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Challenges of Achieving a Green Future and Financial Security

A Multiple Case Study of Swedish Pension Firms' Green Bond Assessment Processes

by

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Abstract

Deriving from an increased awareness of the devastating effects of global warming consequences, the interest for green bonds is growing at an explosive pace. However, researchers and practitioners have raised concerns about the challenges of assessing green bonds. Responding to a well-defined research gap stemming from identified challenges to assess green bonds, the primary purpose of this study is to explore how Swedish pension firms assess green bonds prior to investment. Given the explorative characteristics of the research, this study is conducted qualitatively through a multiple case study, using interviews to capture unique and similar aspects of five Swedish pension firms. In addition to the scarce literature on green bonds, this study uses the adjacent theoretical foundations of sustainable investing and conventional bond assessment. The institutional logics theory constitutes the theoretical lens through which the study analyses green bond assessments. The study concludes that two primary institutional logics are shaping the pension firms' assessment processes; a financial and an environmental. Findings show that the overall assessment process contains the same basic structure; however, findings also indicate differences within this basic structure. To the extent of our knowledge, this thesis is first to introduce pension firms' rationale for their choice of assessment approach when handling identified challenges on the green bond market. Findings further imply a paradox that pension firms encounter, in which they have to choose between pensioners' financial security and the planet's survival.

Keywords: Green Bonds, ESG Assessment, Conventional Bond Assessment, Socially Responsible Investing, Institutional Logics, Pension Firms

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1 Introduction

With the pressing threat of global warming consequences, a general awareness has emerged of how financial investments need to be arranged towards climate-resilient activities to attain a greener world (Clark, 2013). As a consequence, sustainability now plays a crucial role in over 70 % of mainstream institutional investors' investment plans (Park, 2018). To move towards a low-carbon economy, the OECD's report on green growth initiatives estimates that a substantially larger amount of private capital is needed (Della Croce, Kaminker & Stewart, 2011). Furthermore, the Paris Agreement expressly calls for private capital to mobilise and financially support the transformation towards a low-carbon and climate-resilient future (UNFCCC, 2020).

The increased sustainability awareness is demonstrated as both consumers and companies have higher demands for sustainable investments. This is especially notable in Sweden, where the consumer demands for sustainable savings with an environmental focus have increased by over 500 % since 2013 (Naturskyddsföreningen, 2018). An event symbolising this fact was when Pensionsmyndigheten, the Swedish government's pension agency, launched several initiatives to increase sustainable transparency and awareness in 2019 (Pensionsmyndigheten, 2019). For example, a 'low CO2-risk' tag was implemented on its website to distinguish which funds are exposed to fossil fuels. In Sweden alone, the occupational pension stands for 2 700 billion SEK (Aktuell Hållbarhet, 2019), which, in comparison, is more than half of Sweden's gross domestic product (Carlgren, 2020). These initiatives, amongst others, indicate that pension firms play an essential role when transforming the financial sector towards a greener future.

As a response to the increased demand for environmental-related investment possibilities, a financial instrument called green bond has emerged (Flammer, 2018). The market for green bonds has grown explosively in recent years (S&P Global Ratings, 2019) and have been acknowledged to lead the transformation in the debt capital markets: "The green bond market is still small—but it is also a critical leading indicator of a revolution" (Park, 2018, p. 4). A driving force of this financial revolution are institutional investors, especially pension firms and insurance companies, which have been a key engine for the growth and development of

the Swedish green bond market (Mac Key, 2018). By investing in green bonds, the large pool of capital that institutional investors possess is, in line with the Paris Agreement, allocated towards a greener future.

1.1 Background

1.1.1 Introducing Green Bonds

A green bond is designed as a conventional bond, with the addition that the capital is earmarked to raise money for climate and environmental projects (Lingyi, Strömberg & Hjelmberg, 2019; Stenmark, 2020). A bond is defined as a debt investment, with the goal to raise capital and is, therefore, often used as an alternative to bank loans (Pfau, 2019). The projects earmarked in a green bond can, for example, involve new technical solutions to decrease carbon emissions, water sanitation or enhance sustainable infrastructure (Brundin, 2015). The world's first green bond was issued by the World Bank and a Swedish bank in 2008 (Reichelt, 2018). The market for green bonds has flourished at an explosive pace since 2013, where the market increase in Sweden was over 85 % in 2019 alone (Davidsson, 2020; S&P Global Ratings, 2019).

The main actors on the green bond market are issuers, investors, banks, second opinion providers, and credit rating firms (Figure 1). Any organisation can issue a green bond, but the most common issuers are banks, private corporations, supranational institutions, and governments (KPMG, 2016). A first step usually involves an issuer to mandate a bank for the issuance of the bond, which includes organising investor meetings with potential investors (Kaminker, Majowski & Sullivan, 2018). Additionally, a green bond framework is jointly constructed by the issuer and the bank and is typically based on the international standard called the Green Bond Principles (GBP), with the purpose to outline the issuer's commitment to the green attributes of the bond (KPMG, 2016). In line with the GBP's recommendation, the green bond framework and relevant documents are often verified by a second opinion provider (Kaminker, Majowski & Sullivan, 2018). Moreover, the financial creditworthiness of the issuer is evaluated by a credit rating firm (Stenmark, 2020). When both the verification of the bond's green framework and the credit rating of the issuer are in place, the bond is issued and available for investments (KPMG, 2016).

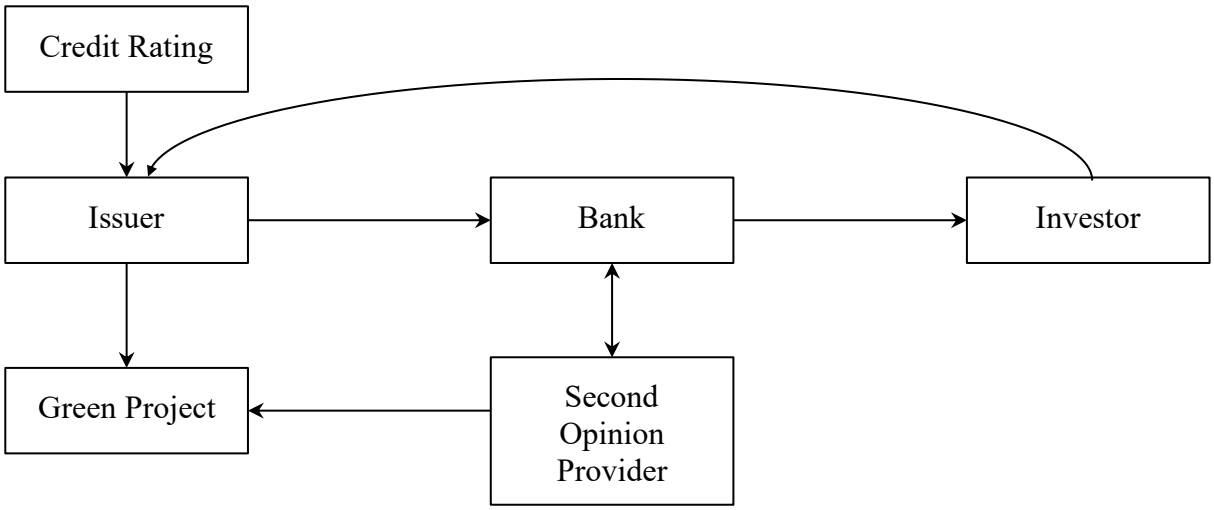

Figure 1. Green Bond Market (Kaminker, Majowski & Sullivan, 2018)

1.1.2 Introducing Green Bond Market Standards

Due to the explosive growth of the green bond market, principles and standards for green bonds have not managed to develop as quickly, and researchers and practitioners are requesting more clear directives of what defines a green bond and how to assess it (Berensmann, Dafe & Lindenberg, 2018; Brundin, 2015; Flammer, 2018; Li, Tang, Wu, Zhang & Lv, 2019; Park, 2018). To meet this demand, the GBP was initiated by 13 international banks in 2014 (Brundin, 2015).

The GBP is published annually by International Capital Market Association (ICMA) and consists of four main guiding principles (Appendix A), which present recommendations on transparency, disclosure and reporting of the capital allocation of the green bond (ICMA, 2019). Specifically, the GBP provides guidelines on how to design a green bond framework to increase its legitimacy and transparency towards market actors. In turn, potential investors can more easily assess the green bond framework.

The GBP was a step in the right direction to secure a more consistent valuation of green bonds (Brundin, 2015). Nonetheless, the principles are voluntary for the issuer to follow, and the GBP itself recommends external parties to review and assess green bonds (ICMA, 2019). Other initiatives trying to provide guidance and standardisation of green bonds are the Climate Bond Initiative (CBI) and the recently created EU Taxonomy (CBI, 2020; EU TEG, 2020). As with the GBP, neither the CBI nor the EU Taxonomy are mandatory, and to date,

no legal enforcement regarding green bonds exist other than those of conventional bonds (VG regionen, 2019). The need for standards results in difficulties to perform consistent assessment processes when investing in green bonds. As institutional investors are large investors on the green bond market, it is particularly interesting to further research how pension firms assess green bonds. Therefore, the Swedish pension system and its societal function is introduced below.

1.1.3 Introducing the Swedish Pension System

Saving for old age can be a burdensome and complex responsibility. In line with the industrialisation, labour and capital became interdependent, which ultimately lead to the development of pension systems and life insurance (Sass, 1997). For most countries, pension systems have become an important societal function, striving to guarantee social insurance, income security and redistribution, and poverty alleviation (Baroni, 2007). In Sweden, the pension system act as a safety net for its citizens and is considered a crucial societal function (MSB, 2019). With pension savings spanning over a lifetime, occupational pension firms have historically had long investment horizons (Baroni, 2007). The pension firms' board of directors and management have a responsibility to act in the interest of the pensioners, both regarding how capital is invested and when developing the business (Finansinspektionen, 2008). Furthermore, pension firms have a responsibility to generate returns on the pensioners' capital.

There are about 30 pension firms in Sweden (minPension, n.d.a), which are responsible for managing the occupational pension (Pensionsmyndigheten, 2020). An individual's occupational pension is automatically managed by a pension firm connected to his or her industry and current collective agreement. However, one is free to change which pension firm that manages his or her occupational pension, as long as the alternative option is acting within the same collective agreement. It is from this standpoint that the pension firms base their assessment when investing in green bonds, where their societal function is expected to affect the assessment process.

1.2 Research Problem

Despite the increased awareness of the need for sustainable investments, Woods and Urwin (2010) argue that awareness necessarily does not equal understanding and raises the urgency for practical research and guidance. The authors highlight how pension firms tend to fail to include environmental, social, and governance (ESG) matters sufficiently in their investment strategies. This goes in line with a study made of Sweden's 13 largest pension firms, which conclude that the majority of the firms have a well-established strategy for sustainable stock investments but fail to establish a strategy for other sustainable investments, including green bonds (Lingyi, Strömberg & Hjelmberg, 2019). The study shows that the data availability for sustainable investments is inadequate, leading pension firms to assess and investigate which assets to invest in individually. More specifically, this points to the fact that each pension firm decides which sustainability criteria to apply when assessing potential investments. However, the methods and processes are, according to the aforementioned study, insufficient to ensure a proper review of the sustainable investment options.

Because of the novelty of the green bond market, few empirical studies have been made, and the literature regarding green bonds is rather scarce and limited (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019). Specifically, practitioners have raised concerns about the lack of standards for green bonds, leading to inconsistent valuations (Brundin, 2015). In agreement, several researchers stress that despite the boom of green bonds, the lack of definitions and standards has resulted in difficulties to apply consistent assessment and governance processes (Flammer, 2018; Park, 2018; Talbot, 2017; Wood & Grace, 2011). As a consequence, pension firms are unable to entirely assess the authenticity of green bonds themselves, which have led to the usage of second opinion providers (Wood & Grace, 2011). The GBP enables an initial foundation for green bond assessment guidelines, but its voluntary and general characteristics have resulted in researchers as well as practitioners requesting more thorough assessment processes and standards (Berensmann, Dafe & Lindenberg, 2018; Brundin, 2015). In conclusion, the lack of assessment tools leads to uncertainty and challenges of conducting consistent valuations when pension firms assess and invest in green bonds. The current green bond literature is focusing on analysing these challenges that are characterising the green bond market, however, to the extent of the authors' knowledge, no

studies have been made with the purpose of researching how investors are handling these challenges.

1.3 Research Purpose

Due to the lack of research on pension firms' assessment processes for green bond investments, it would bring value to the literature as well as to the pension industry to research the topic further. Because of the substantial interest in green bonds found in Sweden, the purpose of this thesis is to study Swedish pension firms' assessment processes when investing in green bonds. Hence, the following research question is proposed:

How do Swedish pension firms assess green bonds prior to investment?

With this question, the thesis aims to gather practical insights and develop in-depth understandings of green bond assessments, which future institutional investors can benefit from applying in their assessment. These insights are also expected to fill the outlined knowledge gap as previously indicated, as well as contributing to the development of green bond theory. The study aims to explore how pension firms deal with the challenges of performing consistent green bond assessments and the underlying reasoning for the choice of assessment strategies. Given the under-researched topic, a multiple case study of Swedish pension firms is conducted inductively. The thesis, however, does not intend to evaluate or rate the pension firms' assessment processes but rather aims to map out their differences and similarities.

1.4 Research Limitations

The research topic is explored from an organisational perspective; hence, it does not intend to investigate financial mechanisms present in the green bond market. However, the financial practices that occur in the green bond assessment processes are explained to enhance the organisational understanding as well as to answer the research question thoroughly.

The research is limited to the Swedish market due to three main reasons; (1) The Swedish market actors were not only one of the first to issue and invest in green bonds but remains a driving force in the development of green bonds. As a consequence, the market actors are relatively more experienced in green bond assessment processes as well as that data availability of green bonds is assumed to be relatively more extensive. (2) Pension systems vary between countries, and as this thesis is from the standpoint of pension firms, it is essential to understand the specific market structure the pension firms act within and are restricted to. (3) Similarly, financial markets also differ between countries. Thus, by focusing on one market, the research can provide an in-depth understanding of the market actors and the assessment process by enabling distinctive findings.

1.5 Outline of the Thesis

This thesis consists of five central chapters. The introduction intends to introduce the rise of the green bond market as a result of the pressing threat of global warming consequences. Furthermore, the research problem and its accompanying question are outlined and formulated. The second chapter presents the literature review and theory used as a foundation to analyse pension firms' green bond assessment process prior to investment. Thirdly, the methodology chapter gives the reader insights into the rationale of the chosen qualitative research design, as well as how data collection was conducted to enable answering the research question. The fourth chapter aims to analyse the collected and coded data through the theoretical foundation presented in the second chapter, ultimately answering the research question. Lastly, the fifth chapter summarises the essential findings, practical and theoretical implications of the study, as well as relevant future research topics.

2 Literature Review

The green bond market is rapidly growing, however, the literature regarding green bonds is rather scarce and limited, with few empirical studies (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019). Nonetheless, green bonds have many of the characteristics of conventional bonds (Stenmark, 2020). By understanding the basics of conventional bond assessment, one can better grasp if and how green bond assessment differs. Therefore, the first section of the literature review covers the basics of conventional bond assessment. The existing green bond literature, although limited, is focused on the challenges and barriers of the green bond market, which is presented in the second section. To the authors' knowledge, no literature addresses firms' assessment processes for green bonds. Additionally, because of the outlined research gap, literature on socially responsible investment and ESG integration is presented, due to the clear sustainability focus also found in green bonds. Lastly, institutional logics is applied when analysing underlying rationales that shape patterns of social and organisational behaviour and has previously been used when analysing sustainable financial assets (e.g. Im & Sun, 2015; Yan, Ferraro & Amandoz, 2019). As green bonds have focus on sustainability aspects, institutional logics theory is considered suitable and is explained in the fourth section.

2.1 Conventional Bond Assessment

As briefly described in the introduction, a bond is simply a tradable loan contract. The issuer borrows a specific amount and commits to repaying the same amount with additional interest according to a fixed payment plan (Berk & DeMarzo, 2017). The payment plan states a maturity date; that is, the end date of the bond. When assessing a conventional bond, primarily four aspects are taken into account; (1) price, (2) maturity, (3) risk, and (4) credit rating (Berk & DeMarzo, 2017; Bodie, Kane & Marcus, 2018).

As one can expect, the price is an important aspect to consider when assessing a bond. A pre-set interest rate is decided before any investment is made, which usually is repaid to the investor on a regular basis (Berk & DeMarzo, 2017). Therefore, the yield of a bond is the effective return the bond generates, which is determined by the price of the bond and the interest it can provide. As a result, the set-up of a bond and its price reflects the bond in relation to the market and is naturally an essential factor to take into account when assessing a bond.

Secondly, another aspect of a bond assessment is the maturity date, that is, the final repayment date of the bond, from when the bond can be considered repaid to the investor (Berk & DeMarzo, 2017). The time of the bond's maturity considerably affects the bond price (Bodie, Kane & Marcus, 2018). In general, the longer the maturity of the bond, the greater the risk.

Thirdly, risk is a crucial part of the assessment process. Bonds are considered a relatively low-risk investment compared to other financial instruments (Bodie, Kane & Marcus, 2018). However, there are two risks investors typically take into consideration; credit risk and risk associated with interest rate changes (Berk & DeMarzo, 2017). The credit risk refers to that the issuer possibly can default, and, therefore, are unable to pay back the price of the bond as initially agreed upon. As bonds are fixed-income investments, they run the risk of becoming less valuable if the interest rates elsewhere exceed the interest rate of the initial bond investment which the investor has tied up its money to (Berk & DeMarzo, 2017; Bodie, Kane & Marcus, 2018).

Lastly, credit rating is an aspect to consider when assessing a bond. Bonds creditworthiness are rated by external firms, as it would be difficult and time consuming for investors to individually assess the risk of each bond (Berk & DeMarzo, 2017). The two most well-known bond rating firms are Standard & Poor's and Moody's, who rate the bonds in specific risk categories, ranging from AAA to C. Specifically, bonds in the four highest categories are what is known as *investment grade,* whereas the lowest five categories are referred to as *high-yield bonds*. The credit rating is based on the risk of the issuer going bankrupt, and the bondholder's possibility to claim the issuer's assets in such a situation (Berk & DeMarzo, 2017). Therefore, the risk and the assessment of the bond is solely based on the issuer.

The aspects mentioned above are fundamental considerations in a green bond assessment, as a green bond's financial structure is set up in the same way as a conventional bond (Stenmark, 2020). Nonetheless, green bonds additionally have unique features that require other assessment processes (Li et al. 2019). Therefore, the following section will additionally describe and elaborate on the unique factors and challenges of green bonds assessment processes.

2.2 Challenges of Green Bond Assessment

Pension firms generally spread their investment portfolios by undertaking long-term, low-risk investments that generate reliable and predictable compensations to equal their liabilities, which both green and conventional bonds can offer (Kaminker, Majowski & Sullivan, 2018). The assessment of green bonds is similar to the assessment process of conventional bonds, however, additional challenges exist as the green bond market is relatively young (Li et al. 2019). In recent years, the green bond market has grown explosively, and many new types of issuers have entered the market (Berensmann, Dafe & Lindenberg, 2018). This has led to increased complexity in the green bond market and has further added complications to the investors' assessment processes. To understand the green bond market and how investors act on it, the following sections go further into what characterises it, its challenges and how investors are impacted by those challenges when assessing a green bond.

Researchers argue that the green bond market is lacking a universal consensus of what green bonds should include (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019). In fact, green bonds have no legal parameters and remain self-labelled. How 'green' a project should be, or even what areas may count as green is debated among the stakeholders (Park, 2018; Wood & Grace, 2011). In 2014, the GBP was initiated to promote clarity of what constitutes a green bond and increase the integrity of the green bond market (Park, 2018). The GBP defines a green bond as "any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the GBP" (ICMA, 2019, p. 6). However, researchers argue that GBP's definition is too broad, making it difficult for stakeholders, including investors, to assess green bonds (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019).

Just as no consensus of a green bond definition has been formulated, standards for green bonds are neither agreed upon (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019; Park, 2018; Wood & Grace, 2011). The green bond market has high growth potential, but the lack of standards is said to be one of the main barriers to its expansion (Berensmann, Dafe & Lindenberg, 2018; Wood & Grace, 2011). Berensmann, Dafe and Lindenberg (2018) stress that the need for standards has been expressed by several green bond market stakeholders; banks, NGOs, research institutes and rating agencies. However, the industry itself has been a driving force by striving for standardisation through self-regulation. Further, the industry has made attempts to address the lack of standards, but issues involving transparency and reporting have rather been focus areas than developing global standards. Berensmann, Dafe and Lindenberg (2018) claim that standards can serve as a tool to provide benchmarks for all parties involved in an investment, increase transparency and guide investors to assess between green and non-green bonds. Therefore, standards can decrease transaction costs for the investors and serve as a guiding tool in the assessment process. The demand for green bonds has by far exceeded the supply (Park, 2018), which is why introducing standards is crucial to reach a balance in the future (Berensmann, Dafe & Lindenberg, 2018). On the other hand, more strict standards are not solely positive. Additional costs in terms of issuing deals and verifying them is a possible consequence of implementing stricter standards, which may lead to limiting investor demand and market liquidity (Wood & Grace, 2011).

As with conventional bonds, green bonds are assessed by credit rating firms to indicate the risk and creditworthiness of the issuer. Taking into account that the green bond market is still under construction, credit ratings become increasingly important to reduce existing information asymmetry between the issuer and the investor (Li et al. 2019). Since investors lack standards and tools to evaluate green bonds, credit ratings are one of the primary information sources and risk assessment tools.

The described conditions and challenges of the green bond market illustrate the difficulties investors face when assessing a green bond. It remains unclear how companies should assess green bonds (Flammer, 2018; Park, 2018). The market for green bonds is still relatively new, and investors are yet to be equipped with sound assessment tools (Li et al. 2019). Institutional investors, including pension firms, have an immense amount of capital to manage as well as rigorous investment criteria, making it particularly critical (Berensmann, Dafe & Lindenberg, 2018). As investors lack sound assessment tools for green bonds, second opinion providers

have become an additional source of verification in the assessment process (Park, 2018). Therefore, the role of second opinion providers and their impact on the green bond assessment process is described below.

2.2.1 Second Opinion Providers

The absence of definitions and standards create information asymmetries between the issuer and investor (Li et al. 2019), resulting in institutional investors often lack the internal capacity to assess the authenticity of green bonds (Wood & Grace, 2011). As a consequence, investors are required to rely on second opinion providers, which serves as a verifier of the green bond framework (Li et al. 2019; Park, 2018).

Independent second opinions can lower barriers for investors who are unfamiliar with the rapidly growing green bond market (Li et al. 2019). In 2018, about 69 % of green bonds issued by corporations globally were verified by an independent second opinion (Flammer, 2018). By conducting the assessment of the bond's green framework, second opinions simplify the investor's own assessment, while reducing the investor's due diligence cost and commitment (Li et al. 2019). As a consequence, it decreases the friction in the market and simplifies the investor's investigation of green bonds. Moreover, second opinions result in better transparency and information disclosure of the green bond's use of proceeds, which, in turn, leads to increased investment profit margins (Li et al. 2019). Second opinions, therefore, play an important role, as it provides the investor with valuable information and ensures that the use of proceeds is allocated into green projects (Wood & Grace, 2011).

However, the second opinion provider may experience conflicts of interest, as the second opinion provider is paid by the issuer, which can impact the judgement (Berensmann, Dafe & Lindenberg, 2018). Furthermore, the second opinion provider might be keen to uphold a good relationship with the issuer of the green bond, which may be reflected in the evaluation of the bond's green framework. Another concern is that second opinion verifications remain voluntary and can, therefore, create trade-offs for the issuer (Flammer, 2018). At the one hand, it can be burdensome and costly for the issuer to verify the bond through a second opinion provider. At the other hand, the additional cost can signal a more credible green commitment. In turn, the signalled green commitment affects the price, which tends to be twice as high in the announcement of a green bond when an independent second opinion

provider has been involved. Berensmann, Dafe and Lindenberg (2018) further raise the issue of comparability between second opinions. They argue that all second opinion providers should use the same standardised evaluation criteria, for investors and other stakeholders to be able to assess and compare different green bonds.

The existing literature within green bonds portrays the challenges occurring when assessing green bonds. However, the literature mainly focuses on the problematization, while little to no attention is put on the actualisation of green bond assessment processes and accompanying strategies. Hence, the following section will apply theoretical frameworks that are assumed to be applicable to the actualisation of green bond assessment processes.

2.3 Sustainable Investing

As no literature exists regarding how to assess green bonds, adjacent literature is presented. Sustainable investing was chosen as it takes the investor's perspective while including social and environmental factors. Taking into account that this thesis aims to investigate how pension firms assess the sustainable financial asset green bond, it was considered an appropriate part of the literature review. Furthermore, as green bonds are included in sustainable investment strategies, it is expected that the same strategies can be applied to green bonds assessment.

2.3.1 Socially Responsible Investment

A growing number of investors are spending capital with a concern for social and environmental matters, referred to as Socially Responsible Investment (SRI) (Fram, 2018). However, there is ambiguity amongst investors regarding the definition of SRI (Duuren, Plantinga & Scholtens, 2015). In general, SRI is referred to as sustainable investing and involves including ESG factors in the investment process (Duuren, Plantinga & Scholtens, 2015; Escrig-Olmedo, Rivera-Lirio, Muñoz-Torres, & Fernández-Izquierdo, 2017). A more specific definition can be found by Escrig-Olmedo et al. (2017), who define socially responsible investors as investors who embrace a long-term investment horizon, expecting

market-level returns, although, occasionally accepting lower returns for the benefit of corporate sustainability.

SRI has increased significantly in recent years, as a response to occurring environmental challenges (Escrig-Olmedo et al. 2017; Jansson & Biel, 2011). Particularly, large investors are one of the main drivers of SRI, where institutional investors are conducting the majority of the investments within the field. A critical institutional investor driving the development of SRI are pensions firms. They are characterised by long term investment horizons, which goes in line with the long-term focus of SRI and sustainable development (Escrig-Olmedo et al. 2017). A reason why institutional investors are participating in sustainable development is that it can align with their organisational values (Jansson & Biel, 2011). Additionally, acting as a responsible investor is crucial to maintain a positive customer reputation.

Duuren, Plantinga and Scholtens' (2015) research indicates that there are considerable differences between US and European investors, where European investors are far more positive towards the benefits of SRI, both in terms of the financial performance and how it affects the investment process. Therefore, the researchers argue that SRI is more adjacent to ordinary investing in Europe, as it is closer to the conventional investment process. This becomes particularly interesting, given the focus on the Swedish market in this thesis.

2.3.2 Integrating ESG Factors into the Investment Process

The SRI approach is based on the assumption that it is an advantage for both investors as well as society to assess ESG factors in the investment process (Duuren, Plantinga & Scholtens, 2015). Specifically, ESG integration is defined 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" by Eurosif (2014, cited in Duuren, Plantinga & Scholtens, 2015; Escrig-Olmedo et al. 2017). ESG integration includes taking non-financial criteria into account, where potential investments usually have to fulfil minimum standards in each of the three ESG categories. The number of companies using ESG data has grown exponentially the last 25 years, suggesting that ESG integration is more important than it previously has been (Amel-Zadeh & Serafeim, 2018). The practice of ESG had a breakthrough in 2006 when the United Nations included a set of voluntary ESG standards in the Principles for Responsible Investment (Caplan, Griswold & Jarvis, 2013).

There is a growing consensus that ESG is included in companies' competitive strategies, as it lays a foundation for thorough risk assessment and creates opportunities for long-term value creation (Khemir, 2019).

Duuren, Plantinga and Scholtens (2015) investigate how investors integrate ESG factors into the investment process and thereby suggest common ESG strategies, as well as how they are applied practically by investors. The research indicates five main ESG strategies used by investors, presented as follows: (1) *Negative screening*, involves excluding industries or firms from investment. (2) *Positive screening*, focuses on investing in specific industries or firms. (3) *Best-in-class*, entails choosing the best firms in certain ESG categories. (4) *Activism*, is to be an active investor, for example, participate in voting on annual general meetings. (5) *Engagement*, involves influencing the firm to work more actively with ESG, for example, by meeting the firm's board or management team. According to Amel-Zadeh and Serafeim's research (2018) of how institutional investors used ESG strategies practically, four additional ESG strategies were found: (6) *Full integration*, which entails to include ESG factors into traditional financial analysis of stocks. (7) *Overlay/portfolio tilt*, refers to push a firm in a desired direction and change certain ESG characteristics, such as redirecting an investment towards a low-carbon footprint. (8) *Thematic investment*, is investing in specific assets related to ESG factors, for example, green technology, sustainable agriculture or clean energy. (9) *Risk factor/risk premium investing*, involves including ESG information in the risk analysis. Furthermore, in Amel-Zadeh and Serafeim's (2018) study, the strategies of (4) *Activism* and (5) *Engagement* is merged into one strategy. This merging will be applied for this thesis, as specifically for bond assessment, *activism* is not always an option as the investor may not have voting rights. According to their study, institutional investors believe that *positive screening* and *engagement/activism* will be the two most essential ESG strategies in the future.

ESG assessment is, furthermore, a widely used tool to mitigate risk and especially integrate 'red flagging' in the investment process (Duuren, Plantinga & Scholtens, 2015). Red flagging involves inspecting certain investments on a detailed level or entirely excluding them from the portfolio due to being harmful within ESG aspects. According to the research, investors integrating ESG factors into the investment process prefer to assess firms separately, rather than to perform general industry analyses. In other words, ESG factors need to be evaluated on a firm-level to enable proper assessment.

2.3.3 Contradictions of ESG Integration

Figge and Hahn's (2008) study shows that some organisations engage in SRI because they expect that environmentally sound and socially responsible businesses will generate higher returns. In turn, this will allocate capital towards sustainable companies, resulting in incentives for organisations to embrace more sustainable business practices and methods. The authors, however, conclude that the approach is not sufficient to meet the demands of sustainable development, as it results in assessing environmental and social performance separately or as a subordinate to the economic performance. On the same note, Jansson and Biel (2011) highlight that SRI among institutional investors is often still guided by financial performance. Amel-Zadeh and Serafeim's (2018) research of institutional investors strengthens this logic, by implying that ESG data is primarily used for financial motives, rather than ethical ones. This could be explained by the fact that integrating ESG factors is recognised as a sound business practice rather than an attempt to contribute to sustainable development (Duuren, Plantinga & Scholtens, 2015). Moreover, fund managers are limited by formal procedures, informal norms, and perceived fiduciary obligations, such as managing against an index or acting in the best financial interest of beneficiaries (Jansson & Biel, 2011). This becomes particularly relevant for pension firms, which entire existence is based on the purpose of managing capital spanning over a lifetime.

Jansson and Biel (2011) argue that institutional investors are guided by financial performance, and, therefore, put less attention on environmental and/or social concerns. This implies that institutional investors tend to undervalue the importance of environmental and social concerns of their beneficiaries while simultaneously overvaluing the importance of economic performance. As a consequence, institutional investors fail to recognise the full potential of ESG strategies. However, other researchers argue that integrating ESG factors might include weight on the investment process and additional costs (Duuren, Plantinga & Scholtens, 2015; Flammer, 2018). The results from Duuren, Plantinga and Scholtens' (2015) research suggest that investors do not find it justifiable that ESG might include considerably higher costs.

Another raised concern is the additional investigation of raw data it requires to ensure that the ESG factors are thoroughly assessed (Duuren, Plantinga & Scholtens, 2015). The greatest challenge for investors is, therefore, the lack of ESG reporting standards, making it challenging to apply ESG information and compare between potential investments (Amel-Zadeh & Serafeim, 2018; Caplan, Griswold & Jarvis, 2013). Further, as the assessment can be

time-consuming, it results in investors relying on ESG ratings instead of performing their own analysis (Duuren, Plantinga & Scholtens, 2015).

2.4 Sustainable Investing Through the Lens of Institutional Logics

A theoretical lens often applied when analysing the underlying reasons for organisational behaviour is institutional logics. Kent and Dacin (2013) state that institutional logics defines *the rules of the game*, by which the actors and their actions within an institutional field are established. By applying the institutional logic lens, one can understand *the rules of the game* shaping the green bond market and its actors. The authors further argue that an institutional field consists of multiple stakeholders or components that legitimise organisational practices and structures according to the institutional logic they are embedded in. Arguably, one can better grasp the underlying logic that frames the green bond assessment processes by using the institutional logics theory. The following section describes the fundamentals of the institutional logics theory with elements of sustainable investing.

It is evident that an underlying capitalistic structure has been driving the business environment, exemplified as:

> There is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud (Friedman, 1962, p. 133).

In other words, there has been a distinction between business and social matters. The business rationale stems from the investment logics and practices of financial investment management (Nicholls, 2010). The social rationale, on the other hand, focuses on the entrenched practice of gift-giving, state spending, and capital invested mainly to generate specific public goods or benefits for society at large. However, these two rationales of capital allocation have started to blend together in modern society through what is known as social investment. By acknowledging the environmental and social challenges connected to global industrialisation, there has been an increased interest among investors in the US and Western Europe to

consider those environmental and social challenges when investing (Jansson & Biel, 2011). The unification of these previously separated rationales have created several innovations within social investment, for instance, alternative public offerings of social shares and new debt instruments mixing different financial returns (Nicholls, 2010).

However, it has also created complexity due to different institutional logics emerging within the investment practice. Institutional logics shape the organising systems of an institutional order, including its norms, values, and practices (Thornton, Ocasio & Lounsbury, 2012). Institutional logics act as the DNA of an institution by producing and reproducing patterns of social behaviour (Kent & Dacin, 2013). Specifically, institutional logics is defined as "the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality" (Thornton & Ocasio, 1999, p. 804).

Figge and Hahn (2008) mean that companies should no longer only focus on generating economic value but are further obliged to work actively to reduce the environmental and social problems they create. On that note, Nicholls (2010) has identified competing institutional logics of social investment in terms of distinctive investment logics and investor rationalities. The author's research stems from the developed and traditional interpretation of analysing markets as socially constructed institutional objects (e.g. DiMaggio, 1994; Polanyi, 1944). It is through this lens that Nicholls (2010) describes social investment in which several investment logics and investors rationalities exist between different institutional actors, such as capital providers, intermediaries and investees.

A diversity of methods and types of investor actions can be identified within the social investment space, demonstrated by Nicholls (2010) through a spectrum (Figure 2). The spectrum indicates that social investors can choose between several investment approaches. Each investment approach includes different blends of social and financial risk and return. In other words, various institutions within the social investment space execute different investment logics along the spectrum ranging from philanthropy to mainstream asset management. Specifically, the author identifies three institutional logics that capture social investment; (1) focus on creating only social or environmental returns, (2) focus on both social/environmental outcomes and financial returns, called blended value creation, and (3) focus on creating 'pure' financial returns, as conventional investing. Turning the focus to pension firms, their business models are based on managing beneficiaries' capital in such a

way that it will generate financial returns. Additionally, in recent years it has also become common for pension firms to consider social and environmental aspects when investing (Fram, 2018). Therefore, when placing pension firms on the spectrum, one can argue that they act within SRI.

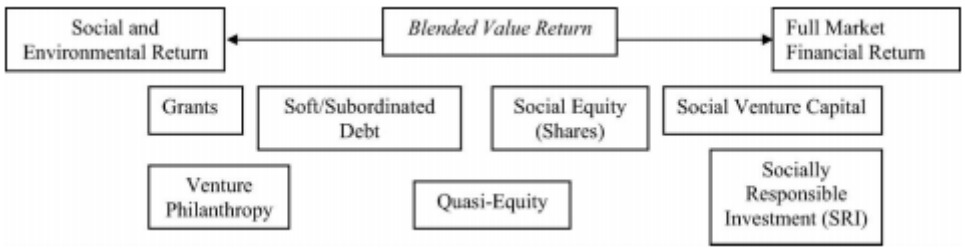

Figure 2. Value Creation in Social Investment (Nicholls, 2010)

In recent years, investors are increasingly engaging in environmental and social matters embedded within SRI (Fram, 2018). Meanwhile, the financial logic is gaining further traction worldwide, making the emergence of SRI somewhat puzzling (Yan, Ferraro & Amandoz, 2019). At the one hand, SRI enables possibly impactful alternatives to the mainstream investment practices and principles (Caplan, Griswold & Jarvis, 2013). At the other hand, SRI appears to contradict the core values and beliefs of the financial logic (Yan, Ferraro & Amandoz, 2019), which goes in line with Nicholls' (2010) identification of competing logics within the investment space.

Friedland and Alford (1991) argue that all institutional orders have a dominant logic, which guides their organising principles and behaviour within an organisational field. The dominant logic influences the decisions made in an organisation, as it draws executives' attention to the established issues and solutions that are rational and true within the dominant logic while pulling their attention away from what is not (Thornton & Ocasio, 2008). Institutional logics can provide valuable insights as they help explain the connections that form common purposes and practices within an organisational field (Reay & Hinings, 2009), which is organised by the dominant logic, although other logics can exist simultaneously (Thornton & Ocasio, 1999).

By contrast, Reay and Hinings (2009) mean that institutional logics necessarily does not have to compete until one becomes dominant but can be complementary. Yan, Ferraro and

Amandoz (2019) suggest categorising the components of institutional logics as either *means* (e.g. material practices, resources, experiences, expertise) or *ends* (e.g. motivations, values, goals), to explore and understand the tensions between logics within an organisational field. Their study implies that when the coupling between *ends* and *means* is tight, and the end goal of a dominant logic is taken for granted, other logics are more likely to compete with the dominant one. On the contrary, if the dominant logic acts as the provider of *means*, multiple logics are likely to be complementary. In other words, individuals and groups within an organisational field collaborate to achieve specific tasks while maintaining their independence and support for their values and motivations.

Reay and Hinings (2009) stress that the financial logic is the dominant one within financial organisations. However, Yan, Ferraro and Amandoz (2019) mean that it is ambiguous whether the financial logic competes or complements the social logic in the emerging SRI. When the financial logic is deeply established in society, the following friction can hinder a successful integration of the financial and social logics in new SRI funds. In other words, the more established the financial logic is within a society, the more profit-maximisation will be taken for granted, resulting in capital more likely being deployed towards only that *end*.

To identify the behaviour in a particular context requires theorising an inter-institutional system of societal sectors, of which each sector illustrates a different array of expectations of human and organisational behaviour (Friedland & Alford, 1991). Considering that there is not one source of rationality, but multiple, viewing society as an inter-institutional system enables heterogeneity and exploration of contradictions between logics (Thornton & Ocasio, 2008), such as the ones existing within SRI and arguably green bond investment. As institutional logics guide individuals as well as organisations to determine which problems to prioritise, which solutions to apply and link to which situations, the institutional logic theory will provide robust analysis tools for this thesis.

2.5 Chapter Summary

To conclude, the literature review contains assumed cornerstones needed to understand and analyse pension firms' green bond assessment processes (Figure 3). Firstly, the fundamentals of conventional bond assessment are described. These fundamentals are applied when

assessing green bonds as well, which is why the conventional bond assessment literature will contribute to a deeper understanding of the green bond assessment. Secondly, the challenges of the green bond assessment are presented as well as the important role of second opinion providers. The challenges of green bond assessment introduce the scarce literature regarding green bonds and further provide an understanding needed to analyse how market structures and actors influence pension firms' green bond assessment processes. Second opinion providers are a unique feature of green bond assessment and is, therefore, a crucial aspect to recognize when analysing pension firms' green bond assessment process. Thirdly, sustainable investing is described, including SRI and ESG. The SRI and ESG strategies presented enable understandings of the practical strategies used by the pension firms when assessing green bonds. Lastly, the institutional logics theory presented constitutes the theoretical lens through which the green bond assessment is analysed. The theoretical lens enables a context to be thoroughly analysed and provides underlying meanings needed to fully understand how and what shapes the pension firms' assessment practice.

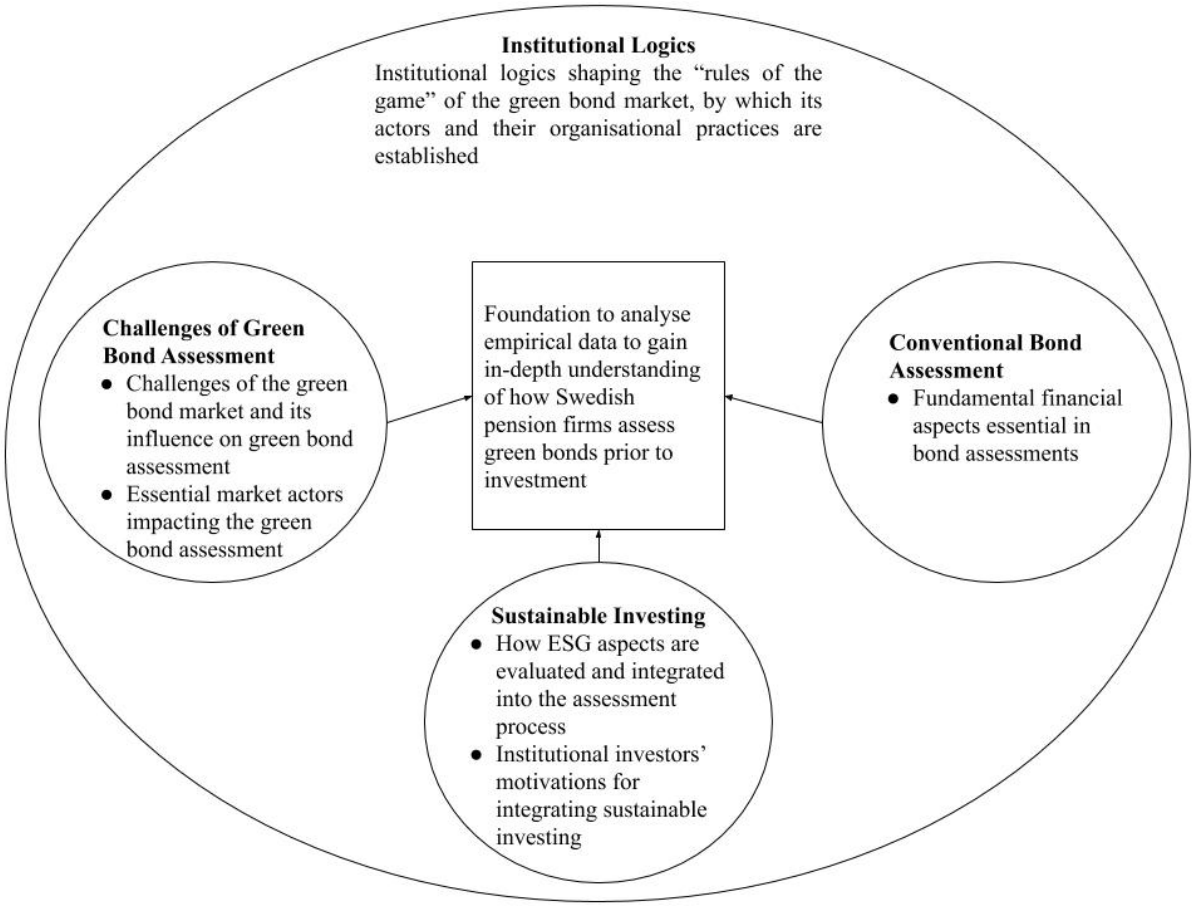

Figure 3. Visualising Theoretical Foundation

3 Methodology

The methodology chapter will describe the qualitative approach and iterative process used to answer the research question. Initially, reflections regarding the research approach and research design of multiple case study will be elaborated on. Thereafter, the approach regarding data collection method, data analysis, as well as validity and reliability, are presented.

3.1 Research Approach

The underlying purpose of this thesis derives from the challenges of assessing green bonds. The problem statement of this thesis is, thus, of an explorative character as it attempts to fill in the abovementioned knowledge gap. Creswell and Creswell (2018) suggest that a qualitative research approach should be used when exploring and understanding a problem. Additionally, a qualitative approach is preferably used when the research approach involves data collection through words rather than figures (Bell, Bryman & Harley, 2019). Furthermore, a qualitative approach is suitable when the research question requires to be studied through emerging methods, unlike a quantitative approach which focuses on testing objective theories through pre-determined methods (Creswell & Creswell, 2018). Given the exploratory characteristics of this study, it was reasonable to approach the research qualitatively.

For this thesis, the research at hand indicates existing challenges on the green bond market, resulting in difficulties when assessing green bonds prior to investment (Berensmann, Dafe & Lindenberg, 2018; Li et al. 2019). To the extent of the authors' knowledge, no theoretical framework can be found that demonstrates the assessment process applied prior to investment. On the note of the lacking theoretical foundation, this study uses an inductive stance, meaning that the collected data is used to develop a theory to explain the findings, also known as grounded theory (Bell, Bryman & Harley, 2019). Qualitative research is often

performed inductively, by building patterns and themes from the bottom up, through which the data is categorised successively into more abstract concepts (Creswell & Creswell, 2018). Given the explorative characteristics of this study, induction will allow alternative explanations of the examined environment (Saunders, Lewis & Thornhill, 2009). The thesis topic is inadequately studied; hence, theory cannot be tested through a top-down deductive approach and, therefore, an inductive bottom-up approach is necessary. Additionally, as the thesis is developed through an iterative process, it further strengthens using grounded theory (Bell, Bryman & Harley, 2019).

3.2 Research Design

When exploring processes and activities limited by a specific time, Creswell and Creswell (2018) suggest using a case study design. Using a case study is favourable when current events are investigated, which involves direct observations or interviews with relevant parties (Yin, 2014). As this thesis intends to explore pension firms' assessment processes when investing in green bonds, it is reasonable to use a case study design. Specifically, as information can be collected through various data sources with interviews being the most critical primary data source. Furthermore, research questions initiated with *how* benefits from using a case study design (Yin, 2014), which strengthens the reasoning for using a case study design in this thesis. Moreover, by conducting a case study, the researchers are allowed to find insightful characteristics from real-life events (Yin, 2014). As mentioned in the introduction, Woods and Urwin (2010) stress pension firms' need for practical research concerning sustainable investing. A case study design will permit an in-depth analysis of the real-life assessment processes pension firms use when investing in green bonds.

It is essential to acknowledge the criticism of a case study design, which is its limited ability to generalise the discoveries on the general population and the researcher's difficulty to uphold an objective and unbiased interpretation of the collected data (Easterby-Smith, Thorpe & Jackson, 2015). However, a case study design enables the researcher to develop an in-depth analysis by collecting detailed information from various data sources (Creswell & Creswell, 2018). Given the complexity of the green bond market that has derived from the lack of definitions and standards, in-depth analysis is a necessity to understand how pension firms relate to these challenges and how it mirrors their assessment processes. Moreover, a case

study can act as a foundation for developing theory and spark inspiration for future research (Eisenhardt & Graebner, 2007). Since one of the objectives of this thesis is to contribute to the development of green bond theory, a case study design is further motivated.

3.2.1 Multiple Case Study

Case studies involve both single and multiple case studies (Yin, 2014), where multiple case studies are an extended approach of a singular case study design (Bell, Bryman & Harley, 2019). When having the option to choose between conducting a single case study or a multiple case study, it is more beneficial to choose a multiple case study, as it can be considered more thorough (Yin, 2014). A multiple case study can further be used to reduce the limited generalisability associated with case studies (Eisenhardt & Graebner, 2007). Additionally, a multiple case study further minimizes the scepticism about rare events or circumstances possibly found in a single case study (Yin, 2014). By using a multiple case study design, it is possible to identify potential deviations in the pension firms' assessment processes. Nonetheless, one should take into consideration that a multiple case study is more resource- and time-consuming. Conducting a multiple case study design is suitable when comparing various cases is necessary, as it allows the researcher to evaluate and compare the investigated cases (Bell, Bryman & Harley, 2019). As this thesis aims to explore the assessment process regarding how various pension firms assess green bonds, a multiple case study design enables the authors to compare and contrast each case to discover unique and similar aspects of their assessments.

3.2.2 Case Selection

This thesis is focused on pension firms due to the significant amount of capital they manage, which is expected to play a crucial role in the realisation of a greener future (Park, 2018). On that note, two criteria were used in the selection of which pension firms to study; (1) geographic location and (2) actively investing in green bonds.

(1) As each pension system varies between countries, it was decided to focus on one system to gain as much comparability as possible. Sweden was considered relevant as it is viewed as world-leading in green bond investments and was the first country to ever issue a green bond,

thus having a more substantial amount of data (Mac Key, 2019; Reichelt, 2018). Furthermore, as we are studying at a Swedish university and are both Swedish, no language barriers exist. Additionally, initiating contact with potential case companies was possibly more easily done. For these reasons, the potential firms to participate in the case study were firstly limited to Swedish pension firms.

(2) It is crucial for the thesis to study pension firms that actively invest in green bonds; therefore, it was decided to be the second criterion. With actively investing in green bonds, the criterion was specified to firms that have invested in at least one green bond within the last five years. This criterion was assumed to be able to provide sufficient information during the interviews to give in-depth insights into the company's green bond assessment process.

With the selection criteria in mind, the selection process of the pension firms was executed as follows: we used minPension, which provides a list of all Swedish pension firms (minPension, n.d.a). MinPension is a Swedish organisation that gives an overview of the Swedish pension market and enables individuals to gain an insight into their pension investments. The organisation is managed and equally financed by the Swedish government and pension firms, making it a neutral and independent actor on the market (minPension, n.d.b) and were, thus, considered a trustworthy and relevant source. The list, containing 31 pension firms, served as a base from which we investigated whether each firm met the second criterion. This investigation was performed by examining the pension firms' webpages, annual reports and sustainability reports. In some cases, news articles also provided a first indication of whether a pension firm could be considered an active green bond investor. All firms that fulfilled both criteria, which were 19 firms, were contacted by email (please see 3.3.1.1 Samplings of Interviewees for a detailed description of how). In the emails, we presented ourselves and the thesis topic, asking if it would be possible for the firm to participate in the case study. Six companies initially agreed to participate in the study, however, one later declined due to COVID-19. Ultimately, five pension firms agreed to participate in the study.

3.3 Data Collection Method

Data collection involves several steps; setting the frame for the study by recruitment and sampling, collecting the needed information through various methods, and organising a protocol to enable information recording (Creswell & Creswell, 2018). When performing a qualitative study, multiple sources of data is preferably used, where the participants and data must not be limited to predetermined theories (Creswell & Creswell, 2018). The data collection is divided into primary data and secondary data (Easterby-Smith, Thorpe & Jackson, 2015), where each category is presented in detail below.

3.3.1 Primary Data

The primary data collection for this thesis has been conducted through annual reports and sustainability reports, in combination with interviews with the selected pension firms. In a case study, interviews are considered one of the most important sources of data (Yin, 2014). There are various types of interviews, the most common being structured interviews, unstructured interviews, and semi-structured interviews (Bell, Bryman & Harley, 2019). The structured interview entails standardised questions, often very specific, aiming to receive the answers identically and also involve a fixed range of answers (Bell, Bryman & Harley, 2019). The unstructured interview, on the other hand, is more informal and follows a list of topics or issues, where the phrasing and the order of the questions can vary for each interview (Bell, Bryman & Harley, 2019). Lastly, semi-structured interviews follow a series of questions from an interview schedule, however, with the ability to vary the sequence of questions. Furthermore, there is a possibility to ask follow-up questions in such an interview. As this thesis is a multiple case study of an explorative character, semi-structured interviews were chosen (Appendix B). This as it enables us to gain new knowledge of the topic of green bond assessment processes yet allowing comparability between the different cases.

Interviews can involve open or closed interview questions (Bell, Bryman & Harley, 2019). Interviewees can answer in whichever way he or she wants when an open question is asked. A closed question, on the other hand, includes a set of alternatives from which the respondent can choose its answer. Open questions are, therefore, more appropriate for this thesis, as it gives the option to explore new areas (Bell, Bryman & Harley, 2019). Furthermore, it enables

us to gather as much information as possible, yet keeping the participants' personal opinions excluded (Creswell & Creswell, 2018). This further allows the interviewees to give historical information, which is useful when investigating how the pension firms up until this date have designed their assessment processes for green bonds. However, there are disadvantages to open questions that should be taken into consideration; it requires coding and is overall more time-consuming (Bell, Bryman & Harley, 2019). However, we estimated that open-ended questions were a necessity to gain the in-depth insights needed to fulfil the purpose of the thesis and that the timeframe of the study was sufficient to pursue open-ended questions.

One must consider that responses may be biased in the interview setting, as the interviewers are present (Creswell & Creswell, 2018). This was dealt with by sending questions to interviewees approximately one week in advance, as well as using an interview protocol. Furthermore, Creswell and Creswell (2018) argue that a limitation of interviews is that all interviewees are not equally articulate and perceptive, which increases the importance of sending interview questions in advance to enable a sound preparation time for participants who need it.

3.3.1.1 Sampling of Interviews

It is essential to purposefully select the interview participants in a qualitative study, as it is the primary source of information to the research problem and, thus, enables answering the research question (Creswell & Creswell, 2018). Therefore, two criteria were developed to ensure that reliable and relevant interviewees were selected; (1) experience of the pension firm's sustainability work and (2) experience of fixed-income investments.

(1) The first criterion was set to gain insights in how sustainability, and particularly environmental sustainability, impacts the pension firms' assessment criteria of green bonds. One could argue that the criteria only should focus on environmental or green aspects, to ensure the interviewees are adequately targeted to the research question. However, companies tend to combine their environmental, social and economic sustainability work into one unit or employment (Epstein & Buhovac, 2014), which is why this criterion was considered to be sufficient.

(2) The second criterion was established to ensure that the interviewees had comprehensive knowledge about fixed-income investments. This knowledge was expected to provide in-depth understandings of how pension firms tend to assess conventional bonds and if and how

it differs from green bonds. This criterion was particularly important to gain a more practical sense of fixed-income investments.

The ideal interviewee fulfilled both criteria, but after a first screening of the pension firms' webpages and LinkedIn, it became evident that such an interviewee was not always at hand at each pension firm. As a consequence, for those firms, we sought for two interviewees, who each fulfilled one of the criteria and together fulfilled them both. There are several techniques the researcher can use to sample interviewees (Easterby-Smith, Thorpe & Jackson, 2015). This thesis has used a mix of purposive and convenience sampling, that is, the interviewees were selected in part based on the strategic criteria described above and in part by their accessibility (Bell, Bryman & Harley, 2019; Easterby-Smith, Thorpe & Jackson, 2015). Firstly, the sampling consistently started by searching for interviewees via LinkedIn and the pension firms' webpages. The data sources were considered useful given their either comprehensive search filter or direct connection to the pension firm. The interviewees were at first unknown, although not randomly considered due to the search criteria filter and, thus, the technique can be viewed as purposive sampling (Easterby-Smith, Thorpe & Jackson, 2015). Though LinkedIn was used to search for interviewees, the contact was always made via email. Secondly, when no person matching the criteria could be found or when no directly linked contact information was at hand, a general email was used to initiate contact. Convenience sampling means to choose interviewees based on their accessibility (Easterby-Smith, Thorpe & Jackson, 2015). Interviewees selected through general emails can be considered sampled through convenience, as it served an easy way of initially approaching interviewees.

In addition to interviews with pension firms, a preparatory interview was conducted with an industry professional, with one-year experience of issuing green bonds at a Swedish investment bank (Appendix C). The main reason for performing a preparatory interview was to advance our industry knowledge and gain an understanding of the issuer's perspective of the green bond market. The preparatory interview was further conducted to ensure our industry language and terminology were correctly used. Lastly, the interview guide was tested on the professional and slightly readjusted after that. The industry professional was sampled through one of our networks and was contacted via Facebook.

Furthermore, interviews were held with two various green bond second opinion providers (Appendix D). The interviews are seen as a complement to the interviews with the pension firms, as it enabled a different view of the assessment process. Additionally, the second

opinion providers were found to be a cornerstone in the green bond assessment process, which is why their viewpoint was necessary for the study. In both cases, an email was sent to the firms' general emails, after which we were referred to the appropriate employees of each firm.

3.3.1.2 Conduction of Interviews

Due to geographic distances, and the unfortunate situation of COVID-19 making it inappropriate to meet in person, the interviews were held through video calls on the platform Zoom. The platform enables several people to participate simultaneously in the video call, to simulate a face-to-face interview to the extent possible. Disadvantages of phone interviews are that the interviews, among others, tend to end after 25 minutes and that it is challenging to ask sensitive questions (Bell, Bryman & Harley, 2019). However, as the interviews for this thesis were held by video calls, these issues did not occur as the video call is a compromise between a telephone call and a face-to-face interview. Furthermore, Zoom allows recording the interview directly on the platform, an essential technical tool for the next steps of transcribing and coding the interviews. It is common and recommended to record the interviews, as audiotapes allow for correct transcription and interpretation (Yin, 2014). However, approval is always needed from the interviewee before recording (Creswell & Creswell, 2018). All interviews were recorded as approval was received from the interviewees; nonetheless, notes were also taken in case of unreliable technical equipment.

A multiple case study often includes about four to five cases (Creswell & Creswell, 2018). In alignment, this thesis studies five Swedish pension firms as case companies. The number of interviewed people were 12 in total, with interviews ranging from 30-90 minutes. Additionally, the preparatory interview took place before the case study interviews, it lasted 90 minutes and was also conducted via Zoom. No preliminary questions were made or sent in advance for the preparatory interview. However, we prepared a few broad conversational topics that were brought up and discussed during the interview. The interviews with the second opinion providers were held via Zoom after the interviews with the pension firms. For these interviews, the interview questions were prepared and sent in advance.

Table 1. List of Respondents.

Company	**Title**	**Approx. Interview Time**
Pension Firm Alpha	Head of Responsible Investment	60 minutes
Pension Firm Beta	Sustainability Manager	60 minutes
Pension Firm Beta	Portfolio Manager Fixed-Income	60 minutes
Pension Firm Gamma	Head of Sustainability	60 minutes
Pension Firm Gamma	Senior Portfolio Manager	60 minutes
Pension Firm Delta	Head of Sustainability	60 minutes
Pension Firm Delta	Senior Portfolio Manager & Sustainability Strategist	60 minutes
Pension Firm Epsilon	Head of Fixed Income & FX	60 minutes
Pension Firm Epsilon	Head of Sustainability	30 minutes
Bank	High Yield Debt Capital Markets	90 minutes
Second Opinion Provider Zeta	Sales Associate Sustainable Finance Solutions	45 minutes
Second Opinion Provider Kappa	Senior Research Fellow	45 minutes

3.3.2 Secondary Data

In the research process, data such as newspapers and official reports can be collected as a complement to the primary data (Creswell & Creswell, 2018). Benefits of this type of data are that the researcher can access the data when needed, as well as that it saves time and resources of transcribing. Nonetheless, the main disadvantage is that the data is not directly related to the research question, which is why it is crucial to gather the secondary data based on the research question (Easterby-Smith, Thorpe & Jackson, 2015). For this thesis, secondary data has been retrieved to gather further knowledge of the case companies and the research topic. The secondary data has been found by using search engines and has come in the shape of newspaper articles, government reports and financial blogs.

3.4 Data Analysis

In qualitative studies, the data analysis usually takes on a simultaneous approach in the procedures throughout the case study (Creswell & Creswell, 2018). This differs from a quantitative case study, where all information is gathered, thereafter analysed, and lastly reported. As this thesis aims to collect and analyse data continuously, a simultaneous approach is advisable.

Creswell and Creswell (2018) suggest five steps for the data analysis process, which have been followed. (1) The first step was to prepare the data for analysis, where the process of transcribing is included. Specifically, the purpose of transcribing the data is to enable coding and categorisation in the following steps. Hence, we used the program oTranscribe for transcribing the collected data. (2) Thereafter, the researchers suggest reading through the data to get an overall idea of the material. Accordingly, we read through the transcribed interviews to get an overview of the data. (3) The next step in the process is to code the data, which involves organising and segmenting the data into labelled categories. This is an essential step in grounded theory (Bell, Bryman & Harley, 2019). Yin (2014) further suggests using computer-assisted tools to analyse data gathered through open-ended questions, therefore, the program Nvivo was used. We coded the data for the first interview separately to ensure we did not affect each other's opinions. Thereafter, we compared the coding and agreed upon labelled categories which were used to code the remaining interviews. (4) The

fourth step is to generate descriptions of the categories and themes, where it is recommended to have five to seven themes for a case study. To find the themes, we clustered the labelled categories to find applicable themes, which ultimately were: ESG strategies, second opinions, issuer and green project, standards in the green bond market, challenges on the green bond market, and pension firms' responsibilities. (5) Lastly, the fifth step includes deciding how the chosen themes will be represented in the narrative. This also involves constant comparison, which is a tool in grounded theory, as suggested by Bell, Bryman and Harley (2019). Constant comparison entails connecting concepts and data, to enable the categories to emerge to theory. The data was connected to the literature and theory, were some of the themes ultimately were more important to answer the research question. Two different levels of theoretical analysis were identified, one grounded in a more practical theory of the green bond assessment, whereas the other is rooted in underlying logics for different organisational behaviour on a more abstract level.

3.5 Quality of the Study

According to Yin (2014), four distinct considerations allows one to evaluate the quality of a case study; construct validity, internal validity, external validity, and reliability. However, internal validity only concerns explanatory or causal studies and is not relevant for descriptive or exploratory studies. For this reason, this is not taken into consideration while construct validity, external validity and reliability are further discussed below.

3.5.1 Construct Validity

Construct validity is described as finding the right operational measures for the concepts which the research aims to investigate (Yin, 2014). This is crucial for case studies, to ensure that subjective judgements do not affect data collection in combination with sufficient operational measures. There are three solutions to improve the construct validity; to use multiple data sources, establish a chain of evidence and lastly, to let key informants review the report (Yin, 2014). Firstly, to assure that the study does not rely on a single data source, both interviews and official documents such as annual reports and sustainability reports have provided the foundation for this thesis. To increase the construct validity, we aimed to match

data from the interviews with data found in the official documents. Secondly, establishing a chain of evidence entails that any reader should easily be able to follow the thesis from the research question to the conclusion, with correctly presented data. In other words, no data should be lost or biased, leading to inappropriate data presentation. The chain of evidence was ensured by documenting data, recording, and transcribing. Thirdly, participants in the study, hence, key informants were sent their quotes to have the opportunity to correct them if needed, and thereafter approve them.

3.5.2 External Validity

Another critical aspect to consider is the external validity of the study, that is if the findings are generalisable and are valid in other contexts and settings (Yin, 2014). As previously acknowledged, this becomes particularly worrisome for a case study design, as it limits the ability to generalise the findings (Easterby-Smith, Thorpe & Jackson, 2015). Furthermore, it is crucial to acknowledge that the results found in this study provide a snapshot of a specific time. If, for example, a legislation of the Swedish green bond market becomes effective in the future, it can impact the findings of this study. This thesis strengthens its external validity by using a multiple case study and benefit from the increased level of thoroughness associated with multiple case studies (Eisenhardt & Graebner, 2007; Yin, 2014). To increase a case study's generalisability, it is recommended to include thorough descriptions of the context, from which others can determine whether the findings apply to other contexts and settings (Bell, Bryman & Harley, 2019). We have, therefore, tried to achieve this by carefully explaining the contextual environment as well as including a generous number of quotes in the empirical findings, thereby enabling others to interpret the data.

3.5.3 Reliability

Reliability refers to that the case study should be able to be repeated using the same methods and ending up at the same results and findings (Yin, 2014). There are two approaches to ensure high reliability; creating a case study protocol and a case study database (Yin, 2014). Case study protocols entail four sections; a general overview of the case study, data collection procedures, data collection questions and a guide of the case study (Yin, 2014). A case study protocol is valuable for all case studies, however, it is crucial for a multiple case study to

enable replicating the case study (Yin, 2014). For this reason, a case study protocol was created as an initial foundation for the thesis (Appendix E). The other tactic to maintain high reliability is to create a case study database. This refers to how the researchers collect, organise and document the data used for the study, and is divided into two categories; an evidentiary base, and the final report (Yin, 2014). Therefore, all data, including interviews, reports, and working documents were saved on Google Drive in distinct subfolders to serve as an evidentiary base. The final report was, as well, saved in a distinct subfolder.

3.6 Chapter Summary

In conclusion, a critical reflection about the research methodology and its consequences is presented within this chapter. By combining a qualitative research design with a multiple case study approach, the study can gather practical insights and develop in-depth understandings of pension firms' green bond assessment prior to investment. Furthermore, by targeting multiple Swedish market actors involved in the green bond assessment process, it allows us to gain comprehensive insights as well as explore the undertheorized research topic. Moreover, applying a grounded theory approach allowed an iterative and explorative process when drawing conclusions from the coded data, which is considered crucial, given the explorative characteristics of the study. Lastly, we are confident that the methodological choices enable the highest quality possible of the study, especially since additional practices such as a case study protocol and database provide further transparency. However, one should be aware of the limitations addressed in this chapter.

4 Analysis and Discussion

The empirical data reveals that an environmental and a financial logic are the primary logics shaping the organisational behaviour of green bond assessments. The analysis begins by introducing the two identified institutional logics and further analyses the cornerstones of the green bond assessment process in sequential order. That is, identification of the green bond, ESG assessment, conventional bond assessment, and second opinion providers. Additionally, reflections of standardisation of the green bond market and its impact on the market structure are outlined and analysed. Lastly, the role and responsibility of Swedish pension firms and how this affects the decisions and practice of the assessment process are analysed and discussed.

4.1 The Green Bond Assessment Process

Based on the primary data, it is evident that there are multiple purposes and responsibilities that the pension firms strive to achieve. When analysing the empirical data, it quickly became noticeable that these purposes and responsibilities affect the studied pension firms' assessment of green bonds. To gain an in-depth understanding of how these purposes and responsibilities influence the green bond assessment, the empirical data is analysed through the institutional logics lens. From the research topic and the empirical data, two main institutional logics have been identified amongst the studied pension firms; the financial logic and the environmental logic. The reasoning and identification of these institutional logics, and its connection to the empirical data, will be described and analysed throughout the remaining part of the analysis but are shortly summarised below.

Thornton and Ocasio's (1999) definition of institutional logics portrays how social patterns and underlying beliefs generate material practices. In accordance with this definition, the Swedish pension firms prioritise a financial institutional logic. This is visual in their purposes and priorities, as all studied pension firms state that the primary purpose of their existence is

to generate returns for their customers. The function of the Swedish pension system is based on rules and the belief to provide financial security for pensioners. Hence, the identified financial logic is based on the core value of generating risk-adjusted, long-term financial returns to the pension firms' current and future pensioners.

Stemming from the threat of global warming consequences, the growing importance of an environmental logic that introduces green moral obligations and ways of acting has been identified. This is visible in all studied pension firms' perceived obligation to participate in the transformation towards a low-carbon economy and climate-resilient future. The perceived obligation is partly based on their ability to make a significant environmental impact due to the large amount of capital the pension firms manage. Moreover, material practices are found in international guidelines, such as the Paris Agreement and United Nations Principles for Responsible Investments, which provide environmental targets to achieve as well as further motivation to act environmentally responsible. As such, the identified environmental institutional logic is based on the core value of acting in ways that benefit the environment.

To provide an in-depth description and to properly answer the research question of how Swedish pension firms assess green bonds prior to investment, the assessment process will be described in sequential order in the following sections. That is, identification of the green bond, ESG assessment, conventional bond assessment, and second opinion providers.

4.1.1 Identification of the Green Bond

From the perspective of the studied pension firms, the green bond assessment process begins with identifying the bond. Usually, they are invited to an investment meeting, which is initiated by a bank. One interviewee explained that at the meeting, the issuer presents its business, how the management team operates and the green framework of the bond. A session is always held where questions regarding financial and green risk are discussed. As such, the pension firms are not required to search for green bonds actively but can in most cases count on being invited to possible investment opportunities. From the interviews, it became evident that this process is not specific for the studied pension firms, but the overall industry standard. Thus, one can argue that the relationship between the pension firms and the bank is crucial, as it is through this link the pension firms are allowed access to the investment. As one interviewee expressed:

> The bank is extremely important in this context. Because it is the bank that mediates the contact between the issuer and us investors (Pension Firm Alpha).

The bank values the relationship with the pension firms as they generate business for the bank. One of the pension firms implied that the bank would only invite them to an investment meeting if they assumed the pension firm would consider the green bond 'legit', as the bank would lose the pension firm as a customer for future regards if the green bond would unfold otherwise. This power structure indicates that the investors set *the rules of the game* of the Swedish green bond market. However, it further implies that the banks apply the initial filter of the green bond assessment, potentially prioritising financial and environmental values in the pool of potential green investments. An additional filter applied in the green bond assessment process is the ESG assessment, which is further described below.

4.1.2 ESG Assessment

During the analysis, it quickly became evident that all studied pension firms have integrated ESG factors into their investment process, which, to a large extent, affects the green bond assessment. This can be supported by Duuren, Plantinga and Scholtens' (2015) study, which show that European investors are keen to include SRI and, in turn, ESG factors to their conventional investment process. The ESG strategies (1) *negative screening*, (2) *positive screening*, (3) *best-in-class*, and (4) *engagement/activism* are used by the pension firms, of which *negative screening* and *engagement/activism* are most commonly applied. This is strengthened by Duuren, Plantinga and Scholtens (2015) who highlight these four strategies as the most common ESG strategies.

All studied pension firms work with (1) *negative screening* by applying exclusion, meaning they choose not to invest in specific sectors such as tobacco, arms, and coal. However, the motivation and extent of exclusion differs among the pension firms. The pension firm Alpha explains it applies *negative screening* to avoid high risks and short-termism, which it believes is associated with typical exclusion sectors. Furthermore, Alpha reasons that sustainable firms usually are better managed, which, in turn, will lead to higher profitability. This rationale is strengthened by Amel-Zadeh and Serafeim's (2018) study, which suggests that ESG strategies are used mainly for financial motives, rather than ethical. This further implies that the financial logic shapes the institutional order of the ESG assessment practice. Thus, the

financial logic is prioritised. Furthermore, Alpha uses the ESG strategy of *negative screening* to avoid risk, reasoning that typical exclusion sectors have business models that Alpha believes will generate less value in the long run. The *negative screening* strategy can also be considered to overlap with what Amel-Zadeh and Serafeim (2018) identify as *risk factor/risk premium investing*, as Alpha integrates ESG factors in their risk analysis. This is also supported by Khemir (2019), who suggests that ESG strategies can enable thorough risk assessment and opportunities for long-term value creation. This can further be exemplified by the interviewee, who states:

> It [Alpha's investments] mirrors our view on this type of industry, especially fossil companies, which is not an industry that we believe is long-term. You can make money short-term but there are very big risks in that industry (Pension Firm Alpha).

Three other pension firms state that *negative screening* is used because it is expected of them by society, thereby indicating that the Swedish society has underlying values and rules of rejecting actions that violate human rights and environmental destruction. The pension firms consider exclusion as the minimum level of responsibility and view it as a natural action, thereby indicating the impact of a logic rooted in social and environmental concerns. This line of reasoning illustrates an example when logics other than the financial logic are allowed space within the organisational field of pension firms.

One pension firm further expresses that *negative screening* is a way to impact additional organisations to transform their business models in order to maintain their stream of investments. As expressed by the interviewee:

> Several are excluding, making it more difficult for companies to access capital unless they conform to the local or international ESG directives (Pension Firm Epsilon).

In this case, the pension firm's reasoning indicates that social and environmental goals can be realised through a financial logic. In other words, the underlying belief of the pension firm is anchored in a logic based on environmental and social motivations but pushed through a financial logic practice.

To summarise, the ESG strategy *negative screening* leads to the pension firms not assessing green bonds in typical exclusion sectors. As a consequence, all studied pension firms do not invest in green bonds issued by companies within these sectors, even if the project itself can be considered green. However, the reason for excluding can be linked to different existing logics; one logic being environmental, and the other being financial. The majority of the observations indicate that the pension firms are guided by an environmental logic when performing this ESG practice.

(2) *Positive screening* entails focusing on firms or industries with specific characteristics. These assessments are based on companies which have fully integrated sustainability into their businesses and are performing well in each of the ESG categories. The pension firm Delta is applying this strategy, and an additional one plans to integrate it in the near future. The reason for applying *positive screening* is that Delta believes that these companies will not only impact the world positively but also generate greater value. This can be supported by Figge and Hahn's (2008) findings, which show that some companies expect that environmentally sound and socially responsible businesses will generate higher returns. The pension firm further explains:

> We believe that companies which do not include these types of values will have a difficult time if they do not work with sustainability. So it is a combination of making the world better, but at the same time we believe it generates higher profitability to our customers (Pension Firm Delta).

In this case, the pension firm's action is based on motivations grounded in the environmental logic but is justified through the beliefs of economic value stemming from the financial logic.

The ESG strategy of (3) *best-in-class* is found in one of the studied pension firms. *Negative screening* still lays the foundation for which firms it invests in, thereafter, the *best-in-class* strategy is applied. The interviewee explains the firm's strategy:

> We do not exclude certain industries or sectors. However, we do invest in the best ESG performers in each sector and industry (Pension Firm Beta).

Based on our interpretation, the pension firm applies this strategy to incentivise organisations to act better and more responsibly through their investment distribution. This can be strengthened by Figge and Hahn's (2008) study, which shows that some companies believe

that allocating capital towards certain companies will, in turn, result in incentives for additional organisations to develop more sustainable business models. From this perspective, it appears as if the pension firm is striving to achieve goals embedded within the environmental logic, which focuses on changing organisational behaviour. However, the act of investing in specific industries can simultaneously be contradictory, as the industry itself not necessarily contributes to sustainable development or the transition towards a low-carbon economy.

A majority of the pension firms mentions (4) *engagement/activism* as the second most important ESG strategy, after *negative screening*, to be incorporated in the assessment process. The pension firms describe it as a strategy which enables them to express their opinion to the investee regarding what they and their customers find important. Furthermore, it involves working actively with the investee's management team and/or board of directors, as well as voting actively when possible. This is further exemplified by one of the interviewees, who states:

> We believe impact is a better approach than just exclusion, since impact/engagement allows you to join the journey and be a part of the changing process. This enables the companies to improve and have a dialog with the market, and we rather see that happening, than just turning them down (Pension Firm Epsilon).

Moreover, one pension firm explains that if an investee fails to meet the ESG requirements, even after the pension firm has actively worked with *engagement/activism*, the investment is withdrawn. However, a withdrawing only takes place after a thorough discussion with the investee, which lasts over an extended period of time to give the organisation a chance to improve. The ESG strategy of *engagement/activism* indicates a motivation grounded in transforming organisational behaviour to the benefit of the planet and/or society. This line of reasoning revolves around the goal to transform towards a low-carbon economy and climate-resilient future, which is strongly rooted within the environmental logic.

A majority of the pension firms point towards the fact that *engagement/activism* is becoming more important, and that it is the ESG strategy that they will try to increasingly integrate in the future. Moreover, one pension firm received feedback from its customers in an annual survey that *engagement* is the highest prioritisation according to them, indicating that

customers want this strategy to be further integrated. This finding can be strengthened by Amel-Zadeh and Serafeim's (2018) statement that the importance of active ownership and engagement will increase in upcoming years.

In conclusion, all pension firms have a well-formulated ESG strategy which lays the foundation for green bond assessments and investments. Not only as some investments are entirely excluded, but also as other investments are encouraged. However, whether the actual ESG assessment is performed internally varies amongst the pension firms, which will be further discussed in the following section.

4.1.2.1 External Usage of ESG Ratings

To a large extent, the findings in this thesis point towards that the pension firms conduct the ESG assessment specifically for each potential investment. Nonetheless, some industries are entirely excluded based on the ESG strategy of *negative screening*, which indicates that individual assessment is not conducted for those firms as those industries already are ruled out. Duuren, Plantinga and Scholtens (2015) argue that investors assess firms case by case, rather than performing general industry analyses. This can be held true to some extent; however, it is clear that entire industries are ruled out, which implies that the argument is not fully applicable.

Some pension firms point to the fact that applying ESG factors requires additional investigation and thereby costs, a statement also made by Duuren, Plantinga and Scholtens (2015). However, all pension firms still consider ESG strategies as a necessity. Interestingly, all studied pension firms, to some extent, rely on external ESG ratings. By analysing the pension firms' *means* (e.g. material practices, resources, experiences, expertise) and *ends* (e.g. motivations, values, goals), as advised by Yan, Ferraro, and Amandoz (2019), one can understand different institutional logics' influence when assessing green bonds. By using external resources, the pension firms are not required to change or adapt their existing practices and, thereby, line of reasoning. The external ESG ratings imply that the environmental *means* of the pension firms are loosely coupled with its *ends*.

The pension firms, however, acknowledged that the ESG ratings tend to have a global focus and, therefore, is not always sufficient to cover the pension firms' needs. In such a situation, some pension firms buy an additional analysis, whereas others rely on their own resources to

conduct a thorough analysis of the company based on its sustainability work. The need for internal analysis can be exemplified by one of the interviewees, who states:

> You cannot think 'we cannot buy them because they do not have any rating', ... instead, you need to ask yourself if they have a sustainable and good profile and do we think it is feasible that they issue green bonds? (Pension Firm Gamma).

Although the usage of external ESG ratings to some extent is strengthened by Duuren, Plantinga and Scholtens' (2015) study, which shows that ESG assessments are too time-consuming and leads to the use of external ratings, the practice of internal analyses deviates from their study. Additionally, the usage of internal analysis indicates that the *means* and *ends* are more tightly coupled in this setting, as the ESG analysis is conducted internally. Hence, the internal analysis implies that the pension firms, to some extent, have been required to adapt their assessment practice and, thereby, allowing the environment logic to guide their organisational actions to a greater extent.

The pension firms' usage of external ESG ratings indicates that the external parties play a significant role in this part of the green bond assessment. Findings further suggest that the usage of external ESG ratings is partly due to that the external parties have developed an expertise within ESG assessment, and partly because the pension firms lack time and resources to conduct the assessment themselves. In combination with the ESG assessment, typical aspects within the conventional bond assessment are also taken into account, which will be elaborated on in the next section.

4.1.3 Applying Conventional Bond Assessment

When discussing green bond assessment, all pension firms highlight typical evaluation factors within the conventional bond assessment, as presented by Berk and DeMarzo (2017) and Bodie, Kane and Marcus (2018). That is, maturity, risk, price, and credit rating. It became evident that price and credit rating were the two most discussed factors during the interviews. However, as maturity is interdependent with price, and risk is closely connected to credit ratings, these factors are indirectly taken into consideration. Therefore, price and credit ratings are further explored below.

4.1.3.1 Price

Unlike conventional bond assessment, the price of green bonds is not only affected by risk and maturity, but further complexity is added to the equation. There is an indisputable consensus amongst the studied pension firms that the price of green bonds in almost all cases is higher than conventional bonds of the same character. In other words, investors pay a premium for green bonds, which is referred to as *greenium*. Nonetheless, the pension firms' approach towards *greenium* varies significantly. An explanation for this difference can be found by analysing the different market actors' expectations on the pension firms' organisational behaviour, as supported by Friedland and Alford (1991).

The pension firm Alpha is distinctively stating that it does not accept *greenium*, as its board has given clear directives that the firm is not allowed to abstain from returns when investing in green bonds. As further explained by the interviewee:

> The board's communication is clear, that it is not your mission to waive returns. However, you should be responsible and take sustainability into account, so make sure you demand it is green (Pension Firm Alpha).

In other words, the firm has clear expectations from its owners not to sacrifice returns when investing green and is thereby limited by their rules to reject *greenium*. One can argue that the owners' expectations place the financial logic in a dominant position, thereby pulling the attention of the firm to prioritize financial returns, which is supported by Thornton and Ocasio's (2008) theory on institutional logics.

Three of the studied pension firms state that they allow *greenium* to some extent but are not willing to pay a too significant amount for green bonds. As one interviewee explains:

> … We can pay and motivate a somewhat higher price if it is green, but it cannot be too high. We have a price component as well since we have a responsibility to our customers. It is their money (Pension Firm Delta).

Another pension firm states accordingly, that it tries to invest in green bonds which are priced similarly to conventional bonds or somewhat higher if needed. Green bonds are viewed as a good addition to the investment portfolio, but not if priced with too much *greenium*. Viewing green bonds as a complement to the investment portfolio further implies that the financial logic is dominant in this part of the green bond assessment process.

By contrast, the pension firm Epsilon argue that *greenium* is financially justifiable considering the additional costs the issuer needs to spend on the green bond framework and the following reporting connected to the green bond. For instance, one of the interviewees expresses:

> Of course, if you are doing something good, you want to get paid and rewarded for it. … . I think it [*greenium*] is justifiable because there is more effort behind it. There are specific assets that the issuer needs to isolate in order to make it work, reports need to be produced, so it is okay (Pension Firm Epsilon).

Although the Epsilon's ownership policy state that the purpose of its corporate governance is to promote returns for its customers, it does not specify any restrictions regarding *greenium*. As such, it appears as if the pension firm is not as limited by its owner's financial expectations, indicating that there is more space for the environmental logic to influence the green bond assessment.

A clear difference is the pension firms' ownership structures, of which some are owned by interest organisation or by the pension firm's customers. As a consequence, the interest that the owner's priorities, in turn, appears to influence the expected organisational behaviour and the green bond assessment practice of the pension firms. The owner's various expectations and prioritisations can further be linked to the assumptions, values, and beliefs that provide meaning to their social reality. Findings hint that it is partly through these that individuals within a pension firm produce and reproduce a green bond assessment process, which can be strengthened by Thornton and Ocasio's (1999) theory on institutional logics. A pension firm owned by, for example, an interest organisation, might not only be influenced by the underlying logic within the institutional field of pension firms but can further be embedded in the underlying logic of those interests. The numerous institutional logics result in additional expectations to consider when assessing green bonds, which, arguably, is reflected in the pension firms' approach towards the price of green bonds.

Furthermore, when examining the pension firms' ownership policies, it becomes evident that when managing capital fiduciary obligations indisputably exist, which is supported by Jansson and Biel (2011). In this case, it is noticeable that the pension firms have different values and beliefs regarding the best practice of the fiduciary obligation. Our interpretation is that some of the studied pension firms conduct its fiduciary duty by generating as high returns

as possible, whereas others believe the fiduciary duty is done better when investing sustainably even if at a higher cost. Not surprisingly, when discussing *greenium,* challenges of the low supply of green bonds in the Swedish market was highlighted. Therefore, the following section further addresses the challenges with low supply.

4.1.3.2 Supply

The pension firms all state that the supply of green bond is low and, therefore, make it difficult to invest in green bonds. This is supported by Park (2018), who presents that the demand for green bonds has far exceeded the supply. This partly explains why *greenium* exists, which is elaborated further by one of the pension firms:

> The greatest challenge of green bonds is that the demand is greater than the supply. For us and our competitors, there is a large demand to invest in green bonds, which makes them harder to get a hold of. ... . So I would say price and supply, and that usually goes hand in hand (Pension Firm Delta).

Another pension firm explains that a reason for the low supply of green bonds is the characteristics of the bond itself. As bonds are loans, it means that the issuer must experience a need to raise capital and decide to raise it specifically by issuing a bond. Furthermore, the project needs to be considered green to enable issuing it within a green framework. This is further elaborated on by one of the interviewees:

> On the stock market, you can usually choose a firm to invest in. In the fixed income market, you have to wait until a firm needs to borrow capital, and also that it is done within a green framework. This means that you can find a number of firms which you think are great, but if they are not going to borrow capital it is difficult to lend them any capital (Pension Firm Beta).

This statement illustrates why the pension firms' green bond investments are a reflection of what is issued in the market. It further demonstrates that the green bond market is driven by investors' demand, as green projects are shaped to fit financial investments. Moreover, the low supply, and therefore the notion of *greenium*, specifically seems to characterise the Swedish market. This is confirmed by the pension firms as well as second opinion providers. One interviewee explains:

> Especially in the Swedish market, we are really craving these green bonds, everybody wants them, and that is why *greenium* exists. In other countries in Europe and in the US, *greenium* is actually barely measurable (Pension Firm Alpha).

In conclusion, price, a defining variable of the financial logic, is a cornerstone of the pension firms' assessment process before investing in green bonds. The green bonds are affected by *greenium*, explained by the demand exceeding the supply, which further is emphasized by Park (2018). In addition to price, credit ratings are included in the green bond assessment, which will be described in the next section.

4.1.3.3 Credit Ratings

From the interviews, it is evident that credit ratings play a fundamental role in the green bond assessment. All pension firms consider it as a part of the assessment process, which is supported by Berk and DeMarzo's (2017) theory on how bonds are assessed. The assessment is usually based on the credit rating scores by Standard & Poor's and Moody's.

The majority of the pension firms do not invest in green bonds which receive a lower grade than *investment grade*. Therefore, if the green bond does not fulfil the credit rating standard of the firm, no investment will be made, even if the green project complies with the sustainability standard of the pension firm. As expressed by one interviewee:

> We have pretty strict rules that it [a green bond] still has to have a good credit rating. Even if it is very sustainable, we cannot include any because of how the portfolio is set up and its risk. We cannot include any with bad rating even if they are very sustainable (Pension Firm Delta).

All pension firms indicate that it is not justifiable to prioritise 'greenness' over credit risk, referring to the main task of pension firms; providing financial security for their customers. In other words, the pension firms are obliged to ensure sufficient liquidity in order to make payments to their pensioners. As such, in this part of the assessment process, the financial logic appears to dominate in a way that leaves no space for other logics to exists.

A possible explanation for the financial logic being dominant is that the financial core of green bonds is set up in the same way as conventional bonds, in which credit ratings are a key factor to take into account. As a consequence, it is evident from the observations that green

bonds in many ways are assessed in the same manner as conventional bonds. Furthermore, the pension firms indicate that credit rating act as a central information source and risk assessment tool. This can be supported by Li et al.'s (2019) study, which emphasizes the novelty of the green bond market and that credit risk, therefore, is highly prioritised.

4.1.4 Second Opinion Providers

Another important actor on the green bond market is second opinion providers, which all pension firms confirm by expressing their significance in the assessment process. The second opinion providers analyse the green framework of the bond and give an opinion of whether and how it is following international standards. The second opinion is presented to the pension firms in connection to the investors meeting, enabling the opinion to be taken into consideration prior to the investment. All pension firms consider second opinions crucial, however, one of the firms is comfortable without a second opinion when the firm considers the project of the bond as green by nature. Nonetheless, the majority of the pension firms clearly state that they would not consider a bond as green unless a second opinion has verified the green framework. The pension firms express that the second opinions serve as an assessment tool, as it can be challenging to analyse the green bond framework internally. This fact is strengthened by Li et al. (2019) and Wood and Grace (2011), who point to the fact that it is complex to assess the authenticity of a green bond internally.

Unlike the typical conventional bond, the green framework discloses where the borrowed capital will be spent, and in best cases, what climate impact it enables. In other words, as second opinion providers verify the green framework, they decrease the information asymmetry existing between the pension firms and the issuer. Thereby the second opinion provider eases the assessment of the bond, which is also suggested by Li et al. (2019). One interviewee exemplifies this by expressing:

> In general, when conventional bonds are issued, it just says 'General Corporate Purposes'. But when you issue a green bond, you go into different levels of projects. That kind of disclosure is extremely useful to us, because it gives better insights to what the company is doing and with that, reduces the risk a bit for us as investors (Pension Firm Beta).

Although an issuer can create a green framework without a second opinion, the second opinion ensures that the data is credible and follow international standards regarding capital allocation. Both interviewed second opinion providers agree that the purpose of a second opinion is to verify the green bond framework to ensure that the borrowed capital will be allocated towards green projects. However, they disagree on whether they should rate the actual greenness of the bond. The second opinion provider Kappa argues that rating the greenness of the bond helps to serve the market and the investors, as they more easily can compare different bonds and its contribution towards a low-carbon economy. This is supported by Berensmann, Dafe and Lindenberg's (2018) view on the purpose of second opinions. By rating the greenness, investors are better equipped to assess green bonds and can be confident in that they are avoiding potential greenwashing projects. The majority of the pension firms agree with this line of reasoning.

By contrast, the second opinion provider Zeta argues that there is no need for more ratings. As the interviewee emphasizes, one should not forget that the purpose of green bonds is to unlock more capital towards a low-carbon economy and additional levels of assessment might hinder that. A few pension firms agree with this line of reasoning, especially the firm Alpha, which expresses:

> In a world where we have too few green investments, to add an extra rating is unfortunate. It then becomes as if we only should invest in what is the greenest. But the greenest is already the greenest for a reason. Instead, we should finance what is less green. Because that is what can enable scalability and real change (Pension Firm Alpha).

Greenness ratings further raise the complexity of comparing bonds in different sectors, which the second opinion provider Kappa also acknowledges. For example, how can one compare the level of greenness between the transportation sector and the real estate sector? In line with this, a few of the pension firms stress the difficulty of rating greenness and its comparability between sectors, which deviates from an argument made by Berensmann, Dafe and Lindenberg (2018). However, the majority of the pension firms believe that greenness ratings will harmonise the assessment of green bonds, which is strengthened by Berensmann, Dafe and Lindenberg (2018).

Second opinion provider Kappa explains that the price for the second opinion is always fixed, regardless of the type of issuer. Furthermore, both second opinion provider Zeta and Kappa emphasize that their business model is based on their reputation of independent judgement. Anything that would compromise their credibility would, in the long run, harm their business. Therefore, fair and accurate assessments of the green frameworks are crucial, regardless of the relationship with the issuer. This can be strengthened by the majority of the pension firms expressed trust and reliance on the second opinion providers. Hence, Berensmann, Dafe and Lindenberg's (2018) concern of second opinions being biased due to being paid by the issuer, as well as being keen to uphold a good relationship with them, do not appear to be a risk of great significance. However, to fully confirm this, investigation from an independent actor is required.

While second opinions provide an independent assessment of the green bond framework, the pension firms still experience the risk of greenwashing. In this case, this refers to financing projects that are not as green as they are portrayed to be. Furthermore, the pension firms mention the risk of financing projects which the issuer would have materialised either way. As one interviewee explains:

> For example, a real estate company which would have built the building anyway, but now wants green investments. It would have built the project anyway and taken energy efficiency into consideration either way. We try to see through these type of investments (Pension Firm Epsilon).

The second opinion providers play an important role to limit the risk of greenwashing. Although all pension firms emphasize the importance of second opinions, the level of trust towards the accuracy of them varies between the pension firms. In most cases, the pension firms rely entirely on the second opinion and its assessment of the green bond framework. However, some pension firms conduct additional internal assessments in imponderable cases. The additional internal assessments indicate that the environmental logic is granted greater significance in the green bond assessment, as the firms, to a larger degree, want to ensure the actual green impact. By performing the analysis internally, the firm is required to develop environmental resources and expertise, thereby resulting in their *means* and *ends* being more tightly coupled. As a consequence, the financial and environmental logic show indications of complementing each other rather than competing, which can explain the environmental logic's greater significance.

4.1.5 Discussing the Connection Between Practices and Institutional Logics

Findings show that the major cornerstones of the green bond assessment involve identification of the bond, ESG assessment, conventional bond assessment aspects, and second opinions of the green framework. Additional conclusions and patterns can be found when connecting some of the findings. Particularly, when the dominance of the financial logic is strong, the pension firms appear to behave similarly. For instance, this can be observed in the pension firms' rules of credit ratings, which they all apply with a clear financial logic. By contrast, the parts of the assessment process where the pension firms' practices and rationales differ, appears to be when the environmental logic is allowed more space. That is, the degree to which the environmental logic is embedded within the pension firms is reflected in their assessment process. This can most evidently be observed in how tightly coupled the environmental *means* and *ends* are. When a firm is performing relatively more environmental internal analyses, the findings show that, for example, their motivation for ESG strategies appear to be rooted in an environmental rationale and a higher degree of *greenium* is allowed. Furthermore, it is also evident that standards have a fundamental role in the green bond market, which, in turn, shape the market structure, the market actors and ultimately, the assessment process. Therefore, the next section will describe and analyse standards in the green bond market, and the studied pension firms' approaches towards them.

4.2 Standards in the Green Bond Market

The studied pension firms highlight that without standards and data, it is difficult to compile and compare potential investment opportunities. This can be strengthened by Berensmann, Dafe and Lindenberg (2018), who argue that standards enable benchmarking between green bonds, meaning that proper assessment and comparison can be made. One firm explains that the green bond market is lacking standards and a universal consensus of what green bonds are, which is exemplified by the interviewee's statement:

> In general, I believe more standards and guidelines are needed. Today, there is an ambiguity to even answer the question 'What is a green bond?'. There is no one who has an exact definition of it (Pension Firm Gamma).

This statement, amongst others, illustrates the pension firms' wish for more rigorous standards, which is supported by Li et al.'s (2019) call for more standardisation of the green bond market. The desire to be able to compare bonds and harmonise the market can be explained by the dominance of the financial logic. This line of reasoning appears to be rooted in simplifying the financial assessment process, with less attention to environmental difficulties.

Furthermore, one interviewee explains that there is no legal agreement in the green bond framework, stating that the issuer does not have to deliver any proof of how the capital has been spent. Another pension firm gave a similar statement, explaining that the investors cannot be guaranteed that the issuer fulfils its green promise. Therefore, trust between the issuer, the pension firms and the bank is vital. Standards can contribute to increasing the transparency in this matter for all stakeholders involved, which is supported by Berensmann, Dafe and Lindenberg (2018). This could help increase reporting and enable follow-up. Not only to increase comparability but also to know how the issuer spent the capital it raised from the bond. As one interviewee explains:

> I believe it is important with reporting and that standards focus even more on goals, follow-up and reporting. So, one, in an easy way, can follow-up the issuer and see what benefits the money actually has contributed to (Pension Firm Delta).

This line of reasoning, on the other hand, can be linked to underlying motivations related to the environmental logic. The desire for follow-up indicates that the pension firms want to ensure that the bond actually has contributed to a positive environmental impact.

4.2.1 Current and Upcoming Standards

The pension firms describe the GBP as an obvious part of the green bond assessment process, as they are expecting the green framework of the bond to be designed accordingly. One should note that it is the issuer that decides whether to set up its green framework in line with the GBP. Moreover, it is this specific green framework that the second opinion providers evaluate and gives an opinion on. As ICMA (2019) states, the GBP recommends external parties to assess the framework, a recommendation that certainly is followed in the Swedish market. Hence, the pension firms expect the issuers to arrange the green bond aligned with the

GBP, as it enables the second opinion providers to assess the green framework. The empirical data obtained from the interviews indicate that the pension firms consider the GBP as a foundation for the green bond assessment, as supported by Park (2018). However, the empirical data further reveals that the GBP does not appear to give the tools needed to assess green bonds on a more detailed level, nor enable consistent assessment. This can be strengthened by Berensmann, Dafe and Lindenberg (2018), as well as Li et al. (2019), who argue that GBP's definition of green bonds is too broad, as investors still experience difficulties in assessing the bonds. Again, the reasoning to create standards that help the assessment process of the pension firms points to the fact that standards serve the investors of the market, not necessarily the issuers who actualise the project of the green bond. Arguably, the values, assumptions and beliefs of the financial logic therefore dominate, which, in turn, impact their request for standards when assessing green bonds.

To address the difficulties of assessing green bonds, the EU Taxonomy has been developed. The taxonomy presents stricter and more precise requirements for what may count as green in order to provide industry guidance as well as mitigate the risk of greenwashing. The EU Taxonomy is mentioned by all pension firms as a step towards more thorough and universal standards for green bonds, even though it is voluntary. However, the opinions regarding what advantages the taxonomy would bring to the green bond market vary amongst the studied pension firms. For example, one interviewee stated that with a more standardized framework, the risk of investing in bonds which are not as green as presented will reduce. Hence, there will be a lower risk to invest in bonds which are greenwashed. Another pension firm agrees with this statement, hoping that the concerns regarding what is green or not will vanish with the taxonomy. This is supported by Berensmann, Dafe and Lindenberg (2018), who state that standards can increase transparency and guide investors to assess between green and non-green bonds. One of the interviewees explains:

> A part of the taxonomy is to 'do no significant harm', meaning that there is some sort of standard to ensure that the company at large does not impact the climate or environment negatively. An example often used is to build an electric train for a coal mine, but that needs to be regulated. That is very clearly addressed in the EU Taxonomy (Pension Firm Delta).

The statement above indicates that the investors are guided by a stricter definition of what green can include. On the one hand, the line of reasoning regarding the EU Taxonomy

appears to be grounded in the financial logic, as standardisations act as a tool for investors to simplify the assessment and investment process. On the other hand, the studied pension firms' motivation to enable green projects and organisations that truly make a difference and reduce the risk of greenwashing indicate the existence of the environmental logic. While the majority of the pension firms are for standardisation of the green bond market, they also highlight that standards in general necessarily are not solely positive. The following part intends to analyse the challenging balance between self-regulated markets and standardisation.

4.2.2 Standards Striving for Balance

One of the interviewees explains that while standards can have a positive impact on the green bond market, it is a matter of resources and that a balance needs to be found. The statement is supported by Wood and Grace (2011), who argue that standards, amongst others, can increase costs and limit the investors. With too many strict structures, it might remove the ability for the firms to make their own assessments. As exemplified by the interviewee:

> The structures that are built around green and social bonds add quality but also costs, in some cases, there might be more efficient ways to ensure quality for example by inhouse (Pension Firm Epsilon).

Furthermore, another interviewee agrees, stating that standardisation is needed, but they should not be too strict as it might lead to a disservice to the market. This opinion is shared by one of the second opinion providers, who states:

> A challenge if you introduce such a standard, is that there might be an issue with consistency on what you have done before. … . If you want to give the best possible service to the market and your potential investors. Then, of course, we all understand it is beneficial and simplifies the work activity, if it is easier to compare different types of investments. … . But on the other hand, if you go too far, in terms of standardising, you might miss important nuances. And then in a worst-case might not be a service to the market (Second Opinion Provider Kappa).

In conclusion, more rigorous standards are wanted both by pension firms and one second opinion provider. However, there is a delicate balance of not wanting to implement too strict

standards, as market stakeholders seem to agree that it would rather harm the investment process. Nonetheless, standards are and will continue to be an important part of the assessment process, enabling comparison and reduce the risk of greenwashing. The assumptions made regarding standards indicate that standards are set up to serve the pension firms and other investors, which demonstrate the dominance of the financial logic of the green bond market. For example, no concern could be observed in the empirical data regarding the challenges of environmental aspects with stricter standards.

To this point, the analysis has focused on the underlying institutional logics revolving around the green bond assessment process. By further analysing the purpose of pension firms and their accompanying responsibilities, a deeper understanding of the research question is enabled. Kent and Dacin (2013) highlight how institutional logics define *the rules of the game*, through which it frames the status of actors and their actions within an institutional field. Therefore, the last section of the analysis will go deeper into what underlying logics shape the pension firms in general and how those logics outline the firms' values, rules as well as organisational practice when assessing green bonds.

4.3 Pension Firms' Underlying Logics

Mentioned in all interviews as well as in the pension firms' official documents, the main task of the pension firms is to generate long-term returns for their customers. This is supported by Jansson and Biel (2011), stating that fiduciary obligations entail acting in the best financial interest of the beneficiaries. In the case of green bond assessment, this is exemplified by one interviewee who states:

> We have a responsibility towards our customers. We have to take into account what they consider feasible. If they receive less income from a green bond than from a 'brown' bond [conventional bond], would they accept it? And to what extent? (Pension Firm Epsilon).

Furthermore, the pension firms express that their fiduciary duty becomes especially important, as they are responsible for managing people's life savings. From the empirical data, one can observe that the financial act of generating returns not only serve a financial purpose but an obligation stemming from a social logic as well. As one interviewee expresses:

> It is a special responsibility when managing other people's money, especially pensioners, who do not have very high margins. The return always comes first (Pension Firm Beta).

As indicated by the statement, motivation for generating financial returns is rooted in the social logic of providing a secure and decent life for current and future pensioners. This finding was observed in all pension firms, which highlighted similar values and purposes. This can be explained by the fact that labour and capital are interdependent, meaning that labour is the primary function providing capital. As the elderly usually do not perform paid labour, the pension firms have been assigned to fulfil the societal function of providing financial security after retirement, as supported by Sass (1997). Not only is this function expected by the Swedish society but enforced by the Swedish pension system as well. At first glance, the focus on generating financial returns seems to be rooted in the financial institutional logic. However, applying an inter-institutional lens reveals that the financial logic itself stems from a social logic.

While the financial logic and its accompanying financial expectations have a strong foothold within the pension firms, they explain that it is not their only responsibility. In addition, their customers expect them to take social and environmental aspects into account, which can be illustrated by the statement:

> Then, of course, we also consider sustainability to be a part of our fiduciary duty, it is a responsibility that we have towards our customers. Not only to generate a sound risk-adjusted return, but also to take different sustainability aspects into account (Pension Firm Delta).

These observations indicate that dual customer expectations exist within the organisational field of pension firms. This can be supported by Thornton and Ocasio (2008), who point to the fact that there is not one source of rationality, but several. Interestingly, the empirical findings suggest that the financial logic, in fact, also serves a social purpose. From this perspective, the pension firms are caught in a dilemma, where choosing green sometimes hinder this social purpose. This line of reasoning is based on that *greenium* exist when investing in green bonds, which ultimately lead to these green investments being more expensive. Therefore, the pension firms have to choose between acting green and providing a secure and decent life for the pensioners. Through the institutional logic lens, this paradox

suggests that the identified environmental logic competes with the financial logic. This can be supported by Nicholls' (2010) identification of competing logics within the sustainable investment field.

However, Reay and Hinings (2009) argue that institutional logics not necessarily need to compete but can be complementary. The majority of the environmentally oriented tasks of the pension firms are outsourced while financial tasks are performed in house. This indicates that the experience and expertise of the pension firms are tightly coupled with their financial objectives. Moreover, within the Swedish society, the financial logic is taken for granted, as it expects that pension firms' primary purpose is to provide financial security for current and future pensioners. Following Yan, Ferraro and Amandoz's (2019) theory, this strengthens the suggestion that the environmental and financial logic are inclined to compete when assessing green bonds, thereby making it challenging for the pension firms to fulfil the numerous expectations.

In conclusion, there is no doubt that all pension firms strive to actualize the transformation towards a low-carbon economy and a climate-resilient future. However, the firms are, to varying degrees, limited by numerous responsibilities and expectations of them as a pension firm. This becomes particularly important in Sweden, as the customers have a limited choice of where to place their occupational pension. As a consequence, the pension firms are continually balancing these different expectations and attempts to find the equation that serves multiple purposes. From this perspective, green bonds can be seen as an attempt to meet both financial and environmental expectations.

4.4 Chapter Summary

The empirical findings indicate that ESG assessment, conventional bond assessment, and second opinion providers are all cornerstone practices in how Swedish pension firms assess green bonds prior to investment. However, the underlying logic shaping the pension firms' organisational behaviour are differently rooted amongst the pension firms, resulting in some varying behaviour and approaches. The most evident differences are found in the motivation for their choice of ESG strategies, the level of *greenium* allowed, and the motivation for and the level of trust towards second opinion providers. Findings further entail that the underlying

institutional logics also frame similar assessment practices, rules and beliefs of certain organisational expectations. The most apparent being the rules of credit ratings and the usage of external ESG ratings. Additionally, the pension firms are overall for standardisation to harmonise the market and to ease comparability and mitigate the risk of greenwashing. However, some of the pension firms stress that too strict regulations could have adverse effects and hinder the already low supply of green bonds.

Two main institutional logics are identified to set *the rules of the game* during the assessment process; environmental logic and financial logic. The logics shape various parts of the assessment process, of which the amount of space the different logics are allowed in the assessment varies amongst the firms. In other words, the institutional logics provide explanations for both the similarities and differences of how the Swedish pension firms assess green bonds prior to investment. An important finding is a reoccurring reflection amongst all pension firms about their societal function as a pension firm, which in some cases result in a paradox of when to prioritise environmental benefits over pensioners' financial security.

5 Conclusion

This chapter will conclude the similar and different organisational practices in the pension firms' green bond assessment processes, which is described in the research aims and objectives. How the findings contribute to the limited literature is presented as well as how practitioners such as portfolio managers, sustainability managers, and ESG analysts can benefit from the practical implications found. Lastly, the limitations of the study are addressed by suggesting relevant future research topics to continue the development of green bond literature.

5.1 Research Aims and Objectives

Our planet requires changing behaviour to minimize the devastating consequences of global warming. Pension firms are expected to be a part of the transition towards a greener world, as financial investments need to be arranged towards climate-resilient activities. As a response to the increased demand for environmental activities, green bonds have gained momentum. However, practitioners and researchers highlight the difficulties of defining and assessing green bonds and calls for further research and practical guidance. In this study, this is illustrated by studying pension firms, which all are requesting further standards. Findings indicate that additional standards are wanted to enable comparability in the assessment process as well as to mitigate the risk of greenwashing. Nonetheless, too rigorous standards are mentioned as a risk, as some of the studied pension firms argue it would rather be a disservice to the market and harm the supply of green bonds.

Stemming from the expressed need for practical guidance as well as the identified research gap of how to assess green bonds, this thesis explores pension firms' assessment processes. Findings point toward both similar as well different practices within the assessment processes amongst the studied pension firms. The overall assessment process is found to contain the same basic structure, which is ESG assessment, conventional bond assessment, and second

opinions. Findings further indicate two institutional logics, a financial and an environmental, setting *the rules of the game* and thereby shaping the pension firms' organisational practices within this basic structure. Similar organisational practices are most evidently found in the pension firms' rules of credit ratings and external usage of ESG ratings. The differences can mainly be observed in the motivation for their choice of ESG strategies, the level of *greenium* allowed, and the motivation for and the level of trust towards second opinion providers.

Findings show that the financial logic is dominant and set *the rules of the game* on the green bond market. The dominance of the financial logic and its impact on the assessment process can be explained by the fact that pension firms are guided by financial objectives, as they have a responsibility to generate returns for their customers. The studied pension firms try to integrate environmental considerations as they have an additional responsibility, emerging from the need to transition towards a green future. Nevertheless, the study shows that the financial logic primarily is prioritised. Findings, however, further indicate that the financial logic ultimately is rooted in a societal function, as the pension firms are the ones expected to provide financial security and a decent standard of living for current and future pensioners.

After all, the actors with the capital needed to actualize a green future are guided by an institutional logic that does not prioritize environmental concerns. As such, the pension firms do not appear to be in synergy with the need for a green transition. However, the environmental logic is observed to gain more significant influence when environmental aspects of the green bond are assessed inhouse, such as internally evaluating the green bond framework or conducting ESG assessment internally. This can be explained by the environmental practices and beliefs are more tightly connected in these cases, resulting in the pension firms having to change their practices, expertise and way of reasoning. In conclusion, green bonds are a step in the right direction towards financing a sustainable future. Nonetheless, to ensure climate-resilient activities, the environmental logic needs to gain influence in the assessment process and on the green bond market as a whole.

5.2 Practical and Theoretical Implications

Given the novelty of the green bond market and the challenge of assessing green bonds expressed by both practitioners and researchers, it gives value to the scarce literature as well

as provides practical guidance to explore the topic further. This thesis contributes to practical implications by providing practitioners with tools to increase the environmental logic's influence within their green bond assessment processes. However, as this thesis does not aim to rate or grade the pension firms' various assessment processes, practitioners still need to identify their best practices. Practitioners are instead provided with a mindset that enables them to map out their *means* and *ends* to understand the underlying reasons steering their choice of assessment tools. From this, practitioners have a better starting point if they desire or need to change their organisational behaviour. These practical insights are particularly applicable for portfolio managers, sustainability managers, and ESG analysts.

This thesis holds theoretical implications by developing the scarce literature on green bonds. The current green bond literature is focused on the barriers and challenges of the green bond market rooted in a lack of standards, definitions and inconsistent valuations, while little attention is brought to how investors act within those barriers and challenges. Hence, this thesis adds theoretical knowledge by providing in-depth understandings of how pension firms conduct sequential steps and various strategies in the green bond assessment process when facing these barriers and challenges. The in-depth understandings emerge from identified existing institutional logics laying the foundation for the firms' assessment choices. This thesis discusses the pension firms' approach towards standards as well as introduces the need for standards not to only serve the investors. Additionally, the study provides theoretical insights regarding the underlying responsibilities that are limiting pension firms to fulfil multiple objectives. To the extent of our knowledge, this thesis is first to introduce institutional investors' rationale for their choice of assessment approach in the green bond assessment process. It, furthermore, shines a light on the paradox pension firms are facing when having to choose between pensioners' financial security and the planet's survival. As such, this thesis fills the outlined researched gap, and further introduces a paradox which can be applicable to explain similar organisational behaviour for other sustainable financial instruments.

5.3 Future Research

In this study, the pension firms' ownership structures vary, and findings, as well as literature, suggest that the ownership structure is connected with particular rules and responsibilities. In

turn, this limits the pension firms' ability to incorporate the environmental logic in their assessment of green bonds. However, in what way or to what extent different ownership structures impact the assessment process and its underlying logics needs further research.

Previous research indicates concerns that second opinion providers may be biased and inaccurate due to reasons such as being paid by the issuer and wanting to uphold a good relationship with them. In this study, it is evident that the second opinion providers are a key actor of the assessment process and have a great influence on the assessment. The fixed payment terms, and the reputational risk of providing biased and inaccurate second opinions observed in this study, indicate that this is not as problematic as portrayed in previous research. However, to gain a full overview of the independence of second opinion providers, further research needs to be conducted from all market actors' perspective.

Similar to the fact that investors' demand drives the green bond market, theoretical as well as practical discussions regarding the use and purpose of standards tend to be from the investors' perspective. This study is conducted from the same perspective. However, research regarding how standards affect the green bond issuers should be added to the discussion in order to gain knowledge and possible implications from the issuer's perspective.

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Appendix A

The Core Principles of the Green Bond Principles

(1) *Use of Proceeds,* which state that the issuer's use of proceeds must be clearly documented in the legal documents of the bond. All projects should have clear environmental benefits which should, if possible, be measured or estimated by the issuer.

(2) *Process for Project Evaluation and Selection,* which state that the issuer of a green bond should communicate the decision process it follows when deciding if the funds can be allocated to projects within the GBP's outlined green project categories.

(3) *Management of Proceeds,* which state that the proceeds should be placed in a separate account or be managed in a way that clarifies that the capital from the bond is allocated to the specified environmental projects. If all capital is not invested directly in the projects, the issuer should inform the investors how the capital is managed up until the time of payment.

(4) *Reporting,* which states that the issuer should at least once a year provide a list of projects that the bond has financed. The list should moreover contain a brief description of the projects and what amount that has been allocated to each project. The GBP further suggests using quantitative measures to the extent possible.

Source: ICMA (2019), interpreted and summarised by My Ewrelius Ryde and Josefina Röckert

Appendix B

Interview Guide Pension Firms

1. Please describe your role and area of responsibility.
2. Do you have a sustainability strategy and what does it entail?
3. How does your sustainability strategy reflect your investments in general?
4. How does your sustainability strategy reflect your investments in green bonds?
5. Please give an example of a green bond investment. Describe the process from "beginning to end"
6. When in the green bond assessment process do you evaluate the sustainability of the green bond? Who is conducting this analysis, and what is the set-up of the process?
7. Which aspects are taken into consideration when you invest in a green bond?
8. Is there an order of prioritisation of certain aspects that are taken into consideration?
9. How do you work with credit ratings in connection to green bonds?
10. How do you work with second opinion providers in connection to green bonds? Is it a requirement to receive a second opinion?
11. How is your capital spread across green bond investments? Are there certain projects or type of green bonds which you have invested more in, or are more likely to invest in?
12. What do you consider being a risk when investing in green bonds?
13. Are there any typical problems when investing in green bonds? What are these considered to be?
14. Do you experience *greenium*? Describe your opinion of *greenium*.
15. Do you experience a need for standards regarding green bonds? What do you think standards should address?

Appendix C

Interview Guide Bank

1. Tell us about your role at the bank.
2. Describe the basics of green bonds.
3. What aspects do you take into account when setting up a green bond?
4. How do you work with ratings (and what)? Do you perceive ratings as an important part of green bonds?
5. How do you define a green bond?
6. Is there a difference in how you work with verified and unverified bonds?
7. How do you collaborate with other market actors that are involved in green bond process?
8. Do you use any specific framework? For example, the Green Bond Principles.
9. Do you encounter any specific problem regarding green bonds? What are those typically and how are they handled?
10. Test the interview guide for the pension firm. Do you think any question should be removed, adjusted or added?

Appendix D

Interview Guide Second Opinion Providers

1. Please tell us about your role at the firm.
2. When do you become involved in the process of evaluating the green bond and its framework?
3. Do you have a standardised process to conduct the assessment of the green bond framework?
4. Which criteria do you take into consideration when assessing a green bond framework?
5. Are you only assessing the green bond framework (the project itself), or is the issuer taken into consideration as well?
6. Do you do any follow-up on the green bond and its framework?
7. How is the payment setup for your verification?
8. Are you in contact with investors about the assessment of specific green bonds?
9. Are there any typical problems or challenges you encounter when assessing a green bond framework?
10. How do you allocate the projects to your associates?
11. Do you experience a need for standardisation in the green bond market and what would that be?
12. Our study is focused on Sweden, do you perceive any differences in the Swedish market compared to other markets?

Appendix E

Case Study Protocol

A. Overview of the Case Study

- This case study's sponsor can be considered Lund University School of Economics and Management (LUSEM). The objective for this thesis and in turn, this case study, is described as "The main objective is to develop students' ability to conduct an independent study that includes developing relevant research questions, and to design and conduct a study that addresses the research questions based upon appropriate methodological considerations and relevant theories within the areas covered in the International Strategic Management Master's programme." (International Strategic Management Programme BUSN09, 2020, p. 2)
- The research question of this study is "How do Swedish pension firm assess green bonds prior to investment"?
- With this question, we hope to provide in-depth practical guidance for practitioners as well as developed the current scare academic literature regarding green bond assessment.
- The character of the research question is explorative. Hence, the theoretical framework is expected to develop as findings from the study unfolds. Moreover, we assume changes may occur due to the explorative character of the thesis.
- The theoretical framework was initially assumed to consists of three pillars. Firstly, theory on conventional bond assessment. Secondly, green bond assessment and its challenges. Thirdly, sustainable investing, which include assessment processes applicable to green bonds. At a later stage, we further included institutional logics theory, socially responsible investment and ESG strategies due to its relevance to the research question.

B. Data Collection Procedures

- The names of the contact persons for doing the fieldwork are Josefina Röckert and My Ewrelius Ryde.
- The data collection will involve interviews with pension firms as well as annual reports and sustainability reports of the pension firms.

- Preparation prior to fieldwork is expected to include in-depth readings regarding the pension firms and second opinion providers. To understand the basics of the overall green bond market, we realised a preparatory interview with a relevant market stakeholder was required.
- Additionally, after performing the interviews with the pension firms, we decided to interview second opinion providers, to gain an additional level of analysis and understanding.

C. Data Collection Questions

- The data collection questions should be asked in an open manner, to enable exploring events and the process in detail. Thus, the interviewees will be asked to provide detailed examples of the green bond assessment process. Given the biased position of an investor, questions regarding the assessment of greenwashing will be limited. Instead, the topic will be approached from a general problematic point of view. It is expected that semi-structured interview questions are needed in order to ensure both explorative topics as well as certain necessary areas to address.
- To ensure that we are not affected by each other's evaluation, the interviews will be transcribed and thereafter coded separately. After this step is performed, we plan to engage in discussing similarities and differences of our codings to identify underlying patterns.

D. Guide for the Case Study Report

- The course "Degree Project in International Strategic Management" is included in the master's programme International Strategic Management at Lund University, with the mission to write a master's thesis of maximum 25 000 words. Therefore, this thesis is targeted towards an audience on a master's level.
- This master thesis will attempt to follow LUSEM's Master Thesis Template.
- The procedure of the case study aims to follow a traditional process. However, the research topic and research question aim to contribute by adding new theoretical knowledge within the researched area.
- The exhibits of this thesis will be thoroughly explained in the methods chapter, where the line of action for this thesis is described in a step-by-step manner.