Money Talks?
Institutional Investors' Ability to Affect Their Holdings Using Norm-Based Exclusions and Dialogues

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ABSTRACT

Institutional investors hold unique power, as they can use SRI-strategies to change the behavior of companies not contributing to a sustainable development. While most studies that are investigating investors' usage of SRI-strategies are focused on the financial implications in terms of returns, this paper focus solely on the environmental performance of holdings affected by the SRI-strategies. In the Nordic region, two of the predominant SRI-strategies that are used among institutional investors are norm-based exclusions and investor dialogues. By analyzing firms' environmental data using a difference-in-difference specification applied to a fixed-effect panel data regression, no evidence supporting that norm-based exclusions positively impact the environmental practices of affected holdings is found. It is argued that investors' lack of consensus regarding companies being excluded and the insufficient transparency concerning the exclusion decisions, are explaining why no positive impact can be identified. The difference-in-difference methodology is also used to evaluate the impact of investor dialogues. The results show that firms that are subject to the dialogue initiative, which is conducted by a non-profit organisation representing global institutional investors, have lower emission intensities than companies that have not engaged in the dialogue. Even though the causality of dialogues with regards to the lowered emission intensities cannot be confirmed, it is demonstrated that investor dialogues can be used to identify companies that are most likely to improve their environmental practices.

Keywords: Norm-based Exclusions, Investor Dialogues, Socially Responsible Investments, Institutional Investors, Climate Change

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1. Definitions

ESG - Abbreviation for Environmental, Social and Governance. Often used to describe investing that takes these factors into consideration.

SRI - Socially Responsible Investments integrates ESG factors in the analysis, research- and selection process of investments. This is combined with financial analysis, to generate societal impact and improved investor returns. Several different SRI-strategies can be employed, which can be categorized as either Sustainability themed investments, Best-in-Class investment selection, Exclusion of holdings from investment universe, Norms-based screening, Integration of ESG factors in financial analysis, Engagement (including investor dialogues) and voting on sustainability matters or Impact investing. (Eurosif, 2016)

CSR - Corporate Social Responsibility is firms' internal responsibility for their societal impact.

Exclusion - An SRI-strategy that implicates that the investor eliminates holdings from their investment universe. Oftentimes, the excluded company is also listed on a publicly available blacklist which comprises of the investors' cumulative exclusions up until that point in time. (Eurosif, 2016)

Dialogues – An SRI-strategy that implicates that the investor initiates a dialogue with a company with the objective to achieve a change. We will only treat constructive conversations between investors and holdings a dialogue.

Absolute Emissions - A company's total CO2 equivalent emissions.

Emission Intensity - A company's CO2 equivalent emissions relative to a firm-specific factor, e.g. revenues or assets.

2. Introduction

The environmental performance of companies is a factor that is highly relevant for investors that use SRI-strategies. The relevance of environmental considerations is highlighted by their presence in the public discourse, which has increased significantly since 2015 when the Paris climate accord was signed by 195 countries (European Commission). As of today, almost all institutional investors use various SRI-strategies to affect their holdings to take preferred actions. In this paper, we evaluate the effect of two SRI-strategies; norm-based exclusions and investors dialogues.

While prior studies have documented the relationship between exclusions and the financial performance of investors, we focus solely on the environmental performance of excluded companies. We gather data on the absolute emissions and emission intensities of companies that have been excluded by four of the largest institutional investors in the Nordic region, as well as data for non-excluded companies. By analyzing this data using a difference-in-difference specification applied to a fixed-effect panel data regression, we do not find any evidence that supports that norm-based exclusions positively impact the environmental practices of excluded companies.

Previous studies evaluating the impact of investor dialogues have generated different results. The definition of a dialogue varies; certain investors name a sent letter a dialogue, while other investors only use the term when a constructive conversation is reached. In this paper, we will use the later of the two definitions, only treating constructive conversations as dialogues. By using a similar difference-in-difference specification as in our analysis for exclusions, applied to a fixed-effect panel data regression, we analyse the environmental performance of companies that have been subject to a dialogue initiative performed by a non-profit organisation representing global investors. We find that companies that respond to the dialogue initiative are more likely to improve their environmental practices than companies that do not respond. The results of our paper give investors an indication of what approach they should adopt to affect their holdings to develop more environmentally sustainable practices.

The evaluations of the effect of norm-based exclusions and investor dialogues are important in the context of the urgent climate situation that today's society is in. In the report "New Climate Economy" by the The Global Commission on the Economy and Climate (2014), it is estimated that cumulative investments across the whole economy, with the objective of lowering global warming, must amount to $93 trillion in 2035 to achieve the long-term goal of keeping the increase in average global temperature below 2°C. This requires that capital is

invested efficiently and assigned to projects and initiatives that help counter global warming. Furthermore, this means that the strategies used by investors to put pressure on companies that are not contributing to a sustainable development need to be well targeted and effectful.

Exclusions of holdings are commonly executed due to the occurrence of business models that are considered to be unethical or due to breaches of international norms. The former is called sector-based exclusions, and are often associated with businesses in industries such as tobacco, weaponry and coal. Exclusions due to companies' non-compliance with international norms which relates to environmental, social and governance issues are called norm-based exclusions (Novethic, 2012). In this paper, we only consider norm-based exclusions that have been conducted due to violations of international norms that relate to environmental sustainability. This implies that we evaluate how firms are affected by exclusions that are done due to non-compliance with international environmental norms, most often the environmental principles of the UN Global Compact. The UN Global Compact is an initiative launched by the United Nations with the mission to support companies in being sustainable, which implies conducting operations which are consistent with their ten principles on human rights, labour, environment and anti-corruption. Environmental sustainability implies working to reduce climate change, and being consistent with the principles seven, eight and nine (UN Global Compact, 2000);

Principle 7: Businesses should support a precautionary approach to environmental challenges; Principle 8: Undertake initiatives to promote greater environmental responsibility; and Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

It is possible to distinguish two primary objectives for the use of SRI-strategies; The first is referred to as moral symbolism, and implies protecting the reputation of the investor and ensuring that the conscious of said investor remains pure (Sandberg, 2007). The second primary objective is linked with a belief among investors that they have the power to affect, influence and cause companies to perform better with regards to social and environmental dimensions. When the strive for change is the underlying purpose of the SRI-strategy of an investor, it is referred to as moral change (Sandberg, 2011). The fact that moral change is one of the underlying objectives of institutional investors is the basis for our analysis.

3. Literature review

Various stakeholders, especially major institutional investors, are constantly pressuring companies to act ethical. A growing literature is investigating different aspects of investors' SRI-strategies and investors' ability to act responsible and still maintain acceptable rate of returns. Literature that is important for our study is investigating investors' ability to affect companies' operations and evaluates what outcome investors´ interventions with their holdings might have.

In their paper "Active Ownership", Dimson, Karakas and Li (2015) examines the relation between active investors' engagements with holdings and the returns of these holdings. Thus, the authors of this paper consider the category of SRI-strategies which is classified as engagements, or as the authors calls it, "ESG activism" or "active ownership". Apart from analyzing how active ownership affect firm performance in terms of market returns, the paper also attempts to describe how active ownership functions and what underlying factors are driving the market's reaction to the engagements. To answer these questions, the authors base their analysis on a proprietary database of CSR engagements which is provided by a major, influential asset manager. The database contains data for 613 U.S public companies from 1999-2009 and describes the different engagement actions taken by the asset manager.

Dimson, Karakas and Li find that active ownership results in a positive abnormal return of 7.1% during the year that follows a successful engagement, and that the corresponding return for all engagements (successful or not) is 2.3%. However, there is no found market reaction to unsuccessful engagements, which the authors interpret as evidence for their conclusion that using active ownership bears no risk of destroying value. Furthermore, they argue that their results show that active ownership improves stakeholder value by improving the holding's financial performance.

Another study that attempts to show that SRI-strategies do not destroy value for investors is "On the Price of Morals in the Market" by Hopner and Schopohl (2016). In contrast to Dimson, Karakas and Li, Hopner and Schopohl considers exclusions instead of investor engagements. The authors include both norm-based and sector-based exclusions of companies in the examination, and conduct a time-series analysis of financial performance to identify if exclusions result in a loss of abnormal returns. The study is limited to the Norwegian Government Pension Fund and the Swedish AP-funds, two leading Nordic investors, and looks at the performance implications of their exclusion decisions. To conduct the study, portfolios containing companies that have been excluded by the two Nordic actors are constructed.

Following this, the returns of respective portfolio are evaluated using standard asset pricing models. The results of the study show that relative to the funds' respective benchmark, the portfolios of excluded companies have higher risk but no corresponding abnormal return. This leads the authors to conclude that exclusions of holdings can be used by investors without compromising financial returns.

While Hoepner and Schopohl merely investigates the impact of exclusions on investors, the paper "*Norm- based exclusions; How responsible investors have handled controversial companies"* by Novethic (2012), the French media- and research centre, looks more thoroughly on exclusions by examining the underlying institutions, the current users of exclusions and how it varies across countries. In their paper, Novethic looks at the exclusion lists of fifteen European investors and concludes that there is no overall consensus among the lists. Of the 120 different excluded companies appearing at least once among the fifteen lists, almost three quarters of them only appear on one list and only 16 companies are excluded by at least a fifth of the investors. Furthermore, Novethic states that the impact of the exclusions on the affected companies´ CSR practices appears to be limited. Their explanations to this is that even though an increasing number of investors are using exclusion as a mean of affecting their holdings, the flow of funds to excluded companies have not decreased. Accordingly, this is the outcome of two factors; the lack of consensus among the exclusion lists and the fact that the number of investors currently using exclusions do not account for a sufficient share of the global funds available to companies.

Nonetheless, Novethic finds that the exclusions of controversial weapons manufacturers, such as cluster- and anti-personnel mines, is now extensive among investors and a high level of consensus is achieved. Even though Novethic finds it hard to ensure the causal relationship, they find that a number of the excluded companies have terminated their production of controversial weapons. This shows that the exclusion might have had a real impact, or at least played a part in the change (Novethic, 2012).

Just like Novethic, Vandekerckhove, Leys and Van Braeckel (2007) of Ghent University study investors ability to affect their holdings. Vandekerckhove et al. focus on informal dialogues in the form of letters between investors and company managers. They look at letters sent from Portfolio21, a joint effort of European institutional investors with assets exceeding 10 billion euros, to eighteen different companies accused of several violations to the core convention of the International Labour Organization. Out of the eighteen contacted companies, only thirteen of them replied. By examining the responses from the accused corporations, Vandekerckhove, Leys and Van Braeckel conclude that managers tend to deny

any accusations, implying that it is very hard for investors to necessitate any concrete action. According to the authors, the typical response from a company manager, which also is the appropriate name of the paper, is; *"That's not what happened and it's not my fault anyway".*

3.1 Contribution to current literature

Even though many institutional investors in some way use exclusions as a part of their SRI-strategies, surprisingly little literature exist on the subject. However, the studies that are actually investigating exclusions are mostly concerned with sector-based exclusions. Thus, there is a clear need for further research on the potential impact of norm-based exclusions on the operations of holdings. Our study contributes to the existing literature by filling the void around norm-based exclusions and by examining if norm-based exclusions have any real impact on the operations of holdings.

There is also a need for additional research that considers dialogues. Even though Vandekerckhove, Leys and Van Braeckel find that company managers rarely respond to a dialogue acknowledging their responsibility for violating international norms, their results do not directly imply anything about the impact of the performed dialogues. Even though the lack of accountability indicates that no change occurs as a result of the conducted dialogues, this is not confirmed by the study. Thus, it is of interest to evaluate if dialogues can affect companies to improve their practices regarding CSR-related issues.

Furthermore, a majority of the studies previously conducted investigating and measuring the outcome of various SRI- strategies, have taken the perspective of investors. That is, most studies have looked at the causal effect between SRI-strategies and the impact it might have on the share price development of the affected holding, translating to investor returns. By taking the perspective of the company, we can more thoroughly investigate what impact the investor's SRI-strategy is having, not just on the share price but on other key figures, such as emissions. By doing so, we are hoping to be able to deliver a more nuanced picture of the impact of norm-based exclusions and dialogues.

4. Institutional background

4.1 The historical background

The use of norm-based exclusions increased by around 54 percent in Europe between the years of 2009 and 2011 (Novethic, 2013). However, the practice of excluding companies from the investment universe has been used by investors for centuries. The historical roots of exclusions go back to the 18th century, when the English religious movement called the Quakers withdrew their business from companies involved in alcohol, tobacco and gambling (what the Quakers referred to as "sinful activities"). Furthermore, they also boycotted companies tied to the widespread slave trade (Murray, 2015). Over three centuries later, in 1928, the Pioneer mutual fund was launched in the United States as the first mutual fund applying sector-based exclusions (Social Funds).

4.2 Modern institutions of exclusions

Today, the Norwegian Government Pension Fund (NGPF) is often considered a leader amid investors in terms of exclusions of holdings. The fund is the largest in Europe and constitutes around 1 percent of the global capital, and was an early adopter of the exclusion strategy (Daly.J, 2014). Due to public pressure, the NGPF has always been very transparent regarding their exclusion decisions. Their early adoption of the exclusion strategy, their widespread public disclosure as well as the mere size of the fund have resulted in that the NGPF now has a significant influence over companies as well as other major global investors. (Novethic, 2012)

The exclusion of a company will have potential effect in two different ways; First, the bad publicity that the exclusion entails will put pressure on the company to improve. The bad publicity, however, will only occur in mainstream media if the investor excluding the company is of certain size. Secondly, if the investor constitutes a large amount of capital, funds available to the excluded company will become scarcer, forcing them to improve (Novethic, 2012).

In the Nordic region, three of the largest institutional investors, in addition to NGPF, are KLP, the Swedish AP7 fund and Storebrand. It is evident that moral change is one of the underlying purposes of these institutional investors. For instance, Ulrika Danielsson, the Chair of Council of Ethics in 2016 for the Swedish AP Funds say the following;

"The Council on Ethics' basic premise is that the AP Funds shall abstain from investment in companies that systematically violate the international conventions to which Sweden is a signatory. Should problems be encountered, the Council on Ethics becomes actively involved, ***with a view to promoting improvements"*** (Etikrådet, 2016)**.**

Also, the Swedish AP7 fund has based many of their latest exclusions on the UN Paris Agreement. The underlying objective of this agreement is to facilitate a sustainable development by encouraging companies to reduce their carbon footprint. Furthermore, the former acting Head of Responsible investments of KLP, Annie Bersagel, states that KLP makes their exclusion list, as well as all the names of the companies that they have been in contact with, publicly available because ***"...transparency creates impact."*** (Fixsen, 2017). Additionally, KLP remains in contact with the excluded companies after the exclusion decision, to help them improve. This shows that they are devoted to achieving a change. Also, it is evident that moral change is one of the underlying objectives of the NGPF. The guidelines for how the fund should be managed, states the following;

"*The Fund is an* ***instrument*** *for ensuring that a reasonable portion of the country's petroleum wealth* ***benefits future generations****" and "financial wealth must be managed with a view to generating a sound return in the long-term, which is* ***contingent on sustainable development in the economic, environmental, and social sense****"* (Clark and Monk, 2010)

4.3 The exclusion-process

Almost all institutional investors use a service company to detect and confirm environmental incidents around the globe. In the Nordics, one of the most widely used service providers is Global Engagement Services (GES), a European company that supports investors in developing and executing SRI-strategies. GES helps investors to receive news of their particular concern before it is highlighted in the mainstream media, and to observe and act on incidents that might otherwise have been foreseen.

The first step in the internal process of GES is to confirm the incident and that the company in question is guilty of the violation. If the company is found guilty of the incident, GES might recommend their customers to "engage" with the firm in question, meaning that they initiate a dialogue. GES conducts dialogues on behalf of, or in collaboration with, their customers. An alternative to this is that the investor contacts and manages the dialogue with the affected firm by themselves. If the dialogue with the accused company does not result in satisfactory results, GES might recommend their clients to "Disengage" with the company. A decision to "Disengage" indirectly implies an exclusion of the affected holding. GES knows from experience that it takes two to three years, on average, for a change to take place **(**Global Engagement Services, 2015**).** Furthermore, GES has only recommended their clients to "Disengage" in 6% of the cases where they have engaged with companies due to violation of international norms and conventions (Client Relationship Department at GES, 2018). It is

important to stress that GES only provides recommendations and they do not themselves take any absolute actions on the behalf of their clients.

One of the Nordic institutional investors that use GES to assist them in their analysis is KLP, the largest life-insurance company in Norway. Briefly, they describe their exclusion process in the following manner(KLP);

Incident- GES searches through thousands of different news sources daily to ensure that they observe all potential violations of the guidelines that they are working by.

Investigation- When a potential violation is observed, GES begins to investigate the event more thoroughly. All allegations towards the company must be confirmed before further actions are taken.

Dialogue- GES initiates a dialogue with the company, on the behalf of KLP. The intention of the dialogue is to get the company to improve their practices so that no exclusion has to occur.

Satisfactory results? – The results are satisfactory if the company has ceased the bad practices and has handled the aftermath in a responsible way. Additionally, the company should also have taken actions to prevent that similar events occur in the future.

Exclusion - If the requirements from KLP are not fulfilled, KLP sells their shares in the company. Furthermore, KLP remains in contact with the company in hope that they will improve and in turn enable a re-inclusion.

4.4 Modern institutions of dialogues

Although varying definitions of the term dialogues exist, the underlying objective of this SRI-strategy is universal; Dialogues are conducted to complete information or achieve a specific change (Gustafsson, 2016). These two does not have to be mutually exclusive, as is shown by the Climate Change Initiative performed by CDP.

CDP is a British non-profit organization that represents a large number of institutional investors and policymakers around the world. CDP focus companies on taking action to build a sustainable economy by requesting them to measure and report their environmental impact. The institutional investors that CDP represent have more than $100 trillion in combined assets and CDP has on their behalf launched several initiatives targeted towards holdings. One of these initiatives is the Climate Change Initiative, which aims to improve the environmental performance of the largest companies in the world by improving the quality of their ESG-reporting. In the Climate Change Initiative, CDP asks the largest companies on the globe to provide information regarding their climate risks and low carbon opportunities. The initiative

was launched in 2010 and the dialogues are still being conducted on a yearly basis. All of the responses of the contacted companies are publicly available on CDP's website and the responses are categorized into four different categories; *Submitted, Declined to participate, Information provided* and *No response.* According to the organisation, *"CDP's climate change program works to reduce companies' greenhouse gas emissions and mitigate climate change risk"* (CDP). Thus, the Climate Change Initiative is seen as a dialogue with the objective of lowering holdings' emissions, and will be used in this paper to evaluate if dialogues can be used to influence the operations of holdings.

5. Hypotheses

5.1 Hypothesis 1

Although the existing literature that is centred around SRI-strategies mainly considers the potential impact on investors, some theoretical intuition about the strategies' effect on the operations of the holdings can still be derived. Dimson, Karakas and Li (2015) show that the use of engagement will positively impact the financial performance of the affected company, which implies that engagements can be used to influence the operations of holdings. The fact that engagements are shown to have an effect on the financial performance of the company proves that in certain settings, investors can influence their holdings. However, other studies evaluating the effect of other SRI-strategies have not been able to ensure that investors have the ability to do so. For example, Novethic (2012) argues that exclusions have a limited impact on affected companies' CSR practices due to their restricted effect on the capital which is available to the affected firm.

Furthermore, the lack of consensus among the currently outstanding exclusions list also entails that the bad publicity rising from an exclusion decision becomes somewhat limited compared to a situation where most institutional investors exclude the same company. Coupled with the theory provided by Sandberg (2007, 2011), that investors might have other motives behind norm-based exclusions than to affect and influent companies, this leads us to question whether institutional investors can realize their moral change motive and impact holdings using norm-based exclusions. Thus, the following hypothesis is formulated;

Hypothesis 1

Norm-based exclusions of holdings, that are conducted due to breaches of environmental norms, does not generate a positive impact on the affected companies' environmental performance.

5.2 Hypothesis 2

Due to the need of further research about the potential impact of investor dialogues, it is of interest to evaluate if dialogues can affect companies to improve their practices regarding CSR-related issues. The insight that only 6 % of the initiated dialogues by GES later result in a disengage recommendation implies that dialogues conducted with companies guilty of

violations of international norms are most often successful in terms of improved practices. With regards to dialogues that are initiated by institutional investors due to environmental concerns, the following hypothesis is therefore formulated;

Hypothesis 2

Dialogues generate a positive impact on the affected companies' environmental performance.

6. Data

This section introduces the different types of data that we gather to test our hypotheses as well as the different data sources from where we extract our used data.

6.1 Exclusions data

We analyse the publicly available exclusion lists of the largest institutional investors in the Nordic region that aim to impact holdings through norm-based exclusions. The lists that we analyse are issued by the following investors: The Norwegian Government Pension Fund, KLP, Storebrand (SPP) and AP7.

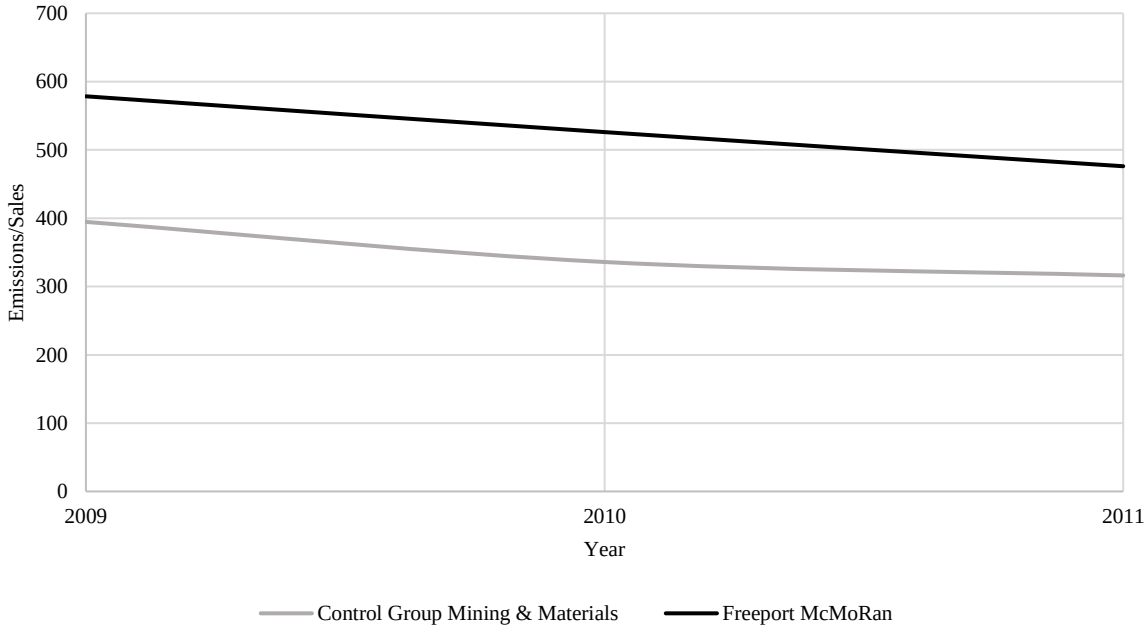
Our main source of data are the publicly available exclusions lists that are found on the investors' websites. All four investors state the name of the excluded company and a brief description of the reason to why the company is excluded. Some of the publicly available exclusions lists also include the year of the exclusions. However, due to confidentiality, some data regarding the year of exclusion were distributed to us specifically from the institutional investor in question and is not publicly available.

Overall, our treatment group consists of global companies in various industries that have been subject to norm-based exclusions due to violations of environmental norms. These firms have been excluded by one or more of the investors mentioned above in the period 2006-2016. Initially, we consider all companies that appear on one or more of the exclusion lists that we analyse. A number of companies are disregarded because of missing data regarding environmental performance and the year of exclusion. Thus, our final sample consists of 30 firms that have been excluded by at least one of the four institutional investors.

Our control group consists of 82 non-excluded companies from different industries that operate on a global scale. Neither of the companies in the control group have been subject to exclusions by any of the larger institutional investors. The construction of the control group is conducted through industry- and size based matching, to increase the credibility of the inherent assumption of parallel trends. By including the closest industry peers of each treated company in the control group, we believe that it is probable that the average pre-treatment trend in emission intensity among treated and non-treated firms is parallel. This would imply that a difference-in-difference analysis is appropriate to evaluate the effect of exclusions on the emission intensity of firms, as this means that in the absence of treatment, the emission intensity of treated firms and the control group would develop in a similar manner. To further investigate the validity of the parallel trend assumption, we compare the pre-treatment development in

emission intensity of the treated company Freeport McMoRan and three of its industry peers. Freeport McMoRan is excluded in 2012, and operates in the Mining & Materials industry. As shown in DIAGRAM 1, a parallel trend in emission intensity exists pre-treatment, when the development of Freeport McMoRan is compared to the average development of three non-excluded firms operating in the Mining & Materials industry. However, due to the existence of different treatment dates among our treatment group, it is difficult to visually inspect the validity of the assumption regarding the full sample. Thus, we argue that the parallel trend shown in DIAGRAM 1 is representative for the overall sample, and therefore justifies the use of a DD-analysis. Further information about the excluded, as well as non-excluded companies, are found in TABLE 1 (*Appendix*).

DIAGRAM 1
Parallel Trends Pre Treatment



The diagram shows the pre-treatment development in emission intensity of the treated company Freeport McMoRan and three of its industry peers. Freeport McMoRan is excluded in 2012, and operates in the Mining & Materials industry

6.2 Environmental data

We have collected data on the absolute emissions and emission intensities of the excluded- and non-excluded companies, to enable an evaluation of the impact of SRI-strategies on the environmental performance of holdings. Our choice of environmental measurement, the emission intensity of companies' operations, rests on a few assumptions.

First, the underlying objective of the environmental principles in the UN Global Compact is to contribute to a more sustainable environmental development, where reduced emissions is of utmost importance. As most norm-based excluded companies are excluded due to violations of principle 7,8 or 9 found in the UN Global Compact, they are by definition not considered to contribute to sustainable environmental development. UN Global Compact states that reduction of emissions is an important factor for achieving a sustainable environment. This statement implies that even though most exclusions are triggered by specific events not directly linked to CO2 emissions, the emission intensity of operations can be used to measure if exclusions incentivize firms to increase their contribution to environmental sustainability.

Secondly, there is a trend among institutional investors and fund managers to more thoroughly review and publicly report the absolute emissions of their funds' holdings, according to the Swedish Investment Funds Association (SIFA). Thus, fund managers aim to reduce their funds' carbon footprint to create a competitive advantage and make their fund more appealing. Furthermore, SIFA states the following;

"The carbon footprint provides a basis for evaluating certain climate-related financial risks and facilitates influencing companies towards reduced emissions, e.g. as a result of requirements in relation to emission reduction goals, risk management, business strategies, and transparency. The metric shall be viewed in the context of the fund management company's overall sustainability work". The focus on the emissions entails that investors will put pressure on their holdings to pursue a lower emission intensity, and by doing so making their funds more competitive (Fondbolagen, 2016).

Once a company has been excluded, the investor does an overall evaluation of the company to decide if the company should be re-included. In the overall evaluation, absolute emissions is often one of the parameters evaluated. For an excluded company, to be re-included, it is therefore important to show a reduced emission intensity.

Lastly, once a company is excluded, it will likely experience bad publicity in the media. This puts pressure on the company to improve their environmental practices, including handling the consequences of the incident. The negative publicity also incentivizes the company to improve their overall environmental practices, including the emission intensity of their operations.

In addition to the environmental data gathered, we also collect firm-specific data to enable our analysis. This includes information about the firms' annual revenues, total assets, the industry they are operating in and their HQ locations.

6.3 Dialogues data

To test our second hypothesis, and evaluate if dialogues impact the environmental performance of holdings, we gather data about what companies that have been subject to the Climate Change Initiative conducted by CDP. We consider the companies with the response status "*Submitted"* or *"No response",* where *"Submitted"* means that the company submitted a response to some or all of the requests and *"No response"* means that the company did not reply to the dialogue initiative. Thus, we define companies that have been subject to a dialogue as firms with the response status "*Submitted".* The control group consists of companies with the response status *"No response",* implying that they have not been subject to a dialogue (CDP).

In our dataset that is used to evaluate the effect of dialogues, we have not included any companies that are excluded by any of the four institutional investors considered in this paper. This is done to mitigate the risk that the effect of the exclusion might otherwise distort the results regarding the impact of the dialogue, thereby making it hard to separate the two forces. Nonetheless, the companies from our previously constructed control group, consisting of non-excluded companies, are also included in our second dataset given that they are contacted by CDP. The reason that we have only considered companies that are contacted by CDP, and not included other firms in our control group, is to mitigate selection bias. CDP has only contacted the largest companies on the globe, implying that an inclusion of companies not contacted by CDP might distort our result due to inherent differences between the largest- and remaining firms regarding emission intensities. Even if our model later controls for size fixed-effects, this approach acts as a precautionary principle.

We gather environmental and firm-specific data for companies that took part in the dialogue with CDP as well as for companies that did not respond. For the treatment group, we initially consider all firms that have responded to the request. The final sample of treated firms amounts to 69 companies, as the availability of environmental data is the main constraining factor, vastly limiting the number of firms that can be considered. Furthermore, firms that have not responded to the request make up the control group. Once again, the availability of environmental data is a restricting factor in the construction of the sample, thus resulting in a final control group of 13 firms. In total, our data frame consists of 82 companies. The characteristics of the sample are described in TABLE 2 (*Appendix*)

6.4 Data sources

The environmental- and firm specific data is extracted from Thomson Reuters financial analysis database Eikon. In addition to this, some firm-specific data is collected from the online resources Forbes and Yahoo Finance.

7. Empirical strategy

7.1 Estimating the impact of exclusions

To evaluate the impact of norm-based exclusions on the environmental performance of companies, a difference-in-difference specification is used. The exclusion decisions are viewed as treatments, and the emission intensities of firm's operations are viewed as the outcome which the treatments aim to impact. A panel data set, containing time series data for both excluded and non-excluded companies, is used as the basis for the evaluation. Firms' absolute emissions are size-adjusted to enable comparison between different companies. The size-adjustment is done by measuring a company's emissions relative to both its sales and assets, to ensure that the evaluation captures the true effect on firms' emission intensities. If only emissions divided by sales is used as the dependent variable, the outcome of our model can vary due to an increase or decrease in emissions or due to variations in annual revenues. Thus, an additional dependent variable, emissions divided by assets, is included to control the robustness of our results. This means that the outcome variable is represented by the emission intensity of companies' operations, based on both assets and sales.

As the companies in our sample have been excluded, or subject to the treatment, at different dates, the interplay between treatment dates and calendar dates must be considered. In a typical diff-in-diff framework, which is frequently used to evaluate the impact of a treatment, all observations that are subject to the treatment are treated at the same time. This is not the case with regards to the excluded companies, which motivates a modified difference-in-difference specification. In addition to this, the model should control for fixed-effects that might affect the emission intensities of companies, as these can be expected in this context. Thus, we follow the approach of Beck, Levine and Levkov (2010) in "Big Bad Banks? - The Winners and Losers from Bank Deregulation in the United States", who use a diff-in-diff specification and apply this to a fixed-effect panel data regression analysis. The model, which evaluates the impact of exclusions on companies' emissions, is denoted by the regression set-up in *Equation 1*.

Equation 1

$$y_{it} = T_{it} + \beta \; x \; Treatment_{it} \; + \alpha_j + \alpha_s + \alpha_g + \varepsilon_{it}$$

In *Equation 1*, t indexes years, i indexes firms, j indexes industries, s indexes size quantiles and g indexes HQ locations. y_{it} is the dependent variable of interest (Emissions/millions of USD in Sales or Emissions/millions of USD in Assets), T_{it} is the time trend, a_j,a_s and a_g are industry- size- and geographical fixed-effects and Treatment is a dummy variable that equals one when the treatment is in effect. The main coefficient of interest is β, which measures the effect of the exclusions. A significant and negative β indicates that exclusions reduce the emission intensities of affected firms, thus resulting in the prefered outcome of the investor. A significant and positive β indicates that exclusions increase the emission intensities of affected firms. We consider 10% statistical significance as a significant finding. Furthermore, standard errors are clustered by firm.

The model is written in log-linear regression form, to further enable easy interpretation of the results. This implies that the dependent variable is the natural logarithm of each respective outcome measure, which means that the coefficient of each explanatory variable can be read as the percentage increase in outcome when the said variable increases by one unit and everything else is held constant.

The treatment variable is coded as a dummy variable that equals one in the years when the treatment is in effect, and 0 otherwise. We assume that the treatment can start to have potential impact two years after the exclusion decision. This assumption is based on the experience of GES and implies that the treatment variable equals one the second year after the exclusion, and in the years thereafter.

We include fixed-effects which are most expected in this context. Year fixed-effects are included by the introduction of a time trend variable that takes on continuous values, each representing a year. This controls for trends and global shocks that affect firms' emission intensities, such as business cycles. We argue that a negative time trend is expected to be present among our data, because factors such as technological advances and the public's changed interest in climate change result in a negative trend in firm's emission intensities (Kahn, Kotchen, 2011). The model also controls for industry fixed-effects by including industry-specific dummy variables. This is done due to our assumption that the emission intensity varies between different industries, which is considered reasonable as our sample contains companies from various industries that are vastly different from each other. Size fixed-effects are also controlled for in the model, through the inclusion of additional dummy variables, because of the assumption that the different sizes of the firms impact their respective

emission intensities. It is possible that firms with relatively higher revenue can maintain more emission efficient operations than firms with lower levels of revenue, due to economies of scale in the production process. We divide the companies in our dataset into five different categories based on the following 2016 annual revenue intervals in billions of USD; (0- $3.5, $3.5- $11.5, $11.5- $30, $30- $100, >$100), where each size-dummy variable represents one interval. Finally, country-specific dummy variables control for geographical fixed-effects. We argue that the different locations of firms' headquarters are expected to impact the emission intensity of firms' operations due to the geographical variability in regulation and cultural factors. These can limit, or expand, a firm's ability to conduct emission intensive operations, by introducing incentives or requirements related to environmental performance.

Initially, a regression which does not consider fixed-effects is performed. This is done to confirm the assumption that fixed-effects are present, and thus need to be controlled for. Based on these results, fixed-effects are sequentially included to increase the robustness of our final results. Lastly, the industry-, size- and geographical fixed-effects are replaced with firm-specific dummy variables that control for all firm fixed-effects that can possibly be impacting our results. This is done to control for the remaining risk of omitted-variable bias, meaning that time-invariant firm characteristics affecting the results might be omitted.

7.1.1. Robustness checks

When the results of the different specifications of the regressions have been estimated, further robustness checks are performed. First off, the variable representing the time trend is replaced by dummy variables for each respective year. This is done to identify the effects on the emission intensity which are attributed to yearly variations. Secondly, additional regressions are performed to test our assumption that it takes two years before the exclusions start to impact the affected firms. Therefore, we alter this condition by running regressions assuming that it takes one respectively zero years before the exclusions generate the potential effect.

7.2 Estimating the impact of dialogues

The impact of dialogues on the environmental performance of companies is estimated using a similar difference-in-differences specification as in *Equation 1*. We use CDP's Climate Change Initiative as an example of a dialogue, and evaluate how this impacts the emission intensity of participating firms. The evaluation is done using the same evaluation measures as before, emissions-to-sales and emissions-to-assets.

The difference of the model that evaluates the impact of dialogues, compared to the model that evaluates the impact of exclusions, is that a Dialogue variable replaces the former Treatment variable. The model that is estimated to determine the impact of dialogues on the emission intensities of firms, is defined by *Equation 2*.

Equation 2

$$y_{it} = T_{it} + \beta \; x \; Dialogue_{it} \; + \alpha_j + \alpha_s + \alpha_g + \varepsilon_{it}$$

In *Equation 2*, *t* indexes years, *i* indexes firms, *j* indexes industries, *s* indexes size quantiles and *g* indexes HQ locations. $y_{it}$is the dependent variable of interest (Emissions/mUSD in Sales or Emissions/mUSD in Assets), T_{it} is the time trend, a_j,a_s and a_g are industry- size- and geographical fixed-effects respectively and Dialogue is a dummy variable that equals one when the dialogue is in effect. The main coefficient of interest is β, which measures the effect of the dialogues. A significant and negative β indicates that dialogues reduce the emission intensities of affected firms, thus resulting in the preferred outcome of the investor. A significant and positive β indicates that dialogues increase the emission intensities of affected firms. We consider 10% statistical significance as a significant finding. Furthermore, standard errors are clustered by firm.

The Dialogue variable is coded as a dummy variable that equals one in the years when the dialogue is in effect, and 0 otherwise. Again, we assume that the SRI-strategy can start to have potential impact two years after it is conducted. This means that the potential effect from the investor dialogue can be seen starting two years after it is first conducted, and in the years thereafter. Thus, the Dialogue variable equals one the second year after the dialogue has been conducted, and in the following years.

This second regression is estimated using the same approach as before. First, a regression which do not consider fixed-effects is estimated. Then, the various fixed-effects are sequentially introduced to increase the robustness of our results. Lastly, firm-specific dummy

variables that control for all firm fixed-effects that can possibly be impacting our results replace the industry-, size- and geographical fixed-effects.

7.2.1 Robustness Checks

A similar robustness check as described in Section 7.1.1. is performed, to control for our assumption that it takes two years before the dialogue start to impact the affected firm.

Furthermore, the nature of our data raises the question of whether the affected companies would have reduced their emission intensities regardless of the dialogue initiative from CDP. It can be argued that companies that respond to the dialogue already are working actively to mitigate climate risks and exploit low carbon opportunities, resulting in a self-selection bias in our sample. Thus, the causal relationship between investor dialogues and reduced emission intensities can be questioned. To further analyse this, we introduce a placebo effect by investigating how the emission intensity of companies that have been subject to the dialogue develops (in relation to the control group) when the treatment effects are introduced before the dialogue is actually initiated.

8. Results

8.1 Exclusions

The results from our first regressions, only using Treatment and Time Trend as the independent variables, are shown in column A1 and B1 in TABLE 3. By looking at the treatment coefficient in column A1, it is shown that companies that are subject to Treatment have an increased emissions-to-sales by around 112.8%. Interpreting these results, this means that the decision to exclude a company increases the firm's emissions divided by sales by 112.8%, compared to a non-excluded company. These results are not consistent with one of the major objectives that motivates investors to implement the norm-based exclusions, which is to generate a positive impact on the development of a sustainable environment. When treating emissions-to-assets as the dependent variable, the coefficient of the Treatment variable is equal to 1.279, meaning that the exclusion of a company will lead to an increase of their emissions-to-assets by around 127.9 %. Furthermore, the results show that there is a slightly negative time trend affecting the emission intensities of firms. The time trend variable is highly significant and the results are consistent with our previous reasoning.

By comparing the estimations of the main variable of interest, we can with higher certainty say that the results are not driven by variations in assets and sales. However, the unexpectedly large coefficients of both regressions indicate that these specifications are most likely suffering from omitted-variable bias. Thus, other factors must contribute to the higher emission levels of excluded companies compared to non-excluded companies. This is further indicated by the low R2-value of the regressions, showing that the defined model does not fully capture the complexity of the problem at hand.

TABLE 3

The Effect of Exclusions on the Effected Companies´ Emission Intensity

	Emissions/Sales					Emissions/Assets				
VARIABLES	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
Treatment	1.128***	-0.213	-0.088	0.155	0.017	1.279***	-0.034	-0.178	0.192	-0.044
	(0.475)	(0.331)	(0.352)	(0.223)	(0.124)	(0.445)	(0.345)	(0.355)	(0.236)	(0.110)
Time Trend	-0.026	-0.015	-0.020**	-0.026**	-0.023**	-0.056***	-0.041***	-0.034***	-0.043***	-0.040***
	(0.024)	(0.014)	(0.014)	(0.012)	(0.010)	(0.027)	(0.016)	(0.017)	(0.013)	(0.010)
Size 2	-	-	0.045	0.069	-	-	-	0.325	0.571	-
			(0.348)	(0.410)				(0.364)	(0.408)	
Size 3	-	-	0.231	0.324	-	-	-	0.570	0.986**	-
			(0.329)	(0.366)				(0.372)	(0.401)	
Size 4	-	-	-0.161	-0.377	-	-	-	0.239	0.148	-
			(0.383)	(0.318)				(0.420)	(0.420)	
Size 5	-	-	-0.824**	-0.904*	-	-	-	0.399	0.322	-
			(0.372)	(0.527)				(0.364)	(0.622)	
Industry fixed effects	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
Geographical fixed effects	No	No	No	Yes	No	No	No	No	Yes	No
Firm fixed effects	No	No	No	No	Yes	No	No	No	No	Yes
Constant	5.124***	3.586***	3.548***	5.252***	6.918***	4.857***	3.700***	3.181***	5.940***	6.475***
	(0.304)	(0.170)	(0.421)	(0.683)	(0.109)	(0.328)	(0.183)	(0.458)	(0.775)	(0.112)
Observations	923	923	923	923	923	923	923	923	923	923
R-squared	0.021	0.703	0.713	0.776	0.957	0.029	0.705	0.711	0.779	0.969

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table shows the effect of exclusions on the excluded companys´emission intensity. Two dependent variables are defined; Emission/Sales is the natural logarithm of the total CO2 equivalent emission divided by annual revenue in million of USD. Emission/Assets is the natural logarithm of the total CO2 equivalent emission divided by total assets in million of USD. Treatment is a dummy variable that equals one in and after the year t when the exclusion is in effect. Time trend variable takes on continuous values, each representing a year. Size 2 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 3.5- 11.5 billion USD. Size 3 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 11.5- 30 billion USD. Size 4 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 30-100 billion USD. Size 5 is a dummy variable that equals 1 for companies with a 2016 annual revenue of >100 billion USD. Industry-specific dummy variables controls for industry fixed effects. Country-specific dummy variables controls for Geographical fixed effects. Size 1 is the base category, and is therefore omitted.

The estimations of the specifications that include industry fixed-effects are shown in column A2 and B2 in TABLE 3. The results show that the decision to exclude a company decreases the firm's emissions-to-sales by 21.3% and decreases its emissions-to-assets by 3.4%. However, these estimations are not statistically significant which indicates that we cannot identify the effect on the emission intensity of excluded firms. Furthermore, the negative time trend is still present.

To further investigate if the accuracy of the estimations can be improved, size fixed-effects are added to the model. The results of the specification that adds size fixed-effects are shown in column A3 and B3 in TABLE 3. Again, the Treatment coefficients are not statistically significant. The inclusion of size fixed-effects provides no clear evidence of economies of scale in the emission intensity among our sample. The presence of economies of scale would imply increasingly negative coefficients for the included size dummy variables. This effect is only present for the companies with the highest revenue, when looking at emissions divided by sales. Thus, this effect in isolation does not indicate that economies of scale are present for the overall emission intensities of observed firms.

Finally, we add geographical fixed-effects to the model and run a regression based on a specification that includes all fixed-effects defined in *Equation 1.* As shown in column A4 and B4 in TABLE 3, the coefficients are still not significant, making it hard to draw any conclusion on whether or not the exclusion decision has any substantial impact on the emission intensity of the affected firms. Furthermore, the negative time trend and previously observed size fixed-effects are still present, showing that the results with regards to these estimations are robust.

Furthermore, an additional regression is performed to control for the remaining risk of omitted-variable bias. Here, it is found that a specification that controls for all firm fixed-effects that can possibly be impacting the emission intensities of companies does not generate statistically significant estimates of our main variable of interest, which is shown in column A5 and B5.

The different regressions performed generate both positive and negative estimates of the coefficient of our main variable of interest, Treatment, and neither of these results are statistically significant. This indicates that the results of our model, with regards to estimating the impact of norm-based exclusion on the emission intensity of affected companies, are not robust. Thus, our analysis does not show any evidence that norm-based exclusions have an impact on the emission intensity of companies.

8.1.1. Industry- and geographical fixed-effects

As shown in TABLE 9 and TABLE 10 (*Appendix),* the inclusion of industry- and country-specific variables that control for industry- and geographical fixed-effects is justified. The dummy variables representing the industries Electric Utilities, Mining and Materials and Oil and Gas have the highest emission intensities among the industries in our sample. This is in line with what might be expected as companies in these industries are often considered being "dirty" in the sense that their operations result in relatively high levels of emissions. These results are in line with the findings in CDPs latest sector analysis conducted in April of 2017 (Fryer et al., 2017).

Furthermore, the industry with the on average lowest emission intensity is the Financial Services industry, which is not very surprising with the nature of their business in mind.

Our results also indicate that companies with headquarters in Finland have lower emission intensities than companies with headquarters in other parts of the world. Also, we find that German companies on average have higher levels of emissions than companies from the other countries represented in our dataset. However, where these differences originate is hard to tell. Some of the variations can probably be explained by differences in regulations, government policies and institutions and social expectations present in different countries. Even though it is hard to say where the effects originate, our numbers confirm that geographical- and industry fixed-effects exist in our sample.

8.1.2. Robustness checks

To further check the robustness of our results, dummy variables for each respective year are included in the model, see TABLE 4 (*Appendix*), replacing the variable representing the overarching time trend. This shows that the overall negative trend in the emission intensity of firms' operations is explained by gradual, annual decreases, but that this trend has started to stall during the most recent years. This is evident because the coefficients of the year dummies are getting less negative from 2014 and onwards.

As an additional robustness check, we control for our assumption that it takes two years before the exclusion starts to impact the affected company. As we concluded that no positive effect can be seen when evaluating the impact starting two years after the exclusions, we examine if this changes when the assumption is altered.

The results of the regression where it is assumed that it takes one year before the exclusion starts to impact the affected company are shown in TABLE 5(*Appendix*). This altered assumption enables us to include more treated firms, due to further data availability. When

considering the main variable of interest, it is noted that the exclusions still have no positive impact when the impact is assumed to start one year after the exclusion decision. The exclusions also seem to have no positive effect when evaluating the impact starting the same year as the exclusions decision. Thus, it can be concluded that our previous results, showing no evidence that norm-based exclusions have a positive impact on the emission intensity of companies, is robust regarding this assumption.

8.1.3. Results hypothesis 1

The performed robustness checks indicate that our initial results are robust. Thus, our analysis does not show any evidence that norm-based exclusions have an impact on the emission intensities of companies.

The results of our analysis lead us to question why no impact of the norm-based exclusions can be identified. Because exclusions can potentially impact affected holdings due to their generation of bad publicity and their effect on the capital available to the impacted firm, it is of importance that the exclusion decisions are clearly communicated to the public. When screening the websites of the largest Nordic institutional investors, we found it hard to locate their exclusion lists. Occasionally, we even had to email the institutional investor to ask for their list. Furthermore, only few of the investors that we have examined publishes an extensive description of the specific reason for why a company is excluded. In addition to this, a press-release or other communication about the exclusion is rarely made available. This means that the only way to find out if a company is excluded by an investor is to analyse their well-hidden exclusions list which is most commonly updated semi-annually. Is it not reasonable, if the objective of excluding a company is to affect them, that the exclusion list and the material underlying the exclusion is hidden deep down in the website structure of the investor. The fact that institutional investors does not clearly communicate to the public when and why a company is being excluded most likely suppresses, or even eliminates, the positive effect on environmental performance stemming from bad publicity. This can be one factor that explains why no impact is identified in our analysis.

Additionally, as Novethic (2012) show in their report, there is a lack of consensus among investors regarding which companies to exclude. We have found that even in the Nordic region, investors rarely exclude the same companies. Furthermore, the fact that investors are excluding different companies is surprising as they often use the same data providers. The lack of consensus limits the potential impact of exclusions, as individual institutional investors does not represent enough capital to generate a scarcity of capital through the use of exclusions. One

thing that could increase the probability of exclusions having an impact would be a harmonization of the outstanding exclusions lists. One potential way to accomplish this would be to give the data providers even more influence and absolute decision power.

The lack of consensus as well as the insufficient transparency are most likely major reasons to why we do not find evidence of any positive impact of norm-based exclusions on the affected companies' environmental performances. If institutional investors are actually concerned about moral change, it becomes justifiable to question if norm-based exclusions should be used or if they should utilize other SRI-strategies to affect their holdings. However, norm-based as well as sector-based exclusions are predominant SRI-strategies among investors. Based on our results, it is interesting to reflect on why that is the case. It is safe to say that investors do not take any risks by conducting exclusions. The findings by Hopner and Schopohl (2016), that exclusion of holdings can be used by investors without compromising financial returns, combined with the protection against bad publicity that exclusions entails for investors, mean that there are few negative factors related to exclusions for the investor. Even if moral change is not achieved, the fact that exclusions result in moral symbolism justifies and explains why investors still use this SRI-strategy.

8.2 Dialogues

The results from the first regression aiming to evaluate the impact of dialogues on the emission intensities of holdings, are shown in column A1 and B1 in TABLE 6. Here, only Dialogue and Time Trend are used as the independent variables.

The coefficients of the Dialogue variable tell us that on average, companies that have been subject to the investor dialogue have 61% lower emissions-to-sales and 61.8% lower emissions-to-assets than companies that have not engaged in dialogue. Furthermore, now that we evaluate the effect of dialogues, a positive time trend is affecting the emission intensity of the observed firms. We believe that it is unlikely that the dialogue initiative would have such a substantial impact as indicated by this regression, leading companies to reduce their emissions-to-sales and emissions-to-assets by more than two thirds. Once again, it is likely that this specification is suffering from omitted-variable bias and other factors are contributing in explaining the variations in emission intensity among firms.

TABLE 6

The Effect of Dialogues on the Effected Companies´ Emission Intensity

	Emissions/Sales					Emissions/Assets				
VARIABLES	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
Dialogue	-0.610*	-0.161	-0.141	-0.174	-0.086	-0.618	-0.187	-0.199	-0.179	-0.073
	(0.323)	(0.228)	(0.224)	(0.128)	(0.111)	(0.373)	(0.221)	(0.226)	(0.134)	(0.108)
Time Trend	0.089**	0.003	0.003	0.005	-0.009	0.065	-0.010	-0.006	-0.010	-0.030
	(0.045)	(0.035)	(0.032)	(0.023)	(0.021)	(0.053)	(0.035)	(0.034)	(0.025)	(0.020)
Size 2	-	-	-0.121	-0.290	-	-	-	0.264	0.405	-
			(0.385)	(0.386)				(0.432)	(0.448)	
Size 3	-	-	0.390	0.300	-	-	-	0.600	0.891*	-
			(0.426)	(0.435)				(0.512)	(0.513)	
Size 4	-	-	-0.193	-0.665*	-	-	-	0.214	-0.084	-
			(0.409)	(0.371)				(0.475)	(0.610)	
Size 5	-	-	-	-	-	-	-	-	-	-
Industry fixed effects	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
Geographical fixed effects	No	No	No	Yes	No	No	No	No	Yes	No
Firm fixed effects	No	No	No	No	Yes	No	No	No	No	Yes
Constant	3.921***	3.480***	3.289***	2.144***	6.819***	3.574***	3.483***	2.983***	1.588**	6.407***
	(0.380)	(0.270)	(0.503)	(0.705)	(0.176)	(0.443)	(0.274)	(0.548)	(0.694)	(0.172)
Observations	747	747	747	747	747	747	747	747	747	747
R-squared	0.021	0.672	0.679	0.770	0.953	0.015	0.673	0.679	0.778	0.966

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table shows the effect of Investor Dialogues on the excluded companys´emission intensity. Two dependent variables are defined; Emission/Sales is the natural logarithm of the total CO2 equivalent emission divided by annual revenue in million of USD. Emission/Assets is the natural logarithm of the total CO2 equivalent emission divided by total assets in million of USD. Dialogue is a dummy variable that equals one in and after the year t when the dialogue is in effect. Time trend variable takes on continuous values, each representing a year. Size 2 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 3.5- 11.5 billion USD. Size 3 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 11.5- 30 billion USD. Size 4 is a dummy variable that equals 1 for companies with a 2016 annual revenue of 30-100 billion USD. Size 5 is a dummy variable that equals 1 for companies with a 2016 annual revenue of >100 billion USD. Industry-specific dummy variables controls for industry fixed effects. Country-specific dummy variables control for Geographical fixed-effects. Size 1 is the base category, and is therefore omitted. Size 5 is naturally omitted due to collinearity.

The results of the specifications that include industry fixed-effects are shown in column A2 and B2 in TABLE 6. However, these estimations are not statistically significant, which means that we cannot with certainty tell that conducting a dialogue will have a positive effect on the emission intensity of the affected firm. Furthermore, no clear time trend can be identified. To further investigate if the accuracy of the estimations can be improved, size fixed-effects are included in the model. The results of the specification that adds size fixed-effects are shown in columns A3 and B3 in TABLE 6. Once again, the Dialogue coefficients are not statistically significant. In addition to this, the inclusion of size fixed-effects generates no clear evidence of economies of scale in the emission intensities among our sample.

Additionally, geographical fixed-effects are added to the model. Thus, the full model defined by *Equation 2* is estimated. As shown in columns A4 and B4, the Dialogue coefficients are still not statistically significant.

Lastly, column A5 and B5 show the results of the regression that is performed to control for the risk of remaining omitted-variable bias. Here, it is found that a specification that controls for all firm fixed-effects that can possibly be impacting the emission intensities of companies does still not generate statistically significant estimates of our main variable of interest.

Apart from the initial regression that aims to evaluate the effect of dialogues, which is disregarded due to the high possibility of omitted-variable bias, no regression is able to generate statistically significant estimates of the impact of the dialogue. However, all generated estimates of the coefficient of our main variable of interest are negative. Thus, the intuition of the model remains the same when more fixed-effects are sequentially introduced and when both emissions-to-sales and emission-to-assets are used as the dependent variables. That is, companies that respond to the request by CDP show improvements and reduce their emission intensities, compared to the companies neglecting the request from CDP. Thus, we argue that our results are robust, showing that CDP in most cases achieves their desired results and that the dialogues on average has a preferred effect.

8.2.1. Industry- and geographical fixed-effects

The inclusion of industry- and country-specific variables that control for industry- and geographical fixed-effects is justified by the results in TABLE 11 and 12 (*Appendix)*. Electric- and Diversified Utilities companies and Mining and Materials companies emit more than the other industries represented in our dataset. Furthermore, Financial Service companies are still among the cleanest industries. Like before, Finland-based companies on average have a lower

emission intensity than the other countries in the dataset. In addition to this, companies with headquarters in Germany still seem to emit the most. Thereby, it is shown that geographical- and industry fixed-effects should be controlled for in the model

8.2.2. Robustness checks

To check the robustness of our results, we control for our assumption that it takes two years before the dialogue starts to impact the affected company. Thus, the results of the regressions where it is assumed that it takes one year before the dialogue starts to impact the affected company and where it is assumed that it the dialogue starts to impact the affected company the same year as it is conducted, are shown in TABLE 7 (*Appendix*). These results indicate that dialogues start to impact the affected companies as early as the same year as they are initiated, indicating that our assumption does not hold true. However, it is considered unlikely that the dialogue initiative can impact firms the same year as it is initiated, as the information provided by GES strongly contradicts this. Furthermore, the estimates are not statistically significant, which makes it hard for us to draw any definite conclusion regarding the accuracy of the assumption.

To investigate whether the affected companies would have reduced their emission intensities regardless of the dialogue initiative from CDP, the placebo effect is introduced. In TABLE 8, it is shown that the estimated Dialogue coefficients are not significant. However, the results of these regressions are considered to be robust, as the estimated coefficients remain negative as fixed-effects are sequentially introduced and when both emissions-to-sales and emissions-to-assets are used as the dependent variables. Thus, the results indicate that when the placebo effect is in place, companies that have been subject to the dialogue initiative conducted by CDP have lower emission intensities than companies that have not engaged in dialogue. This reinforces our theory about self-selection bias in our sample and implies that the companies that are willing to respond to the request by CDP are already exploiting their low-carbon opportunities, even before the time of the request.

TABLE 8

Robustness Check: The effect of Investor dialogues with Placebo effect

	Emissions/Sales					Emissions/Assets				
VARIABLES	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
Dialogues t-1	-0.520	-0.053	-0.025	-0.084	-0.042	-0.543	-0.113	-0.102	-0.092	-0.055
	(0.373)	(0.260)	(0.271)	(0.156)	(0.073)	(0.436)	(0.258)	(0.271)	(0.151)	(0.065)
Time Trend	0.072*	-0.009	-0.009	-0.006	-0.015	0.049	-0.020	-0.018	-0.021	-0.034***
	(0.041)	(0.031)	(0.030)	(0.020)	(0.012)	(0.048)	(0.031)	(0.031)	(0.021)	(0.012)
Size 2	-	-	-0.130	-0.300	-	-	-	0.257	0.396	-
			(0.387)	(0.390)				(0.433)	(0.447)	
Size 3	-	-	0.384	0.284	-	-	-	0.586	0.875*	-
			(0.432)	(0.438)				(0.518)	(0.516)	
Size 4	-	-	-0.207	-0.688*	-	-	-	0.194	-0.107	-
			(0.418)	(0.373)				(0.480)	(0.611)	
Size 5	-	-	-	-	-	-	-	-	-	-
Industry fixed effects	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
Geographical fixed effects	No	No	No	Yes	No	No	No	No	Yes	No
Firm fixed effects	No	No	No	No	Yes					Yes
Constant	4.199***	3.566***	3.376***	2.247***	6.875***	3.854***	3.578***	3.103***	1.695**	6.453***
	(0.289)	(0.196)	(0.488)	(0.700)	(0.123)	(0.332)	(0.206)	(0.523)	(0.685)	(0.126)
Observations	747	747	747	747	747	747	747	747	747	747
R-squared	0.018	0.671	0.678	0.769	0.953	0.013	0.672	0.678	0.777	0.966

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This table shows the effect of Investor dialogues on the contacted companys´ emission intensity when a Placebo effect is introduced, assuming the treatment effects are introduced one year before the dialogue is actually initiated. Size 5 is naturally omitted due to collinearity. Size 1 is the base category, and is therefore omitted. See TABLE 7 for variable definitions.

8.2.3. Results hypothesis 2

Our initial results, together with the performed robustness checks, show that firms that are subject to the dialogue initiative conducted by CDP have lower emission intensities than companies that have not engaged in the dialogue. The initial results suggest that dialogues impact the emission intensities of affected firms. However, the results are somewhat surprising in the light of the the results found in the paper by Vandekerckhove et al. (2007). These authors show that managers seem to distance themselves from any accusations, implying that no change in the operation of the affected firms will take place. Furthermore, the results generated by the introduction of a placebo effect make us question the causal relationship between dialogues and reduced emission intensities. These results indicate that companies that respond will have reduced emission intensities regardless of the dialogue initiative from CDP. This implies that we cannot infer any causality of dialogues with regards to lowered emission intensities, based on the results of our analysis.

However, the results still indicate that firms that are subject to the dialogue initiative conducted by CDP have lower emission intensities than companies that have not engaged in the dialogue. This shows that this dialogue initiative can be used to identify companies that are most likely to improve their environmental practices. That is, the companies most likely to respond are those who are already exploiting their low-carbon opportunities and are most likely to continue doing so. Thus, this dialogue initiative enables firms that respond to signal to investors that their environmental performance will be better than firms that do not respond. This in turn enables investors to take this signal into consideration in their overall ESG-investing.

9. Conclusion

9.1 The impact of exclusions

Our analysis does not show any evidence that norm-based exclusions have an impact on the emission intensity of companies. Therefore, our first hypothesis saying that "*Norm-based exclusions of holdings, that are conducted due to breaches on environmental norms, does not generate a positive impact on the affected companies' environmental performance"* cannot be rejected.

9.2 The impact of dialogues

Our analysis shows that firms that are subject to the dialogue initiative conducted by CDP have lower emission intensities than companies that have not engaged in the dialogue. However, no causality of the dialogues with regards to the emission intensities of affected firms can be identified. From our analysis, we conclude that our second hypothesis saying that "*Dialogues generate a positive impact on the affected companies' environmental performance."* cannot be rejected.

However, our results show that the dialogue initiative can be used to identify companies most likely to contribute to a more sustainable development.

9.3 Unanswered questions and further research

A question that remains is why institutional investors rarely exclude the same companies. Even though investors base many of their norm-based exclusions on the same international norms and use the same data-provider, there is still a clear lack of consensus. As harmonization of the exclusions are argued to increase the potential impact, it is of interest to examine how such a system could be designed and what the potential impact of such harmonization would be. This could, for instance, give the data providers more influence and absolute decision power. Furthermore, it is of interest to investigate how other initiatives that would increase the consensus would be able to improve the conditions for potential impact through exclusions. For example, what possibilities would the largest asset manager in the world, BlackRock Inc, have to influence their holdings if they utilized exclusions on a broader scale? One approach that would give an indication about this, is to analyse what effect BlackRock's decision to exclude civilian firearms- producers and retailers will have on the industry (Kerber, 2018).

Another factor which theoretically affects the potential impact of exclusions, is the transparency of investors regarding the exclusion decisions. Thus, it is of interest to examine how the levels of impact from exclusions vary with the transparency of investors.

As our results indicate that the dialogue initiative conducted by CDP can be utilized by investors to identify firms that will outperform others in terms of better environmental performance, it is of interest to further investigate if this applies to other investor dialogues. If that is the case, it can also be investigated how investors can capitalize on the signalling of the dialogues, in terms of financial performance and CSR-related impact.

10. Appendix

TABLE 1
Summary Statistics for the excluded and non-excluded firms in our dataset

	Excluded firms				Non-excluded firms			
VARIABLE	Largest	Smallest	Mean	Median	Largest	Smallest	Mean	Median
CO2 Equivalent Emissions Tons	188 000 000	9 689	45 700 000	32 300 000	55 000 000	1 211	3 945 253	644 872
Emissions/Assets	14 488,01	1,17	978,28	592,27	4 719,82	0,03	211,96	50,95
Emissions/Sales	24 465,24	1,37	2 464,18	959,19	27 618,87	0,17	420,69	103,45
VARIABLE	Number of categories		Highest frequencies		Number of categories		Highest frequencies	
Industry	8		Electric Utilities		22		Mining & Materials	
HQ location	13		USA		17		USA	
Size	5		2		5		3	

TABLE 2
Summary Statistics for the firms contacted by CDP

	Firms subject to dialogues				Firms not subject to dialogues			
VARIABLE	Largest	Smallest	Mean	Median	Largest	Smallest	Mean	Median
CO2 Equivalent Emissions Tons	55 000 000	8 480	3 420 024	644 873	76 900 000	1 211	15 000 000	3 955 332
Emissions/Assets	4 719,82	0,23	190,22	48,15	2 263,98	0,03	485,04	346,95
Emissions/Sales	27 618,87	1,93	407,55	90,47	3 591,80	0,17	601,20	454,60
VARIABLE	Number of categories		Highest frequencies		Number of categories		Highest frequencies	
Industry	22		Mining & Materials		6		Oil & Gas	
HQ location	13		USA		7		UK	
Size	5		3		4		2	

TABLE 4

Robustness Check: dummy variables for each respective year

	Emissions/Sales	Emissions/Assets
VARIABLES	A1	B1
Treatment	0.121	0.163
	(0.228)	(0.243)
2003	-0.115	-0.064
	(0.222)	(0.202)
2004	-0.114	-0.048
	(0.196)	(0.217)
2005	-0.200	-0.136
	(0.214)	(0.237)
2006	-0.255	-0.160
	(0.219)	(0.234)
2007	-0.519**	-0.468*
	(0.228)	(0.250)
2008	-0.409*	-0.466*
	(0.235)	(0.245)
2009	-0.493**	-0.582**
	(0.218)	(0.243)
2010	-0.588***	-0.654***
	(0.222)	(0.247)
2011	-0.675***	-0.662***
	(0.222)	(0.242)
2012	-0.678***	-0.696***
	(0.225)	(0.245)
2013	-0.600***	-0.656***
	(0.226)	(0.249)
2014	-0.629***	-0.694***
	(0.227)	(0.253)
2015	-0.535**	-0.676**
	(0.232)	(0.261)
2016	-0.507**	-0.679**
	(0.235)	(0.264)
2017	-0.274	-0.490
	(0.366)	(0.409)
Size fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Geographical fixed effects	Yes	Yes
Constant	5.608***	6.153***
	(0.692)	(0.764)
Observations	923	923
R-squared	0.780	0.782

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table shows the effect of exclusions on the excluded companys´ emission intensity when a dummy variable for each respective year are included in the model, replacing the variable representing the overarching time trend. See TABLE 3 for variable definitions. Year 2002 is the base category, and is therefore omitted.

TABLE 5

Robustness Check: control for our assumption that it takes two years for exclusion to impact

	Emissions/Sales			Emissions/Assets		
VARIABLES	A1	A2	A3	B1	B2	B3
Treatment t+2	0.155	-	-	0.192	-	-
	(0.223)			(0.236)		
Treatment t+1	-	0.251	-	-	0.344	-
		(0.198)			(0.208)	
Treatment t+0	-	-	0.274	-	-	0.392*
			(0.195)			(0.202)
Time Trend	-0.026**	-0.027**	-0.029**	-0.043***	-0.044***	-0.047***
	(0.012)	(0.011)	(0.012)	(0.013)	(0.013)	(0.013)
Size 2	0.069	-0.041	-0.048	0.571	0.329	0.319
	(0.410)	(0.338)	(0.337)	(0.408)	(0.345)	(0.343)
Size 3	0.324	0.222	0.215	0.986**	0.789**	0.777**
	(0.366)	(0.330)	(0.330)	(0.401)	(0.377)	(0.377)
Size 4	-0.377	-0.408	-0.421	0.148	0.176	0.154
	(0.318)	(0.314)	(0.313)	(0.420)	(0.379)	(0.380)
Size 5	-0.904*	-1.070**	-1.106**	0.322	0.190	0.132
	(0.527)	(0.463)	(0.465)	(0.622)	(0.562)	(0.558)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Geographical fixed effe	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.252***	3.106***	3.124***	5.940***	3.493***	3.520***
	(0.683)	(0.662)	(0.656)	(0.775)	(0.746)	(0.737)
Observations	923	1,084	1,084	923	1,084	1,084
R-squared	0.776	0.822	0.822	0.779	0.800	0.801

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table shows the effect of exclusions when assuming that it takes 0, 1 and 2 years for the exclusion to have an impact on the excluded company. See TABLE 3 for the variable definitions. Size 1 is the base category, and is therefore omitted.

TABLE 7

Robustness Check: control for the assumption that it takes two years for the dialogues to impact

	Emissions/Sales			Emissions/Assets		
VARIABLES	A1	A2	A3	B1	B2	B3
Dialogues t+2	-0.174	-	-	-0.179	-	-
	(0.128)			(0.134)		
Dialogues t+1		-0.146	-		-0.116	-
		(0.139)			(0.140)	
Dialogues t+0		-	-0.143		-	-0.116
			(0.146)			(0.142)
Time Trend	0.005	0.002	0.001	-0.010	-0.017	-0.017
	(0.023)	(0.023)	(0.022)	(0.025)	(0.025)	(0.023)
Size 2	-0.290	-0.291	-0.289	0.405	0.397	0.400
	(0.386)	(0.389)	(0.390)	(0.448)	(0.449)	(0.449)
Size 3	0.300	0.296	0.293	0.891*	0.884*	0.882*
	(0.435)	(0.437)	(0.437)	(0.513)	(0.515)	(0.516)
Size 4	-0.665*	-0.672*	-0.677*	-0.084	-0.097	-0.100
	(0.371)	(0.372)	(0.371)	(0.610)	(0.612)	(0.611)
Size 5	-	-	-	-	-	-
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Geographical fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.144***	2.178***	2.210***	1.588**	1.636**	1.661**
	(0.705)	(0.701)	(0.696)	(0.694)	(0.690)	(0.684)
Observations	747	747	747	747	747	747
R-squared	0.770	0.770	0.770	0.778	0.777	0.777

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This table shows the effect of dialogues when assuming that it takes 0, 1 and 2 years for the dialogues to have an impact on the affected company. See TABLE 7 for the variable definitions. Size 5 is naturally omitted due to collinearity. Size 1 is the base category, and is therefore omitted.

TABLE 9

Industry fixed-effects: Exclusions

VARIABLES	Emissions/Sales	Emissions/Assets
Treatment	0.155	0.192
	(0.223)	(0.236)
Time Trend	-0.026**	-0.043***
	(0.012)	(0.013)
Business Services	0.662	1.015**
	(0.571)	(0.413)
Chemicals	1.938***	1.835***
	(0.421)	(0.475)
Conglomorates	-0.061	-0.743
	(0.538)	(0.552)
Construction	-0.178	-0.128
	(0.538)	(0.552)
Consumer Products	0.091	0.333
	(0.623)	(0.671)
Diversified Utilities	2.314***	1.241*
	(0.535)	(0.669)
Electric Utilities	4.612***	3.468***
	(0.450)	(0.482)
Financial Services	-0.887**	-3.095***
	(0.420)	(0.865)
Industrials	0.867*	0.745
	(0.482)	(0.454)
Logistics	1.600*	2.200**
	(0.906)	(0.890)
Medical Equipment	0.280	0.005
	(0.300)	(0.318)
Mining & Materials	3.416***	2.428***
	(0.487)	(0.460)
Oil & Gas	3.145***	2.472***
	(0.704)	(0.716)
Packaging	3.718***	3.637***
	(0.669)	(0.593)
Pharmaceuticals	-0.084	-0.550
	(0.473)	(0.499)
Railroads	2.732***	1.947***
	(0.299)	(0.315)
Real Estate	1.290***	-0.291
	(0.407)	(0.456)
Retail	0.940	1.198
	(0.757)	(0.898)
Steel	2.169***	2.080***
	(0.495)	(0.480)
Technology	-0.363	-0.665
	(0.635)	(0.751)
Telecom	-0.844	-1.758***
	(0.512)	(0.580)
Size fixed-effects	Yes	Yes
Geography fixed-effects	Yes	Yes
Constant	5.252***	5.940***
	(0.683)	(0.775)
Observations	923	923
R-squared	0.776	0.779

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This tables shows the differences in emission intensity between excluded and non-excluded companies from different industries. Each industry is a dummy variable that equals 1 for the companies in that specific industry. Aerospace & Defense is the base category, and is therefore omitted. See table 3 for variable definitions.

TABLE 10

Geographical fixed-effects: Exclusions

VARIABLES	Emissions/Sales	Emissions/Assets
Treatment	0.155	0.192
	(0.223)	(0.236)
Time Trend	-0.026**	-0.043***
	(0.012)	(0.013)
Canada	-2.424***	-3.527***
	(0.684)	(0.785)
China	-1.544	-3.284*
	(1.935)	(1.943)
Finland	-5.360***	-5.820***
	(0.464)	(0.848)
Germany	-0.070	-0.767
	(0.844)	(0.973)
India	-1.608*	-2.181**
	(0.813)	(1.080)
Ireland	-2.836***	-3.805***
	(0.727)	(0.796)
Italy	-1.188*	-1.584*
	(0.712)	(0.836)
Japan	-1.318***	-2.296***
	(0.357)	(0.468)
Jersey	-2.099***	-2.785***
	(0.686)	(0.779)
Mexico	-2.380***	-2.582***
	(0.686)	(0.779)
Netherlands	-1.687***	-2.656***
	(0.562)	(0.794)
South Africa	-0.963*	-2.341***
	(0.527)	(0.596)
Spain	-0.144	-2.225***
	(0.616)	(0.744)
Switzerland	-2.149***	-2.445**
	(0.761)	(0.936)
Taiwan	0.040	-0.291
	(0.512)	(0.632)
Turkey	-1.804***	-2.766***
	(0.465)	(0.849)
UK	-1.645***	-2.265***
	(0.616)	(0.744)
USA	-1.626***	-2.902***
	(0.538)	(0.711)
Size fixed-effects	Yes	Yes
Industry fixed-effects	Yes	Yes
Constant	5.252***	5.940***
	(0.683)	(0.775)
Observations	923	923
R-squared	0.776	0.779

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This tables shows the differences in emission intensity between excluded- and non-excluded companies with HQs in different geographical locations. Each geographical location is a dummy variable that equals 1 for the companies from that specific location. Russia, South Korea and Thailand are naturally omitted due to collienarity. Australia is the base category, and is therefore omitted. See table 3 for further variable definitions.

TABLE 11

Industry fixed-effects: Investor Dialogues

VARIABLES	Emissions/Sales	Emissions/Assets
Dialogue	-0.174	-0.179
	(0.128)	(0.134)
Time Trend	0.005	-0.010
	(0.023)	(0.025)
Business Services	0.782	1.009**
	(0.515)	(0.466)
Chemicals	1.952***	1.675***
	(0.494)	(0.487)
Conglomorates	0.470	-0.711
	(0.615)	(0.674)
Construction	0.361	-0.088
	(0.615)	(0.674)
Consumer Products	0.280	0.461
	(0.735)	(0.781)
Diversified Utilities	2.545***	1.150
	(0.635)	(0.752)
Electric Utilities	4.218***	3.057***
	(0.365)	(0.365)
Financial Services	-0.722	-3.063***
	(0.510)	(0.925)
Industrials	1.074*	0.701
	(0.562)	(0.502)
Logistics	1.765*	2.284**
	(0.963)	(0.944)
Medical Equipment	0.223	-0.004
	(0.367)	(0.368)
Mining & Materials	3.561***	2.368***
	(0.600)	(0.600)
Oil & Gas	1.908*	0.703
	(1.058)	(0.917)
Packaging	4.020***	3.625***
	(0.679)	(0.778)
Pharmaceuticals	-0.065	-0.557
	(0.494)	(0.539)
Railroads	2.619***	1.880***
	(0.365)	(0.364)
Real Estate	1.310**	-0.417
	(0.564)	(0.611)
Retail	-0.876	0.419
	(0.531)	(0.605)
Steel	2.119***	1.716***
	(0.596)	(0.564)
Technology	-0.445	-0.699
	(0.668)	(0.772)
Telecom	-0.160	-1.194
	(0.849)	(1.015)
Size fixed-effects	Yes	Yes
Geography fixed-effects	Yes	Yes
Constant	2.144***	1.588**
	(0.705)	(0.694)
Observations	747	747
R-squared	0.770	0.778

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This tables shows the differences in emission intensity between companies from different industries that have been contacted by CDP. Each industry is a dummy variable that equals 1 for the companies in that specific industry. Aerospace & Defense is the base category, and is therefore omitted. See table 7 for further variable definitions.

TABLE 12

Geographical fixed-effects: Investor Dialogues

VARIABLES	Emissions/Sales	Emissions/Assets
Dialogue	-0.174	-0.179
	(0.128)	(0.134)
Time Trend	0.005	-0.010
	(0.023)	(0.025)
China	2.177	1.975
	(1.531)	(1.400)
Finland	-2.451***	-1.743
	(0.608)	(1.103)
Germany	3.335***	4.201***
	(0.703)	(0.647)
India	2.695**	3.829***
	(1.146)	(1.116)
Ireland	0.024	0.407
	(0.407)	(0.385)
Italy	1.628**	2.685***
	(0.786)	(0.765)
Japan	0.985	1.306
	(0.812)	(0.872)
Jersey	0.612*	1.363***
	(0.340)	(0.309)
Mexico	0.332	1.566***
	(0.340)	(0.310)
Russia	3.103***	3.996***
	(1.155)	(1.127)
Spain	2.567***	2.027***
	(0.454)	(0.446)
Switzerland	0.889	1.930**
	(0.636)	(0.905)
Taiwan	3.131***	4.011***
	(0.602)	(0.573)
Thailand	2.406***	3.562***
	(0.868)	(1.119)
Turkey	1.245**	1.455
	(0.592)	(1.086)
UK	1.089**	2.010***
	(0.452)	(0.442)
USA	1.371**	1.353***
	(0.531)	(0.476)
Size fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Constant	2.144***	1.588**
	(0.705)	(0.694)
Observations	747	747
R-squared	0.770	0.778

Standard errors are clustered by firm, and are shown in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: This tables shows the differences in emission intensity between companies contacted by CDP that are from different geographical locations. Each geographical location is a dummy variable that equals 1 for the companies from that specific location. Canada is the base category, and is therefore omitted. See table 7 for variable definitions.

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