THE ISSUER PERSPECTIVE ON GREEN BONDS

A STUDY ON WHY FIRMS ISSUE GREEN BONDS ON THE SWEDISH CAPITAL MARKET

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Bachelor Thesis

Stockholm School of Economics

2019

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Abstract:

The green bond market has experienced extensive growth during the past decade as investors start redirecting their funds towards more environmentally-friendly investments. This paper examines the underlying reasons for why firms decide to issue green bonds by conducting a survey. The study is limited to the Swedish capital market and respondents are issuers of green bonds on this market. The results suggest that the main reasons why firms decide to issue green bonds is the increased investor attention it brings and the opportunity of position the firm as sustainable. Furthermore, we show that cheaper financing and a lower risk profile of green bonds are not as important for the decision to issue green bonds. We argue that these results can explained by the difficulty to recognize the risk and return benefits of a green bond issuance and that the increased importance of sustainability makes it advantageous to highlight sustainability work.

Keywords:

Green bonds, Swedish capital market, Sustainability, Green premium, Investor attention

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Acknowledgements: To Håkan Thorsell for his comments and guidance, Vasakronan for their inspiration and helpful insight in our pilot project and all companies and institutions that made this thesis possible by participating in the survey.

Bachelor Thesis
Bachelor Program in Business and Economics
Stockholm School of Economics

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1. Introduction

There are rising concerns and attention regarding climate change and with the Paris agreement nations agreed to work towards keeping the global temperature rise below 2°C. To succeed in this, appropriate mobilization and provision of financial resources is needed, which has led to increased green finance activities. Since many countries have public budgets under pressure and the banks have restricted lending capacity, the private part of the financial system plays a key role in mobilizing financial resources towards more sustainable investments (Gianfrate & Peri, 2019). Bonds have the potential of connecting investments needs with sustainability-themed investment and as of 2007 the cumulative issuance of green bonds is USD 521bn. However, it is estimated that the world will have to invest around USD 90 trillion in the next 15 years in order to finance environmentally sustainable growth (G20 Green Finance Study Group, 2016).

The European Investment Bank was first to issue a climate awareness bond in 2007, which became the starting point for green bonds and since then this new fixed income security has seen an extensive growth (Flemmer, 2018). The key feature of a green bond is that the proceeds should go to green investments, meaning it is issued to raise finance for climate change solutions. Even though the green bond market has experienced considerable growth, not many studies have been done on the impact regarding firm performance and environmental results. Still, several investors have already started to redirect their funds to more environmentally-friendly investments due to an increased demand for such investments and as a consequence of new risks associated with climate change (Gianfrate & Peri, 2019).

Despite increased costs associated with a green bond issuance, companies who issue green bonds face several advantages (Flemmer, 2018). However, there seems to be a greater demand than supply considering that green bonds often are oversubscribed and how well green bonds perform on the secondary market (Climate Bonds Initiative [CBI], 2018). This indicates that the green bond market today is not as efficient as it could be and that there might be room for improvement. One aspect were improvements could be made is on the issuer side, as the supply of green bonds does not meet the demand from investors. To explore this gap, the aim of this paper is to analyse the yet limited field of the underlying reasons to why bond issuers choose to issue green bonds on the Swedish capital market. Furthermore, this could give a better understanding of why issuers do not meet the demand from investors and how the green bond market could be improved. This leads us to question the efficiency of the green bond market, taking an issuer perspective to investigate: Why do firms issue green bonds on the Swedish capital market?

To narrow down the question, we will focus on the three aspects risk, return and branding. Considering previous research and its focus on these three aspects in relation to green bonds we believe these are some of the most relevant for understanding our main question. Furthermore, only issuers that have issued a green bond on the Swedish capital market will be studied. For this paper the definition of the Swedish capital market will be the market for Swedish krona transactions. This limitation has been made since attitudes towards certain aspects, such as sustainability, may vary across countries as well as legislation and industry praxis. Firms will hereafter refer to all bond issuers on the Swedish capital market, including both companies and other institutions such as municipalities.

2. Background

2.1. The green bond market

A green bond is similar to a non-green bond, apart from the fact that the capital raised through a green bond is dedicated to finance or refinance sustainable projects. Green bonds can be either labeled or unlabeled. Where unlabeled green bonds can be issued by companies whose business is naturally aligned with sustainability causes and labelled bonds are dedicated to specific sustainable project within a company or institution (Pham, 2016).

There is no formally conclusive standard for green bond issuance, however, green bond issuers typically follow the Green Bond Principles (GBP), which are voluntary guidelines established by International Capital Market Association (ICMA) with the aim to promote disclosure, transparency and reporting. These principles include the four components: use of proceeds, process of project evaluation and selection, management of proceeds and reporting. Taken together, the components specify what kind of projects that can be financed with green bonds, recommended communication from issuers to stakeholders and the importance of transparency throughout the process (International Capital Market Association [ICMA], 2018). In addition to the GBP, the Climate Bond Initiative has developed the Climate Bond Standards, in which the GPBs are fully integrated, as an easy tool for investors and intermediaries to use to assess the environmental integrity of bonds (Climate Bonds Initiative [CBI], 2019).

From a global point of view, the diversity of green bond structures is increasing, from encompassing mostly corporate and SSA bonds to now include for example asset backed securities, hybrids and perpetuals. The green bond issuers are also becoming more differentiated as we are starting to see green bond issuers from a variety of industries. Similarly, the development of different kinds of sustainable bonds has started to take place and new classifications of bonds such as social bonds and pink bonds have been issued (Climate Bonds Initiative [CBI], 2018).

Looking forward, more institutional investors are decarbonizing their portfolios and increasing the share of their investments that must be sustainable, as they regard the climate change as an increasing macroeconomic risk for the global economy. A recent example related to climate change risks is the bankruptcy of Pacific Gas & Electricity Insurance due to the wildfires in California, showing that the climate change will cause a future risk for companies in terms of climate disasters (St. John, 2019). Additionally, national regulations (for example the French energy transition law) impact the demand for green bonds. It is both desirable and likely that this kind of regulation, that promote development of sustainable markets, will increase in several countries in the upcoming years (Gianfrate & Peri, 2019).

2.2. The Swedish green bond market

Even though Sweden is a relatively small country, the Swedish green bond market is on the forefront compared to many other countries. Sweden and the other Nordic countries have a favorable market to issue green bonds as the Nordic countries lead by example when it comes to governance and policymakers focus on sustainability and social cohesion. Moreover, the Nordic green bond issuers are leading when it comes to promoting market integrity. They push investor standards and demonstrate best practice when it comes to external reviews. The Swedish green bond market accounts for 53% of the Nordic green bond market, however, there is still growth potential (Climate Bonds Initiative [CBI], 2018).

Sweden is among the top six largest (excluding supranational) in the source of labelled green bond issuance globally. The world's first commercial green bond was issued in November 2013 by a Swedish real estate company, Vasakronan, and the Swedish bank SEB acted as lead underwriter in the first ever green bond issuance. Furthermore, the world's first city green bond was issued by the city of Gothenburg in October 2013. Sweden has also been first within several other industries such as, Forestry & Paper, Wind Energy and Municipal Housing (Climate Bonds Initiative [CBI], 2018).

The Swedish green bond market is characterized by a dominance of government related issuers. Use of proceeds for the Swedish green bonds are to a majority renewable energy, low carbon buildings and clean transport (Climate Bonds Initiative [CBI], 2018). The Swedish Government Secretariat (Regeringskansliet) has published an investigation regarding the advancement of green bonds in Sweden, which includes aspects of improvements such as to increase the number if issuers and issuances, broaden the investor base, improve the efficiency of the green bond market and ensure the quality of green bonds. In order to preserve the value of green bonds and avoid 'greenwashing' the unilateral promotion of green bonds must be avoided as it will diminish the value of green bonds.

2.3. Literature review

Even though the literature on green bonds is constantly increasing, it is still somewhat limited and most of the academic work available addresses the investor side of the subject. Therefore, we will firstly cover literature focusing on the issuer side. Secondly, green bond premium, financial performance and risk aspects will be discussed.

Chiesa and Barua (2019) addresses the supply side, which they comment is equally important as the investor perspective when shaping the green bond market. They highlight the importance of a shift in financial capital towards more green solutions in order to achieve a more sustainable economy. When society and investors start to show more awareness and interest in sustainable solutions, it will place greater pressure on

companies to meet this demand as well. Therefore, from the issuer side, there is real value of obtaining a 'green image' and making strategic choices to maintain this image.

When investigating whether green bonds are as convenient as similar conventional bonds for the issuer, Gianfrate and Peri (2019) conclude that the green label has an impact on the bond pricing, which implies that green bonds, on average, are cheaper for the issuer than the conventional peer. Furthermore, they argue that it is still more convenient to issue a green bond than a non-green bond when taking the extra cost of green bond certification into consideration. From a similar issuer perspective Tang and Zhang (2018) studies if shareholders benefit from green bonds. Their study does not find a consistent green premium for green bonds and therefore suggests that positive stock returns around green bond announcements is not only driven by lower cost of debt, but rather it could be from increased institutional ownership and improved stock liquidity.

The idea that green bonds are more attractive than non-green bonds relate to the green bond premium. The results of Nanayakkara and Colombage (2019) shows that green bonds are traded at a premium compared to a comparable corporate bond issuance, suggesting that this green bond premium is made possible by the lower risk investment opportunity it provides for investors. This is an advantage for both investors who need to balance their portfolios with environmentally friendly options and issuers who seek funds for financing green investments. Supporting the argument that investors are attracted by the lower risk investment opportunity, Hoepner, Oikonomou, Sautner, Starks & Zhou (2018) find that engagement in environmental, social and governance (ESG) issues reduces firms' downside risk. The downside risk reflect negative price fluctuations and therefore long-term investors often tries to hedge against it.

Another study that examines financial performance and how it is affected by sustainability activities, in this case as corporate social performance, is done by Frooman, Zietsma and McKnight (2008). They study risk and corporate social performance and find that bondholders, who are long-term investors, benefit from sustained social performance since the risk they assume decreases with positive social performance. Because of the relationship between risk and return, companies that makes sustained investments in corporate social performance are likely to face lower costs of long-term debt capital. Similarly, Oikonomou, Brooks and Pavelin (2014) suggests that socially responsible investments can reduce the risk premia associated with corporate bonds and thereby decrease the cost of corporate debt. Likewise does Huang, Hu and Zhu (2017) propose that bond investors incorporate CSR in bond risk assessment since the relationship between CSR and the cost of bond is negative.

An additional benefit from issuing green bonds is that green bond issuance announcement has proven to increase media exposure dramatically and as investors have limited attention, visibility will matter for investors and shareholders (Tang and Zhang, 2018). Furthermore, issuers showing dedication to sustainable development will have a greater

chance of survival in the long run. The relationship between investor attention and its effects on financial markets is explored by Hong-Yi Chen and Te-Chien Lo (2019). Using Google Search Volume Index (SVI) as a proxy for investor attention, and changes in stock turnover, stock volatility and trading volume, their findings suggest that there is a significant positive correlation between investor attention and important indicators in the financial market. In addition, Joshua Madsen and Marina Niessner (2019) states that as ads or advertisement does most often not include any non-public information, the advertisement contributes as it inducts information-constrained investors to pay attention to a certain company and trade.

2.4. Theoretical framework

2.4.1. Capital structure and long-term borrowing

There are many sources of funds that companies can explore when seeking to raise capital by issuing debt and deciding on an optimal capital structure is important for the organization to grow and survive. Modigliani and Miller (1958) showed that the value of any firm is independent of its capital structure, however this only holds under perfect capital markets. Since markets are not perfect there are factors that will be important for the determination of a firm's debt-to-capitalization ratio, such as tax shelters, financial distress costs, pecking order and industry comparison (Berk and DeMarzo, 2017). The use of leverage varies across industries and firm characteristics are important both in determining the need of, and the access to long-term external financing. For example, large firms with high credit ratings will have access to more sources of financing at a lower rate. Additionally, in deciding on what source of finance to use, the characteristics of the investment being financed is important. The maturity matching principle relates to the duration of the investment and states that long-term assets should be financed with long-term sources of finance and short-term assets should be financed with short-term sources of finance, in order to minimize a firm's transaction costs (Berk and DeMarzo, 2017). Even though corporate debt is mainly discussed, it should be noted that not only companies use debt financing, also governments, municipalities and other local authorities do.

2.4.2. Fundamentals of bonds

The bond market is important for long-term capital supply. A bond is a debt contract between the issuer of a bond (the borrower) and the bondholders (the creditors) where the issuer borrows money from the holders for a specific time period in exchange for interest, which is either fixed or floating. The risk-return tradeoff states that there is a linear relationship between risk and return. As the risk of an investment increases, the potential return will also increase. Consequently, the potential return will decrease when the risk

decreases. The factors affecting the risk, and therefore the return, on bonds are related to maturity and default risk (Berk and DeMarzo, 2017).

2.4.3. Additional costs of issuing green bonds

There are some extra costs associated with issuing green bonds. Firstly, the issuer needs to prepare a new framework for the green bond issuance. Secondly, there are costs associated with additional reporting to investors. Many of the organizations who issue green bonds use an external viewer, for example CICERO, to provide an unbiased view of the green bond issuance. According to SEB, the extra costs associated with issuing green bonds amounts to approximately SEK 120 000 – 400 000, which is not such a large amount in relation to the average issue size, however it might still exclude smaller issuers from issuing green bonds (Kaminker & Sachs, 2018).

3. Hypotheses and brief results

3.1. Hypotheses

Based on the literature and examples discussed previously in this thesis we believe that there are several aspects affecting the issuers decision to issue green bonds. We have defined three hypotheses we believe have a good potential of explaining the underlying reasons for a firm's decision to issue a green bond on the Swedish capital market. The hypotheses are based on three different aspects; risk, return and branding.

Hypothesis 1. Firms will prefer to issue green bonds as they are seen to be less risky than non-green bonds.

It is suggested that investors incorporate CSR in their bond risk assessment since CSR and the cost of bonds has a negative relationship (Huang, Hu & Zhu, 2017). Furthermore, does engagement in ESG issues reduce firms' downside risk (Hoepner, Oikonomou, Sautner, Starks & Zhou, 2018), so firms' engaging in these issues should be more attractive for long term investors. The growing risk is also reflected in that an increasing number of institutional investors are redirecting their funds towards more environmental-friendly portfolios. In some cases, this demand has even been sustained by national regulators (Gianfrate & Peri, 2019). Taken together, green bonds have the potential of reducing the bond risk premium and attract more long-term investors, so firms will prefer to issue a green bond over a non-green bond because of the lower risk.

Hypothesis 2. The decision to issue green bonds will depend on the opportunity to receive cheaper financing.

Access to financing on good terms is important for firms in order to survive and grow and the cost of debt will ultimately impact the overall capital structure and the valuation of the firm. Some previous research shows that there is a financial advantage from issuing green bonds compared to a non-green bond. This means that issuers of green bonds will receive a lower cost of capital compared to non-green bonds (Nanayakkara and Colombage, 2019). Even when taking the extra cost of obtaining a green certification into account, the green bond will be more convenient for the issuer than a non-green bond (Gianfrate & Peri, 2019). In addition, there is also research suggesting that shareholders will benefit from green bond issuance in terms of announcement returns (Tang & Zhang, 2018).

Hypothesis 3. Branding and improved investor attention due to issuing green bonds is one of the main reasons for firms' decision to issue green bonds.

It has been shown that green bond issuances lead to increased media exposure and thereby also increased investor attention. As mentioned earlier, an indication that the market has paid attention to a green bond issuance is increased Google search volumes around event

days and an increase in institutional ownership (Tang & Zhang, 2018). This is beneficial both from the perspective of achieving a wider investor base with more responsible long-term investors and that less effort has to be spent on attracting investors to the issuance. In addition, from the issuer side there is a real value for firms in obtaining a green image as more awareness is paid to sustainable solutions by society and investors. (Chiesa & Barua, 2019)

3.2. Brief results

The survey results supported hypothesis 3 which states that branding, and investor attention is one of the reasons why companies or institutions choose to issue green bonds on the Swedish capital market. A majority of the respondents thought that marketing towards investors and showing sustainability commitment is an important aspect of issuing a green bond. Furthermore, the results show that many responders have an established way to work with sustainability prior to the green bond issuance. The results do not support hypothesis 1 & 2 which suggests that a potential cost advantage of issuing green bonds and a lower risk associated with these issuances are two underlying reasons that companies or institutions choose to issue green bonds. According to our results, this is not something that issuers considers to be the determining aspects when choosing to issue a green bond instead of a non-green bond. However, even if the result did not support hypothesis 1 & 2, it still contributed to answering our research question.

4. Method

4.1. Boundary

We have chosen to focus on the Swedish capital market as we found the characteristics of this market particularly interesting since Sweden has been on the forefront when it comes to green bonds. Further, the perceptions of the employers involved in issuing green bonds and their attitudes towards certain aspects, such as sustainability, may vary across countries. Therefore, this study will only focus on Sweden. However, the sample also includes some organizations with their business located outside of Sweden, but a majority of the respondents have their domicile in Sweden. The focus of this thesis will be on the issuer side of the green bond market as the research on this subject is limited and we believe that this paper can contribute to understanding the gap between supply and demand and how it can be met.

4.2. Survey design

This thesis builds upon data obtained by a survey method. We have chosen to use this method as the phenomena examined is to find the underlying reasons why firms choose to issue green bonds on the Swedish bond market. Firstly, up until today there has only been 61 companies that have issued green bonds on the Swedish capital market, the data available is limited which complicates the possibilities to conduct quantitative analyses on this subject. Secondly, some underlying reasons, such as branding, are difficult to measure by comparing companies based on key performance indicators.

In order to design the survey and gather a significant amount of answers to test our hypotheses we have based the survey questions on the theoretical framework and previous literature and designed the questions in accordance to recommendations presented on survey research methods by Ejlertsson (2014) and Floyd and Fowler Jr. (2014) and Hagevi and Viscovi (2016). The survey questions have been constructed with a design process in three steps, as recommended by Hagevi and Viscovi (2016). We started with risk, return and branding as the dimensions from which more specific variables were derived. Thereafter, questions where formulated with these variables as a foundation, in order to get relevant data enabling us to answer our hypotheses.

To increase the reliability of the answers and to avoid differences in interpretation, we formulated the questions according to the theories presented by Floyd and Fowler and Hagevi and Viscovi (2016). The theories highlight how to design questions to avoid multiple questions and poorly defined terms. Most questions are five-grade Likert-scale questions, as this measurement allows us to quantify the results to some extent and compare the answers in an efficient way (Floyd J. & Fowler Jr., 2014). There are also matrix questions, dichotomous questions, a multiple-choice question and an open

question in the end to give the respondents a chance to give their own view. The design process resulted in 15 questions (Appendix A). Several of them target the same subjects with different focuses to create a profound picture of the underlying reasons why firms choose to issue green bonds on the Swedish capital market.

4.3. Pilot project

To ensure that the survey questions are accurate and well defined, two primary steps were carried out before distributing the survey to the responders. After a draft of the questions had been produced, the draft survey was sent to an external person with insight into the subject to review the questions critically and contribute with objective input, mostly regarding the design of the questions, specific choice of words and overall clarity in the questions. The second stage of the pilot project included a cognitive laboratory interview with two representatives from Vasakronan whom both have been involved in issuing green bonds. Of the two representatives, one was from the sustainability department and one from the treasury department. We chose to conduct an interview with Vasakronan as they 2013 were the first in the world to issue a green corporate bond and today is one of the most frequent issuers of green bonds (Climate Bonds Initiative [CBI], 2018). The cognitive laboratory interview was conducted to understand how the survey responders will understand the questions and to find possible improvement areas in the survey.

4.4. Sample selection

To date, there has only been approximately 260 green bonds issued on the Swedish capital market by 61 issuers in total. Therefore, we have decided to send the survey to all companies that have issued green bonds on the Swedish capital market. Hence, the sample used is an availability sample which is a type of non-probability sample. To find all issuers of green bonds on the Swedish krona market, hence find the sample group, a set of data was collected from Bloomberg. All organizations that have issued a green bond on the Swedish capital market will be included in the sample since we want to obtain an understanding for the reason why issuers chose to issue a green bond on the Swedish capital market, regardless of industry.

4.5. Execution of methods

The survey was created through the online survey tool Qualtrics and then a link to the survey was distributed via email. Since there are only 60 companies that have issued green bonds in the Swedish capital market, we shared the survey with all of them. To limit the non-responses, we sent out an information email three days prior to the survey. In this way, the responders received information about the importance of their participation and they were able to find the most suitable person in the company to answer the survey. One

week after the survey was distributed, a reminder was sent to those who had not yet responded. This, in addition to the relatively short length of the survey with mostly Likert-scale answers, taking approximately five to ten minutes to answer, enabled us to minimize the non-responses.

There were 30 companies or institutions that answered the survey, which implies a response rate of 49.2%. In order to get more information about the characteristics of those who have issued a green bond on the Swedish capital market and the ones participating in the study, the data collected from Bloomberg which includes issuer characteristics was used. One relevant piece of information was about industry belonging of each issuer and what was classified as Business Class Level 2 was chosen. Below are examples of businesses included in each business class:

Agency: government guaranteed, government owned and government sponsored.

Industrials: basic industry, capital goods, communications, consumer cyclical and non-cyclical, energy, technology, transportation and other industrial.

Financial Institutions: banking, brokerage, asset managers, exchanges, finance companies, REITS and other financial.

Local Authority: cities and municipalities.

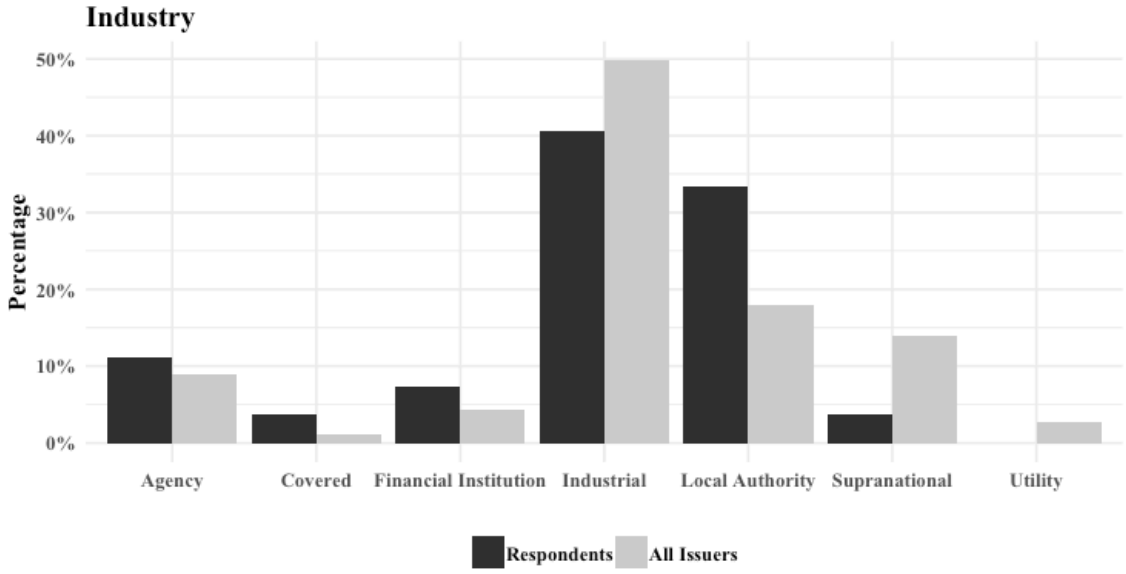
Covered: mortgage collateralized, public sector collateralized, and hybrid collateralized.

Supranational: e.g. the EU and the European Investment Bank.

Utility: electric, natural gas and other utility.

Amongst the responding issuers, a majority either belonged to the business classes Industrials or Local Authority and a minority from Covered and Supranational. However, a response rate of 49.2% means a proportion of the population is excluded, which may result in a nonresponse bias. Therefore, the percentage of issuers belonging to each industry considering the respondents and all issuers was plotted against each other (Figure 1). From this we can see that the distribution of respondents' industry belonging is fairly representative of the whole population. Though, local authorities are overrepresented, whereas Supranational and utilities is underrepresented.

Figure 1. Percentage of industry classification of issuers comparing respondents to all issuers.



4.6. Data analysis method

In this study, most questions were designed to have answers in form of Likert-type scales. The resulting scores from these questions were analyzed numerically using mean numbers to describe the central tendency of the survey respondents' answers. Standard deviation was used to find how much individual responses differ from the mean of all responses, and thereby determine to what degree respondents differ in their opinion. To give a better insight and find possible differences, the mean number of each of the industries the respondents belonged to was calculated. Graphs and tables were used to display and visualize the processed data. The survey data used in the analysis was downloaded from Qualtrics and processed in R together with the issuer characteristics data from Bloomberg. The aim of the analysis was to find out about the issuers' perception of what lay the foundation of their choice to issue green bonds.

4.7. Method criticism

When answering the questions, the responders will differ in their understanding of what the labels or categories mean which is an error we should take into consideration. Therefore, it is important to remember that the answers are relative to the other alternative answers and the purpose is to rank the events (Floyd & Fowler Jr., 2014). The survey questions were developed from what was considered as relevant for the hypothesis based on the literature reviewed and the theoretical framework. Therefore, there are aspects that

have been excluded which potentially could have been relevant for supporting or rejecting the hypotheses.

The limited sample size is a source for criticism and limits the application of our results to the Swedish green bond market. In addition, the fast evolvement of this market makes our results limited over time and our results will reflect the market as it is today. The limited sample size is especially a source of criticism and something we have to take into consideration when dividing and analyzing the answers according to which industry the responders are active in as this limits the answers in each division further. An attempt to deal with this has been made by looking at characteristics of the issuers and see how well those are represented in the population of survey respondents compared to all issuers.

A further source of criticism with the survey method is the potential subjectivity in the answers which is something to take into consideration when reviewing the survey results. The answers might also differ between responders as different people within the organization, with different insight into the green bond issuance, has answered the survey. When trying to make sure that the most suitable person within the various organizations participates in the survey, we highlighted this issue in the first information email we sent out and asked the recipient to forward the email to the most suitable person to answer the survey within the organization.

Lastly, we have chosen not to exclude any of the 61 firms that have issued a green bond on the Swedish capital market. As the survey seeks to find the fundamental reasons to why companies choose to issue green bonds instead of non-green bonds on the Swedish capital market, we wanted to include every company and institution in the sample. In addition, as this paper aims to contribute to how to facilitate for this market in the long-run and increase the green bond issuance of different companies and institutions, we found it appropriate to include the whole sample.

5. Results

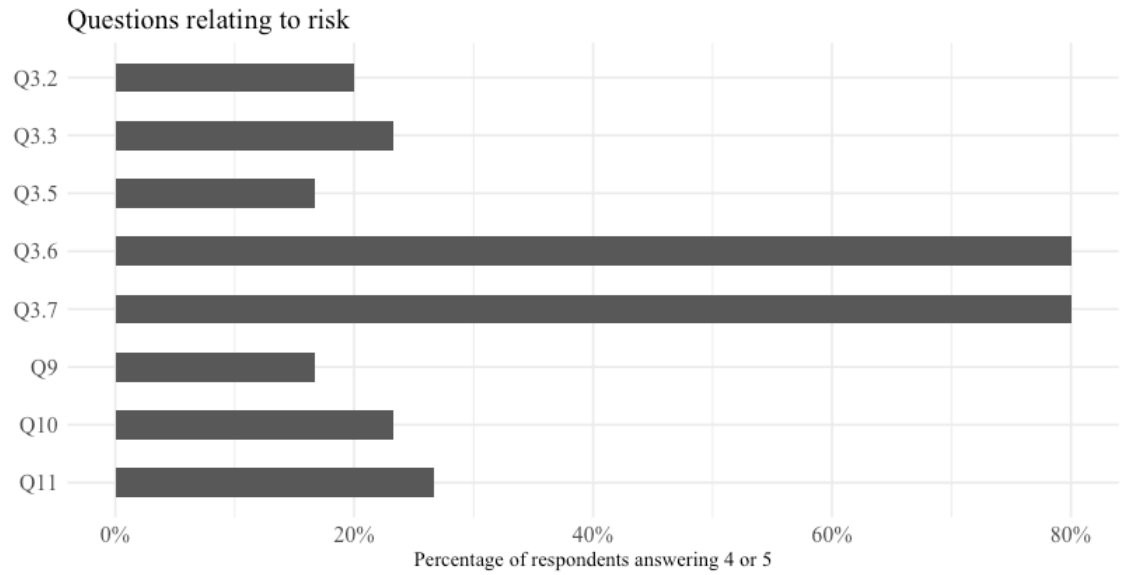
Table 1. Survey responses to Likert-scale non-matrix questions.

	Total		Mean by industry					
Question	Mean	SD	Agency	Covered	Fin. Inst.	Industrial	Loc. Auth.	Supranational
2	2.77	0.50	3.33	3.00	3.00	2.55	2.78	3.00
5	1.87	0.73	1.67	1.00	2.00	1.91	1.67	2.00
6	2.80	1.35	3.33	3.00	3.00	2.36	3.22	2.00
9*	2.60	1.12	3.50	5.00	3.50	2.20	2.29	2.00
10*	2.50	1.14	3.00	4.00	3.00	2.12	2.38	2.00
11	2.67	1.25	3.33	2.00	2.50	2.55	2.56	4.00
13	4.60	0.56	5.00	5.00	4.50	4.45	4.56	4.00
14	4.30	0.70	4.67	3.00	5.00	4.27	4.22	4.00

Note: Financial Institutions is abbreviated to Fin. Inst. and Local Authority to Loc. Auth. All questions are found in Appendix A. *Mean value for question 9 and 10 is for respondents who did not answer they were first among their peers.

5.1. Results hypothesis 1

Figure 2. Percentage of respondents who have answered 4 (important or to a great extent) or 5 (very important or to a very great extent) on questions relating to risk.



Note: All questions are found in Appendix A.

The survey questions concerning risk are question 2, 3.2, 3.3, 3.5, 3.6, 3.7, 9, 10 and 11. These questions are focused on factors related to either the risk green bond itself or the risk of the issuance. When the respondents were asked how risky their firm considered green bonds to be in comparison to non-green bonds (Q2), 70% considered green bonds and non-green bonds to have the same riskiness and 27% considered them to be less risky.

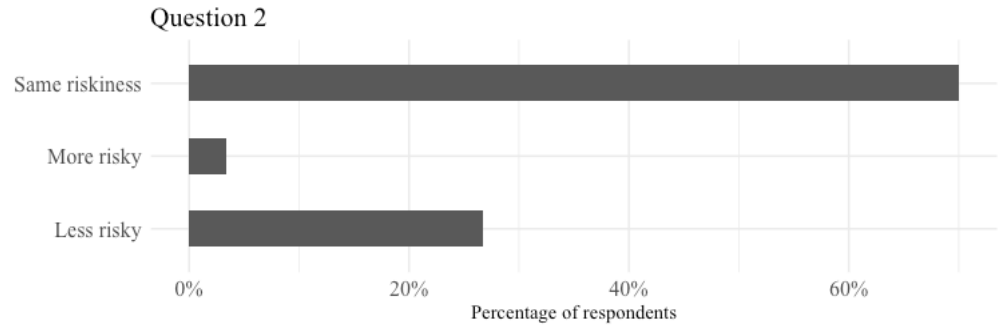
Table 2. Survey responses to question 3: How important was each of the following factors for your firm's choice of issuing a green bond instead of a non-green bond?

	Total		Mean by industry					
	Mean	SD	Agency	Covered	Fin. Inst.	Industrial	Loc. Auth.	Supranational
1) Cost advantage due to potential better pricing of green bonds	3.07	1.20	3.00	4.00	3.00	2.73	3.22	2.00
2) Enabling more long-term green financing	2.20	1.19	1.00	3.00	2.50	2.00	2.11	3.00
3) Benchmarking with peers	2.60	1.10	2.67	4.00	3.50	2.09	2.56	4.00
4) Marketing towards investors	4.00	0.95	4.33	5.00	3.00	3.91	3.67	5.00
5) Lower risk	2.23	1.25	1.33	1.00	1.50	2.18	2.56	2.00
6) The possibility to attract responsible long-term investors	4.13	0.97	4.00	4.00	5.00	4.27	3.78	4.00
7) The possibility to attract a wider investor base	4.20	0.85	4.33	4.00	5.00	4.45	3.78	3.00
8) Showing sustainability commitment	4.57	0.73	4.67	5.00	3.50	4.55	4.56	5.00

Table 3. Survey responses to question 12: How important does your firm consider the following aspects to be when issuing green bonds? (Rate each alternative according to your view)

	Total		Mean by industry					
	Mean	SD	Agency	Covered	Fin. Inst.	Industrial	Loc.Auth.	Supranational
1) To improve the sustainability strategy	4.03	0.89	3.67	4.00	2.50	4.36	3.89	4.00
2) To show dedication for sustainability	4.50	0.68	4.67	4.00	3.50	4.45	4.67	5.00
3) Get attention from new global investors	3.60	1.07	4.67	2.00	4.50	3.64	3.22	3.00
4) Media publication	3.03	1.00	4.00	4.00	2.50	2.91	2.78	3.00
5) Publications on the investors' channels	2.83	0.99	2.67	2.00	3.00	2.73	2.89	3.08
6) Publications on the intermediate banks' channels	2.93	1.05	2.67	3.00	2.50	2.91	2.89	3.00
7) To improve the relationship with current stakeholders	2.97	1.47	3.00	4.00	3.50	2.91	2.78	5.00
8) To attract new investors	3.90	1.06	4.00	4.00	5.00	3.91	3.56	3.00
9) To attract new employees	2.80	1.24	2.67	3.00	2.50	2.45	2.78	4.00
10) To position yourself as a more sustainable company	4.43	0.68	4.33	4.00	3.50	4.45	4.56	5.00
11) To get good PR	3.80	0.85	4.33	4.00	3.50	3.55	4.00	3.00

Figure 3. Survey responses to question 2: How risky does your firm consider the green bonds you have issued in comparison to non-green bonds?



When ranking the importance of factors for the firm's choice to issue a green bond instead of a non-green bond (Q3), those factors related to risk that were not considered to be so important were enabling more long-term green financing (Q3.2) that was seen as slightly important (mean 2.20), benchmarking with peers (Q3.3) as moderately important (mean 2.60) and lower risk (Q3.5) as slightly important (mean 2.23), on a scale from "not important" (1.0) to "very important" (5.0). Factors that stood out as more important were the possibility to attract responsible and long-term investors (Q3.6) which was seen as important (mean 4.13) and the possibility to attract a wider investor base (Q3.7) which also was seen as important (mean 4.20). When dividing the answers according to which industry the responders are active in, the answers differ mostly on question 3.2 and 3.3. While Agency considered enabling more long-term green financing by addressing maturity mismatch as not important (mean 1.0), Covered viewed this issue as "slightly important" (mean 3.0). When asked how important the respondents thought benchmarking with peers was, Industrials answered just above slightly important (mean 2.09) while Covered and Supranational considered this to be very important (mean 4.0).

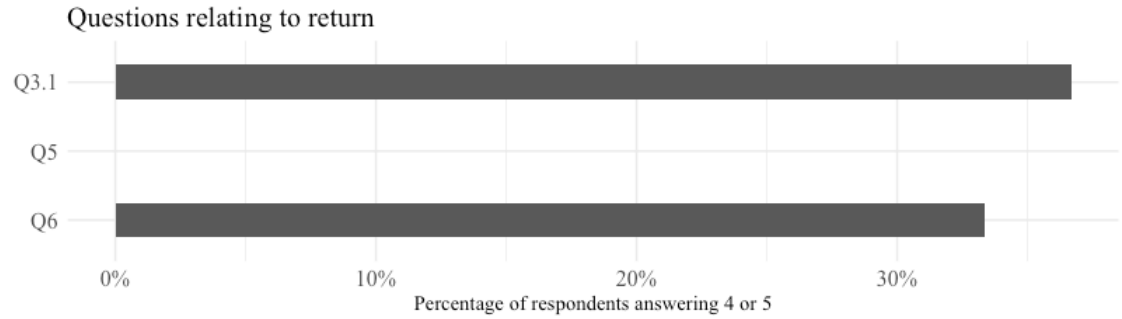
When asked to what extent comparison with industry peers affected the choice of issuing green bonds (Q9) 30% answered to some extent, which also was seen through the mean of 3.17. However, 20% answered not at all and about 17% were first among their peers. Question 10 also focus on the importance of industry peers, but this time to what extent it facilitated if an industry peer has issued a green bond. The majority of the respondents answered not at all, to a small extent or to some extent, 20% answered to a great extent and 20% that they were first among their peers. Covered ranked these issues higher, comparing their mean of 5.00 and 4.00 to the overall mean of 2.60 and 2.50 for question 9 and 10. These varying perceptions are reflected in the standard deviation being 1.12 respectively 1.14.

Focusing on possible future sustainability requirements that might impact firms, the respondents were asked to what extent they consider the expectations of future sustainability or ESG requirements to have influenced the choice of issuing a green bond (Q11). 50% answered either not at all or to small extent and the mean was 2.67 which is

just below to some extent, though Supranational ranked this to be important with a mean of 4.0.

5.2. Results hypothesis 2

Figure 4. Respondents who have answered 4 (important or to a great extent) or 5 (very important or to a very great extent) on questions relating to return.

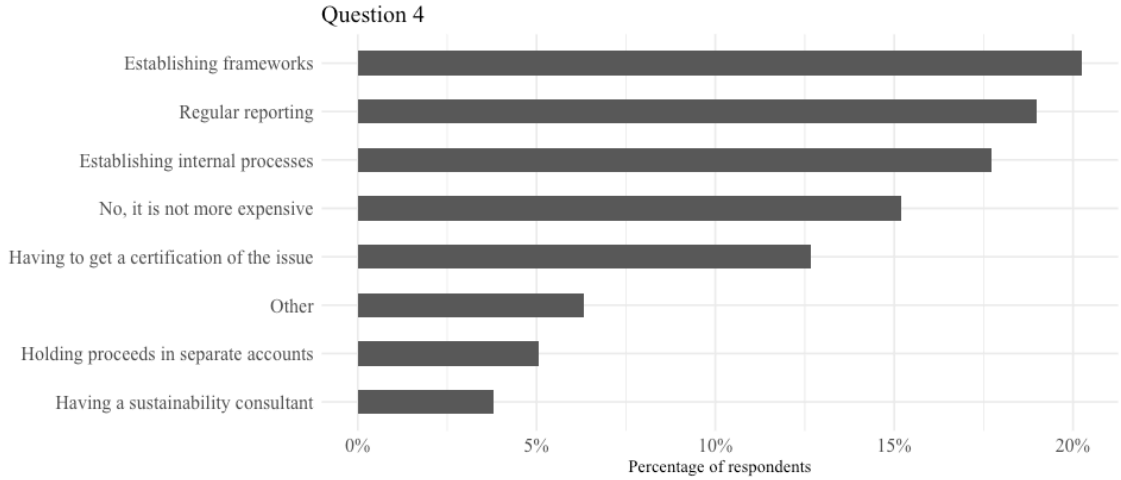


Note: All questions are found in Appendix A.

The survey questions concerning potential financial advantages of issuing green bonds are question 3.1 and 4-8. These questions target on one hand the potential green premium and costs concerning setting up a green bond framework and additional reporting costs and on the other hand a potential increase in stock price when announcing the green bond issuance.

When the survey participants ranked the importance of a cost advantage due to potential better pricing of green bonds (Q3.1), the mean answer was 3.07, which is just above "moderately important". When dividing the answers according to industry, the groups that stood out was Covered with a mean of 4.0 (important) and Supranational with a mean of 2.0 (slightly important). Question 6 also targets the importance of a potential green premium when deciding whether to issue a green bond or a non-green bond. In this case, the importance of a price premium was on average only 2.8, which is a just below "moderately important". However, the standard deviation is 1.35 which makes the answer more uncertain.

Figure 5. Survey responses to question 4: How important was the possible green bond premium when evaluating to issue a green bond or not?



When asked whether the issuers consider it to be more expensive to issue a green bond compared to a non-green bond, and if so, what factors made it more expensive (Q4), a majority of the responders had experienced it to be more expensive. Only 15.2% did not consider it to be more expensive to issue a green bond compared to a non-green bond. Of those who thought it was more expensive, 20.3% considered the cost of establishing new frameworks contributed to the additional costs, 19.0% thought regulatory reporting contributed and 17.7% considered the cost of establishing internal processes increased the cost. The respondents also had the choice to write themselves what factors made it more expensive (Appendix C), leading to comments such as:

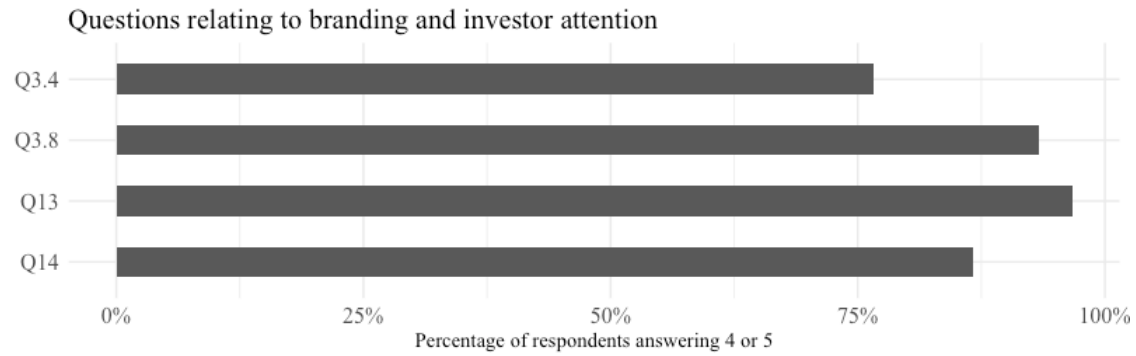
> "It is more expensive in terms of more man-hours, especially the first year. But with our volume, I'd say maybe 1-2 points lower interest rate and knowledge sharing internally between finance, environment and investment compensates for it."

When asked if the survey participants thought the potential green premium made up for the additional cost (Q5) 14 respondents answered no, 10 answered yes and 6 answered that it does not apply.

The questions targeting a potential increase in stock price when announcing their first green bond issuance and if this potential increase was something the responders had interpreted beforehand (Q7 & Q8), only 3.5% of those who were listed on a stock exchange (approximately 31%) had noticed an increase in stock price. However, none of the responders had interpreted this increase in stock price beforehand.

5.3. Results hypothesis 3

Figure 6. Respondents who have answered 4 (important or to a great extent) or 5 (very important or to a very great extent) on questions relating to branding and investor attention.



Note: All questions are found in Appendix A.

The survey questions targeting the issuers potential branding incentives are question 3.4, 3.8, 12 (Table 2), 13 and 14. The answers to question 3.4 and 3.8, where the responders were asked to rank how important they considered different factors to be when choosing to issue a green bond, shows that green bond issuers consider marketing towards investors (Q3.4) to be "important", with an average of 4.0, Furthermore, they regard showing sustainability commitment (Q3.8) as very important with an average answer of 4.57.

Question 13 and 14 target the overall sustainability commitment in the institution that have issued a green bond. For question 13, asking to what extent projects financed with green bonds are aligned with the overall goals, the mean answer was 4.60, which is between "to a great extent" and "to a very great extent". The mean for question 14 concerning to what extent sustainability is incorporated into the daily business was 4.30.

When answering question 12 the respondents were asked to rank the importance of 11 different aspects concerning showing sustainability commitment towards investors and improving the sustainability work in the organization. The question that have a mean above 4.0, which is "important", was question 12.1 "to improve the sustainability strategy", 12.2 "to show dedication for sustainability" and 12.10 "to position yourself as a more sustainable company". The aspects that seems to be the least important and ranked on average lower than 3.0, which is "moderately important", where question 12.5 "publications on investors' channels", 12.6 "publications on intermediate bank channels", 12.7 "to improve the relationship with current stakeholders" and 12.9 "to attract new employees". The industries that stood out with a lower mean than average, when answering question 12, where Financial Institutions that had a mean of 2.5 (Q12.1) and Covered with a mean of 2.0 (Q12.2). Furthermore, the industry that have a higher mean than the average answer was Supranational that have a mean of 5.0 on question 12.7 and

a mean of 4.0 on question 12.9. Question 12.7 have a standard deviation of 1.47, which is higher than for the other questions, indicating the different views on the importance of “to improve the relationship with current stakeholders.

6. Analysis

6.1. Analysis hypothesis 1

By just considering the questions concerning risk, our hypothesis that firms will prefer to issue green bonds as they are seen as less risky than non-green bonds seemed wrong since 70% of the respondents experienced green bonds to have the same riskiness as non-green bonds. In addition, lower risk was ranked as being slightly important when deciding to issue a green bond. When asking the responders about factors affecting risk in a bond, which mostly relate to maturity and default risk, enabling more long-term financing by issuing green bonds was seen as slightly important. However, both the possibility to attract more responsible long-term investors and a wider investor base were perceived by respondents to be important. This is in line with previous research suggesting that green bonds can help enlarge the investor base and increase the institutional ownership.

We believed comparison with industry peers would be important for firms and that it would facilitate if an industry peer had issued a green bond before them and thereby had set an example, since there is no determined framework or standards to follow when issuing green bonds. That said, this does not seem to be the case as a majority of the respondents answered that it did not facilitate to a great extent if an industry peer had issued a green bond before them. So even if the green bond market has a limited number of issuers, the respondents do not seem to experience a difficulty or a risk in this.

Green bonds are becoming more attractive to investors and even national regulators have started to form regulations from a sustainability perspective. However, 50% of the respondents considered the expectations of future sustainability and ESG requirements to have influenced the choice of issuing a green bond to a small extent or not at all. This indicates that this risk factor was not one of the main motivations for issuing green bonds.

In conclusion, considering the survey questions relating to risk, what stood out as important to issuers was the possibility to attract more responsible long-term investors and a larger investor base. Though, these aspects are more indirectly related to risk and green bonds are not perceived as less risky than non-green bonds. Therefore, we do not have support for our hypothesis that firms will prefer to issue green bonds as they are seen to be less risky than non-green bonds.

6.2. Analysis hypothesis 2

The answers to the question regarding a potential green bond premium are only to some extent in line with our hypothesis and the research articles suggesting that there is a cost advantage of issuing green bonds. Even if some issuers experienced a cost advantage, this does not seem to be one of the main reasons for issuers to issue a green bond instead of a

non-green bond since the average response to the question concerning the importance of a green bond premium was 2.8, which is just below moderately important. In addition, a majority of the responders did not experience that a potential better pricing made up for the additional costs associated with green bond issuance. This strengthens the argument that potential cheaper cost of financing is not one of the main reasons that firms or institutions chose to issue green bonds.

A majority of the respondents experienced it to be more expensive to issue green bonds due to factors such as having to establish frameworks and conduct regular reporting. However, a third thought the cost advantage coming from the green premium made up for the extra external costs and when giving the chance to freely express their views on the matter, opinions such as even though it is more time consuming and expensive there are benefits such as better control, cooperation and knowledge sharing that compensates for it. Therefore, it seems like there are other considerations in addition to the cheaper financing some firms believe compensates for the extra cost of issuing a green bond. As one of the respondents also mentioned that a 1-2 points lower interest rate is part of compensating for the extra expense, there is some recognition of that an opportunity of cheaper financing can be part of the choice to issue a green bond.

Furthermore, some studies suggested that the cost advantage or opportunity to receive better return on investments might come from an increase in stock price when announcing the first green bond issuance. According to our results, this is not something that a majority of the firms had experienced. In addition, none of the responders had interpreted an increase beforehand, which indicated that an increase in stock price has not been one of the reasons that an issuer chose to issue a green bond instead of a conventional bond.

All things considered, additional costs are associated with green bond issuances and a majority of the issuers do not believe that a potential green bond premium or an increase in stock price has made up for these. Therefore, our results point towards that a financial advantage is not one of the main reasons why issuers chose to issue green bonds.

6.3. Analysis hypothesis 3

In contrast to the responses on the questions regarding hypothesis 1 and 2, the responses concerning the questions targeting marketing towards investors, branding and sustainability commitment stands out as more clearly showing that those matters are important for the issuers. The answers show that marketing towards investors and showing sustainability commitment were seen as important and very important, respectively, by issuers. Moreover, when asked how important certain aspects were when issuing a green bond, to improve the sustainability strategy, attract new investors, get attention from global investors, get good PR and position as sustainable company were considered important, whereas showing dedication for sustainability was ranked as very important. These answers are in line with hypothesis 3 suggesting that companies or

institutions desire to brand themselves as sustainable firms or institutions and marketing towards investors is important for the decision of issuing a green bond. The findings are supported by previous literature suggesting that green bond issuance leads to increased media exposure and investor attention, with the benefit of attracting a wider investor base.

Even if marketing towards investors is considered important, publications on certain channels was not considered as important since publications on investors' channels and intermediate bank channels was only considered as moderately important. Neither improving relationships with stakeholders nor attracting new employees was seen as being of great importance, indicating the focus is on branding overall and showing sustainability commitment rather than on relationships with specific stakeholders.

Sustainability commitment as an important factor for many firms is supported by the answers suggesting that respondents considered the projects they have financed with green bonds to be in line with their overall goals to a very great extent. Additionally, they experienced that sustainability is incorporated to a great extent into their daily business. The implication from these answers is that the firms that have issued green bonds on the Swedish capital market have a high overall sustainability commitment at the time of the green bond issuance.

In conclusion, issuers consider marketing towards investors and positioning themselves as sustainable as being of importance when issuing a green bond. This result supports our hypothesis that branding and improved investor attention is one of the main reasons why firms choose to issue green bonds.

6.4. Industry differences

When analyzing the answers subsequently to dividing them according to which industry the issuers are active in, we notice some differences from the previous results. This indicates that there might be some differences in the underlying reasons to why organizations choose to issue green bonds depending on which industry the issuer is active in. For example, Supranational take the possibility of future sustainability and ESG requirements more into account than the average issuer and those classified as Covered consider the potential cost advantage of issuing a green bond to be more important than the average issuer. However, the sample size used in this survey is not large enough when dividing the respondents into different industries, leading to that answers might be somewhat biased as there are only a few respondents representing the whole industry for some categories. Therefore, there is not enough explanatory value provided to make conclusions about specific industry behavior other than that differences seem to exist.

7. Discussion

7.1. Potential explanations and implications

Having analyzed the underlying reasons to why companies choose to issue green bonds on the Swedish capital market it is interesting to discuss the implication of the results. All things considered, the choice mostly depends on the opportunity for the issuer to position themselves as a more sustainable organization and receive increased investor attention, which supports hypothesis 3 and is in line with previous research. The findings however suggest that the issuers of green bonds seem to already have an established way to work with sustainability within their organization and that the project financed with a green bond often is well aligned with their overall business. This in addition to the perceived importance of marketing towards investors and improving the image of a sustainable company implies that green bond issuers on the Swedish capital market see this as one of the most beneficial aspect of a green bond issuance. By showing sustainability commitment, the issuer can display alignment with the investors values and indicate that they value a long-term perspective in their business. This is in line with previous studies highlighting the importance for companies to obtain a green image as society and investors shows more interest in sustainable solutions (M. Chiesa & S. Barua, 2019) and the increased media exposure coming from a green bond issuance to attract new investors (Tang & Zhang (2018)). The benefit of increased investor attention, especially from global investors, and having to put less effort into marketing was also discussed in the pilot project.

The potential financial advantage of issuing a green bond, being the foundation of hypothesis 2, does not seem to be particularly important for the issuers since most respondents did not experience that the green premium made up for higher external costs of a green bond issuance. According to Nanayakkara & Colombage (2019) green bonds are traded at a premium compared to a comparable non-green corporate bond issuance. Though, since the premium is hard to determine it is difficult for issuers to quantify the cost advantage. The fact that the Swedish market is relatively small with limited green bond issuances and small issue sizes makes it especially difficult to quantify the potential green bond premium. This was something that was brought up to discussion in our pilot project, since Vasakronan has not yet issue a green bond and a non-green bond at the same time it is hard for them to determine the exact size of the green premium. As the green bond market matures and the research on this topic increases, it will hopefully be easier for companies to determine the financial advantage and take it into consideration.

The risk aspect of green bonds was not found to be an important factor for green bond issuance from the issuer's perspective with most issuers considering green bonds to have the same riskiness as non-green bonds, leading us to rejecting hypothesis 1. This is not consistent with the statement that green bonds should provide a lower risk investment

opportunity for investors (Nanayakkara & Colombage, 2019) and it might be that the risk factor is more important from the investor perspective. The relationship between risk and return implies that lower risk should lead to lower cost of issuing debt. Though, since the firms does not seem to take the potential cheaper financing into consideration, the lower risk investors see in green bonds might not be a motivation for firms to issue green bonds.

Considering the findings of Hoepner, Oikonomou, Sautner, Starks and Zhou, (2018) that firms engaging in ESG issues are more attractive for long-term investors due to the reduced downside risk, our result is somewhat surprising. The idea behind hypothesis 1 that green bonds have the potential of reducing the bond risk premium and attract more long-term investors is supported by previous research, although according to the study, issuers will prefer to issue green bonds over non-green bonds to increase investor attention rather than lower risk. If investors see green bonds as more attractive than the issuers does, it is a potential explanation to the gap between supply and demand for green bonds. Issuers not seeing a significant financial advantage can also contribute to the understanding of why it is mostly organizations with sustainability already incorporated into their business being the ones to issue green bonds. Only positive marketing effects might not be enough incentive for firms to redirect their business towards sustainability. Tough, since the sample only consists of issuers of green bonds, the attitudes of those who have not yet issued green bonds is not a part of the study and so only speculations can be made.

7.2. Limitations and improvements

The small sample size makes it difficult to divide it into sub-samples to draw significant conclusions about for instance the role of industry classification. An idea could therefore be to study the European market instead to increase the sample. However, that would come with hardships such as difficulties from differences in market characteristics across countries. For example, concepts of sustainability and green finance are in different development stages across nations within the European market. Another consideration regarding the sample selection is the choice of only including issuers who have issued a green bond in Swedish krona, which excludes issuers with their domicile in Sweden who have issued green bonds in other currencies.

Hypothesis 1 and 2 could not be supported, however they could not completely be rejected since parts of them received support. Therefore, it would be interesting to study the topics of financial advantage for issuers from green bonds issuance and the issuer perception of the risk profile of green bonds further. We propose that due to their level of complexity another method than a survey, such as in-depth interviews, should be used to get a deeper understanding of these aspects.

This paper has analyzed three potential underlying reason (risk, return and branding) to why companies or institutions chose to issue a green bond instead of a non-green bond.

These could have been expanded to include other potential underlying reasons as well to attain an even deeper understanding for why organizations choose to issue green bonds on the Swedish capital market.

7.3. Contribution

The research on green bonds are increasing as the green bond market is growing, however not much has been written from the issuer perspective. Therefore, this paper contributes by adding to the understanding of the benefits for the firms issuing green bonds. It confirms that an increased media attention and an enlarged investor base is valued by the issuer. However, it is contradicting in the sense that previous studies suggesting that there is a financial advantage of issuing green bonds, which this paper does not support. This contradiction highlights the need of further research on the impact of green bonds on the issuing firm, considering the fact that it seems to be a difference between previous studies and the knowledge and perception of issuers. Though, this study is solely focused on bond issuers who have issued green bonds and therefore no comparison to firms who have not issued green bonds could be made. Performing a similar study with a sample of similar firms who have and who have not issued green bonds would provide more clarity to both what factors are important for the decision of issuing green bonds and the reasons for choosing to issue a non-green bond over a green bond.

Green bonds are oversubscribed and there is a need for more sustainable finance in order to reach the goals set up by the Paris agreement. To meet this demand, the market must be developed further and increased knowledge regarding the issuers contributes to the understanding on how to make the market more efficient.

8. Conclusion

This study is one of the few to take an issuer perspective to study green bonds and look into the underlying reasons for firms to issue green bonds. The relevance of this lies in that there is a greater interest from investors to invest in green bonds, compared to the supply of green bonds from issuers. The Swedish market is interesting to study since it is in the top of labelled green bonds and include issuers and intermediaries being part of the first issuances of green bonds. Previous research has shown that there are several advantages for green bond issuers, such as a potential financial advantage and increased media and investor attention around the green bond issuance. Our study adds to green bond research by exploring the issuer side further to better understand how issuers perceive these benefits and what the underlying reasons for why firms choose to issue green bonds.

The analysis is based on an online survey sent out to all the 61 issuers of green bonds on the Swedish capital market and had a response rate of 49.2%. The results suggest that the main reason why firms decide to issue green bonds is the increased investor attention it brings and the opportunity of positioning the organization as more sustainable and showing sustainability commitment. In addition to branding and investor attention, we hypothesized that two other underlying reasons for firms' decision to issue green bonds are that green bonds are seen to be less risky than non-green bonds and the opportunity to receive cheaper financing through green bonds. These hypotheses are supported by previous research by Nanayakkara and Colombage (2019) and Gianfrate and Peri (2019), but did not find support in our study. This gap between research and attitudes of issuers could be an interesting topic for further research to provide insights on how to increase the incentives for green bond issuances and thereby increase the amount of sustainable finance.

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10. Appendices

Appendix A. Survey questions

1) Please write the name of your employer.
2) How risky does your firm consider the green bonds you have issued in comparison to non-green bonds? (Select the alternative you agree the most with)
3) How important was each of the following factors for your firm's choice of issuing a green bond instead of a non-green bond?
    1. Cost advantage due to potential better pricing of green bonds
    2. Enabling more long-term green financing by addressing maturity mismatch
    3. Benchmarking with peers
    4. Marketing towards investors
    5. Lower risk
    6. The possibility to attract responsible and long-term investors
    7. The possibility to attract a wider investor base
    8. Showing sustainability commitment
    9. Other, please specify:
4) Is it more expensive for your firm to issue green bonds than issuing non-green bonds? If yes, what factors makes it more expensive? (Select the alternatives you agree the most with)
5) Have your firm experienced that a difference in pricing between green and non-green bonds made up for higher external costs of issuing a green bond compared to a non-green bond?
6) There are theories suggesting that investors are willing to pay a green bond premium when investing in green bonds. How important was the possible green bond premium when evaluating to issue a green bond or not? (Select the alternative you agree the most with)
7) Did you notice an increase in stock price when announcing your first green bond issuance?
8) Was an increase in stock price something you had interpreted before announcing the issuance of your first green bond?

9) To what extent did comparison with your industry peers affect your choice of issuing green bonds? (Select the alternative you agree the most with)

10) To what extent did it facilitate for your firm if any of your peers had issued green bonds before you? (Select the alternative you agree the most with)

11) To what extent did your firm consider the expectations of future sustainability/ESG requirements to have influenced the choice of issuing a green bond? (Select the alternative you agree the most with)

12) How important does your firm consider the following aspects to be when issuing green bonds? (Rate each alternative according to your view)

    1. To improve the sustainability strategy
    2. To show dedication for sustainability
    3. Get attention from new global investors
    4. Media publication (on e.g. Dagens Industri or Bloomberg)
    5. Publications on the investors' channels (such as their website or LinkedIn)
    6. Publications on the intermediate banks' channels (such as their website or LinkedIn)
    7. To improve the relationship with current stakeholders
    8. To attract new investors
    9. To attract new employees
    10. To position yourself as a more sustainable company
    11. To get good PR

13) To what extent are the projects that you have financed with green bonds aligned with the overall goals of your firm? (Select the alternative you agree the most with)

14) To what extent is sustainability incorporated into the daily business of your firm? (Select the alternative you agree the most with)

15) Is it something else you like to add regarding why you have chosen to issue green bonds?

Table 1. Target aspect of each survey question

Q1	General	Q5	Return
Q2	Risk	Q6	Return
Q3.1	Return	Q7	Return
Q3.2	Risk	Q8	Return
Q3.3	Risk	Q9	Risk
Q3.4	Branding	Q10	Risk
Q3.5	Risk	Q11	Risk
Q3.6	Risk	Q12	Branding
Q3.7	Risk	Q13	Branding
Q3.8	Branding	Q14	Branding
Q3.9	General	Q15	General
Q4	Return		

Appendix B. Complementary survey response figures

Figure 1. Survey responses to question 5.

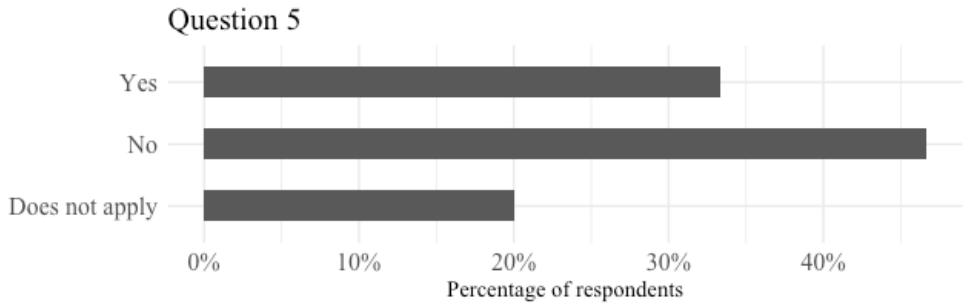


Figure 2. Survey responses to question 6.

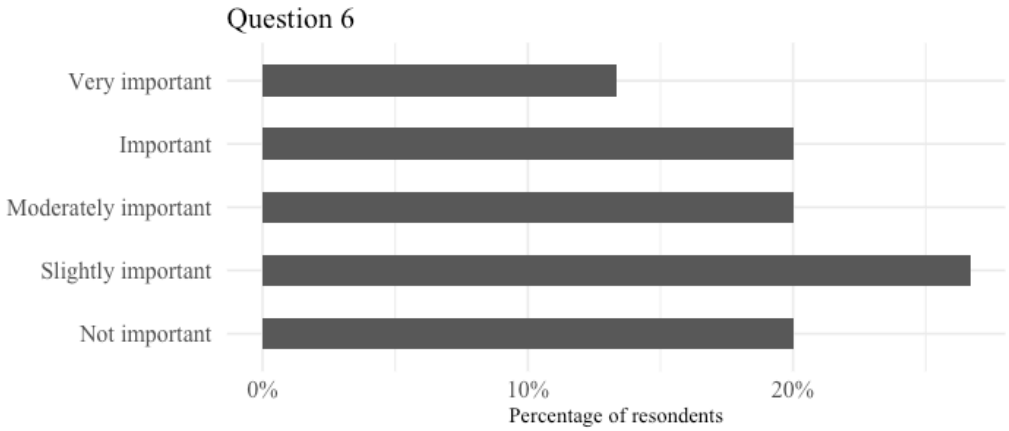
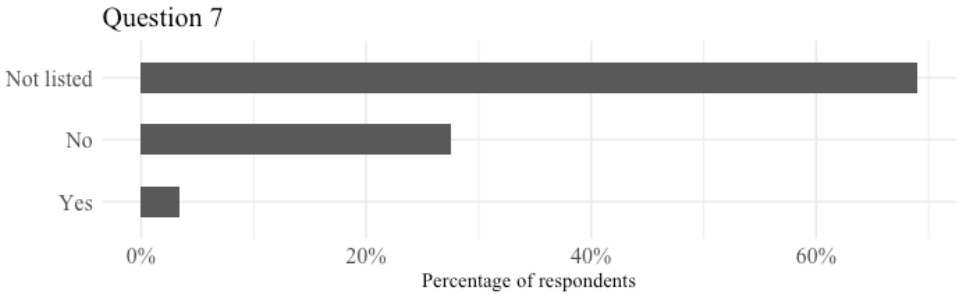
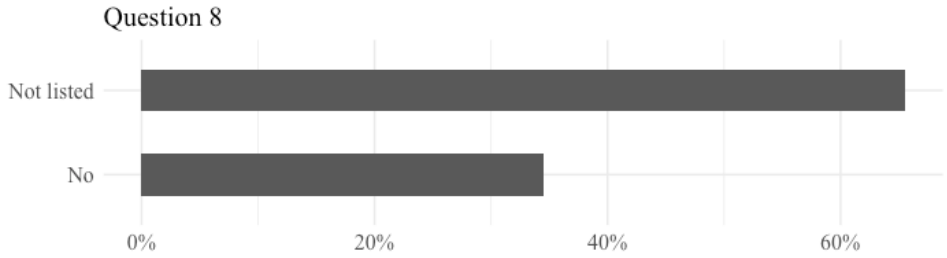


Figure 3. Survey responses to question 7.



Note: One survey participant did not give an answer to this question, so the percentages are based on those 29 who gave an answer.

Figure 4. Survey responses to question 8.



Note: One survey participant did not give an answer to this question, so the percentages are based on those 29 who gave an answer.

Figure 5. Survey responses to question 9.

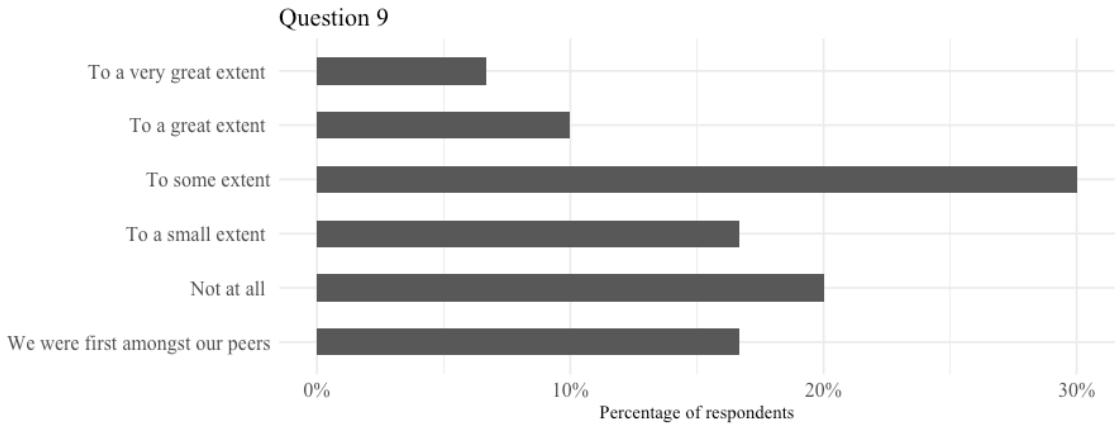


Figure 6. Survey responses to question 10.

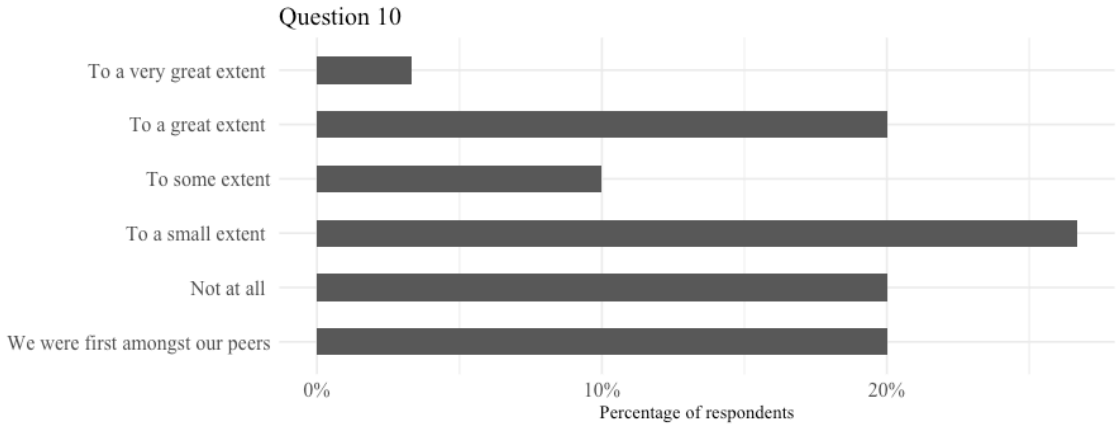


Figure 7. Survey responses to question 11.

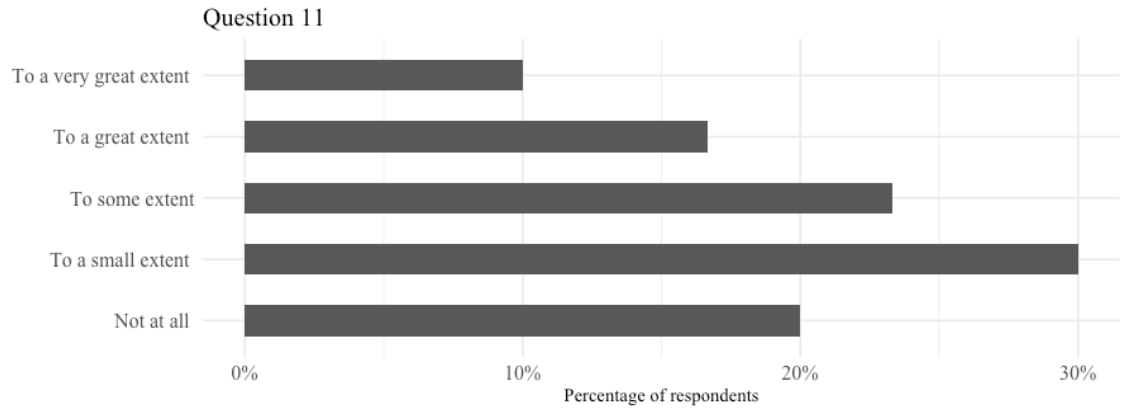


Figure 8. Survey responses to question 13.

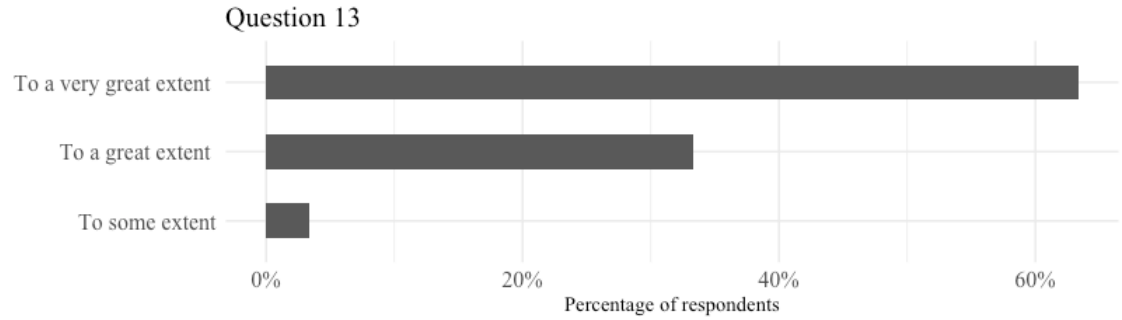
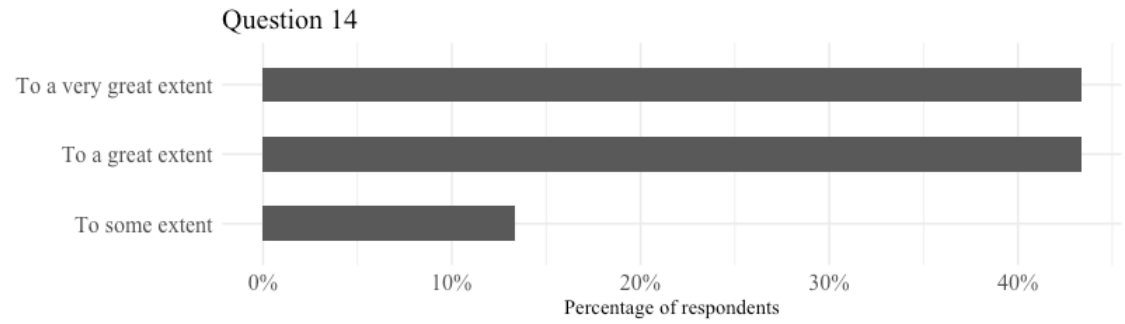


Figure 9. Survey responses to question 14.



Appendix C. Answers to open questions

Table 1. Answers to open question

Question 3.9
To act in alignment with our climate strategy.
Securing long term availability of capital.
Question 4.8
It takes more time but the advantage is better cooperation and control.
Additional Marketing.
It is more expensive in terms of more man-hours, especially the first year. But with our volume, I'd say maybe 1-2 points lower interest rate and knowledge sharing internally between finance, environment and investment compensates for it.
The buildings are more expensive to build.