ESG Integration in Norwegian Fixed Income

Norwegian fixed income and ESG integration – Theory and practice

norsif

Norsif Working Group for ESG
in Fixed Income
September 2018

Table of Contents

Acknowledgements **4**

Executive summary **5**

Literature review **8**

The Norwegian fixed income market is unique **34**

ESG investment practices in Norwegian corporate fixed income **38**

How do the unique characteristics of fixed income instruments affect the ESG approach chosen? 38
ESG issuer analysis 40
Bondholder engagement 47
Special situations - restructuring 49
Effects of ESG integration in fixed income 51
Conclusion 52

Acknowledgements

As members of the Norsif working group on ESG in fixed income investing, the three of us began this project with the aim of understanding how investors tailor their ESG approach to the unique characteristics of the Norwegian fixed income market. We quickly realized that this was going to require more than a simple questionnaire. As a result, we are heavily indebted to the wisdom of the experts in this field, the portfolio managers who know the Norwegian fixed income market inside and out. We would like to thank our interviewees from the following institutions for taking the time to share their insights, as we could not have carried out this project without your help:

- Arctic Fund Management AS
- Danske Capital AS
- DNB Asset Management AS
- Folketrygdfondet
- Gjensidige Forsikring ASA
- Holberg Fondsforvaltning AS
- KLP Kapitalforvaltning AS
- Nordea Investment Management AB
- Oslo Pensjonsforsikring
- Pareto Asset Management AS
- Storebrand Asset Management AS

At the same time, we wondered whether existing academic research might provide us with inspiration on evidence-based practices, some much-needed myth busting, or at a minimum, clarify areas for future research. Professor Bruno Gerard accepted our challenge to critically examine the existing literature – pulling no punches – rather than tell the responsible investment community what we want to hear. The result is a refreshing, independent assessment that we have included as a standalone section to this report.

Thank you to Norsif for financial support and for assisting us in contacting potential interviewees. Lastly, special thanks to the fixed income teams at our respective workplaces for valuable feedback and suggestions throughout the process.

All errors in the report are our own.

Oslo, September 2018

Annie Bersagel
Folketrygdfondet

Marte Siri Storaker
KLP Kapitalforvaltning AS

Karl G. Høgtun
DNB Asset Management AS

Executive summary

The goal of this report is to not to offer a one-size-fits-all solution for ESG investing in the Norwegian fixed income market. Rather, our aim is to understand why and how investors approach ESG risks currently, and whether the academic literature can offer any evidence that investors can draw upon in continually refining our responsible investment strategies.

In our experience, materials produced for a global audience tend to be less relevant for the Norwegian market. For example, both credit ratings and ESG ratings coverage are often unavailable for many Norwegian issuers. We needed a tool adapted to the specific characteristics of the market. To address this deficiency, we conducted in-depth interviews with Norwegian fixed income portfolio managers, both to learn about the market and about how investors currently approach ESG in their investment process. In addition, we commissioned a literature review on ESG in fixed income from Professor Bruno Gerard (BI Norwegian Business School), which focuses on global academic studies of high quality.

Motivations for incorporating ESG in fixed income investment

From the discussions with Norwegian investors, there seem to be a range of motivations for Norwegian investors to incorporate ESG in their investment process, from a simple box-ticking exercise of compliance with internal guidelines to investors that emphasized ESG as a competitive advantage. Others cited a responsibility to encourage good corporate behavior. The most common motivation for ESG integration is to better understand the downside risk and receive better risk-adjusted returns. The academic evidence reviewed directly relating corporate ESG performance and bond values, returns, and risk is limited, and does not yet allow for broad conclusions. Nevertheless, there is evidence that a focus on ESG can be useful in limiting downside risk from bond investments. This is consistent with the observations of our interviewees, who often cited the risk from negative ESG events as a motivation for considering ESG in their investment approach.

The literature review found some evidence that an approach to stock picking with an ESG tilt generated higher risk-adjusted returns in the 1990's, when ESG investment was at an early stage, but that these gains may have been arbitraged away by 2009-10. For the fixed income market, in which ESG investment is still in its infancy, it is unclear whether this advantage may still exist – if it ever did. This question was at least implicit in the response of one Norwegian investor interviewed, who explained the firm's ESG integration as a strategy to gain an edge at an early stage.

Pre-investment ESG analysis

Few of the investors we interviewed had a systematic approach in place for integrating ESG.

The process focused mainly on assessing financial risk, and some of the risk factors identified could fit under the ESG umbrella. The investors with a structured approach to ESG integration were clear that they saw the potential to increase returns by better understanding risk. As a result, they included ESG analysis in their credit risk assessments.

The academic literature finds a correlation between firms' ESG performance and their financial performance, valuation and risk – at least from an equity perspective. For fixed income, the upside is limited, however, so it is unclear whether these studies are directly applicable. A related key issue is identifying which ESG factors are likely to be material. These factors are likely to vary by industry. In the Norwegian market, with more limited ESG ratings coverage, investors usually need to make this assessment individually.

The Norwegian market is small and that there are many repeat players among issuers and investors. The investment grade universe consists of companies that operate in highly regulated industries in Norway: mainly small financial institutions and hydropower firms. Companies in the high yield market tend to have operations that are more international, more lightly regulated, and that face more significant ESG risks. By definition, high yield issuers face a higher risk of default, and portfolio managers routinely evaluate company risks. Do they recognize and understand material ESG risks as well?

Although fixed income investment focuses on material ESG in the context of downside risk, none of the interviewees indicated that they operate with a fixed-income-specific set of material ESG factors. Rather, the ESG factors investors deemed material varied by industry. A key finding from both the academic literature and the interviews with Norwegian investors is the importance of governance. The portfolio managers interviewed had come furthest in their assessment of governance risk (compared to environmental and social risk). This way of thinking about management and ESG risks corresponds with the "good manager hypothesis" discussed in the literature review. Professor Gerard's literature review found evidence that companies with better governance (fewer agency problems) tend to be more financially resilient in response to negative ESG events, and experience stronger tailwinds from positive ESG events.

In addition, a key focus among Norwegian fixed income portfolio managers is the legal framework for restructuring situations. Several bondholders noted that Norwegian bankruptcy law is inadequate to ensure an efficient restructuring process. A consequence is perhaps an even higher focus on governance considerations in the Norwegian market.

All interviewees focused primarily on analysis pre-investment. One highlighted the usefulness of the review made by third parties when assessing risks in connection with issuance of a green bond. Flammer (2018) suggested that issuance of a green bond might serve as a commitment to good ESG conduct, leading to increases in short and long-term value. Perhaps issuing green bonds can create more risk awareness in a company. It also hints at a problem when integrating ESG in fixed income analysis: company or project-specific ESG risk information is often not readily available for portfolio managers. As noted above, Norwegian issuers tend to be small players in an international context. Their often limited reporting can be a barrier for achieving a high rating from large sustainability rating firms, assuming they are rated at all. Portfolio managers generally found little value in ESG ratings for Norwegian issuers, preferring to rely on direct company information from road shows, meetings and financial reports.

Returns to engagement

Compared to equity investment, Norwegian fixed income investment focuses more on the primary market, typically prioritizing engagements ahead of new debt issuances. A key focus in the engagement process is ensuring the fulfillment of minimum ESG criteria, as well as a general assessment of a range of governance issues. In addition, extensive regular follow-up is more prevalent for high yield portfolios than for investment grade investments.

An interesting finding from the literature relates to evidence that investor action that improves firm ESG performance is associated with an increase in stock values –and hence, indirectly, in bond values, through collateral value. The investors interviewed focused primarily on ESG analysis and engagement prior to investing, rather than post-investment engagement, noting the limited rights of bondholders compared to shareholders. Determining whether and how we can extrapolate the academic results on shareholder engagement to bondholders is an open question.

At any rate, the bondholders interviewed did not believe their lack of ownerships rights was a barrier to corporate access. This might be unique for the Norwegian market as there are many repeat players and it is important to maintain a good reputation – particularly if the issuer intends to return to the capital markets for refinancing.

The way forward

Both the interviews with portfolio managers in the Norwegian market, as well as Professor Bruno Gerard's literature review, suggest ESG integration in fixed income is still in its infancy. Although there is much to draw upon from research and experience with ESG integration in equity investments, this report highlights the benefits of a more nuanced approach that recognizes the specific characteristics of fixed income investments and of the Norwegian fixed income market in particular. As investors, we need more information on identifying and assessing material ESG risk factors, understanding how these may affect downside risk, and determining whether and how bondholders can limit risk by engaging with issuers to improve ESG performance – or even including relevant clauses in loan agreements. We hope this report will inspire academics, investors, service providers and analysts to explore these questions further.

The first step is to understand where we are today.

Literature review

ESG and SRI in Fixed Income: A Critical Review

Bruno Gerard [1]

August 7, 2018

ABSTRACT

We review the literature on ESG and fixed income investments. Most of the academic research is focused on the link between corporate CSR and ESG activities, investors' SR engagement and stock returns and firm value. Very few studies examine the link between firm ESG policies and bond prices, risks and returns, and the performance of SR FI funds. The studies linking CSR to firm value suggest that higher CSR leads to higher corporate value, higher equity returns and lower risk, enhancing the general collateral value of the firm. The FI income studies seem to suggest that the link between issuer ESG scores and bond prices and return characteristics is mixed: the bonds of issuers with both excellent and very poor ESG behavior tend to underperform the bonds of issuers with neither very strong or very poor ESG scores. Lastly, while issuer ESG excellence may have led to their bonds outperforming bonds of poorer ESG issuers in the 90's, that out-performance halved in the first part of the 2000's and completely disappeared after the financial crisis. Markets seem now to largely price ESG performance in bond prices.

JEL classification: G11, G28, G34, M14

Keywords: Fixed Income, Bonds, Green Bonds, SRI, CSR, ESG.

[1] This study was partially funded by NORSIF. The work has benefited from detailed comments and suggestions of Karl Høgtun, DNB Asset Management, Annie Bersagel and Joakim Kvamvold, both from Folketrygdfondet, and Marte Siri Storaker, KLP. Gerard is with BI Norwegian Business School, Oslo Norway; phone: +47 4641 0506; email: bruno.gerard@bi.no.

Since the mid 1980s, academic researchers have widely documented the importance of good corporate governance for firm short and long-term financial and economic performance. More recently, increased awareness of the public costs of ecologically harmful private behavior has led to increased regulations and penalties for poor environmental stewardship. Similarly, concerns about social responsibility have taken greater prominence for corporate investors, stakeholders and regulators. This has led to the formulation and broad adoption of the UN PRI 6 Principles for Responsible Investment[2] as guidelines to the investment management industry on how to balance social responsibility and fiduciary duty. Further guidelines, more specifically targeting fixed income investors, were formulated in 2014.

The literature refers to two related but slight different concepts: Corporate Social Responsibility (CSR) or Environmental, Social and Governance (ESG) performance. CSR encompasses the first two elements of ESG, the environmental and the social conduct of the firm. ESG combines the environmental and social impact of the firm with its Corporate Governance performance. Hence, ESG is CSR plus Governance. In the remainder of the discussion, I will persistently distinguish between the ES and the G of ESG. Mutual and investment funds that include some or all ESG concerns in their investment selection are generically called Socially Responsible (SR) funds. The label covers a variety of approaches that run from simply excluding sin stocks to incorporating a detailed weighing of E, S, and G scores in the investment decision.

To assess the link between investment performance and CSR and G scores, it may be useful to consider four related questions:

1. How does a firm's CSR and/or G performance affect its (equity) value, its financial performance, and its equity risk return trade-off? Answering this first questions may help us assess whether screening for CSR and G characteristics may help equity portfolio performance. A related issue is whether investment funds that actually screen on the basis of CSR and G perform better than their non-screening competitors.

2. How does an investor's action to enhance the firm she holds' CSR or G characteristics affect the returns on her shareholdings? Answers to this question may help evaluate whether active

[2] Principles 1 to 3 deal explicitly with ESG concerns and specify that signatories will incorporate ESG in their investment decision process and in their ownership policies, and will seek ESG disclosures from the entities they invest in. (see: https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment)

ownership may enhance an investment manager's portfolio returns.

3. How does a firm's CSR and/or G performance affect its debt value, its credit risk, and its bond risk return trade-off? Evidence on this third issue may help us assess whether screening for CSR and G characteristics may help bond portfolio performance: In this case as well, a related issue is whether FI funds screening for CSR and G characteristics provide a more attractive performance for their investors.

4. How does a creditor's action to enhance the CSR or G characteristics of the firm she lends to affect the returns on her bondholdings? Answering this last question may help assess whether active bondholder engagement may enhance the bondholder's returns.

Throughout the review, I will mark papers with one, two or three stars, with three stars indicating highest score, to mark the academic quality of the journals where the paper is published[3], or if the paper is still unpublished, the quality and reputation of the authors and of the conferences where the papers have been presented. Included in this assessment is my evaluation of the soundness and quality of the analysis presented.

The rest of the review proceeds as follows. Section I provides a background discussion the link between CSR and G characteristics and firm value and equity performance, as well as of the benefits of active engagement. Section II discusses the link between a firm's ESG performance and its credit risk and bond value. Section III describes the evidence about SRI bond funds. Section IV discusses the impact of ESG on down-side risk. We review the literature on Green Bonds in Section V. Section VI concludes.

I. CSR, G and firm value

This section briefly discusses the economic mechanisms linking corporate governance and CSR to firm value and equity returns. While not directly focusing on debt value, the links between ESG policies and firm value are important, since, if a firm's ESG conduct affects its value, it also affects

[3]Typically, only a very small subset of all academic journals are deemed of very high quality. For business and finance research, the list of publications used by the Financial Times to rank business school research quality (see https://www.ft.com/content/3405a512-5cbb-11e1-8f1f-00144feabdc0) is representative of a broad consensus among academics.

the general collateral value of the firm's activities backing the firm's payments to its bondholders We discuss the CSR and corporate governance separately and their joint effect. Lastly we briefly review the evidence on SRI equity mutual funds.

A. Corporate Governance and equity value

The economic arguments in favor of improved corporate governance are simple: good corporate governance reduces agency problems, improves the alignment of manager and shareholders objectives, thus enhancing the long-term prospects and the value of the firm. The empirical evidence strongly supports this view and is too numerous to review here. Two recent works illustrate the evidence. Bebchuk, Cohen, and Ferrell*** (2009) show that poorer governance as measured by the higher managerial entrenchment variable recorded in the governance provisions of the In-vestor Responsibility Research Center (IRRC), is related to lower firm value and lower returns. Moreover they document that investing in low entrenchment firms leads to positive risk adjusted returns. Gompers, Ishii, and Metrick*** (2003) using the same governance indices from IRRC for a larger sample of firms, show that the 10% of the firms with the strongest corporate governance outperformed the lowest 10% firms by 8.5% a year over their sample period. Firms with stronger shareholder rights have higher profits, higher sales growth, and lower capital expenditures, which translate in higher market value.

B. Corporate Social Responsibility and firm value

The economic arguments in favor of CSR are similar but less straightforward: high CSR scores suggests managerial concern with long term sustainability and hence should signal higher long term shareholder value and returns. This is "the doing well by doing good" argument. However, achieving high CSR scores might require large expenditures, significantly affecting short term and perhaps long-term firm profitability. Although this might enhance the reputation of the firm and its managers, the costs of improved CSR immediately affect the bottom line, while the benefits might be quite uncertain and far in the future. Improved CSR is attractive only as long as the costs are lower than the expected benefits in terms of future profitability and returns. Friedman (1970) famously claims that the "social responsibility of business is to increase its profits."

The economic arguments supporting a positive link between CSR are of two types and can be summarized as the "good company" and the "good management" hypotheses. According to the first, building good relationships with primary stakeholders by addressing their legitimate interests through CSR, generates reputational capital for the firm, which enhances corporate valuation through improved profitability and/or lower loses under adverse events (see for example Hillman and Klein**, 2001).

The "good management" hypothesis suggests that implementing appropriate and effective CSR policies signals high managerial quality, because it is a complex task that requires balancing the claims of multiple stakeholders groups and assessing the explicit and implicit costs and benefits of the firm CSR policies (see for example Waddock and Graves**, 1997). Higher managerial skills may lead to more effective use of the corporate assets, higher profitability and higher value. Greater ability at balancing the interests of different stakeholders may also signal lower agency problems between management and shareholders, enhancing value.

The evidence about the link between firm value and CSR activities is mixed. In a meta-analysis of 214 research papers, Margolis, Elfenbein and Walsh** (2011) find a positive but small effect of CSR on corporate financial performance. Further, they find that this positive relation weakens in the later periods, while the negative impact of revealed social or environmental misdeeds increases. But most studies covered in the analysis fail to deal properly with the issue that a firm decision to engage in CSR activities correlates with unobservable firm characteristics that may also affect firm profitability (in statistical terms, an "endogeneity problem") and hence, their evidence amounts only to a positive correlation between CSR and corporate financial performance, with no indication of a causal link.

In one of the first papers to provide more rigorous evidence on a possible causal link between CSR and firm value, Dowell, Hart and Yeung** (2000) examine whether firms voluntary adopting rigorous environmental standards enhance their value. In a sample of US based multinational enterprises operating in resource extraction and manufacturing in developing markets, they find that firms adopting a single stringent global environmental standard have higher market values than firms adopting either the US statutory standards worldwide, or poorly enforced host country standards.

Subsequent work examined whether the CSR status of acquiring and target firms enhanced the returns of mergers and acquisitions. The evidence suggests that high CSR acquirers make better deals for all involved, and high CSR targets are better deals for the acquirer. Deng, Kang and

Low*** (2013) study a sample of 1,556 completed US mergers for which the Kinder, Lydenberg, Domini Research & Analytics (KLD) ESG ratings are available for the acquirer. They find that acquirers with high CSR ratings have significantly positive announcement returns and post merger returns and operating performance. Further, they document than acquisitions initiated by high CSR firms are more likely to succeed and are completed in less time that acquisitions by low CSR firms. They also document a positive impact on other stakeholders' wealth. Aktas, de Bodt and Cousin** (2011) examine the impact of the *target* CSR ratings on the acquirers's gain from the transaction and find that acquirers' gains are positively related to the target CSR score. Moreover they document that the acquirer CSR scores improve after the acquisition of an SRI aware target.

Kruger*** (2015) identifies 2116 precisely dated positive (574) and negative (1542) ESG events between 2001 and 2007 for 745 US companies from the KLD database, and examines the stock performance around the day these events become public. He finds that negative events have a strong negative impact on stock value, more so for environment and community related events. Over the 21 days following the public disclosure of the event, the median loss in shareholder value is $76 million. Further, Kruger documents that, on average, investors respond weakly negatively to positive events. However, he finds that positive events that follow earlier negative events and positive events for firms with lower agency problems, are valued more positively. Lastly, events with stronger legal or economic implications generate sharper stock price responses.

Ferrell, Liang, and Renneboog*** (2016) use the MSCI IVA ratings[4] for more than 7,000 companies world wide over the 1999-2011 period to investigate the link between CSR, agency problems and firm value. They find that companies with lower agency problems engage in more CSR . Moreover, they document a stronger positive link between CSR and firm value for low agency problem firms. Their evidence supports the “good manager” hypothesis.

A weakness of many of the studies reviewed, is that there is a large number of alternative measures of CSR, with great variations in specificity and informativeness. Several organizations, both for profit and non-profit, construct and disseminate disaggregated and aggregate CSR measures for companies and countries. However, there are no standards on how to compute them nor consensus on which measures should be considered, which are material, or how they should be combined.

[4] MSCI IVA ratings combines a company's different ESG scores using an industry specific wheighing into an aggregate company rating on a scale form 1 to 7.

Hence, all studies that evaluate the links between CSR scores and firm or investment performance suffer from a classical joint hypothesis problem, namely, they always test jointly (a) that a CSR measure is related or not related to financial performance, and (b) that the chosen CSR score actually measures material CSR performance. An empirical finding of no relation between a spe-cific CSR measure and financial performance might reflect the fact that either CSR does not affect performance, or that the CSR measure chosen does not properly reflect material CSR performance. Combining the results of studies which use many alternative CSR measures with different levels of materiality may lead to biased conclusions about the impact of CSR. This issue is examined in a set of recent papers by Serafeim and various coauthors[5] (Khan, Serafeim, Yoon**, 2016; Serafeim and Grewal*, 2017, Grewal, Hauptmann, Serafeim**, 2017.) For the six (out of ten) broad industry classifications for which they are available, Khan, Serafeim and Yoon** (2016) use the Sustainability Accounting Standards Board (SASB) assessment of which dimensions of CSR are material for firms in each industry to classify the different elements of KLD scores as material or immaterial. They then construct portfolios of stocks of firm with high rank and portfolios of stocks with low rank on either the material or the immaterial scores. They document a significant difference in post ranking returns between portfolios with high and low "material" scores, but no difference in post ranking returns when the portfolios were constructed based on the scores on the immaterial elements. These results suggests that different elements of the KLD scores matter differently for different industries, and that aggregate scores may dilute important differences between firms. The investigation covers the period 1992 to 2013. Unfortunately, the sample includes only about 200 firms each year for the first 10 years and jumps to more than 1000 firms a year in the last 10 years of the sample. Hence the average characteristics of the firm included in the investigation are likely to change significantly from the first half of the sample period to the later period. The tests fail to take this into account, which significantly weakens the inferences we may draw from the evidence[6]. In a related paper, Grewal, Hauptmann, and Serafeim** (2017) use the same SASB industry specific materiality criterions to classify US firms' voluntary ESG disclosures reported on Bloomberg as material or immaterial for

[5] See also Dorfleitner, Halbritter and Nguyen* (2015).

[6] Moreover, Margolis et al. (2011) and Ferell et al. (2016) report that while there is evience of a positive link between CSR and performance, it weakens in the more recent periods. Hence, one would like to know whether the results reported by Khan et al. (2016) are robust when considering only the last 10 years of their sample, when the numbers of firm with available data is large.

a sample of 1291 firms from 2007 to 2015. They find that SASB-identified material disclosures improve stock price informativeness, while non-material disclosures, or disclosures in compliance with standards that do not focus on shareholders (like GRI standards) do not. Further, material disclosures have a stronger impact on stock price informativeness for firms with higher exposure to sustainability and for firms with more institutional and SR investors. In contrast, Serafeim and Grewal*, 2017, find that disclosure scores constructed by a large asset owner[7] without explicit consideration of materiality convey no information about future financial performance. Moreover, a higher disclosure score is related to greater negative media attention concurrent and subsequent to the disclosures. In contrast, measures of climate change performance are significantly related to future financial performance, the more so for firms with higher climate change risk exposures. These results are to be taken with caution since inclusion in the set of firms monitored for disclosure and performance was not completely systematic and the monitoring performed intermittently.

C. CSR and G screening and fund performance

The impact of SRI and ESG objectives on mutual fund performance is at best mixed. Most studies find very little performance difference between SRI equity funds and their conventional counterparts (e.g. Renneboog, Ter Horst and Zhang**, 2008a; Renneboog, Ter Horst and Zhang**, 2008b). Moreover, constructing an asset-weighted composite CSR score for a sample of 2,168 US equity funds (irrespective of whether they claim to be SRI or not) over the period 2003 to 2011, El Ghoul and Karoui** (2017) document that higher CSR scoring funds have poorer and more persistently poor performance than their low CSR scoring counterparts.

Studies that investigate the performance of simulated CSR based strategies (in contrast to actual fund performance) suggest that it may be possible to construct portfolios based on ESG scores that outperform the market or portfolios of stocks with low scores. Derwall et al.** (2005) construct global portfolios of high environmentally rated stocks and find that they outperform the market benchmark by 4% and a matching portfolio of low rated stocks by 6% over the 1995-2003 period. Statman and Glushkov** (2009) find similar results for US companies over the 1992 to 2007 period using ratings provided by KLD. However, Halbritter and Dorfleitner* (2015) using three rating providers and a sample period from 1990 to 2012, show that, for all three ratings, the return advantage of highly rated portfolio over a lowly rated portfolio, is large and positive in the

[7] These scores were constructed by Norges Bank Investment Managerment (NBIM.)

1990 to 2001 period, is about half as large in the 2002 to 2006 period and disappears completely in the most recent subsample from 2007 to 2012. This suggests that the corporate value and profitability implications of high ESG performance may now be fully reflected in stock valuations.

D. The returns to active engagement

Investors and asset owners face a further issue: even if better ESG performance may improve firm value, does it pay for the asset owners to actively engage with management to effect changes in corporate ESG policies. Such engagement activities might be costly, and the benefits limited or uncertain. Direct evidence on this issue is limited. Two papers address this issue head on. Kim and Lyon** (2011) show that the companies in the Financial Times Global 500 that responded to institutional investor pressure to participate to the Carbon Disclosure Project experienced increased shareholder value when the likelihood of climate change regulation rose. Dimson, Karakas and Li*** (2015) examine an extensive sample of 2,152 SR engagements with US public companies between 1999 and 2009 by a large asset manager with a history of SR engagement predating the start of the study period by 15 years. They find that CG engagements are more successful than ES engagements, and that large, mature, poorly performing firms with inferior governance are more susceptible of successful engagement. Moreover they find substantial positive abnormal returns to successful engagement, but most of these gains arise from corporate governance actions and engagements focusing on climate change. They also document that successful engagements lead to improvements in the target firm's operating performance and profitability, a reduction in its stock volatility, improvement in governances scores, and increased institutional ownership. Overall, the evidence they report suggests that successful engagements enhance stakeholder value and often shareholder value as well, and do not destroy value when they are not successful. These results critically depend on the initiator of the engagements (the provider of the database), as it clearly limited its engagement to companies that had clear and measurable ESG weaknesses, and were experiencing poor performance that made them more sucesptible to investors' suggestions. While this investigation is carefully conducted, its main limitation is that it is a case study of one SRI investor, with extensive experience in engagements prior to the start of the sample period.

More recently, Flammer*** (2015) examines the impact of CSR shareholder proposals on firm value. Her sample includes 2729 CSR shareholder proposals made to S&P 1500 companies from 1997 to 2012. Most proposals fail, but average support rose from about 9% in the first half of the sample to about 17% in the later half. To avoid the endogeneity problem, she only examines close-call proposals, that is, the proposals that were defeated with more than 45% of the votes in favor, and the proposals adopted with less than 55% of the votes. She finds that adoption of a close-call CSR proposal has a positive effect on stock value, on subsequent years' operating performance and that the positive effect is larger for companies with lower CSR scores prior to the vote. Lastly, she finds that the close-call proposals are more likely to address either employee welfare, or the mitigation of environmental hazards.

II. ESG and bond value

In this section, I review the links between ESG and bond value and performance

A. Corporate Social Responsibility and credit risk

A few academic studies have examined the effects of CSR behavior, especially environmental performance, on corporate bond yields. Menz* (2010) focuses on European corporate bond market and finds that socially responsible firms incur a greater credit spread than non-socially responsible companies, although the result is only marginally significant. In contrast Stellner, Klein and Zwergel** (2015) show that good CSR systematically reduces credit risks. Similarly, Bauer and Hann** (2014), show that for a large cross section of US public companies, strong environmental performance is associated with a lower cost of debt. Oikonomou, Brooks and Pavelin* (2014) show that good CSR performance is rewarded via a lower yield and poor CSR scores are positively correlated with credit risk on US corporate debt. Ge and Liu* (2015) investigate the impact of CSR disclosure on the new issue discounts of corporate bonds issued in the US primary market and document that firms reporting favorable CSR can issue new bonds at a premium to those that have lower CSR scores. Attig, El Ghoul and Guedhami* (2013) document a positive correlation between a firm's credit rating and its CSR score, and find that the components of CSR that relate to primary stakeholder management matter most. This suggests that CSR performance provides important information that rating agencies are likely to use in evaluating creditworthiness. Shi and Sun* (2015) examine the effect of CSR on the number of bond covenants, and find that bonds issued by high CSR score borrowers include substantially fewer covenants that bonds of low CSR borrowers.

Hoepner and Nilsson* (2017b), investigate whether a bond portfolio strategy based on the ESG ratings of the issuing company has merits. They collect prices and returns on 5240 bonds issued by 425 companies over the period January 2001 to December 2014 and the annual KLD scores for the issuing companies. They find that portfolios of bonds of issuers with either strong or weak KLD scores both underperform portfolios of bond issued by companies with neutral scores. The evidence suggests that both issuer ESG strengths and concerns negatively affect bond returns, and that bonds from issuer with neither ESG strengths or weaknesses perform best. Unfortunately the bond return data used is estimated from quotes and not transaction prices.

B. CSR and G joint effect on bond value

The joint effect of aggregate G and CSR on bond value, borrowing rates and issue yields is unclear, and the research on this topic is limited, and perhaps not of the highest quality. Hoepner et al.* (2014) use the Oekom[8] country and firm sustainability ratings to examine the link between bank loan rates and borrower characteristics for 470 loan facilities across 28 countries. They find that while the borrower's country sustainability scores are primary drivers of loan rates, borrower specific sustainability scores do not. The implications of the study are not straightforward, as, on one hand, nearly half the loans involve US borrowers, and the authors do not control for this in their empirical exercise, and second, there is a very high correlation between a country risk rating, its rule of law and investor protection scores and the Oekom county sustainability rating (indeed, some of the indicators used by Oekom as input component of their country sustainability scores are also input components of the country risk rating) and no attempt is made in the paper to isolate the purely ESG component of the country sustainability scores, unrelated to the country's risk and legal system scores.

From a theory point of view, improvement in corporate governance reduces the agency problem between shareholders and managers. But if managers act more as shareholders would want, that may worsen agency problems between managers and bondholders, and affect bond values negatively. However, if appropriate CSR behavior signals "good managers" who appropriately balance the

[8] Oekom researc AG (recently acquired by Investor Shareholder Services (ISS)) is one of the leading global independent sustainability rating agency. KLD, now MSCI-ESG and Sustainalytics are two others. Thomson-Reuters and Bloomberg aslo provide CSR scores, and RepRisk a ESG risk score (RepRisk is available through Thompson Reuters and has a partnership with ISS).

interests of all or most stakeholders, then improvement in governance may benefit shareholders at the detriment of bondholders for low CSR companies, while for high CSR companies, such improvements might benefit both shareholders and bondholders. I am unaware of any empirical investigation of this issue at this date.

III. ESG and bond returns

This section evaluates the published evidence on the link between bonds and bond portfolio returns and the ESG ratings of the bonds issuers. In one of the first published studies, Derwaal and Koedijk** (2009) examine the performance of socially responsible fixed income and balanced mutual funds. They document that, over the period from September 1987 to march 2003, the performance of US SR bond funds matches that of their non-SR competitors, while SR balanced funds outperformed their non-SR peers by about 1.3% per year. Since the SR funds fees were similar to their peers, the evidence suggests that these funds perform no worse and at best do slightly better than their non-SR aware peers. Although this study is one of the first to evaluate the impact of ESG criterions on fixed income funds returns, it suffers from a very small sample: only 16 FI and 9 balanced funds were identified as SR out of a sample of several thousands funds. Hence the results should be taken with great caution.

In a more recent study, Henke** (2016) examines the performance of 38 US and 65 Euro-zone SR bond funds over the period from January 2001 to December 2014. The study documents that SR bond funds outperform their non-SR peers by about 25 basis points a year in the US, and about 50 basis points in the Eurozone. Strikingly, this out–performance mostly accrues in recession periods (as determined by the NBER), as the SR funds underperform their peers in non-recession periods. Moreover, the difference between Eurozone and US funds can be linked to a greater difference in aggregate ESG scores of the bonds by European funds relative to their non-SR peers[9]. T h i s evidence is consistent with the hypothesis that high ESG scores reduce downside risk.

Leite and Cortez* (2018) focus solely on SR fixed income and balanced funds available to retail investors in France and Germany. They cover 28 bond funds and 23 balanced funds (37 available in France and 14 in Germany) from early 2002 until the end of 2014. In contrast to Derwaal and

[9]Interestingly, the aggregate ESG scores of the non-SR funds are very similar in the US and Europe. However, European SR-funds have a substantially higher ESG scores than their US peers.

Koedijk** (2009), they find that balanced SR-funds match their peers, but that pure SR bond funds outperform their non-SR peers. However, they find that the main driver of this out-performance is the composition of the sovereign share of the funds. Focus on ESG and sustainability criteria led SR FI funds to have substantially lower holdings of sovereigns issued by countries most affected by the Euro sovereign debt crisis. This evidence again suggests that the main return benefit o f an ESG focus arises from limiting downside risk. But this study is only a refinement of Henke (2016), as it focuses on a subset of the funds and of the period investigated in the earlier paper.

Hoepner and Nilsson* (2017a) investigate whether differences in ESG expertise across SR *corporate* bond funds are associated with differences in performance. Using a global sample of 108 SR fixed income funds over the period from October 2000 to April 2013, they find that neither SRI AUM of the fund management companies, nor each funds' SRI screening intensity were related to fund performance. However, they find substantial and significant differences in fund performance between funds managed by companies with explicit ESG engagement policies and funds managed by companies without engagement policies. They conclude that the ESG engagement expertise of the fund management company is critical to the effective use of ESG criteria to enhance the performance of SR corporate bond funds. However, as with the other studies, the sample is small and the empirical approach used does not fully warrant the inferences the authors make.

In a recent review, Bektic* (2018) come to a similar conclusion: there is little empirical evidence about the link between a bond's issuer ESG score and the bond's performance and what little evidence there is, remains mixed.

IV. ESG and downside risk

Environmental and social performance often involves compliance with public statutes and private contracts and hence, can involve substantial liability for the firm. In particular, accidents and adverse pollution events that stem from poor environmental performance can generate very large liabilities that could threaten a firm's survival. Most of the studies investigating ESG and downside risk focus on stock value. Those studies are relevant for bondholders as well, as changes in firm value affect its creditworthiness. Typically, liability claims from adverse ESG events (e.g. faulty product safety, pollution event, etc.) have seniority over other claimants. Hence, an event that significantly affects the distribution of residual value to shareholders, is likely to also affect the likelihood of full payouts to bondholders, typically less senior than the liability claims.

Konar and Cohen** (2001), investigate the link between the S&P 500 companies' (excluding finance and insurance) market value and their environmental performance. They find that poor environmental performance is negatively related to the intangible asset value of firms, and estimate the average "intangible liability" for the firms in the sample to about 9% of the replacement value of the tangible assets.

Hong and Liskovich*** (2016) examine enforcement actions of the Foreign Corrupt Practice act against US corporations, and find that prosecutors offer more lenient settlements to firms with high CSR scores, although it is not an explicit factor in sentencing guidelines. Moreover, after adjusting for common risk factors, high CSR firms' equity outperform low CSR firms by 2.4% in the six months following the date the settlement is made public.

Kim, Li and Li* (2014) investigate whether CSR mitigates stock price crash risk, where crash risk is defined as the conditional negative skewness of the return distribution. Using a sample of 850 US firms over the period 1995 to 2009, they relate end of year KLD CSR score with subsequent year stock return conditional negative skewness and find that firms' with poor CSR performance have greater subsequent realized crash risk. Further, they find that the mitigating effect of CSR on crash risk is stronger when firms have less effective corporate governance or a lower level of institutional ownership.

Grossner* (2017) investigates whether firms with high CSR risk have low subsequent returns. He uses the RepRisk ESG issues score for 2592 US firms, from 2007 to 2016 and finds that high ESG risk firms have negative long run abnormal returns after controlling for other sources of risk and premia, while there are no discernible abnormal returns for firms with low or medium ESG risk. Moreover, he finds that firms with high ESG risk scores have a significantly greater number of *subsequent* negative events and that these events are further associated with negative abnormal returns. Although it uses an interesting new metric of ESG risk, this paper has two major weaknesses. It covers a very short sample period. Second, the number of firms with high ESG risk is very small relative to the total sample: from 38 in 2009, to 95 in 2014.

Jagannathan, Ravikumar and Sammon** (2017) produce evidence that ESG-related issues can cause sudden regulatory changes and shifts in customer preferences, inducing large asset price swings, and exposing portfolios to downside risk. They show that an optimal portfolio construction algorithm that explicitly incorporates ESG criteria, tilting holdings toward assets lower ESG risk, can thereby reduce and manage exposure to these rare but potentially serious risks.

Albuquerque, Koskinen, and Zhang*** (2017) develop a theoretical model in which a firm's efforts to increase product differentiation through higher CSR investments decreases the firm's systematic risk and increases the firm's value. Using KLD data for US firms from 2003 to 2015, they document a statistically and economically significant reduction in systematic risk for firms with higher CSR scores, and find this effect stronger for companies with more differentiated products. This effect on risk has a companion and inverse effect on value: higher CSR score, higher firm value. Lastly, they show that high CSR firms profits are less correlated with the business cycle, which supports the evidence of lower systematic risk. Similarly, Oikonomou, Brooks, and Pavelin* (2014) show that firm risks, including downside risks, are related to corporate ESG ratings (as measured by MSCI KLD scores).

Hoepner et al*** (2018) examine whether investors' engagement on ESG topics is associated with subsequent reduction in downside risk of portfolio firms. The study focuses on the engagement activity of one institutional investor, who pursued 682 private direct engagement activities across 296 firms, over the period 2005 to 2014. Half of these engagements focus on governance issues, 21% on social issues, 18% on environment and climate and 13% on corporate strategy and risk management. 28% of the engagements concluded successfully. They document that engagement led to a statistically and economically significant 20% reduction of firm downside risk, for all three measures of downside risk used. Further, they find that strategy and governance engagements, as well as more successful engagement led to larger risk reductions. Although carefully executed, this study is a case study of a single investor's engagement activity and as such of limited generality.

A related but indirect approach to investigate the link between CSR and firm and portfolio risk is proposed by Gibson and Kruger*** (2018). Using 13F filings for institutional investors, they construct an aggregate CSR portfolio score for each institution, by combining the CSR scores of the individual holdings. They find that investors with longer investment horizons display higher portfolio CSR scores and that portfolios with higher CSR scores earn higher risk adjusted returns over both quarterly and annual horizons. Further, they show this is primarily due to the lower risk of high CSR portfolios.

V. Green Bonds

A special class of fixed income instruments that satisfy ESG criterions are "green bonds." According to the "Green Bond Principles" formulated by the International Capital Market Association (ICMA 2017), green bonds are associated with "*several broad categories of eligibility for Green Projects to address key areas of environmental concern such as climate change, natural resources depletion, loss of biodiversity, and air, water or soil pollution.*" This would typically include projects targeted at renewable energy, efficiency, sustainable waste management and land use, biodiversity conservation, clean transportation and clean water. Green bonds are issued by corporations, national and local governments as well as international organizations. In 2017 alone, about $150 billions of green bonds were issued, nearly double the amount issued in 2016 ($87 billions) and new issuances in 2018 are forecasted to range between $150 and $300 billions (Chestney, 2018). A nascent research stream is evaluating whether the green label is just a marketing gimmick or whether green bonds differ from their "brown" counterpart.

Karpf and Mandel** (2017) compare the prices and yields of 1,880 US municipal bonds labeled as green, to 34,100 non–green–labeled bonds from the same set of issuers Using 2 million secondary market transactions, they document that green bonds trade on average at a 5 to 7 bp higher yield to "brown" bonds with similar characteristics. This suggests that, for investors, the green label may proxy for additional risks, or as a newer asset class, requires higher returns to be attractive.

Zerbib** (2017) examines the differences in prices and yields on a sample of 135 investment grade senior bullet fixed-coupon green bonds, with a matched sample of bonds from the same issuers and with the same characteristics (rating, seniority, etc.). The sample includes both supranational, sovereign, sub-sovereign and corporate, and cover ask quotes from April 2012 to Dec. 2016. The study documents that the median difference between green and matching bonds ask yields is 2 bps. After taking into account differences in liquidity (the matching "brown" bonds are typically more liquid), the green premium is estimated at 8bps. The premium is smaller for more highly rated bonds and bonds with greater amounts outstanding. Although the methods used in this paper are robust and the investigation carefully performed, it suffers from a relatively small sample and the use of quoted ask yields. Using transaction prices, as in the Karpf and Mandel paper, would strengthen the inferences.

Wulandri, Schaefer, Andreas and Sun* (2018) investigate the link between liquidity, green project-specific credit risk and yields on green bonds, using a sample of 64 green and 56 matching bonds traded on the London and Luxembourg stock exchanges. They find that liquidity risk is not an important determinant of the yield spread between green and brown bonds. However, this study suffers from a small sample and poor matching of the conventional bonds to the green bonds. Katori* (2018) compares the issue discount relative to sovereigns of green bonds that simply sat-isfy the “Green Bond Principles” to that of green bonds that have in addition complied with the Climate Bonds Standard or have obtained a Green Bond Rating from Moody’s or other rating agencies. Despite having longer maturity at issuance, bonds complying with the stricter Climate Bonds Standards tend to command a lower premium relative to sovereign than general issue green bonds, although the evidence is based on a very limited sample and very rudimentary control for differing bond characteristics. Reed, Cort and Yonavjak* (2017) argue that the lack of price premium for "green bonds" is the consequence of the current green label referring only to the initial issue, without accounting for differences in green impact.

Investment banks and international organizations have also evaluated the green bond markets. Inderst, Kaminker and Stewart** (OECD, 2012) argue that green bonds show low correlation with other fixed income securities and provide diversification benefits to investors. A recent OECD (2017) report states that issuers will offer the same conditions on green bonds as conventional bonds ("flat pricing") because investors are not willing to pay a premium for green investments. I4CE (2016) argues that although increasing socially responsible investors’ demand for green bonds is likely to lower the yield, there is "no clear evidence" that green bonds reduce the cost of capital for their issuers. Three bank reports (Preclaw & Bakshi, Barclays, 2015: Bloomberg, 2017; and HSBC, 2016) investigate the presence of a green bond premium on the secondary market. However, their samples are very small, fail to control for differences in liquidity, and use very elementary methods. The first two studies suggest that green bonds enjoy a large negative yield premium (-17 bps and -25 bps, respectively.) HSBC (2016) finds a high variation in green bond yield premia from negative to positive, and suggests that this finding does not support the existence of a systemically negative premium.

Flammer*** (2018) investigates the impact of green bond issuance on the performance of the issuing corporation. Her sample includes 368 corporate green bonds issued between January 2013 and December 2017. Green bond issuance is more prevalent in industries where environmental issues are financially material to the firms' operations, like utilities, energy and transport. Her analysis documents that firms issuing a green bond experience a positive stock market reaction upon announcement of the issue and a long term increase in value following the issue. Moreover, these firms display a significant improvement in environmental performance, and experience, following the issuance, an increase in ownership by long-term and green investors. These results suggest that the process of issuing a green bond is a commitment mechanism for the firm, that is recognized and valued as such by investors.

VI. Conclusions

There are several broad themes that emerge from the studies reviewed in this document. First, the evidence suggests that firms' ESG performance are related to their financial performance, valuation and risk. Higher ESG scores are related to higher profitability, higher stock values (and hence greater general collateral value) and more positive returns from M&A activity and lower risk. Second, ESG events significantly affect firm value: negative events reduce firm value and positive events have positive firm valuation consequences if they follow negative events, or if they occur to firms with good governance. Third, the G in ESG is critical: there is a stronger link between ESG scores and firm performance for firms with low agency problems. Moreover, firms with better governance and lower agency problems suffer smaller negative firm value responses to adverse ESG events and positive rather than negative responses to positive ESG events. Fourth, while differentiating stocks on the basis of their aggregate ESG scores in the early 90's (when ESG awareness was not as widespread) may have lead to superior investment performance, by the early 2010's, this performance difference has disappeared, as broader awareness of the importance of ESG concerns has lead to their partial, if not full, recognition in stock values. Last, investor action that improves governance, or that improves CSR for firms with low CSR, has a positive effect on stock value.

Several issues remain unresolved. First and perhaps most importantly is the issue of materiality: not all dimensions of ESG performance matter for all firms, and aggregate ESG scores may wash away critical differences in material ESG scores between competing firms: which dimension of ESG is more economically important in industry A than industry B and vice-versa? Second is the link between (material) ESG scores and the occurrence of positive or negative ESG event: is a firm with a high ESG score less likely to experience a negative ESG event? Is that difference measurable and significant? Third, what are the criteria that should lead investors to pursue engagement: which engagements are most beneficial to the investors? Among the beneficial engagements, which are most likely to succeed and when?

Most of the evidence on which these broad themes are drawn relies on studies investigating the link between ESG and stock values. The evidence reviewed relating corporate ESG performance and bond values, returns and risk is much more limited and does not allow for broad conclusions yet. Therefore, it is also difficult to define what an appropriate and attractive SR fixed investment strategy would entail. Nor is it easy to formulate what kind of SR active engagement bondholders should pursue to enhance both the returns on their bond holdings and ESG performance of the issuer. Progress in resolving these issues requires solid empirical evidence on many related questions. First, what is the relation between issuer ESG scores and bond prices, returns and risks, across a broad cross-section of issuers, industries, and countries, and over time? What is the relation between issuer ESG scores and subsequent bond default experience? Second, what are the dimensions of ESG scores that are material for bond issuers and bond investors? Third, what are the consequences of negative and positive ESG events on bond prices and risk? Fourth can the dimensions of ESG scores material to bondholders be affected by active engagement? Perhaps, the most promising is the paper of Flammer, 2018. It suggest that the issue of green bonds by a firm is a commitment to good ESG conduct that leads to increases in short and long term firm value. What this study still has to show is whether it is also beneficial to the bond investors.

.

REFERENCES

Aktas, N., de Bodt, E., & Cousin, J. G. (2011) Do financial markets care about SRI? Evidence from mergers and acquisitions. *Journal of Banking Finance*, 35(7):1753-61. doi: 10.1016/j.jbankfin.2010.12.006. (https://doi.org/10.1016/j.jbankfin.2010.12.006)

Albuquerque, R. A., Koskinen, Y. & Zhang, C. (2018) Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence. European Corporate Governance Institute (ECGI) - Finance Working Paper No. 359/2013. URL: https://ssrn.com/abstract=1961971. doi: 10.2139/ssrn.1961971. (http://dx.doi.org/10.2139/ssrn.1961971)

Attig, N., El Ghoul, S., & Guedhami, O. (2013) Corporate Social Responsibility and Credit Ratings. *J Bus Ethics*, Vol 117: 679-94. doi: 10.1007/s10551-013-1714-2. (https://doi.org/10.1007/s10551-013-1714-2)

Bauer, R. & Hann, D. (2014) Corporate Environmental Management and Credit Risk. Working paper, Maastricht University. URL: https://ssrn.com/abstract=1660470. doi: 10.2139/ssrn.1660470. (https://doi.org/10.2139/ssrn.1660470)

Bebchuk, L. A., Cohen, A. & Ferrell, A. (2009) What Matters in Corporate Governance? *Review of Financial Studies*, Vol. 22(2):783-827. doi: 10.1093/rfs/hhn099. (https://doi.org/10.1093/rfs/hhn099)

Bektic, D.R. (2018) ESG Factors in Corporate Bond Returns: Perspectives for Academic Research and Investors. *Journal of Environmental Law and Policy* 40(4):293-8.

Bloomberg. (2017) Investors are willing to pay a "green" premium. *Bloomberg New Energy Finance report.*

Chestney, N. (2018) Global green bond issuance hit record $155.5 billion in 2017 -data. *Reuters.com.* January 10. URL: https://www.reuters.com/article/greenbonds-issuance/global-green-bond-issuance-hit-record-155-5-billion-in-2017-data-idUSL8N1P5335, accessed May 18, 2018.

Deng, X., Kang, J. & Low, B. S. (2013) Corporate social responsibility and stakeholder value maximization: Evidence from mergers., *Journal of Financial Economics*, 110(1):87-109. doi: 10.1016/j.jfineco.2013.04.014. (https://doi.org/10.1016/j.jfineco.2013.04.014)

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

Derwall, J. & Koedijk, K. C. G. (2009) Socially Responsible Fixed-Income Funds. *Journal of Business Finance and Accounting*, Vol. 36:210-29. doi: 10.1111/j.1468-5957.2008.02119.x. (https://doi.org/10.1111/j.1468-5957.2008.02119.x)

Dimson, E., Karakaş, O. & Li, X. (2015) Active ownership. *Review of Financial Studies*, 28(12):3225-68. doi: 10.1093/rfs/hhv044. (https://doi.org/10.1093/rfs/hhv044)

Dorfleitner, G., Halbritter, G. & Nguyen, M. (2015) Measuring the level and risk of corporate responsibility – An empirical comparison of different ESG rating approaches. *Journal of Asset Management* 16:450-66. doi: 10.1057/jam.2015.31. (https://doi.org/10.1057/jam.2015.31)

Dowell, G., Hart, S., & Yeung, B. (2000) Do corporate global environmental standards create or destroy market value? *Management Science*, 46(8):1059-74. doi: 10.1287/mnsc.46.8.1059.12030. (https://doi.org/10.1287/mnsc.46.8.1059.12030)

El Ghoul, Sadok, & Karoui, A. (2017) Does corporate social responsibility affect mutual fund performance and flows? *Journal of Banking & Finance*, Vol. 77:53-63. doi: 10.1016/j.jbankfin.2016.10.009. (https://doi.org/10.1016/j.jbankfin.2016.10.009)

Ferrell, A., Liang, H., & Renneboog, L. (2016) Socially responsible firms. *Journal of Financial Economics* 122:55-606. doi: 10.1016/j.jfineco.2015.12.003. (https://doi.org/10.1016/j.jfineco.2015.12.003)

Flammer, C. (2015) Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. *Management Science*, 61:2549-68. doi: 10.1287/mnsc.2014.2038. (https://doi.org/10.1287/mnsc.2014.2038)

Flammer, C. (2018) Corporate Green Bonds. Working paper, Boston University. URL: https://ssrn.com/abstract=3125518. doi: 10.2139/ssrn.3125518. (https://doi.org/10.2139/ssrn.3125518)

Friedman, M. (1970) The social responsibility of business is to increase profits. *New York Time Magazine*, Sept. 13, pp.122-26.

Ge, W. & Liu, M. (2015) Corporate social responsibility and the cost of corporate bonds. *Journal of Accounting and Public Policy* 34(6):597–624. doi: 10.1016/j.jaccpubpol.2015.05.008. (https://doi.org/10.1016/j.jaccpubpol.2015.05.008)

Gibson , R. & Krueger, P. (2018) The Sustainability Footprint of Institutional Investors. Swiss Finance Institute Research Paper No. 17-05. Available at SSRN: https://ssrn.com/abstract=2918926. doi: 10.2139/ssrn.2918926. (https://doi.org/10.2139/ssrn.2918926)

Gloßner, S. (2017) ESG Risks and the Cross-Section of Stock Returns. Working paper. URL: https://ssrn.com/abstract=3004689. doi: 10.2139/ssrn.3004689. (https://doi.org/10.2139/ssrn.3004689)

Gompers, P. A., Ishii, J. L. & Metrick, A. (2003) Corporate Governance and Equity Prices. *Quarterly Journal of Economics*, Vol. 118(1):107-55. doi: 10.1162/00335530360535162. (https://doi.org/10.1162/00335530360535162)

Grewal, J., Hauptmann, C., & Serafeim, G. (2017) Material Sustainability Information and Stock Price Informativeness. Harvard Business School Working Paper. URL: https://ssrn.com/abstract=2966144. doi: 10.2139/ssrn.2966144. (https://doi.org/10.2139/ssrn.2966144)

Halbritter, G. & Dorfleitner, G. (2015) The wages of social responsibility—where are they? A critical review of ESG investing. *Review of Financial Economics*, 26:25-35. doi: 10.1016/j.rfe.2015.03.004. (https://doi.org/10.1016/j.rfe.2015.03.004)

Henke, H.-M. (2016) The Effect of Social Screening on Bond Mutual Fund Performance. J*ournal of Banking and Finance*, Vol. 67:69-84. doi: 10.1016/j.jbankfin.2016.01.010. (https://doi.org/10.1016/j.jbankfin.2016.01.010)

Hillman, A. J. & Keim G. D. (2001) Shareholder value, stakeholder management, and social issues: what's the bottom line? *Strategic Management Journal* 22(2):125-39. doi: 10.1002/1097-0266(200101)22:2<125::aid-smj150>3.0.co;2-h. (https://doi.org/10.1002/1097-0266(200101)22:2< 125::aid-smj150>3.0.co;2-h)

Hoepner, A.G.F. & Nilsson, M. (2017a) Expertise among SRI fixed income funds and their management companies. Working Paper, University of Reading. URL: https://ssrn.com/abstract=2517057. doi: 10.2139/ssrn.2517057. (https://doi.org/10.2139/ssrn.2517057)

Hoepner, A.G.F. & Nilsson, M. (2017b) No news is good news: Corporate social responsibility ratings and fixed income portfolios. Working Paper, University of Reading. URL: https: //ssrn.com/abstract=2943583. doi: 10.2139/ssrn.2943583. (https://doi.org/10.2139/ssrn.2943583)

Hoepner, A.G.F., Oikonomou, I., Scholtens, B. & Schröder, M. (2016) The Effects of Corporate and Country Sustainability Characteristics on the Cost of Debt: An International Investigation. *Journal of Business Finance & Accounting*, Vol. 43:158-90. doi: 10.1111/jbfa.12183. (https://doi.org/10.1111/jbfa.12183)

Hoepner, A.G.F., Oikonomou, I., Sautner, Z., Starks, L. T. & Zhou, X. (2018) ESG Shareholder

Engagement and Downside Risk. AFA 2018 paper. doi: 10.2139/ssrn.2874252. (https://doi.org/10.2139/ssrn.2874252)

Hong, H. G. & Liskovich, I. (2016) Crime, Punishment and the Value of Corporate Social Responsibility. Working paper, Columbia University. URL: https://ssrn.com/abstract=2492202. doi: 10.2139/ssrn.2492202. (https://doi.org/10.2139/ssrn.2492202)

HSBC. (2016) Green Bonds 2.0. Fixed Income Credit report. URL: https://www.hsbc.com/investor-relations/fixed-income-investors/green-and-sustainability-bonds, accessed May 18, 2018.

I4CE. (2016) Beyond transparency: unlocking the full potential of green bonds. Institue for Climate Economics. URL: https://www.i4ce.org/wp-core/wp-content/uploads/2016/06/I4CE_Green_Bonds-1.pdf, accessed May 18, 2018.

ICMA. (2017) Green Bond Principles. https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/GreenBondsBrochure-JUNE2017.pdf, accessed May 18, 2018.

Inderst, G., Kaminker, C. & Stewart, F. (2012) Defining and Measuring Green Investments. OECD Working Papers on Finance, Insurance and Private Pensions, No. 24. URL: https://ssrn.com/abstract=2742085. doi: 10.1787/5k9312twnn44-en. (https://doi.org/10.1787/5k9312twnn44-en)

Jagannathan, R., Ravikumar, A. & Sammon, M. (2017) Environmental, Social, and Governance Criteria: Why Investors are Paying Attention. NBER Working Paper No. w24063. URL: https://ssrn.com/abstract=3082225. doi 10.3386/w24063. (https://doi.org/10.3386/w24063)

Khan, M., Serafeim, G., & Yoon, A. (2016) Corporate Sustainability: First Evidence on Materiality. *The Accounting Review,* Vol. 91(6): 1697-1724. doi: 10.2308/accr-51383. (https://doi.org/10.2308/accr-51383)

Karpf, A. & Mandel, A. (2017) Does it Pay to Be Green? Working Paper, Universite Paris 1. URL: https://ssrn.com/abstract=2923484. doi: 102139/ssrn.2923484. (http://dx.doi.org/102139/ssrn.2923484)

Kim, E.-H. & Lyon, T. (2011) When does institutional investor activism increase shareholder value? The Carbon Disclosure Project. *B.E. Journal of Economic Analysis & Policy*, 11(1). doi: 10.2202/1935-1682.2676. (https://doi.org/10.2202/1935-1682.2676)

Konar, S. & Cohen, M. A. (2001) Does the market value environmental performance? *Review of Economics and Statistics*, 83(2):281-89. doi: 10.1162/003465301511438 15.

(https://doi.org/10.1162/00346530151143815)

Krueger, P. (2015) Corporate goodness and shareholder wealth. *Journal of financial economics*, Vol. 115(2):304-29. doi: 10.1016/j.jfineco.2014.09.008. (https://doi.org/10.1016/j.jfineco.2014.09.008)

Krueger, P. (2015) Climate change and firm valuation: Evidence from a quasi-natural experiment. Research paper no. 15-40, Swiss Finance Institute. doi: 10.2139/ssrn.2565523. (https://doi.org/10.2139/ssrn.2565523)

Leite, P. & Cortez , M. C. (2018) The Performance of European Socially Responsible Fixed-Income Funds. *Investment Analysts Journal*, 47(1) 65-79. doi: 10.1080/10293523.2017.1414911. (https://doi.org/10.1080/10293523.2017.1414911)

Margolis, J. D., Elfenbein, H. A. & Walsh, J. P. (2011) Does it Pay to Be Good...And Does it Matter? A Meta-Analysis of the Relationship between Corporate Social and Financial Performance. Working paper, Harvard Business School. URL: https://ssrn.com/abstract=1866371. doi: 10.2139/ssrn.1866371. (https://doi.org/10.2139/ssrn.1866371)

Menz, K. (2010) Corporate social responsibility: is it rewarded by the corporate bond market? A critical note. *Journal of Business Ethics* 96:117–34. doi: 10.1007/s10551-010-0452-y. (https://doi.org/10.1007/s10551-010-0452-y)

OECD. (2017) Green bonds: Mobilising Bond Markets for a low-carbon transition. OECD Publishing, Paris. URL: https://www.oecd.org/environment/cc/Green%20bonds%20PP%20[f3]%20[lr].pdf

Oikonomou, I., Brooks, C., & Pavelin, S. (2014) The Effects of Corporate Social Performance on the Cost of Corporate Debt and Credit Ratings. *The Financial Review* 49:49–75. doi: 10.1111/fire.12025. (https://doi.org/10.1111/fire.12025)

Preclaw, R. & Bakshi, A. (2015) The Cost of Being Green. Barclays Credit Research. URL: https://www.environmental-finance.com/assets/files/US_Credit_Focus_The_Cost_of_Being_Green.pdf

Reed, P., Cort, T. & Yonavjak, L. (2017) Data-Driven Green Bond Ratings: A Market Catalyst. *Journal of Investing*, Forthcoming. URL: https://ssrn.com/abstract=3027045.

Renneboog, L., Ter Horst, J. & Zhang, C. (2008a) The price of ethics and stakeholder governance: the performance of socially responsible mutual funds. *J. Corporate Finance*, Vol. 14:302-22. doi: 10.1016/j.jcorpfin.2008.03.009. (https://doi.org/10.1016/j.jcorpfin.2008.03.009)

Renneboog, L., Ter Horst, J. & Zhang, C. (2008b) Socially responsible investments: institutional aspects, performance, and investor behavior. *J. Banking Finance*, Vol. 32:1723-42. doi: 10.1016/j.jbankfin.2007.12.039. (https://doi.org/10.1016/j.jbankfin.2007.12.039)

Serafeim, G. & Grewal, J. (2017) The Value Relevance of Corporate Sustainability Disclosures: An Analysis of a Dataset from One Large Asset Owner. Harvard Business School Working Paper. URL: https://ssrn.com/abstract=2966767. doi: 10.2139/ssrn.2966767. (https://doi.org/10.2139/ssrn.2966767)

Shi, G. & Sun, J. (2015) Corporate Bond Covenants and Social Responsibility Investment. *J Bus Ethics* 131: 285. doi: 10.1007/s10551-014-2272-y. (https://doi.org/10.1007/s10551-014-2272-y)

Statman, M., & Glushkov, D. (2009) The wages of social responsibility. *Financial Analysts Journal*, 65(4):33-46. doi: 10.2469/faj.v65.n4.5. (https://doi.org/10.2469/faj.v65.n4.5)

Stellner, C., Klein, C. & Zwergel, B. (2015) Corporate social responsibility and Eurozone corporate bonds: The moderating role of country sustainability. *Journal of Banking and Finance* 59:538–49. doi: 10.1016/j.jbankfin.2015.04.032. (https://doi.org/10.1016/j.jbankfin.2015.04.032)

Waddock, S. & Graves, S. (1997) The corporate social performance–financial performance link. *Strategic Management Journal* 18(4):303-19. doi: 10.1002/(SICI)1097-0266(199704)18:4<303::AID-SMJ869>3.0.CO;2-G. (https://doi.org/10.1002/(SICI)1097-0266(199704)18:4<303::AID-SMJ869> 3.0.CO;2-G)

Wulandari, F., Schäfer, D., Andreas, S. & Sun, C. (2018) Liquidity Risk and Yield Spreads of Green Bonds. DIW Berlin Discussion Paper No. 1728. URL: https://ssrn.com/abstract=3161323. doi: 10.2139/ssrn.3161323. (https://doi.org/10.2139/ssrn.3161323)

Zerbib, O. D. (2017) The Green Bond Premium. Working paper Tilburg University. URL: https://ssrn.com/abstract=2890316. doi: 10.2139/ssrn.2890316. (https://doi.org/10.2139/ssrn.2890316)

The Norwegian fixed income market is unique

This section touches on some of the unique characteristics in the Norwegian market that are important to keep in mind when discussing how to integrate ESG in fixed income analysis for Norwegian investors. It is not intended to serve as a comprehensive analysis of what makes the fixed income market in Norway unique.

Small market

The Norwegian fixed income market is relatively small measured in the volume of outstanding debt, both in an international context and compared to its Nordic neighbors. According to the Bank for International Settlements (BIS), the Norwegian debt securities outstanding at the end of 2017 was 455 billion USD, while in Sweden it was 803 billion USD, and in Denmark 819 billion USD.[1]

The fixed income market is also relatively concentrated when it comes to the number of domestic investors. The Norwegian investors who control a large share of the bonds and securities outstanding in Norway consist of the top 10 largest financial institutions and pension providers in Norway. The fact that there are a few large investors creates an environment where it is possible to cooperate on setting market standards. The forums Eierforum[2] (Equity Owner Forum) and Norsk restruktureringsforum [3] (Norwegian Restructuring Forum) are examples of this type of organized cooperation on influencing market standards.

From the issuer perspective, the market is also relatively concentrated in terms of the number of industries represented. The investment grade (IG) universe consists mainly of companies in the finance sector, utilities and real estate. Most of these companies are primarily exposed to the Norwegian market. The banking and financing sector dominates the IG market, with issuances of covered bonds and bonds issued by local banks. In the high yield market (HY), there is a higher concentration of companies exposed to the international market, such as oil and offshore companies, shipping and fish farming. Although the fixed income market is in quite small, the Norwegian fixed income markets for shipping, oil, and fish farming are quite

[1] http://stats.bis.org/statx/srs/table/c1?p=20174&c=.

[2] Note that although Eierforum consists of the largest institutional equity owners, the member institutions are also among the largest fixed income investors. Eierforum's members: Alfred Berg Kapitalforvaltning, DNB Kapitalforvaltning, Folketrygdfondet, KLP, Nordea Fondene, Odin Forvaltning, Oslo Pensjonsforsikring, Nærings- og handelsdepartementets eierskapsavdeling, Statoil Kapitalforvaltning og Storebrand.

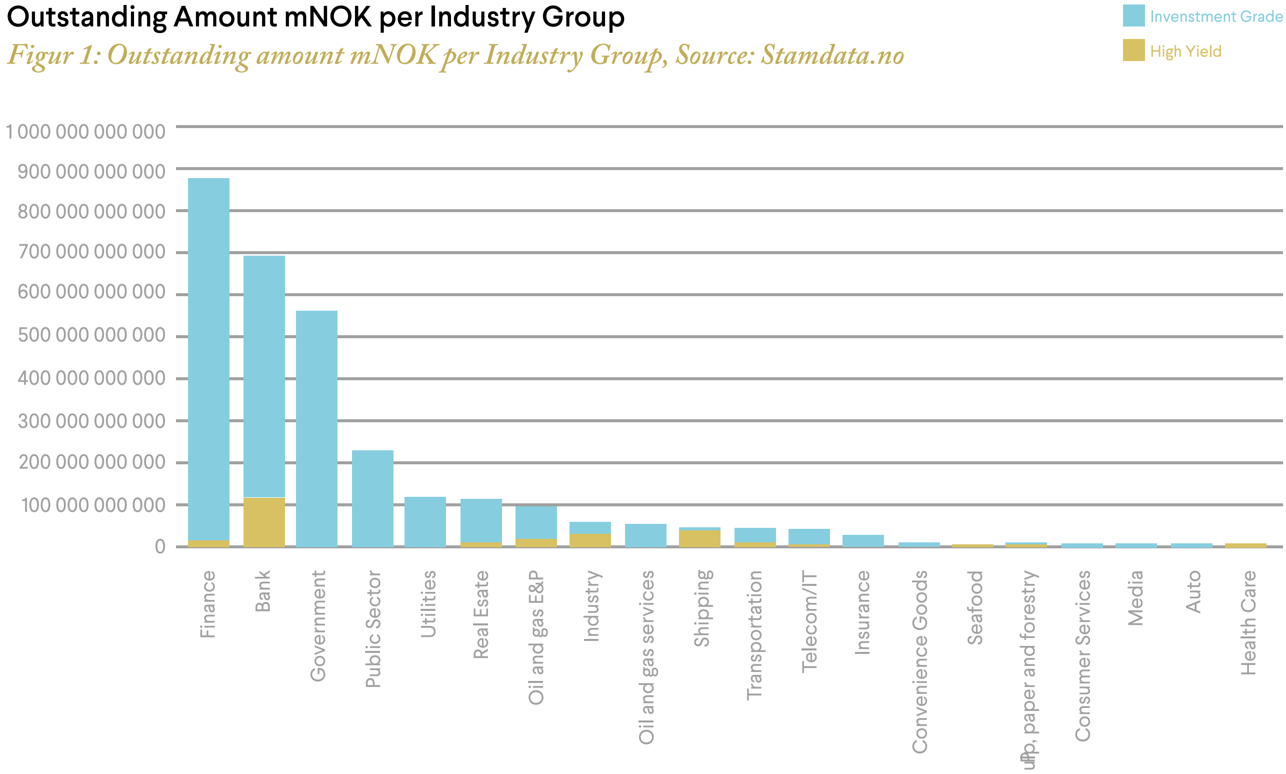
[3] Norsk restruktureringsforum's members: Aage Figenschou, Espen Lund (DNB) Geir Arne Drangeid (First House), Helge A. Østvold (BHL), Jo Rodin (Thommessen), Kristoffer Hegdahl (Thommessen), Lars Tronsgaard (Folketrygdfondet), Leif Chr. Salomonsen (Recore), Leif H. Spørck (DNB), Peter C. Bugge Hjort (BAHR), Richard Sjøqvist (BAHR), Siv Sandvik (Schjødt).

important in an international context and attract foreign investors and fixed income issuers to the Norwegian marketplace.

Given the limited number of actors, it is possible to have a good overview of the market. There are many repeat players. This would suggest that it is important to maintain a good reputation. We will come back to this point in the next chapter, in the summary of our discussions with Norwegian investors. The portfolio managers for Norwegian fixed income portfolios therefore rely on qualitative analysis of the issuers in the Norwegian market, whereas they rely more on quantitative criteria when analyzing larger universes consisting of foreign issuers.

Outstanding Amount mNOK per Industry Group

Figur 1: Outstanding amount mNOK per Industry Group, Source: Stamdata.no



Documentation and regulation

The Oslo Stock Exchange (hereafter, "Oslo Børs") offers fixed income listings and trading through Nordic ABM and the Oslo Børs marketplaces. The Oslo Børs marketplace is a regulated marketplace while Nordic ABM is a self-regulated marketplace run by Oslo Børs. Listings on the Oslo Børs marketplace require a prospectus, in accordance with the EU Prospectus Directive, and approval from the Financial Supervisory Authority of Norway. Issuers intending to list on Nordic ABM do not have to fulfill the same requirements.[4]

The Norwegian bond market is efficient and allows small and medium-sized business to issue bonds. The market is characterized by relatively straightforward documentation, based on standard bond loan agreements, term sheets and other templates from Nordic Trustee ASA.[5] It is normal in the Norwegian market to use Nordic Trustee. The bond trustee is an important institution for investors as its role is to protect investor rights by monitoring issuer adherence to the loan agreement. The trustee may also take action on behalf of the bondholder in a distressed situation.

[4] https://www.oslobors.no/ob_eng/Oslo-Boers/Regulations/The-Issuer-Rules.
[5] https://nordictrustee.com/.

For the high yield market, it is important to note that bankruptcy regulation in Norway operates on the basis of fairly general standards, in comparison with for instance the more detailed process outlined for Chapter 11 proceedings in the United States. This means that the restructuring processes in Norway can vary widely. For this reason, Norsk restruktureringsforum (Norwegian Restructuring Forum) launched a recommendation on restructuring processes in 2018.[6]

Credit ratings

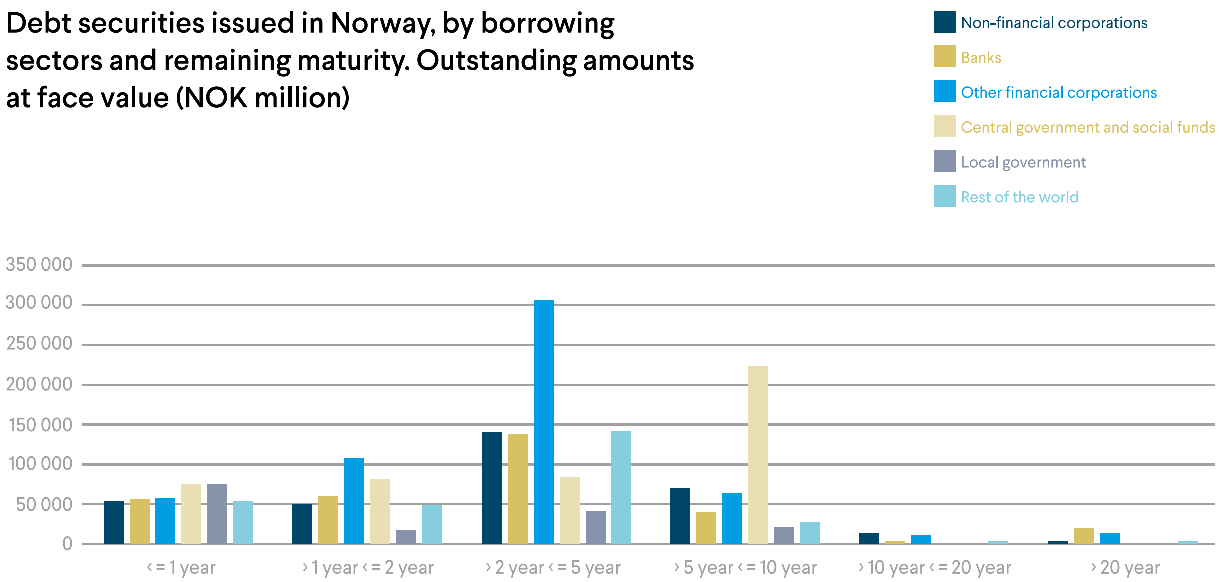
Because the Norwegian market is small, with several small and medium-sized enterprises (SME), credit ratings are often unavailable. Only the largest financial institutions and non-financial corporates have an official rating. Investors used to rely on "shadow ratings." These ratings were credit assessments published by Norwegian brokerages as part of their investment recommendations for fixed income. Current EU regulation no longer allows the issuance of these shadow ratings. In response, some brokerages have offered purely quantitative models designed to assess credit quality, but not credit ratings as such. As a result, many of the issuers do not have (or no longer have) a formal credit rating. At the same time, many of the companies that issue bonds are privately held. This makes the information from and about the companies more limited than that of listed companies.

The same is true for issuer ESG ratings. Because of the size of many Norwegian companies, international ESG ratings providers often have not analyzed the smallest issuers' performance on environment, social and governance indicators either.

Duration

Lastly, the duration of bonds in the Norwegian market is generally short. Statistics on fixed income published by SSB show that the maturity for Norwegian fixed income is mainly less than 10 years. The majority of debt securities issued have a maturity of between two and five years.

Debt securities issued in Norway, by borrowing sectors and remaining maturity. Outstanding amounts at face value (NOK million)



[6] https://www.reforum.no/wp-content/uploads/2018/04/180331-Anbefaling-for-restruktureringsprosesser.pdf?.

Summary

Traditionally, the fact that the Norwegian market is small and that there are many repeat players among issuers and investors creates an environment where investors have the opportunity to work together to set market standards. However, the amount of negotiating power investors have to influence loan agreements will depend on market conditions (e.g. whether it is a buyer's or a seller's market). Moreover, the Norwegian market is becoming steadily more international. With the influx of foreign investors, it becomes correspondingly more difficult for a small number of Norwegian institutions to influence market standards.

The investment grade universe consists of companies that operate in highly regulated industries in Norway. Companies in the high yield market tend to have operations that are more international, more lightly regulated, and that face more significant ESG risks. Examples of these ESG risks include shipbreaking for the shipping industry, which has proven difficult to regulate; and climate regulations for the oil sector, where there is uncertainty regarding the extent to which new requirements might strain current business models. By definition, high yield issuers face a higher risk of default, and portfolio managers routinely evaluate company risks. Do they recognize and understand material ESG risks as well? In many cases, they probably do, but do not label these as "E," "S," or "G" risk. In other cases, it might not be clear what types of "E" and "S" risks are likely to be material over the short v. long run.

The required documentation and listing process is straightforward. This has paved the way for small and midsized companies to look for capital in the Norwegian fixed income market. ESG analysts in firms that specialize in sustainability analyses/ratings often do not cover these firms. This means that there is not a lot of information about the firm's ESG performance for investors to use in their assessment of issuers. It is up to portfolio managers or dedicated ESG analysts to identify and understand the material ESG risks.

Given that bonds with a time to maturity of less than five years tend to dominate Norwegian fixed income portfolios, investors focus primarily on risks over relatively short time horizons. Does this make it difficult for investors to recognize long-term trends that might affect bond pricing? At some point, the material effects of, for instance, climate change will become more visible and will need to be priced into the security. Investors will need to understand the long-term risks to be able to assess how these will affect companies in their investment universe.

The goal of this report is to not to offer a one-size-fits-all solution for ESG investing in the Norwegian fixed income market. Rather, our aim is to understand why and how investors approach ESG risks currently, and whether the academic literature can offer any evidence that investors can draw upon in continually refining our responsible investment strategies.

ESG investment practices in Norwegian corporate fixed income

In order to understand how Norwegian asset managers currently integrate ESG into their fixed income investment process, the Norsif working group for ESG Integration in Norwegian Fixed Income conducted in-depth interviews with eleven of the largest Norwegian institutional investors. Working group members operated with a common set of questions, while adapting to pursue individual topics in more detail based on the direction of the conversation.

Although we observed differences in the various institutions' approach to ESG, there were several commonalities. In general, few institutions had a systematic approach to analyzing ESG factors specifically. Rather, investors looked to factors that would fall under the ESG umbrella, such as the firm's governance structure, in the context of a broader assessment of the company's business strategy and operations.

There was no common assessment of how the ESG approach ought to vary depending on whether the proceeds of a bond were earmarked for a specific project or for general corporate purposes. We had hypothesized that investors might be willing to invest in bonds issued by corporates with poor ESG performance, provided issuers use the proceeds for "green" or other ESG-favored purposes (e.g. "social bonds"). This did not come up in our conversations, perhaps in part because there are few Norwegian issuers that institutional investors systematically exclude from their portfolios.

We also hypothesized that fixed income investors might approach ESG differently depending on the bond's seniority. With the exception of the obvious caveats about ensuring the loan agreement covenants provide creditors with sufficient protection (essentially, a governance concern), we did not find that investors approached ESG in a systematically different way depending on seniority.

HOW DO THE UNIQUE CHARACTERISTICS OF FIXED INCOME INSTRUMENTS AFFECT THE ESG APPROACH CHOSEN?

Downside risk

The interviewees uniformly identified their focus on downside risk as a primary motivation for ESG integration. In contrast to equity investing, there is generally no significant upside for fixed income investing. As a result, ESG integration involves assessing the risk of negative events, rather than potential opportunities. Their concern is determining the probability and severity of ESG-related incidents that could affect the issuer's ability to fulfill its loan obligations, as well as the issuer's robustness in dealing with the consequences of negative events.

Duration

In contrast to equity investments, fixed income instruments are by nature limited in duration. The working group hypothesized that this may influence the ESG integration strategy adopted, as risks that are likely to be material over a longer time horizon might face more limited scrutiny than an equity investment with the same risk profile. We found limited support for this hypothesis. While one investor stated explicitly that they would consider an investment of more limited duration given the existence of a potentially material ESG risk, another stated equally clearly their skepticism that investors can make that kind of time horizon determination with any reasonable degree of certainty:

> ”We don’t make bombastic predictions about when future events will occur. e.g. climate risk. If it’s a risk factor for the company’s business model, we’ll look at it now. Politicians will at some point decide to implement measures to address this, media interest will increase... We always make these evaluations through a long lens. We want stable business models, a certain amount of trust and predictability.”

Lack of ownership rights

Another fundamental characteristic of fixed income investing that affects ESG integration is the lack of ownership rights. Creditors are unable to vote in shareholder meetings, limiting their influence post-investment. Rather, the loan agreement determines creditors' rights throughout the life of the bond.

In the Norwegian market, the lack of ownership rights is to some extent mitigated by the number of "repeat players" in the fixed income space. For example, an issuer that develops a reputation for environmental mismanagement or questionable board governance risks facing closed doors when returning to the bond market for new financing from those same creditors. At the same time, market cycles shift the relative balance of power between issuers and creditors. In a "seller's market," issuers may be able to find avoid stringent ESG demands by seeking out alternative creditors with lower standards for ESG performance. A few interviewees mentioned that certain of their Nordic counterparts appeared to focus solely on price, at the expense of demanding stronger issuer ESG performance.

The working group also hypothesized that creditors might have less access to management than equity investors might. The interviews did not support this view. Although fixed income investors tended to meet with issuers less often than was the case for equity investors, this appeared to be more by choice than due to a lack of corporate access. Several institutions focused on engagement pre-investment, and did not cite lack of access as a barrier to engagement.

Interviewees identified conducting an ESG analysis of private companies as one of the more challenging aspects of integration. Private issuers face less stringent reporting requirements and are rarely covered by specialized ESG providers. In fact, even financial information about the company may be relatively limited. It is not unusual in the Norwegian market to encounter an issuer with a business plan, a few offshore assets, and little else to analyze.

ESG ISSUER ANALYSIS

When is analysis conducted and why?

All interviewees focused primarily on analysis pre-investment. As one institution put it: "75% of our time on ESG analysis is spent before the investment is made." The rationale for doing so is simple: fixed income investors have the greatest influence with issuers pre-investment.

Compliance with fund/institution responsible investment guidelines

All of the institutions we spoke to had some form of negative screening to exclude investments that did not comply with their institution's guidelines for responsible investment. For a few institutions, their approach to ESG began and ended here (particularly for investment grade issuers). As an example, one interviewee stated that in Norway "there is no need for ESG analysis" in the savings and loan industry, as the financial sector is highly regulated.

Negative screening is often an explicit requirement from fund customers. Several firms had internal "ethical councils" tasked with evaluating potential exclusions from the institutions' entire investment universe (e.g. global fixed income and equity investments as well).

Seldom did this screening lead to any practical consequences for the investment decision involving Norwegian (or other Nordic) issuers. Exclusions are rare. Swedish Match was the only company commonly excluded from Nordic investment portfolios. A couple interviewees cited extra scrutiny of firms involved in corruption scandals or conventional weapons producers or other "troublesome" industries. Seldom did this yield a decision to exclude a particular issuer from the investment universe. In the working group's view, this observation largely reflects the nature of the Norwegian fixed income market, which includes few if any issuers among the worst global laggards on ESG.

One interviewee emphasized the importance of understanding their role as an investor:

> "I have a lot of respect for definitional power and don't feel qualified to evaluate what is or isn't sustainable. The companies responsible for the projects have to conform to the relevant definition. Our role as investors is more to oversee that – to ensure that we are on the right side – preferably with a little buffer."

Assessing credit risk

For those that went beyond ESG as a compliance exercise, the main motivation for doing so was to better assess credit risk and achieve higher risk-adjusted returns. Investors most often assessed sustainability in the context of the issuer's business model and industry risk – in many cases, without the investor using the "ESG label" as such. As one interviewee explained, "We are looking for companies that create value over a long-term perspective, and that includes sustainability."

Particularly for issuers with minimal reporting, investors used industry risk and geographic exposure as proxies for ESG risk, as well as a means of highlighting potentially material issues for discussion with the issuer in a pre-investment meeting.

For those that integrated ESG factors into their credit risk models, investors varied on whether they adopted a qualitative or quantitative approach. Qualitative approaches were more common, and typically involved a short summary of ESG risks in the overall credit assessment. There were cynics as well. A few institutions with mandates only in the investment grade universe were skeptical that ESG analysis would yield anything in the way of useful information. As one interviewee stated, the main risks connected to ESG for Norwegian savings and loan institutions involve fraud at the individual level, and an ESG analysis is unlikely to uncover this risk – otherwise the economic crime authorities would already be knocking on their door. This interviewee met with issuers to get an impression of the leadership team, but did not conduct any ESG analysis after that. In the interviewee's experience, ESG analysis did not offer much value for the investment decision for investment grade bonds. As a result, client preferences would have to move in favor of stricter ESG scrutiny before it would be worth spending additional time and resources on more extensive analysis.

Contribute to positive impact

Two of the interviewees cited making a positive impact as an explicit motivation for their ESG integration. Green bond investments were one example, as third party verification permits investors to assess the project's expected impact on the environment, including any strengths or weaknesses. From the working group's perspective, this observation was interesting in highlighting that the investor looked beyond the green label itself, using the third party verification as an independent ESG analysis. That investor cited an expectation in Norway that institutional investors will use their capital in line with Norway's climate change goals. Particularly for managers with public sector asset owners, it was important to align the investment strategy with asset owner ambitions.

A second institutional investor cited "making a difference" as a motivation for adopting an ESG approach to investment for the broader fixed income universe, referring to the impact an investor can have in encouraging issuers to adopt sustainable business practices by underlining that this is a priority for creditors.

Prioritization by investment type

All interviewees identified the distinction between investment grade and high yield bonds as a major factor in determining their prioritization of ESG integration in fixed income investment. A majority of the interviewees invested only in investment grade bonds, and their assessment of ESG risk was correspondingly lower than for the high yield investors.

Investment grade

In the Norwegian market, the two largest categories of investment grade issuers are hydropower utilities and local banks. These companies have limited international exposure and are not in industries at high risk of negative ESG events (e.g. oil spill, fatalities/serious injuries arising from hazardous working conditions). As one investor noted, "for the investment grade universe, ESG is not much of a differentiating factor. There are not many companies that test the boundaries of what would be considered unacceptable." These issuers also tend to conduct the vast majority of their activities within the Norwegian market, subject to Norwegian regulations.

Moreover, firms in each of these sectors tend to be relatively homogeneous and the issuances are often small in a global perspective. As a result, investors noted that there was often little additional value in conducting an in-depth issuer-specific analysis. The extra scrutiny is not justified by issuer risk or issuance size.

Larger corporate issuers also comprised a portion of the investment grade market. These firms tended to have more comprehensive reporting, also on ESG issues, and were in many cases already covered by institutional investors' equity teams – including dedicated ESG staff. As a result, investors did not perceive a need to adopt a "fixed income-specific" approach to these issuers. Moreover, these corporate issuers tend to attract significant interest in any new issuances, meaning that creditors have less influence on the issuer's ESG approach.

High yield

The Norwegian high yield market, by contrast, includes firms in industries such as shipping and oil service, with more significant health, safety, and environmental risks, as well as exposure to greater geopolitical disruptions. In addition, companies in the high yield universe are by nature less resilient to negative impacts. As a result, investors tended to conduct more pre-sounding and more extensive analysis of high yield issuances. Even investors who saw no value in conducting a specific ESG analysis for investment grade issuers acknowledged that for high yield, ESG analysis helps to better assess risk.

As one investor explained: while they in theory do not differentiate in their approach to ESG for investment grade versus high yield investments; their prioritization reflects the higher ESG risk level for high yield. Furthermore, while creditors' influence with issuers tends to vary based on market cycles, interviewees observed that they generally have more influence with high yield issuers prior to investment, as compared to investment grade issuers.

An added challenge is that many of the high yield issuers are coming to the capital markets for the first time. That was the case for about half of one institution's high yield investments. The investor emphasized its role as a potential long-term, but demanding partner for issuers:

"We know they may come back for refinancing later and underline that we are a long-term investor that follows up the issuers."

High yield issuers are also more likely to be privately held, and therefore, subject to fewer reporting requirements. One interviewee explained that for unlisted high yield, "we might just get one A4 page and have difficulty scheduling a meeting with management. That's a problem." This was echoed by other investors, who noted that much is left "in the dark," adding that the financial information might consist of just one annual report and a little bit of accounting history. In fact one interviewee noted that they encourage firms to seek a listing, as it encourages better reporting. The lack of reporting among privately held firms was naturally a barrier for conducting an analysis of specific ESG risks.

HOW TO CONDUCT ESG ANALYSIS

Sources of issuer ESG information

Company disclosures

The most common source of ESG-related information is from company disclosures – whether financial filings, the prospectus, road shows, larger seminars, or one-to-one meetings with issuers. The bond prospectus was a particularly important source of information, even though it rarely identified ESG risks as such. The majority of the interviewees met with issuers prior to investment, often as part of a roadshow with the issuer's investment bank. This meeting afforded the opportunity to ask questions about any ESG risks identified based on the industry involved, any financial filings, or the bond prospectus.

One interviewee noted that there has been a major shift in issuers' awareness of ESG risks. Five years ago, issuers were rarely prepared to answer ESG-related questions from the portfolio managers. Now, they come to meetings with copies of their sustainability report, ready to address these types of topics. Another mentioned that the way in which issuers respond is often as telling as the response itself. If an issuer attempts to minimize an investor's concerns about a potential risk, that is a warning sign.

Second opinions

Interestingly, one interviewee with significant experience from green bond investments cited the third party opinion as a key source of information about key ESG risks. In this interviewee's view, independent of the green label, the third party opinion represents a rare independent assessment of the ESG strengths and weaknesses associated with the project. This interviewee typically flips directly to the weaknesses to understand where the risks lie. For the working group, this observation raises the question of whether third party certifications might provide value also for projects without an obvious sustainability impact focus. Could an independent certification of a "non-green" project's ESG risk add value to a "traditional" fixed income investment assessment?

External ratings

Interviewees expressed frustration with the inadequacy of existing ESG service provider offerings for their investment universe. While a majority of the fixed income investors interviewed checked ratings from external providers like Sustainalytics or MSCI prior to investment, they were seldom able to find relevant information for individual issuers, other than for the largest corporates. The Norwegian investment grade market is dominated by small hydropower utilities and local banks, all of which tend to report little in the way of specific ESG information. As a result, these firms are either not covered by the large global providers, or receive poor ratings for their lack of reporting.

The global ESG service providers have many gaps in their coverage of the Norwegian fixed income market. Skepticism of the existing coverage was common, for example:

- "The ratings do not paint an accurate picture of a company's ability to handle sustainability risks."
- "The ratings punish companies that don't report on issues already regulated by law."
- "The ESG analysts that assign these ratings don't actually visit any of the sites. If this is all based on desk reporting, then we would rather go to the source: talk to management, visit the company."

Several interviewees used ESG service provider ratings as an input for their global fixed income mandates – and often, for the larger Norwegian corporate issuers as well, but coverage and quality was perceived as a barrier for reliance on these sources for the broader Norwegian fixed income universe. For smaller issuers with limited ESG reporting, service provider analysis was uniformly judged to be of limited value.

To be fair, the service providers often have little data upon which to base their analyses. One interviewee cited as an example an attempt to conduct a carbon footprint of the fixed income portfolio. Surprisingly, the utilities sector (consisting exclusively of hydropower producers) emerged as the highest source of portfolio emissions. The problem was that the lack of emissions data led to the use of a global average for the sector, which included coal power generation. This was useless for the investor.

In-house ESG scores

A couple investors used a specific in-house ESG score in their quantitative credit risk models. For example, one investor assigned a score from 0 to 10 for each issuer, with a given weight in the overall credit model (quite low). Traffic light systems highlighted whether an issuer's background might merit further follow-up. This system classified many Norwegian companies as "yellow", often due to corruption risks or involvement in something like the Panama Papers scandal. The quantitative approach was most common for investors that adopt a scoring system across their investment portfolios. The scores were typically based on any data available from ESG service providers, as well as in-house analysis from dedicated ESG personnel.

The issuer's ESG score was also a topic for investment committee review of credit assessments. One investor with several years of experience in ESG integration in credit analysis cited their approach as a competitive advantage, adding that they expect companies will be required to adopt a minimal level of ESG in order to justify their existence in the future (so-called "hygiene factor").

Media

Fixed income investors also looked to media coverage for relevant ESG-related information. Interestingly, one investor mentioned that local newspapers were a particularly useful source of information. The investor observed both that issuer management teams tend to be less guarded in their communications with the local paper than with national media outlets, and that local media are often quicker to report on company operational developments that affect local communities (e.g. project delays).

Sell-side analysts

None of the interviewees identified sell-side credit analysts as a relevant source of ESG-related information. All of the fixed income interviewees agreed that sell-side credit analysts covering Norwegian issuers do not focus on ESG. Interestingly, one of the interviewees mentioned that they use ESG-focused sell-side reports from equity analysts. ESG integration is currently a hot topic among sell-side equity analysts, but this discussion appears to be absent from the sell-side credit analyst community. One interviewee noted that this could be an area of differentiation for sell-side credit analysts – and they may also be best placed to evaluate the quantitative impacts of ESG integration in fixed income.

To be sure, interviewees noted that sell-side analysts occasionally address coming regulations, but do not label their reports as ESG or address sustainability-related topics in a systematic way. The key observation, however, is that the interviewees to a person did not currently perceive sell-side credit analyst reports to be a relevant source of ESG-related information on Norwegian issuers.

Cooperation with equity teams

Several fixed income investors work with their internal equity teams to obtain ESG-relevant information on issuers. This included drawing upon ESG analyses developed in-house, engaging in joint meetings with issuers, and holding morning meetings with the equity team in which ESG is a fixed item on the agenda. As an example, one interviewee cited joint meetings held with the equity portfolio managers after an issuer experienced an environmental accident in its overseas operations. Notably, none of the interviewees framed their responses to suggest the equities team draws upon the fixed income team's ESG analysis. The responses overwhelmingly suggest that equity teams tend to take the lead on ESG integration for listed firms.

Stamdata

Lastly, one interviewee cited dialogue with Nordic Trustee-owned Stamdata aimed at encouraging the platform to provide more data on sustainability-themed bonds. Among the requests: clarification of whether a green bond has external certification.

Who conducts analysis?

None of the interviewees relied exclusively on external research, although several used service provider ratings as an input to their own analysis, including quantitative models. Credit analysts and portfolio managers were most often responsible for conducting ESG analysis, with specific ESG analysts comprising the second largest category. None of the interviewees had a dedicated ESG credit analyst; although several institutions had their own ESG teams organized as a separate unit covering both equities and fixed income.

Here are a few examples:

- Most common: credit analyst or portfolio manager responsible for ensuring investment does not violate any relevant exclusion lists, and conducting a qualitative ESG analysis as part of the credit assessment.
- In-house ESG scores based on service provider ratings and additional factors. Credit analysts can request assistance from the financial institution's sustainable finance team to rate any issuers third-party ratings providers do not cover, and to engage with specific issuers on ESG topics, reporting to the credit analyst.
- Portfolio managers conduct ESG analysis of issuers prior to investment, based on an industry-specific framework developed in collaboration with a dedicated in-house ESG analyst.

The most common model involved the credit analyst or portfolio manager conducting an analysis based on a review of the above-mentioned sources, including any ESG research already conducted for issuers covered by the equities team. In-house exclusion lists were also common.

What is included in the analysis?

As noted above, the majority of interviewees conduct a qualitative ESG analysis (of those that conduct a specific ESG analysis at all). All focused on information that could be financially material to the issuer. Some conducted a qualitative ESG analysis only in specific cases, such as when an issuer was involved in a corruption case. Two named analyses of industry ESG risks as the main framework for analysis, looking to sources like MSCI, Morgan Stanley or SASB (to name a few examples) for the ESG issues likely to be most material within a given sector.

Examples:

- Shipping: recycling practices and plans for compliance with coming environmental regulations
- Energy and offshore: anti-corruption management in extractive firms operating in countries ranking poorly on Transparency International's Corruption Perceptions Index
- Agriculture: approach to antibiotic resistance for issuer involved in livestock production
- Real estate: cross-ownership of companies, buildings in portfolio with environmental classifications such as BREAM (can help in winning public contracts)

Interviewees were most likely to include governance risks in their analysis; specifically, the trustworthiness of the management team. As one interviewee explained, determining whether they trust management is the most important consideration for sustainability, as it indicates the issuer's ability to handle unforeseen risks – also from ESG factors.

In terms of formal protections, analyses of governance factors looked to creditor protections included in the loan agreement (e.g. restrictions on dividend payments to shareholders). Interviewees also noted the importance of checking the firm's shareholder structure, particularly for high yield, to gain an impression of whether the owners would be willing to step in if the issuer encountered financial difficulties.

Geographic exposure was another common factor for analysis. Issuers with activities in jurisdictions subject to particular risk were subject to additional scrutiny, e.g. corruption or lax environmental or labor regulatory enforcement. For the investment grade universe, this was seldom a differentiating factor.

In general, the goal of the analyses was to understand both: 1) the issuer's risk, severity and exposure to negative ESG-related events, and 2) the issuer's robustness to handle negative events. In this respect, issuer preparedness was often the most difficult to assess – even for potentially negative impacts already on the horizon. One interviewee noted that issuers could do a far better job of communicating how they plan to comply with planned environmental regulations. The potential costs are difficult for investors to assess, but this should be a part of issuers' strategic planning.

How does ESG analysis affect the investment decision?

For the investment grade universe, there were few examples in which ESG factors had a concrete impact on the portfolio manager's investment decision. Several investment grade investors confirmed that ESG integration had not had any practical impact on their investment decisions. Swedish Match was the only investment grade issuer routinely excluded from investments. One interviewee avoided a bond in a corruption-plagued Nordic telecom company. Another refrained from investing in an NOK-denominated bond in a foreign issuer involved in a major emissions scandal. For the high yield sector, it was common for interviewees to exercise more caution, especially for issuers with questionable governance structures.

There are other tactics besides a "go/no-go" decision, however. One interviewee mentioned the possibility of limiting risk by investing in a bond of shorter duration from the same issuer. Several mentioned that serious ESG concerns would merit an extra layer of approval, e.g. additional review by the firm's investment committee or an internal ethical review panel.

Lastly, a few interviewees mentioned specific targets for thematic or impact investments, such as green bonds. One fixed income manager cited a portfolio level limit on absolute carbon emissions. High emitting companies could only be included if they had a credible plan for reducing emissions in their value chains. A few interviewees expressed skepticism of the green bond market for Norwegian hydropower issuers, however, wondering whether there was much to be gained by seeking a green label for a company with an environmentally friendly business model.

BONDHOLDER ENGAGEMENT

As with equities, engagement with companies is a common part of the investment process for bond investors – including focusing on ESG topics. However, the engagement strategies may differ from those used for equities. One aspect is that fixed income investments typically focus on the primary market, making engagement with companies ahead of new debt issuances the main priority for many fixed income portfolio managers. Some other key aspects of the engagement practices discussed with the interviewees were:

- When and with whom? Engage alone or in collaboration with other investors?
- Engagement on which topics (including covenant terms)?

When and with whom? Alone or in collaboration with other investors?

Norwegian fixed income investors prefer to interact with issuers before a new debt instrument is issued, and a considerable amount of time is spent in this phase. A large part of the engagement appears to be with management only, often in connection with various kinds of corporate access provided by brokerage houses (sell-side), including participating in seminars with one-to-one meetings. Given portfolio managers' significant emphasis on the governance aspect of ESG, one might expect that they would engage not only with company management, but also with the board and the main shareholders, to get a broad sense of the company's governance practices (and other ESG issues). Admittedly, equity investors tend to meet regularly only with management as well.

Some of the largest Norwegian fixed income investors have extensive ongoing contact with the large issuers (in terms of market cap), even if these are investment grade. This kind of dialogue often takes place through the portfolio managers' own initiative. Note also that large investors more often have dedicated ESG staff (and/or "ethical committees") that support the engagement process. In addition, extensive regular follow-up is more prevalent for high yield portfolios than for investment grade (IG). Some investors schedule regular meetings for all key holdings (for example, twice a year).

Engagement taking place after the initial investment tends to be more incident-based (reactive, not proactive), and will therefore be more prevalent for high yield portfolios (v. IG) due to the higher number of incidents/controversies typically associated with these portfolios - including restructuring situations. Particularly in these situations, several fixed income investors liaise with their equity team.

Portfolio managers seem to do most of their engagement alone or in loose/informal cooperation with other investors. This is partly due to the fear of potential legal barriers/ issues associated with more formal cooperation processes. Furthermore, investors typically do not engage in formal cooperation with one another prior to investing in a debt instrument. Nevertheless, one avenue for more extensive cooperation that was suggested in one of the interviews would be to utilize existing arrangements (see the discussion below).

Note that although the Norsk restruktureringsforum initiative (and its recommendation on restructuring processes released in 2018) represents one example of ad hoc cooperation to affect bond market standards, the members comprised several actors in the fixed income market (not bondholders alone). See more in the chapter on "special situations." The Norwegian Society of Financial Analysts (NFF) also has a dedicated fixed income committee. However, there is currently no specific fixed income investment forum with a history of systematically taking up ESG issues.

Engagement topics (including covenant terms)

There was substantial variation among interviewees regarding the topics for engagement as well as the types of engagement; for example, whether they prioritize engagements that are proactive or reactive in nature. In addition, some investors have a thematic (or "impact") approach to their engagement.

Most portfolio managers have minimum ESG criteria that need to be fulfilled (for negative screening/exclusion lists), and will therefore at a minimum use the engagement process to "tick the boxes." Going beyond mere compliance, engagement pre-issuance can be useful to give the investor insight into the ESG profile of a company, and to highlight any possible ESG issues. Interviewees cited this type of proactive engagement as being particularly important in analyzing issuers that either the main international ESG service providers do not cover or that have low ESG ratings.

Pre-issuance engagement will normally contain a discussion (negotiation) on pricing and general covenant terms. If there are standard ESG elements in the covenants, they will often be related to governance. Interviewees agreed that including additional ESG criteria in loan agreements would be difficult (with the exception of green bonds, which are by definition required to fulfil specific ESG criteria and are often verified by a third party).

It is also worth mentioning that high yield investors in particular seem to be constantly working towards better reporting requirements in loan agreements, which indirectly supports higher ESG standards. Note also that the general impression among interviewees is that debt issuers increasingly take ESG issues more seriously.

Finally, incident-based engagements often take place post-investment and are therefore more reactive in nature. One example mentioned was engagement concerning corruption incidents for various Norwegian companies working internationally (relevant for several industries, including energy production, materials and telecommunications). Other examples mentioned were various environmental-related incidents that required follow-up, such as considering the consequences for local/indigenous people.

Summary bondholder engagement

Engagement with companies is a common part of the investment process for bond investors – including focusing on ESG topics. Compared to equity investment, Norwegian fixed income investment is more focused on the primary market, typically prioritizing engagements ahead of new debt issuances. A key focus in the engagement process is ensuring minimum ESG criteria are fulfilled and assessing a range of governance Issues. In addition, extensive regular follow-up is more prevalent for high yield portfolios than for investment grade investments.

Portfolio managers seem to do most of their engagement alone or in loose/informal cooperation with other investors, primarily utilizing dialogue with top management. There is an ongoing discussion among Norwegian practitioners about the need for more formal cooperative engagement processes incoporating ESG issues.

SPECIAL SITUATIONS - RESTRUCTURING

In the interviews with large Norwegian fixed income portfolio managers about "special situations", the discussion centered on restructuring situations. Three main themes came up:

- Investors perceive Norwegian bankruptcy laws to be inadequate to ensure that restructuring processes proceed efficiently.
- The governance aspect of ESG is critical in restructuring situations, particularly in Norway.
- Most Norwegian portfolio managers (even high yield) have limited experience with restructuring situations.

Norwegian bankruptcy laws appears inadequate to ensure an efficient restructuring processes

As mentioned in the introductory chapter, bankruptcy regulations in Norway are fairly general in comparison to, for instance, US laws. Several interviewees perceived that the Norwegian legal framework makes restructuring processes less efficient than in the United States. One portfolio manager also noted that these processes often require substantial work from the portfolio managers, and is often not compensated (unlike in the United States in connection with Chapter 11 bankruptcy proceedings). Perhaps in reaction to this, the Norsk restruktureringsforum initiative launched a recommendation on restructuring processes in 2018 – a Code of Conduct (available only in Norwegian). [8]

The importance of the governance aspect of ESG in restructuring situations in Norway

Several interviewees emphasized the importance of the governance aspect of ESG in restructuring situations in Norway. Possibly as a function of the general Norwegian bankruptcy laws, interviewees described main owners and banks as having a significant advantage in many situations. Hence, focusing on governance seems logical – including understanding the motivations and the long-term commitments of the main owners, as well as ensuring the board has the right composition. An example provided by interviewees was a situation in which bondholders demanded the appointment of two new board members as a condition for the restructuring.

Most Norwegian portfolio managers have fairly limited experience with restructuring situations

Most of the Norwegian portfolio managers interviewed (even in the high yield space) have fairly limited experience with restructuring situations. This may have to do with the sector composition, which includes many investment grade issuers, as well as the fact that more than 20 years has passed since the Norwegian banking crises of the late 80's/early 90's. One exception is the recent restructuring of Seadrill Ltd., in which several Norwegian portfolio managers have been involved. That process took place under the US Chapter 11 legal framework.[9]

Summary special situations – restructuring

A key focus among Norwegian fixed income portfolio managers concerning «special situations» are the restructuring situations. A challenge frequently mentioned is that Norwegian bankruptcy laws appear inadequate to ensure an efficient restructuring process. A consequence is perhaps an even higher focus in these situations on the governance considerations for companies in Norway than internationally. Note that most of the Norwegian portfolio managers interviewed have fairly limited experience with restructuring situations – partly because of the sector composition of investment grade bonds in Norway.

[8] https://www.reforum.no/wp-content/uploads/2018/04/180331-Anbefaling-for-restruktureringsprosesser.pdf
[9] http://www.seadrill.com/restructuring.aspx

EFFECTS OF ESG INTEGRATION IN FIXED INCOME

Note that a systematic literature review of the effects of ESG in fixed income is provided at the beginning of this report. This chapter therefore focuses on what bond portfolio managers perceive as the effects of ESG integration in fixed income (not on the findings of the academic studies).

There may be several motives for integrating ESG in fixed income: achieving higher financial returns, risk management, customer requirements, developing new/more innovative products, etc. In any case, the systematic integration of ESG in fixed income portfolio management is a fairly new concept in Norway. In many ways, the feedback about possible effects reflects this. Many interviewees were uncertain about the outcome, but pointed to growing customer demand for ESG integration, as well as ESG requirements in fund mandates. In terms of perceived financial effects, there were two main takeaways from the interviewees:

- Though the effects on risk-adjusted return were perceived to be uncertain, there was consensus that the governance aspect of ESG was most important, and that governance issues were most likely to result in a tangible financial impact.
- The most important consideration was to limit downside/tail risk.

Focus on governance

Again, many of the portfolio managers interviewed were quite uncertain about the financial effect of ESG integration in fixed income, perhaps because of the relatively short history - making it difficult to measure/quantify the effects. However, some believe that governance is perhaps the most useful part of ESG integration. In that regards, two of the interviewees pointed to a popular "broker" report (Barclays Equity Gilt Study 2017) – where one of the conclusions about ESG ratings and corporate bond performance was: "When studying the effect of individual E, S, and G scores, we find that governance has the strongest relationship with performance."[10] For further discussion on this topic, see the literature review by Professor Bruno Gerard.

Limiting downside/tail risk

Although the effects of integrating ESG in fixed income are hard to quantify, a strong theme in the interviews was that the most important financial motivation for ESG integration is to limit downside risk (giving better risk-adjusted returns). One portfolio manager mentioned the goal of avoiding tail risks – seeking lower risk and the same yield. Interviewees cited "Deepwater Horizon" as an example of a tail risk with large consequences.[11] Investors can also use ESG integration as a means to improve the overall quality of credit analysis, which can help to limit downside risk. One example mentioned in this regard was the possibility of an ESG approach to better quantifying the effects/costs of Norsk Hydro's recent Alunorte incident in Brazil in a comprehensive credit analysis.[12] Another example mentioned was to integrate climate risk in the credit assessment.

[10] Barclays, Equity Gilt Study 2017. By Lev Dynkin.
[11] https://en.wikipedia.org/wiki/Deepwater_Horizon
[12] https://www.hydro.com/en/press-room/alunorte-situation/barcarena-facts/.

Summary - effects of ESG integration in fixed income

In summary, the financial effect of ESG integration in fixed income is unclear, both based on practitioners' perceptions and the systematic literature review by Professor Bruno Gerard. Nevertheless, practitioners still see increased levels of ESG integration as important in bond portfolio management.

CONCLUSION

Few high quality academic studies find a financial link between ESG and fixed income investing. However, studies from the equity markets suggest ESG performance is associated with lower downside risk and higher stock values. The overall impression that emerges from the literature is the need for more high quality academic research on ESG approaches for bond investors. Thus, it is not surprising that interviewees in the Norwegian market adopt a variety of approaches – there are no established "best practices." Few of the investors we interviewed had a systematic approach in place for integrating ESG.

From the discussions with Norwegian investors concerning unique characteristics for fixed income, we found that the primary motivation for ESG integration is to better understand downside risk and increase risk-adjusted returns. The research points to the importance of assessing material ESG factors for financial performance. These are likely to be industry specific and more granular than a single, overall issuer ESG rating. Based on our interviews with Norwegian investors, ESG integration focuses primarily on the credit risk assessment, which often includes the portfolio manager's observations based on pre-investment meetings with the issuer. Ideally, proper identification of material ESG information, particularly in relation to the risk of negative ESG events, would encourage more issuer transparency on these issues.

The interviewees identified the challenge of obtaining reliable and useful ESG information for their analyses. Sell-side credit analysts are also absent from this discussion. This means that portfolio managers largely assess ESG risk and materiality based on their holistic view of the issuer. Portfolio managers have key knowledge about the companies and are quick to understand what potential challenges they face. However, do they have enough knowledge of ESG risks for a specific company and industry to assess materiality accurately? Almost all the investors we spoke to had dedicated ESG staff to help establish that link. Many also worked with their equity teams on ESG integration. However, given most investors did not have a clear process for integrating ESG into their analyses, is there a danger that material ESG risks are not fully translated into credit risk assessments?

The literature on shareholder engagement suggests investor actions that improve company ESG performance are associated with better financial performance. Whether and how these results are applicable to bondholders remains unclear. Norwegian investors currently tend to engage with issuers primarily at the pre-investment stage, with subsequent follow up more common for high yield issuers.

In summary, the financial effect of ESG integration in fixed income is unclear, both based on practitioners' perceptions and the systematic literature review by Professor Bruno Gerard. Nevertheless, practitioners still see increased levels of ESG integration as important in bond portfolio management. Our intent with this report is to inspire the various actors in the Norwegian fixed income community to move this discussion forward.

Norsif

c/o Verdipapirfondenes forening
Postboks 2524 Solli
0202 Oslo

norsif@norsif.org