is heterogeneous as the way in which SRI is used and implemented is also heterogeneous.

In addition to the diverse ways in which SRI can be implemented there are other factors at play that make answering the question if SRI affects financial return multifaceted. Derwall et al. (2011) noted that, in addition to the different ways in which SRI is implemented, the effect of SRI on financial returns is dependent on the motivations of the investors and that the positive or negative financial impacts of SRI can also differ between the short and long term.

SRI implementation

Another but smaller group of studies focuses on understanding how SRI is implemented, such as the use and impact of specific SRI instruments. The existing studies range from analysing ESG shareholder proposals, the specific topics on which exclusions take place, to the different ways in which ESG integration takes place to how engagement is practiced by institutional investors. However, the attention given to the different SRI instruments is

not spread evenly. Viviers and Eccles (2012) reported that especially negative and positive screening and forms of shareholder activism have received the most attention.

A specific subbranch of literature focuses on how SRI is implemented in specific countries, among specific types of investors. SRI adoption of different SRI instruments and aspects clearly differs between (types of) investors and countries (Bengtsson, 2008; Louche & Lydenberg, 2006; Sakuma & Louche, 2008; Sandberg et al., 2008). Arjalies (2010a) for example states that the global SRI movement does not exist, but is a sum of a diverse range of separate national movements. This becomes very visible when zooming in on the report from the GSIA and Eurosif, who provide an overview of how much certain SRI instruments are used in different regions and countries, and clearly show distinctions in SRI profiles per country (Eurosif, 2018; GSIA, 2021, 2023). Sandberg et al. (2008) see different cultural values as important reasons for this heterogeneity and argue that SRI will remain heterogeneous if cultural values do not converge.

Bengtsson (2008) focuses on these differences in SRI practices within Scandinavia and how these practices are shaped by regulatory and societal changes. Scholtens and Sievänen (2012) used cultural values to describe the differences and similarities in SRI practices in the Scandinavian context. Arjalies (2012) explains why the absence of ethical organisations, and the more prominent role of financial actors lead to specific SRI practices in French market in comparison to other countries.

An emerging research field is the role of the investment chain. SRI is also enabled by a wide range of actors within the financial sector. These include ESG data providers, consultants, and service providers. SRI is not developed within investors only; rather, it is shaped by the different actors within the investment chain that enable, facilitate, or hamper SRI development. From ESG rating agencies, Index providers to engagement providers (Arjalies, 2012; Muñoz-Torres, 2018; Fichtneret al, 2023).

Research gaps

Although the field of SRI is expanding rapidly, there are also topics that are underdeveloped. Below, three topics are described that are underdeveloped and that this thesis aims to address, followed by promising theoretical inroads for these topics.

Development of SRI

Several scholars have pointed to the heterogeneity of SRI practices among investors (Arjaliès, 2010a; Bengtsson, 2008; Louche & Lydenberg, 2006; Sandberg et al., 2008). However, less research has been conducted on how SRI develops over time and which factors influence this process. Is SRI shaped by the goal of increasing financial returns, is it a legitimising activity or is the goal having societal impact (Daugaard, 2020)? This connects to the previous section on the driving forces for SRI. Normative, financial, and regulatory considerations all play a

part in the development of SRI. However, how do these (combinations) of considerations influence different types of investors and different markets? How do these considerations interact, creating synergy or possibly even conflict? How does the development of SRI interact with societal developments and stakeholders, including clients and beneficiaries? Is it a one-way street of society influencing investors or is this also the other way around? This research aims to address these questions on which little research has been done. From a theoretical point of view, we use two theoretical frameworks that are promising for increasing our understanding of SRI development: CSR stage models and institutional theory.

Within the field of CSR so-called stage models are used to describe CSR development within companies. Stage models can play different roles, from labelling specific combinations of CSR practices, to comparing or describing logical pathways for CSR development. CSR stage models are not a unified theoretical framework but cover a myriad of different stage models. Some have a theoretical grounding, and some are more descriptive. As SRI still lacks theoretical frameworks to assess its development, and SRI and CSR both focus on integrating sustainability into economic activities, CSR stage models are used as a starting point to gain more insight into development pathways in SRI. The commonalities in different CSR stage models are assessed and expected development pathways for the SRI practices of Dutch pension funds are formulated. Chapter 4 discusses CSR stage models in more detail.

Institutional theory studies organisations and how they develop in relation to the social and cultural systems in which they operate (Hoepner et al., 2021; Scott, 1987; Scott, 2005). The works of Dimaggio & Powell (1983) and Meyer & Rowan (1977) are seen as the starting point for institutional theory and since then institutional theory has been applied to a wide range of sectors and organisations. A key concept within institutional theory is isomorphism between organisations that are influenced by the same political regulatory or societal pressure or uncertainties (DiMaggio & Powell, 1983). Institutional theory is used to better understand whether SRI adoption among institutional investors converges or diverge, and which factors influence this process. More background on institutional theory can be found in chapter 5.

Societal impact of SRI

Viviers and Eccles (2012) noted that the social impact of SRI funds is a topic that is underdeveloped. Additionally, Kapil and Rawal (2023) and Daugaard (2020) identify the limited research on whether and how SRI affects the corporate behaviour of investee companies. Daugaard (2020) elaborates on this data gap by stating the following question: is SRI done with the goal of improving society, or is it a mere legitimising activity? The research gap concerning whether SRI has societal impact can be answered by answering several sub questions. First, what is the potential of SRI instruments to evoke societal change? What are the motivations for institutional investors to use these instruments? Are institutional investors able and willing to use these instruments to their fullest potential? This research gap is ad-

dressed by studying the effectiveness and current use of SRI instruments, and by specifically focusing on shareholder engagement.

From a theoretical point of view, we build upon stakeholder salience. Stakeholder salience is a theoretical framework covering the role of stakeholders in influencing organisations and that was developed by Mitchel, Agle and Wood (1997). As institutional investors are, by providing capital, a particular type of stakeholder, stakeholder salience is used as a starting point for the interactions between investors and investees, and for how investors can influence investees. As investors have a different formal position than other stakeholders do, we build upon the work of Gifford (2010) in our research. Gifford adapted stakeholder salience to investor engagement, especially in relation to its effectiveness, as several studies have shown that salience plays an important role in the effectiveness of engagement (Allen et al., 2012; E. J. M. Gifford, 2010). More details can be found in Chapter 3.

Theoretical studies

The current research on SRI focuses on empirical studies and the number of conceptual and theoretical studies is low (Capelle-Blancard & Monjon, 2012b). When a more theoretical perspective is chosen in studies, the use of scientific theories is rather eclectic. This is due to the different scientific disciplines in which SRI is studied. From modern portfolio theory to social movement theory. Additionally, there is limited interaction between the different theoretical lenses and the different disciplines studying SRI. This interaction is, however, necessary, as SRI cannot be fully understood by only taking the perspective of one specific field, i.e., being it investment management or sociology, owing to the interplay of financial rational and societal developments. In chapter 6 we will therefore reflect and build a typology of the different theoretical frameworks from different fields for understanding SRI and how these frameworks can connect.

1.5 RESEARCH QUESTIONS

As SRI is still developing rapidly, several important data-gaps exist, as discussed above, particularly with respect to SRI development and the societal impact of SRI. These topics are addressed in this thesis with the following main research questions:

1. When does SRI have societal impact?
2. Which factors influence the development of SRI?

Both questions are multifaceted. In this thesis, these research questions are broken down into several steps. The first step is an assessment of the scholarly literature on the impact of SRI through different SRI instruments, which is presented in chapter 2. The second step is focus on the effectiveness of the SRI instrument of engagement and which factors govern its effectiveness, covered in chapter 3.

With respect to the development of SRI, this thesis studies two specific aspects. The first, as covered in chapter 4, studies whether there are specific development pathways for SRI and if there is a logical order for implementing SRI instruments. In chapter 5, convergence in SRI practices is studied, as are the factors that potentially influence this process.

In the Conclusion & Discussion we will reflect on both research questions and how the answers on both research questions interact.

1.6 METHODOLOGICAL DESIGN AND RESEARCH METHODS

The main objective of this thesis and the researcher positionality have guided several methodological choices in this thesis. In the following sections an overview of the researcher positionality, methodological design, research methods and the choice for Dutch pension funds for case-studies are discussed.

Researcher background and positionality

As an external PhD researcher, the research has interacted in several ways with my professional background. To provide transparency, I present a brief overview of my background and positionality.

I studied environmental sciences at Wageningen University, with a specialization in environmental policy. For my thesis I researched the position of Russian environmental NGOs and the impact of international collaboration on these NGOs. As the societal position of these NGOs was weak in comparison to, for example, the Netherlands, one of the findings was the foreign investments were helping to make Russian corporations more open to consulting and working with Russian NGOs. This helped strengthen their position. This finding fascinated me and was a reason to start this PhD research. At first, the research was more loosely connected with my professional career, in which I worked in several roles in governmental policy regarding renewable energy, water management and climate change. Chapters 2 and 3 were written during this period.

However, that changed in 2013 when I started working at the VBDO. This switch enabled me to have closer involvement with the research topic and the possibility of being in contact with a wide range of actors within SRI. In my professional role I was engaged with a wide range of stakeholders within SRI. From pension funds, insurers, banks to NGOs. I also participated in the research process of the VBDO Benchmark on responsible investment for pension funds and the similar benchmark for insurers for which the data of the former are used in this research. This work enabled me to have a solid understanding of the research process, the data and their strengths and flaws.

In 2017 I switched to another role at Achmea Investment Management (Achmea IM). Achmea IM is the asset manager liaised to the Achmea Group, a Dutch cooperative insurer, but also provides asset management and SRI services for a wide range of Dutch pension funds. In October 2025, I transferred to a role at APG Asset management. Both roles provided me with an inside look into SRI, its development, its dilemmas and how it was implemented. However, this could also mean a lack of distance between the research topic and its actors. I mitigated this risk by doing this research fully independently from Achmea IM and APG. From not being funded for my research to not using any data from my professional activities for this research.

Methodology

To answer the research questions a mixed-methods research approach was used to provide a comprehensive analysis of socially responsible investing (SRI) in the context of Dutch pension funds. This approach integrates three key components: an extensive literature review, qualitative interviews, and the analysis of a multiyear dataset on Dutch pension funds. This approach was chosen to enable different perspectives on SRI, to observe multiyear trends and macro-level dynamics and to capture both the microlevel nuances of different actors within SRI. Below, an overview of the methodology per chapter is given in the text and in table 1.1. A more detailed description of the methodology is given in each of these chapters.

For chapter 2, a secondary analysis of existing studies is applied in which more than 200 scientific articles on the societal impact of SRI are systematically analysed and reviewed. This was the only chapter that was not focused specifically on Dutch pension funds, which enabled a broader review of SRI epistemology, and provided a broader review of the scientific literature to provide context for our research.

For chapter 3 on the effectiveness of engagement a qualitative approach combined with quantitative data was chosen. Twenty-three semi structured interviews with different actors practicing engagement and investees were conducted to study the factors that make engagement effective and how different actors shape engagement. The questionnaire used in the interviews was based on shareholder salience and was modified on the basis of the type of actor being interviewed. All interviews were conducted on a confidential basis and anonymised. The interviews were transcribed and systematically coded. In addition to data from interviews, quantitative data from yearly studies (over nine years) of the SRI practices of the 50 largest Dutch pension funds were used.

For chapter 4 the dataset from the yearly "Benchmark Responsible Investment by Pension Funds" was used, a survey carried out by the VBDO (Dutch Association of Investors for Sustainable Development). For this study the dataset from 2017 was used, which consisted of 54 multiple choice questions and covered the 50 largest Dutch pension funds in that year,

with a response rate of 94 % (VBDO, 2017). On the basis of existing CSR stage models, expectations were formulated and tested with the VBDO benchmark scoring.

For Chapter 5 data from the "Benchmark Responsible Investment by Pension funds" were used for all the editions between 2010 and 2022. This longitudinal dataset covers the (changes in) SRI policies, the use of SRI instruments and SRI reporting. A normalised chi square statistic with subgroup analyses was used to assess whether convergence in this period took place among all pension funds and among subgroups on the basis of beneficiary characteristics, fiduciary managers, coverage ratios, and size of the assets under management.

Table 1.1: Overview of aim, empirical focus and methodology

	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Aim	Assess the effectiveness of SRI instruments	Identify the networks and key factors for the effectiveness of engagement	Explore the development pathways of SRI	Identify the factors that influence SRI convergence and divergence
Theoretical perspective	-	Stakeholder salience	CSR Stage Models	Institutional theory
Methods	Literature review	Interviews (n=23) & Survey (n=50)	Survey (n=50)	Survey (n=50)
Empirical focus	SRI literature	Dutch pension funds, their investment chain and investees	Dutch pension funds	Dutch pension funds
Time	<2013	2007-2016	2017	2010-2022

The case of Dutch pension funds

SRI encompasses a wide range of practices, across a wide range of markets, and is practiced by a wide range of different types of investors. To enable focus and to create synergy between the different chapters, Dutch pension funds play a central role in this study.

In the Netherlands pension funds provide pensions for specific professions, sectors or organisations. These pensions are in addition to a governmental pension and personal pension provisions that individuals have made. Pension funds are governed by employers as well as employees, especially through representatives from labour unions. The investments of pension funds are diversified and invested through global financial markets and within different asset classes. The Dutch pension sector has over 1.9 trillion EUR of assets under management in 2024 (DNB, 2025b).

There are multiple compelling reasons for choosing Dutch pension funds as case studies in Chapters 3,4 and 5. First, the Dutch investment market has been at the forefront of responsible investing (Quak et al., 2014; Scholtens, 2005).

Second, the relatively large number of Dutch pension funds, 170 in 2023, that are all active within the same regulatory and societal context makes it a logical choice from an empirical point of view (DNB, 2023). Additionally, Dutch pension funds operate under a partly similar regulatory context as other institutional investors in the European Union. As the regulatory context in the European Union in relation to SRI is evolving rapidly with, for example, the implementation of the SFDR, EU Taxonomy and CSRD, it makes it a topical focus for studying SRI development (EU, 2021).

Third, as a practitioner working closely with the sector, it enabled me to take a deeper look than in other markets and among other types of investors. In particular, as Dutch pension funds work closely with a wide range of different actors in the investment chain, from fiduciary managers, asset managers, and ESG consultants to ESG data providers. Being a practitioner in the Dutch SRI field enabled me to better assess the different complex interactions and place the results of the research into context. More background on the Dutch pension fund sector can be found in chapters 3, 4 and 5.

1.7 OUTLINE OF THE THESIS

This thesis presents three empirical chapters, one literature review and a discussion & conclusion. Chapters 2 and 3 focus on the research question on the impact of SRI, whereas chapter 4 and 5 specifically focus on the development of SRI. Below, a more detailed overview of each chapter and their research question is given.

Chapter 2 provides a literature review on the effectiveness of SRI, guided by the following research questions:

2.1 Which factors govern the effectiveness of SRI strategies in influencing the environmental, social and corporate governance (ESG) performance of public companies?
2.2 Which theoretical frameworks are promising for studying and interpreting SRI developments?

Chapter 3 focuses on a specific SRI instrument, namely engagement and its effectiveness in achieving societal impact, and has the following research questions:

3.1 Which networks steer the engagement process of institutional investors?
3.2 Which factors determine the effectiveness of the engagement of institutional investors in improving ESG performance among their investees?

Chapter 4 discusses the adoption of SRI among Dutch pension funds. Expectations are formulated on the basis of corporate social responsibility (CSR) stage models and tested on a dataset on the SRI practices of 50 Dutch pension funds. This chapter has the following research questions:

4.1 What do CSR stage models tell us to expect from SRI adoption by institutional investors?
4.2 To what extent are these expectations corroborated by a dataset on the SRI practices of Dutch pension funds?
4.3 What do these findings imply for the future application of CSR stage models to SRI adoption among institutional investors?

Chapter 5 studies whether and how convergence towards isomorphism takes place in the SRI practices of Dutch pension funds. Institutional theory is used to formulate expectations on which factors are an explanation for convergence or divergence. These are tested with a multiyear dataset on Dutch pension funds. This chapter has the following research questions:

5.1 Is convergence towards institutional isomorphism in SRI development taking place?
5.2 If so, which factors are associated with convergence towards isomorphism?

In chapter 6, "Conclusion & Discussion", the main findings are discussed, and the research questions are answered. Based on these answers, the theoretical and practical implications and inroads for further research are presented.

2

Chapter 2

The effectiveness of socially responsible investment: a review

This paper has been published as:

Wagemans, F. A. J., Koppen, C. S. A. v., & Mol, A. P. J. (2013). The effectiveness of socially responsible investment: a review. *Journal of Integrative Environmental Sciences*, 10(3-4), 235-252. https://doi.org/10.1080/1943815x.2013.844169

ABSTRACT

Over the past two decades, an increasing number of shareholders have begun to consider non-financial criteria, such as social and environmental criteria, in making investment decisions and executing shareholders rights. Investing based on such criteria is often labelled socially responsible investment (SRI). This article reviews the actors in SRI, the motives for SRI, relevant theoretical frameworks and the effectiveness of SRI in changing environmental, social and corporate governance (ESG) performance of public companies. Various actors with different motives engage in socially responsible investment through distinct strategies. Although the effects of socially responsible investment strategies are difficult to identify and quantify, overall, SRI does not yet play a major role in changing ESG performance. Several factors can be identified that impede SRI in improving ESG performance, together forming an action agenda for SRI researchers and practitioners. The research agenda for socially responsible investment studies should include examining poorly studied engagement strategies; identifying the factors that govern SRI effectiveness; elucidating the relation between shareholders and other actors, such as NGOs, governments and media; and building theoretical frameworks to understand and analyse SRI, for which the theory of stakeholder salience and ecological modernisation theory provide promising starting points.

2.1 INTRODUCTION

Shareholders have been a frequent object of academic research, often with a strong focus on the financial motives and behaviour of shareholders and the economic consequences of their strategies for companies and markets. However, over the past two decades, an increasing number of shareholders have begun to consider non-financial criteria, such as social and environmental criteria, in making investment decisions and executing shareholders rights. In Europe alone, environmental and social criteria play a substantial role in €6.7 trillion Euros of investments annually (Eurosif, 2012). Although several labels are used for this type of investment, such as ethical investment and sustainable investment, we apply the more common label of socially responsible investment. Arguably providing the most clear and concise definition, Cowton (1994) defines socially responsible investment as

"...the exercise of ethical and social criteria in the selection and management of investment portfolios, generally consisting of company shares (stocks). This contrasts with standard depictions of investment decision-making in finance textbooks, which concentrate solely on financial return in the form of dividends and capital gains, and risk..."

While a useful starting point, Cowton's definition focuses on the management of portfolios rather than the use of the rights and influences associated with these portfolios. These latter activities should also be included as part of socially responsible investment.

The rapid grow of socially responsible investment has not remained unnoticed in the academic literature. Most studies on socially responsible investment (SRI) are rather empirical in nature and centre on investment management and the financial performance of SRI (often in comparison with conventional investment) (Capelle-Blancard & Monjon, 2012). Less attention has been paid to the effectiveness of socially responsible investment strategies in improving ESG performance. While several case studies have focused on the effect of SRI strategies, no study has summarised the findings from these case studies in a general review. In addition, few theoretical schemes are offered in the literature to study and interpret SRI strategies and their impacts on corporate social and environmental behaviour. Hence, in reviewing the literature on SRI, our main interest and focus is twofold:

1. Which factors govern the effectiveness of SRI strategies in influencing environmental, social and corporate governance (ESG) performance of public companies?
2. Which theoretical frameworks are promising in studying and interpreting SRI developments?

In answering these research questions, a secondary analysis of existing studies is applied. For this secondary analysis Web of science, Scopus, Google Scholar and the references of the found articles were used. In total, more than 200 scientific articles have been systematically analysed and reviewed. The next section provides an overview of the actors in SRI and their

motives for SRI, as they are identified in the literature reviewed. Section three focuses on the main strategies applied by SRI investors. The descriptions of actors, motives and strategies all contribute to a better understanding of the effectiveness of SRI, which is discussed in section four. In section 5 the various theoretical frameworks for studying and interpreting SRI are assessed. Finally, conclusions are drawn.

2.2 SOCIALLY RESPONSIBLE INVESTMENT: ACTORS AND MOTIVES

The present SRI sector has old roots. As early as the 17th century and in particular at the beginning of the 20th century, examples can be found of shareholders whose behaviour was guided by moral considerations, rather than financial motives. The Quakers and Methodists were the first investors to excluded certain stocks from their portfolio for moral considerations, in this case, because of the involvement of companies in tobacco or alcohol (Arjaliès, 2010b; Beloe, 2001; Louche, 2004; Sparkes, 2002; Sparkes & Cowton, 2004). The more recent growth of SRI started in the last quarter of the 20th century. The Social Investment Forum (2010) states that in the U.S. in 2009 US$3.01 trillion was managed following SRI strategies, a growth of 380% compared with 1995 levels. For Europe, Eurosif (2012) calculated an annual growth rate of 35% for SRI since 2009.

Actors in SRI

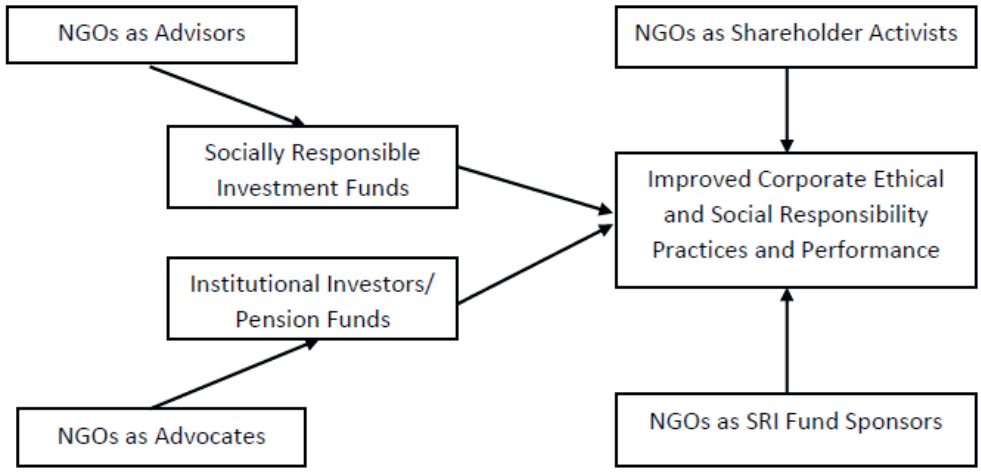
To gain more understanding of the effectiveness of SRI, it is important to consider that different groups with their own motives and characteristics exist. In total four main groups of shareholders and actors can be distinguished. Institutional investors, such as pension funds, insurance companies and bank trusts, form the first important group, as the most prominent shareholders of public companies. For example, pension funds in the UK hold 35% of all publicly quoted companies in the UK (Sparkes, 2002). These institutional investors are also important actors in corporate governance and in prompting company management to increase performance (Thompson & Davis, 1997). Card Charron (2007) considers their concentrated ownership and strong monitoring of management to explain their prominent role. The implementation of SRI by institutional investors is linked with the development of various (inter)national agreements, practices and networks. One of these international agreements and related networks is the United Nations Principles for Responsible Investment. In this network, investors work together to bring principles of responsible investment into practice (UNPRI, 2011). The Global Reporting Initiative (GRI), as another example, advocates for a standardised way of environmental and social reporting. Moreover, the Institutional Investor Group on Climate Change (IIGCC) is a forum of European institutional investors who are concerned with climate change (IIGCC, 2011). Shareholders who support the Principles of Responsible Investment, the GRI, the IIGCC and other agreements

encourage public companies to adopt these principles in reporting on environmental, social and governance (ESG) issues (GRI, 2011; UNPRI, 2011).

As a second main group of SRI actors, individual investors engage in SRI mainly by investing in retail funds. These retail funds have strongly facilitated the growth of SRI among individual investors (Sparkes, 2002), although a recent study by Eurosif (2012) shows that in Europe, individual investors make only 6% of all SRI investments, down from 8% in 2009. Research on the characteristics of individual SRI investors shows that they are more likely to be religious, to have liberal and green political views, and to have service professions, such as health and education (Carter & Huby, 2005).

Third, a wide range of NGOs are active in SRI. Several religious organisations have played a pioneering role in SRI, and more recently, environmental NGOs, labour unions, human rights organisations and several other civil society organisations have become involved in SRI. Waygood and Wehrmeyer (2003) and Carter and Huby (2005) argue that NGOs are active in SRI in two ways. First, NGOs can become shareholders themselves and use their shareholder rights and power to exert influence on company behaviour and investments. Second, in addition to being active as shareholder, NGOs use more indirect strategies by cooperating with or influencing other shareholders (Guay et al., 2004; Waygood & Wehrmeyer, 2003): they act as advocates of SRI towards institutional investors such as pension funds, they become advisors for structuring specific SRI funds, and/or they become sponsors or co-founders of SRI funds. For instance, the Sierra foundation in the US has founded an investment funds according to its own values. Figure 2.1 illustrates how Guay et al. (2004) interpret these and other forms of cooperation and involvement of NGOs in shareholder activities and strategies.

Figure 2.1: Multiple roles of NGOs in socially responsible investment



Finally, the financial industry is an important actor in SRI, performing a dual role: as an SRI shareholder and as a facilitator for other SRI investors. Louche (2004) reports that the financial industry in the Netherlands strongly facilitated a transition from SRI with a focus on activism to a more institutionalised form of SRI. The financial sector now provides the infrastructure and knowledge base for SRI, with their SRI funds, rating organisations specialised in SRI, and sustainability indices, such as the DOW Jones sustainability index and the FTSE4Good. These developments resulted, in the Netherlands and elsewhere, in a shift from an investment sector in which NGOs played a large role to a sector in which larger financial institutions have guided and shaped SRI into a more mainstream form of investment.

Motivations of SRI investors

Investors have different reasons and motives for engaging in socially responsible investment. Especially for institutional investors, legislation is a main reason for initial engagement in SRI. For example, in 2000 in the UK, legislation was passed that forced pension funds to report the social, environmental or ethical considerations involved in investment decisions (R. Aguilera et al., 2006; Carter & Huby, 2005; Clarke & Hebb, 2004; Guay et al., 2004; Sparkes, 2002; Sparkes & Cowton, 2004; Wen, 2009). In the early 2000s, similar legislation was passed in Sweden, Norway and Denmark (Bengtsson, 2008). This legislation strongly motivated pension funds to move towards SRI.

Sparkes and Cowton (2004) find that pressure by actual and future beneficiaries is a second reason for institutional investors to start practicing SRI. Although such pressure is generally considered a major motivation for engagement in SRI, little research is available that actually proves the influence of beneficiaries and analyses their role in driving pension funds towards SRI.

Financial motives as reason for engagement in SRI have received much greater attention in the literature. Since the late 1990s, increasingly more shareholders have examined the relation between the social and environmental performance of companies and their financial performance and have even requested that companies disclose information on this relationship (A. O'Rourke, 2003b). While there may be financial motives for SRI, one cannot conclude that SRI always leads to better financial results. There is abundant literature available investigating the effect of SRI on financial results. Although we do not fully review this extensive literature, some of the key conclusions and remaining controversies need to be emphasised.

Several studies claim that engaging in SRI and investing in leading SRI companies or avoiding investment in companies with a poor social and environmental track record does not compromise companies' financial and economic goals (Aslaksen & Synnestvedt, 2003; Derwall et al., 2004). Derwall et al. (2011), however, note that the effect of SRI is dependent

on the type of investor (financially or value-driven) and the way SRI is practiced. Investing in leading SRI companies compared with other companies can result in superior financial results, although Derwall et al. argue that these superior results sometimes disappear in the long run. One possible explanation is that leading SRI companies are less vulnerable to environmental accidents or poor social conditions, which often result in additional costs and harm companies' reputation. For example, the share prices of BP dropped by 34% in the months after the Deepwater Horizon accident in 2010, which heavily polluted the Gulf of Mexico and US shores (NRC, 2010). Similarly, the news that Swedish fashion chain H&M used child labour in their garment production led to a drop in their share price (Bengtsson, 2008). In the same vein, Schaltegger and Figge (2000) argue that corporate environmental protection is not by definition a cost that is negatively linked with shareholder value. Environmental management can result in financial gains when it reduces material use, reduces the payment of environmental fees, and widens margins and when these measures are capital extensive and cost effective (Schaltegger & Figge, 2000). Vogel (2006) balances claims that strong environmental management causes strong financial performance for a company. Strong financial performance also enables a company to invest in environmental management. Vogel (2006) however also argues that since their existence, the FTSE4Good and the DOW Jones Sustainability Index have underperformed the market by 3% and 8%, respectively. In addition, several other studies do not find a positive correlation between firm economic performance and high social and environmental standards. In a review, Renneboog et al. (2008) conclude that firms with high environmental and social standards even have a lower rate of return than that suggested by standard asset pricing models.

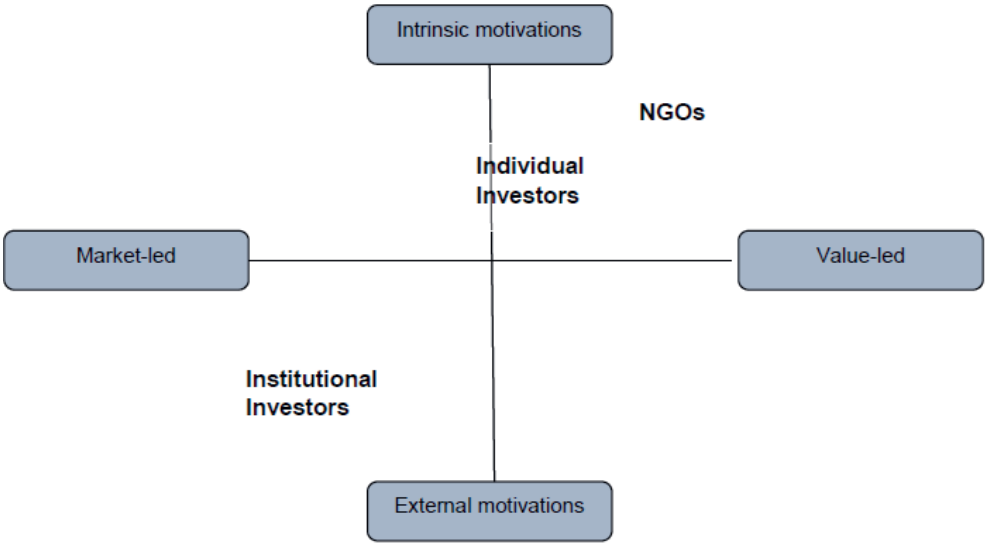
Finally, there are ethical motivations to engage in SRI, especially for individual investors and NGOs. Cowton (1994) finds that 87% of the individual investors participating in the "Friends Provident NM Conscience Pension Fund" did so because of the fund's ethical investment policy, while only 7% mentioned financial reasons and motivations. Pasewark et al. (2010) concludes that for individual investors concerned with negative societal side-effects of company behaviour, financial criteria play a smaller role in their investment decisions. Michelson et al. (2004) also conclude that individual SRI investors are especially motivated by their personal values, their desire for social change and the "feel good" factor. Still, few individual investors invest only in SRI funds, and most of them also have financial motives. Individual investors balance the complicated trade-off between their values and the desired financial return in investment decisions (Michelson et al., 2004).

Distinguishing motivations

Two important factors distinguish the motivations of SRI investors (see Figure 2.2). The first factor relates to the internal or intrinsic versus external motivations of SRI investors. For example, an NGO might have an intrinsic motivation to engage in SRI because SRI can help to achieve the NGO's goals. By contrast, legislation and pressure from beneficiaries are external motivations for a pension fund to engage in SRI.

A second factor relates to what Beloe (2001) calls the difference between 'market-led' and 'value-led' shareholders. NGOs and some individual investors are more (socially/environmentally) value-led shareholders, while institutional investors are more (financially) market-led shareholders, in part because of the fiduciary duty of institutional investors. Because of their fiduciary duty, institutional investors, such as pension funds, insurance companies and bank trusts, are obliged to obtain the best financial return on their assets for their beneficiaries. Therefore, the presumed or expected effects of SRI on financial results co-determine whether and how institutional investors become active in SRI. Aguilera et al. (2006) find that, in practice, financial motives are used as an argument in favour of as well as against SRI. A UNEP Finance Initiative report on fiduciary responsibility argues that because of fiduciary duty, ESG issues should be considered in investment strategies, because neglecting these issues creates long-term financial risks (UNEP, 2009).

Figure 2.2: Motivations of different types of shareholders for engaging in SRI



Sparkes (2001) illustrates the differences and tensions between shareholders who are primarily ethically/value driven (NGOs) and those who are financially driven. Individual and institutional shareholders are not interested in NGO activities, which may jeopardise share prices. Because NGOs focus on changing the environmental or social behaviour of companies, the effect of their activities on share prices is of little importance to them. Although the advocacy-based activities of NGOs correspond with other SRI activities, a fundamental tension does exist between a focus on financial returns and an advocacy campaign focus on stopping harmful activities.

2.3 STRATEGIES OF SRI INVESTORS

There is a wide range of classifications used in the literature for categorising the different SRI strategies. For a useful overview see Eurosif (2012). On the basis of this overview, we identify three main categories to structure the discussion in this article:

- Screening: The use of ESG information in the investment process (including ESG integration, exclusion and best-in-class).
- The use of shareholder rights: The use of the formal rights associated with the share ownership (including voting and filing shareholder proposals).
- Engagement: The informal dialogue between shareholders and a specific company.

After giving a description of each category, we focus on their use by the different actors as a base for the discussion of their effectiveness.

Screening

A common SRI strategy is for investors to use certain sustainability criteria in their portfolio management. This strategy can take the form of negative screening in which companies failing to meet specified sustainability standards are excluded from the investment portfolio. It also can take the form of positive screening (best-in-class) in which investments focus on companies that are frontrunners according to sustainability criteria (Derwall et al., 2004). In the screening process, a wide range of criteria can be used, ranging from environmental performance to labour conditions. Some investors specialise in environmental screening criteria, some specialise in social criteria, and some specialise in a combination of the two.

Screening is used by several pension funds, such as Calpers in the US, PFZW in the Netherlands, the British Coal pension funds and several pension funds of religious organisations worldwide (Sparkes, 2002; VBDO, 2011). In addition, several investment funds use screening and are open for individual investors, such as the Calvert Social Investment Fund in the US, the Friends Provident Stewardship Funds in the UK (Sparkes, 2002) and the ASN Aandelenfonds in the Netherlands (ASN, 2010). Juravle and Lewis (2009) identify three ways in which screening for SRI is integrated into pension and investments funds:

1. Only one or two experts are responsible for SRI, and they buy information from specialised firms.
2. An in-house expert team provides conventional analysts and fund managers with information regarding social and environmental issues. In this way, SRI remains a separate theme, and the expert team providing information usually has no formal role in the final investment decisions.
3. SRI experts are fully integrated into the financial team. This form, however, is relatively rare.

Screening is not beyond debate, as Schepers and Sethi (2003) report. Screening criteria can be arbitrary, and results of screening heavily depend on which of the numerous available screening methodologies is chosen. Screening can have arbitrary outcomes when, for instance, a company sells organic products but also practices discriminatory hiring practices. Investors are also highly dependent on the information provided by companies, as companies may selectively publish and present relevant information.

Using shareholder rights

Shareholders also use their rights to take a proactive role in the social and environmental management of a company, a relatively popular and widely studied theme among academic scholars. Shareholders can use their voting rights or file proposals in (annual) shareholder meetings to pressure companies to report on, and improve, their environmental and social performance. Filing proposals is common among a wide range of shareholders, such as pension funds, unions, religious organisations, social organisations and SRI consumer funds (Tkac, 2006). Individual shareholders, however, rarely file proposals.

Filing proposals at shareholder meetings is more common in the US and is less common in European (except for the UK) and other countries because of the practical difficulties of filing proposals in these countries (Sparkes, 2002). In the US, barriers to put a (SRI) proposal on the agenda of a shareholder meeting are relatively low, in contrast to other countries. In the US, a shareholder who wants to file a proposal must have held shares worth at least $2000 for one year or own at least 1% of firm value. According to US Securities and Exchange Commission rule 14a-8, the proposal itself should 1) not reflect a personal grievance; 2) not require the firm to violate any law; 3) relate to operations accounting for less than 5% of the firm's assets, sales and revenue; and 4) deal with a matter relating to the company's ordinary business operations (Tkac, 2006). In the UK, requirements are more stringent, and filing a proposal is only possible when the filer has the support of 100 separate investors with a nominal value each of at least 100 pounds or when the filer owns more than 5% of the total voting capital (Sparkes, 2002).

Whether voting power is used to pressure a company depends on the type of company. Manufacturing firms are more frequently targeted than service-oriented firms. Moreover, large firms, or firms with a high profile, are more often targeted than smaller, lesser known, firms (Karpoff, 2001; Rehbein, 2004; Tkac, 2006). Monks et al. (2004) and Clark, Salo and Heb (2008) find that in the US, only a small number of corporations are targeted more intensively: the largest US corporations dominating the stock market indices. This focus can be explained by their economic significance and the general public's familiarity with these corporations. The most common topics of shareholder proposals are international conduct, environmental issues and antidiscrimination (Tkac, 2006). The filed proposals often demand changes in corporate policy, changes in production or disclosure of information.

From an analysis of 671 proposals filed during a four-year period, Monks et al. (2004) concludes that 55% of the proposals related to corporate governance, 38% concerned corporate social responsibility and 7% were crossover proposals. Crossover proposals are proposals on corporate social responsibility that are framed in traditional corporate governance language and address traditional corporate governance issues in order to improve the proposal's chances of being admitted to the shareholder agenda. In terms of subject, 47% of the proposals addressed human rights and social issues (including global labour standards, public health, humane treatment of animals, and certain types of military production and contracts); a further 28% addressed environmental issues (including reporting on environmental performance, Arctic drilling, genetically modified organisms, nuclear power, climate change, pollution and recycling); 14% addressed equal employment opportunities and employment discrimination; 9% addressed the use of corporate funds for political donations, lobbying and political bias in the workplace; and 3% addressed corporate charity donations.

Different types of shareholders differ in the type of proposals that they bring forward and the success their proposals achieve. Across the spectrum of shareholders, public pension funds appear to achieve the highest levels of support for their proposals (R. Monks et al., 2004). One reason for this higher success rate is the focus of pension funds on non-controversial issues, such as antidiscrimination (Tkac, 2006). NGOs focus on more controversial topics in a more confrontational manner. NGOs can be more confrontational because high share prices are not their primary goal or interest (Sparkes & Cowton, 2004). NGO proposals are more than incidentally part of a wider coalition and campaign. For example, Greenpeace initiated the coalition "Shareholders against new oil exploration" as part of their campaign to pressure British petroleum into investing in renewable energy rather than oil (Carter & Huby, 2005).

Engagement

In addition to filing proposals at annual shareholder meetings, shareholders can encourage companies to improve their ESG performance behind closed doors, which is usually referred to as engagement or shareholder dialogue (Carter & Huby, 2005). Compared to the formal filing of a proposal at a shareholder meeting, the engagement process is a more informal and discrete approach. For many institutional investors, engagement offers an opportunity to discuss ethical concerns without making their concerns public through a shareholder proposal. This private communication diminishes the possible negative effects on share prices (Wim Vandekerckhove et al., 2007) and keeps the option open of filing a proposal at the next shareholders meeting if the engagement is not effective (Sparkes & Cowton, 2004). Most companies are responsive to engagement activities. From 18 companies addressed by Portfolio 21, a joint initiative of continental institutional investors, 13 responded adequately to the concerns raised (W. Vandekerckhove et al., 2007).

Engagement is a common strategy for pension funds, banks or large investment funds (Chow, 2010). Those that practice engagement in SRI (and use their shareholder rights) are

also the shareholders who screen their investments using environmental and social criteria (A. O'Rourke, 2003b). Quite similar to the conclusions regarding screening, engagement regarding social and environmental issues is still largely confined to SRI analysts, and these issues play little role in the overall investment decisions (Wales, 2006).

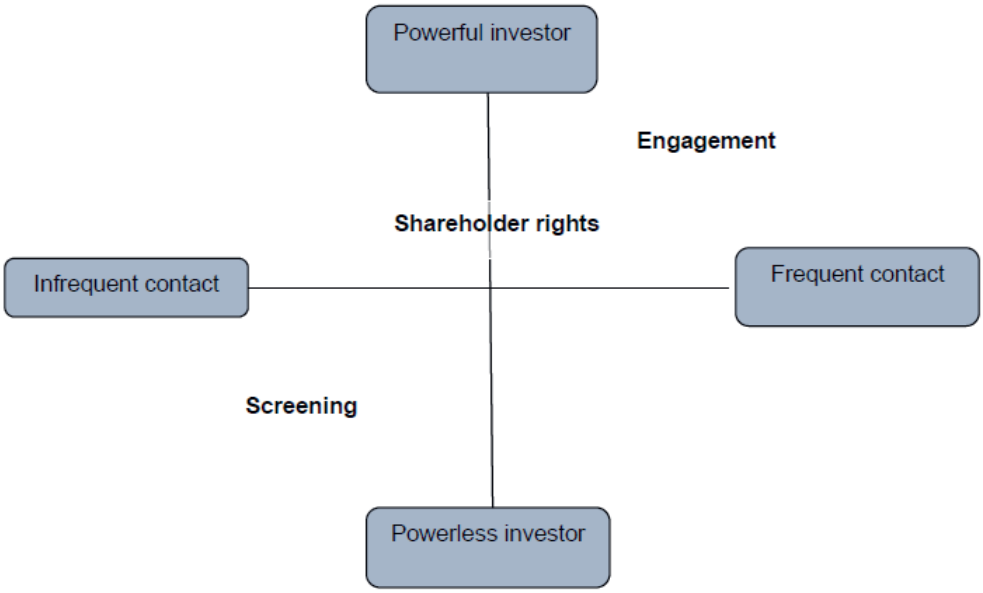
The advantage of engagement is that shareholders can receive "early warning" information from the company regarding sensitive issues, such as environmental and social risks. According to Aguilera et al. (2006), this is also a reason why companies in the US are more cautious about engagement: through engagement, shareholders can have an information lead, and US regulations state that all actual and potential shareholders should have access to all information a company discloses. Although they do not specifically discuss shareholders, Huijstee and Glasbergen (2008) identify several advantages of active engagement for companies and stakeholders, such as an improved relationship and trust. As a result, both sides may gain knowledge, and their partnership may strengthen, but corporate activities may also be amended.

Differentiating SRI investor strategies

The strategies employed by SRI investors differ within and among the different types of investors. These strategies can be plotted along two axes (Figure 2.3). The first axis determines the level of contact between shareholders and a company. The SRI strategy of screening is normally implemented by an internal team, and apart from sending questionnaires, contact between shareholders and the company is scarce. Explicit pressure from a shareholder on a company is not part of the screening process. Engagement, on the other hand, involves frequent contact between shareholders and companies. A shareholder actively brings forward a topic and strives to change corporate behaviour accordingly. Beloe (2001) makes a similar distinction between passive (such as screening) and more active (engagement) strategies.

The second (vertical) axis determines the power of a shareholder vis-à-vis companies. Engagement is only open to investors with sufficient power and a relatively large percentage of shares in a company. Therefore, this strategy is largely reserved for institutional investors. Bringing forward proposals at annual shareholder meetings is also open to smaller investors, but the percentage of shares owned is an important factor. Screening is open to even the smallest (individual) investor, although some clout is needed to execute the necessary research. This is an important reason why individual investors mainly invest in specialised SRI funds that are set up by the financial sector.

Figure 2.3: Profiling strategies used by SRI investors



The analysis of SRI investor strategies reveals characteristic tensions between the motives and strategies of SRI investors. NGOs tend to have intrinsic motivations and to aim at more frequent contact with companies. The strategies matching goals of NGOs are therefore engagement and the use of shareholder rights. NGOs, however, own few shares compared to institutional investors and consequently have less power to successfully use engagement strategies. Institutional investors often have sufficient shareholding power but because of their primary focus on financial motives, they are less inclined to use their power for SRI, unless financial and SRI motives are strongly linked.

2.4 SRI: MAKING A DIFFERENCE?

Central in many studies on SRI is the effect of different SRI strategies of shareholders on the social and environmental management of companies.

Effects of screening

One supposed effect of screening in relation with portfolio-management is that because investors do not invest in companies with poor environmental or social track records, the cost of acquiring capital for these companies rises and their competitiveness decreases (Aslaksen & Synnestvedt, 2003). On the basis of a market share analysis of SRI in the countries where SRI is most developed, Haigh and Hazelton (2004) conclude that these effects are small to non-existent. Aslaksen and Synnestvedt (2003) arrive at a similar conclusion and explain that the effect is small because the size of SRI is small in relation to the entire financial sector.

For polluting firms, more than 20% of the investors need to be "green" to pressure a polluting firm into reforming (Heinkel et al, 2001). Another reason is that other shareholders will buy the shares of companies whose share price is reduced because of lower demand by SRI investors. One the other hand, Aslaksen and Synnestvedt (2003) do find an effect of using a best-in-class screening method. The use of such methods can lead to a rise in share prices of selected companies, thereby incentivising companies to improve their environmental and social track record. Another indirect effect is that sending questionnaires to companies during a screening process motivates them to reflect on their social and environmental performance (O'Rourke, (2003a).

Shareholders practicing SRI are subject to higher risks because of the limited number of stocks in which they invest. However, this disadvantage can be offset by using information from the screening procedure, which is not available to the wider market; this may result in out-performance (Pearce et al., 2002). The use of best-in-class screening methods has been reported be associated with positive financial results (A. O'Rourke, 2003a). Still, further research is necessary to indeed confirm the causal relationship between screening methods and financial results.

Effects of using shareholder rights

The rate of direct success of shareholder proposals is relatively small. In an empirical study by Tkac (2006) on SRI investors, only 4 out of 1472 filed proposals gained a majority of shareholder votes. Although proposals that do not obtain a majority of shareholder votes can still be a strong signal for corporate management, the direct effect of SRI shareholder proposals remains hardly significant, particularly because proposals that are supported by the majority of shareholders are not always binding for corporate management (Thompson & Davis, 1997; Tkac, 2006). In an interesting contrasting study, Smith (1996) empirically analyse the targeting and effects of non-SRI shareholders proposals by the Californian pension fund Calpers. He finds that 72% of the proposals of this large institutional investor resulted in changes in corporate policy. This finding leads to the question regarding what factors cause this high success rate of non-SRI shareholder proposals, in comparison with SRI proposals.

For many filers, SRI shareholder proposals are only one step in a broader SRI campaign to improve ESG performance. A proposal can be considered a tool to open the door for dialogue with the firm (Tkac, 2006). For example, when a proposal is filed, companies often enter into negotiation in an attempt to influence shareholder activists to withdraw the proposal before it is distributed to all company shareholders (A. O'Rourke, 2003b). Even when a resolution is not approved, a company can still take action. This occurred, for example, with an NGO proposal to the infrastructure firm Balfour Beatty to stop their engagement in building the Ilisu dam in the Tigris River in Türkiye. Although the proposal received only 1.9% of the votes, the company nevertheless decided to stop their engagement in the project (Waygood & Wehrmeyer, 2003).

David et al. (2006) provide an interesting perspective on the causal relation between shareholder proposals and the behaviour of a company. Based on a statistical analysis, the authors conclude that shareholder proposals often correlate with low corporate social performance. Proposals do not have a disciplining effect on corporate management but rather signal the reluctance of corporate management to address the concerns of shareholders and unwillingness to communicate more informally with these shareholders to avert the proposal being submitted.

Effects of engagement

Until now, little research has been carried out on engagement activities and their effect on the social and environmental performance of companies(Wim Vandekerckhove et al., 2007). Engagement is particularly difficult to investigate, as it largely takes place behind closed doors and little data is available, in contrast to shareholder meetings where proposals and voting results are public. Gifford (2010) therefore has done an interesting case-study at engagement cases in the UK, instead of using more quantitative methods. This gives an interesting perspective on how the impact of engagement can successfully be analysed. But due to the low number of cases, it is at the moment still difficult to draw general quantitative conclusions on the effectiveness of engagement.

Explaining marginal SRI effectiveness

Determining the effects on ESG performance when SRI methods are combined is difficult. Few studies address this topic. One such study is research by González-Benito et al. (2011), who find that the more pressure from stakeholders, including shareholders, a company perceives, the better its environmental performance will be. Liu and Anbumozhi (2009) conclude that the influence from shareholders on environmental disclosure by listed companies in China is still small.

There are at least three explanations for the absence of unambiguous and abundant evidence and conclusions in this field. First, even when changes in environmental and social performance are quantifiable, it is difficult to causally relate these changes to shareholder activism. These changes may also be caused by external factors, such as governmental regulations, public opinion or the implementation of new management systems. Second, the effects of SRI strategies can also be insignificant in comparison with the effects of these and other external factors. On the basis of qualitative interviews with business leaders, key academics, corporate analysts and environmentalists, Dummett (2006) claims that SRI from shareholders is a small driver in comparison with other drivers, such as legislation or consumer pressure. Finally, major time lags may exists between SRI activities and their effects on corporate governance, making causal relations difficult to prove (Sjöström, 2008).

Which factors explain the small impact of SRI, and can changes regarding these factors lead to larger effects of SRI? The answer to this question is particularly interesting for practitio-

ners in the field of SRI. Below, we summarise five explanations provided by various authors in the field regarding why SRI is currently not a major driver for social and environmental change.

First, there exist low levels of cooperation between shareholders. SRI investors hardly work together in their attempts to influence companies. Haigh and Hazelton (2004) find that investors, large institutional investors in particular, have much to win if they would coordinate their attempts to change corporate behaviour. However, SRI funds hardly work in an orchestrated manner, partly because their criteria differ significantly (Schepers & Sethi, 2003). Moreover, differences in motivation between types of shareholders, such as NGOs and pension funds, can be a reason for their low level of cooperation in SRI, although this has not been investigated empirically yet.

Second, the percentage of SRI in the total amount invested in shares is so small that SRI funds have little bargaining power and hardly influence the capital market (Haigh & Hazelton, 2004; Schepers & Sethi, 2003).

Third, the focus on short-term shareholder value matches poorly with long-term SRI values. Wen (2009), Guyatt (2005) and Juravle and Lewis (2008) state that the Angle-American corporate governance model focuses on shareholder value that favours short-term economic value and therefore disfavours SRI with a focus on long-term value. This focus on short-term value is an impediment for the success of SRI. From a survey among 129 corporations from the Fortune 500 list, Neubaum and Zahra (2006) conclude that long-term ownership and activism have positive effects on social corporate performance. However, they also find that shareholder activism alone is not correlated with corporate social policy; a correlation only exists when this activism is combined with long-term holdings of institutional investors. Hence, institutional investors hold more salience for corporate management. The combined impact of activism and institutional holdings increases with a higher frequency of interaction with corporate management and with higher levels of coordination between activism and long-term institutional shareholders.

Fourth, the dual role of institutional investors is crucial. Institutional investors play a dual role of being owners as shareholders and being intermediaries for their beneficiaries. Thus, they also have a fiduciary duty to focus on high financial returns. As discussed earlier in this article, financial returns do not necessarily have to suffer from SRI. However, Juravle and Lewis (2008) claim that institutional investors try to conform to mainstream investments because making unconventional investments and then obtaining lower financial returns would bear the risk of damaging their reputation and imposing liability. Therefore, institutional investors tend to follow existing practices in which financial gains are the sole rational, rather than follow SRI practices that are not currently mainstream. In addition, shareholders in general are influenced by so-called "herding" (Guyatt & Lenssen, 2005). It is riskier for

the reputation of an investor to make a wrong investment decision using less conventional data and strategies, such as SRI, then to make a wrong investment decision using mainstream data and strategies.

Finally, the low level of knowledge on SRI among shareholders impedes great involvement in SRI. Brown et al. (2009) conclude that mainstream institutional investors hardly utilise sustainability reports in their work. A survey conducted on pension funds trustees in the US (Hess, 2007) shows that 29% of the respondents had a policy on corporate governance in general, 10% had a policy on environmental issues, 17% had a policy on other social issues, and 53% had a policy on how to vote at annual shareholder meetings. In addition, the term SRI itself is not well received in the sector. Hess (2007) quotes an executive director of a large pension fund who states that the term SRI "terrifies" the fund's trustees. This anxiety toward SRI is more due to the image of SRI itself, as the trustees are quite comfortable with many of the ideas behind SRI and approve initiatives on sustainability and good governance.

Institutional investors also lack sufficient information for taking an active stand in corporate governance (Wen, 2009). Research analysts in Europe have been reluctant to integrate relevant SRI data in their reports (Juravle & Lewis, 2008), because their professional background makes them ill-prepared for SRI issues, much SRI Information is qualitative and not quantitative, and SRI information is not structured in a standardised way. The frequent existence of two investment teams, one SRI team and one regular investment team, impedes the integration of different data and prevents frequent use of SRI data in final investment decisions (Guyatt & Lenssen, 2005).

2.5 THEORIES ON SRI AND ENVIRONMENTAL GOVERNANCE

Most SRI studies and assessments are empirical in nature. Theoretical studies on SRI have largely been absent until now, although they would be valuable in formulating more concise hypotheses for empirical research, reaching a higher level of abstraction, and investigating relations between the factors that govern SRI effectiveness. Several theories provide interesting starting points for developing a theory on SRI.

Louche (2004) shows that institutional theory can be fruitfully applied in analysing the Dutch SRI sector to gain insight in the institutionalisation of SRI and its effects on the position and interactions between the different actors.

To gain more knowledge on SRI and its effects on environmental management, insight is needed regarding the relationship between shareholders and corporate management. Three prominent theories conceptualise this relationship: agency theory, stakeholder theory and

stewardship theory. In agency theory a corporation is interpreted to be an aggregation of contracts with individuals who all aim to maximise their own utility (Clarke, 2004). An important assumption is that the different actors within a company, such as management, employees and shareholders, all have different and sometimes conflicting interests. For a corporation to be successful, these interests must be aligned in (often formalised) contracts between actors. Agency theory regards shareholders as the 'principals' in whose financial interest the company should be run by its management (Clarke, 2004; Eisenhardt, 2004; Guillén, 2004; Lazonick & O'Sullivan, 2004). Marinetto (1999) argues that agency theory is too efficiency and financially oriented and therefore lacks the capability to explain the actions of shareholders practicing SRI.

The basis and origins of stakeholder theory are found in the work of Freeman (1984). Stakeholder theory identifies both internal and external stakeholders, which are claimed to be equally important. A normative starting point of this theory is that company management is supposed to maximise the total wealth that a company creates for all stakeholders, not solely the dividend to their shareholders. This focus is an important difference with agency theory, in which only shareholder value plays a central role (Clarke, 2004). Stakeholder theory is closer to the *Rheinländische* culture of corporate governance than to an Anglo-Saxon corporate governance culture (Rhodes & van Apeldoorn, 2004).

In stewardship theory, the behaviour of company management is modelled on the basis of a steward who acts in a pro-organisational and collectivistic manner (Davis et al., 2004). The interest of an organisation as a whole is aligned with the interests of the different actors within the company, such as management, shareholders and employees. Even in more politically charged environments, stewardship theory assumes that most parties strive for a viable and successful enterprise (Clarke, 2004).

Of these frameworks, the framework that is most suitable for analysing the relationship between shareholders and company management in SRI depends on not only the research question to be answered but also the corporate governance culture that is prominent in a country and a company. In the Anglo-Saxon culture, shareholders play a prominent role, while in the *Rheinländische* corporate governance culture, shareholders share a prominent role with other actors in pushing companies to improve social and environmental corporate management.

To gain more insight into the behaviour of activist and ethically driven shareholders in SRI, theories on NGOs and social movements provide an interesting starting point. Thompson and Davis (1997) apply social movement theory to analyse shareholder activism in the US, while Arjaliès (2010b) does so for the development of the French SRI sector. Both of these studies interpret shareholder activism as a social movement, whose development and effects are to be further explained by using such a framework.

The theory of stakeholder salience has been applied to analyse the financial motives and rationality of shareholders (e.g. Magness, (2007) as well as SRI in US and UK investment funds (e.g. Gifford, (2010). Stakeholder salience theory distinguishes three attributes that determine the level of salience of a stake/shareholder: "power", "legitimacy" and "urgency". Power is the ability to control resources, legitimacy relates to the social acceptance of issues, and urgency refers to how pressing and trending the issue is. These attributes are socially constructed and subjectively perceived by the decision maker. Gifford (2010) applies "power", "legitimacy" and "urgency" to shareholder engagement in SRI and concludes that not all three aspects of salience need to be present for a high level of salience by shareholders. There is a strong preference for legitimacy-based engagement, coupled with a certain frequency of contact. The frequency of contact seems to be more important than the relative size of the stake. Power is normally only used after engagement yields limited results. Gifford (2010) also concludes that in addition to these attributes, building coalitions with other investors, NGOs or policy makers contributes to the salience of shareholders.

All the theories mentioned above help to elucidate the specific parts of and actors in SRI. However, the frameworks are less helpful for understanding the emergence of SRI as a phenomenon. The emergence of shareholders representing environmental and social rationalities in addition to—or integrated in—an economic rationality is a core subject of the theory of ecological modernisation, as suggested by Carter and Huby (2005). Ecological modernisation theory was developed in the 1980s and further matured in the 1990s, especially by Dutch, German and UK social science scholars (Buttel, 2000; A. Mol, 1995; Mol & Spaargaren, 1993; Spaargaren & Mol, 1992). Ecological modernisation theory conceptualises how economic growth and environmental improvement coincide when ecological rationalities start to gain relevance vis-a-vis economic rationalities in (also economic) practices and institutional developments. Although such a framework could be relevant for understanding overall SRI developments, until now, no SRI research has been conducted using an ecological modernisation framework.

It can be concluded that there are several interesting theoretical frameworks from different disciplines which can be used to explain specific aspects of SRI. The contribution of several disciplines will also be needed to develop a more coherent theoretical framework as SRI has several different aspects; from corporate governance, the financial aspects, salience to the development of SRI institutions. As there has been a strong focus on the financial aspects especially more attention is needed for the environmental and social aspects of SRI. Can SRI, for example, become a strong force in environmental governance? SRI being a development with the goal to bridge the divide between financial ratio and the impact financial markets have on society would therefore be much helped with a more multi-disciplinary approach.

2.6 CONCLUSIONS FOR A FUTURE RESEARCH AGENDA

It is clear that shareholder SRI is rapidly growing and is evolving from a niche market to a mainstream form of investment. Shareholders practicing SRI do not form a uniform group but range from large institutional investors, such as pension funds, to small individual investors to activist NGOs. The different types of shareholders have different motivations for practicing SRI and follow different strategies and methods.

Some studies have identified direct effects of SRI on ESG performance in specific cases, while others have identified more indirect effects of SRI. However, overall, the effects are quite limited and are difficult to identify and quantify among the myriad factors involved in establishing and implementing corporate environmental management. In answering our research question on which factors govern the effectiveness of SRI in influencing ESG performance five factors can be identified that explain why the effects of SRI are currently too marginal: 1) investors have a low level of knowledge of SRI; 2) the percentage of SRI is still small compared with overall investments; 3) investors are focused on obtaining short-term shareholder value; 4) the interpretation of institutional investors of fiduciary duty; and 5) cooperation between shareholders practicing SRI is low.

This review also identified where studies on SRI are concentrated and which fields need further academic investigation and reflection. Several studies have been carried out on the methods of screening and the use of shareholder rights, while engagement and dialogue processes seem to be studied less frequently. Studies also focus on financial topics, such as financial performance and risk management, and tend to be empirical research without a theoretical underpinning. Formulating more comprehensive, multi-disciplinary theoretical frameworks for understanding and further investigating SRI remains an important challenge for future research. When answering our second research question on which theoretical frameworks are promising in studying and interpreting SRI developments, several theories, as summarised in Table 2.1, seem to provide welcome starting points for such an endeavour.

Table 2.1: Promising theoretical perspectives on SRI

Perspectives on SRI	Theory
Organisational development of SRI	Institutional theory
SRI as a social movement.	Social movement theory
Position of shareholders in relation to management and other stakeholders	Agency, stakeholder or stewardship theory
Influence of shareholders practicing SRI	Theory of stakeholder salience
SRI in relation to environmental reform	Ecological modernisation theory

Hence, in addition to developing a strong theoretical framework, it is important to focus future research on SRI on engagement, the factors that govern the effectiveness of SRI and the relation between shareholders and other actors, such as NGOs, governments or media.



Chapter 3

Engagement on ESG issues by Dutch pension funds: is it reaching its full potential?

This paper has been published as:

Wagemans, F. A. J., van Koppen, C. S. A., & Mol, A. P. J. (2018). Engagement on ESG issues by Dutch pension funds: is it reaching its full potential? *Journal of Sustainable Finance & Investment*, 8(4), 301-322. https://doi.org/10.1080/20430795.2018.1485379

ABSTRACT

In socially responsible investment (SRI), engagement forms one of the core strategies of institutional investors. In investigating the case of Dutch pension funds, this study answers the following questions: what networks shape engagement with investees, and what factors determine the effectiveness of engagement? The methods we used were interviews and a multiyear survey. Engagement was practised by 82% of the largest Dutch pension funds in 2016 and was implemented by asset managers and service providers. However, these actors are isolated from actors outside the financial sector. The legitimacy of the investor influences the effectiveness of engagement, whereas the number of shares is less important. The relationship between the engager and investee and the receptivity of the investee towards engagement are also of importance. Engagement can be made more effective when pension funds focus on specific themes, target companies open to engagement, and also seek collaboration with societal and policy actors.

3.1 INTRODUCTION

Socially responsible investment (SRI) is on the rise, with total global investments reaching $22.89 trillion at the beginning of 2016 (GSIA, 2017). SRI can be implemented by strategies such as exclusion; the integration of environmental, social, and governance (ESG) criteria; engagement; or impact investing. This study focuses on engagement, which has been shown to potentially improve ESG performance (Wagemans et al., 2013). Engagement is the core SRI strategy among institutional investors who want to discuss ESG concerns without publicising these concerns, as would occur in shareholder voting (Solomon et al., 2004; Wim Vandekerckhove et al., 2007). We will use the following definition of engagement: Engagement refers to interactions between the investor and current or potential investees on ESG issues. Engagements are undertaken to influence (or identify the need to influence) ESG practices and/or improve ESG disclosure (PRI, 2015).

In Europe, engagement is rapidly growing. Engagement policies are in place, with investments totalling 2 trillion euros, and an average asset manager engages 100-200 companies annually (Eurosif, 2013).[1] Although the emphasis in the US is more on voting and filing proposals at annual shareholder meetings, there, too, engagement grew by 29% from 2009 to 2012, from $3.8 trillion to $4.9 trillion (USSIF, 2013).[1]

Prior research on SRI has often focused on the relationship between SRI and financial returns; examples include studies by Capelle-Blancard and Monjon (2012b), Derwall et al. (2005; 2011), Renneboog et al. (2008), and Vogel (2006). In a meta-study of 2200 empirical studies, Friede et al. (2015) found that in 90% of these studies, there was a non-negative relationship between ESG and corporate financial performance, with the large majority being positive.

Other studies have investigated other SRI strategies, particularly shareholder voting, such as works by Monks et al. (2004), Tkac (2006) and Sparkes et al. (2004), who all studied voting practices in the US. Screening and exclusion have been studied by Aslaksen and Synnestvedt (2003) and Haigh and Hazelton (2004), among others. Both studies evaluated the effectiveness of screening and exclusion in relation to the "cost-of-capital" argument.

With regard to engagement, there is a small but growing number of studies investigating its application and effectiveness in improving ESG performance among investees. We provide an overview of these studies to identify research gaps and research questions.

1 In newer versions of these reports, quantitative data on engagement and shareholder voting are combined. Therefore, presenting and extending trends separately for engagement through 2016 is not possible.

Dimson et al. (2015) studied the engagement practices of a US-based asset manager and addressed a wide range of questions: which companies are engaged; are these engagements effective and how do investees and markets respond to engagements? The main conclusions are that engagement leads to better financial performance of the investees and that co-operation on engagement leads to a higher rate of success.

Bauer et al. (2013) studied the role of geographical factors in the intensity and effectiveness of engagement. They did so by taking the perspective of a UK-based asset manager. Their main finding was that there is a home bias for selecting engagement cases, but that, surprisingly, engagements in the home market were less successful. In addition, larger firms and firms that previously were engaged are more likely to be engaged. Additionally, pooled engagements were shown to have a high success rate.

Ferraro and Beunza (2014) performed a qualitative analysis of the engagement and filing of resolutions of a leading American coalition of faith-based investors. They used the concept of "voice" developed by Hirshman (1970) to analyse how members of this coalition raise their concerns with management. Goodman et al. (2014) also used the concept of voice in analysing the engagements of faith-based investors and investigated factors that influence effectiveness, in particular, potential divestments from the investees involved. Both studies found that this coalition of investors has an influence through engagement that is disproportionate to the size of their investments based on their methods and reputation.

Several researchers have used the theory of stakeholder salience to study engagement and its effectiveness. Stakeholder salience explores the comparative level of salience of stakeholders towards decision makers, such as corporate managers. According to stakeholder salience theory, three attributes determine the level of salience of a stakeholder, such as a shareholder: power, legitimacy and urgency. Power is the ability to control resources. Legitimacy is linked to the social acceptance of issues and the way issues are raised. Urgency refers to how urgent claims of stakeholders are (J. Gifford, 2010, 2012; Mitchell et al., 1997).

Vanderkerkhove et al. (2007) were among the first to apply the theory of stakeholder salience to the engagement process. They investigated the attitude of management towards engagement. They did so by studying the corporate responses to letters sent by Portfolio 21, a joint collaboration of continental European investors. They found that in these responses, investees are willing to start engagement but will not necessarily acknowledge the concerns raised by the investors.

Allen et al. (2012) studied the engagement process between Northwest & Ethical Investments and Barrick Gold in the period of 2005-2009. They applied stakeholder salience theory to the engagement process and reported that legitimacy is an important factor that controls the effectiveness of engagement.

Magness (2007) also applied stakeholder salience theory to investigate the role of shareholders and management. He investigated the responses of management and shareholders to two incidents in the mining industry. Although the shareholders were investigated mainly through a financial lens in relation to share returns, the study also yields valuable lessons for the application of stakeholder salience to engagement. A core conclusion is that stakeholder salience is not absolute but rather is determined by the decision maker.

Hamilton and Eriksson (2011) applied stakeholder salience theory to the shareholder engagement of Swedish pension funds. Interestingly, they applied stakeholder salience to explain how Swedish pension funds chose their strategy of influencing their investees. A main conclusion is that reputation risks are an important consideration that has induced Swedish pension funds to practice engagement.

Gifford (2012) applied stakeholder salience in case studies of engagement by one US- and two UK-based institutional investors. His detailed application of salience theory to engagement practices is arguably the most in-depth framework for studying the effectiveness of engagement available to date. From his case studies, he concluded that the theory of stakeholder salience has validity for assessing the effectiveness of engagement practices, but that legitimacy, power and urgency do not need to be present simultaneously, and not all three factors have the same level of importance.

When analysing these studies, we can identify two important knowledge gaps. First, the existing studies focus on the direct contact of engagers with investees. However, engagement is shaped and coordinated by a network of actors establishing engagement policies, providing information and implementing the actual engagement policies. Second, the existing studies cover data and viewpoints of institutional investors and asset managers in particular when studying the effectiveness of engagement but not the perspective of the investees that are engaged. However, insights of the investees are key in determining the factors that influence the effectiveness of engagement.

In contributing to filling these knowledge gaps, this research addresses the following research questions:

1. Which networks steer the engagement process of institutional investors?
2. Which factors determine the effectiveness of the engagement of institutional investors in improving ESG performance among their investees?

In answering the second question, we will address the second research gap and explicitly take the perspective of the investees into account.

In investigating these questions, we have chosen the Dutch market as the focus of the study. The Netherlands has a well-developed SRI market for individual and institutional investors

(Quak et al., 2014; Scholtens, 2005). Specifically, the Netherlands is the second most active European country in engagement after the UK (Eurosif, 2010).

Pension funds were chosen as an additional focus of this study because they are the largest source of institutional investor engagement. In Europe, pension funds constitute 63.3% of all SRI assets (Clarke & Hebb, 2004; Eurosif, 2010). The Dutch pension fund sector plays a relatively large role in the Netherlands, which is the nation with the highest pension investments relative to its economy: 178.4% of the GDP (OECD, 2016). In 2017, these assets under management reached 1346 billion euros (DNB, 2018).

These assets under management are governed by 243 Dutch pension funds that organise pensions for (former) employees of specific companies, economic sectors or professions (DNB, 2016). The board of a pension fund formally sets the policies, including those for SRI and engagement, and is composed of employee representatives (labour unions), employers and, since 2014, external experts. The board is advised by several advisory councils, including one with representatives from the participants of the fund (Pensioenfederatie, 2010; Wetten. Overheid.nl, 2016).

This paper is structured as follows. The following section introduces the main concepts and methods used in this study. The findings are presented in sections 3, 4 and 5, followed by discussion and conclusions in section 6.

3.2 CONCEPTS AND METHODS

To analyse the organisation and networks of engagement, we use social network theory. To analyse which factors determine the effectiveness of engagement in stimulating ESG performance among investees, we build upon previous studies of salience, in particular, work by Gifford (2012).

Social network analysis

Social network analysis is closely linked to graph theory, and over the years, a robust methodology has been developed to graphically represent social networks (Borgatti et al., 2009; Butts, 2009; Löblich & Pfaff-Rüdiger, 2011). As this is an explorative study, we use a very basic, qualitative form of social network analysis to depict the relations between actors in engagement processes as derived from interviews. In doing so, we use two perspectives on networks and their actors in relation to engagement practices. First, we analyse actors that have a direct role in implementing the engagement process. Second, we focus on the relations between these actors and governmental and societal actors. To this end, we work in the context of the triad network model, which was originally developed to analyse and map empirical processes of ecological modernisation (A. Mol, 1995). The triad network model is

rooted in the structuration theory of Anthony Giddens (1984) and identifies three distinct but interdependent networks that together influence companies or industrial sectors central to the analysis: an economic network, a policy network and a social network. Each network has its own analytical perspective, specific institutional arrangements and a particular set of actors. A social network focuses on the relationships of companies with civil society, a political network investigates relationships from a political-administrative perspective between companies and state and regulatory actors, and an economic network focuses on financial and economic transactions between private economic actors (A. Mol, 1995). By using the triad network model, we analyse and provide insight regarding the extent to which the economic, policy and societal networks play a role in shaping and implementing engagement processes.

Shareholder salience

To examine if and when engagement is effective in stimulating reform, we build on the theory of "stakeholder salience" developed by Mitchell, Agle and Wood (1997) and refined and applied to shareholders by Gifford (2010; 2012). Although salience cannot be equated with effectiveness per se, previous studies have demonstrated that salience plays an important role in the effectiveness of engagement (Allen et al., 2012; J. Gifford, 2010).

Gifford refined and adapted stakeholder salience specifically for shareholder engagement. An overview of that adaptation is provided in Table 3.1 and is explained in detail below. Gifford refined the role of power by building upon the work of Scott (2013) and Mitchell et al. (1997). Power can be subdivided into coercive, utilitarian or normative means for imposing the will of a shareholder on an investee (J. Gifford, 2010). Gifford and Mitchell refined the role of legitimacy by building upon the work of Suchman (1995) and Scott (2013). Legitimacy is defined as '*a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions*' (Scott, 2013). Based on Wood (1991) and Suchman (1995), Gifford identified four forms of legitimacy, i.e., individual legitimacy, organisation legitimacy, societal legitimacy and pragmatic legitimacy, pragmatic legitimacy being legitimacy from the perspective of the company (see Table 3.1 for the adaptation to shareholder engagement). Urgency is the third attribute and relates to how pressing and critical a claim is for a stakeholder (Mitchell et al., 1997). J. Gifford (2010) subdivided this urgency into the time sensitivity of a claim and the intensity of engagement activities. However, more intensive engagement does not necessarily cause the claim to be more urgent from the investee's perspective.

Table 3.1: Sources of shareholder salience (based on Gifford (2012a)

Sources of shareholder salience	Dimensions or forms	Explanation
Power	Coercive	Use of shareholder rights: shareholder resolutions, votes against management, director elections
	Utilitarian	Use of economic power: divestment (or investment)
	Normative	Use of the media and/or public statements or peer pressure; public shareholder campaigns; threats to reputation
Legitimacy	Individual	Credibility of the individuals: seniority, experience and expertise; ability to develop trust and collegiality
	Organisational	Status of the engaging organisation: degree to which a shareholder is perceived to be "mainstream"; perceived alignment of interests between a shareholder and the company; organisational alignment and consistent messaging
	Pragmatic	Strength of the business case: validity of the argument; evidence; extent of new information provided to the company; maturity of the issue
	Societal	Strength of the societal case: social and cultural context; existence of legitimising standards, norms and principles
		Political/policy context: supportive political environment; regulatory momentum
Urgency	Time sensitivity	Deadlines, benchmarks
	Criticality	Intensity of private engagement activities: assertiveness and persistence

In addition to this framework, Gifford (2010) and Driscoll and Starik (2004) found four so-called moderating factors, discussed below, that are not associated with the power, legitimacy and urgency attributes but that can influence those attributes positively or negatively.

a) Relative economic and governance power: size of the stake, investor and firm.

Gifford (2010) identified the size of the stake and the overall size of the investor as moderating factors of power and legitimacy.

b) Coalition building: leveraging other investors, NGOs and policy makers.

Coalition building can be a method of increasing salience. Coalitions can be formed among investors but also with NGOs or policy makers to combine and strengthen their salience over the three criteria (James Gifford, 2012; Magness, 2007; Mitchell et al., 1997).

c) Values of managers: degree of alignment with investor request.

This attribute relates to the attitudes of managers in response to requests made during the engagement process. Agle et al. (1999) and Gifford (2012) identified the role of the company involved by identifying the moderating factor "Values of managers", which highlights the

role of the managers of the engaged company in relation to salience. The relevance of the company for the effectiveness of engagement was also addressed by Vandekerckhoven et al. (2007).

d) Proximity

Driscoll and Starik (2004) identified the moderating factor "proximity", which they translate as the proximity of the actors from a network perspective. However, Neville et al. (2011) argued that proximity is an important factor, but it is part of the power attribute, through the position of a stakeholder in the network, and part of the legitimacy attribute.

Methods

Quantitative studies have dominated the field of business ethics (Campbell & Cowton, 2015). However, we have chosen a qualitative approach combined with quantitative data. Because most engagement occurs behind closed doors, and limited information is disclosed, a qualitative approach based on semi-structured interviews provided us the opportunity to explore with the interviewees the factors that make engagement effective, how different actors shape engagement and to go into more detail if they presented us with new inroads and perspectives. In addition to data from interviews, quantitative data from yearly studies (over nine years) of the SRI practices of the 50 largest Dutch pension funds were used.

Quantitative data

The dataset from nine editions of the yearly "Benchmark Responsible Investment by Pension Funds" by the VBDO (Dutch association of investors for sustainable development) was used to identify trends in the engagement practices of Dutch pension funds(VBDO, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017). This benchmark study of responsible investment by pension funds has been completed for nine consecutive years and covers the governance, policies, implementation and transparency of SRI practices. The data used are evidence-based and provided by the 50 largest Dutch pension funds. Subsequently, this information is verified by the VBDO. If a pension fund does not provide data, the data are retrieved from secondary sources such as the annual responsible investment report. However, there have been high response rates among the 50 largest pension funds: 94% in 2016, 100% in 2015 and 100% in 2014. The data have been supplemented with secondary literature such as annual reports of companies and pension funds, media reports and publications related to engagement.

Interviews

To gain insight into the effectiveness of engagement, quantitative data alone are not sufficient. Therefore, 23 interviews were conducted with a broad range of relevant actors related to the engagement practices of Dutch pension funds. A semi-structured questionnaire was used in all interviews; this questionnaire was modified based on the type of actor being interviewed. The questionnaire on engagement activities was based on salience theory, and the

interviewees were asked specific questions about their actions and their networks, based on the triad network approach. All interviews were conducted on a confidential basis to ensure that respondents could talk freely, and the results are only provided in anonymised form in this article. The interviews were transcribed and systematically coded. On average, the interviews lasted 1 hour. The interviewees can be divided into two main groups:

The network in and around Dutch pension funds

Ten interviews were conducted with actors setting engagement policies and implementing engagement for Dutch pension funds. The pension funds, asset managers and engagement providers were selected in two steps. First, a selection was made of the pension funds, asset managers and engagement providers who were most active in SRI and engagement according to the benchmark report of the VBDO. Second, an additional selection was made to ensure that the interviewees represented a diverse range of small and larger pension funds, asset managers and engagement providers. All the interviewees that were approached for an interview accepted the invitation. This process resulted in three interviews with asset managers, two with pension fund board members and support staff, three with specialised ESG and/or engagement providers and two with actors from an umbrella organisation coordinating engagement practices of institutional investors.

Three additional interviews were conducted with experts from NGOs (1) and research organisations working on pension funds (2).

Companies who are engaged by Dutch pension funds

The companies were selected based on the suggestions of the interviewed pension funds and asset managers and based on mentions in the annual engagement reports. A further selection was made to ensure that the interviewees provided a broad spectrum in relation to ESG performance and sectors. Because the investments of Dutch pension funds and engagement cases are globally diversified, a second selection was made to ensure that the interviewees represented this geographic diversification.

Thirteen public companies engaged by Dutch pension funds were approached, of which ten accepted the interview request. The interviewees represented companies in eight countries. These interviews were performed with representatives involved in the engagement process, mainly from the investor relations and the sustainability departments. The interviews with the Dutch companies were performed face-to-face, and those performed with the other companies were by telephone.

3.3 ORGANISATION AND NETWORK OF ENGAGEMENT OF DUTCH PENSION FUNDS

In this section, we provide an overview of how engagement is organised and which actors are involved. We use the triad network approach to analyse and identify the relations among pension funds and actors in the economic, policy and societal networks.

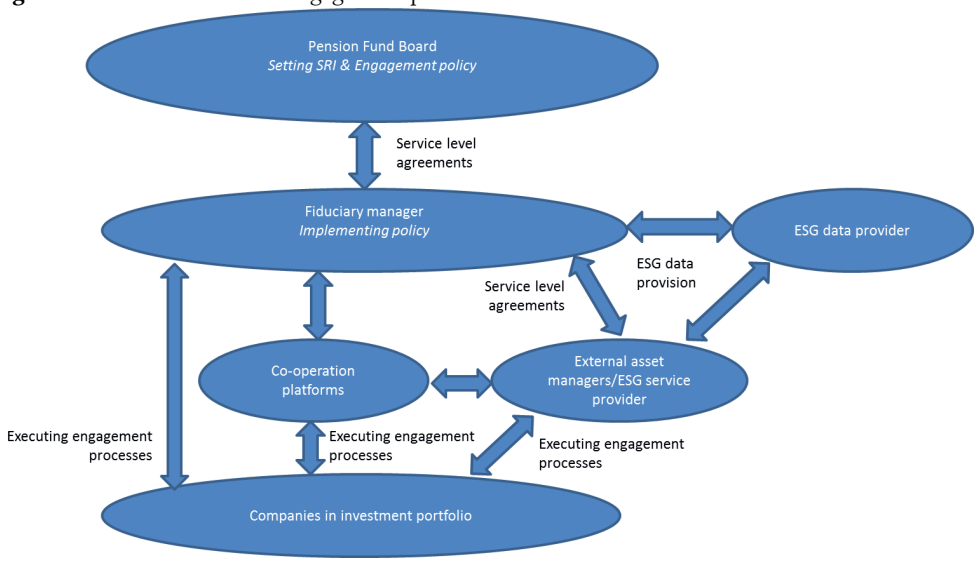
Economic network

The boards of the pension funds set the SRI and engagement policies, but the implementation of the policies and investment management, including engagement, are outsourced to a range of actors in the economic network. Based on interviews, the underlying data of the VBDO benchmark and secondary data, we provide an overview of the actors involved.

Asset management is outsourced to a fiduciary and/or asset manager(s). This asset manager may work solely for one pension fund or provide services to multiple funds (Pensioenfederatie, 2010, 2016). The procedures regarding engagement are more complex. For some pension funds, the asset manager also implements the engagement process. In these cases, engagement with ESG and financial themes can be integrated and implemented by the same team, although implementation can also be performed by separate teams. At some pension funds, specific ESG service providers, such as Hermes, BMO and Robeco, conduct the actual engagement conversations regarding ESG themes independently from the asset manager.

In addition, asset managers, ESG service providers, and ESG data providers such as Sustainalytics, Vigeo-Eiris and MSCI are relevant actors in engagement practices. These agencies gather ESG information that is used in the selection and preparation of engagement cases, but the data are also used for other SRI strategies, such as exclusion and ESG integration. An overview of this network is shown in Figure 3.1.

Figure 3.1: Main actors in the engagement process



The interviewees and quantitative data shed more light on the roles and relationships among the pension funds and the organisations implementing their policies and asset management. Notably, asset managers and ESG service providers, in addition to their role in implementation, play an important role in formulating these policies on behalf of the pension funds they service. The quantitative data indicate that all 50 of the largest funds are advised by their asset manager(s) or ESG service provider in developing the SRI and engagement policies of the fund, and 56% of the funds do not use any other sources or stakeholders to establish those policies.

> *"We as a pension fund largely base the choice to engage certain firms or to engage on specific topics on our ESG service provider. They engage with 400 companies worldwide based on a general policy and on the Principles for Responsible Investment. Most pension funds have a policy that is compatible with these principles. We [pension fund board] can also file a specific request to engage a certain firm, although that does not happen often." – Board member pension fund*

A core reason for the strong role of asset managers and ESG service providers is that they possess the expertise needed to formulate and implement SRI and engagement policies. Boards or the support staff within pension funds possess less of this expertise. Knowledge of SRI is not part of the formal requirements set by the supervisor, the Dutch Central Bank (DNB), for board members of pension funds (DNB, 2012).

Platforms and co-operation in the economic network

Engagement is not performed in isolation, and in the interviews, three forms of co-operation between asset managers and ESG service providers were noted.

1) Co-operation at the country level

Dutch pension funds and their asset managers co-operate on a structural basis with other Dutch institutional investors in their engagement with Dutch listed companies through Eumedion (Eumedion, 2018). Eumedion began as a platform for institutional investors to address corporate governance, environmental and social topics.

2) Co-operation through the asset manager or ESG service provider

Asset managers and ESG service providers often serve multiple Dutch pension funds and other clients. Therefore, the engagement efforts of pension funds and other institutional investors are, to a large extent, bundled. In their engagement, they therefore represent several pension funds and other clients.

3) Co-operation on specific cases

In addition, co-operation on specific engagements occurs between asset managers and engagement providers that serve different pension funds. Asset managers and engagement providers, for example, share information or combine their engagement efforts towards a certain company or on a specified theme. From the interviews with the asset managers and ESG service providers, it became clear that there is no sense of competition between the asset managers in the field of SRI; rather, best practices and ideas are shared.

> *"This is not a topic (engagement) on which it is rewarding to compete. It is not like that when there is a success, somebody can claim that it's his or her success. We compare notes and email each other (engagers). Fortunately, we have the same ideal, because we would be nowhere without collaboration." – ESG service provider*

On the international level, several platforms exist for co-operation that are used by Dutch pension funds, asset managers and ESG service providers in specific cases. One example is the collaboration platform of the Principles for Responsible Investment (PRI), in which asset managers can propose an engagement case in which they want to join forces with other asset managers (PRI, 2018).

Societal network

The actors implementing engagement and platforms for co-operation are logically concentrated in the economic network. Less co-operation and contact occur between those actors and actors inside the societal network. Based on the quantitative data from the VBDO benchmark, two-thirds of the 50 largest Dutch pension funds did not have any contact with societal actors, such as NGOs, in 2014. In addition, 7 out of 7 interviewees who practise

engagement stated that they are not working on a structural basis with NGOs. In the interviews with pension funds, three important reasons were given for the low levels of contact with NGOs.

- NGOs have a different agenda that does not align with the agenda of the pension funds.
- If the pension fund were to work too closely with NGOs, the fund could be perceived as a political organisation and therefore in breach of its fiduciary duty.
- The information NGOs provide does not match the standardised way ESG data are supplied and analysed. Investors favour quantified information as commonly used in research on financial themes by investors, whereas NGOs use more qualitative research data and case studies.

Nevertheless, several examples were mentioned in the interviews, in which interactions and the sharing of information between pension funds and NGOs occurred, because, for specific topics, NGOs were viewed as more knowledgeable or more able to verify the worldwide actions of a company.

> *"I spoke with an NGO of the local population. It is good to talk to company B, but what it tells is in the interest of this company B. We want to get the whole picture, so we also talk to NGOs." - Asset manager*

The interviewed asset managers and pension funds also mentioned that NGOs can be perceived as indirectly setting the agenda for pension funds, and ESG data providers are monitoring NGO actions, reports and activities.

The participants of the pension funds, the majority of the Dutch workforce, form another important component of the societal network. Those participants play a limited role in setting SRI and engagement policies; in 2014, for example, the quantitative data show that only 28% of the pension funds had consulted their participants in some way regarding their SRI policies. When consultation occurred, it was generally conducted by means of a small questionnaire or by organising meetings with participants.

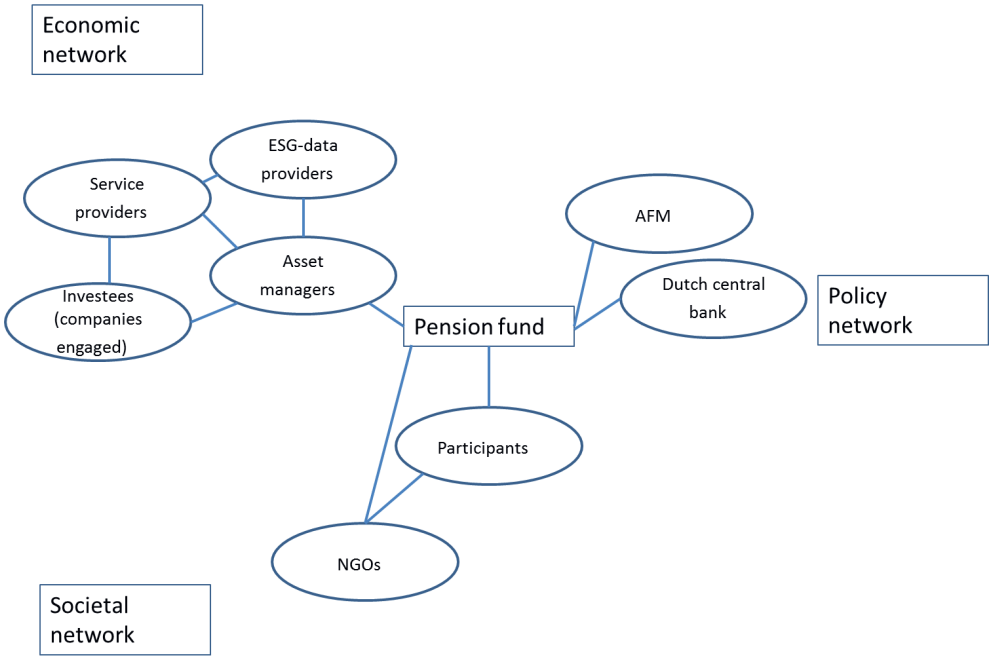
Policy network

In the interviews, no policy actors were perceived as very relevant for stimulating and shaping engagement by Dutch pension funds. This pattern also becomes clear when studying Dutch regulations on SRI and engagement. Currently, two laws are in place for pension funds with a link to SRI. One is an obligation to ban investments in cluster ammunitions, which is overseen by the AFM, the Authority for the Financial Markets (AFM, 2016; Overheid.nl, 2016a). The other is the legal obligation for pension funds to report on their SRI policies and activities (Overheid.nl, 2016b). However, in that law, no specifications exist regarding how reporting should occur and how extensive it should be. It is therefore unclear whether and how this extends to reporting on engagement. The DNB is the main supervisor of Dutch

pension funds but, to date, has not played a role in stimulating or shaping SRI and engagement in Dutch pension funds. This could possibly change in the future, as the DNB views sustainability and SRI as part of its mandate and may play a more prominent role in these themes (DNB, 2015). Pension funds are represented by the "Pensioenfederatie", an organisation that represents the pension fund sector and develops sectoral policies and guidelines. The Pensioenfederatie has developed a service document regarding SRI that focuses on the process by which pension funds can develop SRI policies and be transparent regarding such policies (Pensioenfederatie, 2016).

In summary, as show in Figure 3.2, the implementation of engagement is performed by a specialised network of economic actors. Among those actors, co-operation occurs through several platforms or by ad hoc co-operation. Pension funds themselves do not engage directly with their investees but only indirectly through their asset managers and ESG service providers. The role of societal and policy actors is limited and indirect.

Figure 3.2: Actors involved in the implementation of SRI and engagement



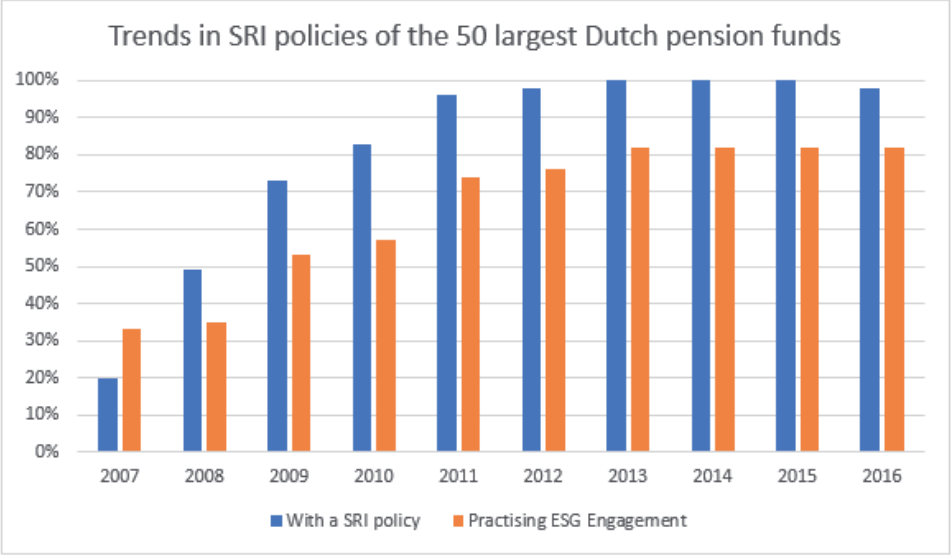
3.4 MAIN TRENDS IN SRI ENGAGEMENT

The interviewed board members and asset managers considered 2007 the starting point for pension funds in relation to SRI and engagement. Most pension funds either began responsible investment that year or intensified their activities. The quantitative data (Figure 3.3) reveal strong growth in SRI policies and in the practice of engagement since this time.

In 2016, 82% of the pension funds practised engagement, and 98% had an SRI policy, an increase from 2007, when 33% of the funds practised engagement and 20% had a formal SRI policy. SRI was also increasingly on the agendas of the boards of pension funds, with 100% of the 50 largest Dutch pension funds placing SRI on the agenda at least twice in 2016, as opposed to only 30% in 2012.

Notably, among the 50 pension funds in the benchmark, the extent of their policies and engagement activities varies widely, from pension funds having detailed thematic engagement policies to funds only using engagement as a precursor for exclusion in relation to a possible breach of their exclusion policies. The extent of engagement activities also varies, from funds with under 10 engagement meetings on ESG themes to pension funds with hundreds of engagements on a yearly basis. For example, ABP, the largest Dutch pension fund, had 199 engagements in 2015, covering issues including oil drilling in the Arctic, electricity production from coal, child labour and the use of nuclear power (ABP, 2016). Pension fund PFZW had 374 engagements in 2015, ranging from sustainable agriculture to labour rights in the agricultural sector to drilling in the Arctic (PGGM, 2016).

Figure 3.3: Trends in the SRI policies of the largest Dutch pension funds. Source: compiled by the authors based on the benchmarks of the VBDO.



The interviews revealed that ESG issues are increasingly not perceived as opposed to financial interests and are often integrated into engagement practices. Asset managers and pension funds use engagement, especially for cases in which environmental management or sustainability generally adds shareholder value, such as reducing water use in oil drilling activities or decreasing energy use. In this regard, pension funds commonly use the term "materiality", indicating that ESG concerns are seen as financially relevant.

"For us, the idea of engagement is to stimulate better behaviour of companies in the longer term. We have the conviction that when a company performs better in the field of sustainability that this adds shareholder value." - Asset manager

3.5 FACTORS GOVERNING EFFECTIVE ENGAGEMENT

Although engagement is increasingly common among pension funds, does it also improve ESG performance in investment portfolios? Below, we discuss the factors that emerged from the interviews with the engagers and investees, such as the factors related to the engager[2], factors related to the investee and factors related to the relation between the two.

Factors related to the engager

When are engagers able to connect with and influence the investee? First, the credibility of the engaging organisation was an important condition for effective engagement. As institutional investors, pension funds were in principle considered credible partners in the engagement process by the companies, as their interests are financially aligned with the companies they engage.

"Institutional investors do not need to put a lot of pressure on us like some NGOs do; they are fairly reasonable because they want a win-win situation." – Company representative

In addition, the preparation of the engager and framing of the engagement questions were important to effectively exerting influence. Does the engager have a good grasp of the topic and an understanding of the business model due to experience or solid research? However, 7 out of 10 companies engaged stated that at the moment, a lack of preparation by engagers was often hampering constructive dialogue, and questions were often perceived as too superficial.

"I want parties to do good research, but their research is mostly rudimentary. Some do not even look at our press releases. They just read their normal newspaper and use that as the basis to respond on." – Company representative

One operationalisation of successful preparation was the importance of linking ESG improvements with the core business model. In the interviews, the companies and engagers

2 As section 3 shows, the actual engagement processes for Dutch pension funds can be implemented by different actors, such as the pension funds themselves, their asset managers or ESG service providers; therefore, we use the term "engager" to refer to the actor(s) actually engaging with the investees.

rated constructive dialogue with engagers who understood and supported their core business model as more constructive and therefore more successful.

An important consideration relating the concept of power to shareholder salience is whether those using their formal rights are more powerful and thus more effective engagers. The answer to this question is mixed and nuanced. The interviewees stated that possible divestments or votes against certain proposals at shareholder meetings were not considered a major factor in salience vis-à-vis companies. None of the 7 interviewees practising engagement could present examples of the use of voting at shareholder meetings to change company policy. Interviewees did not view this as a potentially powerful method of enforcing their demands because when this step is considered, the company is not considered open to engagement. In addition, companies did not perceive (intended) divestment as a powerful tool that would force them to change. One company even suggested that investors should divest if they cannot identify themselves with the corporate strategy and are considering divestment.

However, in addition to formal rights, a share in a company can be of use in a more indirect way. A legitimate claim associated with owning a large stake in a company was considered relevant by 5 of the 10 investee companies to gaining access to and the attention of a company, as the quotation below illustrates.

> *"We respond to everybody. But, of course, you sometimes have to listen if a shareholder, for example, holds 20% of the company." – Company representative*

Nevertheless, the other 5 of the 10 investee companies perceived nuance in the importance of the size of the shares and viewed the credibility of an organisation as more important than the actual percentage of shares owned because the number of shares in a company normally fluctuates, and an asset manager who is not a shareholder today can become so in the near future. Large pension funds, whether actual investors or not, were therefore always considered relevant.

In relation to urgency, an important question is whether the choice of a specific salient or pressing topic influences the effectiveness of engagement. The answer to this question is also mixed. Time sensitivity in relation to, for example, the connection to shareholder meetings was mentioned by none of the 10 investee companies as a major factor related to effectiveness, although it is impossible to know whether this was not mentioned as a factor due to its low effectiveness or because it is not currently practised. In addition, the use of deadlines in engagement, for example, in relation to benchmarks or inclusion in an index, was not mentioned as a factor by the interviewees.

Factors related to the relationship between the engager and investee

In addition to the factors related to the engager and closely linked with shareholder salience, the relationship between the shareholder and investee was identified as a major factor. Three important subfactors were identified: the type of contact, the form in which engagement occurs and the (cultural) proximity.

First, the type of contact and the duration and intensity of engagement were considered important. All 10 investee companies stated that engagement in a strong, long-term relationship with the engagers was more likely to be successful due to increased trust, knowledge sharing, and therefore more in-depth discussion between the engager and company. In short-term contacts, a company was more focused on informing the engager than discussing potential changes in ESG performance.

> *"The dialogue definitely becomes better when engagement is taking place regularly; it also makes it easier to understand the business, and that improves the quality of the dialogue." – Company representative*

Engagement can take several forms, from sending letters to opening dialogue. The interviewees stated that questionnaires, in particular, are not considered effective. Questionnaires are perceived as time consuming and are viewed by companies as a way of informing investors instead of provoking increased ESG performance within the company. In-depth meetings are considered the most effective, especially when they are well prepared and when questions and demands are communicated beforehand to the company.

> *"For us, a real conversation is best to see through nuances and fully understand each other. That is, a better way to engage than by written communication." - Company representative*

In relation to the type of contact, the cultural proximity between the engager and company was also considered important. Five of the 7 interviewees that practise engagement stated that differences in (corporate governance) cultures played a role in the effectiveness of engagement. Engagers active in the same corporate governance culture and region were therefore considered more effective, as the quote below illustrates.

> *"Sometimes, engagement questions are not well adapted to the context of a specific country and do not take another cultural context into account." – Company representative*

Factors related to the investee

The receptivity of the engaged companies was identified as a third group of factors related to the effectiveness of engagement. Receptivity or openness towards engagers was viewed as especially important and as varying among companies, as the quote below illustrates.

> *"We can only achieve change if they are willing to change." – Engagement provider*

In interviews with companies, clear differences could be observed in the initial stance of a company vis-à-vis engagers. Four of 10 investee companies seemed to have a more defensive and less open stance. They viewed the engagers as less knowledgeable on the discussed topic than the company itself and challenged the claims of the engagers, for example, by commissioning their own research. Other companies were more welcoming to engagers and stated that engagement is an important tool in gaining insight into their performance and into areas in which they could improve.

As a factor closely related to openness, the positions and interests of other internal stakeholders and management also determine whether the engagers' demands are accepted. Interviewees mentioned, for example, that a company with more ESG-minded management is more inclined to comply with a request made during the engagement process.

In the previous section, we identified urgency and deadlines as less relevant for the effectiveness of engagement. However, one investee company mentioned that urgency was relevant to the internal processes and deadlines within a company and that engagement during the time that CSR policies are under review increases the effectiveness of the former.

3.6 CONCLUSION AND DISCUSSION: IS ENGAGEMENT REACHING ITS POTENTIAL?

Our findings show that the networks steering engagement comprise a range of specialised actors in the economic sector, most notably fiduciary managers, asset managers, ESG data providers, co-operation platforms and service providers. Remarkably, actors in the societal and policy networks have a minor influence in the networks of engagement, and most of the involved economic actors do not consider them important in shaping engagement or stimulating pension funds. As we discuss below, these stances influence the effectiveness of engagement.

We see that shareholder salience is a useful starting point for answering our second research question regarding which factors determine the effectiveness of engagement. Factors related to legitimacy were identified as especially relevant, including thorough the preparation and

linking of ESG issues with financial materiality. Factors related to urgency and power were considered notable but less important. This finding is consistent with the results reported by Gifford (2012) and Allen et al. (2012).

However, by taking into account the perspectives of the engagers and the investees, we are able to reveal additional factors beyond legitimacy, power and urgency. As we noted in the introduction, previous studies have already touched upon the roles of companies in relation to engagement. Gifford (2012) noted the "values of managers", and Ferraro and Beunza (2014) described how the openness of companies plays a role in selecting companies for engagement. Based on our interviews with the investees, we identify three subfactors concerning an investee's situation that influence the effectiveness of engagement:

- The openness and stance of the investee towards engagement;
- The positions and interests of internal stakeholders, such as managers, in relation to CSR; and
- Urgency in relation to the internal processes and deadlines within an investee organisation.

Second, the relationship between the engager and investee is also important. In the interviews with engagers and investees, three subfactors were identified:

- The type of contact between an engager and investee, e.g., does the contact, for example, occur in the form of letters, phone calls or face-to-face meetings;
- The persistence of engagement; and
- The cultural proximity between an engager and investee.

The importance of cultural proximity is consistent with the abovementioned findings of Bauer et al. (2013) of a trend towards greater engagement within the home market. In contrast to their findings, however, our study suggests that proximity increases effectiveness. These conflicting results merit further research.

At this point in the discussion, our findings regarding the factors that enhance the effectiveness of engagement can be assessed in the context of the current organisation of engagement by Dutch pension funds, as discussed in this research. Thus, the following question can be posed: to what extent is the present implementation of engagement effective in improving ESG performance? We address this question by discussing four main points: 1) the role of the organisation of engagement, 2) the connection between financial materiality and ESG performance, 3) the low level of contact between engagers and the societal and policy networks, and 4) the selection of companies for engagement.

When we focus on the organisation and network of engagement, the specialised agencies in the economic network would be expected to increase legitimacy and therefore be an important facilitator of the effectiveness of engagement. Because specialisation should

potentially lead to experienced and knowledgeable engagers, sharing knowledge should increase legitimacy, and co-operation should lead to a larger shareholder base and, therefore, greater power. However, the reported experiences of companies with engagement are mixed. Indeed, companies reported that engagement was sometimes well prepared by the engagers who had insight into the sector and specifics on the companies. However, engagement was also sometimes viewed as ill-prepared and ad hoc. These contrasting views and experiences can be explained by the present implementation of engagement. Specialisation indeed leads to better preparation and therefore legitimacy, but the engagement policies of pension funds cover a wide range of topics, and engagement agencies must therefore execute many engagements over a wide range of companies, which leads to specialised and seasoned engagers but also to a loss of focus and lack of in-depth knowledge of the companies and sectors involved. Avetisyan and Hockerts (2017) observed similar results with respect to ESG data providers, as a consolidation in this sector has also led to a loss of in-depth ESG data.

Second, although combining improved ESG performance with financial materiality was considered effective, this combination was not always implemented in practice. In the interviews, it emerged that engagement is sometimes performed by different teams: one focusing on ESG themes and one focusing on financial themes. The diversity of organisational structures for implementing SRI was also identified by Juravle and Lewis (2009), who had different explanations for why institutional investors diverge in their organisational structure for SRI: differences in organisational values, different views concerning the relation between ecological and financial rationales, and educational backgrounds. Another possible explanation for the separation of financial and ESG engagement is that ESG engagement did not initially focus on adding (financial) value but was solely a precursor of exclusion, which made the integration of the two engagement teams less logical.

Third, in addition to pension funds, NGOs are also increasingly discovering and using capital markets to exert influence (A. O'Rourke, 2003a; Anastasia O'Rourke, 2003; Waygood & Wehrmeyer, 2003). Guay et al. (2004) reported that NGOs can assume several roles in doing so, from being a shareholder themselves to advising and co-operating with institutional investors. However, few coalitions between pension funds and societal actors such as NGOs actually formed. The interviewees provided several reasons for such low involvement, such as that pension funds avoid being perceived as taking a political stand by working with NGOs, and NGOs and pension funds use different types and formats of data that are not easily combined, potentially decreasing effectiveness because co-operation with NGOs could strengthen their power and legitimacy. NGOs can, for example, use media and public statements (power) to strengthen and back the societal case (legitimacy), and information from NGOs could increase the knowledge of engagers (legitimacy). In addition, links with policy goals and policy networks could potentially strengthen the legitimacy of engagements by focusing on topics with supportive regulatory frameworks, those for which regulation can be foreseen or those that have a strong political and societal case. An example of such linking

could be the "Montreal Pledge" (*Montreal Carbon Pledge*, 2014), in which investors pledged to begin carbon footprinting, which links to the Kyoto and Paris agreements and can serve as a basis for engagement regarding climate change.

Fourth, one of the key factors for effective engagement identified in the interviews is the openness of a company that is engaged. As only a limited number of engagement cases can be implemented, an important aspect of successful engagement will therefore be selecting companies that are open to engagement and have support from higher management for improving ESG performance. When we assess the present structure of engagement processes, this is not often the case, as engagement processes often focus on companies in the portfolio that are lagging with respect to ESG performance.

In conclusion, engagement does not always reach its full potential of improving the ESG performance of investees. Because the engagers we interviewed were well aware of the effectiveness of their engagement and the factors determining it, a salient question is why engagement is not more effective. Hamilton and Eriksson (2011) provided a potential explanation. In their study of Swedish pension funds, they noted that pension funds exclude or engage mainly due to reputational concerns. Thus, engagement may be more of a hygiene factor that is similar to the exclusion process, which is important to have in place regardless of the outcome. This tentative explanation would also explain our findings from the survey, interviews, and secondary data. For example, the annual reports on active ownership often focus on the number of engagement cases and their diversity in terms of themes and geography. Although milestones are cited, there has been little in-depth analysis of the effectiveness of engagement. The interviewees also did not mention that engagement is governed or evaluated by the end clients regarding its effectiveness. For pension funds, it seems that being able to list a wide range of engagements is more important than the actual outcome of these engagements. To elaborate on this tentative explanation, gauge how widely it applies and determine whether such motives change over time, more research would be needed.

To institutional investors who, for whatever reason, indeed wish to increase the effectiveness of their engagement activities, several recommendations can be made based on our findings. Investors attempting to reach their full potential could do so by enhancing their preparation and selection process and by focusing engagement on fewer companies and sectors. The existing co-operation among pension funds, asset managers and ESG service providers implementing engagement already strengthens engagement. However, if investors, such as pension funds and their engagers, strengthen co-operation with NGOs and align with policy initiatives, these steps could further enhance their legitimacy and urgency and therefore the effectiveness of the engagement in stimulating ESG performance. These investors could thereby become more powerful agents of change in relation to ESG performance.



Chapter 4

Institutional investors and the adoption of Socially Responsible Investment: An explorative case study of Dutch pension funds

This paper has been published as:

Wagemans, F. A. J., Verstappen, R. J., van Koppen, C. S. A., Tobi, H., & Mol, A. P. J. (2025). Institutional investors and the adoption of socially responsible investment: an explorative case study of Dutch pension funds. *Journal of Sustainable Finance & Investment*, 15(3), 733-756. https://doi.org/10.1080/20430795.2024.2327550

ABSTRACT

Although socially responsible investment (SRI) is on the rise, little is known about the adoption process of SRI practices by institutional investors. In this study, we formulate expectations for SRI adoption based on corporate social responsibility (CSR) stage models. These expectations were then tested using a unique dataset containing information on the SRI practices of 50 Dutch pension funds. We find that CSR stage models can plausibly be applied to SRI. In line with CSR stage models, target setting and the involvement of stakeholders is most likely accomplished through pension funds that already follow well-developed SRI practices. Additionally, there is a clear order followed in the implementation of SRI instruments: to begin, certain investments are excluded, then environmental, social and governance (ESG) integration is performed, and finally so-called impact investing (which focuses on more than only financial results) is conducted. To further delineate the way in which CSR stage models translate into SRI, it is important to account for the particularities of specific asset classes, the role of the investment chain, and the regulatory and societal conditions in different markets.

4.1 INTRODUCTION

Over the last two decades, social responsible investing (SRI) has been rapidly gaining ground. In 2020, the total global SRI investment was estimated to be $35.3 trillion (GSIA, 2021). A substantial and rapidly increasing portion of these investments comes from institutional investors. For example, the percentage of Dutch pension funds with an SRI policy increased from 20% in 2007 to 98% in 2016 (Wagemans et al., 2018). With such figures in mind, it is surprising that research into the adoption of SRI by institutional investors is relatively scarce. Based on data collected from 50 Dutch pension funds, this study aims to provide greater insight into the development of SRI within institutional investors.

That the growing body of literature on SRI is unevenly distributed and that conceptual and theoretical topics such as the adoption of SRI are relatively overlooked has also been identified by Capelle-Blancard and Monjon (2012b). In particular, the relationship between SRI and financial performance is relatively well studied, and research shows that there is a positive, or at least the lack of a negative, relationship between SRI and financial performance. Examples of these studies include Derwall et al. (2011), Renneboog et al. (2008), Vogel (2006) and Friede et al. (2015). The less abundant but growing-in-number studies on specific SRI instruments range from exclusion to impact investing (Alda, 2019; Aslaksen & Synnestvedt, 2003; Bauer et al., 2013; Dimson et al., 2015; E. J. M. Gifford, 2010; Haigh & Hazelton, 2004; Jackson, 2013; Tkac, 2006; Wagemans et al., 2013).

A smaller number of studies have aimed to construct an overarching framework for understanding SRI development by connecting it to other existing theoretical frameworks. Nonetheless, there are several interesting examples among them, such as the study conducted by Louche (2004), which analyses the transition process of the Dutch Triodos Bank based on institutional theory, and that of Bengtsson (2008), who uses institutional theory to describe the developments in the Scandinavian SRI market. Thompson and Davis (2002) and Arjaliès (2010b) use social movement theory to investigate shareholder activism in the US and the development of the French SRI market, respectively.

Although these existing studies provide valuable contributions to the literature, none of them is capable of capturing the full process of SRI development and integration within institutional investors that is central to this study because, generally speaking, they are not sufficiently focused on the actual SRI adoption process among different institutional investors. The overarching goal and motivation behind this study is to gain more insight into the adoption process of SRI among institutional investors. To do so, our paper focuses on advancing both a theoretical and empirical contribution. First, we identify a potentially suitable theoretical framework with which to study SRI development. Second, we analyse an empirical dataset on institutional investors to identify the patterns of development and test the framework.

In finding a suitable framework, we have considered the ways that adoption processes are conceptualised in the related field of corporate social responsibility (CSR). We do so because the domains of SRI and CSR overlap. Both CSR and SRI focus on integrating environmental, social and governance (ESG) aspects into business practices beyond legal requirements, as illustrated by the following definition of CSR:

> *"a set of voluntary policies, programs, and other observable initiatives, targeting a firm's societal relationships (communities, environment, employees, customers, shareholders), that go beyond what is required by law" (Dupire & M'Zali, 2016)*

The CSR literature is more developed than the SRI literature. In utilising the CSR literature regarding the adoption of sustainability practices—that is, policies, programmes, and other initiatives that target sustainability—we have focused on the so-called CSR stage models, or those models describing the various stages of CSR adoption within an organisation and the drivers and features that shape and characterise these different stages. As we elaborate on further in the next section, these stage models are grounded in different theories and integrate a broad range of aspects that are potentially relevant to the SRI adoption process. Such aspects include the impacts of the surrounding society, organisational values, perceptions of different stakeholders, and organisational learning. For this explorative study, we have chosen not to narrow our approach to one specific theory. We further consider the applicability of stage models and their underlying theories for understanding SRI adoption in the discussion section.

Based on CSR stage models, we distil the expectations regarding the SRI adoption process within institutional investors. These expectations are derived from overarching principles contained in these CSR stage models, for example, the idea that stakeholder interaction and high-level decision-making regarding CSR are only conducted at the later stages of SRI adoption. We discuss these principles and their rationale in more detail in the section on Theoretical Perspectives. We test whether these expectations, which are based on CSR stage models, also hold for SRI adoption using a unique dataset containing information on the responsible investment practices of 50 Dutch pension funds in 2017. This dataset, which is introduced in more detail below, covers SRI governance, policies, implementation, and transparency practices. To the best of our knowledge, our study is the first empirical investigation of the adoption of SRI practices by institutional investors. Each step in our research process, from analysing the overarching expectations contained in CSR stage models through empirically testing whether these expectations hold for SRI adoption to finally reflecting on what the outcomes mean for our understanding of SRI adoption and further research, covers one of the three research questions that follow:

1. What do CSR stage models tell us regarding what to expect from SRI adoption by institutional investors?
2. To what extent are these expectations corroborated by a dataset on the SRI practices of Dutch pension funds?
3. What do these findings imply for the future application of CSR stage models to SRI adoption by institutional investors?

We have chosen the Dutch pension fund sector for two reasons. First, it forms a sizable group of institutional investors comprising 201 pension funds with over 1,792 billion EUR Assets under Management (DNB, 2021). Second, Dutch investors, particularly Dutch pension funds, are relatively advanced in regards to SRI (Quak et al., 2014; Scholtens, 2005). The prevalence of the use of SRI instruments in the Netherlands is high in comparison to other European countries (Eurosif, 2018). For example, according to the VBDO (2021a), 88% of the 50 largest pension funds use ESG integration for at least a portion of their public equity investments, and engagement on ESG topics is practised by 86% of these pension funds.

Currently, the Dutch pension fund sector is composed of 201 pension funds. The number of pension funds, however, has been trending down in the last few years, partly due to increasing regulatory demands (Alserda et al., 2018; Bikker & Meringa, 2022). The activities of Dutch pension funds are supervised by the Dutch Central Bank (DNB) and controlled by a regulatory and legal framework (Pensioenfederatie, 2010, 2022). For a long time, specific legislation regarding SRI has remained limited, with legislation on the exclusion of cluster ammunition and the obligation to report on SRI practices being exceptions. This has given pension funds flexibility in regard to their SRI approach (Autoriteit Financiële Markten, 2023a; Pensioenfederatie, 2010; Wagemans et al., 2018; Wetten.Overheid.nl, 2016).

However, societal context also influences the adoption of SRI practices. A prime example occurred when a Dutch documentary on cluster ammunition investments by Dutch institutional investors catalysed the debate on SRI among Dutch pension funds (Dongen, 2007; Quak et al., 2014; Wagemans et al., 2018). Another example of the role of social values and nongovernmental organisations (NGOs) is the emergence of the Dutch association of investors for Sustainable Development (VBDO), a multistakeholder association that publishes an annual benchmark on the SRI practices of Dutch pension funds to provide insight into pension funds and their stakeholders insight regarding their relative SRI performance (VBDO, 2021). Additionally, over the years, several initiatives by pension fund beneficiaries have emerged and challenged these pension funds with regards to their SRI practices, for example, that of investments in fossil fuels (Hoekstra, 2021; NOS, 2021). A recent example of a more formal collaboration process among the Dutch pension fund sector, NGOs, labour unions and the Dutch government on SRI was the Dutch covenant on responsible investment. In this covenant, signed in 2018, pension funds pledged to incorporate the OECD

guidelines and the UN Guidelines on Business and Human Rights into their investment policies and practices (Bartels & Schramade, 2022; Sociaal Economische Raad, 2018).

4.2 THEORETICAL PERSPECTIVES

Stage models in CSR-related fields

Stage models describe the various phases of CSR development within an organisation and, depending on the stage model, identify the specific factors that define the different stages and that facilitate or inhibit further development.

Following the pioneering work of Eels (1956) and Walton (1967), numerous scholars have presented stage models for a broad range of CSR-related fields. Stage models have been developed for several purposes within both academic and practitioner-oriented contexts. They can have descriptive, prescriptive, and comparative characteristics (Głuszek, 2018a, 2018b). More specifically, existing stage models focus on one or more of the following goals (Głuszek, 2018b; Keijzers, 2002; Van Koppen & Hagelaar, 1998):

- To provide typology and description of the present state of CSR practices within a company
- To study the process of CSR adoption within companies
- To compare or benchmark existing CSR practices.
- To describe CSR trends in a historic context
- To advise companies on choosing their CSR goal and determining the logical next steps for achieving this goal.

Within the context of the current study, the first three purposes are particularly relevant.

While we contend that the use of stage models provides an interesting avenue for understanding SRI, it is important to realise that these models have limitations. Stage models provide a simplified and schematic overview of the development process. Many are crafted with an eye towards advancing green organisational change and lack extensive empirical support. A critical note is also advised regarding the suggestion of an evolutionary progression. These type of progressions can – and perhaps better – be seen as a typology of configurations or a 'matrix of options,' among which companies can move back-and-forth or remain stuck (Kolk, 2000). An interesting example in this regard is the CSR continuum of Munilla and Miles (2005), who distinguish three CSR perspectives: compliance, strategic, and forced. The third perspective in this continuum, where CSR is forced upon a company by external stakeholders, is likely to be the most unsustainable type according to the authors.

Specific conditions for companies can reduce the suitability of stage models as well (Kolk & Mauser, 2002). However, when regarded as configurations that do not necessarily follow a

chronological sequence, stage models can help us (1) understand the plausible pathways of development and (2) reveal how different conditions and organisational features connect and interact (Van Tulder et al., 2013). As elaborated below, we apply CSR stage models to obtain insight into the adoption of SRI by institutional investors.

From the available stage models, we selected six models that offer sufficient coherence and detail to be useful in our investigation (see Table 4.1).

These models differ in their focus and in the features they cover. Tulder et al. (2013) focus on the interaction between the internal development of a company in relation to CSR and the role of external stakeholders, legislation, and society (Van Lakerveld & van Tulder, 2017). The study of Maon et al. (2010) links to stakeholder theory, as analysing the structures and dimensions of the relationships between societal stakeholders and business actors is an important aspect of the stage model (Carroll, 1993; Maon et al., 2010; Wood & Jones, 1995). The model of Van Koppen (2004) centres on the development of environmental management within a corporation and the impact of external market and environmental factors. This stage model is influenced by ecological modernisation theory (see (Mol et al., 2013; Sonnenfeld & Mol, 2002; Van Koppen & Mol, 2002)). The stage model of van Marrewijk and Werre (2003) focuses on personal and organisational values. It builds upon the work of Clare regarding value systems (Clare & Sanford, 1979; Van Marrewijk & Werre, 2003). The aforementioned model of Munilla and Miles (2005) also takes value-based CSR perspectives as a starting point but explores these perspectives in relation to those of different stakeholders (e.g. owners and NGOs), as inspired by the CSR pyramid of Carrol (1991). In this pyramid, Carroll distinguishes 4 types of corporate social responsibilities and translates them into stakeholder interaction strategies. Zadek (2007) takes an organisation learning approach to the incorporation of CSR and identifies 5 specific stages along this learning curve.

A common feature of the aforementioned stage models is that their theoretical grounding is rather eclectic. They build on existing stage models and typologies rather than singling out one theoretical framework. Most stage models include multiple change mechanisms, referring to both internal and external institutional changes. However, in referring to such institutional changes, none of these models explicitly embrace the existing institutional theories. As a consequence, they are stronger in description and categorisation than they are in their explanation of change.

Table 4.1 provides an overview of the selected stage models. This overview focuses on governance (including corporate motivations for CSR, ambition, and strategy), the role of organisations (including decision-making, knowledge management and transparency) and external factors (such as external conditions and relationships with stakeholders). It is important to note that some stage models use a 'zero-stage' in which no measures are adopted and some do not. For reasons of consistency, we exclude this 'zero-stage' from the table below.

Table 4.1: Overview of different stages in CSR stage models

	Low maturity of CSR practices ↔ **High maturity of CSR practices**								
Motivations for CSR									
Tulder et al.(2013)	External pressure, business operations, location				Affect the market and products or services			Cosmopolitan society, system, secondary stakeholders	
van Marrewijk and Werre (2003)	Little intrinsic ambition, but rather forced from outside through legislation or buyer strike			Instructions from higher authorities	Conviction that CSR improves profitability	Personal values, originating with management and evolving to external stakeholders		Information on the consequences and externalities of the actions of the organisation	
Corporate CSR ambition									
Maon et al. (2010)	Winning at any cost	Reputation and philanthropy	Requirement perspective	Stakeholder management perspective	Stakeholder dialogue perspective	Sustainability perspective	Changing the game perspective		
Maon et al. (2010): perception of CSR	Lack of CSR perceived as harming business	CSR perceived as an obligation–Focus on restricted requisites	CSR perceived as an obligation– Focus on confluent expectations	CSR seen as important as such	CSR perceived as an inexorable direction to take	CSR as the only alternative considering universal mutual interdependency			
Maon et al. (2010): response to CSR	Active opposition to CSR broader than the financial benefits	Window-dressing and/ or lack of awareness or ignorance about CSR	Growing awareness of CSR-related troubles to be avoided	Growing awareness of CSR-related advantages to be gained	Knowledgeable CSR	Leadership objectives on CSR-related issues	CSR as an internalised management ideology		
Tulder et al. (2013)	General statements			Focus on societal contribution			Holistic strategic: focus on solutions		
van Koppen (2004)	Compliance		Company eco-efficiency		Chain eco-efficiency		Green Identity		
Zadek (2007)	First to defend against external threats to reputation, evolving to compliance		To mitigate decreasing economic value		To increase economic value		To increase long-term economic value, also through collaboration		

Table 4.1: Overview of different stages in CSR stage models (*continued*)

	Low maturity of CSR practices			↔			**High maturity of CSR practices**
Organisation & decision-making							
Maon et al. (2010): involvement of management	Piecemeal Involvement of top management	Involvement in theory professed by top management		Fair involvement/ supportive top management	Commitment of top management	Sound Commitment of top management	Devotion of top management
Maon et al. (2010): structure of CSR	Structured by activities	Structured by policies		Structured by plans of action	Structured by programmes	Structured by systems	Core integration – CSR as business as usual
van Koppen (2004)	Environmental tasks are focused and isolated		Environmental management system		Environment-oriented organisational networks encompass marketing, R&D, suppliers and customers		Sustainability-oriented networks extend to NGOs and consumers
Knowledge management							
van Koppen (2004)	Knowledge is directed to only a few (prescribed) aspects little information exchange		Knowledge is directed to production process; information exchange on operational and tactical level		Knowledge is directed at product chain; information exchanges up to the strategic management level		Knowledge is directed at product chain and broader societal context; information is shared over all company levels and with relevant stakeholders (e.g. consumers)
Transparency							
van Koppen (2004)	No environmental product communication			Environmental information is made available for selected products		Environmental information is actively communicated for full product range	
Maon et al. (2010)	Black box	Justifying posture	Internal reporting/ Legal disclosure posture	Internal reporting/ Selective disclosure posture	Public reporting posture	Certified reporting posture	Fully transparent posture

Table 4.1: Overview of different stages in CSR stage models (*continued*)

	Low maturity of CSR practices			↔		**High maturity of CSR practices**
Tulder et al. (2013)	Transparency on request			Transparency on product and supply chain		Complete transparency
Relation to stakeholders						
Maon et al. (2010)	Purely contractual	Punctual	Unilateral	Interactive	Reciprocal Influence	Collaborative	Joint innovation
van Marrewijk and Werre (2003)	Distrust, evolving to no responsibility beyond legal compliance		Shareholders before other stakeholders evolving to dialogue		Dialogue with stakeholders		Taking interest of stakeholders into account
Munilla and Miles (2005) [1]	'Compliance' CSR perspective: CSR measures are *seen as necessary costs by owners and neutrally by other stakeholders* *'Forced' CSR perspective: external stakeholders (typically, NGOs) force CSR measures that are counter to the aims of internal stakeholders*				'Strategic' CSR perspective: CSR measures are seen as a value creation mechanism by owners, and positive for reputation and risk-reduction by other stakeholders.		
External conditions environment							
van Koppen (2004)	Environmental risks are serious and inherent to the production process. Hardly any environmental opportunities.		Environmental risks are limited or convertible. Indirect environmental opportunities (e.g. corporate image, relation with authorities).		Environmental risks are under control and not a major constraint. Direct environmental opportunities (e.g. green market, supply chain management).		Risk perspective shifts from avoiding risks to sustainable development. Opportunities for added value through cooperation with other stakeholders in promoting sustainability.

1 Munilla and Miles (2005) identify, in opposition to other stage models, a stage in which CSR is forced unto the company and not aligned with internal goals. To account for this we have categorised the 'forced stage' as a level of low CSR maturity.

How do these stage models translate to the SRI practices of Dutch pension funds?

Can these CSR stage models help us to understand SRI developments among institutional investors? To this end, we identify five general expectations based on the commonalities of the CSR stage models and apply them to the distinctive SRI features of pension funds:

Expectation 1: there is a logical cumulative order to applying the three SRI instruments: exclusion comes first, followed by ESG integration and finally impact investing.

This expectation is based on two patterns seen in CSR stage models as described by van Marrewijk and Werre (2003), Tulder et al. (2013), van Koppen (2004) and Zadek (2007). The first is that the motivations for engaging in sustainability practices are initiated in reaction to direct external pressures, develop through the fostering of a more integral view of financial costs and benefits, and culminate in contributing to a sustainable society. Second, as mentioned by Maon et al. (2010) and van Koppen (2004), the capacity for organising and deciding on sustainable practices is small and limited to specific functions in the early stages but becomes much larger and more networked throughout the entire organisation in later stages. When translated to SRI, this pattern would indicate that exclusion is the first SRI instrument to be used. Exclusion is defined by Eurosif (2012) as 'an approach that excludes specific investments or classes of investment from the investible universe such as companies, sectors, or countries.'

Exclusion appears to be relatively easy to implement as a reaction to external pressure, as little internal capacity is needed. Only after the adoption of exclusion do we expect pension funds to take on a longer-term perspective, develop more internal capacity, become motivated by the financial material aspects of SRI and connect SRI with investment management process. ESG integration is defined by Eurosif (2012) as '*The explicit inclusion by asset managers of ESG risks and opportunities into traditional financial analysis and investment decisions based on a systematic process and appropriate research sources.'* ESG integration can take several forms, from a qualitative analysis process of investment analysts, through a quantitative process undertaken in investment models, to a best-in-class approach in which investments are made within a subset of the investment universe that has strong performance in relation to ESG factors (Juravle & Lewis, 2009; Schramade, 2016; van Dijk-de Groot & Nijhof, 2015; Van Duuren et al., 2016). However, to accomplish this, it is reasonable to expect that internal capacity is needed and therefore this is an instrument for which a more mature level of SRI adoption is required. We thus expect that only after adopting exclusion should ESG integration be considered. Only after pension funds have adopted exclusion and initiated ESG integration practices are pension funds expected to be motivated by societal impact and to possess the strong internal capacity required for impact investing. Impact Investing is defined by Eurosif (2012) as '*Investments made in companies, organisations, and funds with the intention to generate social and environmental impact alongside a financial return.*'

Expectation 2: the asset class in which SRI instruments are most developed is public equity, followed by corporate bonds, and finally sovereign bonds.

In Table 4.1, the early stages of CSR development reveal a focus on topics that are visible to the public, related to external pressure and financially material. Translated to SRI, we expect pension funds to focus on the asset class that is most visible to the public and the most financially material due to its combination of volatility and relative size in the portfolio, namely, public equity. This asset class would be a sensible starting point for pensions focusing on external pressure and/or increased risk returns and to therefore have a more extensive implementation of SRI instruments. Second, we expect a focus on corporate bonds due to the size of this asset class in the portfolio and, as the investment universe overlaps with public equity, the relatively similar expertise needed to that required in public equity. We expect other asset classes such as sovereign bonds to follow in later stages when more capacity has been developed and to therefore have a lower level of development regarding their use of SRI instruments.

Expectation 3: pension funds that already have a well-developed SRI policy and governance take a more active and transparent approach towards stakeholders.

In CSR stage models, proactive interaction with stakeholders is reserved for the more advanced stages of CSR development (Maon et al., 2010; Van Marrewijk & Werre, 2003). For pension funds, this could mean that a pension fund with governance, policy, and implementation in a more developed stage would be more prone to actively work with stakeholders, such as beneficiaries, sector peers and NGOs, to move SRI forwards. In such a developed stage, SRI is seen not only as a way of controlling risks but also as a way of seizing investment-related opportunities. It plays a defining role in corporate strategy, vision and communication. We would expect pension funds that interact with stakeholders to opt for full transparency, to choose to have their SRI report externally verified and to actively report on their activities in this field.

Expectation 4: pension funds use SRI instruments prior to the development of SRI policy.

The stage models of Maon et al. (2010) and van Koppen (2004) state that companies already take steps in reaction to external pressure and focus on compliance in early stages where corporate governance or policies are still underdeveloped. Only in later stages do structural changes take place, such as capacity building and policy development, structural positioning within corporate leadership, and systematic inclusion in strategic decision-making. Translated to pension funds, we expect the use of SRI instruments, such as exclusion, prior to the development of a policy on the use of these instruments.

Expectation 5: pension funds set performance targets for SRI policies and practices if and only if those policy and practices have been fully developed.

As mentioned in the previous expectations and closely related to the work from Maon et al. (2010) and van Koppen (2004), CSR begins with relatively isolated activities within the organisation and evolves into more elaborate programmes involving a larger part of the organisation, including top management. Maon et al. (2010) explicitly state that CSR leadership goals are reserved for the more advanced stages of CSR development. For pension funds, that would mean that leadership goals, such as key performance indicators, are reserved for those pension funds that have already developed their SRI policies and practices and are not used in early stages as a tool to develop SRI.

4.3 METHODOLOGY

Quantitative data

We used the dataset from the yearly 'Benchmark Responsible Investment by Pension Funds', which is a survey carried out by the VBDO (Dutch association of investors for sustainable development). The VBDO and its members comprise institutional investors, private investors, NGOs and financial service providers. The VBDO aims to stimulate responsible investing, and one of its core activities is the launch of several benchmark studies regarding CSR and responsible investing. One of these is the benchmark survey conducted among Dutch pension funds, which we use as quantitative data for this study (VBDO, 2021).

This benchmark has taken place on a yearly basis from 2007 onwards and is used to investigate the SRI practices of the largest Dutch pension funds (VBDO 2017). The benchmark questionnaire in 2017 consisted of 54 multiple-choice questions that address various aspects of SRI. Four questions are focused on SRI governance, 5 questions on SRI policy, 35 questions on implementation and 10 questions on transparency and communication concerning SRI practices. In Appendix A an overview is given of the questions that are used in this study. In terms of policy and implementation, not only are the policies themselves and the manner in which SRI instruments are used surveyed, but also the extent to which they cover the asset classes in which the pension funds invest. Through an analysis of the responses to the multiple-choice questions, the questionnaire is used to study the governance of SRI, the SRI policies, the implementation of SRI instruments and the transparency and communication regarding SRI. The scores on the different questions result in a score per pension fund and a ranking of their SRI performance.

The VBDO sends out the benchmark questionnaire to the pension funds annually. Representatives of the pension funds respond to the questionnaire and supply the accompanying data and proof supporting their answers to the VBDO. To safeguard the integrity of the answers, all statements used for scoring need to be supported by evidence such as investment policies,

the minutes of board meetings, or formal exclusion lists. The VBDO uses this evidence to verify the stated claims of the pension funds. If a pension fund does not answer the request, the VBDO uses secondary sources, such as the annual responsible investment report or the website of the pension fund. After the verification process by the VBDO and a consistency check, the pension funds receive the preliminary results and are afforded an opportunity to respond to any factual errors, including those pension funds that did not respond to the request to complete the questionnaire.

The benchmark methodology and the questionnaire were developed and refined over 10 years by consulting experts, pension funds, stakeholders, and asset managers. To keep up with the latest developments in the field of SRI, questions have been revised over the years, and new questions have been added. For this study, we used the dataset from 2017, as two authors played an active role in its assessment. The 2017 edition consisted of 54 multiple choice questions and covered the 50 largest Dutch pension funds in that year, with a response rate of 94% (VBDO 2017).

Operationalisation

To investigate whether our expectations hold, we focused on a specific range of questions from the benchmark, as shown in Appendix A and briefly introduced in each expectation below.

Expectation 1: there is a logical cumulative order to applying the three SRI instruments: exclusion comes first, followed by ESG integration and finally impact investing.

Whether or not the expectation holds, we have analysed the combinations of SRI instrument exclusion, ESG integration, and impact investing in each of the three main asset classes: public equity, corporate bonds, and sovereign bonds. We registered which instrument was used in those instances where only one instrument was used, which instruments were used in those instances where two instruments were used and how many pension funds use all three instruments. The VBDO uses ESG integration as an umbrella term that encompasses the entire spectrum of available strategies from best-in-class approaches to qualitative and quantitative ESG integration processes.

Based on Expectation 1, we expected those pension funds that use only one instrument to use exclusion. We further expected that those pension funds that use two instruments would use both exclusion and ESG integration.

Expectation 2: the asset class in which SRI instruments are most developed is public equity, followed by corporate bonds, and finally sovereign bonds.

As the possibility of using SRI instruments varies across asset classes, we focused on exclusion, ESG integration and impact investing practices, as these can be practised across the

three largest asset classes, namely, public equity, corporate bonds and sovereign bonds. We looked at which asset class had the same or more extensive practices for these SRI instruments in comparison to the others. We expected that exclusion, ESG integration and impact investment practices would be more developed in public equity, less developed in corporate bonds, and least developed in sovereign bonds. A higher level of development is operationalised by implementing more types of exclusion criteria, having a more structural ESG integration process and having a higher percentage of impact investments in an asset class.

Expectation 3: pension funds that already have a well-developed SRI policy and governance take a more active and transparent approach towards stakeholders.
To determine if this expectation holds, we divided the pension funds into two groups: pension funds that consulted their beneficiaries and/or NGOs on their SRI policies and practices (13 pension funds) and a group of pension funds that did not consult their beneficiaries and/or NGOs (37 pension funds). This division was operationalised by verifying whether representatives of the pension funds themselves reached out to NGOs and/or beneficiaries to gather their views on SRI as input for policy development/evaluation beyond regular and general consultation with participant councils on investment management. This means that representatives of these 13 pension funds were verifiably sending out a questionnaire on SRI preferences towards beneficiaries, held focal groups on SRI and/or were organising roundtables with stakeholders.

For both groups, we focused on their level of SRI policy development. As proxies for the level of development, we used the following items: a) the number of times SRI was discussed on the board level, b) at which level SRI decision-making takes place, c) whether or not SRI considerations were integrated into the assumptions and principles of their investment strategy, or the so-called investments beliefs, d) whether or not any SRI targets were explicitly stated in their policies, e) the percentage of the investment portfolio covered by its SRI policy and f) the extent to which these funds provided transparency in relation to their holdings.

We expected that pension fund managers who consulted their stakeholders would discuss SRI more often with the board, further integrate SRI into investment beliefs, apply SRI targets, cover a larger part of their portfolio with their SRI policy and be more transparent regarding their holdings.

Expectation 4: pension funds use SRI instruments prior to the development of SRI policy.
To test this expectation, we investigated the level of development of SRI policies and the use of SRI instruments. As proxies for pension funds with a low level of policy development, we selected pension funds that a) do not integrate SRI considerations into their investment beliefs, b) do not have set targets for their SRI policies, and c) do not cover or translate all

three ESG themes in their use of SRI instruments. For the level of SRI instruments used, we assessed whether the following SRI instruments were used: a) exclusion, b) ESG integration, c) voting, including ESG concerns, and d) engagement practices in the asset class public equity.

We compared the different combinations of high and low levels of SRI policies and high and low implementation levels of SRI instruments. In particular, we focused on combinations of pension funds a) who used SRI instruments but had no or low levels of SRI policy development and b) pension funds with developed policies and governance but no or limited levels of SRI instrument implementation. Based on this expectation, we further expected that in our data, pension funds existed that had no or low levels of SRI policy development but were already using several SRI instruments.

Expectation 5: pension funds set performance targets for SRI policies and practices if and only if those policy and practices have been fully developed.
For this expectation, we divided the pension funds into two groups: one that included targets in their SRI policy and another that did not. We reviewed the level of SRI policy development and SRI implementation for each group. As a proxy for the level of SRI development, we focused on a) whether SRI considerations were integrated into their investment beliefs and b) whether all three ESG themes were covered and translated in their use of SRI instruments. To determine the level of SRI instrument implementation, we focused on the use of five SRI instruments in the asset class to which all five instruments can be applied, namely, public equity. These instruments are exclusion, ESG integration, engagement, voting and impact investing. We expected that performance target setting only took place within pension funds that had highly developed SRI policies and made use of all five SRI instruments.

4.4 RESULTS

Given the results of the survey and the expectations tested, not all data from all 50 pension funds were found to be relevant for each of the tests. Table 4.2 provides an overview of the expectations tested, categories used, relevant categories for each of the expectations, and number of pension funds in these categories.

Table 4.2: Characteristics of the 50 pension funds

Characteristic	Value	N out of 50 pension funds	Relevant to investigate expectation
Number of SRI instruments used in public equity	No instruments used	3	
	1 instrument used	10	1
	2 instruments used	11	1
	3 instruments used	26	
Level of implementation of SRI instruments in asset classes	Instrument not used	Exclusion: 4 ESG Integration: 14 Impact Investing: 22	
	Instrument most developed in one or two asset class	Exclusion: 31 ESG Integration: 24 Impact Investing: 22	2*
	Instrument has a similar level of development in all three asset class	Exclusion: 15 ESG Integration: 12 Impact Investing: 6	
Consultation of stakeholders on SRI	Yes	13	3
	No	37	3
Developed SRI policy	Yes	47	
	No	3	4
Target setting on SRI	Yes	22	5
	No	38	5

*: totals add up to over 50 because funds use multiple SRI instruments.

Expectation 1: there is a logical cumulative order to applying the three SRI instruments: exclusion comes first, followed by ESG integration and finally impact investing.

In 9 out of 10 cases in which pension funds only used a single SRI instrument, exclusion is used as that instrument. The remaining pension fund used impact investing as that instrument. For the pension funds that used two SRI instruments, we expected that they would deploy exclusion and ESG integration. This is the case for 10 out of 11 pension funds that make use of two SRI instruments. The remaining pension fund applied a combination of exclusion and impact investing. These results are summarised in Table 4.3, and they confirm expectation 1.

Table 4.3: Combinations of SRI instruments used and whether (Y or N) this aligns with expectation 1.

Combination occurring in public equity, corporate bond, and sovereign bond asset classes	N of pension funds
One instrument used	**10**
Exclusion only	9 (Y)
ESG integration only	0 (Y)
Impact investing only	1 (N)
Two instruments used	**11**
Exclusion & ESG integration	10 (Y)
Exclusion & impact investing	1 (N)
ESG integration & impact investing	0 (Y)

Expectation 2: the asset class in which SRI instruments are most developed is public equity, followed by corporate bonds, and finally sovereign bonds.

The results for SRI instrument exclusion, ESG integration and impact investing are shown in Table 4.4 and explained per asset class in the sections below.

Table 4.4: Overview of which asset class has the most developed implementation of SRI instruments and whether (Y or N) this is in line with expectation 2.

	Exclusion	ESG integration	Impact Investment
Number of pension funds where the instrument is most extensively implemented in one specific asset class:			
- Public equity	1 (Y)	5 (Y)	3 (Y)
- Corporate bonds	1 (N)	4 (N)	7 (N)
- Sovereign bonds	2 (N)	3 (N)	0 (N)
Number of pension funds where the instrument is most extensively implemented in two asset classes:			
- Public equity & corporate bonds	27 (Y)	7 (Y)	3 (Y)
- Public equity & sovereign bonds	0 (N)	2 (N)	0 (N)
- Corporate bonds & sovereign bonds	0 (N)	3 (N)	9 (N)
Total	31	24	22

The expectation was that the level of development of SRI instruments for asset classes would proceed in the following order: public equity, corporate bonds and sovereign bonds. In sum, we found the following results per SRI instrument:

- **Exclusion:** In contrast with expectation 2, a similar level of development was found in public equity and corporate bonds. However, sovereign bonds had the lowest level of development, which is in line with expectation 2.
- **ESG integration:** The results indicate that this expectation does not hold. ESG integration was most extensively implemented in a comparable number of cases within public equity and corporate bonds.

- **Impact Investing:** the results show that expectation 2 did not hold. Impact investing had the highest level of development in corporate bonds, whether or not it was combined with sovereign bonds.

Expectation 3: pension funds that already have a well-developed SRI policy and governance take a more active and transparent approach towards stakeholders.

As shown in Table 4.2, to investigate the 'consultation of stakeholders on SRI' characteristic, the sample was divided into a group of pension funds that consult their stakeholders on SRI (n=13) and a group of pension funds that do not consult their stakeholders on SRI (n=37). Both groups have relevance in investigating this expectation.

The most important findings are that pension funds that consult their stakeholders on SRI appear:

a) *More likely to see more active board involvement regarding SRI*. For 13 out of 13 pension funds (100%), the board had the core responsibility for SRI, while this was only the case in 26 out of 37 (70%) pension funds that did not consult their stakeholders.
b) *More likely to have covered SRI in their investment beliefs with specific guidelines*. This was the case for 11 out of 13 pension funds (85%) that consulted their stakeholders versus 17 out of 37 (46%) for those that did not.
c) *More likely to have set targets for their SRI policy*. This was the case for 10 out of 13 pension funds (77%) that consulted their stakeholders versus 12 out of 37 (32%) for those that did not.
d) *More likely to have provided transparency on their investments*. Nine out of 13 pension funds (69%) that consulted their stakeholders provided transparency regarding more than 50% of their investment portfolio versus 10 out of 37 (27%) for those that did not.

Appendix C (Table C.1 and C.2) gives a full overview of the questions we used to investigate this expectation and the provided answers. The results correspond with our expectation.

Expectation 4: pension funds use SRI instruments prior to the development of SRI policy.

This expectation proved difficult to test because most pension funds in our dataset already had a developed SRI policy (47 out of 50), which makes them irrelevant to an investigation of this expectation. For the remaining three pension funds that did not have a formal SRI policy, we found the following:

a) One implemented exclusion for all three asset classes, ESG integration for public equity and sovereign bonds, engagement for public equity and corporate bonds and impact investing for corporate bonds.
b) One implemented exclusion for sovereign bonds, integrating ESG considerations in voting for public equity and engagement for public equity and corporate bonds.
c) One implemented exclusion criterion for sovereign bonds.

These three pension funds applied SRI instruments prior to developing a formal SRI policy, which corresponds with our expectation. However, any conclusion must be tentative because of the low number of pension funds that lack a formal SRI policy in our dataset.

Expectation 5: pension funds set performance targets for SRI policies and practices if and only if those policy and practices have been fully developed.

Performance targets and SRI policies

As shown in Table 4.2, there are 22 pension funds that included targets in their SRI policy and 28 pension funds without such targets.

Appendix C (Table C.3) shows the differences in the SRI policies of both groups. In summary, we saw that the pension funds that set targets in their SRI policy were:

a) *More likely to integrate SRI in a detailed manner into their investment beliefs*. Seventeen out of 22 pension funds (77%) that set targets on SRI had integrated SRI in a detailed manner into their investment beliefs. For nontarget setting pension funds, this was only the case for 11 out of 28 (39%). This is in line with our expectation.
b) *More likely to have a more developed SRI policy.* Of the pension funds that set targets on SRI, 18 out of 22 of them (82%) covered at least all three separate E, S, or G themes and detailed how they translated these themes into at least five responsible investment instruments. For nontarget setting pension funds, this was only the case for 8 out of 28 (29%). This is also in line with our expectation.

We saw that pension funds that set a target were generally more advanced in regard to their SRI policies. This is in line with our expectation. However, we also found several examples of pension funds that had fully developed SRI policies but had not set SRI targets.

Performance targets and the implementation of SRI instruments

The same division between a group of pension funds that had set targets in their SRI policy and a group of pension funds that did not have such targets was used to determine if there is a relation between the implementation of SRI instruments in asset class public equity and the level of target setting. Detailed results of this relation can be found in Appendix C (Table C.4).

In summary, pension funds that set targets in their SRI policy for public equity are:

a) *More likely to have more advanced exclusion practices.* Out of those pension funds that set targets on SRI, 20 out of 22 of them (91%) implemented exclusion practices based on multiple criteria, which is the most advanced option. For nontarget setting pension funds, this was only the case for 19 out of 28 (68%).
b) *More likely to have more advanced ESG integration practices.* Thirteen out of 22 (58%) pension funds that set targets on SRI integrate ESG information systematically and

demonstrably for equity investment selection. For nontarget setting pension funds, this was only the case for 2 out of 28 (7%).

c) *More likely to have more advanced ESG-engagement practices.* For pension funds that set targets on SRI, 20 out of 22 pension funds (91%) demonstrably and substantially engage companies on ESG themes. For nontarget setting pension funds, this was only the case for 20 out of 28 (71%).
d) *More likely to have more advanced voting practices.* For pension funds that set targets on SRI, 12 out of 22 pension funds (55%) demonstrably vote at the annual shareholder meetings of companies in their portfolio, paying explicit attention to ESG issues and publicly initiating and/or supporting shareholder resolutions that promote CSR. For nontarget setting pension funds, this was only the case for 5 out of 28 (18%).
e) *More likely to have more advanced impact investment practices.* For pension funds that set targets on SRI, 9 out of 22 of them (41%) practised impact investing in public equity. For nontarget setting pension funds, this was only the case for 3 out of 28 (11%).

In conclusion, we found that those pension funds that set targets in their SRI policy are overall more advanced than those pension funds that do not in regard to applying all five SRI instruments in public equity. This is aligned with our expectation.

4.5 CONCLUSION

Based on patterns of the CSR stage models, we formulated expectations for the development of SRI investment by pension funds. Investigating these expectations using survey data has led to the following conclusions and avenues for further research.

Conclusions

Adoption patterns of SRI instruments differ across asset classes.
For the overall adoption of SRI instruments within pension funds, we have uncovered various distinctive patterns. First, SRI instrument exclusion has been adopted by a majority of pension funds, followed by ESG integration and impact investment, which is in line with our initial expectation.

However, when we focused on how the implementation of SRI instruments disseminates across asset classes, we found a more diffuse picture. For the application of SRI instrument exclusion and ESG integration, we observed a strong interlinkage between the asset classes of corporate bonds and public equity. A potential explanation could be that the investee companies in both asset classes are in the same investment universe. This creates synergy when implementing SRI instruments. For impact investment, we observed a stronger adoption of impact investing in the corporate and sovereign bonds asset classes. This could be

explained by the rise of green bonds, which are a form of impact investing that are relatively easy to implement in fixed asset classes. However, this merits further research. These findings indicate that during the development of an SRI stage model, it is important to take the characteristics of the relevant asset classes into account when modelling the adoption of SRI instruments.

Structured interaction with stakeholders takes place when SRI practices are already well developed

In line with CSR stage models, we found that pension funds have increased transparency and started conducting dialogues with stakeholders only when their SRI practices had already been well developed. We suspect that transparency and stakeholder dialogue are enabled by the attainment of a certain level of knowledge, capacity and a governance system that has begun to address SRI. This is in line with the work of Van Tulder et al. (2013), who explain that while organisations always interact with their stakeholders, a more proactive and structured approach is used by companies that are in the later stages of CSR development, have the capacity and tools to manage relations, and view engagement with stakeholders as an opportunity and even a necessity for further development rather than as a threat.

Target setting follows SRI implementation and policy development

In line with the CSR stage models, our findings largely confirm that pension funds follow a similar pathway in the development of SRI in which target-setting follows implementation practices and policy development. This also hints at the pattern in CSR stage models showing that governance and policy follow implementation practices. However, based on our dataset, we could not draw a final conclusion regarding the question of whether pension funds apply SRI instruments prior to the development of policy, which therefore merits further research.

Implications for practitioners and policy

The main implications of our findings for practitioners and for policy are that the development of SRI does not follow a top-down plan-do-check-act cycle in which the board consults stakeholders, sets targets and implements them over time. Instead, pension funds follow a pathway in which first steps are taken in practice and strategy is only formulated at the end, following the development of sufficient capacity and expertise. Therefore, our findings suggest that far-reaching strategies cannot be set for pension funds nor can they enter into meaningful stakeholder dialogue without first building up the capacity, experience and expertise needed to develop and execute these strategies. It suggests that government policies and measures should also focus on building internal capacity and expertise for enabling SRI adoption, for example, by setting requirements for SRI expertise on the board of pension funds.

Future research

The dataset that has been used in this study is one of the few datasets available regarding the SRI practices among Dutch institutional investors. It covers multiple aspects, such as governance, policy and implementation. However, it is important to take two points into account when reflecting on the methodology used. First, regarding validity, it is important to mention that the questionnaire used in this study has not been specifically designed with the aim of gaining further understanding of stage models in relation to SRI development. Second, although the used dataset covers a relatively uniform group of the 50 largest Dutch pension funds, we conclude that this group is not sizable enough for quantitative statistical testing. Therefore, we present this study as an exploration of the usefulness of stage models in this context.

Regarding the reliability of this study, several checks have been conducted, for example, the verification process and consistency check of the VBDO, as described in the methodology. An important remaining question is the external validity of the results. Dutch pension funds have a similar investment process than other institutional investors worldwide. They have diversified portfolios, use different asset classes and have the same SRI instruments at their disposal. However, the regulatory context and the governance of the pension funds with representatives from employees, labour unions and experts is distinctively different from other institutional investors, in particular publicly listed institutional investors. Therefore, the findings regarding the use of SRI instruments are more likely to be applicable for other institutional investors in other markets, and our findings as related to governance and stakeholder dialogue likely to a lesser extent.

In comparing our findings to those in the literature, we have identified the following topics that merit further research regarding the adaptation of CSR stage models to SRI practices.

The role of the investment chain

The 50 Dutch pension funds covered by our dataset form a relatively homogenous group when compared to other asset owners, as they are all located in the same market, have similar governance models and fall under the same regulatory framework. However, we saw clear differences in our dataset within this group regarding specific features, such as size, organisation and investment strategies, that can impact SRI adoption. Additionally, the impact of the so-called investment chain on SRI adoption, as raised by Arjalies et al. (2017), can differ between pension funds. The specific impact of these features on SRI adoption are important points for further research.

Role of stakeholders and cultural context

The pension funds in our dataset have different groups of beneficiaries across economic sectors and professions but operate in a similar cultural context. The participants, other stakeholders and the normative and cultural context is likely to play a role in the process

of SRI adoption, as identified by Sandberg et al. (2009), Labidi et al. (2021), Lachange and Stroehle (2021) and Hoepner et al. (2021). This is especially the case since beneficiaries are increasingly interested, involved and vocal regarding the SRI policy of their pension funds, as recent studies and particular cases have shown (Apostolakis et al., 2016; Bauer et al., 2021; NOS, 2021). Gaining more understanding of how the cultural context and especially the interaction between institutional investors and their stakeholders shape SRI adoption is an interesting topic for further research.

Theoretical framework

Our results showed that stage models and the theoretical frameworks on which they are built are promising inroads for the further development of a framework for SRI adoption. However, it is important to note that most stage models have eclectic theoretical backgrounds and have more emphasis on description rather than the explanation of change. That means an in-depth analysis of a range of potentially interesting theoretical frameworks is very relevant, but outside the scope of this specific study. Several frameworks merit further study to advance our understanding of SRI adoption. For example, due to the changing institutional context for SRI and Dutch pension funds, institutional theory can be relevant for SRI, as already suggested by Hoepner (2021), Louche (2004) and Bengtsson (2008).

Development over time

Our dataset focused on SRI practices in a single particular year. Based on stage models, we would expect that progression in SRI adoption would mean that the Dutch pension fund sector would increasingly adapt the full range of SRI instruments and integrate SRI in their governance processes, from consulting stakeholders through integrating SRI into investment strategy to setting goals regarding SRI development. If this is indeed the case, it would be an interesting next step for further research.

Regulatory setting

When considering the results of this study, it is important to take into account the specifics of the Dutch setting, such as the regulatory and governance setup of pension funds and the role of the Dutch Central Bank in providing oversight. As our data are from 2017, it is important to account for the strong development in regulation and oversight on both national and international levels that has occurred since then. This context has developed from little regulation specifically for investments in cluster ammunition to the Sustainable Finance Disclosure Regulation, EU Taxonomy and the Responsible Business Conduct Agreement on Responsible Investment by Pension Funds (Cremasco & Boni, 2022; EU, 2021; Sociaal Economische Raad, 2021). In addition, in 2018, the Dutch IMVB-covenant was signed. In this covenant, pension funds pledged to integrate the UN Guiding Principles on Business and Human Rights and the OECD-Guidelines into their SRI policies. The IMVB-covenant was the first initiative to provide a common approach to integrating responsible business conduct into SRI policies and practices, and the participating pension funds cover over 94%

of the assets under management by the Dutch pension fund sector (Bartels & Schramade, 2022; Sociaal Economische Raad, 2018, 2021)

In summary, there have been several internal and external developments that are likely to influence the future SRI adoption processes of Dutch pension funds, including more vocal beneficiaries, a consolidation among asset managers and service providers and an increasingly dense regulatory setting, especially in regard to EU regulations and the Dutch covenant on responsible investment. This could indicate an increasing trend in SRI adoption and possibly lead to an increasing convergence of SRI policies and practices. However, if this convergence of SRI practice indeed takes place among Dutch pension funds, whether it also occurs among other institutional investors and across different markets is an interesting question for further research.

Acknowledgments

The authors want to thank the Dutch Association of Investors for Sustainable Development (VBDO) for the use of their 2017 dataset on the responsible investment practices of Dutch pension funds.

Disclosure statement

No potential conflict of interest was reported by the author(s). Two authors, Frank Wagemans and Rudy Verstappen currently work for companies that provide asset management services for pension funds, Achmea IM and Altera Vastgoed respectively. This work has been done independently from their current roles and there has been no involvement by these two companies in this research project. Before both authors worked for the VBDO and were also involved in the research for the Benchmark for Dutch Pension Funds on Responsible Investment.



Chapter 5

Convergence in socially responsible investment?

Wagemans, F. A. J., Heinsbroek, S.L., Verstappen, R. J., van Koppen, C. S. A., Tobi, H., & Mol, A. P. J. (2026) Convergence in socially responsible investment? A case study of Dutch pension funds. Manuscript submitted for publication.

ABSTRACT

Socially responsible investment is often studied from a financial perspective. However societal developments, from the ESG-backlash in the US or societal pressure to divest from fossil fuel, highlight the interaction between societal developments and SRI. This study examines convergence in socially responsible investment (SRI) among Dutch pension funds from an institutional theory perspective. We analyse a longitudinal dataset comprising the 50 largest Dutch pension funds from 2010–2022, covering SRI policies, the use of SRI instruments and SRI reporting and analysed subgroups based on beneficiary characteristics, fiduciary managers, coverage ratios, and the size of the assets under management. During this period, SRI practices progressed, and divergence as well as convergence was observed. From a converged state when SRI practices were uncommon, to divergence when small numbers of pension funds started to implement SRI practices to convergence when SRI practices became standardised. Having the same fiduciary manager was associated with greater convergence between pension funds. No evidence was found for an association between the size of the Assets under management, beneficiaries' characteristics or financial position and convergence between pension funds. The results highlight the relevance of institutional theory for understanding SRI development in relation to its societal context, and the key role the investment chain plays in explaining convergence in SRI.

5.1 INTRODUCTION

Socially Responsible Investment (SRI) has experienced rapid growth over the years. In 2022 it was estimated that $30.3 trillion of investments worldwide had SRI characteristics (GSIA, 2023). When zooming in on this number, it becomes clear that SRI covers a wide range of different practices, beliefs and policies. From excluding certain investments due to ethical considerations, actively voting at shareholder meetings, integrating ESG-information to achieve a better risk-return ratio, to impact investing. Several studies have shown strong differences between countries and regions in how developed SRI is, but also clear divergence in how SRI instruments are actually implemented (Bengtsson, 2008; 2023; Louche & Lydenberg, 2006; Sandberg et al., 2009). On the other hand, several scholars have observed convergence of SRI practices within specific countries and similar groups of investors (Bengtsson, 2008; Crifo & Mottis, 2016; Hoepner et al., 2021; Louche & Lydenberg, 2006). Although convergence is observed, empirical longitudinal research on which factors may contribute to convergence is scarce.

A reason for this gap in research is that SRI has especially been studied from only a financial perspective. This is illustrated by the large number of studies on the relationship between SRI and financial returns (Capelle-Blancard & Monjon, 2012b). However, when looking to the historical developments of SRI, it becomes clear that SRI development itself, including differences and similarities across countries, cannot be understood by only taking a financial point of view. Several authors have reported that SRI was initiated and shaped by specific societal developments over time in different countries: from the first SRI practices by the Quakers, the divestment movement in relation to the Apartheid regime in South Africa, to concerns in relation to climate change (Arjaliès, 2010b; Beloe, 2001). Additionally, several societal conditions, from the regulatory to the cultural environment, have been identified as important in understanding similarities and differences in SRI practices between specific countries (Sandberg et al., 2009; Scholtens & Sievänen, 2012; Sievänen et al., 2012). This becomes even more topical when taking into account the impact of recent regulations affecting SRI in the EU, such as the Sustainable Finance Disclosure Regulation, and the discussions in the US regarding ESG-investing (Cremasco & Boni, 2022; EU, 2021; Hilson, 2024). History as well as the present time show that to fully understand SRI development, it is necessary adopt a new perspective that takes into account the interplay between SRI development and societal development.

Owing to this important role of society and institutions in shaping SRI, we use institutional theory as a perspective for our study. Institutional theory sees organisations as influenced by and part of the social and cultural systems in which they operate (Hoepner et al., 2021; Scott, 1987; Scott, 2005). An organisation not only reacts to external pressures from an efficiency point of view but is also governed by shared organisational meanings and the goal of gaining legitimacy (Alam, 2022; Meyer & Rowan, 1977). Under similar conditions this

results in convergence towards institutional isomorphism among organisations (DiMaggio & Powell, 1983). Isomorphism can manifest itself in different ways; from homogeneity in organisational structures, standardisation of procedures, professionalisation, to conformity to regulatory requirements (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). In this study two research questions are addressed. First, is convergence towards institutional isomorphism in SRI development taking place? Second, which factors are associated with convergence towards isomorphism?

The empirical data used are derived from a unique dataset of the SRI practices of 50 Dutch pension funds covering the period 2010-2022. The Dutch pension funds sector is sizeable, with over EUR 1598 billion assets under management mid 2025 (DNB, 2025a). Dutch pension funds also have a long history regarding SRI development, influenced by societal debate, regulation and covenants (Dongen, 2007; Quak et al., 2014; Wagemans et al., 2018). The sector and its SRI development over the years are discussed in more detail in section 5.3.

5.2 APPLYING INSTITUTIONAL THEORY TO SRI DEVELOPMENT

SRI is, from its origins onward, shaped by societal developments and its stakeholders. From the exclusion of tobacco by the Quackers to the increasing societal concerns regarding climate change (Arjaliès, 2010b; Beloe, 2001). As institutional theory focuses on the interaction between society and organisations, institutional theory has been applied to SRI by several scholars (R. V. Aguilera et al., 2006; Hoepner et al., 2021; Kreander & McPhail, 2019; Scott & Christensen, 1995). For example, in the work of Hoepner et al. (2021), institutional theory is applied to SRI and specifically the membership of the UN Principles for Responsible Investment. Other notable studies include the work of Yan et al. (2019) on SRI development and the interaction with financial logic among investors and the work of Bengtsson (2008) on SRI development in Scandinavia.

According to institutional theory, when societal, political and regulatory pressures are similar, convergence in SRI development can be expected. Convergence in specific markets and divergence between markets has also been observed in several empirical studies on SRI. For example, in relation to specific markets, Louche (2006) studied the differences in SRI development between Europe and the US. Bengtsson (2008) explains the differences and similarities in SRI practices between markets in Scandinavia in relation to contextual factors.

Institutional theory identifies three main mechanisms as drivers for isomorphism. Coercive isomorphism is related to political, regulatory or societal pressure. Mimetic isomorphism is related to uncertainty; when uncertainty is present, for example in relation to the regulatory context, organisations tend to mimic their peers. Normative isomorphism is related to

professionalisation and dissemination of professional norms, leading to uniformity in organisational practices (DiMaggio & Powell, 1983).

Coercive factors and SRI

To apply institutional theory to SRI, it is important to recognise that coercive factors can have different shapes and sizes for SRI. From stakeholders' influence, hard law, to soft law.

Asset owners can have a wide variety of different stakeholders, including their beneficiaries. An insightful study on this matter is from Hoepner et al. (2021), who studied institutional investors in relation to their membership of the UN Principles for Responsible Investment (UN PRI), an organisation with over 5000 members worldwide, and the background of these investors (UNPRI, 2024a). The main finding is that asset owners who, due to their background, are more aligned with SRI values, for example, pension funds linked to labour unions, or asset owners from countries that have more voluntary ESG-related legislation are more likely to become members of the UN PRI.

Additionally, legislation can be a coercive factor. Importantly, legislation can impact SRI in multiple ways and at multiple levels. For example, legislation specifically on SRI can exist on the national and supranational levels, such as the EU Sustainable Finance Disclosure Regulation and the Dutch law on the exclusion of investments in cluster ammunition (Autoriteit Financiële Markten, 2023a; Cremasco & Boni, 2022; EU, 2021). However, also more general legislation on investments and financial oversight can have an impact on what institutional investors can and cannot do in relation to SRI.

Besides hard law, international soft law is relevant for SRI as investments are spread out across multiple jurisdictions. Several (international) guidelines play a role in SRI. Notable examples are the UN Guiding Principles on Business & Human Rights, the OECD-guidelines and the ILO standards (Bismuth, 2023; Bordignon, 2022).

Normative factors and SRI

Professionalisation is an important driving force for normative isomorphism. Especially for SRI, there are several features relevant to the question whether and why normative isomorphism takes place. One is the role of financial logic with investors and its interaction with ESG concerns. In the work of Yan et al. (2019), this interaction was studied on the basis of data covering 19 countries. The findings indicate that the view of the relationship between the social logic of SRI and financial logic can shift from being seen as complementary, to competing within organisations as there is an increasing focus on financial goals. Another relevant study is that of Jonsson (2009). It finds that Swedish investment professionals saw SRI as competing with financial goals and therefore opposed SRI funds, which can therefore be an obstacle for SRI development. Additionally, Juravle & Lewis (2008) studied impediments to SRI development and identified the role of the beliefs of actors within institutional

investors in relation to the (in)compatibility of SRI and financial goals as a factor. They identify the role of organisational and professional norms as relevant to convergence. Examples include the role of short-term financial evaluation mechanisms, the role of benchmarks, valuation models focused on short-term performance, or remuneration schemes for fund managers focused on specific financial goals (Juravle & Lewis, 2008).

Institutional theory posits that isomorphism takes place not only between similar organisations, but also throughout the supply chain of an organisation (Alam, 2022; Tate et al., 2011). In relation to SRI this is relevant for the so-called investment chain, as identified by Arjalies (2017), Juravle and Lewis (2008) and Schoenmaker and Schramade (2019). SRI itself is not shaped solely by an asset owner but is shaped by several actors in the investment chain, from fiduciary managers, asset managers, and ESG-data providers to active ownership providers. Each has its own processes, professional standards, and rationale and can exert pressure towards conformity (Alam, 2022; Arjaliès et al., 2017; Bengtsson, 2008; 2011; Wagemans et al., 2018).

Mimetic factors and SRI

Uncertainty is an important driving force of mimetic isomorphism. For institutional investors and SRI, mimetic pressures are especially relevant to (upcoming) regulation and developments in society. Institutional investors are expected to act as a prudent person in relation to their investment decisions. This leads to mimetic pressure to avoid legal actions by asset owners or beneficiaries (Guyatt, 2005; Juravle & Lewis, 2008). Specifically, for SRI, this can translate into mimetic pressure in relation to SRI-related choices that can impact financial returns. Examples include excluding certain activities from the investment portfolio, changes in asset allocation or specific impact investments. Additionally, (upcoming) SRI regulation and uncertainty regarding the interpretation and enforcement of this regulation could lead to mimetic pressure.

Bengtsson (2008) also noted mimetic pressures in relation to installing so-called Ethical Councils, advising institutional investors on SRI. Swedish pension funds took over this practice from the Norwegian GPF fund. Additionally, institutional investors applying for membership of the UNPRI was stated by Bengtsson as an example of explicit mimetic pressure. Mimetic pressure related to membership of initiatives is especially relevant for SRI, as a wide range of international voluntary associations, initiatives, and platforms exist in SRI. Investors can align themselves with the UN Global Compact, thematic pledges exist, such as the Climate Action 100+ with more than 600 investors signatories, or Nature Action 100+ with over 230 investor signatories (Hoepner et al., 2021; Kreander & McPhail, 2019; UNPRI, 2024b).

5.3 THE DUTCH PENSION FUND SECTOR

The Dutch pension fund sector consisted of 184 pension funds in 2024 and had 1598 billion assets under management mid-2025 (DNB, 2025a). The funds are all linked to employees in specific companies, sectors or professions. Dutch pension funds have a board consisting of representatives from beneficiaries and employers affiliated with the pension funds, supplemented by external experts. They are advised by a beneficiary council, of which members are chosen through an election process among beneficiaries (Ijzereef et al., 2023; Shi et al., 2017; van der Zwan & Golka, 2023).

Pension funds manage their investment through an investment chain. Internally, the board and an investment committee play key roles in shaping investment beliefs and policies. The actual investment is done by an external or in-house (fiduciary) manager, who manages the assets itself, or can select specific external asset managers to manage specific assets or strategies in the investment portfolio (Ijzereef et al., 2023; Wagemans et al., 2018). Specifically, with respect to SRI, additional actors play an important role, from ESG-data providers and proxy voting providers to engagement providers (Arjaliès et al., 2017; Wagemans et al., 2018). This also means that the actual implementation of SRI policies and practices is, in addition to being steered by the policies of a pension fund, carried out by a wide range of actors within the investment chain.

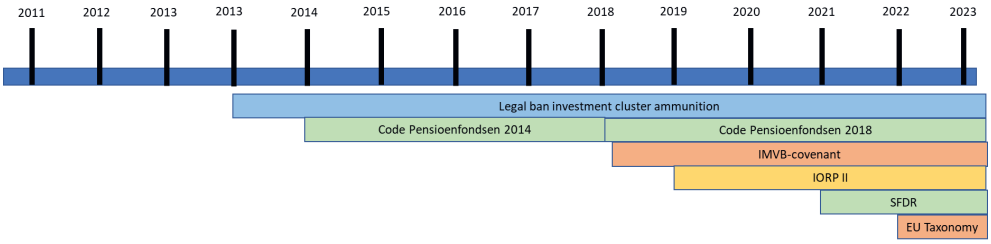
Dutch pension funds are supervised by the De Nederlandsche Bank (DNB), which monitors and provides oversight regarding the governance and financial management of the Pension Fund (DNB, 2023; Pensioenfederatie, 2023). Additionally, the Autoriteit Financiële Markten (Dutch Authority for the Financial Markets, AFM) provides oversight in relation to the communication of the pension funds and the duty of care towards their beneficiaries (Autoriteit Financiële Markten, 2023b; Pensioenfederatie, 2023).

SRI is not new for Dutch pension funds and has been developing over the years, influenced by a range of factors and events. One event that is seen as having a catalysing effect on SRI development was a documentary in 2007 on investments of pension funds in cluster ammunition, which sparked debate on SRI in and outside the Dutch pension fund sector. Since that time, other topics have also come on the agenda of pension fund boards and their asset management in relation to societal debates and regulatory developments on ESG topics, from climate change to human rights funds (Dongen, 2007; Quak et al., 2014; Wagemans et al., 2018). Increasingly, Dutch pension funds also received scrutiny from NGOs on their SRI practices. Since 2019, "De Eerlijke Pensioenwijzer" (The Fair Pension Guide) has assessed and graded the SRI policies and practices of a selection of Dutch pension funds. There is a focus on several SRI topics, such as climate, animal welfare and human rights. "De Eerlijke Pensioenwijzer" is a cooperation of several NGOs, including Oxfam Novib, PAX and Amnesty (EerlijkeGeldwijzer, 2023).

Hard law has long been relatively limited in the Dutch context. In 2013, legislation on the exclusion of cluster ammunition was approved (Autoriteit Financiële Markten, 2023a). Additionally, since 2014, Dutch pension funds have been obligated to report on SRI practices enshrined in the Code Pensioenfondsen (Pension Funds Code). This code was developed in 2014, revised in 2018 and is also incorporated into the law on pensions (Pensioenwet) (Autoriteit Financiële Markten, 2023a; Pensioenfederatie, 2010; Wagemans et al., 2018; Wetten.Overheid.nl, 2016). However, since the early 2020s, several developments regarding SRI regulation at the EU level have occurred, of which the Sustainable Finance Disclosure Regulation (SFDR), the EU directive on the Institutions for Occupational Retirement Provision (IORP II Directive) and the EU Taxonomy are of importance (EU, 2016, 2021).

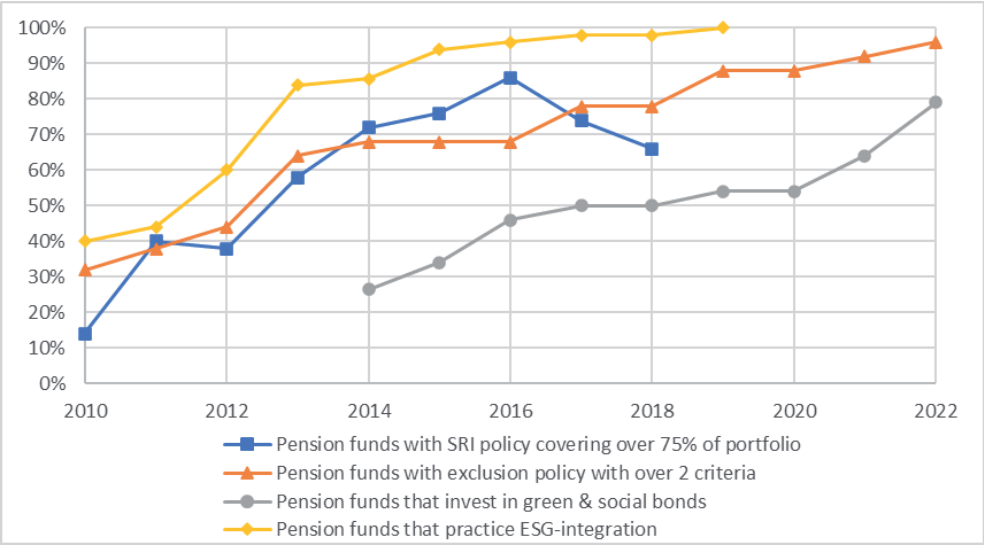
Several soft law initiatives play a role. In 2018, the Dutch IMVB-covenant (Responsible Business Conduct Agreement on responsible investment by Pension Funds) came into force which was an agreement between pension funds and stakeholders. The goal of this covenant was to integrate the OECD guidelines into the policies and practices of Dutch pension funds. The participating organisations included the Dutch government, NGOs, labour unions and Dutch pension funds. Although signing was voluntary, it covers over 94% of the Assets under Management by the Dutch pension fund sector (Sociaal Economische Raad, 2018, 2021). Additionally, of relevance are codes that cover not only the Dutch pension fund sector but also other types of institutional investors and their asset managers. Examples include the corporate governance code and the Dutch Climate Commitment for the financial sector (Rijksoverheid, 2023a, 2023b).

Figure 5.1: Regulatory development in relation to SRI over time



The increase in societal, hard law and in soft law has translated into an increase in SRI practices. Figure 5.2 presents an overview of the growth of SRI practices among the 50 largest Dutch pension funds. The data are based on the VBDO benchmark for pension funds, which will be explained in more detail in the next section.

Figure 5.2: Growth of SRI practices between 2010 and 2022 for the 50 largest Dutch pension funds



5.4 METHODOLOGY

To answer our research questions 5 expectations were formulated on the basis of institutional theory and explored with a longitudinal dataset on the SRI practices of Dutch pension funds. In this section the dataset used, the expectations that are used to answer our research questions and the methodology for the data analysis are discussed in more detail.

Dataset & data analysis

The longitudinal dataset used is the "Benchmark Responsible Investment by Pension Funds", which is provided by the VBDO (Dutch Association of Investors for Sustainable Development). The VBDO is a multistakeholder organisation, with members ranging from financial institutions to NGOs. Its activities are focused on knowledge sharing, shareholder engagement and benchmarking of SRI practices (VBDO, 2023). The dataset of the "Benchmark Responsible Investment by Pension Funds", covers the period 2010 – 2022 and maps the categories "SRI Governance", "SRI Policy", "SRI Implementation" and "SRI Transparency". The benchmark was started in 2010 and continues to the present day.

The benchmark covers the 50 largest pension funds[3]. Pension funds fill in the questionnaire and have to provide evidence for their answers. The answers and the evidence are then assessed and verified by the VBDO, after which pension funds have an additional opportunity to react and fill any data gaps that might occur. The response rate has fluctuated between

3 Two exceptions are 2010, when 60 pension funds were covered and 2014, when 49 pension funds were covered.

73% (2010) and 100% (2013,2014,2016,2019,2020,2021,2022). When a pension fund was not responsive, the VBDO filled in the data on the basis of publicly available data such as the annual report.

The benchmark and questions have evolved over the years to adapt the benchmark to the latest developments within the Dutch pension fund sector and SRI. This means that over the years some questions have been added, and some multiple-choice answers have been added reflecting the evolution of SRI practices over time. In our research we use anonymised data and select the timespans in which specific questions and multiple-choice answers have remained static to ensure longitudinal consistency.

If convergence takes place and which factors are associated with higher convergence are central topics in the expectations as discussed in the next section. For the measurement of convergence, a chi-square-based index for convergence (I_C) was developed which can take on any value between 0 (minimal convergence or maximum heterogeneity) and 1 (maximal convergence or maximum homogeneity). This statistic was calculated as follows:

$$I_C = \frac{\sum (O-E)^2}{C_{a,n}}$$

where O represents the Observed number of pension funds in the answer category and E the number of Expected funds in that answer category under minimal homogeneity, i.e. an equal distribution of the n pension funds over the a answer categories. The summation is over all a answer options. The denominator $C_{a,n} = (a-1)*(0-E)^2 + (n-E)^2$ serves standardisation purposes for a and n, as it ensures that the Index can take on values between 0 and 1. This was needed because both the number of answer options (a), and the number of pension funds on which data was available (n) did differ between the multiple-choice questions.

Expectations & operationalisation

Expectations were formulated on the basis of institutional theory:

Expectation 1a: Over time, Dutch pension funds converge regarding their SRI practices

Expectation 1b: Convergence is stronger among SRI policies and SRI reporting than in the actual implementation of SRI.

The growth of SRI practices could lead to a wide range of divergent practices, or similar pathways and convergence. On the basis of institutional theory, convergence in their SRI practices over time can be expected. This finding aligns with the observations of Bengtsson (2008) who identified SRI convergence among investors in similar societal conditions. This convergence is expected to be stronger among SRI policies and SRI reporting in comparison

to SRI implementation, as policy and reporting practices are more visible to external stakeholders and more easily adapted.

Expectations 1a and b were investigated by means of 14 multiple-choice questions that had not changed over a longer period of time, and that cover SRI policies, SRI implementation and reporting on SRI practices. An overview of the questions used for these as well as the other expectations is provided in Appendix D.1.

On the basis of the expectation 1a, we expect a rise in I_C for all questions over time, indicating increasing convergence. On the basis of expectation 1b, we expect a stronger rise in I_C in SRI policies and SRI reporting in comparison to SRI implementation.

Expectation 2: Having beneficiaries with similar characteristics is associated with higher convergence in SRI practices.

In line with the work of Hoepner et al. (2021), we expect pension funds with beneficiaries with a similar work-background, to show more convergence than other pension funds do. Another relevant study is the work of Cox and Schneider (2010) who reported that specific types of US-based pension funds, such as plans administered by labour unions are more alike in their SRI practices.

For this expectation we focus on pension funds with beneficiaries in the medical sector and pension funds with beneficiaries the financial sector. We would expect that within these groups more convergence would take place in comparison to other pension funds. A subset of questions was used for expectation 1. We selected the questions that a) have consistently been included in the benchmark over a longer timespan, b) have the most multiple-choice options and c) cover different categories, from governance, policy, implementation to transparency. An overview is shown in appendix D.1. We expect that the different subgroups have a higher I_C in comparison to other pension funds.

Expectation 3: Having the same fiduciary manager is associated with higher convergence in SRI practices

For this expectation, we focus on the external fiduciary managers or the inhouse team performing these activities, as they play a central role in the investment chain of Dutch pension funds. For example, by selecting asset managers, co-designing the SRI policies with pension funds, and having their own ecosystem of dedicated suppliers, such as ESG data provider. We expect more convergence between pension funds with the same in-house or external (fiduciary) asset manager regarding the implementation of SRI. On the basis of the work of Tate et al. (2011) and Alam (2022), we expect that institutional investors increasingly mimic their suppliers in the investment chain in SRI practices. For institutional investors, this would lead to alignment with their fiduciary manager, asset manager, ESG service pro-

vider and their data provider(s). This would mean that pension funds with the same fiduciary manager are shaped by the same professional norms and therefore have more convergence.

For this hypothesis we zoom in on groups of pension funds that consistently had the same fiduciary manager between 2010-2018 and which each consist out of at least 3 pension funds. In total we have selected 4 groups with the same fiduciary manager, based on the provided data in the VBDO benchmark. In Appendix D.1 an overview of the questions used is shown. We expect that the different subgroups with the same fiduciary manager have higher convergence in comparison to other pension funds.

Expectation 4: Differences in the coverage ratio are not associated with the level of convergence in relation to SRI practices.

SRI is often seen and studied as a development shaped by market forces and financial rationality. Institutional theory takes the position that SRI development is driven by the societal environment, professional norms and the regulatory environment. On the basis of institutional theory, we therefore expect that the financial position of a pension fund, or the so-called coverage ratio, is not of influence for SRI convergence. The coverage ratio is used by Dutch pension funds to calculate their financial position vis-à-vis their financial long-term obligations. Based on institutional theory, we would expect that the coverage ratio does not affect decision-making with respect to SRI development, and that there is no difference in convergence when comparing pension funds with low and high coverage ratios.

The first group which is selected, consists of the pension funds that have been consistently included in the benchmark with a coverage ratio that is consistently in the highest 25%-percentile of all Dutch pension funds. The second group includes the pension funds that have been consistently included in the benchmark with a coverage ratio consistently in the lowest 25%-percentile of all Dutch pension funds. For data on the coverage ratio, public data from the Dutch Central Bank were used (DNB, 2025a). For our analysis we therefore cover the period 2015 - 2018 and the questions, as shown in Appendix D.1.

We expect that pension funds with a stronger as well as a weaker financial position do not have a different I_C in comparison to other pension funds.

Expectation 5: The size of the assets under management is not associated with the level of SRI convergence.

An important question is whether pension funds with an equivalent size regarding assets under management have more convergence. The research of Sievänen et al. (2012) suggests that this is the case. In this research 250 investors in different European markets are surveyed and the authors find that especially larger and smaller pension funds are more advanced in relation to SRI. However, on the basis of institutional theory, size is not a factor in SRI convergence.

For this expectation the pension funds are divided into two groups, on the basis of their asset under management (AuM). These data have been included in the benchmark data:

- *AuM > 10 billion EUR:* The pension funds that have been consistently included in the benchmark and have consistently had an AuM above 10 billion since 2010.
- *Aum < 5 billion EU:* The second group are the pension funds that have been consistently included in the benchmark and have consistently had an AuM below 5 billion since 2010.

A relatively large bandwidth between these groups is chosen as the AuM numbers fluctuated over the period due to inflow, volatility in the financial markets and mergers between pension funds. The questions used are shown in Appendix D.1. The pension funds with a higher or lower AuM are expected to not have a different I_C in comparison to other pension funds.

5.5 RESULTS

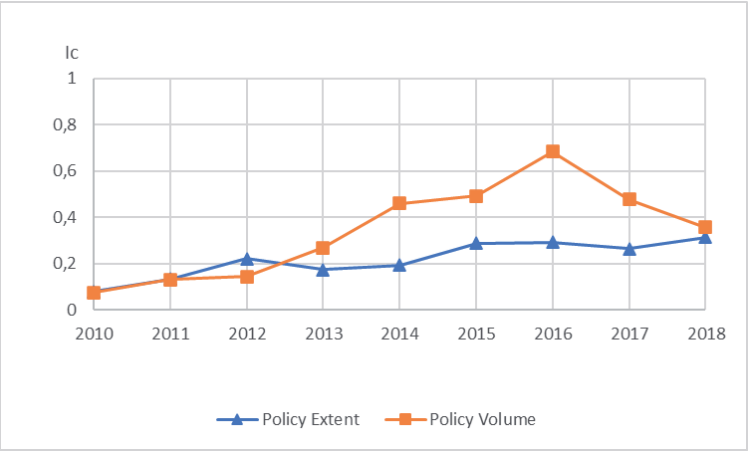
Expectation 1a: Over time, Dutch pension funds converged regarding their SRI practices

Expectation 1b: Convergence is stronger among SRI policies and SRI reporting than in the actual implementation of SRI.

As discussed in section 5.3, Dutch pension funds enhanced their SRI practices in the period 2010-2022. However, did that increase coincide with convergence as well? In this section we provide an overview of I_C between 2010 – 2022 for all questions, with 0 indicating an even distribution across the answer category (full divergence) and 1 indicating that all pension funds are in the same answer category (full convergence).

For Policy extent, the number of ESG themes covered in the SRI policy, a slight increase in convergence over time was observed. For Policy Volume, the percentage of the investment portfolio that is covered by the SRI policy, we observed convergence between 2010-2016 and divergence between 2016 and 2019 (Figure 5.3).

Figure 5.3: Level of convergence in SRI Policy



For the use of SRI instruments, we observed convergence in exclusion practices, the volume of ESG-integration and engagement in public equity (Figures 5.4, 5.5 and 5.6). With respect to exclusion in sovereign bonds, the extent of ESG-integration and voting volume the trend was less pronounced. For exclusion in sovereign bonds, we observed decreasing convergence between 2010 and 2013. This is because in 2010, no exclusion criterion was used by 88% of the pension funds in 2010, resulting in high convergence. From that time on an increasing number of pension funds started to use exclusion criteria for sovereign bonds, first resulting in divergence and later on resulting in convergence due to the larger share of pension funds practicing exclusion practices for sovereign bonds.

Figure 5.4: Level of convergence in the Exclusion practices

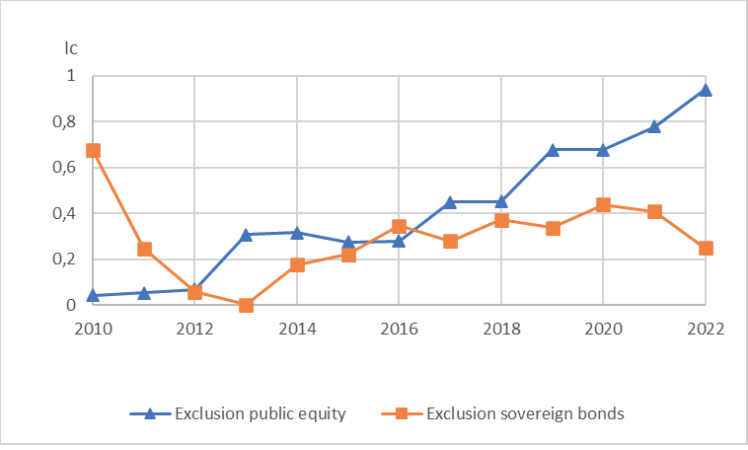


Figure 5.5: Level of convergence in ESG-integration

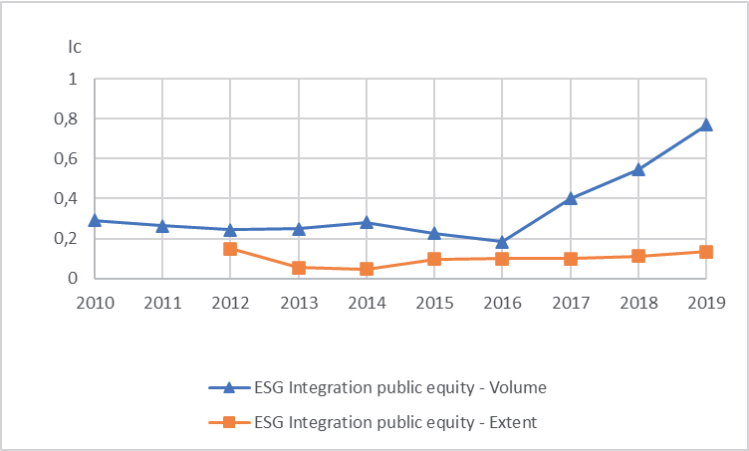
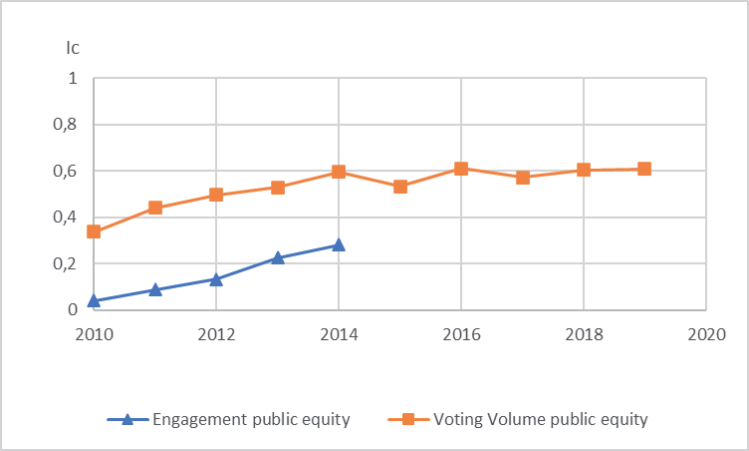
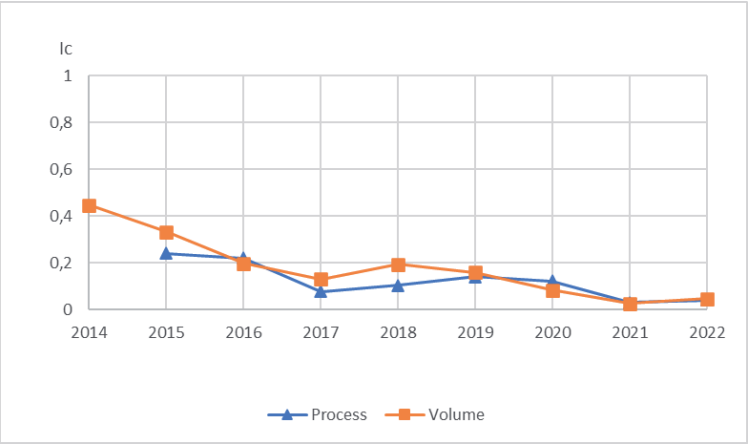


Figure 5.6: Level of convergence for active ownership in public equity



Impact investment, including green & social bonds, is a relatively new SRI instrument for Dutch pension funds. Since 2014, questions on impact investments have been incorporated in the VBDO Benchmark. In the first years, green & social bonds were not part of the investment portfolio of the majority of the pension funds, resulting in high convergence. Over time more pension funds started to incorporate in green & social bonds, resulting in an increasing variation between pension funds, resulting in divergence (Figure 5.7).

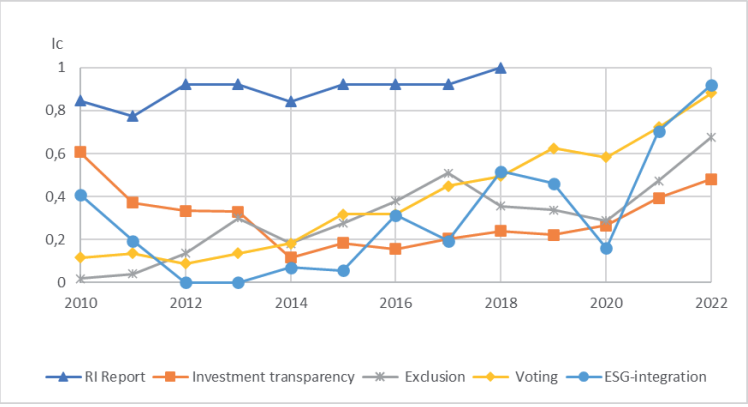
Figure 5.7: Level of convergence in the impact investing: Green & Social Bonds



Since 2010, almost all pension funds have an SRI report and that remains relatively static, resulting in a high level of convergence over time . What differs over time is the level and depth of these SRI reports. For transparency on the investment portfolio, we observed a shift from a situation in which 82% of the funds do not give transparency in their investments, to a situation in which 6% do not do so, which translates first to divergence, and when a larger part gives full transparency on their investments, to convergence.

We observed an increasing convergence in whether and how pension funds report on specific SRI instruments, to a situation which there was increasing convergence in whether and how pension funds report on specific SRI instruments (Figure 5.8).

Figure 5.8: Level of convergence in transparency on SRI



Expectation 2: Having beneficiaries with similar characteristics is associated with a higher convergence in SRI practices.

We did not find evidence supporting this expectation. Except for "exclusion in public equity" in which financial funds have a higher level of convergence than medical funds and other pension funds. For details see Appendix D.2.

Expectation 3: Having the same fiduciary manager is associated with higher convergence in SRI practices.

An overview of the results is shown in Appendix D.3. We did observe that subgroups with the same fiduciary manager had consistently greater convergence than other pension funds across SRI policy, SRI implementation and transparency. For example, for the extent of the SRI policy and the volume of social & green bonds we observed that all pension funds with a similar fiduciary manager have a greater convergence than other pension funds do (Figures 5.9 and 5.10).

Figure 5.9: Level of convergence in the extent of the SRI Policy for pension funds with the same fiduciary manager

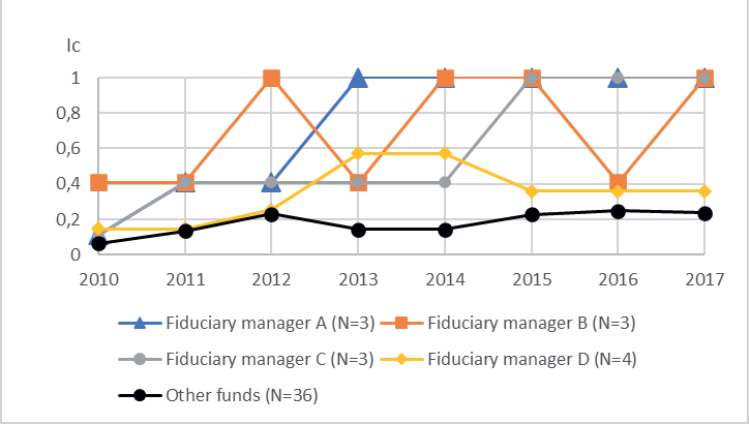
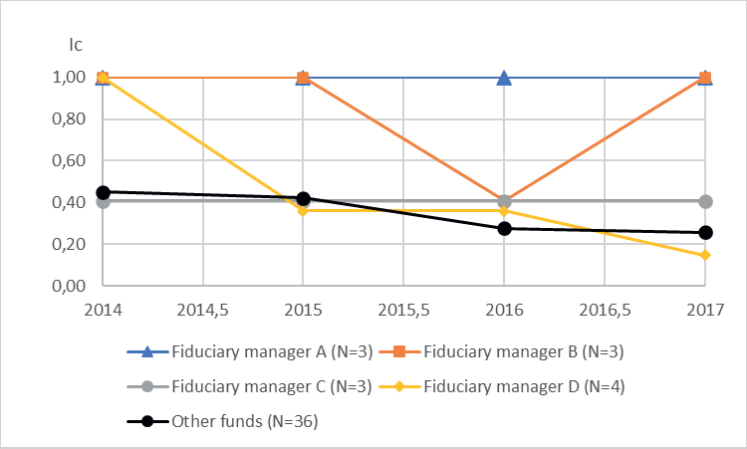


Figure 5.10: Level of convergence in the volume of green and social bonds within the investment portfolio with the same fiduciary manager



Expectation 4: Having a similar coverage ratio is not associated with the level of convergence in relation to SRI practices.

An overview of the results is shown in Appendix D.4. We did observe that pension funds with a low coverage ratio had a higher level of convergence for policy volume and extent (Figure 5.11 and 5.12). A plausible explanation is that these pension funds are largely more advanced in terms of policy volume and extent. Pension funds with a higher coverage ratio have a greater convergence for social & green bond volume and transparency on their investments, because they converge due to not having social & green bonds in their portfolio and do not publish their investee list (Figures 5.13 and 5.14).

Figure 5.11: Level of convergence in the extent of the SRI policy for pension funds with similar coverage ratios

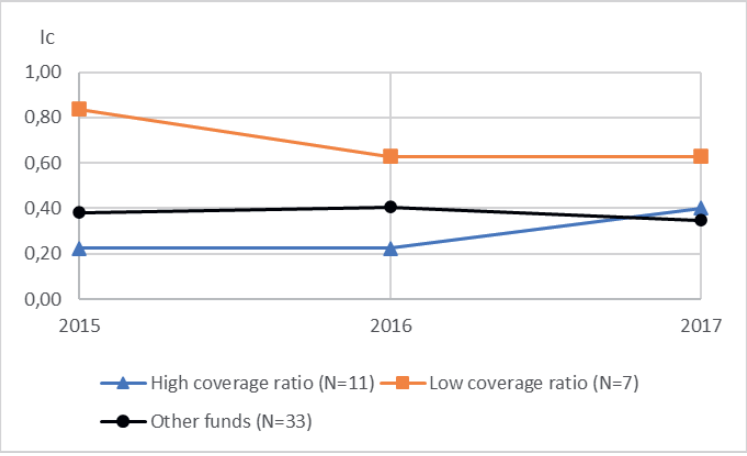


Figure 5.12: Degree of convergence in the volume of SRI policy for pension funds with similar coverage ratios

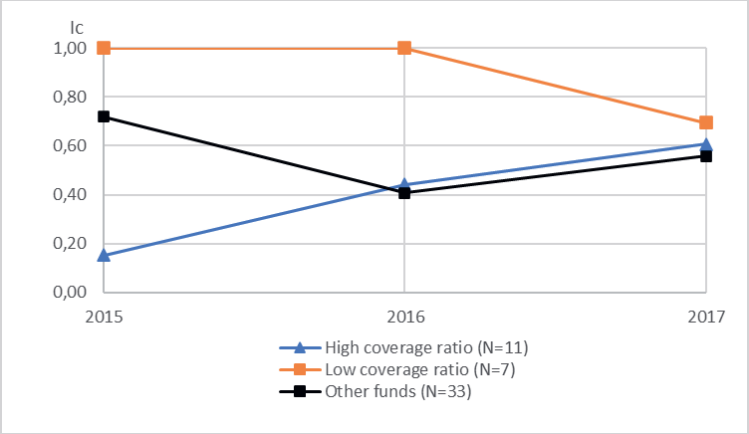


Figure 5.13: Level of convergence in the volume of green and social bonds within the investment portfolio for pension funds with similar coverage ratios

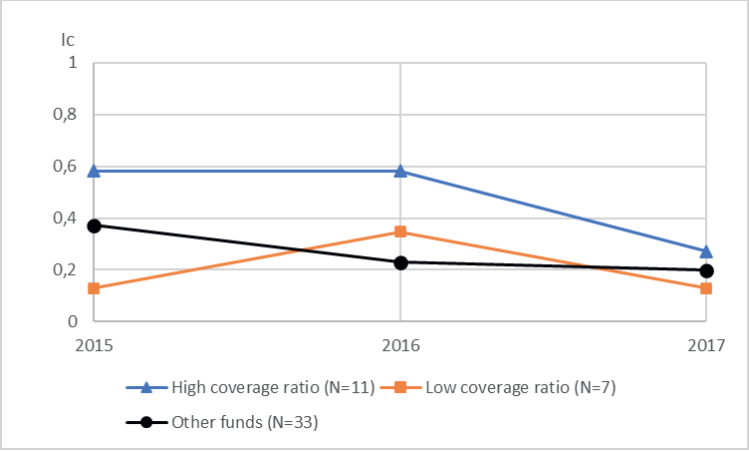
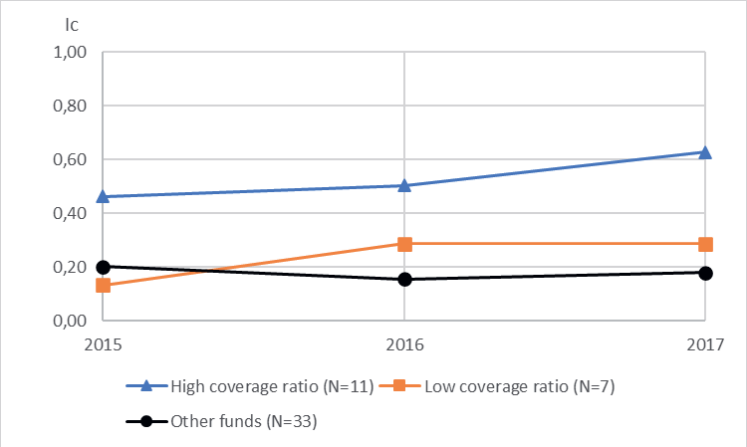


Figure 5.14: Level convergence in transparency on investments for pension funds with similar coverage ratios



Expectation 5: The size of the assets under management are not associated with the level of SRI convergence.

We did not observe that the subgroups of smaller or larger pension funds have greater convergence than all funds do. Both groups even have lower convergence in comparison to all pension funds for the volume of SRI policies (Figure 5.15). For exclusion practices, larger funds have a higher level of convergence (Figure 5.16). An overview of the other results is shown in Appendix D.5.

Figure 5.15: Degree of convergence in the Volume of SRI Policy for pension funds with similar AuM sizes

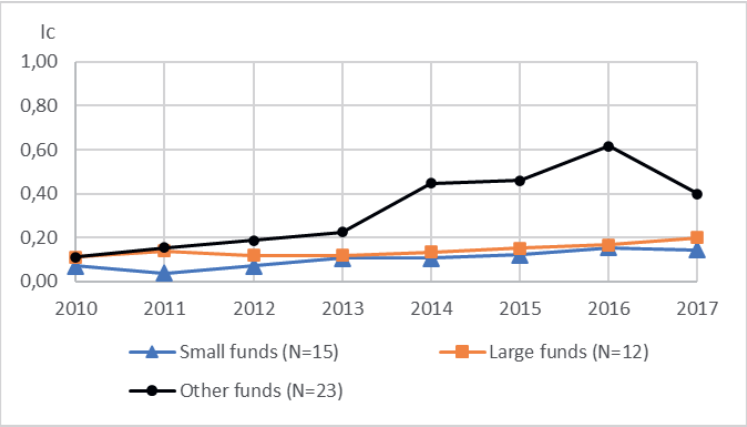
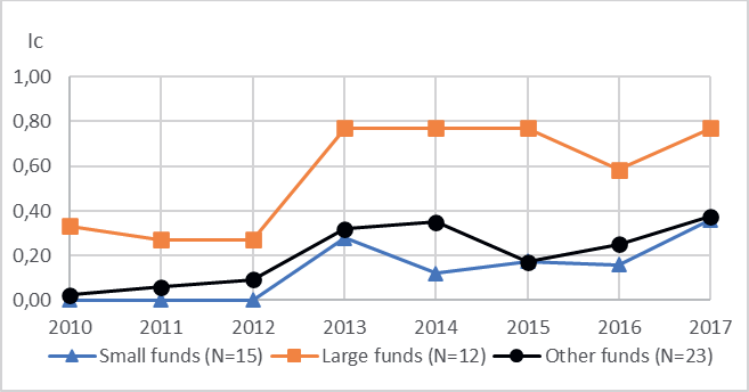


Figure 5.16: Level of convergence in the Exclusion practices in public equity for pension funds with similar AuM sizes



5.6 CONCLUSION

In our study we addressed two research questions. First, is institutional isomorphism in SRI development taking place? Second, which factors are associated with isomorphism? For SRI policies and SRI reporting convergence could indeed be observed. For SRI instruments, both convergence and divergence were observed. For example, convergence was observed for exclusion practices in public equity and the volume of ESG-integration. For social & green bonds an increasing use as well as divergence was observed. This is because the vast majority of the pension funds did not have these bonds in their portfolio, i.e. showed a high level of convergence. When more pension funds began to include these bonds in their portfolio, divergence increased. With respect to factors that can explain convergence, having the same fiduciary manager is a factor that is associated with greater convergence in SRI practices between pension funds. The size of pension funds, their financial position and the background of their beneficiaries were not associated with convergence.

Regarding internal validity, the VBDO benchmark is one of the few benchmarks that has been done over a longer period of time, covering the 50 largest Dutch pension funds, and in which answers needed to be backed up by solid proof. As we selected smaller subgroups to test several expectations, this study is an exploratory investigation. It is important to note that although Dutch pension funds have some distinctive features (e.g. non-commercial actors, specific governance), they bare strong similarities with different types of institutional investors worldwide: active in global financial markets, similar investment portfolios, access to the same set of SRI instruments and, most important, interaction with their own distinctive societal and regulatory environment. This makes our results relevant to other types of institutional investors in other markets.

The increase as well as convergence in several SRI practices over the period 2010-2022 can be explained by institutional theory. External pressures from beneficiaries, media and (potential) regulation are all coercive factors that all emerged in the period 2010 to 2022. Additionally, normative factors are an explanation. For example, the dissemination of professional norms through collaborative platforms. However, it is also important to keep an open mind to alternative explanations, that could be valid as well. For example, explanations linked to capacity building to enable SRI instruments or reduced costs for implementing SRI practices. That coercive factors such as regulation and societal influence lead to the development as well as convergence in SRI practices is relevant for other markets as well. Our findings are aligned with other studies, such as Bengtsson (2008) and Crifo and Mottis (2016), who studied the Scandinavian and French markets. Our findings are especially applicable to other EU-countries that have similar regulatory and societal context. However, institutional theory provides insight in how institutions react to changing regulatory and societal environments, and is therefore also of relevance for markets in which there is regulatory uncertainty and in which SRI is debated in society and politics, such as the U.S. From the viewpoint of institutional theory this uncertainty would lead to mimetic isomorphism. If this is indeed the case is an interesting avenue for further empiric research.

We observed an overall pattern regarding SRI development and convergence . When SRI practices are uncommon, there is high convergence as the majority of pension funds do not use certain SRI practice. In the next phase a part of the pension funds is starting to implement this practice in different ways, leading to divergence. In the final phase there is again high convergence as the practice becomes business as usual, and almost all pension funds similarly implement an SRI practice. This process of divergence and convergence was also identified by Crifo and Mottis (2016), who studied SRI development in France. High convergence when the majority of pension funds do not practice a particular SRI instrument can be seen as an artefact. However, this is not the case for the high convergence at a later stage. After all, it rules out the situation in which pension funds advance in SRI, but take vastly different approaches, for example by each specialising in specific and different SRI instruments or asset classes. In contrast to this specific scenario of specialisation on particular SRI instruments, we observe a move across the 50 largest Dutch pension funds to cover a wide range of asset classes and SRI instruments across policies, implementation and reporting.

When reflecting on fiduciary managers as a factor in explaining convergence, two possible explanations are identified. One is grounded in institutional theory and specifically linked to normative factors. In particular, the relevant studies of Tate et al. (Tate et al., 2011) and Alam (2022) find that norms are disseminated and communicated across supply chains. A second explanation is focused on the organisational capacity of the investment chain, and fiduciary managers in particular. In this explanation, the convergence of pension funds with the same fiduciary manager is caused by the different organisational capacities and capabilities of these fiduciary managers. Pension funds with the same fiduciary manager take steps because

their fiduciary manager has developed certain capabilities for developing SRI policies and practices. This is in line with the work of Arjalies (2017) on investment chains and the work of Juravle & Lewis (2008) on the role of organisational impediments for SRI. Also, the work on stage models focuses on capacity building within the investment chain that enables SRI instruments in a certain order (Munilla & Miles, 2005; Wagemans et al., 2025; Zadek, 2007). Importantly, these different explanations do not have to be exclusionary. Both can complement each other in explaining why fiduciary managers, and potentially also other actors in the investment chain, are a factor in understanding convergence in SRI practices. Also, the work of Buentjen et al. (2025) highlights the interaction between institutional theory and capacity building regarding net zero practices in SRI. The interaction between an asset owner, such as a pension fund, and its fiduciary or asset manager is a factor that seems important for understanding SRI development and is currently a research gap.

The results did not show a clear difference in convergence between small, large and other pension funds. This seems at odds with the work of Sievänen et al. (2012), who found that small and large pension funds in the EU tend to engage with SRI, and therefore have more convergence. It is important to note that in the Dutch context there can be a clear separation between a pension fund and its fiduciary manager, in which a small pension fund can have a fiduciary manager that is large regarding AuM and vice versa, which is not necessarily the case across the EU. An interesting question for further research would therefore be whether there is a difference in convergence between pension funds with small, medium and large fiduciary managers.

Another noninstitutional factor, the financial position of pension funds, did not seem to be a factor that is associated with SRI convergence. Also, the background of beneficiaries did not seem to be a factor. This seems to contrast with the work of Hoepner et al. (2021) who identify the background of investors as relevant institutional factor. As only two groups were assessed, additional research would be welcome on this topic.

Summarising, our results highlight the relevance of institutional theory for understanding SRI development in relation to its societal context, and the key role the investment chain plays in explaining convergence in SRI.

Acknowledgements

The authors want to thank the Dutch Association of Investors for Sustainable Development (VBDO) for the use of their dataset on the responsible investment practices of Dutch pension funds.

6

Chapter 6

Conclusion & Discussion

6.1 INTRODUCTION

SRI is increasingly practiced globally, and there has been a sharp rise in the number of institutional investors that implement SRI practices. However, SRI is not a unified phenomenon but takes different shapes and sizes across markets and investors. This is understandably due to a) the different motivations for practicing SRI, from financial to normative considerations and b) the different ways in which SRI can be implemented. What SRI is and delivers therefore also changes in the eye of the beholder. For some, it has the promise to deliver better financial returns, and for others, it has the promise to deliver positive change in society. Additionally, the role of society and its influence on institutional investors have shaped SRI in different ways across countries. This has been particularly visible in campaigns and media attention on the topics of climate mitigation, conflict areas and labour rights.

Although SRI is a diverse phenomenon, the focal points of the scientific community have been less diverse. There has been a heavy emphasis on studies on the relation between SRI and financial performance, leaving other topics less explored. There is still a research gap regarding the impact of SRI on the real economy. Does SRI indeed deliver the change that some hope it does? Which SRI instruments have positive societal impact and are they used as effectively as possible by institutional investors? Additionally, SRI is interpreted and practiced in many different ways across countries and investors. This leads to the question of how SRI develops, how this development interacts with society and stakeholders and which factors determine the divergence or convergence of SRI practices.

The central aim of this thesis is therefore to gain more insight into the effectiveness of SRI in evoking societal change as well as the development of SRI practices. This chapter summarises the different chapters used to answer the sub-research questions regarding the impact and development of SRI. The topics of SRI impact and SRI developments are interlinked, and these interlinkages will be explored and discussed in this chapter as well. This is followed by a discussion, theoretical reflections, conclusions and recommendations for future research, policy and practitioners.

6.2 RESEARCH FINDINGS

In Chapter 2, the effectiveness of SRI and in particular the following questions were addressed. A literature review was used to provide an overview of the studies on SRI instruments, their pathways for influencing investee companies and whether and how they lead to societal change. When focusing on SRI instruments that can potentially influence the cost-of-capital, such as exclusion and ESG-integration, this is currently not an effective way of evoking societal change when studied in isolation. Studies have shown that significant differences in cost-of-capital are potentially possible, but currently, they do not arise, as a

significant percentage of investors worldwide would need to adopt a specific exclusion or ESG-tilts to have a significant impact on listed companies.

In Chapter 3, the effectiveness of engagement by Dutch pension funds was studied. The study showed that engagement is increasingly used by Dutch pension funds. However, the actual implementation is outsourced to networks of actors within the investment chain, such as asset managers or specialised ESG service providers. However, these networks are isolated from other non-investor actors such as NGOs and policy actors.

To study the effectiveness of engagement the work of Gifford (2012) on shareholder salience was used as a starting point. We find that shareholder salience is indeed a useful starting point for assessing the effectiveness of engagement. This means that three main factors are key to making engagement effective. First, legitimacy refers to the credibility of the engagers, the investor, and the strength of both the business and societal case. Second, urgency captures the time sensitivity of the engagement requests and their criticality, requiring persistence and assertiveness. Third, power involves using various tools to increase pressure, ranging from formal shareholder rights and economic influence to public statements. In our research, two additional factors were incorporated into this framework: the duration of the relationship between the engager and the investee and the receptivity of the investee company to the engagement, which also relates to the internal power dynamics within the investee.

The study also concludes that SRI engagement does not reach its full potential in evoking societal change. Investee companies see that investors do not fully use the capacities and instruments at their disposal, especially in relation to their formal shareholders' rights and being vocal publicly. Engagement can be strengthened by using shareholder resolutions, increasing cooperation between investors, and leveraging the specific knowledge of NGOs.

In Chapter 4, we address the adoption of SRI among Dutch pension funds, particularly if there are logical pathways for SRI development. In the adjacent field of CSR, stage models are more common and provide insights into logical pathways for CSR adoption. On the basis of a translation of CSR stage models to SRI practices, 5 expectations for SRI development were tested. We find that CSR stage models can plausibly be applied to SRI. In line with CSR stage models, target setting and the involvement of stakeholders are most likely accomplished through pension funds that already follow well-developed SRI practices. In short, SRI development starts with implementation, and only in later stages does it become a part of governance, strategy and integrated in target setting Additionally, there is a clear order followed in the implementation of SRI instruments: to begin, certain investments are excluded; then, environmental, social and governance (ESG) integration is performed; and finally, so-called impact investing (which focuses on more than only financial results) is conducted.

In Chapter 5, we focus on the factors that could cause convergence or divergence in SRI practices. We do so by using a multiyear dataset of SRI practices of Dutch pension funds. Expectations on the basis of institutional theory were formulated. We find that SRI practices of Dutch pension funds developed over the period 2010-2012. This has led to convergence over time, especially in relation to the reporting on SRI practices. Having the same fiduciary manager is associated as a factor for convergence between pension funds. Assets under management, beneficiaries' characteristics or financial position are not associated with a difference in convergence between pension funds.

6.3 ANSWERING THE MAIN RESEARCH QUESTIONS

This section builds on the findings of all the chapters to answer the main research questions:

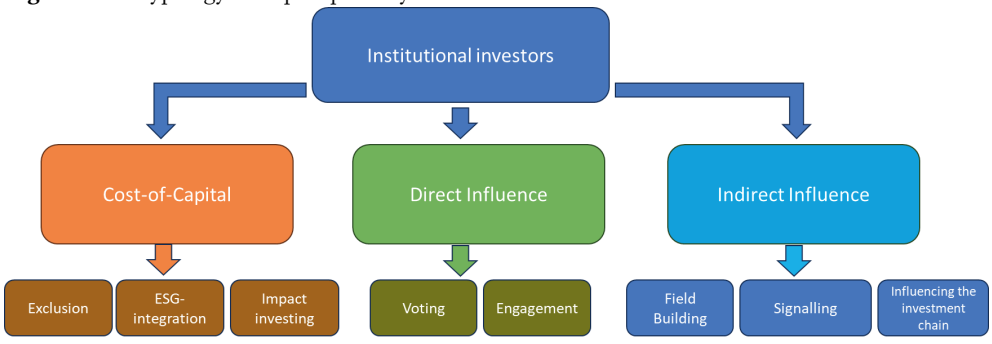
1. When does SRI have societal impact?
2. Which factors influence the development of SRI?

This is followed by a reflection on how the outcomes of these two research questions interact.

When does SRI have societal impact?

SRI always seem to have the promise that it would evoke societal change. The findings paint a more nuanced picture of the (potential) impact of SRI. It starts with the observation that SRI is a very broad concept that covers a wide range of practices and motivations. The question of whether SRI is effective therefore starts with sub questions on whether specific SRI instruments, or combinations of these instruments are effective. This question is discussed through the three main potential pathways for influence and SRI instruments (Figure 6.1). Although SRI instruments can potentially be effective, they are also dependent on organisational factors linked to institutional investors and the societal context to be used to their full potential. These topics are discussed in more detail in a later section of this chapter.

Figure 6.1: A typology of impact pathways for SRI



Cost-of-capital

First, lowering the cost-of-capital for sustainable activities and increasing the cost-of-capital for activities with a negative societal impact is potentially a key pathway for impact by investors. It is specifically linked to the societal impact of the SRI instruments exclusion and ESG-integration. In theory, these pathways can be effective in evoking change. However, our study finds that this is currently not the case for listed investments.

Additionally, later research confirmed these findings. For example, Berk and van Binsbergen (2025) find that currently, this strategy is unlikely to have any significant effect with the current size of the SRI market. Kölbel et al. (Kölbel et al., 2020) stated that the investors who aim to have an impact should focus on engagement instead of instruments that influence the cost-of-capital. Oehmke and Opp (2024) find that the cost-of-capital can potentially be effective, but only if institutional investors are willing to sacrifice returns and therefore are willing to violate their fiduciary duty. Additionally, even if the cost-of-capital is influenced by SRI, not all investee companies have the same level of funding needs, and not all companies will therefore be impacted by a difference in the cost-of-capital.

There are three potential developments that can influence the potential impact through the cost-of-capital. The first that can bring the SRI market closer to the threshold at which the cost-of-capital effect can emerge is the introduction of the EU SFDR and EU taxonomy. This regulatory development could lead to a strong incentive for investors to divest from specific sectors, such as oil and gas. This leads to several interesting topics for further research. One is if this regulation has indeed led to a shift of capital that is sufficient to alter the cost-of-capital for both green and non-green investments. If this is the case, it would be important to study if this also led to additional growth at green companies or diminishing growth at non-green investments.

The second development is the emergence of impact investing. Most studies on the effectiveness of the cost-of-capital have focused on public markets. Less research has been conducted on private, and less liquid, markets. This also relates to the question of whether impact investing can be an effective approach in relation to the cost-of-capital. Impact investing received less attention in chapter 2 as it was less adopted by institutional investors at the time of writing. Since then, more research has been conducted on this topic, although it has been mainly exploratory (Agrawal & Hockerts, 2019). One of the findings is that the impact of impact investing through cost-of-capital is dependent on the willingness of an investor to sacrifice returns (Heeb et al., 2022). From a purely investment point of view, that would only be possible for institutional investors if these investments have other benefits, such as diversification or reduced risks. Besides cost of capital, there are also other indirect pathways for impact, such as the influence of monitoring and measurement requirements on investees, which can be a relevant way of exerting impact as well (Roor & Maas, 2024).

The third is that, similar to impact investing, exclusion or tilting can also have an indirect influence. Not through a changed cost-of-capital, but through signalling and the effects that can have at investees or the public debate. This will be discussed in more detail later in this section.

Direct influence

Investors can influence investees directly through engagement and through voting practices. For engagement, we see that for Dutch pension funds, this instrument has been increasingly used over the years. We conclude that engagement is potentially effective, but its actual effectiveness is dependent on several factors. When engagement is performed by a pension fund, asset manager or service provider, it is important that the engagement is seen by the investee as legitimate. This stresses the need for preparation and potential collaboration with other investors. Additionally, relation building and taking into account the corporate agenda and decision-making processes are relevant. For some engagements, legitimacy, including expertise, is effective if the investee is willing to incorporate feedback stemming from engagement. For companies that are less willing to do so, more formal power comes into place, including power linked to proxy voting, from filing shareholder resolutions to making public statements.

Most studies show mixed results regarding the direct influence of proxy voting. The large majority of shareholder resolutions fails to reach a majority (Qian, 2022; Tkac, 2006). An important caveat is that formal voting outcomes are only part of the picture. Resolutions can also be withdrawn due to successful negotiation with the investee or can be used send a signal that will translate into policy change at a later stage (Bauer et al., 2015).

This leads to vital questions regarding how engagement and proxy voting interact and whether their effectiveness and impact are more than the sum of their parts. Less research has been done on these interactions, but our study suggests that the interaction between engagement and proxy voting increases their effectiveness. This is especially true in relation to the use of Power, as described in the work of Gifford (2010). Interviewees mentioned the potential of using resolutions and proxy voting as a way to make engagement effective, especially for investees who are less willing to move. There are a number of combinations of possible engagement and proxy voting practices. For example by engaging on quantitative targets in executive compensation (Maas, 2016). The interplay between engagement and proxy voting is an interesting topic for further research and for practitioners to work on.

Influence through indirect interactions

Our research focused especially on the direct interaction between investors and investees through engagement and cost-of-capital. However, there are also three indirect interactions through which institutional investors can exert influence.

In the interviews on the effectiveness of engagement, more indirect interactions with companies, platform organisations or governments were mentioned. For example, investors calling for increased regulation regarding sustainability issues, investors making public statements and influencing the public debate or investors working with sector-wide organisations. This development, or "field-building", is eloquently discussed in the work of Marti et al. (Marti et al., 2024). Field building focuses on influencing the institutional context. For example, by advocating for regulatory change, voluntary guidelines or delegitimising specific business activities (Marti et al., 2024). Relatively recent examples include an investor statement by the Institutional Investors Group on Climate Change (IIGCC), the European Sustainable Investment Forum (Eurosif), and the Principles for Responsible Investment (PRI) statement on the 'omnibus proposal' regarding the EU sustainability legislation, or the active role of the Platform Living Wage Financials by putting the topic of living wage on the corporate and regulatory agenda by publishing reports, investor statements and speaking at conferences (PLWF, 2025; UNPRI, 2025c). This form of engagement, and the interactions with direct engagement, is a relevant topic for further research.

A second pathway involves signalling their (potential) decision to investees or interest in a specific ESG-topic to a broader audience. Signalling can be linked to and be an add-on to engagement, voting or field building, depending on the topic and audience. Examples are signalling (potential) engagement of specific companies or sectors. Investors can signal their views by voting against directors or executive remuneration in relation to ESG concerns (Dikolli et al., 2023; Gomtsian, 2023). These votes can be combined with engagement meetings or follow-up communications that explain the rationale behind these votes. Although ESG mutual funds are known to use this approach, little research has been conducted on its effectiveness (Dikolli et al., 2023).

How this pathway can interact with engagement is an important topic for further research. Additionally, investors or actors in the investment chain can signal their interest in specific topics and data. When companies are being asked to provide data, to report on their ESG-performance and are being assessed on these data, there is a potential effect that merely by having to be transparent on these data translates an incentive to measure and influence corporate policy and actions. This effect from ESG data providers, reporting requirements and demands from investors has not been taken into account in this specific dissertation.

A third pathway for indirect influence is that institutional investors can also influence their investment chain. An asset owner can, for example, engage with its external asset manager on ESG topics, including its voting policies, or with its ESG data provider on covering emerging ESG-themes. Also, these interactions are not within the scope of this study but are relevant regarding the impact of SRI.

Which factors influence the adoption and development of SRI?

SRI has experienced a rapid development over the years. However, how has this development taken place, and which factors influence this process? Our research indeed reveals that certain pathways can be distinguished and that several internal and external factors influence this process. They can be categorised into organisational factors and external factors.

We start by discussing the organisational factors. To understand the development of SRI, it is important to understand that capacity and expertise are needed to implement different SRI instruments. Our findings suggest incremental pathways in which capacity is first built to use relatively easy SRI instruments, such as exclusion. This can act as a stepping stone towards a more complex SRI instrument at a later stage, for which more expertise and capacity are needed. Additionally, our findings seem to suggest that SRI starts with implementing SRI instruments and, only in a later stage, is connected to strategy and stakeholder management. Therefore, it does suggest that SRI development, at least for Dutch pension funds, has not been a process that is precisely managed and steered from the highest level or that is developed according to a strategic master plan. It is rather an iterative process in which pension funds a) continuously adapt to a changing societal environment and b) that adaptation is enabled by capacity building within the organisation and the investment chain.

This continuous adaptation also means that SRI is not (only) a development shaped by investment managers that use a factual and analytical lens, but that "zeitgeist" matters in relation to the role of society in shaping SRI. Over time society has shaped SRI development in different ways, going back and forth between incentivising it and slowing it down. From societal pressure on specific sustainability topics, from cluster ammunition, apartheid to concerns regarding climate change. However, also sometimes slowing it down, from the current discussion on "ESG" in the U.S. to the recent resolution in the Dutch parliament on SRI and fiduciary duty (Waterval, 2024). Only at a relatively later stage did the regulatory environment become an important factor in the Netherlands, from (international) soft law and national regulation to regulation at the European level.

Regarding how growth materialises, convergence is identified over the years as opposed to an increasing diversity of different approaches. Instead, SRI development as described in chapter five is a process in which institutional investors move to a similar type of implementation of SRI across policies, SRI instruments and reporting. Operating in the same similar societal environment is a plausible explanation for the convergence in SRI practices, highlighting the relevance of the societal context and institutional theory for understanding SRI development.

Among different factors, ranging from size, financial health, or the background of beneficiaries, having the same fiduciary manager stands out as a factor explaining increased convergence in SRI practices. There are two potential explanations: one is that the fiduciary

manager and other organisations in the investment chain share and transmit the same motivations and convictions to asset owners. The other is that actors in the investment chain enable SRI practices and therefore increase convergence. The two options are likely not exclusive but could strengthen each other.

How do the development of SRI and the impact of SRI interconnect?

When we reflect on the findings, it becomes clear that practicing SRI does not necessarily mean that an investor has an impact. The effectiveness is not only related to the SRI instruments used and how potentially effective they are but are also related to the institutional investors that yields them and how advanced it is in SRI development. There are four factors that are especially important regarding the connection between SRI impact and SRI development.

Capacity & expertise

The fact that an investor is willing to use SRI instruments does not necessarily mean that an investor is able to use these instruments effectively. As described in Chapter 4, there is a logical order in which to build SRI capacity and integrate SRI with organisational decision-making. To be able to use certain instruments, such as exclusion, ESG-integration or impact investing, capacity must be in place. From data systems, the capacity to translate data to information to specific knowledge on ESG-themes and impact measurement. A specific example, as discussed in chapter 3, is that a key factor for the effectiveness of engagement is related to the legitimacy of the engager. To engage effectively, expertise, data and experience need to be available to not only just practice engagement, but to do it effectively. Specifically, for ESG themes such as human rights or biodiversity there needs to be sufficient expertise available on these topics and the ability to assess more qualitative data, which is opposed to the more quantitative financial data commonly used within investment management. Interesting work has been done on this topic by Schumacher (Schumacher, 2022), who points to potential discrepancies between the investors signalling their SRI credentials but having limited organisational resources and expertise on specific sustainability topics to back this up. Coined by Schumacher as "competence greenwashing". This can be a potential factor hampering SRI development and the effectiveness of SRI instruments.

In assessing capacity and expertise, it is important to assess not only the asset owner or manager but also the role of the investment chain, as it plays an important role if investors are able to practice ESG integration, shape proxy voting practices and use exclusion screens. Data providers have therefore played an important role in translating data on emerging ESG topics to investment management. However, the investment chain can also play a role in disabling the effectiveness of SRI. Recently, several examples have emerged concerning how ESG data providers and proxy voting providers can disable investors from using SRI instruments or addressing specific ESG themes. Owing to the political discussion in the US, ESG data providers have stopped providing data linked to Gaza and the West Bank, and a proxy

voting provider has stopped providing information regarding Diversity, Equity and Inclusion for US-based companies (Gambetta, 2024; Reuters, 2025).

Integration in strategy

Last, the effectiveness of SRI instruments can be enhanced by connecting different instruments. For example, engagement can be made more effective when linked to "Power" such as filing shareholder resolutions or public divestment. This has implications for the policy and governance within an institutional investor. In Chapter 4, we found that only in the last stage, can SRI become a more formal part of strategy and governance. It is expected that an investor that entrenches impact, escalation mechanisms and combines SRI instruments in its governance and strategy has a better foundation to be effective.

SRI motivation

At the beginning of this thesis, the historical roots and different motivations of investors for SRI were discussed. Although one of the early studies on SRI the typology of SRI investors by Sparkes (2001) in which investors are categorised as value-led or financially driven is still relevant today. Some investors practice SRI due to financial rationality, some due to ethical considerations, some due to a motivation to have societal impact and some by marketing motivations (Kim & Yoon, 2023). Often, combinations of these motivations are in play. Logically, if an investor is only practicing SRI due to financial rationality, it is not aligning its processes to have pinpointed societal impact.

These motivations matter for how much an investor is willing to invest in engagement capacity and expertise, the willingness to have lower returns in impact investing or the willingness to take a public stance on sustainability regulations affecting investees. One personal surprising quote from the interviews was that investees said that investors often do not yield the leverage they have. An investor that uses engagement as a way of "engagement washing", by only using it to say it addresses an issue, will likely be less effective than an investor that actually aims to have an impact.

The motivation of an investor and the capacity and expertise of an investor can interact. An investor that is focused on impact will likely be more willing to invest in capacity and expertise. However, they do not necessarily have to coincide. A large investor can have the resources and expertise to implement successful engagement but may not be willing to publicly escalate matters. Jointly, these factors can be seen as enabling factors linking the development of SRI within institutional investors to the effectiveness of the SRI instruments they use.

Societal & Regulatory Context

The fourth factor is beyond the SRI development of individual institutional investors. The development and effectiveness of SRI are influenced by society and the regulatory environment. An institutional investor can be reined in by regulation on fiduciary duty, be incentivised by specific beneficiary groups and its investees are more likely to take steps and report on climate mitigation of the regulatory environment is becoming more enabling. Therefore, the context in which SRI takes place plays a role in the development and therefore the effectiveness of SRI as well.

Specifically for pension funds, beneficiaries and interest groups play an important role. A key example is the societal discussion on investment on cluster ammunition or the pressure to divest from fossil fuel companies that provided the incentive for pension funds to do so. However, pension funds can also actively seek to get a mandate to practice SRI. For example, by actively involving beneficiaries in shaping their SRI policies. To do so properly can be challenging, as it takes effort to introduce beneficiaries to intricacies and trade-offs within SRI (Bauer et al., 2025).

What institutional investors can do regarding SRI is not only based on the mandate they received from clients and beneficiaries. Institutional investors are working in a very specific regulatory context that enables but also reigns in what investors can and cannot do regarding. Specifically, the interpretation of fiduciary duty in different jurisdictions, how this trickles down to regulation and supervision of institutional investors, plays an important role in the boundaries of SRI. It is important to note that the interpretation of fiduciary duty in relation to SRI is not static and subject to interpretation.

The ability to use certain SRI instruments can also be enabled or disabled by regulation. For example, in 2025, several changes have taken place regarding the interpretation of shareholder rights at the SEC (GibsonDunn, 2025). This stresses the importance of how the regulatory framework impacts the ability and effectiveness of these instruments. How these and any future regulatory changes in the U.S. and other markets affect the impact of shareholder resolutions and the interaction with engagement is relevant for future research on this topic.

An overview of the interplay between the different factors that influence SRI effectiveness is provided in Figure 6.2.

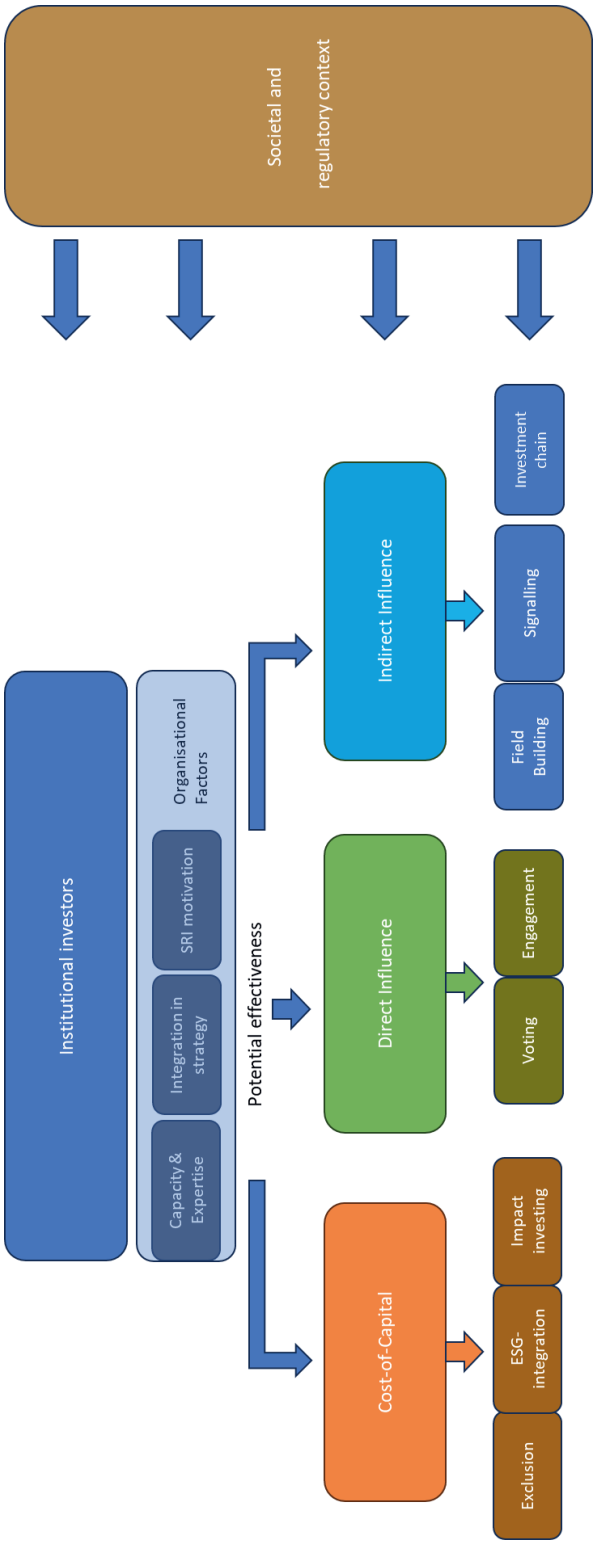


Figure 6.2: Interaction of SRI effectiveness and organisational, regulatory and societal factors

6.4 REFLECTIONS ON THE METHODOLOGY AND EXTERNAL VALIDITY

Methodological reflections

The use of a mixed methods approach proved to be valuable in the research process. The literature review enabled me to identify the state of play regarding SRI research and identify the research gaps. Quantitative data on the SRI practices of Dutch pension funds helped to provide a broader picture of SRI practices over a sizable group in a particular year as well as over a longer period of time. The qualitative interviews enabled to take a deep dive in the motivations and practices of institutional investors, the investment chain and if and how they influence investees. Therefore, each chapter helped to have a better understanding of SRI and to pinpoint the research questions for the subsequent chapters.

On the methodological side, the VBDO benchmark has been an important part of the methodology for Chapters 3, 4 and 5. The VBDO benchmark has been developed to map SRI practices over the years and has been developed in close dialogue with the pension fund sector. This dataset is one of the few existing and relatively consistent multiyear datasets on SRI. The majority of the data have been provided by pension funds and verified by VBDO with the help of provided background documents. Although the benchmark itself has not been developed as a scientific measurement method, the research process ensures the validity of the results. As, with some exceptions, the 50 largest Dutch pension funds are covered in the benchmark, this was an insufficient number for quantitative statistical testing. This means that the results in Chapters 4 and 5 are also exploratory in nature.

Our research and data spanned the period between 2010 and 2022. An important era for the rise of SRI but also an area already having some differences from the current area. From the rise of the EU regulation on SRI as well as the more heated debate and political situation regarding SRI in the U.S. Additionally, the literature has expanded, especially since Chapter 2, on the effectiveness of SRI, which was published in 2013. For example, in 2013, the use of impact investing among institutional investors was less studied.

Dutch pension funds as an empirical focus

In this research, Dutch pension funds have been an important empirical focus. Dutch pension funds have some different characteristics than other investors, which can be drilled down to two main points.

One point relates to some differences between other institutional investors and pension funds. Pension funds not listed or profit driven but are governed by employees as well as employers. Therefore, for the motivations to practice SRI, differences can occur given that pension funds are non-commercial, using SRI as a marketing tool to affect new clients is less of a motivation to practice SRI. However, normative, reputational or impact motivations can

be a stronger motivation than, for example, commercial asset managers. The motivation to practice SRI due to risk-return considerations is similar to that of other investors. The different sets of motivations to practice SRI may affect the development process and the order of SRI implementation. Therefore, our findings have higher external validity for other pension funds than for more commercially driven asset managers.

The second point is related to the regulatory context for Dutch pension funds. Pension funds are firmly nested within the Dutch societal context, have only Dutch beneficiaries and have a specific regulatory framework in comparison to other Dutch institutional investors and some pension funds on other markets. As the report "Fiduciary duty in the 21st Century" notes, there can be a difference between different regions and legal systems in this respect (UNPRI & UNEP, 2019). With the more Anglo-Saxon view of fiduciary duty making it more difficult to diverge from a financial-risk only perspective on sustainability in comparison to the Dutch perspective.

However, there are also two reasons why our findings have validity for other institutional investors and in other markets.

First, as asset owners, they share several characteristics with other asset owners worldwide. They are active in the same (international) financial markets and have similar investment approaches. Also, the investment chain in relation to SRI is similar for multiple markets and is dominated by similar globally active actors. Being an investor from the Netherlands, a Japan-based investor or a US-based investor, similar (ESG) data providers, proxy voting providers and engagement service providers are being used. Influencing, and potentially converging, SRI development and capacities across markets.

Second, there are strong similarities and increased convergence between the regulatory environment, especially within EU member states. This is due to developments in SRI regulation such as the SFDR, EU taxonomy, CSRD and CSDDD. How this translates to convergence in (specific parts) of SRI development is an interesting topic for further research.

Effectiveness of Engagement

We have focused our research on active ownership with listed companies. This is especially relevant for direct engagements in asset classes, public equity and corporate bonds. However, engagement within other asset classes, such as private equity, sovereign engagement or real estate, is also possible. The practice of engagement with other asset classes can differ from that of listed investees. For example, the influence of investors can be greater at specific private equity investments, and the engagement can take place more prominently when the investment is made, for example, at project finance or at a bond issuance. The fundamental principles of shareholder salience, or stakeholder salience, are still likely to be valid. "Legiti-

macy" or "power" are valid in a wide range of dialogues. However, the way "power" can be leveraged differs due to the different contexts of engagement in other asset classes.

A particular type of engagement that is emerging is so-called sovereign engagement on ESG-topics. As sovereign bondholders, investors have a stake in governmental policies, but no direct rights associated with holding shares in a company. This topic was not addressed in Chapter 3. However, several initiatives have emerged on this topic (UNPRI, 2024b; van Zanten et al., 2023). Thus, the question of whether sovereign engagement is effective and which factors govern its effectiveness are interesting topics for further research.

Cost of capital

In the second chapter the cost-of-capital was explored with a particular focus on investments in public markets. The influence and effectiveness of the cost-of-capital pathway for other asset classes, such as private equity, real estate, private debt or specific impact investment strategies might vary. For example, because there is a greater dependency on a specific group of institutional investors, making their SRI screenings or exclusion potentially more influential in comparison to public markets.

6.5 THEORETICAL REFLECTIONS

Studies on SRI have been descriptive and less connected to theoretical frameworks. In this thesis, several theoretical frameworks were tested that potentially can be used to deepen our understanding of SRI practices, their development and their impact.

Institutional theory

Are institutional investors a different breed of organisations that would make institutional theory a less logical choice? Institutional theory has already been applied to a wide range of organisations , but to a lesser extent to institutional investors and SRI. Chapter 5 shows that institutional theory can be applied to SRI and institutional investors, and specifically to the interactions between society and SRI development. A topic that is understudied in comparison to the interaction between SRI and risk-return but is crucial in understanding the dynamics in SRI developments.

In applying institutional theory to SRI, it is important to consider the particularities of institutional investors. For example, that investment chains can span multiple markets with different institutional environments. In particular the increasing divide between the US and other markets is an obvious example, with US-based investors with a global presence caught in the mix. One example is Blackrock, which is defending in legal cases in the U.S. in relation to coal divestments, while being targeted by NGOs in Europe for investing in fossil energy (Kerber & Nishant, 2025; Smal & Beunderman, 2025).

Another specific feature of institutional investors is that SRI can also be practiced, not only because of societal pressure, but because it can make financial sense. The interplay between financial rational and societal pressure is a topic that merits more attention and research. Especially as this interplay can vary between institutional investors that are in the societal spotlight, such as large pension funds, smaller asset managers that focus on less known and more niche investment strategies in non-public markets, or asset managers for whom SRI positioning makes sense from a marketing point of view.

Shareholder salience

Shareholder salience provides a useful framework for understanding shareholder engagement, and the specific translation of Gifford (2010) provides a solid foundation for translating shareholder salience to shareholder engagement. This is especially the case for analysing the interaction between investors and investees at the micro-level, i.e., the direct interactions between investors and investees.

Reflecting on our findings, we see that shareholder salience does not address the context in which these interactions take place and that there are several points important in this context.

First, cultural differences play a role in these interactions and in how well an investor can influence an investee. Second, the relationship between the investor and investee plays a role. Including the duration of the relationship. Third, an investee is not monolithic and will have different proponents and opponents of proposed changes; therefore, the internal politics and decision-making processes are also relevant for analysing the effectiveness of engagement practices.

Second, a more fundamental criticism of shareholder salience is that it focuses only on shareholder-investee interactions at the micro-level, but that it does not consider the political and societal context, which investors can use to indirectly exert influence as well. For example, the work of Marti et al. (2024) identifies the role of field building and the way investors can influence the field in which companies are active, societal debate and (potential) legislation. To increase our understanding of how investors can most effectively influence CSR development it is also important to understand how investors can influence the societal debate, influence regulation and how synergy can be created between these tools to exert influence.

CSR Stage models

In addition to convergence, as explained by institutional theory, we also studied CSR stage models. CSR stage models provide insight into pathways for CSR development within companies. We summarised a range of existing stage models and translated these into SRI practices and put them to the test.

CSR stage models should not be seen as one consolidated framework for understanding CSR development. They can better be seen as a specific perspective from which to understand logical pathways for CSR development and how specific steps within CSR are prerequisites for other steps. The different stage models also have different theoretical roots. However, this diverse background also provides a wide variety of insights into how CSR can develop and which aspects play a role in CSR development. From the relationship with stakeholders, capacity building can be integrated into internal decision making. This diversity also provides useful information for understanding SRI development. This enables researchers to step back and identify logical pathways for SRI development and how actual investment management interacts with organisational development, stakeholder relations and governance. As discussed in chapter 4, not all stage models have a sound empirical foundation. However, our research shows that there are indeed logical patterns in SRI adoption that can be explained when adapting CSR stage models to SRI adoption. When reflecting on the use of CSR stage models, several topics related to the specifics of the financial sector arise for their application to SRI development.

In applying CSR stage models to pension funds, it is important to consider the governance process of pension funds and its differences from corporate governance in the corporate sector. Having direct representatives from employers and labour unions means that there is more direct contact, and potentially influence, with respect to SRI development in comparison with a board of directors of a company.

Additionally, as the financial sector was heavily regulated, and even more so after the financial crisis in 2008, the regulatory environment played an important role in disabling and enabling SRI development and may have changed the order of steps taken in SRI development. For example, according to the CSR stage models, interaction with stakeholders occurs at a later stage. However, the Code Pensioenfondsen introduced in its 2024 update the necessity of pension funds to map the preferences of their beneficiaries, which can change the order of steps taken (Pensioenfederatie, 2024).

Also of relevance are the investment chain and the way in which actual investment management and SRI implementation are outsourced to a myriad of partners. Often working internationally in a wide range of markets and enabling, or disabling, the options for pension funds to implement SRI and therefore influencing the ability to move from one stage of SRI development to the other.

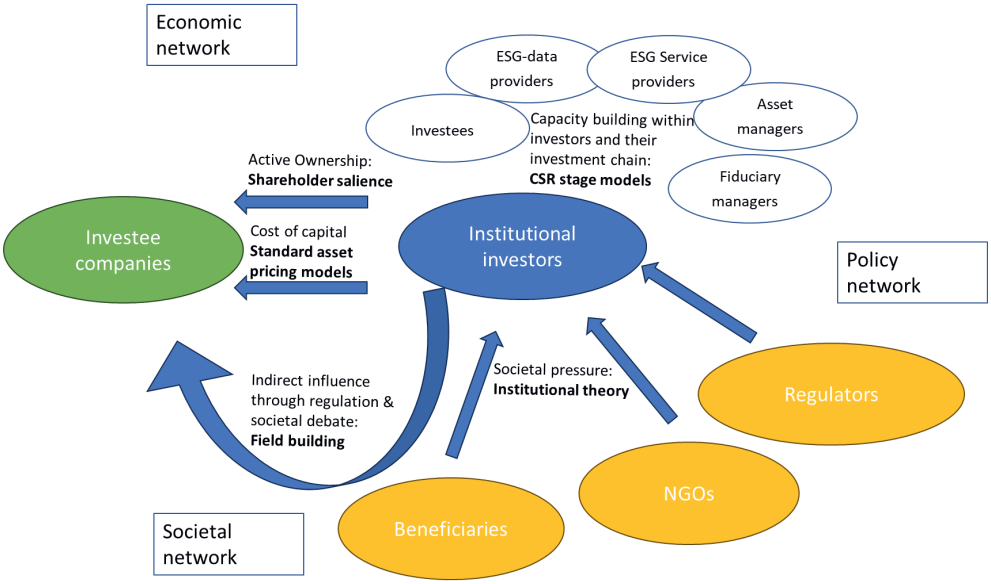
Towards a typology of theoretical frameworks for SRI

The theoretical landscape for SRI is fragmented. The positive news is that different theoretical frameworks, including those from other fields, provide promising starting points for a more overarching theoretical framework for SRI. To do so, it is important to acknowledge the key parts of the puzzle for understanding SRI development and impact.

- *SRI and its interaction with society:* As SRI is shaped not only by financial rationality but also by societal preferences. The interaction between society and the financial sector is therefore an important perspective. Institutional theory provides a solid foundation for understanding these interactions.
- *SRI development with investors and their investment chain:* SRI is not something that suddenly appears within investors. SRI development is shaped by expertise, internal norms and capacity building on SRI and the interactions between boards, portfolio managers, clients and beneficiaries. CSR stage models have provided a useful starting point for identifying and describing logical pathways for these development processes. However, as the implementation of SRI is also shaped by its investment chain, further translation of CSR stage models to the financial sector and the investment chain is a logical next step in enhancing its application to SRI.
- *The interaction between investors practicing SRI and their investees:* To understand if and how SRI has impact, it is key to understand the different pathways in which SRI potentially can have an influence:
  - Cost of Capital: Standard asset pricing models have been used by several authors to assess the impact of investment choices related to SRI on the cost-of-capital (Berk & van Binsbergen, 2025; Heinkel et al., 2001; Kölbel et al., 2020; Luo & Balvers, 2017).
  - Use of engagement and voting (and other) rights in the direct interactions between investors and investees: Stakeholder salience and its translation to shareholders, i.e., shareholder salience, is a logical starting point for gaining insight. However, the relation with, the openness of, and the decision-making processes of investees are relevant as well.
  - Indirect influence: Investors can play a role in shaping narratives or putting ESG topics on the agendas of governments, sectors or platform organisations. However, this topic has received little attention until recently. However, the work of Marti et al. (2024) on field building provides an interesting inroad on this topic.

In Figure 6.3, we provide an overview of the different pieces of the puzzle for an overarching theoretical perspective on SRI, which is based on the triad network approach (A. P. Mol, 1995).

Figure 6.3: Structuring of theoretical frameworks for understanding SRI development and impact



6.6 RECOMMENDATIONS FOR RESEARCH, POLICY, AND PRACTICE

Recommendations for policy and practice

This research provides several recommendations for policy and practice, which we discuss one by one below.

The first recommendation is that boards of pension funds wanting to advance SRI should focus on capacity building in the investment chain and monitoring societal trends. The pathways that pension funds follow in adopting SRI show an organic growth of SRI practices, in which capacity is slowly developed, and SRI gets a mature place in governance and decision making only in later stages. This does not point to a plan, do, check, act approach, in which SRI is developed from a long-term and predefined plan, but rather an organic growth in capacity and responsiveness to societal sentiment. This emphasises the need to focus on capacity building within the pension fund as well as the wide investment chain and to monitor and respond to societal sentiment.

In relation to capacity building, it is not only important to look at rational tools, capacity and data systems but also to look to the "softer" aspects of governance and decision-making within the organisation. Has an external manager integrated SRI in decision-making and governance, and has relevant expertise been embedded in decision-making? Is there a sufficient mandate to escalate engagement?

Being aware that SRI is not only a rational financially driven exercise but also interacts with society, this also means that investors need to be aware, adapt and respond to societal developments. For example, by engaging with stakeholders on specific ESG themes, monitoring the SRI preferences of beneficiaries and customers and translating these into SRI practices. Additionally, beyond monitoring, it can mean a more proactive outreach explaining how ESG topics influence policies and investment management and why specific SRI decisions have been made.

SRIs interact with societal and political developments. While in the past, there was convergence through (voluntary) standards such as the UNPRI, UN Global Compact, SASB or the OECD guidelines, convergence is not necessarily a trend in the future. The more recent developments in the U.S., especially with respect to regulation and political pressure regarding SRI, have already been shown to diverge between SRI practices. For example, how do investors handle the topic of diversity, equity and inclusion (DEI), or how do they integrate climate mitigation into their SRI practices? Especially in international investment chains with considerable dependence on some key players, this can mean that national developments in one country can spill over to SRI developments in other countries. For example, if US-based proxy voting providers do not provide information on DEI to European-based investors. For pension fund boards, it is therefore important to assess and address these dependencies to ensure that their investment chain is able and willing to implement the pension fund SRI strategy and policy.

The second recommendation is that institutional investors aiming for positive societal impact should look beyond their direct relationships with (corporate) investees. The impact of investors on society, particularly investees, does not occur in a vacuum. Investors can partner with NGOs or other actors to exert influence and magnify it. Additionally, so-called sovereign engagement, i.e., the engagement of investors with the national government or international institutions, is occurring. To fully use the tools for having impact, it is important to explicitly develop a strategy for field building and signalling. This should include the topics in which investors can contribute through their voice, knowledge and influence and how signalling creates synergy with active ownership. However, how investors organise expertise and the mandates and resources needed to do so is also important.

The third recommendation is that institutional investors should facilitate multidisciplinary cooperation and debate. As SRI is shaped by different forces, from financial and societal to normative, this also means that an investor adopting SRI need to fully understand these different forces. By only having teams that are composed of professionals with an economic or financial background, it is not possible to fully understand let alone react to other than financial forces in a well-developed way. These include ethical debates on excluding certain topics and evolving international guidelines on human rights until an understanding of how political developments translate to SRI regulation is reached. This sets additional require-

ments for embedding SRI expertise within an institutional investor. Not only is there a need for a wider range of backgrounds, but internal decision-making also needs to facilitate multidisciplinary cooperation and debate.

Future research

On the basis of the identified research gaps and the findings of our research, I identify several inroads for further research.

Interaction within the investment chain

The impact of and interaction with other actors in the investment chain, such as proxy voting providers, ESG data providers, asset managers, fiduciary managers, and index providers are understudied. As these actors serve a wide range of institutional investors in different markets, more research is needed to gain insight into how these actors catalyse or impede certain SRI practices. In particular;

- Interaction between asset owners and their asset managers
- The role of ESG data and service providers
- The role of platform organisations, standard setters and education providers within the financial sector

The impact of SRI on investees and society

The current discussion on SRI often evolves around instruments that affect the cost-of-capital. As there is no strong academic evidence on its effectiveness, more research on other pathways for achieving societal impact is needed. In particular, more indirect pathways for achieving societal impact, such as field building and sovereign engagement are potentially impactful. However, these are used relatively little and still less experience has been gained, and research has been conducted on whether and how these methods are effective. Further research is needed to understand how field building can be effective in evoking societal change, which factors determine its effectiveness, and which prerequisites need to be met within institutional investors to practice it.

In the literature review for Chapter 2, little research had been conducted on impact investing and its impact. Since then, impact investment has developed rapidly, including among institutional investors. Impact investing has the potential to make societal change; therefore, questions for further research are a) if this is indeed the case and b) if so, which are the factors that determine its impact?

Driving forces for practicing SRI

Although SRI seems monolithic, investors have different motivations to practice SRI, resulting in different types of implementations and potentially different development pathways. Especially since the Trump administration took office, a wide range of investors have taken a step back toward sustainability. In parallel, in several markets, steps have been taken regard-

ing perceived greenwashing, including the SFDR in the EU (Bodellini, 2023; Dempere et al., 2024). This emphasises that SRI is not only done from a purely investment rational point of view but also that it can interact with societal trends and commercial considerations. More insight into how these driving forces interact and impact different types of (institutional) investors in different markets would be an interesting topic for further research.

SRI can be fully studied only by using multiple theoretical lenses

Research on SRI has focused less on theoretical reflections, and the field is characterised by a wide range of theoretical lenses instead of one unified theoretical framework. Although one unified theoretical framework is less likely, owing to the diversity in investors, market types of investment and different types of SRI instruments, a logical next step would be to combine different theoretical frameworks to provide a more meta-level lens for SRI development and practices. In this thesis, we aimed to build a first typology of the different existing theoretical frameworks that provide a basis for a meta-level theoretical framework for SRI.



References

ABP. (2016). *Duurzaam en verantwoord beleggen 2015*. http://jaarverslag.abp.nl/docs/pdfs/ABP_Duurzaam_en_Verantwoord_Beleggen_2015.pdf

AFM. (2016). *AFM - Investeringsverbod clustermunitie*. Retrieved 03-05 from https://www.afm.nl/nl-nl/professionals/onderwerpen/marktmisbruik/clustermunitie-mm-int

Agle, B. R., Mitchell, R. K., & Sonnenfeld, J. A. (1999). Who matters to Ceos? An investigation of stakeholder attributes and salience, corpate performance, and Ceo values. *Academy of management journal*, *42*(5), 507-525. https://doi.org/10.5465/256973

Agrawal, A., & Hockerts, K. (2019). Impact investing: review and research agenda. *Journal of Small Business & Entrepreneurship*, *33*(2), 153-181. https://doi.org/10.1080/08276331.2018.1551457

Aguilera, R., Williams, C., Conley, J., & Rupp, D. (2006). Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: An International Review*, *14*(3), 147-158.

Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate Governance and Social Responsibility: a comparative analysis of the UK and the US. *Corporate Governance: An International Review*, *14*(3), 147-158. https://doi.org/10.1111/j.1467-8683.2006.00495.x

Alam, A. (2022). Institutional Theory: Relevance to Supply Chains. *American Journal of Management*, *22*(2), 21. https://doi.org/10.33423/ajm.v22i2.5332

Alda, M. (2019). Corporate sustainability and institutional shareholders: The pressure of social responsible pension funds on environmental firm practices. *Business Strategy and the Environment*, *28*(6), 1060-1071. https://doi.org/10.1002/bse.2301

Allen, R., Letourneau, H., & Hebb, T. (2012). Shareholder engagement in the extractive sector. *Journal of Sustainable Finance & Investment*, *2*(1), 3-25. https://doi.org/10.1080/20430795.2012.702495

Alserda, G. A., Bikker, J. A., & Van Der Lecq, F. S. (2018). X-efficiency and economies of scale in pension fund administration and investment. *Applied Economics*, *50*(48), 5164-5188. https://doi.org/10.1080/00036846.2018.1486011

Apostolakis, G., Kraanen, F., & van Dijk, G. (2016). Examining pension beneficiaries' willingness to pay for a socially responsible and impact investment portfolio: A case study in the Dutch healthcare sector. *Journal of Behavioral and Experimental Finance*, *11*, 27-43. https://doi.org/10.1016/j.jbef.2016.06.001

Arjaliès, D.-L. (2010b). A Social Movement Perspective on Finance: How Socially Responsible Investment Mattered. *Journal of Business Ethics*, *92*(S1), 57-78. https://doi.org/10.1007/s10551-010-0634-7

Arjaliès, D.-L., Grant, P., Hardie, I., MacKenzie, D., & Svetlova, E. (2017). *Chains of Finance: How Investment Management is Shaped*. Oxford University Press. https://doi.org/10.1093/oso/9780198802945.001.0001

Aslaksen, I., & Synnestvedt, T. (2003). Ethical investment and the incentives for corporate environmental protection and social responsibility. *Corporate Social Responsibility and Environmental Management*, *10*, 212-223. https://doi.org/10.1002/csr.047

ASN. (2010). Retrieved 9 December 2010 from http://www.asnbank.nl/index.asp?nid=9375

Autoriteit Financiële Markten. (2023a). *Ban on investment in cluster munitions*. AFM. Retrieved 3-1-2024 from https://www.afm.nl/nl-nl/sector/themas/marktmisbruik/clustermunitie

Autoriteit Financiële Markten. (2023b). *Informeren deelnemers*. AFM. Retrieved 27-10-2023 from https://www.afm.nl/nl-nl/sector/pensioenuitvoerders/informeren-deelnemers

Avetisyan, E., & Hockerts, K. (2017). The Consolidation of the ESG Rating Industry as an Enactment of Institutional Retrogression. *Business Strategy and the*

Environment, *26*(3), 316-330. https://doi.org/10.1002/bse.1919

Bartels, J., & Schramade, W. (2022). Investing in human rights: overcoming the human rights data problem. *Journal of Sustainable Finance & Investment*, *14*(1), 199-219. https://doi.org/10.1080/20430795.2022.2053943

Bauer, R., Broeders, D., & van Ool, A. (2024). Walk the green talk? A textual analysis of pension funds' disclosures of sustainable investing. *Journal of Pension Economics and Finance*, *24*(2), 297-325. https://doi.org/10.1017/s147474722400009x

Bauer, R., Clark, G. L., & Viehs, M. (2013). The geography of shareholder engagement: Evidence from a large British institutional investor. *Available at SSRN 2261649*.

Bauer, R., Moers, F., & Viehs, M. (2015). Who Withdraws Shareholder Proposals and Does It Matter? An Analysis of Sponsor Identity and Pay Practices. *Corporate Governance: An International Review*, *23*(6), 472-488. https://doi.org/10.1111/corg.12109

Bauer, R., Ruof, T., & Smeets, P. (2021). Get real! Individuals prefer more sustainable investments. *The Review of Financial Studies*, *34*(8), 3976-4043. https://doi.org/https://doi.org/10.1093/rfs/hhab037

Bauer, R., van Binsbergen, J., & Eiling, E. (2025). Duurzaam beleggen van pensioenen vergt diepe onderbouwing en evaluatie. *ESB*.

Beisenbina, M., Fabregat-Aibar, L., Barberà-Mariné, M. G., & Sorrosal-Forradellas, M. T. (2023). The burgeoning field of sustainable investment: Past, present and future. *Sustainable Development*, *31*(2), 649-667. https://doi.org/10.1002/sd.2422

Beloe, S. (2001). A responsible investment?—an overview of the socially responsible investment community. *World Futures*, *56*(4), 409-416. https://doi.org/10.1080/02604027.2001.9972814

Bengtsson, E. (2008). A History of Scandinavian Socially Responsible Investing. *Journal of Business Ethics*, *82*(4), 969-983. https://doi.org/10.1007/s10551-007-9606-y

Berk, J. B., & van Binsbergen, J. H. (2025). The impact of impact investing. *Journal of Financial Economics*, *164*, 103972. https://doi.org/10.1016/j.jfineco.2024.103972

Bikker, J. A., & Meringa, J. J. (2022). Have scale effects on cost margins of pension fund investment portfolios disappeared? *Applied Economics*, *54*(39), 4501-4518. https://doi.org/10.1080/00036846.2022.2030857

Bismuth, R. (2023). The Emerging Human Rights and Environmental Due Diligence Responsibility of Financial Institutions. In B. William, Z. Chiara, & G. Christos (Eds.), *International Monetary and Banking Law in the post COVID-19 World*. Oxford University Press. https://doi.org/10.1093/law/9780192869753.003.0016

Bodellini, M. (2023). Greenwashing and the misapplication of articles 8 and 9 of the Sustainable Finance Disclosure Regulation. *ERA Forum*, *24*(1), 27-42. https://doi.org/10.1007/s12027-023-00739-8

Bordignon, M. (2022). Ensuring financial sector compliance with human rights: from the UNGPs to complicity. In *Research Handbook on Global Governance, Business and Human Rights* (pp. 380-394). Edward Elgar Publishing.

Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. (2009). Network analysis in the social sciences. *science*, *323*(5916), 892-895. https://doi.org/10.1126/science.1165821

Bradford, H. (2023, 3-5-2023). Norwegian wealth fund blacklists more companies with Myanmar ties. *Pension & Investments*. https://www.pionline.com/esg/norwegian-wealth-fund-blacklists-more-companies-myanmar-ties

Brown, H. S., de Jong, M., & Levy, D. L. (2009). Building institutions based on information disclosure: lessons from GRI's sustainability reporting. *Journal of Cleaner Production*, *17*(6), 571-580. https://doi.org/https://doi.org/10.1016/j.jclepro.2008.12.009

Buentjen, C., Perkins, R., & Sullivan, R. (2025). Net-Zero norms in sustainable finance:

what explains asset managers' target-setting? *Journal of Sustainable Finance & Investment*, *15*(4), 954-985. https://doi.org/10.1080/20430795.2025.2520524

Buttel, F. H. (2000). Ecological modernization as social theory. *Geoforum*, *31*(1), 57-65. https://doi.org/10.1016/s0016-7185(99)00044-5

Butts, C. T. (2009). Revisiting the foundations of network analysis. *science*, *325*(5939), 414-416. https://doi.org/10.1126/science.1171022

Campbell, D., & Cowton, C. J. (2015). Method issues in business ethics research: Finding credible answers to questions that matter. *Business Ethics: A European Review*, *24*(S1), S3-S10. https://doi.org/10.1111/beer.12093

Capelle-Blancard, G., & Monjon, S. (2012a). The Performance of Socially Responsible Funds: Does the Screening Process Matter? *European Financial Management*, *20*(3), 494-520. https://doi.org/10.1111/j.1468-036X.2012.00643.x

Capelle-Blancard, G., & Monjon, S. (2012b). Trends in the literature on socially responsible investment: looking for the keys under the lamppost. *Business Ethics: A European Review*, *21*(3), 239-250. https://doi.org/10.1111/j.1467-8608.2012.01658.x

Card Charron, D. (2007). Stockholders and stakeholders: The battle for control of the corporation. *Cato Journal*, *27*(1), 1-22.

Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business horizons*, *34*(4), 39-48. https://doi.org/10.1016/0007-6813(91)90005-g

Carroll, A. B. (1993). Business and Society: Ethics and Stakeholder Management (2nd ed.). *Cincinnati: South-Western College Publishing*.

Carter, N., & Huby, M. (2005). Ecological Citizenship and Ethical Investment. *Environmental Politics*, *14*(2), 255-272. https://doi.org/10.1080/09644010500055159

Chalissery, N., Tabash, M. I., Nishad T, M., & Saleh Al-Faryan, M. A. (2022). A bibliometric analysis of socially responsible investment based on thematic clustering. *Cogent Business & Management*, *10*(1), 2154057. https://doi.org/10.1080/23311975.2022.2154057

Cheung, C. (2025). Investing in defence and 'anti-woke': is the sun setting on ESG? *FT*. https://www.ftadviser.com/esg-investing/2025/4/8/investing-in-defence-and-anti-woke-is-the-sun-setting-on-esg/

Chow, S. Y. C. (2010). *Cross-country comparison of shareholder engagement for responsible investment* University of Melbourne]. Melbourne.

Clare, D. A., & Sanford, D. G. (1979). Mapping Personal Value Space: A Study of Managers in Four Organizations. *Human relations*, *32*(8), 659-666. https://doi.org/10.1177/001872677903200802

Clark, G. L., Salo, J., & Heb, T. (2008). Social and environmental shareholder activism in the public spotlight: US corporate annual meetings, campaign strategies, and environmental performance, 2001 – 04. *Environment and Planning*, *40*, 1370-1390. https://doi.org/10.1068/a391

Clarke, G. L., & Hebb, T. (2004). Pension Fund Corporate Engagement: The Fifth Stage of Capitalism. *Industrial relations*, *59*(1), 142-171. https://doi.org/10.7202/009130ar

Clarke, T. (2004). *Theories of corporate governance*. Routledge.

Cowton, C. J. (1994). The Development of Ethical Investment Products. In *The ACT Guide to Ethical Conflicts in Finance* (pp. 213-232). Blackwell Publishers.

Cox, P., & Schneider, M. (2010). Is Corporate Social Performance a Criterion in the Overseas Investment Strategy of U.S. Pension Plans?:An Empirical Examination. *Business & Society*, *49*(2), 252-289. https://doi.org/10.1177/0007650308315491

Cremasco, C., & Boni, L. (2022). Is the European Union (EU) Sustainable Finance Disclosure Regulation (SFDR) effective in shaping sustainability objectives? An

analysis of investment funds' behaviour. *Journal of Sustainable Finance & Investment*, *14*(4), 1-19. https://doi.org/10.1080/20430795.2022.2124838

Crifo, P., & Mottis, N. (2016). Socially responsible investment in France. *Business & Society*, *55*(4), 576-593. https://doi.org/10.1177/00076503135002

Daugaard, D. (2020). Emerging new themes in environmental, social and governance investing: a systematic literature review. *Accounting & Finance*, *60*(2), 1501-1530. https://doi.org/10.1111/acfi.12479

David, P., Bloom, M., & Hillman, A. J. (2006). Investor activism, managerial responsiveness, and corporate social performance. *Strategic Management Journal*, *28*(1), 91-100. https://doi.org/10.1002/smj.571

Davies, P. (2020). The UK Stewardship Code 2010-2020 from Saving the Company to Saving the Planet? *European Corporate Governance Institute-Law Working Paper*(506).

Davis, J. H., Schoorman, F. D., & Donaldson, L. (2004). Toward a Stewardship Theory of Management. In C. Clarke (Ed.), *Theories of corporate governance* (pp. 118-134). Routledge. https://doi.org/10.2307/259223

Dempere, J., Alamash, E., & Mattos, P. (2024). Unveiling the truth: greenwashing in sustainable finance [Systematic Review]. *Frontiers in Sustainability*, *Volume 5 - 2024*. https://doi.org/10.3389/frsus.2024.1362051

Derwall, J., Guenster, N., Bauer, R., & Koedijk, K. (2005). The eco-efficiency premium puzzle. *Financial Analysts Journal*, *61*(2), 51-63. https://doi.org/10.2469/faj.v61.n2.2716

Derwall, J., Günster, N., Bauer, R., & Koedijk, K. (2004). *The eco-efficiency premium puzzle* (ERIM report series research in management, Issue. www.erim.eur.nl

Derwall, J., Koedijk, K., & Ter Horst, J. (2011). A tale of values-driven and profit-seeking social investors. *Journal of Banking & Finance*, *35*(8), 2137-2147. https://doi.org/10.1016/j.jbankfin.2011.01.009

Dikolli, S. S., Frank, M. M., Guo, Z., & Lynch, L. J. (2023). ESG Mutual Fund Voting on Executive Compensation Shareholder Proposals. *Journal of Management Accounting Research*, *35*(3), 51-74. https://doi.org/10.2308/jmar-2022-036

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160. https://doi.org/10.2307/2095101

Dimson, E., Karakaş, O., & Li, X. (2015). Active ownership. *Review of Financial Studies*, *28*(12), 3225-3268. https://doi.org/10.1093/rfs/hhv044

DNB. (2012). *Beleidsregel geschiktheid 2012*. Retrieved 15-5-2015 from http://www.toezicht.dnb.nl/5/9/2/50-226273.jsp

DNB. (2015). *SPEECH BY KLAAS KNOT, SUSTAINABLE FINANCE SEMINAR, DE NEDERLANDSCHE BANK, 27 NOVEMBER 2015* Retrieved 03-05 from http://www.dnb.nl/binaries/KK_tcm46-334439.pdf?2015120218

DNB. (2016). *Gegevens individuele pensioenfondsen*. Retrieved 21-12-2016 from http://www.dnb.nl/statistiek/statistieken-dnb/financiele-instellingen/pensioenfondsen/gegevens-individuele-pensioenfondsen/index.jsp

DNB. (2018). *Financiële positie van pensioenfondsen, 4e kwartaal 2017*. DNB. https://statistiek.dnb.nl/downloads/index.aspx#/details/financi-le-positie-van-pensioenfondsen-kwartaal/dataset/fc8e7817-0884-4473-b822-62284b445278/resource/615b322a-9aa5-49b0-8a78-2c98b069059a

DNB. (2021). *Statistieken DNB*. DNB. Retrieved 15-10-2021 from https://www.dnb.nl/statistiek/

DNB. (2023). *Toezicht op financiele instellingen*. Retrieved 27-10-2023 from https://www.dnb.nl/betrouwbare-financiele-sector/toezicht-op-financiele-instellingen/

DNB. (2025a). *Dashboard Pensioenfondsen*. Retrieved 10-10-2025 from https://www.dnb.nl/statistieken/dashboards/pensioenfondsen/

DNB. (2025b). *Pensioenfondsen (macro-economisch)*. Retrieved 10-4-2025 from https://www.dnb.nl/statistieken/dashboards/pensioenfondsen/pensioenfondsen-macro-economisch/

Dodsworth, C., Bourne, E., Schlich, B.-L., & Kooroshy, J. (2023). Financial, Double, or Dynamic? Theories of ESG Materiality and Practitioner Approaches. *Journal of Impact & ESG Investing*, *4*(2). https://doi.org/10.3905/jesg.2023.1.087

Dongen, J. v. (2007). *Het clusterbom gevoel* [Television]. VARA/NPS; https://www.bnnvara.nl/zembla/artikelen/het-clusterbom-gevoel

Driscoll, C., & Starik, M. (2004). The primordial stakeholder: Advancing the conceptual consideration of stakeholder status for the natural environment. *Journal of Business Ethics*, *49*(1), 55-73. https://doi.org/10.1023/B:BUSI.0000013852.62017.0e

Dummett, K. (2006). Drivers for Corporate Environmental Responsibility (CER). *Environment, Development and Sustainability*, *8*(3), 375- 389. https://doi.org/10.1007/s10668-005-7900-3

Dupire, M., & M'Zali, B. (2016). CSR Strategies in Response to Competitive Pressures. *Journal of Business Ethics*, *148*(3), 603-623. https://doi.org/10.1007/s10551-015-2981-x

Eccles, R. G., Kastrapeli, M. D., & Potter, S. J. (2017). How to Integrate ESG into Investment Decision-Making: Results of a Global Survey of Institutional Investors. *Journal of Applied Corporate Finance*, *29*(4), 125-133. https://doi.org/10.1111/jacf.12267

Eels, F. R. (1956). The Economics of Shift Working. *The Journal of Industrial Economics*, *5*(1), 51. https://doi.org/10.2307/2097514

EerlijkeGeldwijzer. (2023). *Pensioenwijzer*. Retrieved 27-10-2023 from https://eerlijkegeldwijzer.nl/pensioenwijzer/

Eisenhardt, K. (2004). Agency theory: An assessment and review. In C. Clarke (Ed.), *Theories of corporate governance*. Routledge. https://doi.org/10.2307/258191

EU. (2016). *Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs)*. EU. Retrieved 28-11-2025 from https://eur-lex.europa.eu/eli/dir/2016/2341/oj/eng

EU. (2021). *Sustainability-related disclosure in the financial services sector*. European Commission. Retrieved 29-9-2021 from https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/sustainability-related-disclosure-financial-services-sector_en

Eumedion. (2018). Retrieved 30-04-2018 from www.eumedion.nl

Eurosif. (2010). *European SRI study 2010*. http://www.eurosif.org/images/stories/pdf/Research/Eurosif_2010_SRI_Study.pdf

Eurosif. (2012). *European SRI Study 2012*. Eurosif. https://www.eurosif.org/wp-content/uploads/2022/03/Eurosif_SRI_Study_2012.pdf

Eurosif. (2013). *Shareholder Stewardship: European ESG Engagement Practice 2013*. http://www.eurosif.org/research/european-stewardship

Eurosif. (2018). *European SRI Study 2018*. Eurosif. https://www.eurosif.org/wp-content/uploads/2021/10/European-SRI-2018-Study.pdf

Fabregat-Aibar, L., Barberà-Mariné, M. G., Terceño, A., & Pié, L. (2019). A bibliometric and visualization analysis of socially responsible funds. *Sustainability*, *11*(9), 2526. https://doi.org/10.3390/su11092526

FD. (2023, 8-5-2023). Achmea wil onderzoek van uber naar werkomstandigheden medewerkers. *FD*. https://fd.nl/financiele-markten/1475459/achmea-wil-onderzoek-van-uber-naar-werkomstandigheden-medewerkers

Ferraro, F., & Beunza, D. (2014). Why Talk? A Process Model of Dialogue in Shareholder Engagement. *SSRN Electronic Journal*, 66. https://doi.org/10.2139/ssrn.2419571

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman. https://doi.org/10.1017/CBO9781139192675

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, *5*(4), 210-233. https://doi.org/10.1080/20430795.2015.1118917

Gambetta, G. (2024). *Sustainalytics to stop covering human rights issues in 'contiguous territorial disputes'*. Responsible Investor. Retrieved 14-3-2025 from https://www.responsible-investor.com/sustainalytics-to-stop-covering-human-rights-issues-in-contiguous-territorial-disputes/

GibsonDunn. (2025). *The Passive/Aggressive Investor: Significant New SEC Staff Interpretive Guidance on Schedule 13G Eligibility*. Retrieved 9-6-2025 from https://www.gibsondunn.com/passive-aggressive-investor-significant-new-sec-staff-interpretive-guidance-on-schedule-13g-eligibility/

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Univ of California Press.

Gifford, E. J. M. (2010). Effective Shareholder Engagement: The Factors that Contribute to Shareholder Salience. *Journal of Business Ethics*, *92*(S1), 79-97. https://doi.org/10.1007/s10551-010-0635-6

Gifford, J. (2012). Effective shareholder engagement: The factors that contribute to shareholder salience. In *The next generation of responsible investing* (pp. 83-106). Springer. https://doi.org/10.1007/s10551-010-0635-6

Gifford, J. (2012). Effective Shareholder Engagement: The Factors that Contribute to Shareholder Salience. In T. Hebb (Ed.), *The Next Generation of Responsible Investing*. Springer Science+Business Media.

GIIN. (2023). *What is impact investing?* GIIN. Retrieved 6-6 from https://thegiin.org/publication/post/about-impact-investing/#what-is-impact-investing

Głuszek, E. (2018a). CSR Maturity Model – Theoretical Framework. *Journal of Corporate Responsibility and Leadership*, *4*(3), 25. https://doi.org/10.12775/jcrl.2017.015

Głuszek, E. (2018b). DIMENSIONS AND STAGES OF THE CSR MATURITY. *Research Papers of the Wroclaw University of Economics/Prace Naukowe Uniwersytetu Ekonomicznego we Wroclawiu*(520).

Gomtsian, S. (2023). Executive compensation: investor preferences during say-on-pay votes and the role of proxy voting advisers. *Legal Studies*, *44*(1), 140-167. https://doi.org/10.1017/lst.2023.35

González-Benito, J., Lannelongue, G., & Queiruga, D. (2011). Stakeholders and environmental management systems: a synergistic influence on environmental imbalance. *Journal of Cleaner Production*, *19*, 1622-1630. https://doi.org/10.1016/j.jclepro.2011.05.013

Goodman, J., Louche, C., van Cranenburgh, K. C., & Arenas, D. (2014). Social Shareholder Engagement: The Dynamics of Voice and Exit [journal article]. *Journal of Business Ethics*, *125*(2), 193-210. https://doi.org/10.1007/s10551-013-1890-0

Grady-Benson, J., & Sarathy, B. (2016). Fossil fuel divestment in US higher education: student-led organising for climate justice. *Local Environment*, *21*(6), 661-681. https://doi.org/10.1080/13549839.2015.1009825

GRI. (2011). *Global Reporting Initiative*. Retrieved 20-12 from https://www.globalreporting.org

GSIA. (2017). *Global Sustainable Investment Review 2016*. http://www.eurosif.org/wp-content/uploads/2017/03/GSIA_Review2016.pdf

GSIA. (2021). *Global Sustainable Investment Review 2020*. GSIA. http://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf

GSIA. (2023). *Global Sustainable Investment Review 2022*. https://www.gsi-alliance.org/wp-content/uploads/2023/12/GSIA-Report-2022.pdf

Guay, T., Doh, J. P., & Sinclair, G. (2004). Non-governmental organizations, shareholder activism, and socially responsible investments: ethical, strategic, and governance implications. *Journal of Business Ethics*, *52*(1), 125-139. https://doi.org/10.1023/B:BUSI.0000033112.11461.69

Guillén, M. F. (2004). Corporate Governance and Globalisation: Is there convergence across countries? In C. Clarke (Ed.), *Theories of corporate governance*. Routledge.

Guyatt, D., & Lenssen, G. (2005). Meeting objectives and resisting conventions. *Corporate Governance: The international journal of business in society*, *5*(3), 139-150. https://doi.org/10.1108/14720700510604779

Haigh, M., & Hazelton, J. (2004). Financial Markets: A Tool for Social Responsibility? *Journal of Business Ethics*, *52*, 59-71. https://doi.org/10.1023/B:BUSI.0000033107.22587.0b

Hamilton, I., & Eriksson, J. (2011). Influence strategies in shareholder engagement: a case study of all Swedish national pension funds. *Journal of Sustainable Finance & Investment*, *1*(1), 44-61. https://doi.org/10.3763/jsfi.2010.0006

Heeb, F., Kölbel, J. F., Paetzold, F., & Zeisberger, S. (2022). Do Investors Care about Impact? *The Review of Financial Studies*, *36*(5), 1737-1787. https://doi.org/10.1093/rfs/hhac066

Heinkel, R., Kraus, A., & Zechner, J. (2001). The Effect of Green Investment on Corporate Behavior. *The Journal of Financial and Quantitative Analysis*, *36*(4), 431-449. https://doi.org/10.2307/2676219

Hilson, C. (2024). Climate change and the politicization of ESG in the US [Conceptual Analysis]. *Frontiers in Political Science*, *6*. https://doi.org/10.3389/fpos.2024.1332399

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states* (Vol. 25). Harvard university press.

Hoekstra, T. (2021). ABP brought to court over fossil fuel investments. *IPE*. https://www.ipe.com/news/abp-brought-to-court-over-fossil-fuel-investments/10054961.article

Hoepner, A. G., Majoch, A. A., & Zhou, X. Y. (2021). Does an asset owner's institutional setting influence its decision to sign the principles for responsible investment? *Journal of Business Ethics*, *168*(2), 389-414. https://doi.org/10.1007/s10551-019-04191-y

Hunt, C., Weber, O., & Dordi, T. (2017). A comparative analysis of the anti-Apartheid and fossil fuel divestment campaigns. *Journal of Sustainable Finance & Investment*, *7*(1), 64-81. https://doi.org/10.1080/20430795.2016.1202641

Hurst, D., Butler, B., & Karp, P. (2022, 28-2-2022). Australia's Future Fund to divest $200m of holdings in Russian companies. *The Guardian*. https://www.theguardian.com/australia-news/2022/feb/28/australias-future-fund-to-divest-200m-holdings-in-russian-companies

IIGCC. (2011). *The Institutional Investors Group on Climate Change* Retrieved 20-12 from http://www.iigcc.org

Ijzereef, T., van Beukering, P., & Botzen, W. (2023). A sustainable Catch-22: An assessment of sustainability in the Dutch pension sector. *Cleaner Production Letters*, *4*, 100030. https://doi.org/10.1016/j.clpl.2023.100030

Jackson, E. T. (2013). Evaluating social impact bonds: questions, challenges, innovations, and possibilities in measuring outcomes in impact investing. *Community Development*, *44*(5), 608-616. https://doi.org/10.1080/15575330.2013.854258

Jonsson, S. (2009). Refraining from imitation: Professional resistance and limited diffusion in a financial market. *Organization Science*, *20*(1), 172-186. https://doi.org/10.1287/orsc.1080.0370

Juravle, C., & Lewis, A. (2008). Identifying impediments to SRI in Europe: a review of the practitioner and academic literature. *Business Ethics: A European Review*, *17*(3), 285-310. https://doi.org/10.1111/j.1467-8608.2008.00536.x

Juravle, C., & Lewis, A. (2009). The Role of Championship in the Mainstreaming of Sustainable Investment (SI): What Can We Learn From SI Pioneers in the United Kingdom? *Organization & Environment*, *22*(1), 75-98. https://doi.org/10.1177/1086026609333341

Kapil, S., & Rawal, V. (2023). Sustainable investment and environmental, social, and governance investing: A bibliometric and systematic literature review. *Business Ethics, the Environment & Responsibility*, *32*(4), 1429-1451. https://doi.org/10.1111/beer.12588

Karpoff, J. M. (2001). *The impact of shareholder activism on target companies: a survey of empirical findings* Corporate Governance i praksis: Internasjonalt Seminar, http://faculty.london.edu/dgromb/papers/Karpoff(WP2001).pdf

Keijzers, G. (2002). The transition to the sustainable enterprise. *Journal of Cleaner Production*, *10*(4), 349-359. https://doi.org/10.1016/S0959-6526(01)00051-8

Kerber, R., & Nishant, N. (2025, 9-6-2025). BlackRock, other funds clash with Republican states over evidence in climate-investing case. *Reuters*. https://www.reuters.com/sustainability/boards-policy-regulation/blackrock-calls-antitrust-claims-unprecedented-unsound-unsupported-2025-06-09/

Kim, S., & Yoon, A. (2023). Analyzing Active Fund Managers' Commitment to ESG: Evidence from the United Nations Principles for Responsible Investment. *Management Science*, *69*(2), 741-758. https://doi.org/10.1287/mnsc.2022.4394

Koenigsmarck, M., & Geissdoerfer, M. (2021). Mapping socially responsible investing: A bibliometric and citation network analysis. *Journal of Cleaner Production*, *296*, 126376. https://doi.org/10.1016/j.jclepro.2021.126376

Kölbel, J. F., Heeb, F., Paetzold, F., & Busch, T. (2020). Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact. *Organization & Environment*, *33*(4), 554-574. https://doi.org/10.1177/1086026620919202

Kolk, A. (2000). *Economics of environmental management*. Financial Times/Prentice Hall.

Kolk, A., & Mauser, A. (2002). The evolution of environmental management: from stage models to performance evaluation. *Business Strategy and the Environment*, *11*(1), 14-31. https://doi.org/10.1002/bse.316

Kreander, N., & McPhail, K. (2019). State investments and human rights? The case of the Norwegian Government Pension Fund Global. *Accounting, Auditing & Accountability Journal*, *32*(6), 1742-1770. https://doi.org/10.1108/AAAJ-01-2017-2830

Labidi, C., Laribi, D., & Ureche-Rangau, L. (2021). National culture and socially responsible fund flows. *Emerging Markets Review*, *46*, 100751. https://doi.org/10.1016/j.ememar.2020.100751

Lachance, S., & Stroehle, J. (2021). The Origins of ESG in Pensions: Strategies and Outcomes. *SSRN Electronic Journal*(2021-13). https://doi.org/10.2139/ssrn.3900120

Lazonick, W., & O'Sullivan, M. (2004). Maximizing Shareholder Value: A new Ideology for corporate governance. In C. Clarke (Ed.), *Theories of corporate governance* (pp. 78-92). Routledge. https://doi.org/10.1057/9780230523739_2

Liu, X., & Anbumozhi, V. (2009). Determinant factors of corporate environmental information disclosure: an empirical study of Chinese listed companies. *Journal of Cleaner Production*, *17*(6), 593-600. https://doi.org/10.1016/j.jclepro.2008.10.001

Löblich, M., & Pfaff-Rüdiger, S. (2011). Network analysis A qualitative approach to empirical studies on communication policy. *International Communication*

Gazette, *73*(7), 630-647. https://doi.org/10.1177/17480485114171

Louche, C. (2004). *Ethical Investment: Processes and Mechanisms of Institutionalisation in the Netherlands,1990–2002* Erasmus University]. Rotterdam.

Louche, C., & Lydenberg, S. (2006). Socially responsible investment: Differences between Europe and the United States. Proceedings of the International Association for Business and Society,

Luo, H. A., & Balvers, R. J. (2017). Social Screens and Systematic Investor Boycott Risk. *Journal of Financial and Quantitative Analysis*, *52*(1), 365-399. https://doi.org/10.1017/S0022109016000910

Maas, K. (2016). Do Corporate Social Performance Targets in Executive Compensation Contribute to Corporate Social Performance? *Journal of Business Ethics*, *148*(3), 573-585. https://doi.org/10.1007/s10551-015-2975-8

Magness, V. (2007). Who are the Stakeholders Now? An Empirical Examination of the Mitchell, Agle, and Wood Theory of Stakeholder Salience. *Journal of Business Ethics*, *83*(2), 177-192. https://doi.org/10.1007/s10551-007-9610-2

Maon, F., Lindgreen, A., & Swaen, V. (2010). Organizational stages and cultural phases: A critical review and a consolidative model of corporate social responsibility development. *International Journal of Management Reviews*, *12*(1), 20-38. https://doi.org/10.1111/j.1468-2370.2009.00278.x

Marinetto, M. (1999). The Historical Development of Business Philanthropy: Social Responsibility in the New Corporate Economy. *Business History*, *41*(4), 1-20. https://doi.org/10.1080/00076799900000342

Marti, E., Fuchs, M., DesJardine, M. R., Slager, R., & Gond, J.-P. (2024). The Impact of Sustainable Investing: A Multidisciplinary Review. *Journal of management studies*, *61*(5), 2181-2211. https://doi.org/https://doi.org/10.1111/joms.12957

Martini, A. (2021). Socially responsible investing: from the ethical origins to the sustainable development framework of the European Union. *Environment, Development and Sustainability*, *23*(11), 16874-16890. https://doi.org/10.1007/s10668-021-01375-3

Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American journal of sociology*, *83*(2), 340-363. https://doi.org/10.1086/226550

Michelson, G., Wailes, N., van der Laan, S., & Frost, G. (2004). Ethical Investment Processes and Outcomes. *Journal of Business Ethics*, *52*, 1-10. https://doi.org/10.1023/B:BUSI.0000033103.12560.be

Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, *22*(4), 853. https://doi.org/10.2307/259247

Mol, A. (1995). *The Refinement of Production. Ecological Modernization Theory and the Chemical Industry*. International Books.

Mol, A. P. J., & Spaargaren, G. (1993). Environment, modernity and the risk-society: the apocalyptic horizon of environmental reform. *International Sociology*, *8*(4), 431-459. https://doi.org/10.1177/026858093008004

Mol, A. P. J., Spaargaren, G., & Sonnenfeld, D. (2013). Ecological modernization theory: taking stock, moving forward. In D. A. S. Stewart Lockie, Dana R. Fisher (Ed.), *Routledge International Handbook of Social and Environmental Change* (pp. 15-30). Routledge.

Monks, R., Miller, A., & Cook, J. (2004). Shareholder activism on environmental issues: A study of proposals at large US corporations (2000–2003). *Natural Resources Forum*, *28*, 317-330.

Montreal Carbon Pledge. (2014). PRI Montreal Carbon Pledge. Retrieved 25-2-2017 from http://montrealpledge.org/

Munilla, L. S., & Miles, M. P. (2005). The corporate social responsibility continuum as a component of stakeholder theory.

Business and society review, *110*(4), 371-387. https://doi.org/10.1111/j.0045-3609.2005.00021.x

Neubaum, D. O., & Zahra, S. A. (2006). Institutional ownership and corporate social performance: the moderating effects of investment horizon, activism and coordination. *Journal of Management*, *32*(1), 108-131. https://doi.org/10.1177/0149206305277797

Neville, B. A., Bell, S. J., & Whitwell, G. J. (2011). Stakeholder Salience Revisited: Refining, Redefining, and Refueling an Underdeveloped Conceptual Tool. *Journal of Business Ethics*, *102*(3), 357-378. https://doi.org/10.1007/s10551-011-0818-9

NOS. (2021). Opvallende draai van pensioenfonds ABP past in trend, maar heeft niet direct effect. https://nos.nl/artikel/2403224-opvallende-draai-van-pensioenfonds-abp-past-in-trend-maar-heeft-niet-direct-effect

NRC. (2010). *BP boort tweede put ter bestrijding olielek*. NRC. Retrieved 21-1-2010 from http://www.nrc.nl/economie/article2538010.ece/BP_boort_tweede_put_ter_bestrijding_olielek/

O'Rourke, A. (2003a). The message and methods of ethical investment. *Journal of Cleaner Production*, *11*(6), 683-693. https://doi.org/10.1016/s0959-6526(02)00105-1

O'Rourke, A. (2003). A new politics of engagement: shareholder activism for corporate social responsibility. *Business Strategy and the Environment*, *12*(4), 227-239. https://doi.org/10.1002/bse.364

OECD. (2016). *Pension Markets in Focus 2016*. http://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2016.pdf

Oehmke, M., & Opp, M. M. (2024). A theory of socially responsible investment. *Review of Economic Studies*, rdae048. https://doi.org/10.1093/restud/rdae048

Overheid.nl. (2016a). *Besluit marktmisbruik Wft*. Retrieved 03-05 from http://wetten.overheid.nl/BWBR0020417/2014-01-01

Overheid.nl. (2016b). *Pensioenwet*. Retrieved 03-06 from http://wetten.overheid.nl/BWBR0020809/2016-04-01

Pasewark, W. R., & Riley, M. E. (2010). It's a Matter of Principle: The Role of Personal Values in Investment Decisions. *Journal of Business Ethics*, *93*(2), 237-253. https://doi.org/10.1007/s10551-009-0218-6

Pensioenfederatie. (2010). *Nederlandse pensioensysteem*. http://www.pensioenfederatie.nl/Document/Publicaties/Uitgaven/Nederlandse_pensioensysteem_Nederlandstalige_versie.pdf

Pensioenfederatie. (2016). *Service Document on Responsible Investment*. http://www.pensioenfederatie.nl/Document/Publicaties/English%20publications/Servicedocument_Responsible_Investment.pdf

Pensioenfederatie. (2022). *Hoe Pensioen in Nederland is geregeld*. Retrieved 05-06-2022 from https://www.pensioenfederatie.nl/website/publieke-landingspagina/hoe-pensioen-in-nederlands-is-geregeld

Pensioenfederatie. (2023). *the Dutch-pension system: highlights andcharacteristics*. Retrieved 27-10-2023 from https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics

Pensioenfederatie. (2024). *Code Pensioenfondsen 2024*. Retrieved 3-4-2025 from https://www.pensioenfederatie.nl/website/publicaties/servicedocumenten/code-pensioenfondsen-2024

PGGM. (2016). *Annual Responsible Investment Report 2015*. https://www.pggm.nl/english/what-we-do/Documents/responsible-investment-annual-report_2015_pggm.pdf

PLWF. (2025). *Platform Living Wage Financials*. Retrieved 14-3-2025 from https://livingwage.nl/

PRI. (2015). PRI Reporting Framework 2016 Main definitions.

PRI. (2018). Retrieved 30-04-2018 from http://www.unpri.org/

Qian, C. Y. (2022). *Shareholder Activism in the ESG Space: An Analysis of the Composition, Success Rates, and ESG Score Relationship*

of Shareholder Proposals from 2013-2020 University of Pennsylvania]. Philadelphia. https://repository.upenn.edu/handle/20.500.14332/49280

Quak, S., Heilbron, J., & Meijer, J. (2014). The rise and spread of sustainable investing in the Netherlands. *Journal of Sustainable Finance & Investment*, *4*(3), 249-265. https://doi.org/10.1080/20430795.2014.928999

Rehbein, K. (2004). Understanding Shareholder Activism: Which Corporations are Targeted? *Business & Society*, *43*(3), 239-267. https://doi.org/10.1177/0007650304266869

Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance*, *32*(9), 1723-1742. https://doi.org/10.1016/j.jbankfin.2007.12.039

Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance*, *32*, 1723-1742.

Reuters. (2025). *ISS ends diversity considerations for US boardrooms, citing Trump orders*. Retrieved 14-3-2025 from https://www.reuters.com/business/finance/iss-ends-diversity-considerations-us-boardrooms-citing-trump-orders-2025-02-11/

Revelli, C., & Viviani, J.-L. (2015). Financial performance of socially responsible investing (SRI): what have we learned? A meta-analysis. *Business Ethics: A European Review*, *24*(2), 158-185. https://doi.org/10.1111/beer.12076

Rhodes, M., & van Apeldoorn, B. (2004). Capital unbound? The transformation of European Corporate Governance. In C. C. (Ed.), *Theories of corporate governance* (pp. 243-258). Routledge.

Richardson, B. J. (2008). *Socially Responsible Investment Law: Regulating the Unseen Polluters*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195333459.001.0001

Rijksoverheid. (2023a). *Corporate Governance Code*. Rijksoverheid. Retrieved 25-04-2023 from https://www.rijksoverheid.nl/onderwerpen/corporate-governance/corporate-governance-code

Rijksoverheid. (2023b). *Financiële sector goed op weg met klimaatdoelstellingen, maar actieplannen kunnen concreter*. Rijksoverheid. Retrieved 25-4-2023 from https://www.rijksoverheid.nl/actueel/nieuws/2023/03/13/financiele-sector-goed-op-weg-met-klimaatdoelstellingen-maar-actieplannen-kunnen-concreter

Roor, A., & Maas, K. (2024). Do impact investors live up to their promise? A systematic literature review on (im)proving investments' impacts. *Business Strategy and the Environment*, *33*(4), 3707-3732. https://doi.org/10.1002/bse.3644

Sakuma, K., & Louche, C. (2008). Socially Responsible Investment in Japan: Its Mechanism and Drivers. *Journal of Business Ethics*, *82*(2), 425-448. https://doi.org/10.1007/s10551-008-9895-9

Sandberg, J., Juravle, C., Hedesström, T. M., & Hamilton, I. (2009). The heterogeneity of socially responsible investment. *Journal of Business Ethics*, *87*(4), 519-533. https://doi.org/10.1007/s10551-008-9956-0

Schaltegger, S., & Figge, F. (2000). Environmental shareholder value: economic success with corporate environmental management, Eco-Management and Auditing. *Eco-Management and Auditing*, *7*, 29-42. https://doi.org/10.1002/(SICI)1099-0925(200003)7:1<29::AID-EMA119>3.0.CO;2-1

Schepers, J. H., & Sethi, S. P. (2003). Do Socially Responsible Funds Actually Deliver What They Promise? Bridging the Gap Between the Promise and Performance of Socially Responsible Funds. *Business & Society Review*, *108*(1), 11-32. https://doi.org/10.1111/1467-8594.00006

Schoenmaker, D., & Schramade, W. (2019). Investing for long-term value creation. *Journal of Sustainable Finance & Invest-*

ment, *9*(4), 356-377. https://doi.org/10.1080/20430795.2019.1625012

Scholtens, B. (2005). What drives socially responsible investment? The case of the Netherlands. *Sustainable Development*, *13*(2), 129-137. https://doi.org/10.1002/sd.252

Scholtens, B., & Sievänen, R. (2012). Drivers of Socially Responsible Investing: A Case Study of Four Nordic Countries. *Journal of Business Ethics*, *115*(3), 605-616. https://doi.org/10.1007/s10551-012-1410-7

Schramade, W. (2016). Integrating ESG into valuation models and investment decisions: the value-driver adjustment approach. *Journal of Sustainable Finance & Investment*, *6*(2), 95-111. https://doi.org/10.1080/20430795.2016.1176425

Schumacher, K. (2022). Environmental, social, and governance (ESG) factors and green productivity: The impacts of greenwashing and competence greenwashing on sustainable finance and ESG investing. *APO Productivity Insights*, *2*, 11. https://doi.org/10.2139/ssrn.4303609

Scott, W. R. (1987). The Adolescence of Institutional Theory. *Administrative Science Quarterly*, *32*(4), 493-511. https://doi.org/10.2307/2392880

Scott, W. R. (2005). Institutional theory: Contributing to a theoretical research program. *Great minds in management: The process of theory development*, *37*(2), 460-484. https://doi.org/10.1093/oso/9780199276813.003.0022

Scott, W. R. (2013). *Institutions and organizations: Ideas, interests, and identities*. Sage Publications.

Scott, W. R., & Christensen, S. (1995). *The institutional construction of organizations : international and longitudinal studies*. Sage Publications.

Shi, L., Swinkels, L., & Van der Lecq, F. (2017). Board diversity and self-regulation in Dutch pension funds. *Equality, Diversity and Inclusion: An International Journal*, *28*(5), 939-963. https://doi.org/10.1108/EDI-05-2016-0043

Sievänen, R., Rita, H., & Scholtens, B. (2012). The Drivers of Responsible Investment: The Case of European Pension Funds. *Journal of Business Ethics*, *117*(1), 137-151. https://doi.org/10.1007/s10551-012-1514-0

SIF. (2010). *Report on Socially Responsible Investing Trends in the United States*. http://www.socialinvest.org/resources/pubs/trends/documents

Silvola, H., & Landau, T. (2021). *Sustainable investing: Beating the market with ESG*. Springer.

Sjöström, E. (2008). Shareholder activism for corporate social responsibility: what do we know? *Sustainable Development*, *16*(3), 141-154. https://doi.org/10.1002/sd.361

Smal, E., & Beunderman, M. (2025, 28-3-2025). De Amerikaanse revolte tegen duurzaam beleggen stuit op verzet in Europa. *NRC*. https://www.nrc.nl/nieuws/2025/03/28/de-amerikaanse-revolte-tegen-duurzaam-beleggen-stuit-op-verzet-in-europa-a4887998

Smith , P. (1996). Shareholder Activism by Institutional Investors: Evidence from CalPERS. *The Journal of Finance*, *51*(1), 227-252. https://doi.org/10.2307/2329308

Sociaal Economische Raad. (2018). *Convenant Internationaal Maatschappelijk Verantwoord Beleggen Pensioenfondsen*. SER. https://www.imvoconvenanten.nl/-/media/imvo/files/pensioenfondsen/convenant-pensioenfondsen.pdf

Sociaal Economische Raad. (2021). *IMVO convenant pensioenfondsen*. SER. Retrieved 29-9-2021 from https://www.imvoconvenanten.nl/nl/pensioenfondsen

Solomon, A., Solomon, J., & Suto, M. (2004). Can the UK experience provide lessons for the evolution of SRI in Japan? *Corporate Governance: An International Review*, *12*(4), 552-566. https://doi.org/10.1111/j.1467-8683.2004.00393.x

Sonnenfeld, D. A., & Mol, A. P. J. (2002). Globalization and the Transformation of Environmental Governance: An Introduction. *American Behavioral Scientist*,

45(9), 1318-1339. https://doi.org/10.1177/0002764202045009003

Spaargaren, G., & Mol, A. P. J. (1992). Sociology, Environment and Modernity: Ecological modernization as a theory of social change. *Society and Natural Resources*, *5*(5), 323-345. https://doi.org/10.1080/08941929209380797

Sparkes, R. (2001). Ethical investment: whose ethics, which investment? *Business Ethics: A European Review*, *10*(3), 194-205. https://doi.org/10.1111/1467-8608.00233

Sparkes, R. (2002). *Socially Responsible Investment*. John Wiley & Sons ltd.

Sparkes, R., & Cowton, C. J. (2004). The Maturing of Socially Responsible Investment: A Review of the Developing Link with Corporate Social Responsibility. *Journal of Business Ethics*, *52*(1), 45-57. https://doi.org/10.1023/b:busi.0000033106.43260.99

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, *20*(3), 571-610. https://doi.org/https://doi.org/10.2307/258788

Tate, W. L., Dooley, K. J., & Ellram, L. M. (2011). Transaction cost and institutional drivers of supplier adoption of environmental practices. *Journal of Business Logistics*, *32*(1), 6-16. https://doi.org/10.1111/j.2158-1592.2011.01001.x

Thompson, T. A., & Davis, G. F. (2002). The Politics of Corporate Control and the Future of Shareholder Activism in the United States. *Corporate Governance: An International Review*, *5*(3), 152-159. https://doi.org/10.1111/1467-8683.00055

Tkac, P. (2006). *One Proxy at a Time: Pursuing Social Change through Shareholder Proposals* (Economic Review, Issue. https://fraser.stlouisfed.org/files/docs/publications/frbatlreview/rev_frbatl_2006_v91no3.pdf

UNEP. (2009). *Fiduciary responsibility*. http://www.unepfi.org/fileadmin/documents/fiduciaryII.pdf

UNPRI. (2011). *Principles for Responsible Investment*. Retrieved 20-12 from http://www.unpri.org/

UNPRI. (2018). *A practical guide to active ownership in listed equity*. https://www.unpri.org/download?ac=4151

UNPRI. (2021). *Making Voting Count*. https://www.unpri.org/download?ac=12730

UNPRI. (2023). *What is responsible investment?* Retrieved 25-01-2024 from https://www.unpri.org/introductory-guides-to-responsible-investment/what-is-responsible-investment/4780.article

UNPRI. (2024a). *Annual Report UNPRI 2024*. https://www.unpri.org/download?ac=21536

UNPRI. (2024b). *Collaborative Sovereign Engagement on Climate Change*. Retrieved 28-1-2025 from https://www.unpri.org/collaborative-engagements/collaborative-sovereign-engagement-on-climate-change/10525.article

UNPRI. (2024c). *What are the principles for responsible investment?* UNPRI. Retrieved 8-6-2024 from https://www.unpri.org/about-us/what-are-the-principles-for-responsible-investment

UNPRI. (2025a). *About the PRI*. Retrieved 10-9-2025 from https://www.unpri.org/about-PRI

UNPRI. (2025b). *Annual report UNPRI 2025*. https://www.unpri.org/download?ac=24075

UNPRI. (2025c). *Investor joint statement on European Commission's 'omnibus legislation'*. Retrieved 14-3-2025 from Institutional Investors Group on Climate Change (IIGCC), the European Sustainable Investment Forum (Eurosif), and the Principles for Responsible Investment (PRI)

UNPRI, & UNEP. (2019). *Fiduciary Duty in the 21th Century*. https://www.unpri.org/download?ac=9792

USSIF. (2013). *Sustainable and Responsible Investing Trends in the United States*. http://www.ussif.org/store_product.asp?prodid=12

van der Zwan, N., & Golka, P. (2023). Regulation from the inside? Internal supervision in Dutch pension funds. *Competition & Change*, 10245294231167657. https://doi.org/10.1177/1024529423116765

van der Zwan, N., Hollanders, D., & Kuiper, S. (2013). Maatschappelijk gemotiveerd beleggingsbeleid van Nederlandse pensioenfondsen. *TPE Digitaal*, *7*, 82-101.

van Dijk-de Groot, M., & Nijhof, A. H. (2015). Socially Responsible Investment Funds: a review of research priorities and strategic options. *Journal of Sustainable Finance & Investment*, *5*(3), 178-204. https://doi.org/10.1080/20430795.2015.1100035

Van Duuren, E., Plantinga, A., & Scholtens, B. (2016). ESG integration and the investment management process: Fundamental investing reinvented. *Journal of Business Ethics*, *138*(3), 525-533. https://doi.org/10.1007/s10551-015-2610-8

van Huijstee, M., & Glasbergen, P. (2008). The practice of stakeholder dialogue between multinationals and NGOs. *Corporate Social Responsibility and Environmental Management*, *15*(5), 298-310. https://doi.org/10.1002/csr.171

Van Koppen, C., & Hagelaar, J. (1998). Milieuzorg als strategische keuze: van bedrijfsspecifieke situatie naar milieuzorgsystematiek. *Bedrijfskunde*.

Van Koppen, C. S. A. (2004). *Environmental Management and Industry Course Book*. Environmental Policy Group, Wageningen University.

Van Koppen, C. S. A., & Mol, A. (2002). Ecological modernization of industrial ecosystems. In L. H. P. P. LENS, P. WILDERER, T. ASANO (Ed.), *Water recycling and resource recovery in industries: Analysis, technologies and implementation*. IWA Publishing.

Van Lakerveld, A., & van Tulder, R. (2017). Managing the transition to sustainable supply chain management practices: Evidence from Dutch leader firms in Sub-Saharan Africa. *Review of Social Economy*, *75*(3), 255-279. https://doi.org/10.1080/00346764.2017.1286033

Van Marrewijk, M., & Werre, M. (2003). Multiple levels of corporate sustainability. *Journal of Business Ethics*, *44*(2), 107-119. https://doi.org/10.1023/A:1023383229086

Van Tulder, R., Van Tilburg, R., Francken, M., & Da Rosa, A. (2013). *Managing the transition to a sustainable enterprise: Lessons from frontrunner companies*. Routledge.

van Zanten, J. A., Sharma, B., & Christensen, M. (2023). Sustainability integration for sovereign debt investors: engaging with countries on the SDGs. *Journal of Sustainable Finance & Investment*, *13*(3), 1300-1317. https://doi.org/10.1080/20430795.2021.1929806

Vandekerckhove, W., Leys, J., & Van Braeckel, D. (2007). That's not what happened and it's not my fault anyway! An exploration of management attitudes towards SRI-shareholder engagement. *Business Ethics: A European Review*, *16*(4), 403-418. https://doi.org/10.1111/j.1467-8608.2007.00512.x

VBDO. (2008). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2008*.

VBDO. (2009). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2009*.

VBDO. (2010). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2010*.

VBDO. (2011). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2011*.

VBDO. (2012). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2012*.

VBDO. (2013). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2013*. https://vbdo.nl/wp-content/uploads/2018/10/BenchmarkResponsibleInvestmentPensionfunds2013_2010.pdf

VBDO. (2014). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2014*. https://vbdo.nl/wp-content/uploads/2018/10/VBDOBenchmarkResponsibleInvestment2014.pdf

VBDO. (2015). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2015*. https://vbdo.nl/wp-content/uploads/2018/10/VBDOResponsibleInvestmentDutchPensionFunds.pdf

VBDO. (2016). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2016*. https://vbdo.nl/wp-content/uploads/2016/11/VBDOBenchmarkPensionFunds201602.pdf

VBDO. (2017). *Benchmark Responsible Investment by Pension Funds in the Netherlands 2017*. VBDO. https://www.vbdo.nl/wp-content/uploads/2017/10/VBDO-BenchmarkPensionFunds2017.pdf

VBDO. (2021). *Homepage VBDO*. VBDO. Retrieved 6-7-2021 from www.vbdo.nl

VBDO. (2023). *Over de VBDO*. VBDO. Retrieved 27-10-2023 from https://www.vbdo.nl/over-vbdo/

Verbond Van Verzekeraars. (2024). *Beleggingsbeleid/IMVO*. Verbond van Verzekeraars. Retrieved 6-6-2024 from https://www.verzekeraars.nl/verzekeringsthemas/bedrijfsvoering/beleggingsbeleidimvo

Viviers, S., & Eccles, N. (2012). 35 years of socially responsible investing (SRI) research-general trends over time. *South African Journal of Business Management*, *43*(4), 1-16. https://doi.org/10.4102/sajbm.v43i4.478

Vogel, D. (2006). *The Market for Virtue*. Brookings Institution Press.

Wagemans, F. A. J., Koppen, C. S. A. v., & Mol, A. P. J. (2013). The effectiveness of socially responsible investment: a review. *Journal of Integrative Environmental Sciences*, *10*(3-4), 235-252. https://doi.org/10.1080/19433815x.2013.844169

Wagemans, F. A. J., van Koppen, C. S. A., & Mol, A. P. J. (2018). Engagement on ESG issues by Dutch pension funds: is it reaching its full potential? *Journal of Sustainable Finance & Investment*, *8*(4), 301-322. https://doi.org/10.1080/20430795.2018.1485379

Wagemans, F. A. J., Verstappen, R. J., van Koppen, K. S. A., Tobi, H., & Mol, A. P. J. (2025). Institutional investors and the adoption of socially responsible investment: an explorative case study of Dutch pension funds. *Journal of Sustainable Finance & Investment*, *15*(3), 733-756. https://doi.org/10.1080/20430795.2024.2327550

Wales, A. (2006). Exerting Influence: Engagement or Best-In-Class? In R. Sullivan & C. Mackenzie (Eds.), *Responsible Investment*. Greenleaf Publishing Ltd.

Walton, C. C. (1967). *Corporate social responsibilities*. Wadsworth Publishing Company.

Waterval, D. (2024, 5-6-2024). Rechtse partijen klaar met groene pensioenfondsen: 'woke kapitalisme'. *Trouw*. https://www.trouw.nl/duurzaamheid-economie/rechtse-partijen-klaar-met-groene-pensioenfondsen-woke-kapitalisme~bd82108c2/

Waygood, S., & Wehrmeyer, W. (2003). A critical assessment of how non-governmental organizations use the capital markets to achieve their aims: a UK study. *Business Strategy and the Environment*, *12*(6), 372-385. https://doi.org/10.1002/bse.377

Wen, S. (2009). Institutional investor activism on socially responsible investment: effects and expectations. *Business Ethics: A European Review*, *18*(3), 308-333. https://doi.org/10.1111/j.1467-8608.2009.01565.x

Wetten.Overheid.nl. (2016). *Pensioenwet*. Retrieved 6-7-2016 from http://wetten.overheid.nl/BWBR0020809/2016-07-01

Wood, D. J. (1991). Corporate social performance revisited. *Academy of Management Review*, *16*(4), 691-718. https://doi.org/10.5465/amr.1991.4279616

Wood, D. J., & Jones, R. E. (1995). Stakeholder Mismatching: A Theoretical Problem in Empirical Research on Corporate Social Performance. *The International Journal of Organizational Analysis*, *3*(3), 229-267. https://doi.org/10.1108/eb028831

Yan, S., Ferraro, F., & Almandoz, J. (2019). The Rise of Socially Responsible Investment Funds: The Paradoxical Role of the Financial Logic. *Administrative Science Quarterly*, *64*(2), 466-501. https://doi.org/10.1177/0001839218773324

Zadek, S. (2007). The path to corporate responsibility. In W. C. Zimmerli, M. Holzinger, & K. Richter (Eds.), *Corporate ethics and corporate governance* (pp. 159-172). Springer. https://doi.org/10.1007/978-3-540-70818-6_13



Appendices

Appendix A (Chapter 3)
Appendix B (Chapter 4)
Appendix C (Chapter 4)
Appendix D.1 (Chapter 5)
Appendix D.2 (Chapter 5)
Appendix D.3 (Chapter 5)
Appendix D.4 (Chapter 5)
Appendix D.5 (Chapter 5)

APPENDIX A (CHAPTER 3)

Questionnaire used in the interviews with pension funds, asset managers and ESG service providers

1. What are the main reasons for practising engagement?
2. What are the main reasons for choosing a certain topic for an engagement campaign?

Check one or more:

   a. Severity of an environmental problem.
   b. Contact with actors, media, beneficiaries, other pension funds, or advisors.
   c. Information on this topic was available/provided by the company.
   d. Other.

3. How did you prepare for the engagement process (including the gathering of background information)?
4. How did you develop your goals and demands for the engagement process?
5. What actions have you performed in the engagement process?
   a. What is the timeframe of the engagement process?
   b. How did you arrange access to the relevant actors in the company?
   c. How many meetings did you have?
   d. What actors/departments took part in those meetings?
   e. In addition to the meetings, were there other ways in which you communicated directly or indirectly with the company?
   f. Did you link your engagement process with your actions in an annual shareholder meeting?
6. Were the company and its management open to your engagement process?
7. What do you regard as the main results of your actions?
8. Do you believe your engagement process was successful or unsuccessful?
9. Why do you believe your engagement process was successful or unsuccessful?
10. What are the reasons that the management does or does not adopt your proposed actions?
    a. Power
       i. What is the effect of the number of shares of stock owned?
       ii. Is filing a shareholder resolution an option?
       iii. Is divesting an option?
       iv. Is making a statement to the media on the topic an option?
    b. Urgency
       i. Was the topic time sensitive?
       ii. How critical was it that the topic be addressed soon?
       iii. What effect did the topic receiving or not receiving attention from the public or media have?
       iv. What effect did the urgency of the topic for certain actors have?

   iv. What effect did the intensity and persistence of the engagement have?
c. Legitimacy
   i. How do you rate your level of expertise on the topic in comparison with your counterparts?
   ii. Who (junior, senior, etc.) did you send to the meetings?
   iii. How did the investee perceive the status of your organisation?
   iv. How was your position in engagement in line with the views of other investors or the public?
   v. Did you have a strong business case?
   vi. Did you have a strong societal case?
   vii. Is there a supportive political environment?
d. What are other relevant factors?

11. Have you worked together with other institutional investors during this engagement?
    a. Why did or did you not co-operate with these investors?
    b. How did you co-operate with these actors?
    c. What was the role of umbrella organisations of (SRI) investors in this co-operation?
    d. What effect did this co-operation have on the (effectiveness of the) engagement process?
    e. What were the reasons for this effect or lack thereof?
12. With which NGOs or other actors did you have contact before, during and after the engagement campaign?
    a. Why did or did you not co-operate with these NGOs?
    b. How did you co-operate with these NGOs?
    c. Which effect did this co-operation have on the (effectiveness of the) engagement process?
    d. What were the reasons for this effect or lack thereof?
13. What are the main actions that you can take to increase the impact of engagement activities?
14. What are the main actions that other actors can take to increase the impact of engagement activities?

APPENDIX B (CHAPTER 4)

Table B.1: Overview of questionnaire items used for operationalization

Question	Answer possibilities	Question used for the answering of the expectation(s) with number:
Governance		
1.1 Ownership: development and approval of the responsible investment policy. Who is the most senior employee dedicated to the responsible investment policy?	a. Nobody is formally responsible. b. A person who reports to a lower management. c. A person who directly reports to the senior management (executive) board meeting. d. The senior management (executive) board.	3
1.2 Ownership: implementation of the responsible investment policy How frequent has the responsible investment policy been discussed last year?	a. Responsible investment has not been discussed in the senior management (executive) board. B .The responsible investment policy has been discussed once at a senior management (executive) board meeting in 2016. c. The responsible investment policy has been discussed more than once a year at a senior management (executive) board meeting in 2016.	3
1.4. How does the pension fund communicate with their participants and society in general?	a. No communication. b. The pension fund informs (potential) participants about the responsible investment policy using the website, newsletters and/or information packages. c. The pension fund consults (potential) participants on a regular basis (such as in a participant council) about formulation and adoption of the responsible investment policy. d. The pension fund consults with society in general (such as NGO's) on a regular basis about the formulation and adoption of the responsible investment policy. e. The pension fund consults with participants AND society in general on a regular basis about the formulation and/or adaption of the responsible investment policy.	3
Policy		
2.1 Investment beliefs: Investment beliefs include the pension funds' vision and the basic principles for investment. Is responsible investment covered in the investment beliefs?	a. No, responsible investment is not covered in the investment beliefs. b. Yes, responsible investment is covered in the investment beliefs. c. Yes, responsible investment is covered in the investment beliefs and specific guidelines are included.	3, 4, 5
2.2 Clear and measurable targets should be included which enable the evaluation and improvement of the responsible investment policy.	a. No targets are mentioned. b. Yes, targets have been mentioned concerning the activities described in the responsible investment policy. c. Yes, targets have been mentioned that measure actual impact of investments on society and corporations.	3, 4, 5

Table B.1: Overview of questionnaire items used for operationalization (*continued*)

Question	Answer possibilities	Question used for the answering of the expectation(s) with number:
2.3 Policy: vision/ objectives Sustainability should be part of the long-term strategy and vision of the pension fund. Targets can be an integral part of a long-term strategy or vision on sustainability issues. Clear and measurable targets should be included which enable the evaluation and improvement of the responsible investment policy.	a. No specific policy on the implementation of ESG. b. The responsible investment policy covers all three separate E, S, or G themes. c. The responsible investment policy covers at least all three separate E, S, or G themes and details how it translates (some of) the principles into at least two responsible investment instruments. d. The responsible investment policy covers at least all three separate E, S, or G themes and details how it translates (some of) the principles into at least five responsible investment instruments. (	4, 5
Policy: volume As pension funds spread out their investment capital over various asset classes, a responsible investment policy should relate to all these asset classes, and specific criteria and instruments per category should be defined. Please, indicate how the investments are spread out over the various classes:	a. No policy. b. Policy covers 0-50% of total investment portfolio. c. Policy covers 50-75% of total investment portfolio. d. Policy covers 75-95% of total investment portfolio. e. Policy covers 95-100% of total investment portfolio.	3, 4
Implementation		
3.1.1 Exclusion in public equity: Has the investor implemented an exclusion policy?	a. No. b .Yes, companies are demonstrably excluded based on 1 criterion. c. Yes, companies are demonstrably excluded based on multiple criteria	1,2,4,5
3.1.2.a ESG (extent) in public equity: How is ESG integration taken into account in the investment decision making process?	a. No. b. ESG-information is used in evaluation of investments in equity (e.g. asset managers required to be PRI signatory). c. ESG-information is systematically and demonstrably part of the equity selection process (e.g. by using one-pagers) (or in the composition of the ESG-index). d. ESG-information is systematically and demonstrably part of the equity investment selection process and has a systematic, ongoing and verifiable impact on individual holdings.	1,2,4,5

Table B.1: Overview of questionnaire items used for operationalization (*continued*)

Question	Answer possibilities	Question used for the answering of the expectation(s) with number:
3.1.3.a Engagement (focus) in public equity: Is the pension fund practising engagement?	a. No. b. Yes, the pension fund demonstrably and substantially engages companies on ONE of three themes: environmental, social or governance. c. Yes, the pension fund demonstrably and substantially engages companies on TWO of three themes: environmental, social or governance. d. Yes, the pension fund demonstrably and substantially engages companies on ALL three themes: environmental, social and governance.	4,5
3.1.4.a Voting (extent) in public equity: Are ESG-issues taken into account when voting at Annual General Meetings or through resolutions?	a. No. b. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio. c. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio, paying explicit positive attention to ESG issues. d. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio, paying explicit attention to ESG issues and publicly initiates and/or supports shareholder resolutions promoting CSR.	4,5
3.1.5.a Impact Investing (volume) in public equity Does the pension fund engage in impact investing in public equity?	a. No. b. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, <1% of the total equity portfolio. c. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, <2% of the total equity portfolio. d. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, >2% of the total equity portfolio.	1,2,5
Exclusion in corporate bonds Has the investor implemented an exclusion policy?	a. No. b. Yes, companies are demonstrably excluded based on 1 criterion. c. Yes, companies are demonstrably excluded based on multiple criteria	1,2
3.2.2.a ESG (extent) in corporate bonds How is ESG integration taken into account in the investment decision making process?	a. No. b. ESG-information is used in evaluation of investments in corporate bonds (e.g. asset managers required to be PRI signatory). c. ESG-information is systematically and demonstrably part of the corporate bond selection process (e.g. by using one-pagers) (or in the composition of the ESG-index). d. ESG-information is systematically and demonstrably part of the corporate bond investment selection process and has a systematic, ongoing and verifiable impact on individual holdings.	1,2

Table B.1: Overview of questionnaire items used for operationalization (*continued*)

Question	Answer possibilities	Question used for the answering of the expectation(s) with number:
3.2.4.b Corporate green and social bonds (volume) Does the pension fund engage in impact investing in corporate green or social bonds? This excludes bonds from (supra-) national and governmental bodies.	a. No. b. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, <1% of the total corporate bond portfolio. c. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, <2% of the total corporate bond portfolio. d. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, >2% of the total corporate bond portfolio.	1,2
3.3.1 Exclusion in sovereign bonds Has the investor implemented an exclusion policy?:	a. No. b. Yes, countries are demonstrably excluded based on EU, UN or other official sanction lists. c. Yes, countries are demonstrably excluded on both official sanction lists as well as the pension funds' own sustainability related country considerations.	1,2
3.3.2.a ESG integration developed market (extent) in sovereign bonds. How is ESG integration taken into account in the investment decision making process?	a. No. b. ESG-information is used in evaluation of investments in developed market bonds (e.g. asset managers required to be PRI signatory). c. ESG-information is systematically and demonstrably part of the developed market bond selection process (e.g. by using one-pagers) (or in the composition of the ESG-index). d. ESG-information is systematically and demonstrably part of the developed market bond investment selection process and has a systematic, ongoing and verifiable impact on individual holdings.	1,2
3.3.3.a ESG integration emerging market (extent) in sovereign bonds. How is ESG integration taken into account in the investment decision making process?	a. Not applicable b. No. c. ESG-information is used in evaluation of investments in emerging market bonds (e.g. asset managers required to be PRI signatory). d. ESG-information is systematically and demonstrably part of the emerging market bond selection process (e.g. by using one-pagers) (or in the composition of the ESG-index). e. ESG-information is systematically and demonstrably part of the emerging market bond investment selection process and has a systematic, ongoing and verifiable impact on individual holdings.	1,2

Table B.1: Overview of questionnaire items used for operationalization (*continued*)

Question	Answer possibilities	Question used for the answering of the expectation(s) with number:
3.3.4.a Green and social bonds (volume) in sovereign bonds. Does the pension fund engage in impact investing in governmental and/or supranational green and social bonds?	a. No. b. Yes, investments are demonstrably made in governmental and/or supranational green and social bonds to tackle specific sustainability challenges, <1% of the total sovereign bond portfolio. c. Yes, investments are demonstrably made in governmental and/or supranational green and social bonds to tackle specific sustainability challenges, <2% of the total sovereign bond portfolio. d. Yes, investments are demonstrably made in governmental and/or supranational green and social bonds to tackle specific sustainability challenges, >2% of the total sovereign bond portfolio.	1,2
Transparency		
4.2 List of investments Does the pension fund have a publicly available overview of the investments made? Choose the most appropriate option:	a. No list. b. List covers 0-25% of total investment portfolio. c. List covers 25-50% of total investment portfolio. d. List covers 50-75% of total investment portfolio. e. List covers 75-100% of total investment portfolio.	3

APPENDIX C (CHAPTER 4)

Comparison between SRI policies and transparency between pension funds that do or do not consult their stakeholders.

Table C.1: How do pension funds communicate with their participants and society?

Question	Answer options	
1.4 How does the pension fund communicate with their participants and society in general?	No communication.	1
	The pension fund informs (potential) participants about the responsible investment policy using the website, newsletters and/or information packages.	17
	The pension fund consults (potential) participants on a regular basis (such as in a participant council) about formulation and adaptation of the responsible investment policy.	19
	The pension fund consults with society in general (such as NGO's) or participants on a regular basis about the formulation and adaptation of the responsible investment policy.	13
	The pension fund consults with participants AND society in general on a regular basis about the formulation and/or adaption of the responsible investment policy.	0

Table C.2: Comparison between SRI policies and transparency between pension funds that do or do not consult their stakeholders.

Question	Answer options	Pension funds that consult NGOs and their participants directly (n=13)	Pension funds that do not consult NGOs and their participants directly (n=37)
1.1 Who is the most senior employee dedicated to the responsible investment policy?	Nobody is formally responsible.	0%	0%
	A person who reports to a lower management	0%	14%
	A person who directly reports to the senior management (executive) board meeting	0%	16%
	The senior management (executive) board	100%	70%
1.2 How frequent has the responsible investment policy been discussed last year?	Responsible investment has not been discussed in the senior management (executive) board.	0%	0%
	The responsible investment policy has been discussed once at a senior management (executive) board meeting in 2016.	0%	16%
	The responsible investment policy has been discussed more than once a year at a senior management (executive) board meeting in 2016.	100%	84%

Table C.2: Comparison between SRI policies and transparency between pension funds that do or do not consult their stakeholders. (*continued*)

Question	Answer options	Pension funds that consult NGOs and their participants directly (n=13)	Pension funds that do not consult NGOs and their participants directly (n=37)
2.1 Investment beliefs include the pension funds' vision and the basic principles for investment. Is responsible investment covered in the investment beliefs?	No, responsible investment is not covered in the investment beliefs.	0%	8%
	Yes, responsible investment is covered in the investment beliefs.	15%	46%
	Yes, responsible investment is covered in the investment beliefs and specific guidelines are included.	85%	46%
2.2 Targets can be an integral part of a long-term strategy or vision on sustainability issues. Clear and measurable targets should be included which enable the evaluation and improvement of the responsible investment policy.	No targets are mentioned.	23%	68%
	Yes, targets have been mentioned concerning the activities described in the responsible investment policy.	38%	22%
	Yes, targets have been mentioned that measure actual impact of investments on society and corporations.	38%	11%
2.4 Percentage of the portfolio covered by the responsible investment policy	No policy.	0%	3%
	Policy covers 0-50% of total investment portfolio.	0%	3%
	Policy covers 50-75% of total investment portfolio.	0%	5%
	Policy covers 75-95% of total investment portfolio.	8%	22%
	Policy covers 95-100% of total investment portfolio.	92%	68%
4.2 Does the pension fund have a publicly available overview of the investments made?	No list	15%	62%
	List covers 0-25% of total investment portfolio	8%	8%
	List covers 25-50% of total investment portfolio	8%	3%
	List covers 50-75% of total investment portfolio	15%	3%
	List covers 75-100% of total investment portfolio	54%	24%

Table C.3: SRI policy maturity in pension funds which do or do not set targets for SRI.

	Possible answers	Non-target setting pension funds (N=28)	Target setting pension funds (N=22)
2.1 Investment beliefs include the pension funds' vision and the basic principles for investment. Is responsible investment covered in the investment beliefs?	No, responsible investment is not covered in the investment beliefs.	11%	0%
	Yes, responsible investment is covered in the investment beliefs.	50%	23%
	Yes, responsible investment is covered in the investment beliefs and specific guidelines are included	39%	77%
2.3 To what extent does the responsible investment policy cover all three ESG-themes separately?	No specific policy on the implementation of ESG.	7%	0%
	The responsible investment policy covers all three separate E, S, or G themes.	4%	0%
	The responsible investment policy covers at least all three separate E, S, or G themes and details how it translates (some of) the principles into at least two responsible investment instruments.	61%	18%
	The responsible investment policy covers at least all three separate E, S, or G themes and details how it translates (some of) the principles into at least five responsible investment instruments.	29%	82%

Table C.4: SRI implementation in pension funds which do or do not set targets for SRI.

Question number	Possible answers	Non-target setting pension funds (N=28)	Target setting pension funds (N=22)
3.1.1 Exclusion (public equity). Has the investor implemented an exclusion policy?	No.	21%	0%
	Yes, companies are demonstrably excluded based on 1 criterion.	11%	9%
	Yes, companies are demonstrably excluded based on multiple criteria.	68%	91%
3.1.2.a ESG integration (extent public equity): How is ESG integration taken into account in the investment decision making process?	No.	4%	0%
	ESG-information is used in evaluation of investments in equity (e.g. asset managers required to be PRI signatory).	54%	18%
	ESG-information is systematically and demonstrably part of the equity selection process (e.g. by using one-pagers) (or in the composition of the ESG-index).	36%	23%
	ESG-information is systematically and demonstrably part of the equity investment selection process and has a systematic, ongoing and verifiable impact on individual holdings.	7%	59%

Table C.4: SRI implementation in pension funds which do or do not set targets for SRI. (*continued*)

Question number	Possible answers	Non-target setting pension funds (N=28)	Target setting pension funds (N=22)
3.1.3.a Engagement (focus): Is the pension fund practising engagement?	No.	29%	0%
	Yes, the pension fund demonstrably and substantially engages companies on ONE of three themes: environmental, social or governance.	0%	5%
	Yes, the pension fund demonstrably and substantially engages companies on TWO of three themes: environmental, social or governance.	0%	5%
	Yes, the pension fund demonstrably and substantially engages companies on ALL three themes: environmental, social and governance.	71%	91%
3.1.4.a voting extent: Are ESG-issues taken into account when voting at Annual General Meetings or through resolutions?	a. No.	7%	0%
	b. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio.	14%	9%
	c. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio, paying explicit positive attention to ESG issues.	61%	36%
	d. Yes, demonstrably votes at annual shareholder meetings of companies in portfolio, paying explicit attention to ESG issues and publicly initiates and/or supports shareholder resolutions promoting CSR.	18%	55%
3.1.5.a Impact Investing Volume: Does the pension fund engage in impact investing in public equity?	a. No.	89%	59%
	b. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, <1% of the total equity portfolio.	11%	18%
	c. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, <2% of the total equity portfolio.	0%	0%
	d. Yes, investments are demonstrably made in publicly traded companies to tackle specific sustainability challenges, >2% of the total equity portfolio.	0%	23%

APPENDIX D.1 (CHAPTER 5)

Table D.1: Overview of questions used for each expectation

Question	Used for expectation(s):					Period covered
	1	2	3	4	5	
Policy						
Policy Extent: To what extend does the responsible investment policy covers all three ESG-themes separately? a. No policy. b. Policy is mentioned on website and/or annual report AND/OR covers at least two of the themes included in the UN Global Compact. c. Policy covers all four themes included in the UN Global Compact. d. Policy covers at least all four themes in the UN Global Compact and details how it deals with (some of the) ten principles in the investment practice.	Y	Y	Y	Y	Y	2010-2018
Policy Volume: Percentage of total portfolio covered the by responsible investment policy a. No policy. b. Policy covers 0-50% of total investment portfolio. c. Policy covers 50-75% of total investment portfolio. d. Policy covers 75-95% of total investment portfolio. e. Policy covers 95-100% of total investment portfolio.	Y	Y	Y	Y	Y	2010-2018
Implementation						
Exclusion in public equity: Has the investor implemented an exclusion policy for public equity? a. No. b .Yes, companies are demonstrably excluded based on 1 criterion. c. Yes, companies are demonstrably excluded based on multiple criteria.	Y	Y	Y	Y	Y	2010-2022
ESG Volume: a. No ESG integration. b. The above explained ESG-integration is implemented for 1-25% of the equity portfolio. c. The above explained ESG-integration is implemented for 26-50% of the equity portfolio. d. The above explained ESG-integration is implemented for 51-75% of the equity portfolio. e. The above explained ESG-integration is implemented for 76-100% of the equity portfolio.	Y	Y	Y	Y	Y	2010-2019
Voting Volume a. No. Yes, voting is implemented for 1-25% of the equity portfolio. b. Yes, voting is implemented for 26-50% of the equity portfolio. c. Yes, voting is implemented for 51-75% of the equity portfolio. d. Yes, voting is implemented for 76-100% of the equity portfolio.	Y					2010-2019

Table D.1: Overview of questions used for each expectation *(continued)*

Question	Used for expectation(s):					Period covered
Engagement a. No. b. Yes, engages or participates in engagement activities on ESG-criteria issues. c. Yes, demonstrably engages or participates in engagement activities on ESG-criteria and reports on activities. d. Yes, demonstrably engages or participates in engagement activities on ESG-criteria and shows demonstrable results.	Y					2010-2014
Impact Investing: Volume of green and social bonds within the investment portfolio a. No. b. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, <1% of the total corporate bond portfolio. c. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, <2% of the total corporate bond portfolio. d. Yes, investments are demonstrably made in corporate green and social bonds to tackle specific sustainability challenges, >2% of the total corporate bond portfolio.	Y	Y	Y	Y	Y	2015-2022
Impact Investing: Extent of green and social bonds process within the investment portfolio a. No. (0/2) b. Yes, investments are demonstrably made in enterprises or projects with the explicit intention to tackle specific sustainability issues. (1/2) c. Yes, investments are demonstrably made in enterprises or projects with the explicit intention to tackle specific sustainability issues and the social and environmental impact of these investments is measured and monitored. (2/2)	Y					2014-2022
Exclusion in Sovereign Bonds a. No. b. Yes, countries are demonstrably excluded based on EU, UN or other official sanction lists. c. Yes, countries are demonstrably excluded on both official sanction lists as well as the pension funds' own sustainability related country considerations.	Y					2010-2022
Transparency						
Does the pension fund have a responsible investment report, or a summary publicly available, for example on the website? a. No b. Yes	Y					
List of investments a. No list. b. List covers 0-25% of total investment portfolio. c. List covers 25-50% of total investment portfolio. d. List covers 50-75% of total investment portfolio. e. List covers 75-100% of total investment portfolio.	Y	Y	Y	Y	Y	2010-2018

Table D.1: Overview of questions used for each expectation *(continued)*

Question	Used for expectation(s):	Period covered
Transparency on exclusion a. No information concerning exclusion policy. b. Exclusion policy is explained. c. Exclusion policy is explained and list with excluded countries and companies and reason for exclusion is available.	Y	2010-2022
Transparency on ESG Integration a. How does the pension fund report on ESG-integration? b. Methodology for ESG-integration is not explained. c. Methodology for ESG-integration is explained.	Y	2010-2022
Transparency on Voting a. No policy can be found. b. Voting activity overview report can be found. c. Detailed voting activity report is available.	Y	2010-2022

APPENDIX D.2 (CHAPTER 5)

Overview data expectation 2

Figure D2.1: Level of convergence in the extent of the SRI Policy for pension funds with similar characteristics of beneficiaries

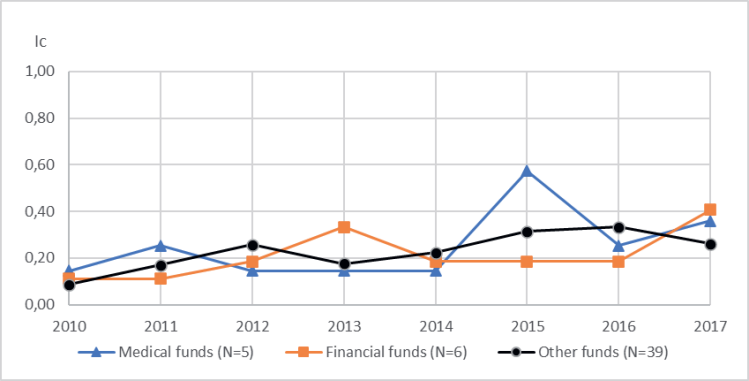


Figure D2.2: Degree of convergence in the Volume of SRI Policy for pension funds with similar characteristics of beneficiaries

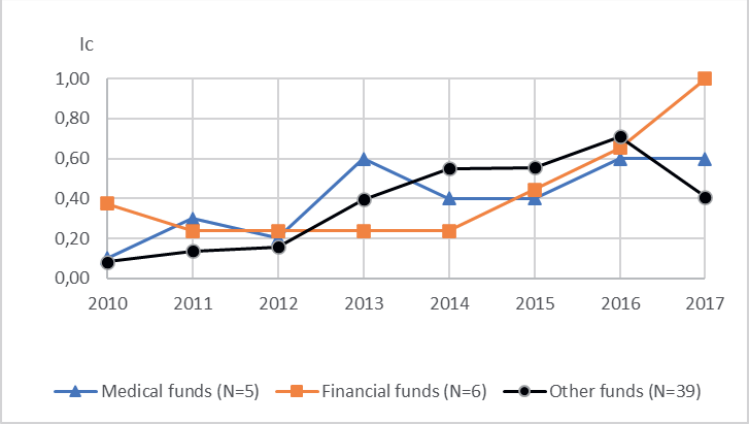


Figure D2.3: Level of convergence in the Exclusion practices in public equity for pension funds with similar characteristics of beneficiaries

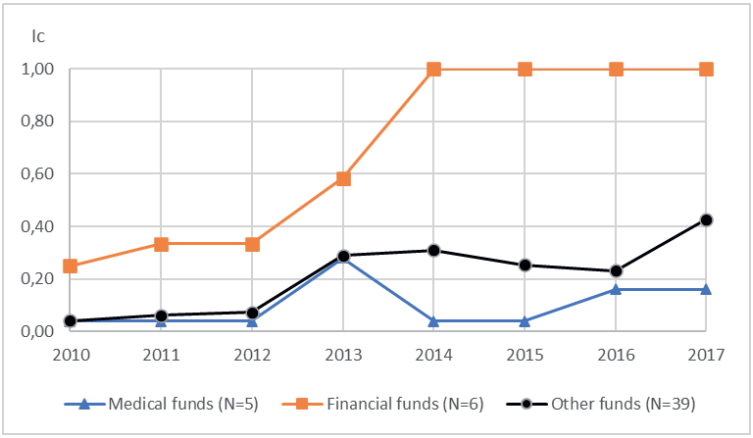


Figure D2.4: Level of convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar characteristics of beneficiaries

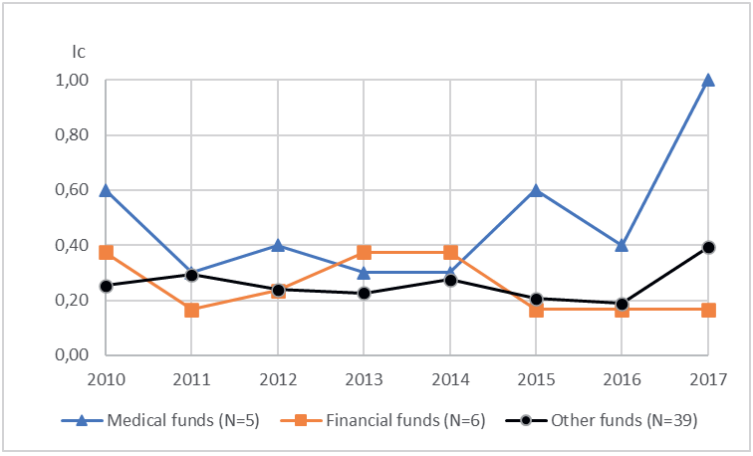


Figure D2.5: Level of convergence in the volume of green and social bonds for pension funds within the investment portfolio with similar characteristics of beneficiaries

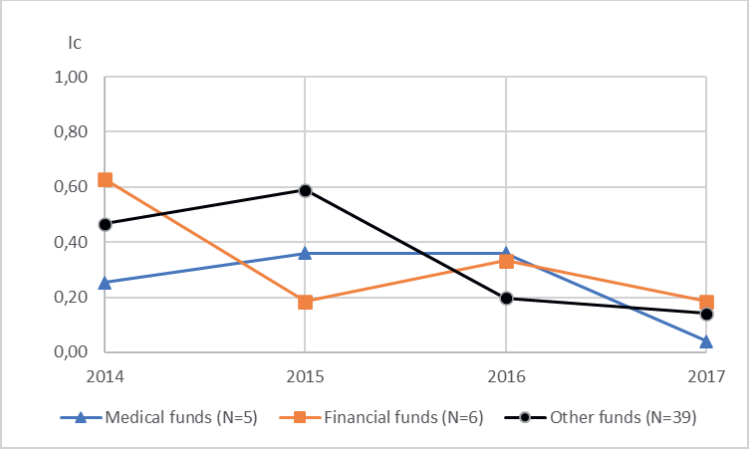
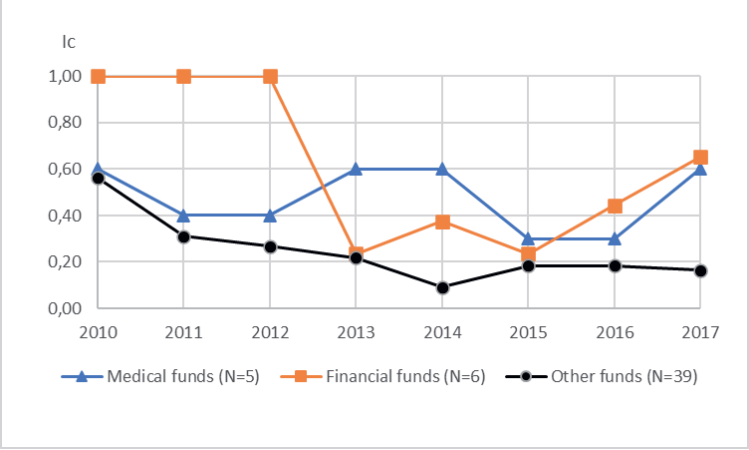


Figure D2.6: Level convergence in transparency on investments for pension funds with similar characteristics of beneficiaries



APPENDIX D.3 (CHAPTER 5)

Overview data expectation 3

Figure D3.1: Degree of convergence in the Volume of SRI Policy with the same fiduciary manager

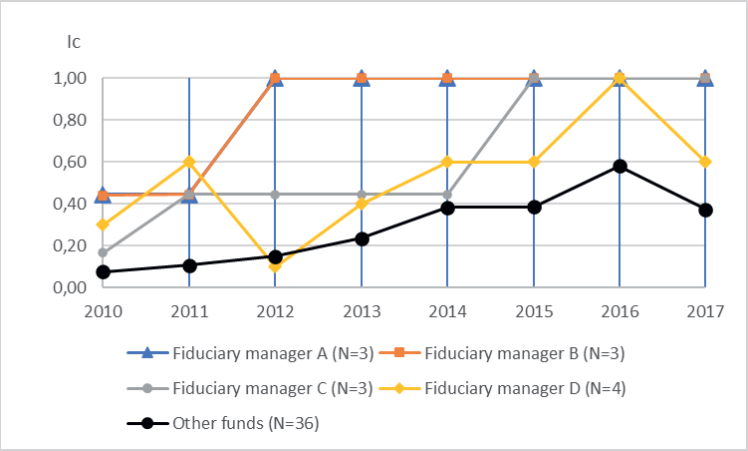


Figure D3.2: Level of convergence in the Exclusion practices in public equity with the same fiduciary manager

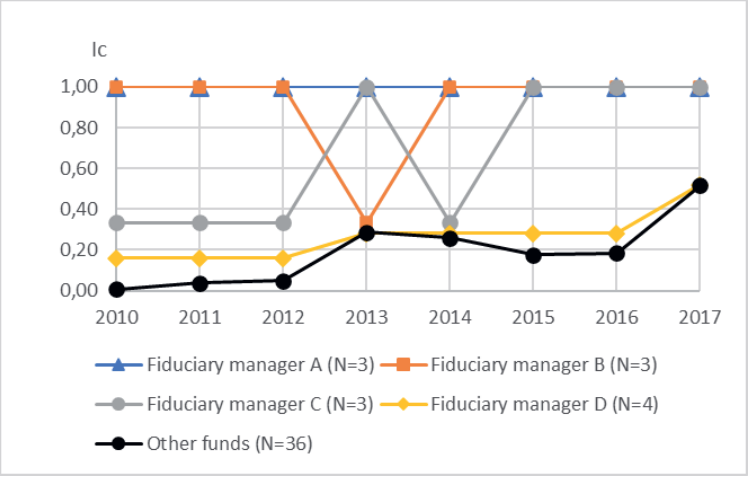


Figure D3.3: Level of convergence in the percentage of the public equity portfolio covered by ESG-integration practices with the same fiduciary manager

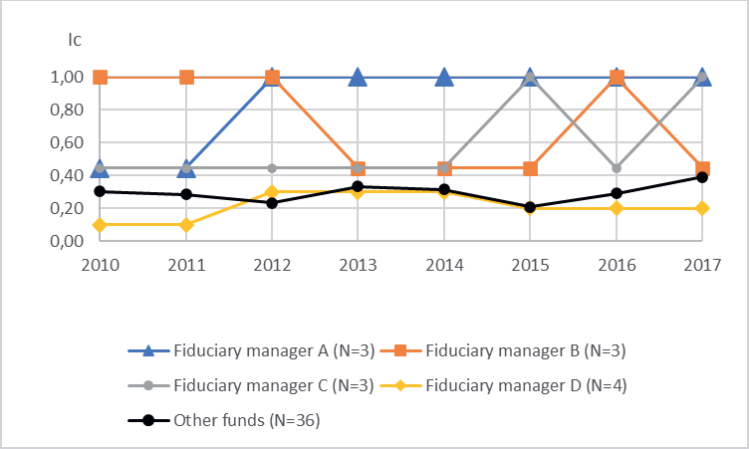
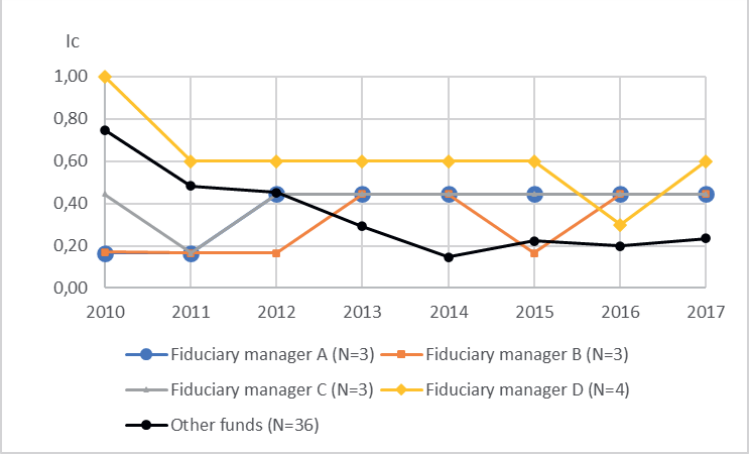


Figure D3.4: Level convergence in transparency on investments with the same fiduciary manager



APPENDIX D.4 (CHAPTER 5)

Overview data expectation 4

Figure D4.1: Level of Convergence in the Exclusion practices in public equity for pension funds with similar coverage ratios

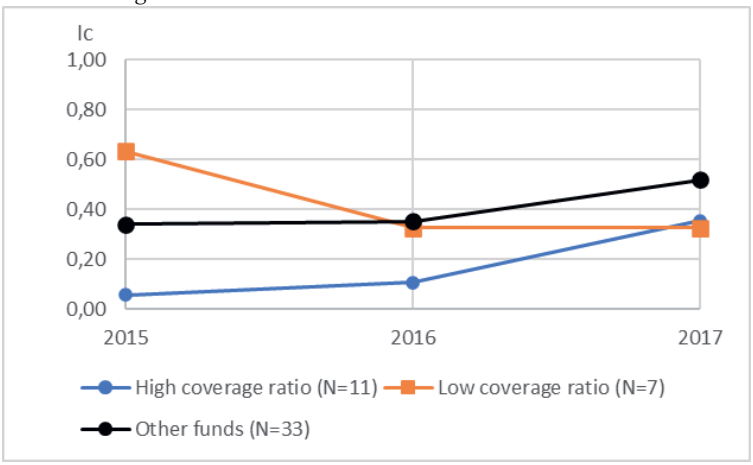
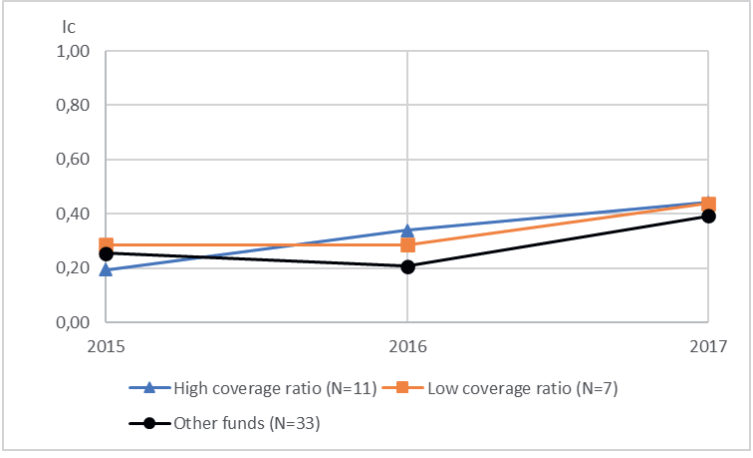


Figure D4.2: Level of Convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar coverage ratios



APPENDIX D.5 (CHAPTER 5)

Overview data expectation 5

Figure D5.1: Level of Convergence in the extent of the SRI Policy for pension funds with similar AuM sizes

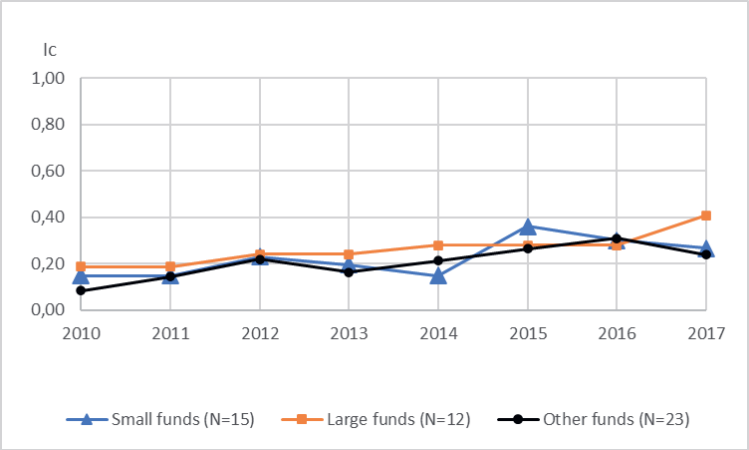


Figure D5.2: Level of Convergence in the percentage of the public equity portfolio covered by ESG-integration practices for pension funds with similar AuM sizes

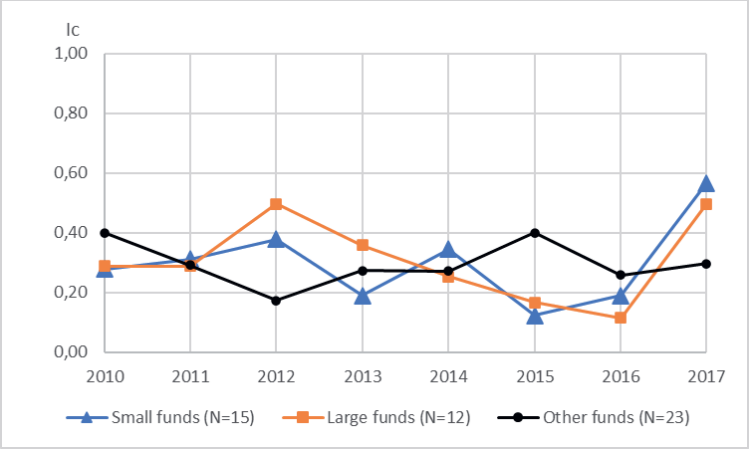


Figure D5.3: Level of Convergence in the volume of green and social bonds within the investment portfolio for pension funds with similar AuM sizes

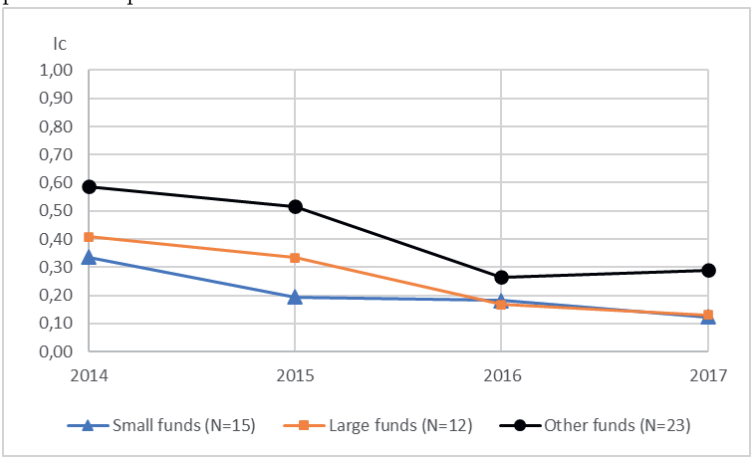
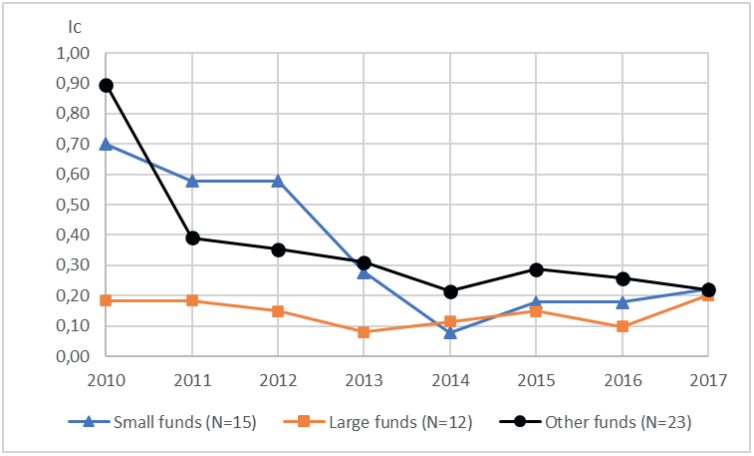


Figure D5.4: Level Convergence in transparency on investments for pension funds with similar AuM sizes





Summary

The financial sector is rarely the first industry that comes to mind when discussing sustainability, yet the flows of capital from investors are financing a wide range of sustainable and unsustainable activities worldwide. Socially Responsible Investment (SRI) is a way in which investors can take into account sustainability topics in investment management. Over the past three decades, SRI has grown rapidly worldwide; membership in the United Nations Principles for Responsible Investment rose from ten in 2006 to more than five thousand in 2025, and assets tied to SRI now exceed USD 30 trillion. This has also led to an increasing number of studies on SRI.

SRI is the term used in this thesis, although there are multiple similar terms applied to describe the integration of societal issues into investment management. Other terms that are commonly used and have similar, or overlapping, meanings include responsible investing, sustainable investing, ethical investment, sustainable finance or Environmental, Social and Governance (ESG) investment. These terms are sometimes employed synonymously for SRI, but sometimes they can also have different emphases or describe practices in specific markets. The fact that there are multiple terms for this process is not surprising, as there are several motivations for practicing SRI. From normative motivations, the motivation to achieve better investment returns or a motivation to react to regulatory or societal pressure. Not only motivations can differ, also the implementation of SRI can differ as there are several ways SRI can be implemented: from the use of different SRI instruments, such as exclusion, ESG integration, proxy voting, engagement, to impact investments. This results in a diversified landscape of SRI practices that is rapidly developing and branching out in reaction to societal developments and increasing capabilities within the investment community.

However, the literature on SRI is fragmented across finance, management, and social sciences, with limited interdisciplinary collaboration. Most existing research concentrates on the relationship between SRI and financial performance, leaving the societal impact of SRI largely understudied. This thesis therefore centres on two core questions: when does SRI generate societal change, and which factors influence the development of SRI?

Chapter 2 discusses the effectiveness of SRI to generate societal change. A literature review was used to provide an overview of the studies on SRI instruments, their pathways for influencing investee companies and whether and how they lead to societal change. When focusing on SRI instruments that can potentially influence the cost-of-capital, such as exclusion and ESG integration, this is currently not an effective way of evoking societal change when studied in isolation. Studies have shown that significant differences in cost-of-capital are potentially possible, but currently, they do not arise, as a substantial percentage of investors worldwide would need to adopt a specific exclusion or ESG-tilts to have a major impact on the cost-of-capital of listed companies. For engagement, a clear picture of its effectiveness did not arise, as it was at the time of writing understudied. In summary, the chapter concludes that the impact of SRI was limited and difficult to identify and quantify. In answering

the research question on which factors govern the effectiveness of SRI in influencing ESG performance, five factors can be identified that explain why the effects of SRI are currently marginal: 1) investors have a low level of knowledge of SRI; 2) the percentage of SRI is still small compared with overall investments; 3) investors are focused on obtaining short-term shareholder value; 4) the interpretation of institutional investors of fiduciary duty; and 5) cooperation between shareholders practicing SRI is low.

In Chapter 3, the networks that steer engagement and the factors that influence the effectiveness of engagement by Dutch pension funds were studied. Twenty-three interviews were conducted with actors implementing engagement as well as investees. Additionally, quantitative data from the yearly "Benchmark Responsible Investment by Pension Funds" were used. The study shows that engagement is increasingly used by Dutch pension funds. However, the actual implementation is outsourced to networks of actors within the investment chain, such as asset managers or specialised ESG service providers. However, these networks are isolated from other non-investor actors such as NGOs and policy actors. To study the effectiveness of engagement, the work of Gifford (2012) on shareholder salience was used as a starting point. The chapter concludes that shareholder salience is indeed a useful starting point for assessing the effectiveness of engagement. This means that three main factors are key to making engagement effective. First, legitimacy refers to the credibility of the engagers, the investor, and the strength of both the business and societal case. Second, urgency captures the time sensitivity of the engagement requests and their criticality. Third, power involves using various tools to increase pressure, ranging from formal shareholder rights to public statements. Two additional factors were found: the duration of the relationship between the engager and the investee and the receptivity of the investee company to the engagement, which also relates to the internal power dynamics within the investee. The chapter also concludes that SRI engagement does not reach its full potential in evoking societal change. Investee companies see that investors do not fully use the capacities and instruments at their disposal, especially in relation to their formal shareholders' rights and being vocal publicly. Engagement can be strengthened by using shareholder resolutions, increasing cooperation between investors, and leveraging the specific knowledge of NGOs.

In Chapter 4, the adoption of SRI among Dutch pension funds is addressed, particularly if there are logical pathways for SRI development. In the adjacent field of CSR, stage models provide insights into logical pathways for CSR adoption. On the basis of a translation of CSR stage models to SRI practices, 5 expectations for SRI development were tested. The results show that CSR stage models can plausibly be applied to SRI. In line with CSR stage models, target setting and the involvement of stakeholders are most likely accomplished through pension funds that already follow well-developed SRI practices. In short, SRI development starts with implementation, and only in later stages does it become a part of governance, strategy and integration in target setting. Additionally, there is a clear order followed in the implementation of SRI instruments: to begin, certain investments are excluded; then,

environmental, social and governance (ESG) integration is performed; and finally, so-called impact investing (which focuses on more than only financial results) is implemented.

Chapter 5 focuses on the factors that could cause convergence or divergence in SRI practices. This is done by using a multiyear dataset of SRI practices of Dutch pension funds and expectations formulated on the basis of institutional theory. The results show that SRI practices of Dutch pension funds developed over the period 2010-2022 and that this has led to convergence over time, especially in relation to the reporting on SRI practices. Having the same fiduciary manager is associated with increased convergence between pension funds. Assets under management, beneficiaries' characteristics or financial position are not associated with further convergence between pension funds.

In summary, SRI always seems to have the promise that it would evoke societal change. The findings paint a more nuanced picture of the (potential) impact of SRI. It starts with the observation that SRI is a very broad concept that covers a wide range of practices and motivations. The question of whether SRI is effective therefore starts with sub-questions on whether specific SRI instruments or combinations of these instruments are effective. In regard to influencing the cost-of-capital through exclusion or ESG integration, it is concluded that these pathways potentially can be effective in evoking change. However, our study finds that this is currently not the case for listed investments. Investors can also influence investees directly through engagement and through voting practices. For engagement, it is concluded that engagement is potentially effective, but its actual effectiveness is dependent on several factors: from legitimacy, via urgency to power. Additionally, relation building, taking into account the corporate agenda and decision-making processes and escalation mechanism to use more formal power mechanisms are relevant.

Regarding the research question on the development of SRI, it can be summarised that SRI development follows logical pathways, starting with capacity building and only in a later stage reaches integration into governance and strategy. For Dutch pension funds, we find that SRI practices converge over time and that the role of the fiduciary manager is a factor associated with increased convergence. This highlights the relevance of institutional theory for SRI development, the role of society in shaping SRI, and the role of the investment chain in enabling, or disabling, SRI practices.

Reflecting on the findings, this thesis argues that merely practising socially responsible investing (SRI) does not guarantee impact; the effectiveness of SRI depends not only on the instruments employed but also on the maturity of the institutional investor that deploys them. Four interrelated factors shape this connection.

First, capacity and expertise are essential. An investor may be willing to use tools such as exclusion screening, ESG integration or impact investing, yet without the necessary data

infrastructure, analytical skills and thematic knowledge, these tools cannot be applied effectively. This research shows that successful engagement, for instance, rests on the legitimacy of the engager, which in turn requires solid expertise, reliable data and insights in often complex ESG themes such as human rights or biodiversity that demand qualitative assessment. When investors signal SRI credentials without the organisational resources to substantiate them, a phenomenon dubbed "competence greenwashing" emerges, undermining both development and impact. Moreover, the broader investment chain matters: data providers translate emerging ESG information for managers, but recent political pressures have led some providers to withdraw coverage of contentious topics (e.g., Gaza, diversity metrics), thereby constraining investors' ability to act.

Second, integration into strategy amplifies effectiveness. When SRI tools are combined, such as linking engagement with shareholder resolution filing or public divestment, their collective power increases. The study finds that only in the later stages of SRI development it becomes a formal element of governance, allowing institutions to embed impact-escalation mechanisms and coordinate multiple instruments, which provides a sturdier foundation for achieving societal outcomes.

Third, the underlying motivation of the investor influences both the willingness to invest in capacity and the propensity to accept tradeoffs. Investors may be driven by pure financial rationality, ethical concerns, a desire for societal impact, or marketing considerations, and often in combination. Those investors motivated chiefly by financial returns tend not to align processes toward measurable impact, whereas impactoriented investors are more likely to allocate resources to engagement and accept lower returns where necessary.

Finally, the societal and regulatory context frames what SRI can achieve. Fiduciary duty interpretations, beneficiary pressures, and broader public debates (e.g., divestment from fossil fuels or cluster ammunition) shape both the incentives and constraints faced by institutional investors. Regulations can enable SRI, but they can also restrict it when legal definitions of fiduciary duty limit the use of certain tools. Pension funds illustrate this dynamic: beneficiaries and interest groups can push for SRI mandates, yet actions can be constrained or enabled by evolving regulatory landscapes.

Together, these dimensions, capacity, strategic integration, motivation, and external context, constitute the key drivers that determine whether SRI development translates into societal impact.

This thesis offers three practical recommendations for policymakers and institutional investors. First, pension fund boards should prioritise capacity building throughout the entire investment chain and stay attuned to societal trends. Because SRI adoption tends to evolve organically rather than through a linear "plan-do-check-act" cycle, funds need to develop

both hard capabilities, such as data systems, and softer governance elements, such as embedding ESG expertise in decisionmaking. They must also engage with beneficiaries and other stakeholders, translating emerging ESG concerns into concrete investment actions and communicating the rationale behind SRI choices.

Second, investors seeking genuine societal impact should look beyond direct engagement with portfolio companies. Partnering with NGOs, participating in sovereign-level dialogue, and deliberately crafting field-building and signalling strategies can amplify influence. Effective field-building requires dedicated expertise, resources, and clear mandates that align the investor's voice with broader policy and advocacy efforts.

Third, institutions need to foster multidisciplinary collaboration. SRI is shaped by financial, ethical, regulatory, and political forces, so relying solely on finance-trained staff limits the ability to understand and respond to non-financial drivers. Embedding professionals from diverse backgrounds and creating decision-making processes that encourage cross-disciplinary debate will improve the quality of SRI implementation and help navigate complex issues such as human-right exclusions, DEI considerations, and evolving regulatory regimes.

Regarding future research, I identify four important pathways. First, the interaction within the investment chain remains poorly understood. Detailed investigations are needed on the dynamics between asset owners and their managers, the influence of ESG data and service firms, and the role of platforms, stand-setting bodies and educational providers in the financial ecosystem.

Second, the impact of SRI on investees and society requires broader scrutiny beyond cost-of-capital effects, for which robust academic evidence is lacking. Researchers should explore indirect pathways, such as field-building, that may generate societal change, identifying the conditions under which these mechanisms succeed, and the organisational prerequisites investors must meet. The rapid growth of impact investing also calls for empirical work to confirm whether it truly delivers societal benefits and, if so, which factors drive its effectiveness.

Third, the driving forces behind SRI adoption deserve deeper analysis. Investors pursue SRI for heterogeneous reasons, leading to divergent implementation routes. Recent political shifts (e.g., the U.S. retreat from ESG under the Trump administration) and anti-greenwashing measures such as the EU SFDR illustrate how external pressures intersect with internal motives. Understanding how these forces interact across markets and investor types will illuminate why some institutions advance SRI while others retreat.

Finally, the theoretical foundations of SRI need enrichment. The field currently draws on a patchwork of lenses rather than a single cohesive framework, reflecting the diversity of

actors, markets and instruments involved. The thesis proposes an initial typology of existing theories and suggests that future work combines multiple perspectives to create a meta-level framework capable of capturing the complex, multidimensional nature of SRI development and practice.

In summary, while SRI has the potential to drive societal change, its actual impact depends heavily on the instruments used, the extent to which SRI is developed within an institutional investor, and the external societal and regulatory environment. Only when all these elements are aligned SRI can make a meaningful contribution to a more sustainable society.



Samenvatting

De financiële sector komt vaak niets als eerste sector naar voren als het gaat over duurzaamheid wordt, maar de kapitaalstromen van beleggers financieren wereldwijd zowel duurzame als niet-duurzame activiteiten. Maatschappelijk Verantwoord Beleggen (MVB) biedt beleggers de mogelijkheid om duurzaamheidsaspecten mee te wegen in vermogensbeheer. In de afgelopen drie decennia is MVB wereldwijd sterk gegroeid; het aantal leden van de UNPRI, een wereldwijde organisatie op het vlak van MVB, steeg van tien in 2006 tot meer dan vijfduizend in 2025, en het belegd vermogen waarbinnen MVB wordt toegepast is nu meer dan USD 30 biljoen. Dit heeft tevens geleid tot een toenemend aantal wetenschappelijke studies over MVB.

In dit proefschrift wordt de term MVB gebruikt, hoewel er meerdere verwante termen bestaan die de integratie van maatschappelijke thema's in beleggingsbeheer beschrijven. Veelgebruikte synoniemen of overlappende termen zijn onder andere verantwoord beleggen, duurzaam beleggen, ethisch beleggen, duurzame financiering en Environmental, Social and Governance (ESG)-beleggingen. Soms worden deze termen als synoniemen voor de term MVB gehanteerd, maar ze kunnen ook verschillende accenten leggen of specifieke praktijken in bepaalde markten beschrijven. Het bestaan van verschillende termen wordt ook veroorzaakt door de verschillende drijfveren die er zijn om MVB toe te passen. Er kunnen ethische motieven zijn, financiële motieven, de motivatie maatschappelijke impact te maken of het kan een reactie zijn op druk vanuit de maatschappij of regelgeving.

MVB kan bovendien op uiteenlopende manieren worden geïmplementeerd doormiddel van verschillende instrumenten; het uitsluiten van specifieke beleggingen, het invloed uitoefenen via engagement of stemmen, de integratie van ESG-informatie in beleggingsprocessen (ESG-integratie), tot impact-investeringen met expliciet doel positieve impact te maken op milieu en/of maatschappij. Dit resulteert in een divers landschap van MVB-praktijken dat zich snel ontwikkelt en zich aanpast aan maatschappelijke ontwikkelingen in diverse landen wereldwijd.

De literatuur over MVB is gefragmenteerd over verschillende wetenschappelijk disciplines, van economie tot sociologie, met beperkte interdisciplinaire samenwerking. De meeste onderzoeken richten zich op de relatie tussen MVB en financieel rendement, terwijl de maatschappelijke impact van MVB grotendeels onderbelicht blijft. Dit proefschrift richt zich daarom op twee kernvragen: Wanneer leidt MVB tot maatschappelijke verandering, en welke factoren bepalen de ontwikkeling van MVB?

In hoofdstuk 2 wordt ingegaan op de vraag wanneer MVB effectief is in het tot stand brengen van maatschappelijke verandering. Dit wordt gedaan aan de hand van een literatuurreview van studies over MVB-instrumenten, hun mechanismes om bedrijven te beïnvloeden en of zij tot maatschappelijke verandering leiden. Wanneer gekeken wordt naar instrumenten die de kapitaalkosten kunnen beïnvloeden (zoals uitsluiting en ESG-integratie), blijkt

dit momenteel op zichzelf geen effectieve manier zijn om maatschappelijke verandering tot stand te brengen. Er zijn aanwijzingen dat significante verschillen in kapitaalkosten in theorie mogelijk zijn, maar deze ontstaan nog niet, omdat een groot percentage beleggers wereldwijd een specifiek uitsluitings- of ESG-beleid zou moeten hanteren om een merkbaar effect op de kapitaalkosten van beursgenoteerde bedrijven te krijgen. Voor engagement bestaat geen eenduidig beeld van de effectiviteit, aangezien dit onderwerp op het moment van het schrijven van het hoofdstuk een onderbelicht onderwerp is in de literatuur. Samengevat concludeert het hoofdstuk dat de impact van MVB beperkt en moeilijk te identificeren en kwantificeren is. Uit de literatuur komen er vijf factoren naar voren waarom de effecten van MVB nog niet groot zijn:

1. Het lage kennisniveau van beleggers over MVB;
2. Het aandeel van MVB is nog klein ten opzichte van het totaal aan investeringen wereldwijd;
3. Beleggers richten zich te veel op de korte termijn;
4. De interpretatie van de fiduciair plicht is een obstakel voor MVB;
5. Er is weinig samenwerking tussen MVB-beleggers.

In hoofdstuk 3 worden de netwerken van engagement en de factoren die bepalen of engagement effectief is onderzocht. Hiervoor werden 23 interviews afgenomen met actoren die betrokken zijn bij engagement en met de bedrijven waarmee engagement wordt gevoerd. Daarnaast werd kwantitatieve data uit de jaarlijkse "VBDO Benchmark Responsible Investment by Pension Funds" gebruikt. De resultaten tonen aan dat engagement steeds vaker wordt toegepast door Nederlandse pensioenfondsen, maar dat de uitvoering wordt uitbesteed aan netwerken binnen de investeringsketen (asset managers, gespecialiseerde ESG-serviceproviders). Deze netwerken staan echter los van andere niet-investeerders, zoals ngo's en beleidsactoren. Als analytisch kader werd de theorie van Gifford (2012) over de invloed van aandeelhouders gehanteerd. Drie hoofdfactoren blijken cruciaal voor effectief engagement:

- *Legitimiteit:* de legitimiteit van de engagerende partij, inclusief het kennisniveau en de kracht van de argumentatie die in de engagement wordt gebruikt.
- *Urgentie:* De mate waarin de engagement inspeelt op onderwerpen die hoog op de agenda staan in de maatschappij, stakeholders en het bedrijf.
- *Macht:* De inzet van diverse instrumenten om de engagement kracht bij te zetten (aandeelhoudersrechten, economische invloed, publieke uitspraken).

Twee aanvullende factoren zijn de relatie tussen engager en investeerder, en de ontvankelijkheid van het bedrijf voor engagement, gerelateerd aan interne machtsdynamiek binnen het bedrijf. Het hoofdstuk concludeert dat engagement zijn volledige potentieel nog niet bereikt. Zo stellen bedrijven dat beleggers hun beschikbare instrumenten (bijv. formele aandeelhoudersrechten en publieke statements) niet volledig benutten. Effectiever engagement kan worden bereikt door gebruik te maken van o.a. aandeelhoudersresoluties, een effectiever samenwerking tussen beleggers en het inzetten van de expertise van ngo's.

In hoofdstuk 4 wordt de ontwikkeling van MVB onderzocht. Dit wordt gedaan aan de hand van ontwikkelingsmodellen voor verantwoord ondernemen (CSR stage models). Aan de hand van deze modellen werd onderzocht of er logische ontwikkelpaden bestaan voor de ontwikkeling van MVB en op basis hiervan worden vijf verwachtingen ontwikkeld en getest. Dit testen gebeurt op basis van de data van de VBDO benchmark voor verantwoord beleggen door Nederlandse pensioenfondsen. De resultaten tonen aan dat ontwikkelmodellen voor verantwoord ondernemen toepasbaar zijn op MVB. Zo vinden het vaststellen van doelstellingen voor MVB en het betrekken van stakeholders vooral plaats bij fondsen die al ver gevorderd zijn met het implementeren van MVB. MVB-ontwikkeling begint met implementatie; pas later wordt het geïntegreerd in de governance, strategie en het stellen van doelen. Een duidelijk volgorde van instrumenten wordt waargenomen: eerst uitsluiting, daarna ESG-integratie, en tenslotte impact-investeringen (gericht op bredere maatschappelijke resultaten naast financieel rendement).

In hoofdstuk 5 staat de vraag centraal welke factoren bepalen de beoefening van MVB naar elkaar toe beweegt bij Nederlandse pensioenfondsen. Op basis van institutionele theorie (institutional theory) werden verwachtingen geformuleerd die worden getest met behulp van een meerjarige dataset van Nederlandse pensioenfondsen en onderzocht welke factoren convergentie of divergentie veroorzaken. Tussen 2010 en 2022 ontwikkelden de MVB-praktijken zich en leidde dit tot toenemende convergentie, vooral op het gebied van rapportage. Het hebben van dezelfde fiduciaire manager vergrootte de convergentie. Grootte van beheerd vermogen, kenmerken van begunstigden of financiële positie hadden geen invloed op convergentie.

Wat kunnen we op basis van deze hoofdstukken concluderen wat betreft de onderzoeksvragen of de effectiviteit en ontwikkeling van MVB? Wat betreft de effectiviteit van MVB schetsen de bevindingen een genuanceerder beeld van de (potentiële) impact van MVB. Het begint met de constatering dat MVB een zeer breed concept is dat een breed scala aan praktijken en motivaties omvat. De vraag of MVB effectief is, begint daarom met subvragen over de effectiviteit van specifieke MVB-instrumenten of combinaties daarvan. Wat betreft het beïnvloeden van de kapitaalkosten door uitsluiting of ESG-integratie, wordt geconcludeerd dat deze methoden in theorie effectief kunnen zijn om verandering teweeg te brengen. Uit dit proefschrift blijkt echter uit dat dit momenteel niet het geval is voor beursgenoteerde beleggingen. Beleggers kunnen ook rechtstreeks invloed uitoefenen op de bedrijven waarin ze beleggen, via engagement en stemgedrag. Wat betreft engagement, wordt geconcludeerd dat engagement potentieel effectief is, maar dat de daadwerkelijke effectiviteit afhangt van verschillende factoren, van legitimiteit, urgentie tot macht. Daarnaast zijn relatieopbouw en het rekening houden met de bedrijfsagenda en besluitvormingsprocessen relevant. Voor sommige vormen van betrokkenheid is legitimiteit, inclusief expertise, effectief als het bedrijf waarin wordt belegd bereid is feedback uit engagement te verwerken. Voor bedrijven die daar minder toe bereid zijn, komen er meer formele machtsmiddelen in beeld, zoals het vormen

van coalities, stemmen op aandeelhoudersvergaderingen, het indienen van aandeelhoudersresoluties en publiekelijk een positie innemen.

Wat betreft de onderzoeksvraag over de ontwikkeling van MVB, kan worden geconcludeerd dat de ontwikkeling van MVB logische ontwikkelpaden volgt, beginnend met capaciteitsopbouw en dat pas in een later stadium integratie in governance en strategie plaatsvindt. Voor Nederlandse pensioenfondsen zien we dat MVB-praktijken in de loop der tijd naar elkaar toe bewegen. Van de onderzochte factoren is de rol van de fiduciaire manager een factor die geassocieerd is met een grotere convergentie. De resultaten benadrukken de relevantie van de institutionele theorie voor de ontwikkeling van MVB, de rol van de maatschappij bij het vormgeven van MVB en de rol van de beleggingsketen bij het mogelijk maken of belemmeren van MVB-praktijken.

Reflecterend op de bevindingen betoogt dit proefschrift dat het louter toepassen van MVB geen garantie biedt voor impact; de effectiviteit van MVB hangt niet alleen af van de gebruikte instrumenten, maar ook van de volwassenheid van MVB bij de institutionele belegger die ze inzet. Vier onderling verbonden factoren rondom de ontwikkeling en de motivatie voor MVB spelen een belangrijke rol in de effectiviteit van MVB om een maatschappelijke impact te maken:

1. **Capaciteit en expertise**: Zonder adequate data-infrastructuur, analytische vaardigheden en thematische kennis kunnen instrumenten (uitsluiting, ESG-integratie, impact-investeringen) niet effectief worden toegepast. Een gebrek hieraan leidt tot "competence greenwashing", oftewel dat de capaciteit en expertise niet in lijn zijn met de ambities op MVB-gebied die naar de buitenwereld worden gecommuniceerd.
2. **Integratie in strategie**: De effectiviteit van MVB wordt bepaald door de instrumenten, en de effectiviteit van deze instrumenten is meer dan de som der delen. Zo vergroten combinaties van instrumenten (bijv. engagement gekoppeld aan aandeelhoudersresoluties) hun kracht. Pas in latere ontwikkelingsfasen wordt MVB een formeel onderdeel van governance, waardoor ook escalatie mogelijkheden en daarmee de combinatie van instrumenten kunnen worden ingebed.
3. **Motivatie van de belegger**: Financiële, ethische, impact-gedreven of marketing-drijfveren beïnvloeden zowel de bereidheid om te investeren in capaciteit en expertise voor MVB-activiteiten, als de tolerantie voor eventueel een verminder risico-rendement op kortere termijn.
4. **Maatschappelijke en regelgevende context**: Interpretaties van fiduciair plicht, druk van deelnemers & klanten en het publieke debat (bijv. over het wel of niet investeren in fossiele brandstoffen) kunnen zowel een stimulans of beperking zijn. Regelgeving (EU-taxonomie, SEC-regels) kan MVB mogelijk maken, maar ook beperken wanneer fiduciaire plicht te nauw wordt geïnterpreteerd.

Dit proefschrift biedt drie praktische aanbevelingen voor beleidsmakers en institutionele beleggers. Ten eerste zouden pensioenfondsbesturen prioriteit moeten geven aan capaciteitsopbouw in de gehele beleggingsketen en alert moeten blijven op maatschappelijke trends. Omdat de adoptie van MVB zich doorgaans organisch ontwikkelt, in plaats van via een lineaire cyclus van "plannen, uitvoeren, controleren, handelen", moeten fondsen zowel gedegen “harde” capaciteiten ontwikkelen, zoals datasystemen en analytische instrumenten, als een investeren in meer “zachtere” capaciteiten. Bijvoorbeeld een goede integratie van MVB-expertise in de governance en het het verlenen van een duidelijk mandaat voor escalatie.

Aangezien MVB ook, of juist, wordt vormgegeven door maatschappelijke ontwikkelingen is het daarnaast van belang de voorkeuren in kaart te brengen van deelnemers en met hen het gesprek aan te gaan. Ook het gesprek met andere belanghebbenden, zoals ngo’s, is hierbij van belang. Dit is een belangrijke input voor het identificeren van opkomende ESG-vraagstukken, deze te vertalen naar concrete acties en hierover transparant te zijn.

Ten tweede moeten beleggers die een echte maatschappelijke impact nastreven, verder kijken dan de directe belangen in bedrijven in hun portefeuille. Samenwerking met ngo's, deelname aan dialoog op nationaal niveau en het doelbewust ontwikkelen van strategieën voor het opbouwen van een netwerk en het verspreiden van signalen kunnen de invloed vergroten. Effectieve netwerkopbouw vereist specifieke expertise, middelen en duidelijke mandaten die de stem van de belegger afstemmen op bredere beleids- en lobby-inspanningen.

Ten derde moeten instellingen multidisciplinaire samenwerking bevorderen. MVB wordt gevormd door financiële, ethische, regelgevende en politieke krachten, dus uitsluitend vertrouwen op financiële expertise beperkt het vermogen om niet-financiële drijfveren te begrijpen en erop te reageren. Investeer daarom in expertise vanuit verschillende vakgebieden (investment management, ethiek, duurzaamheid, recht tot politiek) en creëer besluitvormingsprocessen die multidisciplinaire discussie stimuleren. Dit verbetert de kwaliteit van MVB-implementatie en helpt bij complexe vraagstukken zoals mensenrechten, biodiversiteit en klimaat.

Voor toekomstig onderzoek worden in dit proefschrift vier richtingen geïdentificeerd. Ten eerste is de interactie tussen verschillende actoren binnen de beleggingsketen nog onvoldoende onderzocht. Zo is meer onderzoek nodig naar de dynamiek tussen de eigenaren van belegd vermogen, zoals pensioenfondsen en verzekeraars, en hun vermogensbeheerders, de invloed van ESG-data leveranciers en de rol van platformen, samenwerkingsverbanden in het financiële ecosysteem.

Ten tweede vereist de impact van MVB op beleggingsdoelen en de maatschappij een bredere analyse dan alleen de effecten op de kapitaalkosten. Onderzoekers zouden meer indirecte wegen voor impact moeten verkennen, zoals engagement met overheden en het samen met

maatschappelijke organisaties op de agenda zetten van duurzaamheidsthema's, die maatschappelijke verandering kunnen teweegbrengen. Het is hierbij met name van belang om te onderzoeken welke mechanismen succesvol zijn en de organisatorische randvoorwaarden waaraan beleggers moeten voldoen om ze succesvol toe te kunnen passen. De snelle groei van impactbeleggen vraagt ook om empirisch onderzoek om te bevestigen of het daadwerkelijk maatschappelijke voordelen oplevert en, zo ja, welke factoren de effectiviteit ervan bepalen.

Ten derde verdienen de drijvende krachten achter de ontwikkeling van MVB een diepere analyse. Beleggers kiezen voor MVB om uiteenlopende redenen. De redenen voor het toepassen van MVB kunnen leiden tot verschillende manier hoe MVB in de praktijk wordt gebracht. Recente politieke verschuivingen (bijvoorbeeld in de VS) en maatregelen tegen greenwashing, zoals de EU SFDR, illustreren hoe externe druk en interne motieven elkaar kruisen. Inzicht in de wisselwerking tussen deze krachten in verschillende markten en bij verschillende soorten beleggers zal duidelijk maken waarom sommige instellingen MVB verder ontwikkelen, terwijl andere zich ervan afwenden.

Ten slotte moeten de theoretische fundamenten van MVB worden verrijkt. Het vakgebied maakt momenteel gebruik van een lappendeken van theoretische raamwerken in plaats van één samenhangend raamwerk. Deze scriptie stelt een eerste typologie van bestaande theorieën voor en suggereert dat toekomstig onderzoek meerdere perspectieven combineert om een raamwerk op meta-niveau te creëren dat de complexe, multidimensionale aard van de ontwikkeling en toepassing van MVB kan vatten.

Samenvattend, hoewel MVB de potentie heeft om maatschappelijke verandering te bewerkstelligen, hangt de daadwerkelijke impact sterk af van de gebruikte instrumenten, in hoeverre MVB ontwikkeld is bij een institutionele belegger en de externe maatschappelijke omgeving. Alleen wanneer al deze elementen op elkaar zijn afgestemd, kan MVB een betekenisvolle bijdrage leveren aan een duurzamere samenleving.



Acknowledgements

The first seed for this PhD was planted when I did field work in Russia for my thesis. During my thesis I found that one of the few positive forces helping Russian environmental NGOs were international investors, pushing local Russian companies in which they invested to open up to stakeholders. That idea translated in the plan to do a PhD at a later point and I have a long list of people I want to thank for their help, insights, support, humour, inspiration and companionship during this journey.

First of all, I am very grateful for the support of Kris van Koppen and Arthur Mol as promotors for all their help and insights during this journey. Kris unfortunately passed away in April 2026 and will be much missed by me and many, many others. It was a real honour to have Kris as my co-promotor and I look back with sincere gratitude. I have very pleasant memories of our meetings, the in-depth discussions, challenging questions, true friendliness and help and support along the (long) way.

I also want to thank Arthur Mol for his unrelenting support during the whole process even when taking on the role of rector magnificus. I have truly enjoyed our conversations, the inspiration, help in dealing with the review process and the true curiosity that characterizes the real scientist. Combined with the ever present friendliness you have been a real inspiration. Kris and Arthur, I am very, very grateful for the opportunity to do this PhD and to have had you on my side!

A very big thanks to Hilde Tobi as well for her help in dissecting difficult methodological challenges and her inspiring enthusiasm. It was very helpful and fun to dive into the data, and I truly appreciated your sharp analytical skills, humour and enthusiasm!

A large part of the journey was together with Rudy Verstappen. As VBDO-colleague and friend, it was a pleasure to write two articles together. Challenging each other, debating the pros and cons, having a laugh and having fun during the process. A big thank you for the help and fun along the way!

Also a word of gratitude to Marita van 't Klooster for her support in the formatting and meticulously proofreading my dissertation.

What made this PhD journey special was the ability to combine academic work with actually working in the field of SRI. During this period, I was able to gain insight into SRI policies, engagement, proxy voting, investor collaborations and the latest developments regarding SRI.

Special thanks to all of my (former) colleagues. First, to the VBDO staff for working towards a more sustainable capital market. I want to thank them for their trust in working with their datasets and their ongoing efforts in making capital markets more sustainable. Also, a big

thanks to my former colleagues at Achmea IM. Our conversation on SRI, its dilemmas and what is needed to move forward on SRI have been a true joy and helped me to sharpen my thinking on SRI. It has been great to work with you on many inspiring projects. From German and French road trips, the filing of shareholder resolutions to developing health as a theme in SRI. In October 2025, I had a very warm welcome by my new colleagues at APG and I want to thank them for the in-depth discussions, the great teamwork and the fun we had over the last months!

The great thing of the SRI community is that it is an "extended" family besides your regular colleagues. This field has wonderful people with expertise, humour and true engagement to make the world a better place. It also has many amazing collaborations (with all great acronyms) such as PLWF, DEN, HEN, ICCR, ATNi, ATMi, VWFI, UNPRI, HEAL, LIPH and many more; you all rock!

One cannot only work and study, and I am very grateful for many friends. From the "Vermintide Group" Frank, Jelle and Sander, my dojo friends at Jiki Shin Kan, Maarten Punt as academic friend in crime, Joost as walking, running and pancake athlete and many, many others.

I am grateful for the family in which I grew up, and I am thankful for their support, not only during my PhD but also throughout my lifetime. I am grateful to my father, mother and my sister, their warmth, inspiration and the conviction that one has a role to play to make the world a bit better. Although my mother and my sister passed away, I am sure they have been close to me ever since, also today.

Last, but certainly not least, I want to thank my precious ladies Magda, Elsa and Veerle for their support and patience during my PhD. I am well aware that doing a PhD alongside a regular job meant spending precious time in recent years, and I am very grateful for their full support along the way. Also, all the engaging conversations at the kitchen table on how "stukjes bedrijf" work, sustainability in healthcare, and circular economy have made this such a great journey. However, the thing I am most grateful for is always being truly at home when you are close.

Frank



About the Author



Frank Wagemans was born in 1981 in Weert, The Netherlands. He obtained its MSc in Environmental Policy in 2006 at Wageningen University.

After graduation, he worked at the Province of North Brabant in the fields of renewable energy and water management. This was followed by a secondment to the Dutch Deltaprogramma and the Interprovinciaal Overleg (IPO), in which he worked on the topics climate adaptation, scenario analysis, spatial planning and water management.

In 2013, Frank joined the VBDO, The Dutch Association of Investors for Sustainable Development, where he worked on several topics related to SRI and CSR. Specifically, on themes such as health, natural capital and human rights, he was project lead for the Responsible Investment Benchmark for the Dutch pension and insurance sector.

In 2017, Frank joined Achmea Investment Management, a Dutch asset manager with over €200 billion assets under management, where he took the role of senior engagement specialist. Frank engaged investee companies on ESG-themes, health, on behalf of several institutional investors and has taken an active role in several joint initiatives of responsible investment, ranging from the Platform Living Wage Financials, the UNPRI Systemic Stewardship committee, to an international coalition of investors urging the pharmaceutical index to place societal impact above financial rational.

In 2025, Frank transferred to APG, a Dutch asset manager servicing several pension funds, including the ABP fund, with a specific focus on stakeholder management and strategic communication in relation to SRI.

In addition to his job, Frank became a board member of the Access to Nutrition Initiative in 2021. An NGO monitoring food and beverage companies on their nutritional policies and actions, and championing healthy and nutritious diets worldwide. He is also a board member of "Stichting Paulien", a charitable foundation focused on supporting people in vulnerable positions.

Frank is married and the father of two daughters, practices Aikido, and plays the trumpet (not at the same time).

p

Publication List Author

Peer reviewed publications

Wagemans, F. A. J., Koppen, C. S. A. v., & Mol, A. P. J. (2013). The effectiveness of socially responsible investment: a review. *Journal of Integrative Environmental Sciences*, 10(3-4), 235-252. https://doi.org/10.1080/1943815x.2013.844169

Wagemans, F. A. J., van Koppen, C. S. A., & Mol, A. P. J. (2018). Engagement on ESG issues by Dutch pension funds: is it reaching its full potential? *Journal of Sustainable Finance & Investment*, 8(4), 301-322. https://doi.org/10.1080/20430795.2018.1485379

Wagemans, F. A. J., Verstappen, R. J., van Koppen, K. S. A., Tobi, H., & Mol, A. P. J. (2025). Institutional investors and the adoption of socially responsible investment: an explorative case study of Dutch pension funds. *Journal of Sustainable Finance & Investment*, 15(3), 733-756. https://doi.org/10.1080/20430795.2024.2327550

Other non-scientific publications

Bruine, E. d., Wagemans, F., Tuinen, E. v., & Douben, K.-J. (2011). Behoud zoetwatervoorziening in West-Brabant en Tholen bij een zout Volkerak-Zoommeer. *H2O*, *16*.

Cavalcanti, V. M., Vermooten, J. S. A., Nogueira, G. E. H., Wortmann, C., Morgan, A., Wagemans, F., Chabaud, A. (2024). *From global to local: enhancing ESG data on water: Recommendations in support of responsible investment*. WWF, Deltares, Achmea IM, NN Group, SCOR. https://publications.deltares.nl/11210013_000_0002.pdf

Gough, M., Hime, S., Hulse, J., Morice, M., Nordheim, A., Pitts, H., Wagemans, F. (2018). *Connecting finance and natural capital: A supplement to the Natural Capital Protocol*. https://vbdo.nl/wp-content/uploads/2018/04/ConnectingFinanceandNaturalCapital_SupplementtotheNaturalCapitalProtocol_3577.pdf

Holtland, H., & Wagemans, F. A. J. (2017). *Tobacco & Dutch Institutional Investors: Business as usual?* https://vbdo.nl/wp-content/uploads/2017/03/VBDOHartstichtingTobacoandDutch03031702-2.pdf

Morgan, A., Meijeren, A. v., Wagemans, F., Poolen, N., Velzen, N. v., Vermooten, S., & Oeljee, T. (2022). *Briding the Gaps in ESG water data to create opportunities. A discussion paper for investors*. https://business.wwf.nl/api/Download/Download?fileId=256593

Ras, P., Wagemans, F., & Tilburg, R. v. (2013, 22-11-2013). Opinie: Het bankieren is te belangrijk om aan alleen de bankiers over te laten. *Financieel Dagblad*. https://fd.nl/binaries/10/40/70/Krant-20131122%20-0-010-013.pdf

AUTHORSHIP STATEMENT

PhD candidate's name :	F.A.J. Wagemans
First promotor :	Prof. dr. ir. A.P.J. Mol
Title of PhD thesis :	Socially responsible investment: Development and impact.
Date of public defence :	9-9-2026

Chapter 1: I have written chapter 1 independently as the introduction to my dissertation. I incorporated valuable feedback from my promoters Arthur Mol and Kris van Koppen. No GenAI was used in writing this chapter. AI tools were used to check for grammatical and typographical errors.

Chapter 2: This chapter is based on Wagemans et al. (2013). I wrote the article and was supported in the research design and writing by Kris van Koppen and Arthur Mol. No GenAI was used in writing this chapter.

Chapter 3: This chapter is based on Wagemans et al. (2018). I wrote the article and was supported in the research design and writing the article by Kris van Koppen and Arthur Mol. No GenAI was used in writing this chapter.

Chapter 4: This chapter is based on Wagemans et al. (2024). I was supported by Hilde Tobi, Kris van Koppen and Arthur Mol in the methodological design, theoretical framework and the overall review. The data gathering and analysis was a joint work between Rudy Verstappen and me. The writing was done in close collaboration with Rudy Verstappen, Hilde Tobi, Kris van Koppen and Arthur Mol. No GenAI was used in writing this chapter.

Chapter 5: This chapter is based on a paper that has been submitted. I was supported by Hilde Tobi, Kris van Koppen and Arthur Mol in the methodological design, the theoretical framework and the overall review. Rudy Verstappen, Sara Heinsbroek and I executed the data gathering and data analysis. I received input in writing the article from Rudy Verstappen, Sara Heinsbroek, Hilde Tobi, Kris van Koppen and Arthur Mol. No GenAI was used in writing this chapter. AI tools were used to check for grammatical and typographical errors.

Chapter 6: I wrote this chapter independently. I incorporated valuable feedback from my promotors Arthur Mol and Kris van Koppen. No GenAI was used in writing this chapter. AI tools were used to check for grammatical and typographical errors.

Financial support from Wageningen University for printing this thesis is gratefully acknowledged.

Layout and printing by ProefschriftMaken | proefschriftmaken.nl
Cover design by Stefanie van den Herik

