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# **Paving the way for the “green” revolution**

## Motives behind investing in Green Bonds

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*You say you want a revolution  
Well, you know  
We all want to change the world  
You tell me that it's evolution  
Well, you know  
We all want to change the world*

The Beatles

## Acknowledgements

This master's thesis marks the end of four years as a student at the Norwegian University of Life Sciences. It has been four exciting years both socially and academically. To be able to finish my time as a student with a challenging thesis has been both interesting and inspiring.

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## Abstract

We all want to change the world The Beatles sing in their song revolution. To change the world is what the world leaders have decided by the goal of limiting the rise in temperature to two degrees Celsius above pre-industrial levels. This has shown to be expensive and one way of financing the revolution is Green Bonds. Green Bonds are used to finance “green” projects that help mitigate climate change and help countries adapt to the effects of climate change. In this thesis the goal is to study what motivates companies to invest in Green Bonds and if these investments can be a part of the firm’s corporate social responsibility.

This thesis presents results obtained through both exploratory and confirmatory research. Banks and pension funds in the Nordic countries are chosen as most likely to invest in Green Bonds and were asked to answer the two questionnaires developed for this thesis. The first questionnaire was sent out to 81 respondents of which 16 answered, of these eight answered that they were investing in Green Bonds. Five of these eight answered the second questionnaire as well.

Motivational theory was studied, including Maslow, Alderfer, McClland and Herzberg. Further, theory describing corporate social responsibility and social investments are assumed to be relevant for Green Bond investments and are used throughout this thesis. Brønn and Vidaver-Cohen (2009) is used as inspiration and basis for both the first questionnaire and for dividing the results.

The results were discussed and lead to the conclusion of legitimacy as the main motivational factor for Green Bond investors. The surveys show underlying financial motivations as well as moral motives. This suggests that Green Bonds are both intrinsically and extrinsically motivated. Further, similarities were found between Green Bonds and social corporate responsibility

## Sammendrag

The Beatles synger at alle vil forandre verden i deres sang «revolution». Å forandre verden er også et mål for verdens ledere. For å oppnå dette har de blitt enige om å ikke øke temperaturen med mer enn to grader Celsius over det førindustrielle nivået. Det har vist seg at dette kommer til å bli kostbart og en måte å finansiere denne revolusjonen på er grønne obligasjoner. Grønne obligasjoner brukes til å finansiere grønne prosjekter som bidrar til å redusere klimaendringer og effekten av klimaendringene. Denne oppgaven ser på motivasjonen bak å investere i grønne obligasjoner og om disse investeringene kan være en del av bedrifters samfunnsansvar.

Denne oppgaven tar for seg både utforskende og bekreftende undersøkelser for å nå en konklusjon. De som ble sett på som mest sannsynlig til å investere i grønne obligasjoner er banker og pensjonsfond i Norden. To spørreundersøkelser ble utviklet for å svare på denne oppgavens problemstilling. Den første spørreundersøkelsen ble sendt ut til 81 respondenter, hvorav 16 svarte, av disse har åtte investert i grønne obligasjoner. Fem av de som investerte i grønne obligasjoner svarte også på den andre spørreundersøkelsen.

Motivasjonsteori ble brukt, inkludert Malow, Alderfer, McClland og Herzberg. I tillegg, ble teori som beskriver samfunnsansvar og ansvarlige investeringer antatt å være viktig for grønne obligasjoner. Brønn and Vidaver-Cohen (2009) ble brukt som inspirasjon og grunnlag for den første spørreundersøkelsen, i tillegg til oppdelingen av resultatene.

Resultatene fra de to spørreundersøkelsene viser at å investere i grønne obligasjoner hovedsakelig er motivert av et ønske om å forbedre bedrifters omdømme. Samtidig viser undersøkelsen at finansielle motiv også er tilstede sammen med moralske motiv. Både indre og ytre motivasjon kan være gjeldende for grønne obligasjoner. Denne oppgaven indikerer at grønne obligasjoner kan være en del av bedriftenes samfunnsansvar.

## Abbreviations

|        |  |     |                                   |
|--------|--|-----|-----------------------------------|
| CEO    | Chief Executive Officer  | KLP | Kommunal<br>Landspensjonskasse    |
| CICERO | Center for International<br>Climate and Environmental<br>Research,<br>University of Oslo |     | (Communal pension fund)           |
|        |  | NOK | Norwegian kroner                  |
| CSR    | Corporate Social<br>Responsibility   | SEK | Swedish kroner                    |
|        |  | SRI | Social Responsible<br>Investments |
| ESG    | Environmental, Social and<br>Governance  | US  | United States                     |
| FIVH   | Fremtiden I Våre Hender<br>(English translation: The<br>future in our hands)             | WWF | World Wide Fund for<br>Nature     |
| GBP    | Green Bond Principles  |     |                                   |

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# 1. Introduction

Environmental problems and climate change are increasingly discussed in the media and among the world's top leaders. This focus on environmental problems has led to the goal of limiting the rise in temperature to two degrees Celsius above pre-industrial levels. To reach this level is expensive and change is necessary across all levels and activities in society. So who is going to pay for this? It is too expensive for one company or even one country to do it alone. A possible solution is Green Bonds. These are fixed income products earmarked for climate friendly projects that help mitigate climate change and help countries adapt to the effects of climate change (Reichelt 2010).

The goal of this thesis is to examine the motives behind investing in Green Bonds. It is important to increase knowledge about companies' motivation to reach out to as many investors as possible. Furthermore, the amount of Green Bonds issued are increasing each year and it would be interesting to see what makes companies decide to invest in Green Bonds compared to regular bonds.

Investing in regular bonds is most likely motivated by economic gain. Bonds are income-producing investments where the investment includes coupon rates paid periodically or at the maturity date. Financial motives are described as the wish to generate new revenues or to protect existing profit levels. This is in line with neo-classical theory where humans are seen as rational and egoistic with the desire to maximize personal wealth (Lewis et al. 2002).

## 1.1 Problem

To examine the motives behind Green Bond investments, the following research question was developed: **Which motivational factors previously identified by other researcher's influence companies to invest in Green Bonds?**

Green Bonds are financial instruments. This makes us think that investing in them is motivated by financial gain similar to regular bonds. However, there must be a reason for Green Bonds being popular. Are Green Bonds a part of the company's CSR activities?

Does the “green” in Green Bonds make them different from regular bonds and more than just financially motivated? Given that Green Bonds and regular bonds are essentially equivalent on financial gain, there is no need to choose between financial gain and environmental impact. By reflecting on these questions, I want to investigate what motivates companies to invest in Green Bonds and see if Green Bonds are a form of corporate social responsibility.

Since Green Bonds are explored in a small degree prior to this thesis research conducted on similar ethical, “green”, social responsible and sustainable investments will be presented. In addition, theoretical background on motivation is used, based on theorists’ Maslow, Alderfer, McClland and Herzberg.

## **1.2 Thesis outline**

Following this introduction, the Green Bond background will be presented. The world’s climate problems, the Paris agreement and regular bonds are seen as key topics to introduce Green Bonds. The next section discusses the theoretical framework, starting with motivational theory. Similarities between corporate social responsibility, social responsible investments and Green Bonds are discussed. Additionally, motives presented by different theorists are presented, followed by a more detailed description of the three main motivational factors in this thesis: profitability, sustainability and legitimacy.

Further, the method is introduced focusing on the two questionnaires. After this, the results will be presented and discussed in light of the theory. The last chapter summarizes the work with a conclusion, followed by limitations and suggestions for further research.

## 2. Green Bonds background

The 2015 United Nations Climate Change Conference was held from the 30th of November until 12th of December 2015. This conference is referred to as one of the most successful climate conferences held. Foremost because 196 nations gathered to adopt the first universal climate agreement (Géminel 2015), referred to as the Paris Agreement. One of the highlights was the request to stabilize the global temperature increase at 1.5 degrees Celsius above pre-industrial levels. This temperature is what scientists believe is the minimum threshold of safety for the planet to reach net zero greenhouse gas emissions at the end of this century (Northrop 2016). However, the goal to not increase by more than two degrees Celsius above pre-industrial levels is what the world agreed upon, even though countries should try to stay under 1.5 degrees Celsius (The Economist 2015).

“Global warming cannot be solved using today’s tools and way of thinking, so create some new ones” (The Economist 2015, p.3). To create new tools is expensive. The Global Commission on the Economy and Climate (2015) claims the world would need to invest US \$94 trillion the next 15 years (2015-2030) in new low carbon infrastructure to reach the two degree Celsius goal. The United Nations Environment Program has estimated a further US \$150 billion would need to be invested each year until 2025 (Shankleman 2015). What is more, the expected climate value at risk is under “business as usual” is estimated to be US \$2.5 trillion. However, under the two degree Celsius goal, expected climate value at risk will be reduced to US \$1.7 trillion (Dietz et al. 2016). If no one wants to invest in climate solutions, businesses can actually lose money.

Businesses and investors have been waiting for a strong signal from the world’s leaders in regard to the climate action plan. The Paris Agreement is that signal. The agreement initiates the end of the fossil fuel era and is part of the beginning of a new clean energy future (Mountford 2015). Increased investments mainly in infrastructure will be an important part of the transition to a low-carbon economy. In addition, multilateral finance institutions like The World Bank have to scale up their financial resources and

decrease costs (Stern 2015). The question is how the world is going to pay for the upgrade?

The task is too big for government resources to handle alone, at least for developing countries (Reichelt 2010). One possible answer is Green Bonds. Kristin Halvorsen CEO of CICERO says Green Bonds are an important part of the solution (Rapp 2015). Green Bonds are identified by The World Bank as investments in eligible projects that seek to mitigate climate change or help people adapt to it (The World Bank 2015). Another similar definition is: Green Bonds are a fixed income product that offers investors the opportunity to participate in the financing of “green” projects that help mitigate climate change and help countries adapt to the effects of climate change (Reichelt 2010).

## **2.1 Bonds**

To understand Green Bonds, it is important to know about bonds in general. Bonds are an income-producing investment with a specific end date and are often seen as a safer investment than stocks (Francisco 2012). The investment includes coupon rates, which is paid to the investor each period or at the maturity date (Helbæk & Lindset 2007). A bond represents a financial obligation of an entity where the issuer promises to make a specific payment to the investor at the maturity date (Fabozzi 2007). Investors in stocks, however, are buying a piece of the issuing firm (The World Bank 2015), where the stock represents an ownership in the organization (Fabozzi 2007).

In 2010 bonds had an outstanding worth of US \$93 trillion globally, this is 44 percent of the total financial market (The World Bank 2015). When compared to the stock market this is a high percentage, as can be seen on the right side in Figure 1.

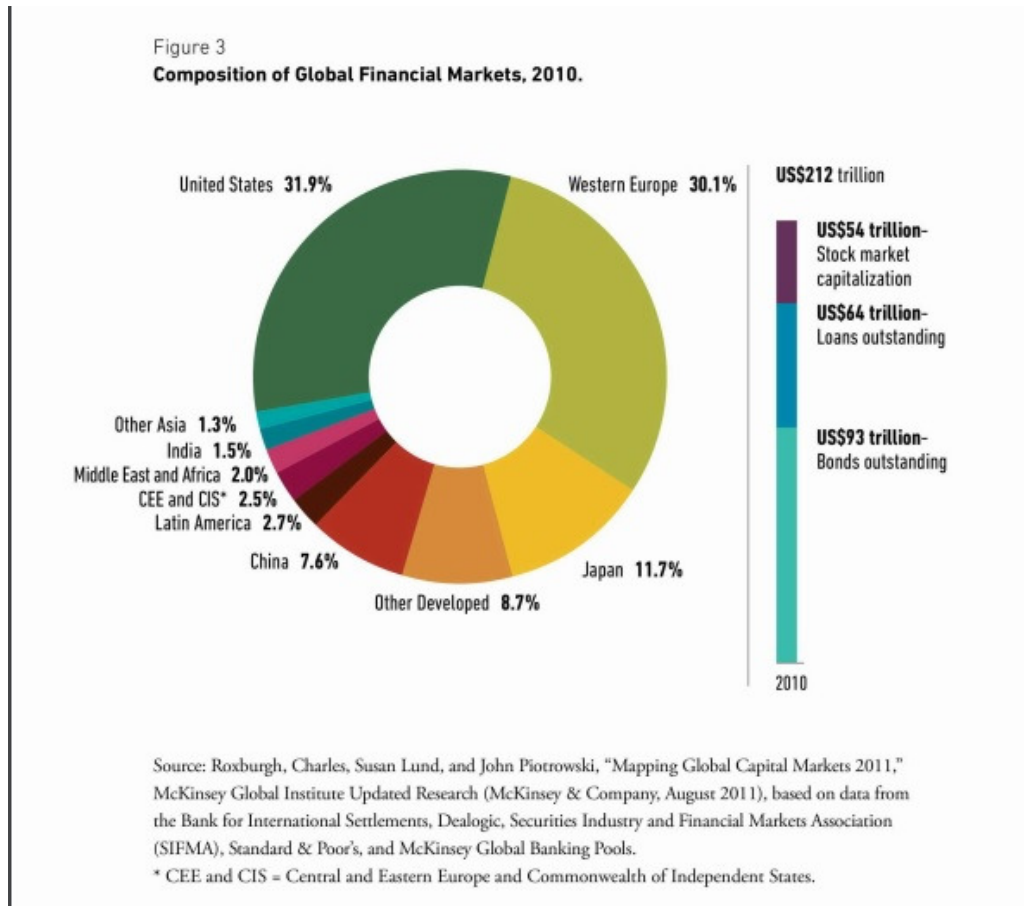


Figure 1 Financial markets 2010 (The World Bank 2015)

Green bonds are still just a small part of the bond market. In 2014 the amount of Green Bonds outstanding were US \$53.2 billion (Climate Bonds Initiative 2015b). This had increased by the summer of 2015 to US \$65.9 billion (Climate Bonds Initiative 2015a). To compare with the 2010 numbers in the financial market the amount of Green Bonds outstanding was approximately US \$4 billion (Climate Bonds Initiative 2015b), which is 0,000004 % of the total bond market. Christopher Flensburg, head of sustainable products at SEB expect up to 10 % of bonds issued to be "green" within five to seven years (Darby 2014).



## 2.2 Green Bonds

In this part there will be a thorough description of Green Bonds. Green Bonds have similar features to regular bonds by the issuing entity, including credit risk and size (Reichelt 2010). What distinguishes green bonds from regular bonds is the specific use of the funds raised (KPMG International 2015; The World Bank 2015). They are attractive to investors who incorporate environmental, social and governance concerns into their analysis, pursue specific environmental strategies and/or have a separate asset class for climate-focused investments (Reichelt 2010).

Green Bonds were developed as a result of The World Bank in partnership with SEB (Skandinaviska Enskilda Banken) who tried to find a way to support projects that address climate change. The first Green Bond was issued in 2008 by The World Bank and had a value of SEK 3.35 billion, which is approximately US \$440 million (The World Bank 2015). This was in response to the demand from Scandinavian pension funds' wish to support climate-focused projects (The World Bank 2015). However, some regard the climate awareness bond, issued by the European Investment Bank in 2007 as the first Green Bond. What the awareness bond did, in effect, was to visualize the demand for climate-related investments like Green Bonds (Reichelt 2010). Figure 2 below illustrates the growth in issuance of Green Bonds, which show a tripling from 2013 to 2014. For 2015 the growth has slowed. This can be as a result of no agreed upon certification for Green Bond issuers.

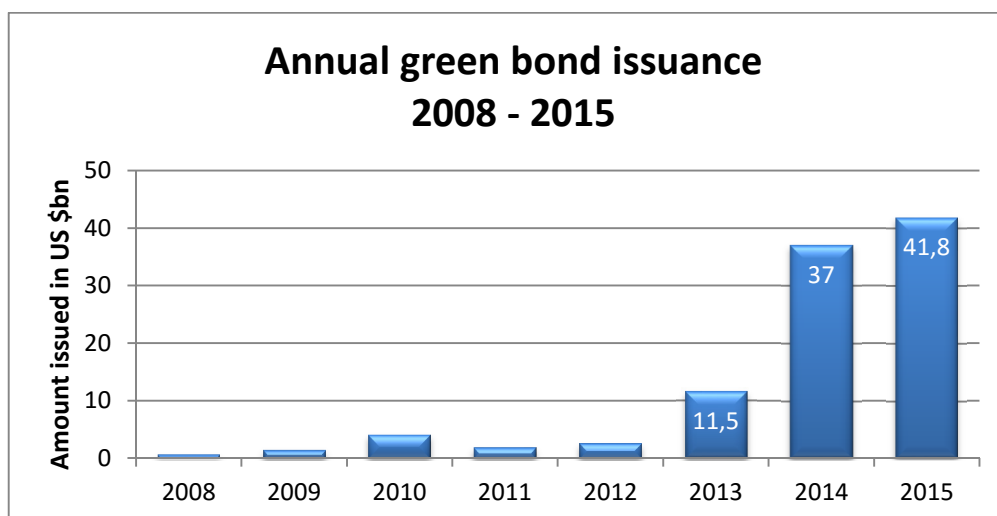


Figure 2 Annual Green Bond issuances (Climate Bonds initiative 2015; 2016)

Green Bonds fit well with the World Bank's efforts to cater investors interest in sustainable and responsible investments (The World Bank 2015). It is a common mistake to assume that sustainable and climate-related investments are all about being responsible and not about making money. Investors investing responsibly are mainly motivated by the good quality obtained by selecting projects that in addition to being profitable, contribute to the environment and the community (Meisingset 2014).

### 2.2.1 Green Bond Principles

*"The Green Bond Principles are voluntary process guidelines intended for broad use by the market that recommend transparency and disclosure, and promote integrity in the development of the Green Bond market"* (International Capital Market Association 2015, p.1).

Even though there is no agreed upon certification for Green Bonds, there has been developed Green Bond Principles (GBP) and Second Opinions (Clapp & Torvanger 2015), which will be presented in this section. The GBP's are important as they provide investors with information to help them evaluate the environmental impact of their investment in Green Bonds (The World Bank 2015). In addition, they are able to gain knowledge about what they can expect from the issuers (International Capital Market Association 2015).

The GDP's are:

- (1) *Use of proceeds* – projects and activities that will promote progress on environmentally sustainable activities as defined by the issuer.
- (2) *Process for project evaluation and selection* – transparency in the decision-making process. Possible to use Second Opinions to assure that the projects are eligible "green" projects.
- (3) *Management of proceeds* – should be traceable within the issuing organization.
- (4) *Reporting* – issuers should report at least annually on use of proceeds.

(International Capital Market Association 2015, p. 2)

The GBP provides a list containing projects recognized as eligible. This list does not exclude other climate-friendly projects that mitigate climate change or help people adapt to it. The list is presented below (The World Bank 2015, p.30):

- ❖ Renewable energy
- ❖ Energy efficiency (including buildings)
- ❖ Sustainable waste management
- ❖ Sustainable land use (including sustainable forestry and agriculture)
- ❖ Biodiversity conservation
- ❖ Clean transportation
- ❖ Sustainable waste management (including clean and/or drinking water)
- ❖ Climate change adaption

In Figure 3 below the proceeds from Green Bond investments in 2015 are presented (Climate Bonds Initiative 2016). As shown, renewable energy and energy efficiency is the “winners”, which is in agreement with the GBP list of eligible projects.

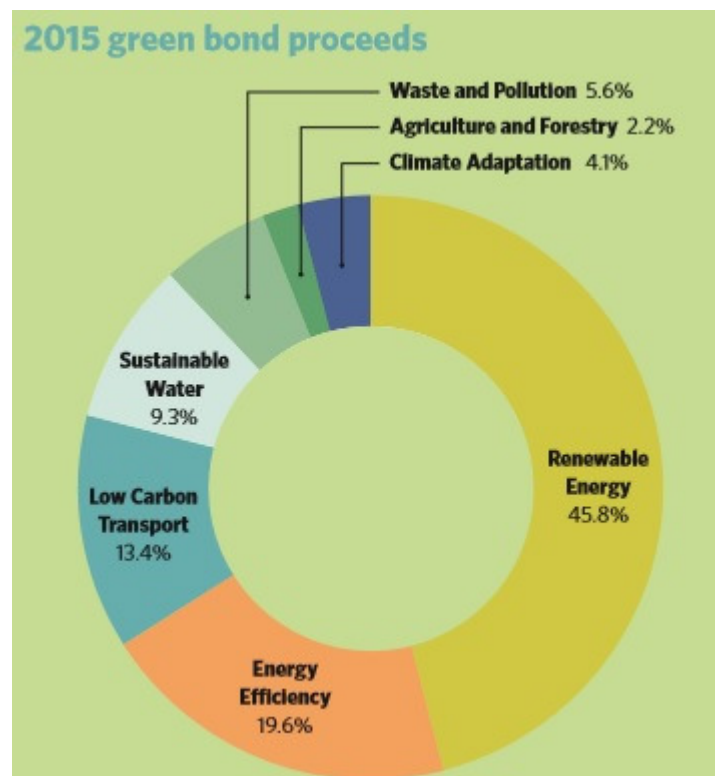


Figure 3 2015 green bond proceeds (Climate bonds initiative 2016)

It is important to note that the GBP's are not mandatory, which implies that not all Green Bond issuers are concerned about these guidelines. Those issuers who follow the guidelines benefit from updated information including the development of the Green Bond market and best practices (International Capital Market Association 2015).

GBP's are helpful when deciding if the Green Bonds are used for green purposes. However, it does not solve the problem of determining how "green" a Green Bond is. The main problem is that people have different opinions of what is "green" (The Economist 2014). When some people see nuclear power as "green" and others solely see renewable energy like wind and hydro power as "green", a conflict will occur. Furthermore, a company may be seen as hypocritical when the vast majority of their profits contributes to climate change and all of a sudden they start to raise money for low carbon initiatives (Shankleman 2015). On the other hand, independent groups have emerged to give second opinions, to ensure investors that their investment actually contributes to the environment and climate change mitigation (The Economist 2014). One of the independent groups is CICERO, which has developed "the shades of green" to offer investors better insight into the Green Bond market. CICERO is seen as the largest contributor of independent second opinions in the world for Green Bonds (Clapp & Torvanger 2015). The Shades of Green can prevent greenwashing of "brown" bonds that do not contribute to a climate solution.

| <b>Shades of Green</b> | <b>Description</b>                                    |
|------------------------|---|
| <b>Dark green</b>      | Implementing a 2050 climate solution today            |
| <b>Medium green</b>    | On the way to a 2050 climate solution                 |
| <b>Light green</b>     | Short term gains but not a long term climate solution |

Table 1 Shades of Green (Clapp & Torvanger 2015)

*"CICERO Second Opinions will be graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds. The grading is based on a broad qualitative assessment of each project, according to what extent it contributes to building a low-carbon society"* (Clapp & Torvanger 2015).

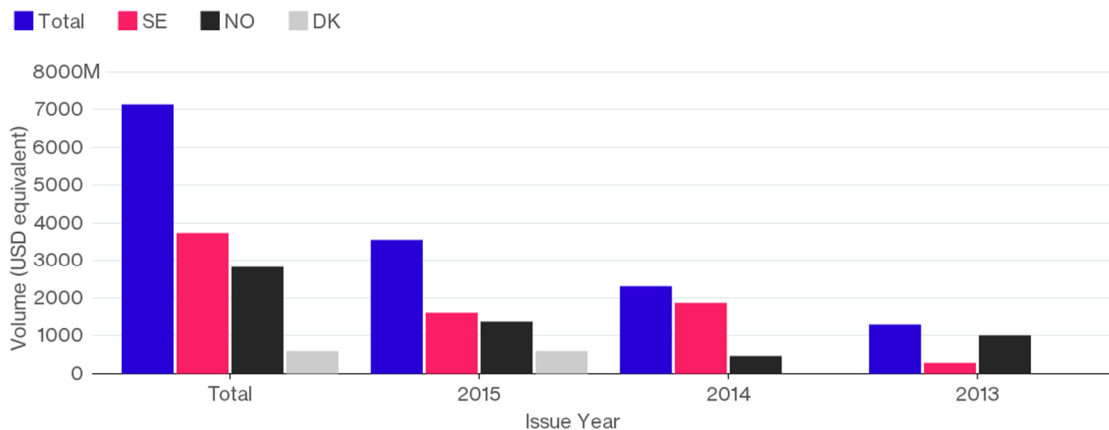
Damian Regan, director of risk assurance services at PwC, says: "*When people typically buy a bond all they're interested in is the coupon and they're not really worried where that money goes,*" he says. "*But as soon as you put a green wrap around it then you've got a reason for investing in it. Therefore, whether you hit that mandate becomes critical to the investor. There's no financial loss to the investor, but they would feel hard done by, if they invested in something that purported to be green but wasn't*" (Shankleman 2015).

Using GBP's and adopting second opinions could make investors more confident in Green Bonds, where the investors know the investments actually contribute to easing climate change and help with adaptation. However, certification or a universal agreement in developing a framework for Green Bonds is most likely hard to achieve (Emons & Spajic 2014). Today both the GBP's and the Second Opinions are voluntary for the issuer. By making investors aware of this and make them demand GBP's and Second Opinions before investing could reduce the risk of investing in "brown" or "light green" Green Bonds.

## 2.3 The Green Bond market in the Nordic countries

In 2015 Oslo was the first city in Norway that decided to issue Green Bonds. This was in response to Oslo’s goal of becoming an environmental friendly capital (Oslo City Council 2015). However, Sweden had already led the way, where the city of Gothenburg was the first city in the Nordic countries to issue a Green Bond in September 2013 (Darby 2014).

The first Green Bond from Finland is planned to be issued in 2016 (Laikola 2015). The first Green Bond issued in Norway was issued in 2013, from Kommunalbanken with the nominal value of US \$500 million (Kommunalbanken 2013). Denmark issued their first Green Bond in 2015 (Laikola 2015). Sweden was a part of the development and issuance of the first Green Bond through SEB. As one can see from Figure 4 Sweden is leading the issuance “race”, closely followed by Norway.



Bloomberg  
NOTE: Data covers NOK, SEK, EUR, USD-denominated debt

Bloomberg

Figure 4 Green Bonds issued in the Nordic countries (Laikola 2015)

### 3. Theoretical framework

In this part the theoretical framework will be presented. Motivational theory and theory including corporate social responsibility and social responsible investments are emphasized as important to answer the research questions. The similarities between Green Bonds and corporate social responsibility will be explored in this part as well.

#### 3.1 Motivations background

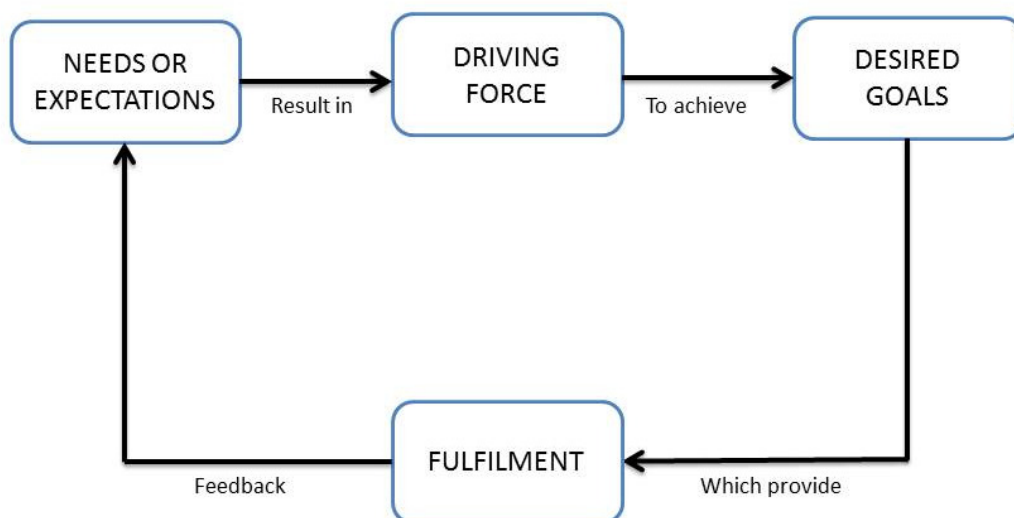
Motivation is defined as the biological, physiological and social factors that activates, give direction to and maintains a person's behaviour (Kaufmann & Kaufmann 2009, p. 93). People are motivated by the value they allocate a certain activity or because there is strong external pressure (Ryan & Deci 2000). Brooks (2006, p. 48) defines motivation in broader terms "*motivation can be considered to comprise an individual's effort, persistence and the direction of that effort*", or in simpler terms "*motivation is the will to perform*". Performance leads to two types of reward, intrinsic and extrinsic.

Intrinsic reward or motivation is described as the inherent tendency to pursue being a unique person and seek challenges, to develop and exercise one's capabilities, to explore and to learn (Ryan & Deci 2000). Intrinsic motivation is a part of a person's work performance, where the motivation is anchored in two basic human needs; the need for competence and self-determination (Kaufmann & Kaufmann 2009). Brooks (2006) suggests that the prospect of receiving intrinsic rewards will likely motivate individuals more than the possibility of improved work conditions, job security or salary improvements, which are seen as more short-term extrinsic rewards. One intrinsic motive for investing in Green Bonds can be to feel good about contributing to the environment.

However, Green Bonds are financial instruments where the financial return is important. Perhaps Green Bond investors are driven by extrinsic motivation? Extrinsic rewards or motivation are described as the opposite of intrinsic motivation and deal with situations where external rewards like income, bonuses, perks or employment promotion are

essential to perform the activity (Kaufmann & Kaufmann 2009). Ryan and Deci (2000) refer to extrinsic motivation as the performance of an activity in order to attain a separable outcome. By investing in Green Bonds, the investor is assured a payback, usually including coupon rates, on the maturity date. The coupon rate can be seen as the extrinsic motivation for financing climate change mitigation and adaptation. However, there are few individuals who have the opportunity to invest their money without an expectation of getting something in return. Not everyone can be like Bill Gates. If Green Bonds did not generate financial profit, they would be a form of charity.

Motivation is a complex subject; it is personal and influenced by several different factors. People's needs and expectations are constantly changing and are often in conflict with each other. In addition, individuals try to satisfy their needs in a number of different ways (Mullins 1996).



**Figure 5 The basic motivational model Mullins (1996)**

The basic motivational model developed by Mullins (1996) is illustrated in Figure 5 and show a cycle of relationships for how individuals are motivated. Needs and driving forces will be discussed in the following sections. For a given need there may be many different and appropriate goals; a person's needs and goals are interdependent. On the other hand, individuals are often not as aware of their needs as they are of their goals



(Schiffman et al. 2012). When one goal is fulfilled, individuals tend to develop new needs or expectations, similar or different from the goal already fulfilled. This is similar to Maslow's theory of needs which is discussed below.

### **3.1.1 Content theories of motivation**

The perspective of content theory attempts to explain the specific issues that motivate individuals, focusing on identifying individual's needs, strengths and goals pursued to satisfy these needs (Mullins 1996).

Maslow (1943) is a content theorist who proposed that individuals are motivated by the ability of satisfying their needs, where these needs can be ranked hierarchically according to how important they are for the individual (Brooks 2006). Only needs that are not satisfied are motivating to a person. As Maslow says, a satisfied need is no longer a motivator (Mullins 1996). His theory suggests that individuals seek to satisfy lower-level needs, before they start to focus on higher-level needs (Schiffman et al. 2012). Intrinsic motivation refers to Maslow's higher-level needs, while the extrinsic motivation refers to Maslow's lower-level needs, for example physiological needs and security (Brooks 2006).

Maslow's hierarchy of needs has been criticized for among other things lack of empirical evidence, not taking individual differences into account and for being highly ethnocentric (Brooks 2006; Mullins 1996; Schiffman et al. 2012). Despite criticism of the theory, others have adapted his approach. For example Alderfer (1972) modified Maslow's need hierarchy to suggest that several needs could be activated simultaneously (Brooks 2006; Mullins 1996). In contrast to Maslow, Alderfer's work suggests that lower-level needs do not have to be satisfied before focusing on higher-level needs (Mullins 1996). McClelland (1962), on the other hand, claims that people develop a dominant bias towards one need. For example, those who need achievement often seek situations where they can lead, be responsible and innovative (Brooks 2006). Furthermore, he identified a trio of basic needs that individuals develop and acquire through experience (Brooks 2006; Schiffman et al. 2012).

Herzberg et al. (1959) found that there are two factors that influence motivation and work effort: hygiene factors and motivators for growth. Hygiene factors are those that make individuals dissatisfied if they are not present, while motivators for growth drive the individual to greater effort and performance when present (Brooks 2006; Kaufmann & Kaufmann 2009; Mullins 1996). The four theorists' different systems of needs are summarized in table 2.

| <b>Maslow</b><br>Hierarchy of needs | <b>McClelland</b><br>Trio of basic needs | <b>Alderfer</b><br>ERG theory | <b>Herzberg</b><br>Two-factor theory |
|-------------------------------------|--|-------------------------------|--------------------------------------|
| Physiological                       |  | Existence                     | Hygiene factors                      |
| Safety                              |  |                               |                                      |
| Love & belonging                    | Affiliation                              | Relatedness                   |                                      |
| Self-esteem                         | Power                                    |                               | Motivators                           |
| Self-actualization                  | Achievement                              | Growth                        |                                      |

Table 2 Systems of needs

### 3.1.2 Process theories of motivation

Process theories attempt to identify the relationships among dynamic variables that make up motivation (Mullins 1996). It consists of expectancy theory, equity theory, goal theory and attribution theory. In this section the focus will be on expectancy theory and goal theory as these are most relevant in regard to this thesis interest in Green Bond motives. Equity theory focuses on people's feeling of how fairly they have been treated in comparison with the treatment received by others. Attribution theory is the process by which people interpret the perceived causes of behavior (Mullins 1996).

Expectance theory is based on the idea that people prefer certain outcomes over others and these performances influence their behavior. Individual's choice of behavior is based on the expectancy of the most favorable consequence. An example can be job satisfaction, where an individual's degree of job satisfaction is seen as more important for how they perform than what performance are for an individual's job satisfaction. In addition, the fact that performance leads to a reward tends to increase effort. This is comparable to extrinsic motivation. Others suggest that when deciding on the

attractiveness of alternative behaviors there are two types of expectations; effort-performance expectancies and performance-outcome expectancies (Mullins 1996).

Effort-performance expectancy is the person's perception of the probability that a given amount of effort will result in achieving an intended level of performance. Performance-outcome expectancies is the person's perception of the probability that a given level of performance will actually lead to particular need-related outcomes (Mullins 1996).

Goal theory is based on the fact that people's goals or intentions play an important role in determining behavior (Mullins 1996). There are two types of goals: generic- and product-specific goals. Generic goals are a general class of goals that individuals use to fulfill their needs. Product-specific goals are specific branded products and services that individuals can use to fulfill their goals (Schiffman et al. 2012). Green Bonds may best be seen as investments to fulfill the goal of being perceived as environmental friendly and "green". Those who have specific goals or a deadline for completion of a task will most likely perform better than people with no set goal or a vague goal (Mullins 1996). The goal of reducing climate change through investing in Green Bonds should be set at a challenging but reasonable level. If the goal is too difficult and regarded as impossible or too easy to achieve, motivation will decrease (Mullins 1996). Individuals set goals on the basis of their personal values and select their behavior in regard to achieve these desired goals (Schiffman et al. 2012).

In this thesis it is assumed that there is a relationship between what drives individuals and what drives companies, as people manage companies. Nevertheless, the organizational culture will most likely give restrictions on how individuals within the organization can behave. Classic transaction cost analysis of companies rest on the assumption that individuals, and thereby the companies they run, will act opportunistically (Williamson 1985). If a company's goal is to maximize profit and shareholder value in the best possible way, individuals would most likely do whatever it takes for the company to achieve this goal (Campbell 2007).

## 3.2 Corporate Motives for Social Initiatives

In this part there will be a presentation of Corporate Social Responsibility, Social Responsible investments and green growth. Because the Green Bond literature is limited this thesis will draw on the insights of social initiatives to answer the research questions. Similarities between corporate social responsibility and social responsible investments will be discussed.

### 3.2.1 Corporate Social Responsibility

Corporate social responsibility (CSR) is to a greater extent relevant for political and business leaders today. Additionally, both media and academic literature has increased their focus on CSR (Campbell 2007). The term CSR is disputed for many reasons, but one important one is that there is no one agreed upon definition (Brønn et al. 2009). Several definitions exist and the use of these definitions depends on the purpose and the writer. For the purposes of the analysis of

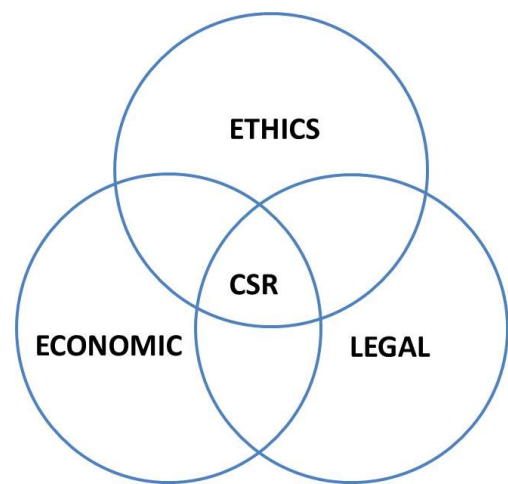


Figure 6 corporate social responsibility

Green Bond motivation, three suitable definitions will be presented. The first describe CSR as the entire spectrum of obligations a company has to society: economic, legal, ethical and philanthropic (Caroll 1991). This is represented in Figure 6 above, where CSR is in the intersection between three overlapping domains. Furthermore, Caroll (1991) describes the firms obligations like this:

- (1) *Economic concerns* are the foundation, where the company needs to be profitable.
- (2) *Legal concerns* are society's codification of what is right and what is wrong.
- (3) *Ethical concerns* are about the company's obligations to do what is right and avoid harm.
- (4) *Be a good corporate citizen*, where the company contribute resources to the community to improve quality of life.

This perception is, however, not without flaws as there is no way to know what to do when the obligations are in conflict with each other (Brønne et al. 2009). Davis (1973) sees CSR as something that begins where the legal requirements end; merely complying with the law is a minimum requirement that everyone has to do. He defines CSR as *“the firm’s consideration of, and response to, issues beyond the narrow economic, technical and legal requirements”* (Davis 1973, p. 312). Cane and Matten (2010) focus on moral, opposed to the clear economic, legal and ethical goals in their definition. They see CSR as an assessment of problems regarding a company’s business activities and decision making where the company has to decide whether what they do is morally right or wrong (Cane & Matten 2010).

Economic gains and profit maximization can no longer be the company’s only focus if the company is to follow the definition of CSR. To consider the effect of their actions and how these affect people, community and the environment should be equally important (Brønne et al. 2009). If CSR is motivated only by economic gain, it can be seen as any other economic strategy (Hay et al. 2005). Profit should not be the main motivation for CSR activities. Ihlen (2007) consider globalization, increased company power, increased pressure from media, new types of activism and new communication technology making it easier to share information to be the main motives.

A frequently cited critic of CSR as a moral commitment is Friedman (1970), who claimed: *“Few trends could so thoroughly undermine the very foundations of our free society, as the acceptance by corporate officials of social responsibility, other than to make as much money for their stockholders as possible”*. Someone has to pay, social programs add to business costs and these costs must be recovered and generally they will be added to the price of the product (Davis 1973). However, CSR as a moral commitment can improve business performance. When the business works closely with the environment they operate, they can develop new skills, discover new ideas and new networks, which eventually could lead to new market opportunities (Lewis et al. 2002).

How can Green Bonds, which in its nature helps the company make money, be a part of CSR? Two cases of ethical investments will be considered to answer this question.

### 3.2.2 Social responsible investments

Social responsible investing, hereafter referred to as SRI, takes CSR into account when making investment decisions (Scholtens & Sievänen 2013). SRI is defined as “*any investment process that consider social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis*” (Idowu et al. 2015, p. 22). In addition to social, the term SRI is often used when referring to sustainable, “green” and ethical investments (Idowu et al. 2015). SRI investors want to affect the firm’s social responsibility and the sustainability of countries while at the same time optimize their financial risk-return trade-off (Scholtens & Sievänen 2013). Critics claim that SRI is pushed by businesses merely to clean up, not to become clean (Clapp & Dauvergne 2011). However, some see SRI as suitable for all companies regardless of sector and more inclusive and mainstream than other ethical investments (Lewis et al. 2002). This implies that SRI is no longer seen as a niche market for well-meaning individuals (Lewis & Juravle 2010).

Green Bonds are used to finance “green” projects that help with mitigation or adaption to climate change (Reichelt 2010). With regard to the definition of SRI, investments that consider social and environmental issues, Green Bonds can be a form of SRI. On one hand, Green Bonds contribute to achieving the world’s environmental goals. On the other hand, Green Bonds are a financial instrument that contradicts the philanthropic and moral part of CSR. This might not be a bad thing Carroll (1991) describes CSR as the intersection between economic, ethical and legal obligations.

- *Economic* being the financial return the investor get on the maturity date.
- *Ethical* is the “green” of the Green Bond where the investment is allocated to environmental friendly projects.
- *Legal* is where the issuer is obligated to follow laws and regulations.

However, if Green Bonds cannot be a part of CSR than neither can SRI as both promote financial returns.

Sustainable investments are more or less the same as SRI in terms of combining investors' financial objectives with concerns about environmental, social and governance issues (Vandekerckhove et al. 2011). It has been presented as a unique concept, which makes it worth mentioning. Sustainable investments require the investor to overcome three main obstacles (Lewis & Juravle 2010, p. 484):

- (1) *Individual* cognitive biases and belief systems which function to the detriment of long-term sustainability.
- (2) *Organizational* structures, processes and cultures unsympathetic to sustainable investments.
- (3) *Institutional* impediments related to, inter alia, the structure of the investment value chain, regulatory and mimetic pressures on trustees and fund managers, and financial market inefficiencies that incite free-riding.

Nevertheless, there are increasing numbers of large businesses and institutional investors that take CSR and sustainability issues seriously. Additionally, there is a growing number of individual investors who make decisions based on moral grounds as well as on aspects of risk and return (Lewis & Juravle 2010). Green Bonds are good examples of investments that fulfill these criteria. They are moral as the investments fight climate change issues and they are similar to ordinary bonds when it comes to credit risk and size (Reichelt 2010).

### **3.2.3 Green Growth**

Some see SRI as just another driver for economic growth and an excuse for funds in developed countries to overexploit natural resources, urbanize and industrialize (Clapp & Dauvergne 2011). There have been discussions regarding economic growth and how sustainable it really is. Some see growth in today's form as unsustainable. Increasing consumption and environmental costs make the differences in social wellbeing worse (Jackson 2009). If the world keeps moving in the same direction as it has, it will continue

to increase the differences between developed and less developed countries (Aghion et al. 2009). On the other hand, to “de-growth” the society is destabilizing under today’s conditions as declining consumer demand leads to rising unemployment, falling competitiveness and a spiral of recession (Jackson 2009).

Green growth includes environmental goals in economic development and poverty reduction plans which contribute to mainstreaming environmental goals (The Global Commission on the Economy and Climate 2015). Brundtland et al. (1987) point out that meeting people’s essential needs partly depends on achieving full growth potential and sustainable development clearly requires economic growth in places where such needs are not met. However, in the past growth was achieved mainly at the expense of the environment (The World Bank 2012).

One of the most important challenges in the developed world is to achieve change in consumption and production to boost the demand for green technology (The World Bank 2012). However, supporting cleaner and greener technologies might in the short run slow down growth, due to cleaner technologies being less advanced in the beginning and not contributing as effectively to the economy (Aghion et al. 2009). It is essential to stimulate technological innovation and the scale of production necessary for prices to drop and green technologies to become competitive (The World Bank 2012). The benefit from supporting cleaner technology is that it will bring about greener and therefore more sustainable growth (Aghion et al. 2009).

### **3.3 What motivates “green” investments?**

Brønn and Vidaver-Cohen (2009) identified that “*improve image*” and “*be recognized for moral leadership*” are the main reasons for corporate involvement in social initiatives. Third most relevant motive is “*serve long-term company interest*”, a highly relevant motive as well because the mean score is similar to the main motives. Furthermore, they found “*avoid regulation*” and “*solve social problems*” to be the least relevant motives for social initiatives. Graafland and Mazereeuw-Van der Duijn Schouten (2012) are looking at the motives for CSR as well, but in addition they discuss the relationship with CSR



performance. Similar to Brønn and Vidaver-Cohen (2009), who choose to divide the motives into three factors; profitability, legitimacy and sustainability, are Graafland and Mazereeuw-Van der Duijn Schouten (2012) distinguishing between three motivational factors; economic, ethical and altruistic. They focus more on the intrinsic motives opposed to the extrinsic motives.

Good social and environmental performance is often seen as a result of excellent management, which could be translated into good financial performance (Renneboog et al. 2008). The economic motivation is an extrinsic motive, contributing to the company's long-term financial performance (Graafland & Mazereeuw-Van der Duijn Schouten 2012). Davis (1973), highlights that companies that choose not to deal with social problems today are likely to be forced to deal with these problems in the future. To address this in the future will affect the primary goal of producing goods and services that again will affect the company's economy (Davis 1973). Pareto-improvement of the economy where no one is worse off by contributing to CSR, is an important motive for CSR activities (Renneboog et al. 2008). Furthermore, problems can turn out to be opportunities by using the company's abilities and innovative techniques to solve them (Davis 1973).

Renneboog et al. (2008) see CSR as consistent with shareholder value-maximization. Davis (1973) agrees and highlights the fact that shareholders can be deprived of their return if the firm fails to be socially responsible, maintaining image and keep a good reputation is a way to satisfy shareholders. Extrinsic motivation also refers to the goal of improving wealth, fame and image (Ryan & Deci 2000). To improve public image and attract motivated employees are seen as highly relevant motives for CSR activities (Brønn & Vidaver-Cohen 2009; Davis 1973; Renneboog et al. 2008). A good image, taking CSR into account, can contribute when entering new markets as there is a relationship between the degree of resistance when entering new markets and companies' CSR reputation (Graafland & Mazereeuw-Van der Duijn Schouten 2012).

Ethical and altruistic motivation are intrinsic motivations, referring to personal factors, enjoyment, morals and religion as motivating factors for CSR (Graafland & Mazereeuw-

Van der Duijn Schouten 2012). Lewis et al. (2002) describe similar motives, presenting deontological motivation, which is when the company sees it as their moral duty to invest in SRI. However, some perceive companies as lacking social skills and do not see them fit to deal with social problems (Davis 1973). Others see ethical behavior and investments as a way for businesses to feel less bad about making money on investments, not a way to be more responsible (Lewis et al. 2002). Ryan and Deci (2000) agree with this statement and describe CSR behavior as a way to avoid guilt and anxiety or to get an ego enhancement such as pride. But, if society moves towards CSR and SRI becoming norms, then companies would be guided by these norms and would end up desiring more than simply economic satisfaction (Davis 1973).

Renneboog et al. (2008) points out “*improve trustworthiness*” as an important motive for investing in SRI. Managers wish to be seen as trustworthy and they have to use their power for good and in a manner that society feels are responsible. If not, they will not keep their power in the long run (Davis & Blomstrom 1971). *Long-run self-interest* is seen as a central motive for CSR activities. Societies expect companies to take part in a variety of social activities, if the company expects to profit in the long run (Davis 1973). To behave in a responsible way could be seen as personally important (Ryan & Deci 2000). Furthermore, “*relatedness*” can motivate individuals to invest in SRI based on the need to feel connected to others and to belong (Ryan & Deci 2000).

Some businesses feel they have additional resources they can use to contribute to CSR, like management talent, functional expertise and capital resources (Davis 1973). Furthermore, CSR as an end in itself is seen as an important motivational factor (Graafland & Mazereeuw-Van der Duijn Schouten 2012; Lewis et al. 2002). “*Avoiding governmental regulation*” is a common motive for self-regulation because regulation involves higher costs and put restrictions on the company’s flexibility (Davis 1973). Additionally, social and environmental lobbyists pressure companies to behave in socially responsible ways (Renneboog et al. 2008). One example, is the Norwegian petroleum funds decision to stop investing in coal companies in 2015 as a result of several organizations (350.org, FIVH, Greenpeace and WWF) campaigning to get them to divest

(Greenpeace 2015). Furthermore, Nordic consumer groups pressed for more environmental friendly paper production, which pressured local producers to improve their practices (Campbell 2007).

### 3.3.1 Motivation in the Nordic countries

Scholtens and Sievänen (2013) researched the motives for SRI in the Nordic countries and found the countries to be feminine in their decision making (Hofstede & Arrindell 1998). Nordic leaders are seen as softer than their American colleagues; they see it important to appear trustworthy, honest and ethical opposed to result oriented and ambitious (Schramm-Nielsen et al. 2004). This implies that intrinsic motives are more important than extrinsic motives for the Nordic countries. Even though all the Nordic countries are seen as feminine, there are differences between them:

- Norway is strongly driven by the Norwegian Petroleum Funds practices when making decisions regarding SRI. In addition, the Norwegian Petroleum fund is a role model for responsible investors worldwide.
- In Denmark the basis of interest for SRI has been formed by unethical practices. There are ethical regulations for Danish public pension funds as well as SRI being encouraged in general by the Danish government.
- Sweden has the Church as one of the key drivers for SRI, followed by several institutional investors and national pension funds. Similar to Denmark, Swedish pension funds are regulated in order to take ethical issues into account.
- Finland does not have any regulatory framework.

Despite these differences, the Nordic countries have several similarities as well; the role of institutional investors, religious motives and investments strategies are shared drivers for SRI (Scholtens & Sievänen 2013).

Nordic corporations tend to be known for strong ethical behavior and open economies relative to firms in other geographical regions (Campbell 2007). Norway was not mentioned in Campbell's article but share the other Nordic countries' characteristics;

extensive governmental regulation, voluntary industry self-regulation and powerful, well-organized business associations and labor unions (Brønn & Vidaver-Cohen 2009).

### 3.4 Motives behind investing in Green Bonds

*We do not inherit the earth from our ancestors*

*We borrow it from our children*

Native American proverb

Brønn and Vidaver-Cohen (2009) found three motivational factors: sustainability, legitimacy and profitability, to answer the question; *Can further empirical support be provided for the theoretical classifications of social initiative motives outlined in the literature?* The allocation of motives under each factor is shown in Appendix 7.1.2. These factors are assumed to be relevant motivational factors for investing in Green Bonds because of the similarities between Green Bond investments, CSR and SRI.

#### 3.4.1 Sustainability motives

*Sustainability motives* are driven by personal managerial values, a sense of organizational responsibility, and the belief that corporations have a moral obligation to invest in making the world a better place for future generations (Brønn & Vidaver-Cohen 2009). Of the motives representing this factor, only personal satisfaction received a majority of agreement. Furthermore Brønn and Vidaver-Cohen (2009) found that moral motives are less relevant to firms' engagement in social initiatives than motives related to strategic concerns.

The term sustainability contains two words, sustain and ability. In other words, the term is describing the ability to sustain something. In 1987 the Brundtland Commission agreed upon a definition: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*

(Brundtland et al. 1987, p. 43). Furthermore two key concepts were presented (Brundtland et al. 1987):

- (1) *Needs*, the essential need of the world's poor, to which overriding poverty should be given.
- (2) *Limitations*, imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

Clark et al. (2015) found a positive correlation between sustainability and operational performance. Long-term responsible investments should be important for all investors in order to fulfill their fiduciary duties and to better align investors' interests with the broader objectives of society (Friede et al. 2015). A change in attitude towards sustainable investments have been discovered, especially towards those investments related to climate change (Lewis & Juravle 2010). There are three key areas used to measure the impact of SRI on company value: environmental, social and governance (ESG) (Idowu et al. 2015). These three areas are seen as value enhancing when integrated with investment processes (Friede et al. 2015).

- *Environmental*, studies show that good corporative environmental practices ultimately lead to a competitive advantage, which again leads to better corporate performance (Porter & Van Der Linde 1995).
- *Social*, good relations between the company and three major stakeholder groups, employees, customers and the community significantly improve performance (Preston & O'Bannon 1997).
- *Governance*, there is a positive correlation between corporate governance and the firms value (Brown & Caylor 2006).

Different financial markets worldwide have focused on corporate activities in the three key areas, which have resulted in the Dow Jones Sustainability World Index providing a benchmark for investors who want to integrate sustainability considerations to their practice (Idowu et al. 2015). It is in managements' best long-term interest to include sustainability in strategic decisions, as sustainability information is relevant for corporate performance and investment returns (Clark et al. 2015). It is, however, difficult to

differentiate if the motives are altruistic or strategic (Friede et al. 2015). Willingness to forego returns on investment does not necessarily imply altruistic motivation, but could be a way to improve reputation (Lewis et al. 2002).

### 3.4.2 Legitimacy motives

Those who have been in the investment business for a long time describes sustainable investments as good for publicity and little else and claim that investment decisions are made in more or less the same way as they always have been (Lewis & Juravle 2010). Is this a sign of green investments being a way to improve company brand and reputation?

*Legitimacy motives* focus specifically on preserving observers' positive perceptions of the firm. For this factor, Brønn and Vidaver-Cohen (2009) support other scholars where the global business climate is in change and require businesses to invest in social initiatives in order to maintain the legitimacy in the market they operate. Corporate executives are to a greater extent realizing that social initiatives can help the company build reputational capital (Brønn & Vidaver-Cohen 2009). Managers are more concerned with preserving the company's reputation for the sake of further business success. After all, if the company's reputation is compromised it will be more difficult to continue doing business with customers and suppliers (Campbell 2007).

Fombrun and Van Riel (2004, p.4) define branding as *"the set of associations that customers have with the company's products. A weak brand has low awareness and functional appeal to customers, whereas a strong brand has high awareness and functional appeal."* Kvåle and Wæraas (2006, p. 43) have a similar definition; they describe branding as a concept that can contribute to emotional feelings that important stakeholders hold towards an organization. Reputation represents the assessments that stakeholders have about the company's ability to fulfill their expectations (Fombrun & Van Riel 2004). Brønn et al. (2009) argue that reputation is about how the environment view the company and is something a company have to earn the right to. An organization can, however, have a good brand and good products without having a good reputation (Fombrun & Van Riel 2004).

*“A green brand is defined by a specific set of brand attributes and benefits related to the reduced environmental impact of the brand and its perception as being environmentally sound”* (Hartmann et al. 2005). Green brands are meant to be attractive for consumers seeking environmental friendly products and want to be conscious in their decision-making. In 2014 a study including data from 60 countries found that 55 % of online consumers were willing to pay more for products and services provided by companies committed to positive and social environmental impact (Nielsen 2014).

To position a brand as “green” requires active communication and a well-established differentiation strategy. This is the best way for the brand to distinguish itself from competing brands through its environmental attributes (Hartmann et al. 2005). In addition, what consumers associate, experience and feel when they meet an organization and their brand can be crucial if the organization is to survive in competition with other companies (Kvåle & Wæraas 2006). However, people occasionally make decisions not only on the basis of reality but on the basis of their perceptions of reality, whether they are accurate or not (Fombrun & Van Riel 2004). Perceptions of reality can lead to consumers or companies’ appropriate products or brands a greener value than what they really have. This could be seen as greenwashing.

*“Greenwashing is a phenomenon in which a company tries to convince consumers and shareholders that they are environmentally responsible, where the purpose is more about image than substance”* (Clapp & Dauvergne 2011). A well implemented green position strategy can lead to a more favourable perception of the brand, thus giving support to the green marketing approach in general (Hartmann et al. 2005). Several companies acknowledge and communicate the benefits of CSR, which is increasingly viewed by both stakeholders and companies in a positive way (Brønn et al. 2009; Fombrun & Van Riel 2004). On the other hand, when a company uses CSR activities primarily to improve their brand the community would most likely have a negative reaction (Ihlen 2007) that can hurt the company’s perceived reputation. However, companies that are not committed to CSR, like tobacco, gun and oil producers are not punished (Brønn et al. 2009).

There are both positive and negative factors associated with legitimacy motives when investing in Green Bonds. To communicate the companies "green" activities can lead to more goodwill and several aware customers committing to the company. On the other hand, if the green activities and green branding are mainly used for marketing purposes, the company can be blamed for greenwashing.

### 3.4.3 Profitability motives

Profitability motives reflect the notion that engaging in social initiatives can yield positive financial results, either by generating new revenues or by protecting existing profit levels (Brønn & Vidaver-Cohen 2009). There are few companies in Brønn and Vidaver-Cohen's (2009) study who perceived a direct relationship between financial outcomes and social initiatives. Furthermore, ethical investors do not appear to make decisions as predicted by neo-classical theory (Lewis et al. 2002).

A growing number of people are now more concerned than before regarding business ethics and environmental damage, which influences their investment decisions (Lewis et al. 2002). However, as mentioned above (Section 3.2.1), Friedman (1970) claims that companies should make as much money as possible for shareholders. By implementing CSR in decision making managers are violating the trust of stockholders, customers and/or employees, as CSR impose higher costs to the company (Friedman 1970). This is in line with neo-classical theory which sees humans as the rational economic man or homo economicus, described as an egoistic and rational individual with the desire to maximize personal wealth (Lewis et al. 2002). This indicates that the only motivator for Green Bond investments is self-interest, to make as much money as possible.

Friedman (1970) has been criticized as he fails to prove that a company's CSR commitment is contradictory to the nature of business by being unfair and socialistic (Mulligan 1986). Research has shown that individuals differ dramatically from the rational man (Lewis et al. 2002). In contrast to the rational man, homo realitus was discovered



focusing on the trade-off between the financial return of the investment, and the altruistic concern for the nature of the investment. Homo realitus is capable of altruism where financial return is not everything and decisions reflect a mental accounting in which context is important (Kahneman & Tversky 1979; Lewis et al. 2002). Profitability motives can be more relevant for regular bonds than Green Bonds as they are financially motivated and do not have any added ethical value. If a company decide to participate in CSR it is most likely as a part of the company's strategic plan, developed in collaboration with major stakeholders (Mulligan 1986).

Dietz et al. (2016) found that climate change can affect the value of a company's financial assets in two ways:

- (1) Directly destroy or accelerate the reduction of capital assets through, for example, extreme weather (Intergovernmental Panel on Climate Change 2012).
- (2) Change the outputs (usually reduce) attainable with a given input, which amounts to change in return on capital assets (Stern 2013).

Limiting global warming to no more than two degrees Celsius above pre-industrial levels makes financial sense to risk-neutral investors and even more so risk-averse investors (Dietz et al. 2016). This implies that Green Bonds are a goal match for everyone except risk-seeking investors.

In this section several relevant theories have been presented, which will shape the subsequent discussion. Different motivational theory and statements were presented and similarities were found between Green Bonds, CSR and SRI. Three motivational factors were described that later provides the basis for how the results are divided.

## 4. Methods

In this part the thesis' method is presented. The first part will describe the data collection and analysis of the first and second questionnaire, followed by the data analysis. This thesis is inspired by Brønn and Vidaver-Cohen (2009) and their method and research questions will be reviewed briefly before the thesis data collection and analysis is described. Thus, this thesis unveils elements of both confirmatory and exploratory research.

Data were collected from 16 Nordic banks and pension funds to answer the main research question: Which motivational factors previously identified by other researcher's influence companies to invest in Green Bonds? To get an in depth overview of the motives for investing in Green Bonds, a second questionnaire was developed based on previous literature on CSR and SRI motives. Data from five of the 16 Nordic banks and pension funds were collected.

The inspiration for the first questionnaire, method and theory are from Brønn and Vidaver-Cohen (2009). There will therefore be a presentation of their research questions and method in this part. In their article they examine organizations' motives for engaging in social initiatives. The term social initiatives are used to uncover both practical and moral motives, as terms like "social responsibility" and "corporate citizenship" implies underlying moral drivers such as duty, accountability and stewardship (Brønn & Vidaver-Cohen 2009). The definition of social initiatives used is: "*any program, practice, or policy undertaken by a business firm to benefit society*" (Brønn & Vidaver-Cohen 2009, p. 92).

To examine the motives, Brønn and Vidaver-Cohen (2009) discuss three key questions, presented below. For the purpose of this thesis, the focus is on the first and the third question, as banks and pension funds are the only industries represented in the data collection.

- (1) What do managers in this sample see as the primary reasons their companies engage in activities that benefit society?

- (2) Do motives for such social initiative vary across the industries represented?
- (3) Can further empirical support be provided for the theoretical classifications of social initiative motives outlined in the literature?

To answer the above questions Brønn and Vidaver-Cohen (2009) sent a questionnaire out by mail, their questionnaire can be found in Appendix 8.1.1. It was sent out to members of NHO (the Confederation of Norwegian Enterprise), that had 50 or more employees. They received 500 answers from top or second level executives. The questionnaire was developed based on literature, as well as Norwegian newspaper articles covering business reasons for sponsoring public service organizations (Brønn & Vidaver-Cohen 2009).

## 4.1 Data collection

Green Bonds are fairly new investment tools and finding companies investing in them are difficult. However, banks are responsible for significant amounts of money from private investors, companies and organizations. They have the ability to invest this money and could thus be seen as a substitute investor for private investors and companies. Pension funds in the Nordic countries were asked to answer the questionnaires as well, as Green Bonds were developed primarily in response to Scandinavian pension funds seeking to support climate-focused projects (The World Bank 2015). Furthermore, pension funds have been in the frontline of emission reduction initiatives because of the possibility that climate change will reduce the long-term returns on their investments (Dietz et al. 2016). Banks and pension funds were therefore selected to be the respondents for this thesis' data collection.

The respondents represent banks and pension funds in the Nordic countries. As mentioned in Section 3.3.1 these countries are recognized for having strong ethical work environments and open economies, in addition to extensive governmental regulation, voluntary industry self-regulation and powerful, well-organized business associations and labor unions. Green Bonds were developed for Scandinavian pension funds, which was an important factor in the decision-making. Using respondents from the Nordic countries limits the respondent group which can make the answers biased and nontransferable to

other countries. However, limiting the search to the Nordic countries made it more manageable to collect data and to get an overall picture of Green Bond investments in this particular area.

#### **4.1.1 First questionnaire**

The first questionnaire, see Appendix 8.2, was developed based on Brønn and Vidaver-Cohnen's (2009) questionnaire, see Appendix 8.1.1. The questions were rephrased to fit Green Bond investors. Two of the questions from Brønn and Vidaver-Cohen (2009), 5 and 6, were merged because stakeholders and shareholders are assumed to have similar interests in banks and pension funds. Both have financial interests and are concerned with their reputation. One motive question was added as well, the question concerning Green Bonds contribution to green growth (see Section 3.2.3 for more information), as this is assumed to be a motivating factor in regard to Green Bond investments.

Furthermore, three overview questions were added (questions 1-3) to uncover the popularity of Green Bonds and other "green" investments. The complete first questionnaire consists of 19 questions, including:

- Two yes and no questions.
- One question to identify the timeframe of Green Bond investments.
- 16 questions identifying the motives behind the investment.

The 16 statement questions were answered by rating the degree to which they fit the company, from completely agree to completely disagree and neutral, all together seven alternatives.

The questionnaire was sent out to 81 banks and pension funds in the Nordic; Norway, Sweden, Finland and Denmark. The questionnaire was available online at the eSurvey Creator, for easy access both for respondents and for the researcher. The link to this online questionnaire was sent by email mainly to the head of CSR/sustainability or head of green investments in the bank or the pension fund. For the banks that did not have a separate head of CSR/sustainability or head of green investments the link was sent to the head of investments or finance.

Of the 81 banks and pension funds asked to participate, the response rate was 20 %. Half of those responding said they invested in Green Bonds (10 % out of the 81). These 10 % are the ones used when the results from the 16 statement questions are presented and analyzed. For the first three questions all respondents are used.

Answers to the yes and no questions are presented in a pie chart to identify how many invested in green bonds and other green projects. The third question is presented in a table identifying how many invested in Green Bonds from 2008 until 2015 and how many considered investing in Green Bonds in “2016 or later” or did not want to invest. Some of the respondents criticized this question, as the first question was; *is the company investing in Green Bonds?* If this answer was “no”, the timeframe question could be perceived as meaningless as the respondent did not know if they were going to invest or not. One might have considered adding “neutral” or “not sure” as an alternative for this question. However, it was possible to answer “2016 or later” or “we do not want to invest”.

For the 16 statement questions a bar chart was developed for each statement where each bar corresponds to a rating (from strongly agree to strongly disagree). In addition, the ratings are divided into four main categories; “extensive evidence to support this factor”, “some evidence to support this factor”, “little evidence to support this factor” and neutral. How each factor corresponds to a category is presented in the table below.

|  |       |   |                    |   |                     |         |
|--|-------|---|--------------------|---|---------------------|---------|
| Completely agree                             | Agree | Partially agree                         | Partially disagree | Disagree                                  | Completely disagree |         |
| Extensive evidence to support this statement |       | Some evidence to support this statement |                    | Little evidence to support this statement |                     | Neutral |

**Table 3 Factors and categories representing to what extent the respondent agree to a statement**

In addition to the bar charts, a list of motives was developed to see if the top motives for Green Bonds are similar to the top motives for CSR (see Appendix 8.1.3). From the list it is

possible to see which motive is ranked highest, the corresponding mean and which factor they represent sustainability, legitimacy or profitability.

#### 4.1.2 Second questionnaire

To gain further insight, another questionnaire (see Appendix 8.3) was developed based on previous literature on CSR and SRI. This questionnaire was available at eSurvey Creator as well, and the link was emailed to five voluntary participants. These participants answered the previous questionnaire as well and they confirmed that they were investing in Green Bonds and willing to answer additional questions.

The second questionnaire contained six questions, including:

- Two questions with the possibility of choosing multiple alternatives.
- One question ranking characteristics from 0 to 4 (five alternatives), to identify the importance of the characteristic when making investment decisions.
- One question identifying the possibility of still investing in Green Bonds if the value decreases below regular bonds. Alternatives are presented in time intervals, from “less than a month” to “2 years or more”.
- Two yes and no questions.

All five of the voluntary respondents answered the questionnaire, a total response rate of 100 %. The answers are presented in the same order as the questionnaire. Detailed information of how each question is presented is given below:

- (1) The first question is presented in a table with percentage of respondents choosing each statement. The respondents were able to choose three main reasons for investing in Green Bonds to answer this question.
- (2) For the second question, the respondents were asked to rate characteristics on a scale from 0 representing not important to 4 representing very important. A mean ranking was developed to identify the most and least important characteristic. In addition, eight bar charts are used to illustrate the results for each characteristic (available in Appendix 8.4).

- (3) This question makes the respondents reflect upon the popularity of Green Bonds. The answers are presented in a similar table as the one used for question one, with percentage of respondents choosing each statement. For this question the respondents were able to choose two alternatives.
- (4) The fourth question identifies people's commitment to Green Bonds, by making them choose a time interval for continued investments. The results are presented in a table, with the percentage of respondents and the corresponding time interval. One of the respondents wrote an email with feedback on this question, with information on how this person interpreted the question; *if the risk premia/yield of green bonds were to be significantly lower than comparable normal bonds, how long would we keep the bonds*. This could indicate a vague formulation of the question. However, the feedback reflects a similar understanding as what was intended when the questionnaire was developed.
- (5) The two last questions are presented in text, reflecting percentage of respondents choosing each alternative.

## 4.2 Data analysis

In this part the method used to analyze the data obtained from the two questionnaires will be presented. Response rate is small and descriptive statistics will therefore be used to analyze the data obtained from both of the questionnaires. For the first questionnaire the main basis for discussion is each statements mean, presented in a mean ranking table and a bar chart for each statement. For the second questionnaire mean ranking and bar charts are used as well as descriptive tables and figures. If Green Bonds were more developed and integrated investment tools the questionnaires could have been sent out to a larger number of respondents, making the answers more suitable for further econometric analysis. However, the first Green Bond was issued in 2008 that makes the time the investment has been available short resulting in a limited number of investors.

In this thesis, as in any other research with respondents answering in regard to their personal opinions, there is a possibility of social desirability bias. Social desirability bias is

systematic error in self-report measures resulting from respondents desire to avoid embarrassment and protect a favorable image to others (Fisher 1993). However, anonymity was assured for both questionnaires, to reduce the potential stress of embarrassment and desire to protect one's image. To mitigate social desirability bias one could use indirect questioning, where the researcher ask the respondent to answer the questionnaire from the perspective of another person or a group (Anderson 1978). In regard to the questionnaires used in this thesis the respondents are asked to answer on behalf of the bank or pension fund, this could reduce social desirability bias as they respond from the perspective of the company.

There are some issues presented in Brønne and Vidaver-Cohen (2009) that potentially exist in this thesis as well. These may be, the underlying moral drivers implied by using words like "social responsibility" and "corporate citizenship". As there are similarities between Green Bonds and CSR there might be underlying moral drivers using the term Green Bonds. If Green Bonds are not used it would be problematic to answer the research questions. Respondents represent banks and pension funds that could affect the participation and the answers. Lastly, different understanding of social initiatives and "green" can affect how each individual answered the questionnaire and can therefore affect the interpretation.

The results from the questionnaire could be biased as a result of Green Bonds being the theme of the questions. The respondents might decide to answer because the theme was related to CSR and "green" investments, while others chose not to answer for the same reason. If both banks and pension funds interested in environmental issues and CSR answered and those with no interest the results might have turned out differently.

In this section the data collection and analysis was presented including some central point's from Brønne and Vidaver-Cohen (2009). In addition, some issues related to collecting data using questionnaires were discussed.



## 5. Results

In this section, the results from the questionnaires will be presented. The results are divided into three parts. The first part presents the three first questions from questionnaire one, while the second part present the 16 statement questions. The last part presents the results from questionnaire two. The results are analyzed to find which motives and factors are mainly motivating Green Bond investors.

Before the results from the questionnaires are presented there will be a presentation of some statements given by Gjensidige, Storebrand and KLP. These statements were obtained during a meeting that discussed how to earn money on sustainability and responsibility. Green Bonds were one of the main topics and some of the statements are available in table 4 (anonymous, personal communication 15.03.16).

|                   |  |
|-------------------|--|
| <b>Gjensidige</b> | <i>Today sustainability is essential to make money.</i>  |
| <b>Storebrand</b> | <i>The popularity of green bonds has leveled out most likely as a result of no agreed upon certification. Hopefully this will be fixed soon.</i>   |
|                   | <i>Green bonds are a long-term investment and a good fit for pension funds.</i>  |
|                   | <i>We see an increasing demand for sustainable products and services.</i>  |
| <b>KLP</b>        | <i>Green Bonds are exciting because they are contributing to the environment and competitive with other financial investments.</i>   |
|                   | <i>Green bonds are active investments, where the investor takes an active part in the decision-making. Whereas passive investments are based on indexes and the investor does not take an active part.</i> |
|                   | <i>All energy produced in Norway is renewable and therefor green, which makes Green Bond investments in Norwegian electricity companies less popular.</i>  |

**Table 4** How to earn money on sustainability and responsibility

## 5.1 The popularity of Green Bonds

The answers from the three first questions provide a short briefing of the Green Bond market. Figure 7 indicates banks' and pension funds' interest in Green Bond investments. Of the respondents 50 % answered that they were investing in Green Bonds while 50 % did not. The second figure (Figure 8) indicates the popularity of investing in other green projects. Here there are 72 % investing in green projects and 28 % that have chosen not to invest in green projects.

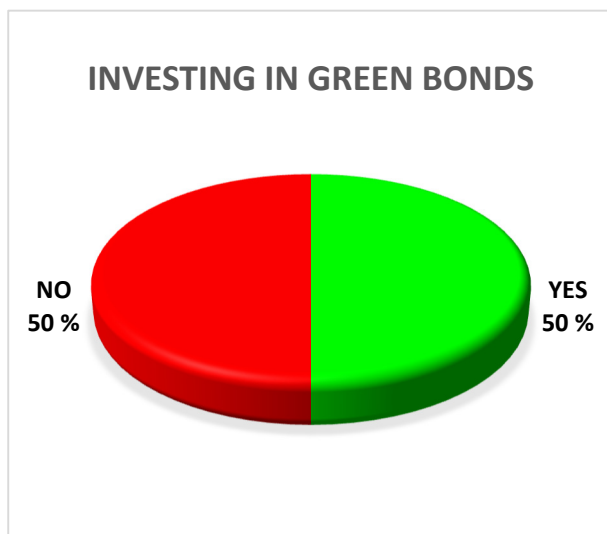


Figure 7 Percentage investing in Green Bonds

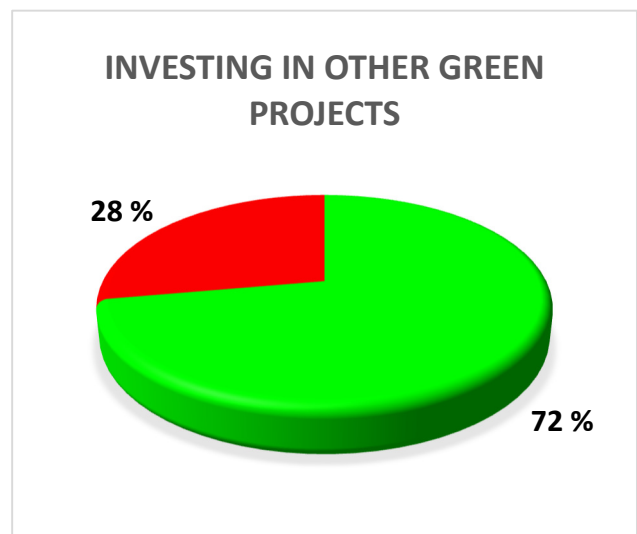


Figure 8 Percentage investing in green projects

| Year                  | Started investing |
|-----------------------|-------------------|
| 2008                  | 6 %               |
| 2009                  | -                 |
| 2010                  | -                 |
| 2011                  | 6 %               |
| 2012                  | -                 |
| 2013                  | 13 %              |
| 2014                  | 13 %              |
| 2015                  | 13 %              |
| 2016 or later         | 13 %              |
| Do not want to invest | 36 %              |

Table 5 Year the company started investing in Green Bonds

The question corresponding to table 5 was: when did the company decide to invest in Green Bonds? For those who did not invest in Green Bonds, there were two alternatives: We do not want to invest or we want to start investing in 2016 or later. The answers indicate a large number of banks and pension funds interested in investing in Green Bonds. There was 36 % who did not want to invest, 51 % who were already investing in Green Bonds and 13% who wanted to start investing. This implies that 64 % are interested in Green Bond investments.

## 5.2 Green Bond motives

In accordance with Brønn and Vidaver-Cohen's (2009) factor analysis (Appendix 8.1.2), the results from the first questionnaire is divided into three factors: profitability, sustainability and legitimacy. The results are analyzed using a mean ranking to find which factor is most motivating.

Some motives are more relevant than others when banks and pension funds decide to invest in Green Bonds, as is shown in Table 6. The legitimacy factor is the most relevant as three of the four motives are within top three on the mean ranking. The most relevant motives are *"Improve brand/image"*, followed by *"recognized for moral leadership"* and *"long-term interest"* on shared second place. The least relevant motive is *"avoid governmental regulation"* which is a part of the profitability factor, followed by *"additional resources for investment"* a part of the sustainability factor. The third least relevant motive is *"remain competitive"*, a part of the profitability factor as well.

| Green Bonds motives   | Rank       | Mean |
|---|------------|------|
| <b>Sustainability</b>                                       |            |      |
| Prevent future business problems                            | 4          | 5.75 |
| Personal Satisfaction                                       | 11         | 4.37 |
| No good reason not to                                       | 10         | 4.75 |
| Build global networks                                       | 13         | 4.13 |
| Gain knowledge  | 8          | 5.00 |
| Contribute to green growth                                  | 6/7        | 5.25 |
| Additional resources for investment                         | 15         | 3.50 |
| Concern for the world's environmental problems              | 6/7        | 5.25 |
| <b>Legitimacy</b>   |            |      |
| Long-term interests   | <b>2/3</b> | 5.87 |
| Improve brand/image   | <b>1</b>   | 6.00 |
| Recognized for moral leadership                             | <b>2/3</b> | 5.87 |
| Shareholder and stakeholder expectations                    | 12         | 4.25 |
| <b>Profitability</b>  |            |      |
| Remain competitive  | 14         | 3.87 |
| Avoid governmental regulation                               | <b>16</b>  | 3.25 |
| Contribute more than others to solve environmental problems | 9          | 4.87 |
| Financial opportunity                                       | 5          | 5.50 |

**Table 6 Ranking of Green Bond motives**

### 5.2.1 Sustainability factors

For this factor Brønn and Vidaver-Cohen (2009) found seven motives relevant. An eighth motive has been added to this factor, “*contribute to green growth*”, as this captures contributions to a sustainable future (see 2.2.3). However, it contributes to economic growth as well and could therefore be placed under the profitability factor.

The highest ranked motive in this factor is “prevent future business problems”, which is ranked fourth most relevant motive overall with “extensive evidence to support this statement” (see Table 7). The least relevant motive for this factor is “additional resources for investment”, which is ranked as the second lowest overall with “little evidence to support this factor” (see Table 14).

The other motives, “concern for the world’s environmental problems”, “personal satisfaction”, “no good reason not to”, “gain knowledge”, “build global networks” and “contribute to green growth”, have mostly “extensive evidence to support this statement” to “some evidence to support this statement”.

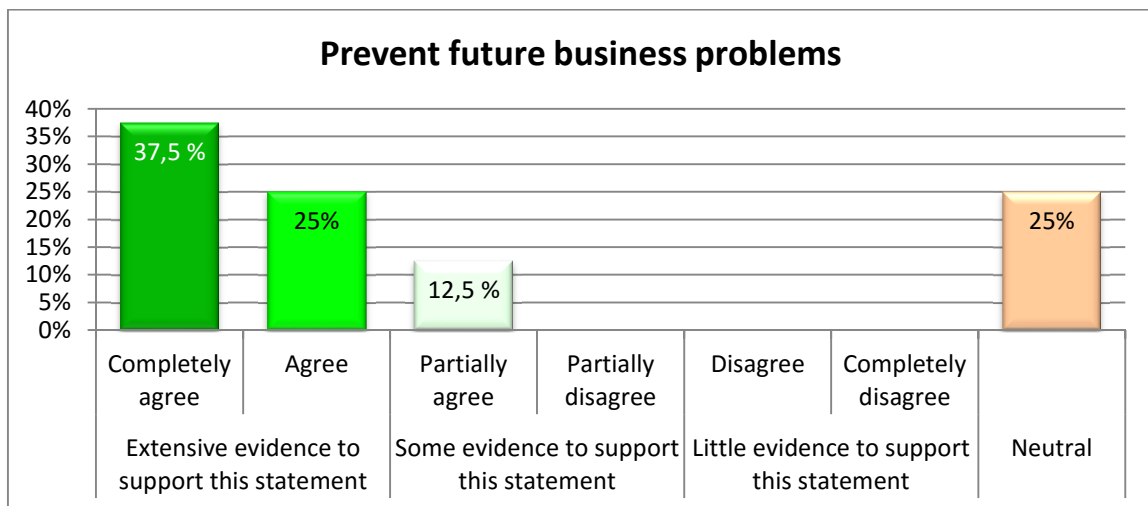


Table 7 If the company does not consider the environmental issues it can harm our primary business

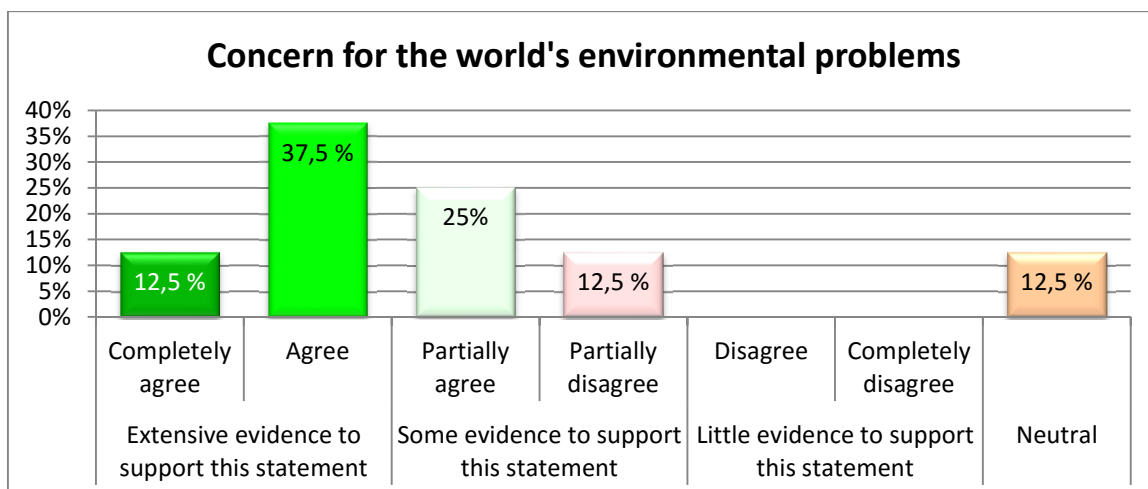
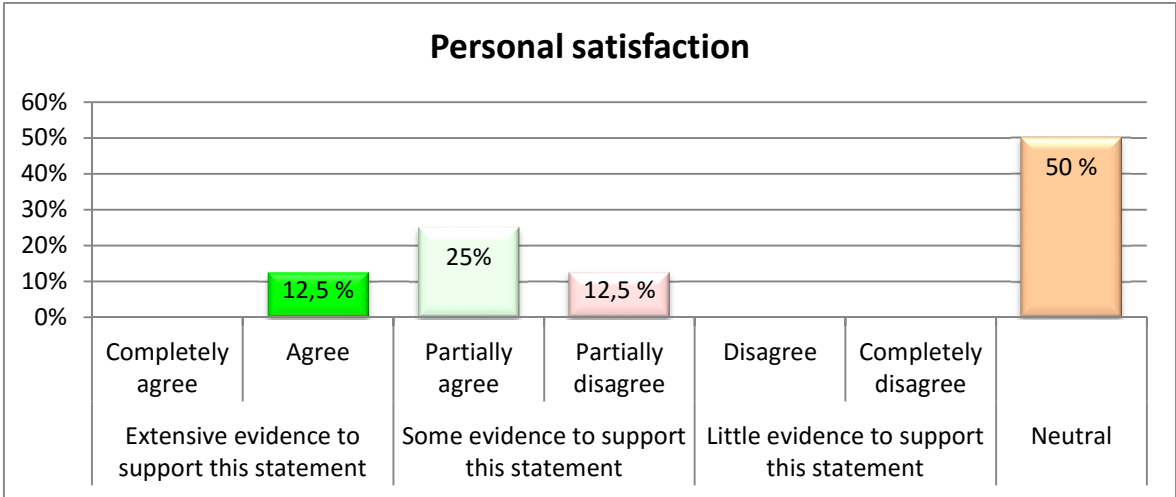
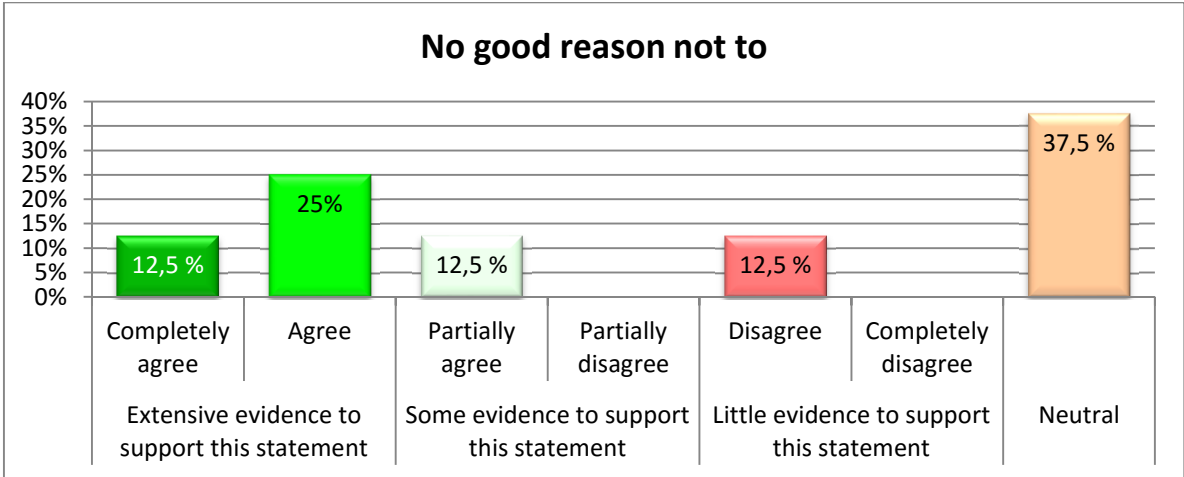


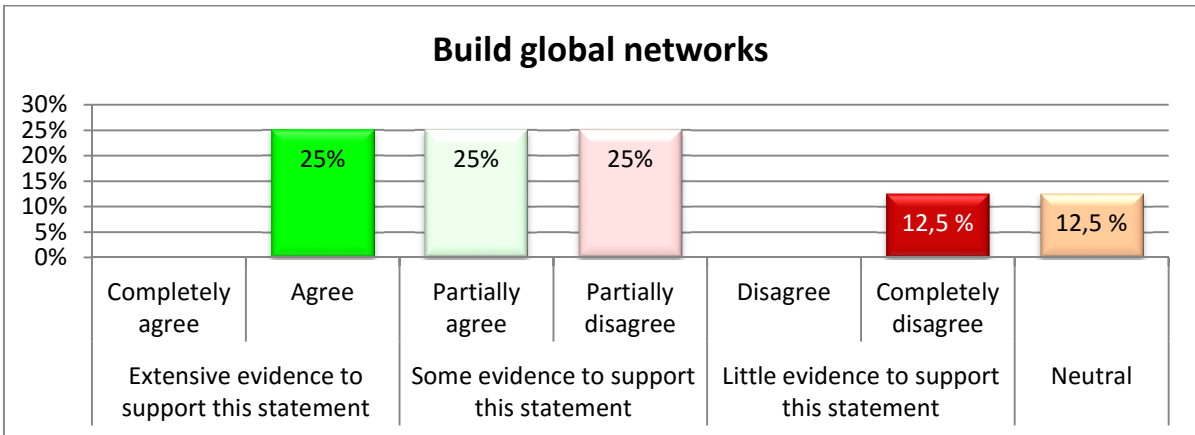
Table 8 The employees are considering the environmental issues and want to contribute



**Table 9** To invest in green bonds makes us feel good



**Table 10** There is no reason not to invest in Green Bonds



**Table 11** Investing in green bonds can build a global network

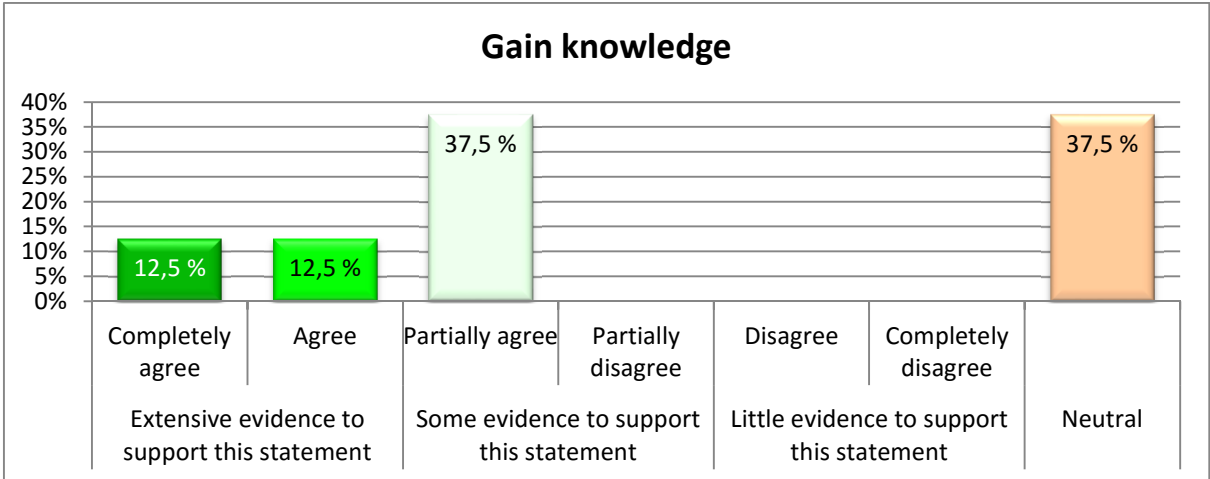


Table 12 The company wish to learn more about Green Bonds and green values

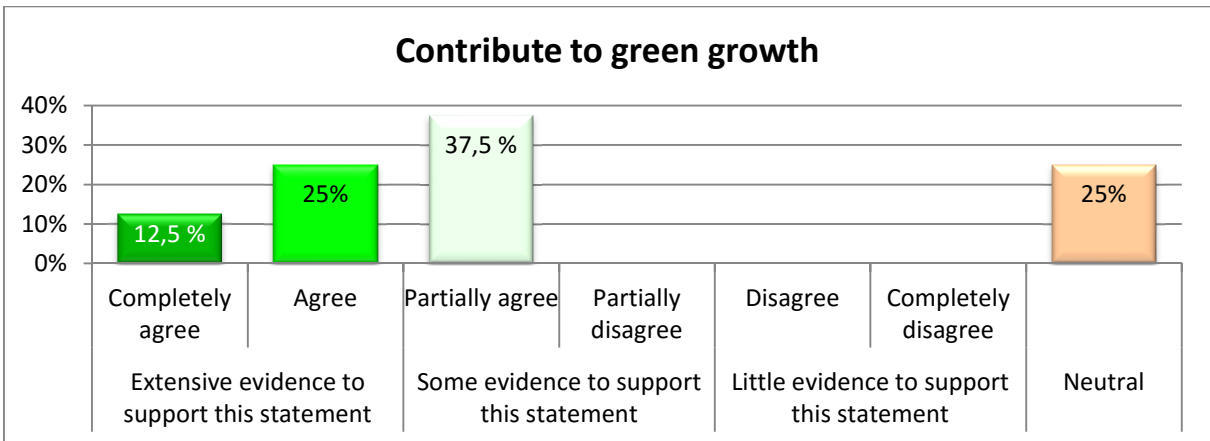


Table 13 By investing in Green Bonds we contribute to green growth

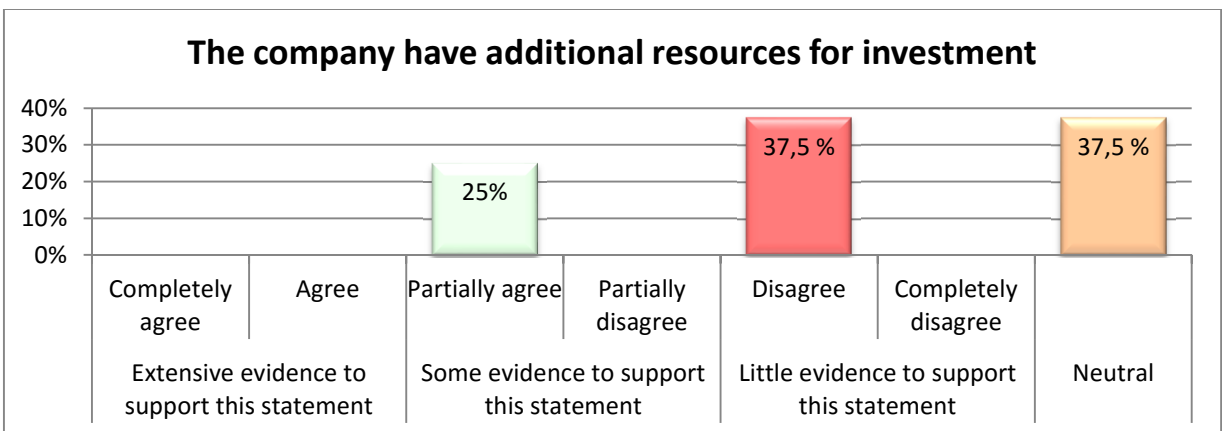


Table 14 The company has additional resources that could be used to increase the investment in green bonds

### 5.2.2 Legitimacy factors

Brønn and Vidaver-Cohen (2009) found four motives corresponding to this factor. The legitimacy factor is shown to be the main motivational factor with “*improve brand/image*” (Table 16), “*recognized by moral leadership*” (Table 18) and “*long-term interest*” (Table 15) as the top three motivators. As shown in the bar charts below, there are “extensive evidence to support this statement” for these motives. The exception under the legitimacy factor is “*shareholder and stakeholder expectations*” ranked number 12 with “some evidence to support this statement” (see Table 17).

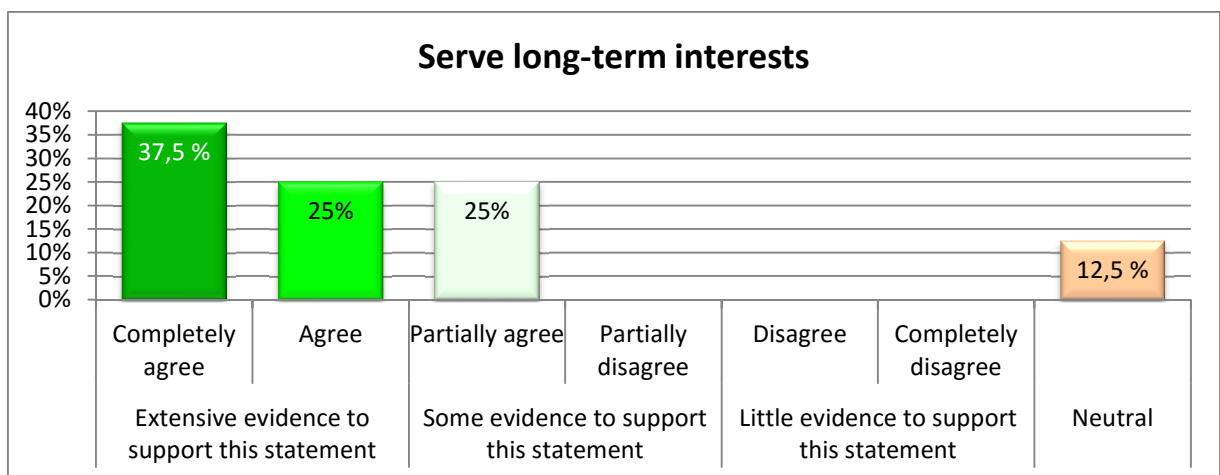


Table 15 To invest in Green Bonds match the company’s long-term interests

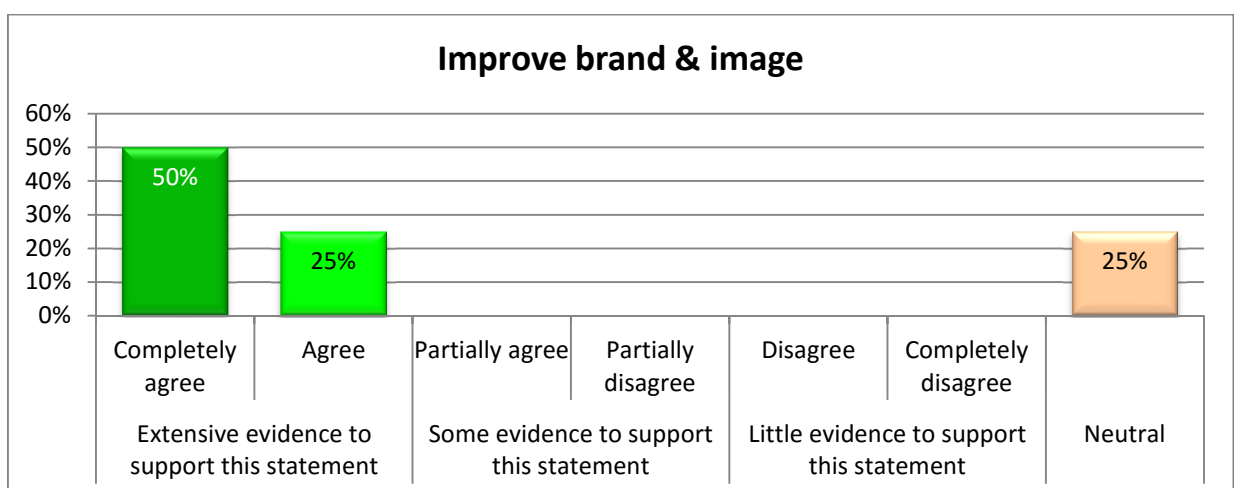


Table 16 Investing in Green Bonds can improve the companies brand/image



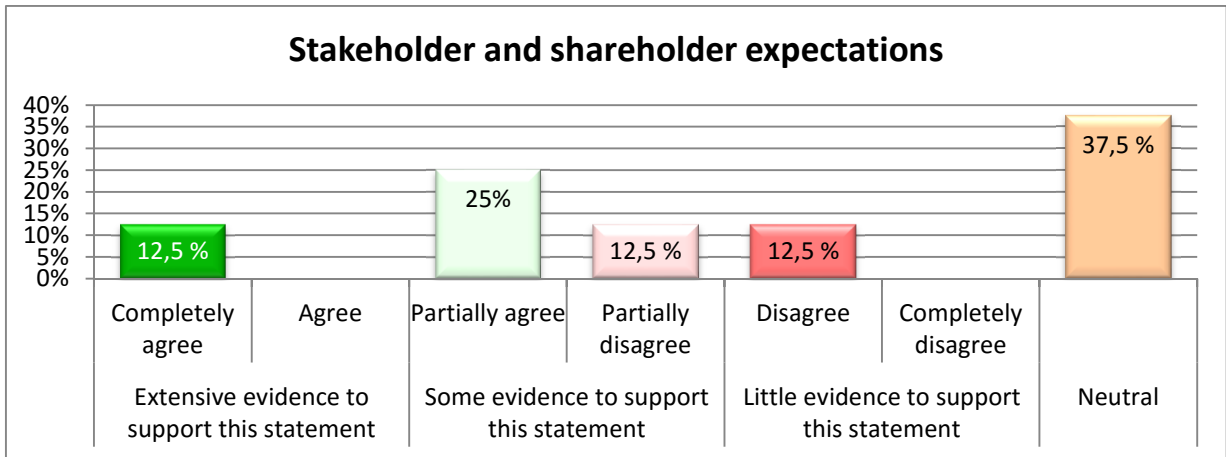


Table 17 Stakeholders and shareholders expect the company to invest in green bonds

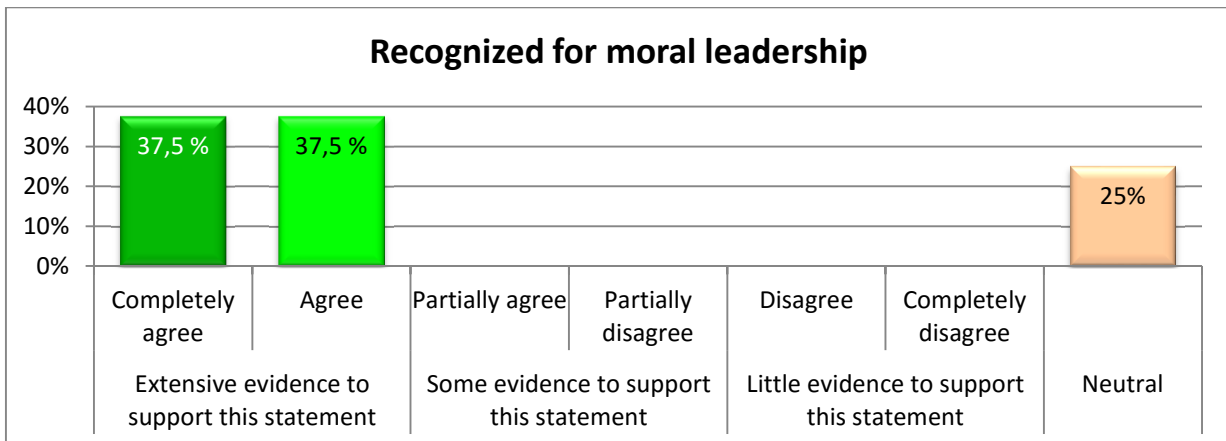


Table 18 The company wish to be seen as a legal, moral and ethical company

### 5.2.3 Profitability factors

Brønn and Vidaver-Cohen (2009) reached the conclusion that four motives fit well under the profitability factor. However, two of the motives allocated in the sustainability factor can also be allocated here, “prevent future business problems” and “contribute to green growth”. “Prevent future business problems” (Table 7) is ranked fourth most relevant by the respondents and “contribute to green growth” (Table 13) is ranked in the middle (6/7).

The profitability factor contains the least and the third least relevant motives indicating that profitability is not very relevant for deciding to invest in Green Bonds. The least

relevant motive, “*avoid governmental regulation*” has “little evidence to support this statement” (see Table 20). The third least relevant motive, “*remain competitive*” has “some” to “little evidence to support this statement” (see Table 19). A large number of the respondents have answered neutral to these questions. The fifth most relevant motive overall is present under the profitability factor, “*financial opportunity*” (Table 22) with “extensive” to “some evidence to support this statement”. The last motive under this factor, “*contribute more than others to solve the environmental problems*” (Table 21), have “some evidence to support this statement” and neutral as frequent responses.

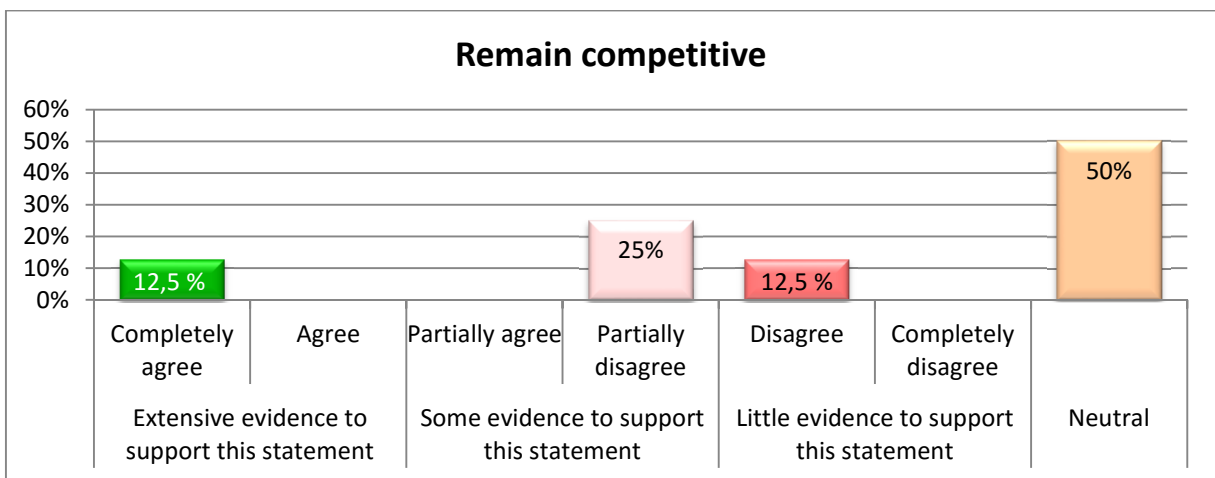


Table 19 The company has to invest in Green Bonds to stay competitive

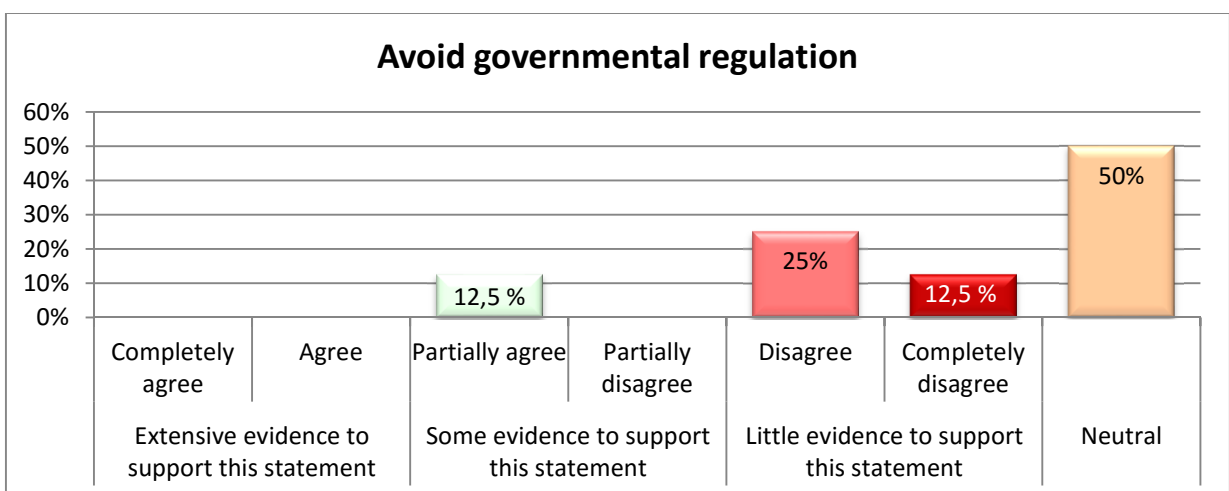
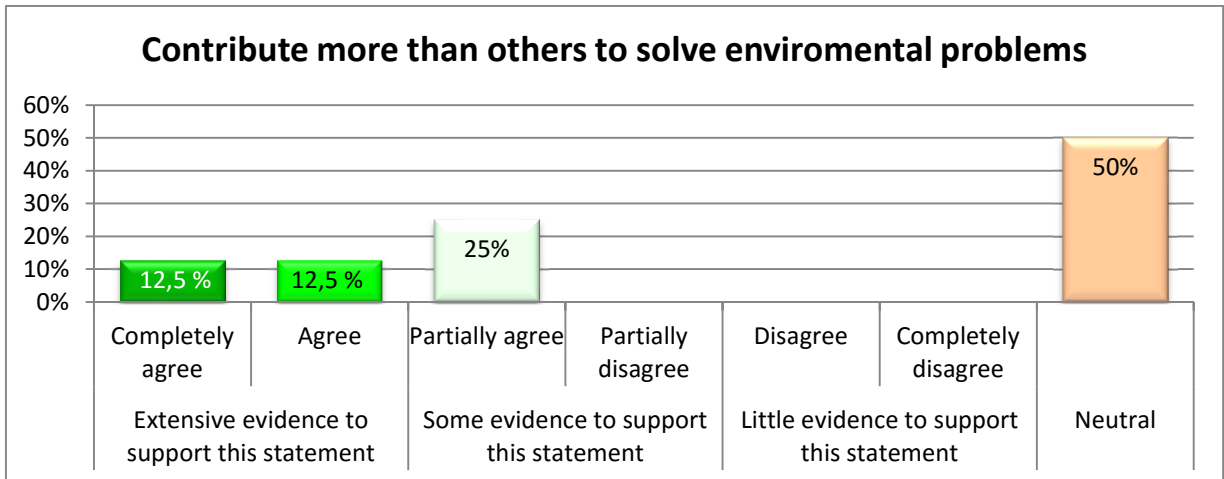
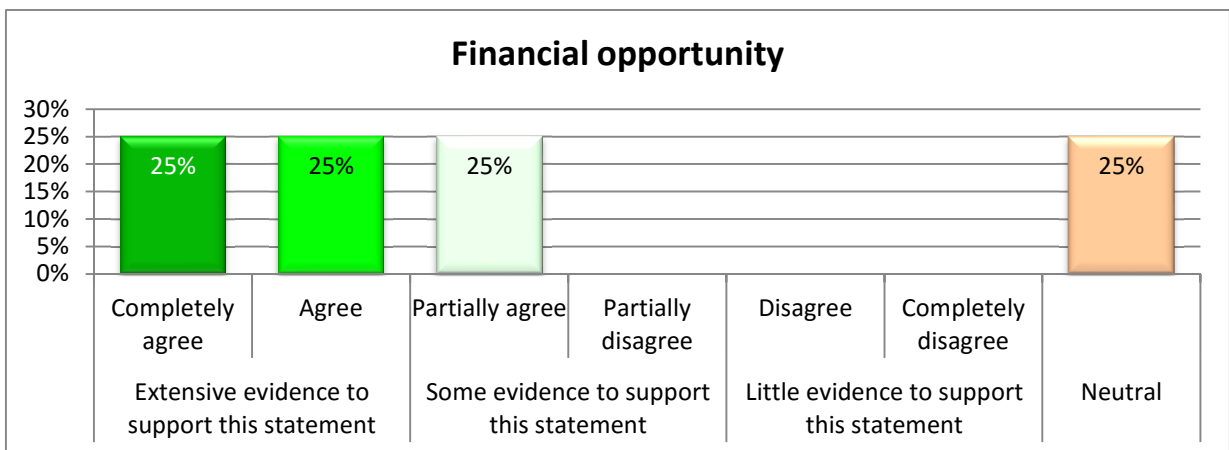


Table 20 If the company does NOT invest in green bonds or green projects there will be governmental regulations



**Table 21** By investing in green bonds the company contribute more than other companies in regard to the environmental issues



**Table 22** To invest in green bonds is profitable

### 5.3 Companies' Green Bond engagement

In this part the data collected from the second questionnaire is presented. These data will give a more comprehensive presentation of banks and pension funds motives for Green Bond investments. In addition, the results will be used to answer the question; are Green Bond investments more than financially motivated? The answers are presented in the order of the questions in questionnaire two (Appendix 8.3).

The results presented in table 23 show the main reasons for companies deciding to invest in Green Bonds. The results are presented according to the percentage of respondents

choosing each reason. The majority of the respondents agree that “*the investment is in shareholders’ interest*” is the most important reason for investment.

**Percentage of respondents choosing each reason**

| 80 %  | 40 %   | 20%  |
|---|--|--|
| The investment is in shareholders’ interest | The firm is concerned for the earths future                              | It is important for management                                 |
|   | Green bond investments are more meaningful than regular investments      | Improve public image, want to be seen as a responsible company |
|   | The society where the firm operate expect us to invest in green projects | To be recognized for moral leadership                          |
|   | To earn money  |  |

**Table 23 Companies main reasons for investing in green bonds**

Similar to the results from the first questionnaire, some motives from the second questionnaire are more relevant than others. This is reflected in Table 24 where the mean ranking highlights “*strategic value of Green Bonds*” as the most important characteristic for investing in Green Bonds. The least relevant characteristic is “*what competitors are doing in regard to green investments*”. Further evidence is presented in Appendix 8.4, where one can see how important each characteristic is for the respondents.

|   | Ranking | Mean |
|---|---------|------|
| The strategic value of Green Bonds                        | 1       | 4.8  |
| Change economic climate<br>Green Growth                   | 2/3     | 4.4  |
| Return rate   | 2/3     | 4.4  |
| Following GBP   | 4       | 4.2  |
| The "green" in Green Bonds as an end in itself            | 5       | 4.0  |
| Green labels  | 6/7     | 3.6  |
| Contribute more than what is required by law              | 6/7     | 3.6  |
| What competitors are doing in regard to green investments | 8       | 2.4  |

**Table 24 Mean ranking of characteristics**

The third question let the respondents reflect on why green bonds are popular investment tools. As Storebrand says, Green bonds are long-term investments and are a good fit for us as a pension fund. Furthermore, we see an increasing demand for sustainable products and services from our customers (anonymous, personal communication 15.03.16). KLP is also involved in the Green Bond discussion and describes Green Bonds as exciting because they are contributing to the environment and are competitive with other financial investments (anonymous, personal communication 15.03.16). The answers retrieved from question three are presented in table 25. *“Increase customer demand”* and *“ability to do good and earn money”* are what banks and pension funds see as the most important reasons for Green Bonds being popular investment tools.

#### Percentage of respondents for each reason

| 60 %   | 40 %  | 20 %  |
|--|---|---|
| Increased customer demand for green products | Investors want to take part in social responsibility and sustainability | Increased environmental focus by shareholders |
| Ability to do good and earn money            |   | Good return on investment                     |

Table 25 Reasons why companies think Green Bonds are popular investment tools

The results from the next question illustrate how long companies may be willing to keep investing in Green Bonds when they are no longer competitive with regular bonds. As shown in table 26, no one is willing to continue the investment for more than six months. The results do, however, not give an agreed upon timeframe for when companies will stop investing in Green Bonds.

#### If the value of Green Bonds decreased below regular bonds, how long would your bank continue to invest in Green Bonds?

|                     |      |
|---------------------|------|
| Less than one month | 20 % |
| One month           | 20 % |
| 2 – 5 months        | 20 % |
| 6 months            | 20 % |
| Not sure            | 20 % |

Table 26 Timeframe for Green Bonds when they are no longer competitive

The last two questions give an indication of Green Bonds being a part of CSR and thus a more desirable investment than regular bonds and shares. For the question “do you see investing in Green Bonds as a part of your firm’s corporate social responsibility”, 100 % answered yes. Additionally, respondents see Green Bonds as more desirable than regular bonds and shares, as 60 % answered they were more desirable, 40 % answered neutral and no one answered no.

## 6. Discussion

Green Bonds are seen as desirable investments because investors have the opportunity to make money and contribute positively to solve climate related problems. The results show that legitimacy is the most important motivational factor for investing in Green Bonds, followed by sustainability and then profitability. In this section, the results will be further discussed to answer the question; which motivational factors previously identified by other researcher's influence companies to invest in Green Bonds?

A growing number of companies are involved in Green Bonds and "green" investments. In the sample 72 % of the respondents invested in "green" projects other than Green Bonds. In addition, 64 % were interested in investing in Green Bonds today or in the future. The results can be biased due to Green Bonds being the theme of the questionnaire, which can suggest underlying moral drivers where these answers can be affected by the desire to be "green" and good (see part 4.2). On the other hand, the results align with previous studies that show a growing number of investors who make decisions based on moral grounds in addition to aspects of risk and return (Lewis & Juravle 2010). Furthermore, investments that help mitigate climate change have become more popular. Nevertheless, some see these investments as a way to clean up, not to become clean (Clapp & Dauvergne 2011).

The results also show that 50 % of the respondents had already started to invest in Green Bonds prior to answering the questionnaire. This percentage level can be because Green Bonds are new investment tools in addition to Green Bonds not being equally popular for all investors. As KLP states in Norway more or less all energy produced is "green" without necessarily being funded by Green Bonds. When most Green Bonds, at least in Norway are used for energy production as well there is no extra motivation for investing in them. However, the popularity of Green Bonds is increasing as shown in Figure 2 (in Section 2.2).

## 6.1 Further evidence: Green Bonds a part of CSR

In the theory section the similarities between CSR, SRI and Green Bonds were presented and Carroll's (1991) definition of CSR was used to put Green Bonds in a CSR context.

Furthermore, throughout this thesis Green Bonds are assumed to be a part of CSR. In this part the results will be used to further support this assumption.

Theory from Brønn and Vidaver-Cohen (2009) is used for comparison and table 27 summarizes the statements that will be used in the further discussion. The statements and mean ranking for Green Bonds are presented as well as the associated social initiatives mean ranking. This is to make it easier to follow the discussion where motives for Green Bonds are compared to motives for social initiatives.

Motives summary table

| Statements   | Ranking Green Bonds | Ranking Social Initiatives |
|--|---------------------|----------------------------|
| Improve brand/image  | 1                   | 1                          |
| Recognized for moral leadership                                    | 2                   | 2                          |
| Long-term interest   | 2                   | 3                          |
| Prevent future business problems                                   | 4                   | 9                          |
| Financial opportunity  | 5                   | 12                         |
| Solve environmental problems / solve social problems better        | 9                   | 16                         |
| Shareholder & stakeholder expectations *                           | 12                  | 14/5                       |
| Remain competitive   | 14                  | 6                          |
| Additional resources for investment / share resources with society | 15                  | 11                         |
| Avoid governmental regulation                                      | 16                  | 15                         |

\* For social initiatives: Meet shareholders demand ranked 14  
Fulfill stakeholder expectations ranked 5

Table 27 Summary of motives Green Bonds and Social initiatives

The main motives for Green Bond investments are similar to Brønn and Vidaver-Cohen's (2009) main motives for social initiatives. The most important reasons for investing in Green Bonds are to "improve brand/image", "be recognized for moral leadership" and



*“serve long-term company interests”*. These motives seem to be the most relevant motives for CSR as well. There are two statements ranked second most relevant for Green Bonds, *“be recognized for moral leadership”* and *“serve long-term company interest”* (see table 27). For social initiatives *“recognized for moral leadership”* is ranked the second most relevant, while *serve “long-term company interest”* is ranked third, which suggest small differences. Nevertheless, the top three motives are the same for social initiatives and Green Bonds, which implies a correlation between the motives for investing in Green Bonds and the motives for companies’ involvement in social initiatives.

The least relevant motives for social initiatives are *“solve social problems”* and *“avoid governmental regulation”*. For Green Bonds the least relevant factor is *“avoid governmental regulation”* and *“additional resources for investment”*. To *“avoid governmental regulation”* is ranked differently for Green Bonds and social initiatives. However, Brønn and Vidaver-Cohen (2009) found regulation to be one of the least relevant motives for social initiatives, which is similar to the Green Bond motives. The second least relevant motive for Green Bond investments is *“additional resources for investment”*, which is ranked number 11 for CSR. What is more, *“solve social problems”* the second least relevant reason for CSR activities is ranked as reason number nine for Green Bond investments. Throughout this discussion it was found to be both similarities and differences between Green Bonds and CSR.

The discussion above implies a correlation between the motives for investing in Green Bonds and for involvement in social initiatives. However, the least relevant motives for Green Bonds show both similarities and differences with social initiatives, which implies a weak relationship. Nevertheless, the highly ranked motives are more relevant in regard to what motivates Green Bond investors. The similarities suggest that Green Bonds are perceived to be a part of the firms’ CSR activities. On the other hand, some see financial gain in contradiction to the CSR practice. If financial gain is the motive, Green Bond investments can be seen as similar to other economic strategies opposed to a moral commitment. Banks and pension funds did, however, recognize Green Bonds as part of

their CSR activities. If this commitment is strategically or altruistically motivated is still unclear and will be further discussed in the following sections.

## 6.2 Legitimacy motives for Green Bond investments

The highest ranked motives for investing in Green Bonds are categorized under the legitimacy factor, *“improve brand/image”*, *“be recognized for moral leadership”* and *“serve long-term company interests”* dominated by *“extensive evidence to support the statement”*. The findings of Brønn and Vidaver-Cohen (2009) as well as other scholars (Davis 1973; Nielsen 2014; Renneboog et al. 2008) support these results. These claim that the changing global climate may now require companies to invest in social agenda to maintain legitimacy within their organizational fields.

The highest ranked motive is *“improve brand/image”*, which suggests that Green Bonds are used as a tool to paint the company *“green”*. It is evident that improving public image is seen as a highly relevant motivator for CSR activities (Brønn & Vidaver-Cohen 2009; Davis 1973; Renneboog et al. 2008), including Green Bond investments. Further evidence is found in the statement *“increase customer demand”*, which is seen as one of the most important reasons for Green Bonds being popular. How customers experience and feel in contact with the company and their brand can be crucial if the company is going to survive in competition with others (Kvåle & Wæraas 2006). To be perceived as *“green”* can be a way to differentiate the company from competitors. If the company is not committed to the *“green”* brand, they could be blamed for greenwashing. If the company uses CSR activities, like Green Bond investments, first and foremost to improve their brand the community can have a negative reaction (Ihlen 2007). However, Green Bonds are seen as more desirable than shares and regular bonds, which indicate a *“green”* commitment among banks and pension funds.

Further evidence is found for legitimacy as an important motivational factor. The statement *“investments is in shareholder interest”* is seen by 80 % as the most important reason for investing in Green Bonds. By being a part of CSR Green Bonds are consistent

with shareholder value-maximization (Renneboog et al. 2008). This is interesting as the statement is contradicting the agreement of “*shareholder and stakeholder expectation*” perceived as less important. The statement is ranked number 12 in the mean ranking (see summary table 27) by the respondents and thus seen as the least relevant motivator under the legitimacy factor. On one hand, the difference could be caused by one question including both shareholders and stakeholders, while the other does not. On the other hand, “*increased customer demand*” is seen as one of the most important reasons for Green Bonds being popular by 60 %.

The statements; “*Serve long-term company interests*” and “*Recognized for moral leadership*” are both ranked second most important in the mean ranking (see summary table 27). These statements are both categorized under the legitimacy factor and support legitimacy as the most important motivational factor.

Green Bond investments contribute to the company’s long-term financial performance by providing interest rates on the bonds maturity date, while at the same time contribute to the environment. It is possible that climate change will reduce the long-term returns on companies investments (Dietz et al. 2016). This can motivate companies to take action and invest in climate related projects today.

Implementing a “green” branding strategy could be a part of the company’s long-term plan to attract environmentally aware consumers. This will contribute to the company’s long-term financial performance as well, because consumers are willing to pay more for products and services when companies providing them are committed to positive social and environmental impact (Nielsen 2014). A company not considering their social and environmental impact could have their reputation compromised in the eyes of the customer (Campbell 2007). Furthermore, shareholders can end up not being paid their return if the company do not take “greening” seriously and fail to be responsible (Davis 1973).

The motive *“Recognized for moral leadership”* implies that investors wish to use their power for good. However, the power is most likely used in a way that society feels is responsible to keep company power in the long-run and to maintain the market position (Brønn & Vidaver-Cohen 2009; Davis & Blomstrom 1971). Additionally, if a company is recognized for its moral leadership it could improve the company’s trustworthiness, which is an important motive for investing in SRI (Renneboog et al. 2008) and Green Bonds. To be recognized for moral leadership could increase customer demand, as discussed above, if this is an issue the customer is concerned about. However, a company only investing in Green Bonds to be perceived as moral and “green” for financial gain might be seen as less trustworthy. Financial motives are not altruistically or philanthropically motivated. Davis (1973) regards CSR as considerations beyond economic, technical and legal requirements. Green Bonds as a part of CSR have to be something more than a financial instrument to be altruistically or philanthropically motivated. On the other hand, SRI and Green Bonds are investments that take CSR into account when making investment decisions (Scholtens & Sievänen 2013), making moral considerations a part of the economic requirement.

### 6.2.1 Expectancy and goal

The above discussion suggests that Green Bonds are mainly motivated by legitimacy. In this section these findings will be discussed in relation to expectancy and goal theory. In Figure 9 the relationship between expectation and goal is illustrated based on Mullins' (1996) basic motivational model (Figure 5 Section 3.1). To have a "green" brand/image is assumed to be the company's expectation, based on legitimacy being the main motivational factor, while the desired goal is assumed to be *improving legitimacy* for the company.

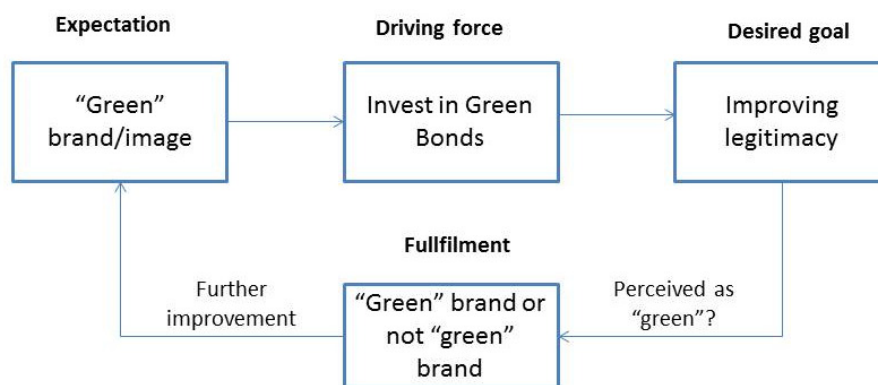


Figure 9 Expectancy and goals based on Mullins (1996)

Goal theory is based on the idea of individuals choosing goals based on their personal values and select their behaviour based on achieving these goals (Schiffman et al. 2012). It is assumed that to improve legitimacy is the company's desired goal and investing in Green Bonds are the means to achieve these goals. Furthermore, Green Bonds can be seen as a specific branded product that is used to fulfil the company's goal. This is in line with expectancy theory where individuals choose their behaviour based on what they expect their behaviour would lead to (Mullins 1996). That performance leads to a specific outcome or reward tends to increase effort, which is in line with extrinsic motivation.

Based on Figure 9, companies want to have a green brand/image, which motivates them to invest in Green Bonds. This investment is used to fulfill the goal of improved legitimacy. If the company achieves the goal of improved legitimacy, it would most likely be perceived as "green" and fulfill the expectation of a "green" brand. If the company is not

perceived as “green”, it will not have a “green” brand and the cycle starts over. However, if the expectation is fulfilled, the company would most likely move on to fulfill other expectations and develop new goals, similar or different to the previous one.

The legitimacy factor stands out as the main motivation factor, compared to sustainability and profitability. Motivators substantiating this claim are: *“improve brand/image”*, *“increase customer demand”*, *“investment is in shareholder interest”*, *“serve long-term company interest”* and *“recognized for moral leadership”*. These motivators indicate an underlying financial motive because a well-established image can generate better financial performance.

The legitimacy factor and the related financial gains are in line with the extrinsic motivational theory. Extrinsic motives refers to external rewards that are seen as important for individuals when they chose to commit to a project (Kaufmann & Kaufmann 2009). This implies a strategic motive for Green Bond investments. However, the motivators mentioned also indicate some form of altruistic or philanthropic motivation, as the firm wants to be perceived as “green” and good. This will be further discussed in the next part, where the sustainability factor is further investigated.

### **6.3 Sustainability motives for Green Bond investments**

Sustainability motives are driven by the belief that corporations have a moral obligation to invest in making the world a better place for future generations (Brønn & Vidaver-Cohen 2009). Though neither Brønn and Vidaver-Cohen (2009) nor the results obtained in this thesis support the moral approach. This indicates that “moral” motives are less relevant for the company when making “green” investment decisions than motives related to strategic concerns. Further evidence is found in table 23 (Section 5.3) where *“the strategic value of Green Bonds”* is ranked as number one. This is in line with the main motivational factor, legitimacy, where Green Bond investments are seen as a strategic decision to improve image.

To be willing to forgo returns on investments does not automatically imply altruistic motives but could be a way to improve reputation (Lewis et al. 2002). The investment could be a way to avoid cognitive dissonance, seen as a way to avoid guilt and to feel less bad about making money on investments, not a way to be more responsible (Lewis et al. 2002; Ryan & Deci 2000). However, the statement “*ability to do good and earn money*” is one of the most important reasons for Green Bonds being popular. This implies an altruistic motive where the company sees possibilities to use its money in ways that contribute to climate change mitigation and adaptation without compromising financial gain. Not many people have the opportunity to use their money for good without getting something in return, even though intrinsic motivation is seen as superior to extrinsic motivation (Brooks 2006).

Under the sustainability factor “*prevent future business problems*” with “extensive evidence to support this statement” is the highest ranked motivator, number four, on the mean ranking (see summary table 27). This implies that companies invest in Green Bonds to avoid being forced to deal with climate related problems in the future. By investing money in climate related projects, problems that otherwise could be costly in the future are dealt with today. To invest in Green Bonds is voluntary and 50 % chose not to invest, which implies that several climate related problems are still in need of financial help. This indicates that companies who choose to invest today are not be excluded from future problems. This could be linked to market inefficiencies that encourage free-riding, which is often seen as an obstacle for SRI (Lewis & Juravle 2010). However, by setting a good example companies investing in Green Bonds can initiate others to start investing. The need to feel related to others could motivate investments, based on the desire to feel connected and to belong (Ryan & Deci 2000). On the other hand, “*what competitors are doing in regard to green investments*” is seen as the least important characteristic when investing in Green Bonds. To stand out as a good example might decrease the “green” legitimacy value desired by most companies, as this would no longer be a competitive advantage.

The least relevant motivator for this factor is “*additional resources for investment*”. Some companies wish to use management talent, expertise and resources to contribute to CSR (Davis 1973). This is however not the case for banks and pension funds, which is interesting as they should have resources to reinvest. Environmental offenders like coal and oil are decreasing in popularity and divesting in coal and oil might make money available for reinvestments in Green Bonds. Presumably, most banks and pension funds do not see Green Bonds fit for additional investments yet. However, it is in management’s best long-term interest to include sustainability in strategic decisions, including investment decisions, because information about sustainability is relevant for companies performance and return on investments (Clark et al. 2015). There are some companies, like Gjensidige that see sustainability as essential for the ability to make money.

This limited engagement for sustainability motives implies that intrinsic motives are less relevant for banks and investment funds when they make the decision to invest in Green Bonds. This strengthens the observations made in the previous section, where Green Bond investments are extrinsically motivated with an underlying financial motive. The profitability factor is seen as the least relevant motivational factor and will be discussed further in the next part.

#### **6.4 Profitability motives for Green Bond investments**

If companies expect positive financial results as a return for social commitment the company is motivated by profitability (Brønn & Vidaver-Cohen 2009). Similar to Brønn and Vidaver-Cohen (2009), no direct relationship were found between Green Bond investments and immediate financial outcomes. This could be because banks and pension funds, which controls large amounts of money, do not see Green Bonds as a new way of making money but more like a way to please shareholders’ and stakeholders’ ethical expectations. Green Bonds are safe investments and risk seeking investors only looking for large financial pay-off would most likely seek other investment opportunities. However, to limit global warming to today’s goal of two degrees Celsius above pre-



industrial levels, is financially correct to risk-neutral and risk-averse investors (Dietz et al. 2016).

There is an increasing number of companies that take ethics and the environment into account when making investment decisions (Lewis et al. 2002). This statement contradicts Friedman's (1970) claim that companies should be careful not to impose higher cost to stockholders, customers or employees. The company should instead earn as much money as possible and make decisions like the rational man. However, his statements have been criticized among others because most people differ from the rational man and are capable of altruism. This indicates that the ethical and the financial aspect of Green Bonds is seen as equally important that companies investment decisions are motivated by mental accounting where context is important (Kahneman & Tversky 1979; Lewis et al. 2002). One can see Friedman's way of thinking to be short-term, with profit maximization in focus. To focus on ethical aspects, however, indicate long-term thinking where the strategy to increase profit includes the company's impact on society.

Under the profitability factor, the least and third least relevant motives are present, *"avoid governmental regulation"* and *"remain competitive"* (Table 6 Section 5.2). *"Remain competitive"* is ranked low, which imply that to invest in Green Bonds are not seen as a competitive advantage. This contradicts studies which show that environmental activities can lead to competitive advantages and value enhancement (Friede et al. 2015; Porter & Van Der Linde 1995).

The lowest ranked motive *"avoid governmental regulation"* could have been ranked low because of the regulatory climate specific to the Nordic countries. Another alternative can be that no mitigation credits are offered for Green Bond investments, most likely because they are regarded as new and their effect is not yet proven. Furthermore, mandatory GBP's and second opinions could contribute to Green Bonds reliability, which might lead to mitigation credits in the future. Nevertheless, *"avoid governmental regulation"* is a common motive for self-regulation, because regulation involve high cost for the company and put restrictions on their flexibility (Davis 1973).

The most relevant motivator under this factor is “*financial opportunity*”, ranked as number five. This contradicts the claim of the profitability factor being the least relevant. However, both sustainability and legitimacy have higher ranked motives. In addition, the “*financial opportunity*” motive could have been ranked high due to Green Bonds being financial instruments. Investors who invest responsibly and “green” want to impact countries’ social responsibility and sustainability, while at the same time optimize their financial risk-return trade-off (Scholtens & Sievänen 2013). There is a growing number of individual investors who makes decisions based on moral grounds as well as aspects of risk and return (Lewis & Juravle 2010).

However, the results suggest that investors would not keep their Green Bonds after six months if the value of Green Bonds decreased below regular bonds. This challenges the previous discussion where profitability is seen as less relevant than legitimacy and sustainability. On the other hand, this is in line with the assumption of an underlying financial motive for Green Bond investments. It does not exclude the possibility that underlying moral motives are present. The company has to decide whether what they do is morally right or wrong (Cane & Matten 2010).

## **6.5 Intrinsic and extrinsic motives for Green Bond investments**

The above discussion focuses on three different motivational factors and links them to previous literature. The legitimacy factor is shown to be the most important motivational factor, with an underlying financial motive. The profitability factor is seen as the least important motivational factor. The sustainability factor that represents the intrinsic motives is found to be in the middle of the other two, making it hard to identify the altruistic/philanthropic motives. This part discusses intrinsic and extrinsic motives to examine if green bond investments can be more than financially motivated.

To find the answer to this question previous literature will be used to see if it is possible that Green Bond investment are both intrinsically and extrinsically motivated. Intrinsic motivation is here seen as moral or altruistic motives where the motivation comes from

within, represented by the sustainability factor. Extrinsic motives however, are motives from other sources, here seen as strategic motives within the profitability and legitimacy factors.

To be motivated both extrinsically and intrinsically, it must be possible to satisfy several needs at once. This is in line with Alderfer's (1972) theory that indicate that several needs can be achieved simultaneously. This contradicts Maslow (1943) who claims that a satisfied need is no longer a motivator and when lower level needs are fulfilled a person moves to higher level needs. This implies that it is not possible to be motivated both by strategic/extrinsic motives and moral/intrinsic motives at the same time. According to Maslow, if the need for profit is fulfilled, this is no longer a need and one can move on to for example the need for sustainability. His theory has however been criticized (Brooks 2006; Mullins 1996; Schiffman et al. 2012), which implies that several needs can be satisfied simultaneously. Lower-level needs and higher-level needs can be activated at the same time this can be seen as extrinsic and intrinsic needs being present at once (Alderfer 1972; Brooks 2006; Mullins 1996).

The sustainability factor includes low ranked, middle ranked and high ranked motives, with a high degree of "extensive evidence to support this statement" and "some evidence to support this statement" (Section 5.2.1). This implies that the intrinsic motives are driving the company to greater performance and effort to achieve a "green" image. This is according to Herzberg et al. (1959) a motivator, while hygiene factors makes companies dissatisfied if they are not present. The underlying financial factor identified in Section 6.2 can be a company's hygiene factor. This undermines the statement of both intrinsic and extrinsic motives being present for Green Bond investments. McClelland (1962) claims that companies have a dominant bias toward one need, either the need for money or the need to be perceived as "green" and moral. The statement of one dominant need does not exclude other needs being present simultaneously.

Needs and expectations are often in conflict (Mullins 1996). A company could expect to be "green", but the need to make money is in conflict with this expectation. By investing

in Green Bonds the company can improve their “green” image by acting morally, while at the same time realizing a profit from the investment. In light of the results and discussion it is possible to be motivated by intrinsic and extrinsic motives at the same time.

### **6.5.1 Green Bonds in the Nordic countries**

Even though extrinsic and intrinsic motives appear to be present simultaneously this is based on data from four Nordic countries. The Nordic region is special with the regard to how they make investment decisions. Their leaders are often committed to appear trustworthy, honest and ethical, as opposed to result oriented and ambitious (Schramm-Nielsen et al. 2004). This makes intrinsic motives more relevant for the Nordic countries compared to, for example, America. Nordic companies tend to be known for strong ethical behavior and open economies relative to firms in other geographical regions (Campbell 2007).

Throughout the discussion, Green Bonds have been compared to CSR and SRI implying that Green Bonds can be a part of companies’ CSR activities. This is substantiated by the results in the mean ranking that gives the same order for the motivational factors, legitimacy, sustainability and profitability for Green Bonds and social initiatives (Brønn & Vidaver-Cohen 2009). Legitimacy is seen as the most important motivational factor, with an underlying profitability motive. The profitability motive is seen as the least relevant motivational factor, which implies that Green Bond investments are both intrinsically and extrinsically motivated. Previous motivational theory is discussed in relation to Green Bonds, leading to the conclusion of Green Bonds being motivated both intrinsically and extrinsically. This might explain why the sustainability factor has both high and low ranked motives. One question goes unanswered: are these findings representative for other countries as well or are the Nordic countries more focused on intrinsic motives?

## 7. Conclusion and further research

When starting the process of writing this thesis, motives for Green Bond investments were assumed to be based on moral or altruistic considerations. The results indicate otherwise; Green Bonds are actually not too different from regular bonds when it comes to motivation.

### 7.1 Conclusion

The research question: **Which motivational factors previously identified by other researcher's influence companies to invest in Green Bonds?** was studied using motivational theory and with inspiration from Brønn and Vidaver-Cohen (2009). To collect data two questionnaires were sent, where the answers from the second substantiates the first. The answers obtained imply that companies invest in Green Bonds to improve their legitimacy and to be perceived as "green". This thesis' results suggest that companies investing in Green Bonds prefer improved legitimacy opposed to better financial performance or sustainability. However, the research identifies an underlying profitability motive and to include sustainability in strategic decisions is seen as important to make money.

Two additional research-questions were asked. The first accessory research-question is: Are Green Bonds a part of the company's CSR activities? The theory and data collected from the two questionnaires imply that Green Bonds are a part of CSR. This assumes that SRI is a part of CSR even though it is contributing to the company's financial gain, contradicting the philanthropic claim. Throughout this thesis CSR is used as the basis of the discussion and the financial gain is seen as important to have the resources to invest "green".

The second accessory research-question is: Does the "green" in Green Bonds make them different from regular bonds and more than just financially motivated? The "green" in Green Bonds may have an effect on investor's motivation as it can lead to a "greener" brand and contribute to the legitimacy. If Green Bonds were the same as regular bonds or

other financial instruments, the profitability factor would probably get higher scores than what was discovered in this thesis. Furthermore, it is not possible to exclude altruistic motives based on the result obtained. As a result, the discussion focused on whether or not Green Bonds can be both intrinsic/altruistic and extrinsic/strategically motivated. It is seen as possible to be motivated by intrinsic and extrinsic motives simultaneously.

This thesis has provided a framework for Green Bond motives and a new way of looking at Green Bond investments. Further research should be done on this subject and this thesis can inspire others to do so.

## 7.2 Limitations

For this thesis some limitations occurred during the research process. However, this thesis was developed in the best way possible despite the limitations that occurred.

### *(1) Number of respondents*

Green Bonds were first issued in 2008 making the timeframe of investments small. It is hard to find who is investing in Green Bonds even though the investors are increasing and Green Bonds are more popular than before. As a result, the first questionnaire was sent out to 81 banks and pension funds where 16 answered and 8 of these invested in Green Bonds. Choosing to limit the respondents to banks and pension funds reduced the number of potential respondents, as including several other industries would have increased the number of respondents. However, banks and pension funds were seen as most likely to invest.

### *(2) Limited amount of previous research*

Most of the information found that includes Green Bonds are reports, homepages and educational material. Other than that no published research papers were found and other research was limited. This led to the decision to use CSR and SRI theory to see if Green Bonds can be a part of companies' CSR activities and as an assumption to substantiate the results. If previous research had been more extensive it may have changed the

statements included in the questionnaires and the discussion. However, CSR and SRI were good substitutes and made the research interesting and inspiring.

### 7.3 Further research

The process of working with my thesis has been really interesting and I have learned a lot. My thesis can motivate others to further research Green Bonds in general, in addition to the motives behind Green Bond investments. I suggest six areas for further research:

- (1) During this research the Nordic countries has been the basis for the data collection. The Nordic countries have some features that can make the results obtained here hard to transfer to other countries. To compare Nordic companies' motives for Green Bond investments with companies in other parts of Europe or in America would be interesting.
- (2) It would be interesting to see if banks and pension funds are motivated by financial gain because of their character or if this is true for other industries as well. Further research could compare banks, pension funds and other industries, while at the same time reveal Green Bonds' attractiveness for risk-neutral, risk-averse and risk-seeking companies. Are Green Bonds more attractive for risk-neutral and risk-averse companies compared to risk-seeking?
- (3) Another research option could be to investigate if Green Bonds can become the norm for the investment industry. Several companies are now taking environmental, social and governmental considerations into account when making decisions. When an activity is seen as a norm companies are guided by these norms, which could lead the company to desire more than just economic satisfaction. Could this indicate that companies "thinking green" are the new norm?
- (4) In addition to the norm perspective it would be useful to investigate if Green Bond motives can be divided into other factors, for example environmental, social and

governance (ESG). These three areas have been used to measure the impact of SRI on company value. Could they be used to analyze the companies' motives as well?

- (5) If GBP's and second opinions become mandatory for Green Bond issuers would their motives change? In 2015 the growth of Green Bonds slowed down compared to previous years. This could be because there is no agreed upon certification and that GBP's and second opinions are still voluntary for Green Bond issuers. If these become mandatory investors can be more confident in how the money they invest is spent. Could this increase the moral motivation and make the sustainability factor higher ranked?
  
- (6) Last but not least, I want to encourage someone else to conduct this research again in the future, maybe five to ten years from now. As the first Green Bond was issued only eight years ago, the number of investors and previous research is limited. In the future it should be easier to both find previous literature and to collect data, as more investors will be aware of Green Bonds. This would make the revealed motives behind Green Bond investments more reliable. I am looking forward to see if this future research will substantiate or reject my conclusions.



## 8. Appendix

### 8.1 Tables from Brønn & Vidaver-Cohen (2009)

#### 8.1.1 Questionnaire TABLE I (p. 97)

TABLE I  
English translation of Norwegian questionnaire and motive labels

- 
1. Engaging in social initiatives serves our company's long-term interests (Motive Label: Serve Long-term Company Interests)
  2. Engaging in social initiatives can improve our image (Motive Label: Improve Image)
  3. We must engage in social initiatives to maintain our position against competitors (Motive Label: Remain Competitive)
  4. If we do not engage in social initiatives, regulators will force us to do so (Motive Label: Avoid Regulation)
  5. People inside and outside our company expect us to engage in social initiatives (Motive Label: Fulfill Stakeholder Expectations)
  6. Our shareholders demand that we engage in social initiatives (Motive Label: Meet Shareholder Demands)
  7. As a private firm, we can solve social problems better than non-profit agencies (Motive Label: Solve Social Problems Better)
  8. Our company has valuable resources that can be used to solve social problems (Motive Label: Share Resources with Society)
  9. Our company can earn money by solving social problems (Motive Label: Create Financial Opportunity)
  10. If we do not take action to address social problems, they could harm our primary business (Motive Label: Prevent Future Business Problems)
  11. People in our company are concerned about social problems and want to help (Motive Label: Concern for Society's Future)
  12. It makes us feel good to work on social problems (Motive Label: Personal Satisfaction)
  13. There are no good reasons not to engage in social initiatives (Motive Label: No Good Reason Not To)
  14. Engaging in social initiatives can build networks in foreign cultures (Motive Label: Strengthen Global Networks)
  15. We wish to be seen at the forefront of society's legal, moral and ethical standards (Motive Label: Be Recognized for Moral Leadership)
  16. To gain knowledge from social service organizations (Motive Label: Learn from Social Agencies)
-

### 8.1.2 Emerging motive factors TABLE VIII (p.101)

TABLE VIII  
Emerging motive factors. Extraction Method: Principal Component Analysis

| Variables from survey items             | Factors, reliabilities, % variance explained |                    |                       |
|---|--|--------------------|-----------------------|
|   | Sustainability motives                       | Legitimacy motives | Profitability motives |
| No good reason not to                   | .743   |                    |                       |
| Concern for Society's future            | .720   |                    |                       |
| Personal satisfaction                   | .673   |                    |                       |
| Strengthen global networks              | .663   |                    |                       |
| Learn from social agencies              | .578   |                    |                       |
| Share resources with society            | .513   |                    |                       |
| <i>Prevent future business problems</i> | .464   |                    | .413                  |
| Improve our image                       |  | .837               |                       |
| Serve long-term company interests       |  | .772               |                       |
| Fulfill stakeholder expectations        |  | .632               |                       |
| Be recognized for moral leadership      |  | .620               |                       |
| Avoid regulation                        |  |                    | .756                  |
| Solve social problems better            |  |                    | .655                  |
| Meet shareholder demands                |  |                    | .626                  |
| Create financial opportunity            |  |                    | .572                  |
| Remain competitive                      |  |                    | .567                  |
| Variance explained                      | 22%  | 18%                | 18%                   |
| Cronbach's Alpha reliability            | .802   | .800               | .782                  |

### 8.1.3 Full sample motive ranking TABLE III (p.99)

TABLE III  
RQ1: Full sample motive rankings – means and modified top-box percentages

| Mean rank | Variable name                      | Mean | S.D. | Top-box % agree (Score 5–7) | Top-box rank |
|-----------|------------------------------------|------|------|-----------------------------|--------------|
| 1         | Improve our image                  | 5.46 | 1.34 | 82.7                        | 1            |
| 2         | Be recognized for moral leadership | 5.01 | 1.53 | 69.3                        | 2–3          |
| 3         | Serve long-term company interests  | 4.96 | 1.45 | 69.3                        | 2–3          |
| 4         | Personal satisfaction              | 4.61 | 1.52 | 58.9                        | 4            |
| 5         | Fulfill stakeholder expectations   | 4.53 | 1.39 | 55.5                        | 5            |
| 6         | Remain competitive                 | 4.40 | 1.74 | 53.7                        | 6            |
| 7         | No good reason not to              | 4.34 | 1.69 | 49.1                        | 8            |
| 8         | Concern for society's future       | 4.26 | 1.61 | 47.3                        | 9            |
| 9         | Prevent future business problems   | 4.22 | 1.62 | 50.4                        | 7            |
| 10        | Learn from social agencies         | 4.00 | 1.52 | 40.6                        | 10           |
| 11        | Share resources with society       | 3.92 | 1.67 | 39.4                        | 11           |
| 12        | Create financial opportunity       | 3.75 | 1.74 | 37.0                        | 12           |
| 13        | Strengthen global networks         | 3.55 | 1.65 | 31.0                        | 14           |
| 14        | Meet shareholder demands           | 3.52 | 1.78 | 33.6                        | 13           |
| 15        | Avoid regulation                   | 3.15 | 1.55 | 19.4                        | 16           |
| 16        | Solve social problems better       | 3.09 | 1.70 | 22.0                        | 15           |

## 8.2 Questionnaire 1

### Motives behind investing in green bonds

#### Page 1

Is your company investing in green bonds?

- yes
- no

Is your company investing in other sustainable or green projects?

- yes
- no

When did your company start investing in green bonds?

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- We want to start investing in 2016, or later.
- We do not want to invest in green bonds

**To which extent do you agree with the following statements? \***

If your company does not invest in green bonds, please answer with regard to green investments.

|  | Completely disagree   | Disagree              | Partially disagree    | Neutral               | Partially agree       | Agree                 | Completely agree      |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| To invest in green bonds match the companies long term interests   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To invest in green bonds can improve the companies brand/image   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The company have to invest in green bonds to stay competitive  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| governmental regulations   |                       |                       |                       |                       |                       |                       |                       |
| Shareholders and stakeholders expect the company to invest in green bonds  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By investing in green bonds the company contribute more than other companies in regard to the environmental issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The company has additional resources that could be used to increase the investments in green bonds                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To invest in green bonds is profitable   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| If the company does not consider the environmental issues it can harm our primary business                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The employees are considering the environmental issues and want to contribute                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To invest in green bonds makes us feel good  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is no reason not to invest in green bonds  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Investing in green bonds can help us build a global network  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The company wish to be seen as a legal, moral and ethical company  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The company wish to learn more about green bonds and green values  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By investing in green bonds we contribute to green growth  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## 8.3 Questionnaire 2

### What is your company's main reason for investing in Green Bonds?

Please choose maximum three

- We do not want to be worse than other when it comes to climate related investments
- It is important for management
- The firm is concerned for the earth's future
- Green bond investments are more meaningful than regular economic investments
- Increase media focus on environmental problems
- The society where the firm operate expects us to invest in green projects
- Improve public image - want to be seen as a responsible company
- The norm for banks is to invest socially responsible and "green"
- The investments are in shareholders' interest
- To be recognized for moral leadership
- To earn money
- Do not want to be seen as unethical
- Investing makes us feel good
- Inspired by the practice of the Norwegian petroleum fund

### How important are the following characteristics for your company when investing in Green Bonds?

Rank the following statements from 0 - not important to 4 - very important

|   | Not important<br>0    | 1                     | Important to some<br>degree<br>2 | 3                     | Very important<br>4   |
|---|-----------------------|-----------------------|----------------------------------|-----------------------|-----------------------|
| Change economic climate - green growth                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| Return rate   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| Green labels  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| Following the green bond principals                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| The "green" of the Green Bond as an end in itself         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| Contributing more than what is required by law            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| The strategic value of Green Bonds                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| What competitors are doing in regard to green investments | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |

**Why do you think Green Bonds are a popular investment tool?**

Please select two main reasons

- Increased media focus
- Increased customer demand for green products
- Increased environmental focus by shareholders'
- Good return on investment
- Ability to do good and earn money
- Desire to be green
- Pressure form social and environmental lobbyists
- Investors want to take part in social responsibility and sustainability

**If the value of Green Bonds decreased below regular bonds, how long would your bank continue to invest in Green Bonds?**

Please select one.

- Less than one month
- One month
- 2 - 5 months
- 6 months
- 7 - 11 months
- One year
- Between 1 and 2 years
- 2 years or more

**Do you see investing in Green Bonds as part of your firms Social Responsibility?**

- Yes
- No
- Neutral

**Does your company see Green Bonds as a more desirable investment than regular bonds or shares?**

- Yes
- No
- Neutral

## 8.4 Bar charts corresponding to the mean ranking of characteristics (table 24)

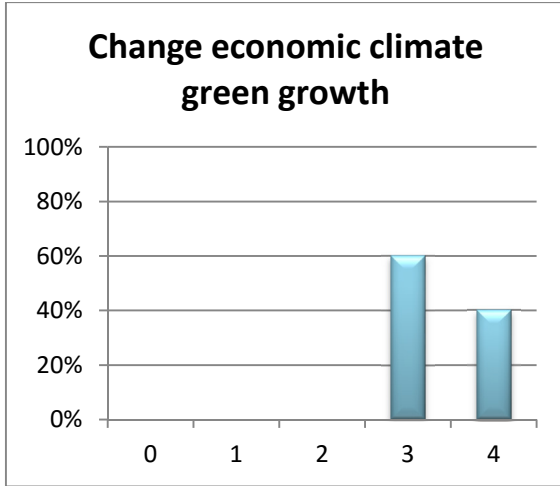


Table 28 Importance of green growth

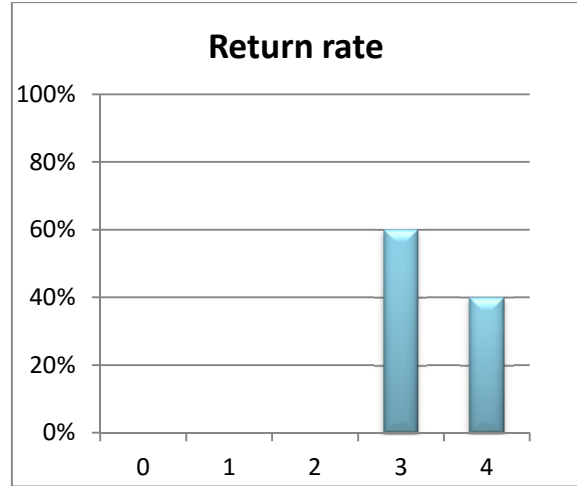


Table 29 Importance of return rate

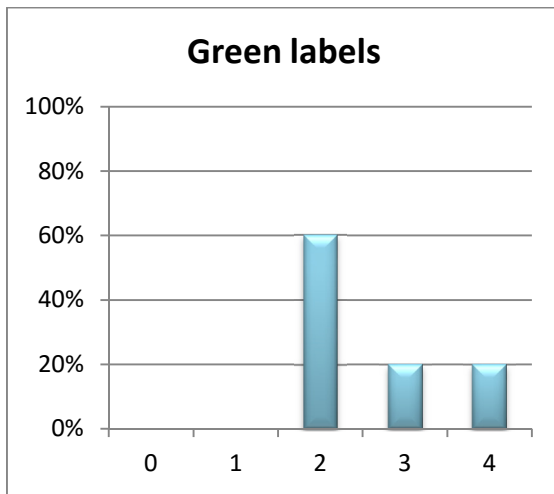


Table 30 Importance of green labels

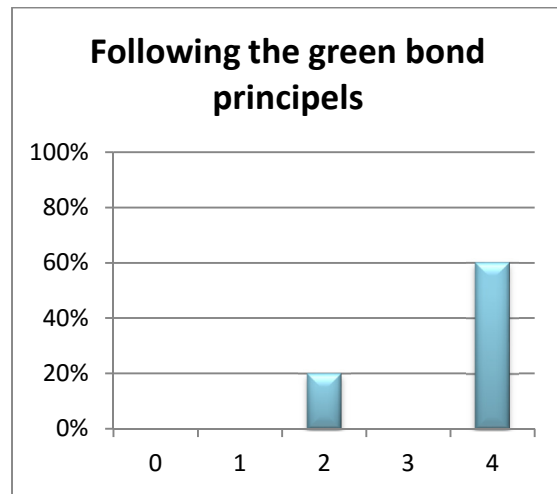


Table 31 Importance of GBP

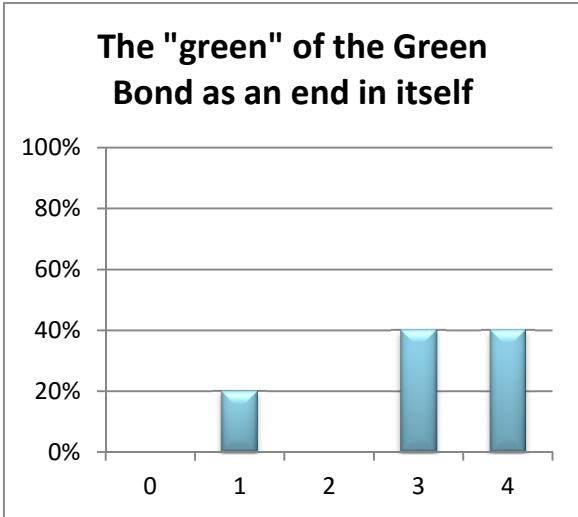


Table 32 Importance of "green" as an end in itself

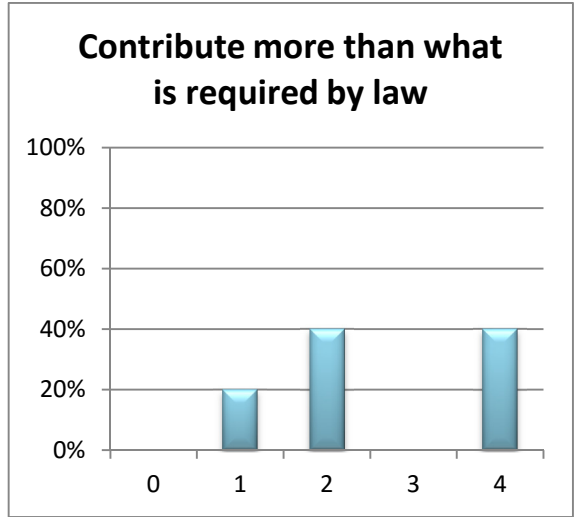


Table 33 Importance of contributing more than the law

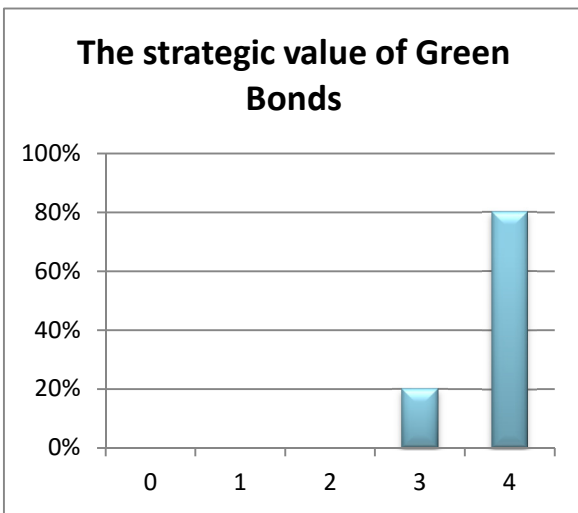


Table 34 Importance of the strategic value

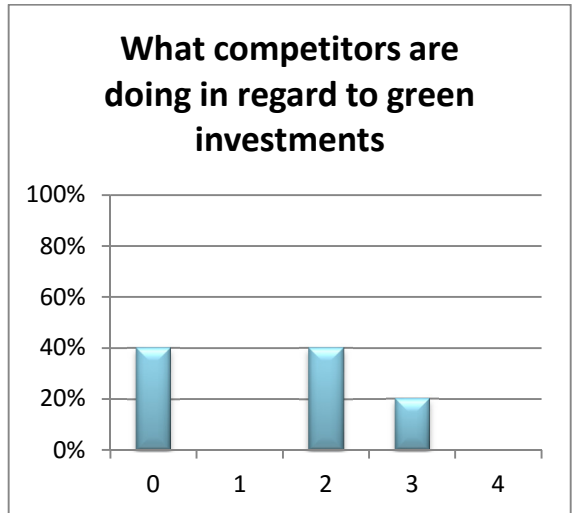


Table 35 Importance of what competitors are doing



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