The ESG Rating and Ranking Industry: Vice or Virtue in the Adoption of Responsible Investment?

Stephanie Mooij

Stephanie Mooij is a third-year DPhil candidate at the Smith School of Enterprise and the Environment, University of Oxford, whose thesis is about identifying obstacles in the investment chain when it comes to ESG integration. Stephanie has two years of work experience at Ownership Capital, a long-horizon equity manager based in Amsterdam. This investment fund is a spin-out of PGGM's successful responsible equity strategy. This concentrated fund unlocks value (ESG or other) by engaging as an owner of the companies they invest in ("Ownership Investing"). Moreover, the company analysis is fundamental and ESG is completely integrated at every level. She has also completed an equity valuation internship at Duff & Phelps and a private equity internship at GIMV. Her degree is a MSc in Finance & Investments (Cum Laude and Honours) from Erasmus University in the Netherlands.

Abstract

The industry related to environmental, social, and governance (ESG) initiatives has grown tremendously in the last decades. Many organizations in this sector serve as intermediaries between companies and their investors, with billions of dollars in capital allocated based on the judgment of these intermediaries. Much academic research is also rooted in their work. Regardless of its widespread use, little is known about how this industry arose and what precise role it serves. The multitude of initiatives and lack of convergence raise questions on whether the industry's costs outweigh its benefits. This paper uses the Industry Life Cycle Model to investigate 218 ESG initiatives and illustrate that the ESG industry is maturing. It draws upon interviews conducted with its users to strengthen this finding. The paper concludes that reporting fatigue, a lack of convergence, and the (sometimes) poor information quality along with lack of transparency have made the industry more vice than virtue in the adoption of responsible investment.

Acknowledgments

This paper is based on 45 interviews conducted with asset owners, asset managers, and companies based in the UK, the Netherlands, and Germany. Although the respondents remain anonymous throughout the paper, I would like to extend my gratitude to them for taking part and for providing me with invaluable insights. Moreover, I would like to thank Gordon Clark and Colin Mayer for the fruitful discussions, helpful feedback, and support.

Emergence of an Industry

Many environmental, social, and governance (ESG) rating agencies and related initiatives emerged in response to the rising popularity of responsible investment. These groups assess corporations on their ESG performance (Fowler and Hope, 2007; Sadoswki et al., 2010; Scalet and Kelly, 2010). Besides ESG ratings, there are also about 500 rankings (Branding Institute, 2016), 170 indices (Lydenberg and White, 2015), 100+ awards, and at least 120 voluntary standards (Bowen, 2014). On top of that, there are think thanks, institutions, and other associations with their own interpretations of how to understand the relationship between companies and their ESG performance (Vandekerckhove et al., 2012).

Companies have come a long way in their ESG disclosure, but this topic is haunted by a lack of standards, training, and consensus. The information therefore cannot be used for comparison and is difficult for investors to interpret. (Hockerts and Moir, 2004; Juravle and Lewis, 2008; Munro, 2015; Ransome and Sampford, 2013; Searcy and Buslovich, 2014; Searcy and Elkhawas, 2012). ESG initiatives aim to sort this information for practitioner use. Unfortunately, they vary widely, conditional on the audience that they are looking to serve and the criteria that they take into account (Charles J Fombrun, 1998; Gladman, 2015; Scalet and Kelly, 2010; Sonnenfeld, 2004). Given ESG initiatives are an important intermediary between companies and asset managers (AMs), the quality of information is imperative to understanding impediments to responsible investment in the investment chain.

Some of these intermediaries simply send the companies they are assessing verification requests based on public information, but many rating agencies require more involvement from companies. This can include questionnaires, interviews, or even on-site visits (Schaefer, 2005). The *Rate the Raters* initiative by SustainAbility finds that, out of 108 organizations, about 60% rely completely or partially on information submitted by companies (Sadoswki et al., 2010). Amid this process, one concern is that there are too many, and often duplicative, questionnaires; much of the information asked for is already public (Searcy and Elkhawas, 2012). Many companies use half of a full-time post to simply respond to surveys (Oekom et al., 2013). This investment provides larger companies with an unfair advantage and helps them stand out for the wrong reason: ticking all the right boxes (Chatterji et al., 2009; Hanson, 2015; Searcy and Elkhawas, 2012). This is not surprising, as ESG rating organizations often state that the goal of their work is to support implementation of the UN Principles for Responsible Investment (PRI). In other words, many ratings are intended to tick boxes rather than increase shareholder value.

To make matters worse, recent academic evidence finds low correlation between different ESG ratings. This sheds doubt on the reliability of ESG scores (Chatterji et al., 2015;

Dorfleitner et al., 2015). Even when Chatterji et al. (2015) adjust the ratings for what raters say they are trying to measure, convergence did not improve by much. According to the authors, this means that most rating agencies have substantial measurement error when trying to capture similar ESG concepts. (That Volkswagen was announced industry leader in the Dow Jones Sustainability Index (DJSI) minutes before the emissions scandal broke does not help the case for ESG rating agencies.) This is all unsurprising, though, given there are no rules guiding the development of these metrics, nor is there general agreement on how to measure ESG (Dillenburg et al., 2003; Dorfleitner et al., 2015).

The large number of ESG initiatives along with their questionable reliability raises questions about the role of the industry. It is thus important to take stock of this new industry – to investigate its status and analyze its role as an intermediary. Two motivations drive this effort.

1. Scholars and practitioners (AMs) rely on ESG initiatives as a proxy for ESG performance, often not knowing that there is little agreement between different initiatives. This calls into question the validity of academic studies that have used these ratings (Igalens and Gond, 2005). Moreover, though the lack of agreement is difficult for AMs to observe (Chatterji et al., 2015), these large investors rely on it to help distinguish ''responsible'' from ''irresponsible'' companies. They use this tool to allocate billions of dollars in capital.
2. Responding to all ESG-related inquiries uses companies' time, and is therefore costly. If the conclusions of these ESG initiatives are not accurate, companies would be better off taking care of matters more urgent and relevant than reporting. As previously mentioned, these ESG agencies are an important intermediary between companies and investors. This means that they are a vital piece of the puzzle in investigating the adoption of responsible investment.

To address these concerns, we must understand the status of the industry and what precise role it serves. Specifically, are these ESG ratings and rankings a vice or a virtue in the development of responsible investment? The following paper probes this question. Through research and interviews with companies, asset owners (AOs), and AMs, the article explores the concerns mentioned above.[1]

I commence with a discussion of theories to analyze industry development. I then proceed with an overview of the research methods, after which I use the Industry Life Cycle Analysis (ILCA) to assess the stage of development of the ESG-initiative industry. I then provide an overview of the industry as well as some of its milestones. Although this

[1] I conducted interviews in the UK, the Netherlands, and Germany, with a total of 45 respondents. Appendix 2 provides more information on the sample and questions pertaining to this paper.

overview only scratches the surface, it appears to be the most comprehensive one in the literature. Afterwards, I provide a comparison to the credit rating industry as well as a brief overview of product innovation in the industry. From there I provide the results of interviews with companies, AMs, and AOs, along with a discussion of the findings. These results are used to answer the pressing question on whether the industry is a vice or a virtue in the development of responsible investment.

Defining an ESG initiative

Due to the many different types of ESG initiatives, it is important that I describe what I mean when using this term. Scalet and Kelly (2010) define a rating agency as: "Any organization that rates or assesses corporations according to a standard of social and environmental performance that is at least in part based on non-financial data." Much like ratings, indices can also serve as a framework or basis for investment products and as benchmarks for assessing investment performance (Grayson and Nelson, 2013; Lydenberg and White, 2015; Oh et al., 2013). These indices are often built on ESG ratings, as are awards and rankings.

When using the term ESG initiative I refer to the above organizations, but also to others that focus on ESG or have launched an ESG-related product. Examples are corporate social responsibility (CSR) research agencies or shareholder services. These players influence the ESG discourse by, for example, publishing pieces such as "Behind the Brands," by Oxfam. Appendix 1 lists all 218 initiatives investigated – a first attempt to shed light on the ESG-initiative industry's status and role.

The Industry Life Cycle Model

Scholars have come up with many different models to predict the changes that occur from the birth to the decline of an industry (Abernathy and Utterback, 1978; Adner and Levinthal, 2001; Deans et al., 2002; Porter, 1980; Utterback and Abernathy, 1975). Michael Porter introduced one of the more widely known theories in 1980: the Industry Life Cycle Analysis (ILCA). His model predicts that industry growth generally follows an S-shaped curve, from introduction to growth, then maturity, and finally decline. The phase that an industry is in has important implications for firm strategy. Product innovation, for example, can further increase the growth or stall the decline (Porter, 1998). Organizations should thus make understanding where they fall in the cycle the cornerstone of their long-term plan (Deans et al., 2002).

The ILCA is helpful when attempting to explain industry changes simply by looking at technological developments. The early stage of the ILCA is characterized by ambiguity, as little is known about the product features desired by the buyer (Klepper and Graddy, 1990). The duration of the total cycle depends on many factors, like barriers to entry and

the ease with which the product can be copied. If the product takes off, more players will enter the market to take advantage of its popularity. This reduction of uncertainty may lead to new entrants, including more established firms (Porter, 1998). As the number of users grows and eventually levels off, companies have to adjust accordingly by first improving quality and then enhancing the product and expanding capacity (Mirva Peltoniemi, 2011). At some point, there will be a decline in the number of market players as the industry starts to consolidate. Product obsolescence or a fundamental change in technology can trigger this leveling off; this may signal the start of a new product cycle (Audretsch and Feldman, 1996; Klepper and Graddy, 1990; Porter, 1980).

Several factors influence the rate at which an industry goes through these phases. First, there is the complexity of the product's technology, as simple products mature faster; they may be adopted more quickly and are easily imitated, which reduces barriers to entry. Second, diversity in buyers' preferences hampers the emergence of a dominant design, which may lengthen the time it takes to reach maturity (Klepper and Graddy, 1990). However, some products do not have a dominant design as customers value a wide range of choice (McAfee, 2002). These customers become more knowledgeable – and often more demanding – as the industry matures; they may require complementary products, customization, or improved performance (Porter, 1998, 1980). Customers may also express preference for bundling or unbundling of certain features. This tendency to offer packages is explained by economies of scale rather than transaction costs, and it can encourage synergies as a firm is likely bound together by several capabilities (Langlois and Robertson, 2002).

The ILCA is an effective tool to better understand how a new industry – ESG initiatives, in this case – has developed. Moreover, if we know what cycle the industry is in, we can gain insight into firm strategy and get an idea of where the industry is going. The next section provides an ILCA of the ESG-initiative industry, followed by a detailed description of the milestones in its development.

Research Methods

I used two methods to investigate the role of the ESG-initiative industry and whether it is an impediment to responsible investment.

Desk Research

I compiled and sorted information on the ESG-initiative industry to provide a comprehensive overview (see Appendix 1). This overview is not meant to be exhaustive, as there are countless initiatives involved with ESG. I gathered existing initiatives through extensive searches, reports of companies, and some existing overviews. I collected the description, country of origin, launch date, target market, and methodology of each

initiative and then divided these into seven categories: awards, ratings, rankings, index, research, shareholder services, and other initiatives. Initiatives that focused more on rating countries were excluded, as were those that appeared to be inactive. Whenever possible, I used books or papers from around an initiative's launch to piece together information. In the rare cases when a launch date was not given, I emailed the organizations in question or estimated a date.

Based on this overview, I used the ILCA to analyze the development of this new industry. As discussed in the previous section, this helps to reveal the current state of the industry and where it is going. By counting the number of initiatives each year and correcting for acquisitions, we can graph the trend in the ESG-initiatives industry. If the trend is leveling off, we might conclude that the industry is mature and that adjustments in quality of ESG products or initiatives should be expected. However, if the number of players is declining, the industry is in the decline phase, which could indicate obsolescence or a fundamental change.

Field Research

I conducted semi-structured interviews with select companies, AMs, and AOs (see Appendix 2 for details). Semi-structured interviews provide sufficient focus to address the research questions while leaving flexibility for participants to contribute unique insights (Galletta, 2013). The interviews followed the "close dialogue" approach, as proposed by Clark (1998). These interviews were a form of a "bilateral engagement," rather than a one-way street (Clark and Monk, 2017). Predefined questions guided the interview through an iterative method that shuttled between theory and empirical evidence. Although close dialogue may not be the most conventional method, it is necessary in this case to better understand organizational beliefs and behavior. Instead of taking for granted the world of existing theories, this method offers the opportunity to reconstruct and enhance our current understanding. Close dialogue helps us think outside of the box and promote conceptual and theoretical innovation (Clark, 2007, 1998b).

Company respondents were selected by means of a Bloomberg Screening across the UK, Germany, and the Netherlands. The sample selection for the AMs and AOs required a PRI transparency document, as this helps to prepare for the interviews and fill in missing information. The selected respondents were approached via LinkedIn or email, with a short description of the study. I offered anonymity to maximize the likelihood of obtaining unique insights. I conducted several interviews face-to-face to establish rapport and to acquire further potential interview participants. Given that respondents tend to speak more freely without recording, I mainly took notes. Those were immediately analyzed, coded, and compared with the help of NVivo software.

Although there are many advantages to computer-aided analysis – more explicit rules and higher coder reliability in applying those rules – there are also many drawbacks. One is that the data reduction method omits details from the collected data, reducing the richness of collected information. Other drawbacks relate to the reliability and validity of coding; a computer can apply explicit rules over and over, but if definitions or wording are ambiguous then it will not measure the intended construct (Drisko, 2015; Weber, 1990). Given these drawbacks (but mainly to prevent the loss of data richness), I used NVivo as a tool to sort themes and look at the data from different angles.

The Evolution of ESG Initiatives

I identified 218 ESG initiatives and their launch dates through Google searches, company websites, and interviews.[2] Although sales numbers were not available, the new entrants each year were studied to gain some insight. Specifically, the launch date refers to when the ESG-related product or service is launched. Where this is not available, it refers to the organization that launched it. In ~5% of the cases, this date may be slightly off; it is not always indicated and some initiatives are rather small and have not left much of a trace.

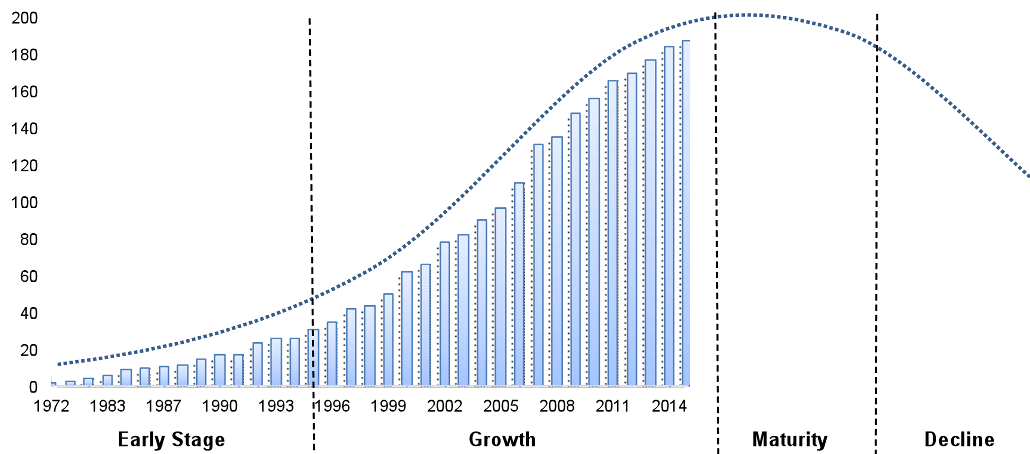
As Figure 1 demonstrates, the ESG initiative industry is transitioning from the *growth* phase to *maturity*. The rate of market entrants is slowing and their number is closer to the number of exiting companies. This normally signals when organizations shift focus from improving the product and introducing new variants to enhancing the process and expanding their capacity (McAfee, 2002; Mirva Peltoniemi, 2011). Many players in this industry already scaled during the growth phase, as coverage is one of the most important criteria for buyers. In fact, about 15 acquisitions took place from 1999 to 2002 and many partnerships formed between organizations in the ESG database. This was done to either boost coverage or to expand the number of products offered. At this point, a few players dominate the market and large companies may continue to form alliances with peers as they find new ways to grow their core business in an established industry (Deans et al., 2002). Difficulty maintaining market share and profit levels characterize the *maturity* phase, as competition is high and most potential customers have already bought the product (Porter, 1998, 1980).

Although the products launched by the ESG-initiative industry are not complex in nature, diversity in buyers' preference has probably hindered the development of a dominant design. As previously described, ESG suffers a lack of standardization and consensus. This has given rise to a multitude of responsible investment strategies and created room for a

[2] The database I use here does not list all products separately. KLD, for example, launched the Domino 400 Social index in 1990. This is the first social investment benchmark, but they launched their rating product shortly thereafter, in 1991. The launch of their rating was thus more of a product expansion than a separate initiative, which is why they are listed together and only counted once as an index starting in 1990.

variety of ESG products – likely one of the reasons that the industry has not matured faster. Moreover, as detailed below, product innovations have taken place that reached a wide variety of buyers and boosted the adoption of ESG initiatives, thus stalling the decline phase and further supporting growth.

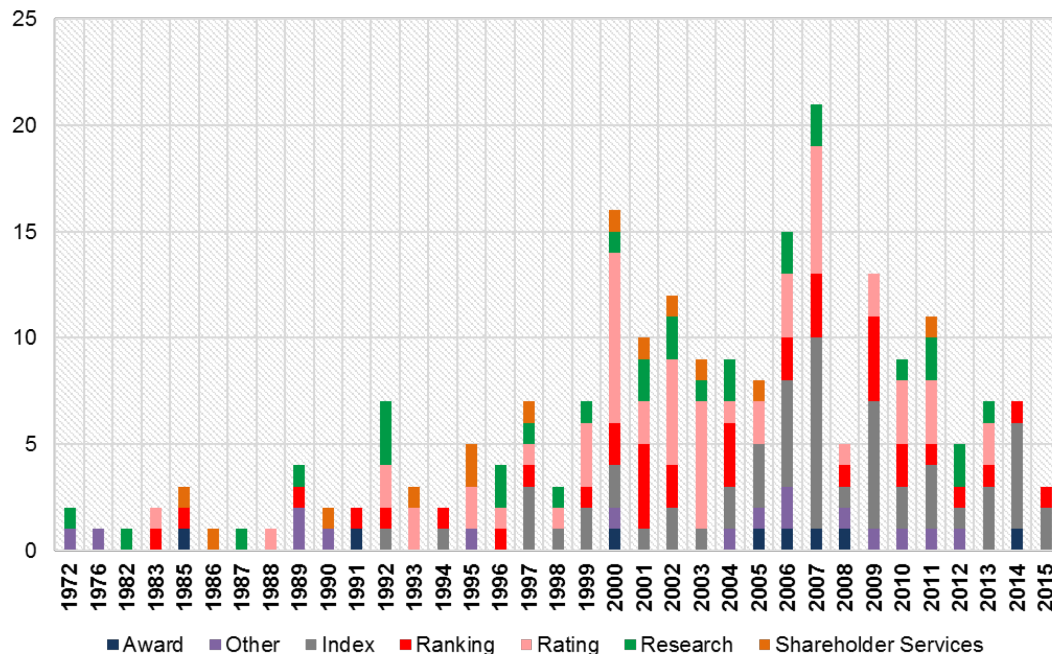
Figure 1: Industry lifecycle analysis of ESG ratings, rankings, and other initiatives



Milestones in the Development of ESG Initiatives

Figure 2 shows the first products that were launched and how the offerings have evolved. The U.S. and the UK support most ESG initiatives in the database, followed by Germany, France, and Switzerland. I've listed milestones during the development of these initiatives below, with the introduction of new ESG products discussed in the following section. The database does not include sell-side research on ESG. While this does reflect an increase in demand on the investor side, the ESG offering as part of their overall product portfolio is negligible.

Figure 2: ESG initiatives launched per year and by type



1960s and 1970s. Although there were small waves of interest in the social conduct of corporations before the 1960s, that is when interest in its measurement really started. The Council on Economic Priorities launched in 1969 to track corporate and government behaviour; they released a series of publications profiling U.S. corporations and their environmental and hiring practices. Due to the inherent subjectivity of the process, they decided not to rate companies. Milestones in the 1970s were the launch of the Investor Responsibility Research Center (IRRC) and the Interfaith Center on Corporate Responsibility (ICCR), both established in 1972. The latter comprised the first religious investors to file proxy resolutions with social and environmental themes. Of course, proxy voting and corporate governance inclusion goes back much further (e.g., Gilbert brothers in 1932), but these initiatives were formed specifically to help institutional investors as demand for responsible investment products and consultancy grew. The Sullivan Principles, introduced in 1976, also gained a lot of traction. These Principles were launched to help fight the Apartheid regime. Companies voluntarily subscribing to the Sullivan Principles were monitored and rated on compliance. This approach gained significant momentum in the 1980s and prompted debate (Lydenberg et al., 1986; Lydenberg and Paul, 1992). It also laid the foundation for the commercial rating models that exist today.

1980s and 1990s. *Fortune* launched the first corporate ranking, "America's Most Admired Companies," in 1983. This marked the start of the ranking industry and also, incidentally,

the rating industry, with the introduction of the now well-known rating company EIRIS. EIRIS started out as a foundation, helping churches and charities incorporate their ethical principles into their investment allocation decisions. Demand for ESG focus from institutional investors drove them to launch a rating service. As mentioned earlier, KLD was a pioneer with the launch of the Domini 400 Social index in 1990 (now MSCI KLD 400 Social). However, they gained more popularity when they launched their rating product in 1991. At the time, there was no benchmark in place for investors who screened their portfolios based on ESG indicators. This was exactly the motivation for constructing this index as Kinder, Lydenberg, and Domini applied different sets of screens to the S&P 500 (Domini et al., 1992). The rating product behind the index construction was launched a year later and became very well known. They became part of RiskMetrics in 2009 and MSCI acquired RiskMetrics in 2010.

2000 until present. The year 2000 saw a lot of ESG "newcomers" on the scene, notably UN Global Compact 100 and Governance Metrics International. The former became an input for many ESG screening tools and the latter was the predecessor to GMI Ratings, a well-known rating agency that has been part of MSCI ESG since 2014. The ESG initiatives had to professionalize their products to stay afloat and expand their coverage to compete for customers. Most acquisitions took place from 1999 to 2002. Increasing coverage through acquisitions or partnerships helped scale up without having to duplicate the costs involved with data gathering and analysis (Crockett, 2003).

By 2000, the first ESG research teams formed at HSBC – the first firm to offer this in Europe and only the second in the world. This move encouraged mainstream investors to push ESG forward. Led by the demand of institutional investors, quite a few of the established brokerage houses were offering ESG research by 2005 (de Graaf and Haigh, 2011). Soon, different and more technologically savvy products emerged, aimed at carbon screening and other portfolio analytics for institutional investors. As previously mentioned, innovations such as these can boost adoption among users and stall the decline in the ILCA. RepRisk, for example, launched a web-based tool in 2006 that enables investors to screen the media for ESG risks. Although products have changed over the years, the issues in rating systems today do not differ widely from those raised in the 1960s and 1970s. What does differ is how issues are put on the agenda. For example, instead of calling for increased regulation, companies are now expected to make voluntary changes to stay ahead of the pack.

Comparison with the Credit Rating Industry

ESG ratings have some similarities to credit rating agencies. They both mold assessments into easy-to-use numerical scores or letter grades. And both often use public input information, with the intermediary not solving information asymmetries. I follow the argument that Rhee (2015) makes about credit rating agencies having a sorting function:

instead of *producing* information, ESG agencies *process* a large volume of information. This facilitates more efficient ESG screening.

Another similarity between ESG and credit rating agencies is the shifted focus from initial development stages centered on research. The credit rating industry has its roots in 1841, when a merchant started gathering and selling information on the creditworthiness of companies in the U.S. He had been collecting this information on his own clients and spotted a gap in the market. The first commercial rating book was published in 1857 and Moody's Investors Service joined in 1909 with their bond ratings. About 10 years later, U.S state and local government bonds were rated. ESG ratings differ in that they are unsolicited and paid for by the users. The exception is a few companies that offer ratings to companies for a fee. This kind of service is more of an assessment and consultancy designed to help companies improve their rating.

Credit ratings help reduce regulatory costs and send signals to investors about the quality of securities (Jeon and Lovo, 2013). In 1936, the Comptroller of the Currency prohibited national banks from investing in bonds that were not investment grade. In case of doubt about the rating, it had to be guaranteed by at least two rating agencies. Later, in 1975, the SEC stepped in to introduce Nationally Recognized Statistical Ratings Organizations (NRSROs). This way, only long-recognized ratings were relevant for SEC regulations and both smaller and new ratings were excluded (Coffee, 2006; Sylla, 2002). Although ESG ratings differ from the regulated credit rating industry, some of the AMs have adopted ESG ratings in a similar way. They opt for the established rating agencies and subscribe to more than one provider. In cases of extreme discrepancy between ratings, they dig deeper. This is especially helpful for larger holdings, as a small error on behalf of one rating agency may result in significant capital reallocation.

Product Development and Complementarity

ESG products have progressed through several phases. Although most organizations started out with a single product, they gradually expanded to become a one-stop-shop for investors' ESG needs. Figure 3 reviews approximately when different types of products entered the scene. It must be noted that proxy voting has been around for a long time, but the service for institutional investors really started with the IRRC in 1972.

Lack of consensus and a range of different ESG strategies bring about diversity in buyer preferences, likely contributing to the industry's slow maturation (Klepper and Graddy, 1990). Most ESG initiatives have a large assortment of products to cater to the range of ESG strategies employed by investors. As seen in Figure 3, in-depth ESG research and proxy research have been around for decades. These products are still used by some fundamental investors. Other investors need tools to scan many companies and to screen out those that

are ''irresponsible'' based on a set of exclusion criteria. Yet others need an index or screening tool tot comply with clients' request for a low-carbon portfolio. AOs are under more pressure than ever to know what they own; portfolio analytics can be a helpful tool.

Figure 3: ESG Product development phases

Results and discussion

The results of interviews, by subject, are detailed below. It is important to note that the interviews were focused primarily on those ESG initiatives that need information from companies, such as rating agencies, awards, rankings, and indices. The interviews were conducted with 20 companies, 15 AMs, and 10 AOs in the UK, the Netherlands, and Germany. The response rate was 45%. More details on the interviews and the respondents can be found in Appendix 2.

Companies

Companies on average receive roughly 30 requests a year from ESG agencies. This is likely an underestimate since invitations to participate are sent to disparate departments. Despite uncertainty, it is clear that the range of requests varies widely and companies without an ESG reporting function may split these requests between different roles. The number of annual requests is three times greater than what oekom found (2013). This may be due to the fact that the companies in my sample are larger than the companies surveyed by oekom. It may also be due to growth of the industry and the methodological inclusion of rankings and other initiatives.

More than half of companies doubt the value of responding to every request, as the work already requires at least half of a full-time job to fulfil. This includes a few respondents who stated that the industry does have value but has become too unwieldy. Those respondents who think the industry has value all seem to have an advanced filtering system in place to minimize reporting fatigue.

Nevertheless, many respondents still try to fill out as many requests as they can. They want to be helpful and transparent. Some even responded to requests despite describing the scores as "nonsense." Reputation is another important driver for respondents. Not filling out a questionnaire may give the impression that they have something to hide. Respondents expressed concern the number of agencies and requests makes prioritization difficult, although nearly all respondents agreed that CSR awards are not a priority. While useful for marketing, these are not as important or credible as ratings or rankings. (Many awards have even lost credibility by requesting sponsorship fees.)

Some companies prioritize based on credibility. MSCI, Sustainalytics, and oekom are the most credible organizations based on my interviews. The Carbon Disclosure Project (CDP) and DJSI were also frequently mentioned, as was the Dutch Transparency Benchmark for Dutch companies. (These last two are also sources of frustration.) In general, established raters are preferred over newcomers, indicating that there is not much room for new entrants. Few companies maintain a materiality approach by which they select those ratings and rankings most relevant to them. Some companies simply respond to those agencies requested by shareholders or to those with a big audience. Some players, such as CDP, Sustainalytics, and DJSI have been clever about reaching a wider audience and distribute their data via the Bloomberg terminal.

For some companies, ratings and rankings have become a benchmark that generates competition with peers. Many companies use these ratings to measure their progress. These effects are especially helpful for internal ''sustainability people'' who are trying to gain support for certain ESG projects. To them, these questionnaires have become a proxy for investor demand. More than one respondent claimed that it really helps to get their superiors to sign off on certain projects. It also helps companies to understand the areas in which they need to be more transparent and it provides them with insight into trending topics and potential points of improvement.

More than half of respondents complained about the time required to fill out non-comparable but overlapping or irrelevant questions – time that could be used to make actual progress with their ESG journey. The methodologies are complex and there is a lack of harmony. This is reason for concern given the number of surveys. Some respondents stated that ratings and rankings have become an obsession for companies and that one can score high by simply ticking the right boxes: "Practice makes perfect" also goes for filling

out questionnaires. The DJSI, especially, was mentioned as a frustrating process – both lengthy, and demanding of expertise from different departments. It can take more than 30 employees and 1,000 hours to respond to. On top of that, payment is often required to get feedback. Opinion is divided, though, as some also find it helpful to see what questions are on the agenda and to get an impression of how they measure up. Few use the DJSI as a management tool or link it to compensation, but most respond to it because it reaches a big audience. CDP was also frequently mentioned, but in a more positive light, as the initiative is more transparent.

Companies believe that ratings and rankings should focus on material and relevant issues. They must be transparent both with methodology and assessment. The matter in which companies are assessed is often not straightforward. Some respondents described receiving inconsistent assessments between years. They also said that it would be helpful if these initiatives shared data, as this would minimize reporting fatigue and inconsistencies. Another suggestion was that they improve their follow-up – sometimes a 6-month wait for an outcome – and be more considerate toward companies in general.

In sum, ESG initiatives can help companies understand what is expected of them. They can help sustainability-focused employees get internal approval for their projects and create a sense of urgency. Finally, they are useful for benchmarking and tracking progress. The downsides include irrelevance or immateriality as well as the sheer number of ESG initiatives. They take too much time and questions are overlapping but different. Companies that excel at filling out the questionnaire can improve their score without changing practices. The exercise then becomes more about ticking the right boxes as opposed to making the right improvement. Lastly, many ESG initiatives do not conduct assessments transparently.

Asset Managers

Due to the sheer number of companies that must be screened, AMs often use external parties with extensive ESG coverage. This is why many rating agencies scaled through acquisitions or partnerships. Lack of time, expertise, or analysts, makes it infeasible for investors to do ESG research. It is more efficient to simply subscribe to an ESG rating agency. This is in-line with other research that finds investors resource-constrained (van Duuren et al., 2015): They often have many stocks to cover and use ESG as a screening tool to identify their investable universe. This means that stocks may automatically be cut from a portfolio when an ESG score is downgraded.

Although not everyone is aware of the recent evidence on the lack of correlation between ESG ratings, AMs are not surprised to learn of it. Some have already discovered errors in ratings and try to be mindful when choosing one. Some state that, although far from

perfect, ESG ratings currently offer the best approach given the sheer number of stocks covered. Others subscribe to several different rating agencies to deal with discrepancies. Although costly, this provides them with different viewpoints and avoids putting all eggs in one basket. Large discrepancies between scores can be investigated, which is more efficient than considering every single company in the portfolio. Some combine many providers including RepRisk, Trucost, Sustainalytics, and MSCI.

MSCI and Sustainalytics are the preferred providers and many respondents described these rating agencies as complementary. A few respondents said MSCI is known for governance (due to the GMI acquisition) while Sustainalytics is stronger in environmental and social analysis. Both players have extensive coverage. The choice of provider may also be due to a fund's history. (MSCI is often in place as the benchmark.) As discussed earlier, this ''one-stop-shop'' model is practical for the users of ESG data. In addition to these kinds of rating providers, respondents often use a RepRisk "overlay" to track reputational aspects.

Overall, the reliance on rating agencies is more pronounced than that found by van Duuren et al. (2015) in their survey among 100 fund managers. These investors indicate that they mainly use ESG rating agencies for red-flagging and managing risks. According to the interviews I conducted, many investors rely on rating agencies for ESG expertise and efficiency. Although not always clearly indicated, many AMs use the scores to identify the ''most responsible'' companies – a screening method that assumes these ratings are a good proxy for ESG performance. AMs allocate capital based on these ratings, though many know that it is not a perfect solution. Respondents questioned the quality of the data and had difficulty quantifying certain information. However, they also stated that this is the best approach available and that rating quality has been improving over the last few years. Other AMs do not find the scores useful and use the narrative included in company profiles to feed investment decision making. They find it helpful to have different viewpoints and to outsource the collection of ESG information.

Asset Owners

Approximately 70% of AOs have no preference whether AMs do their own ESG research or outsource it. Most do not think it is their job to tell AMs how to make investment decisions. The respondents did agree that blindly relying on ratings is not a good idea, and that ratings are useful for gathering different viewpoints and supporting thought and discussion throughout the investment decision-making process. AOs also acknowledge that portfolios are on average quite large, making subscriptions to ESG rating agencies efficient and likely the best available approach. They were generally not aware of the low correlation between ESG scores, but nor were many surprised.

Except for one respondent, AOs do not tend to use ESG scores to evaluate or compensate their AMs. Some do use the scores to get input for review talks: This makes it easier to have some input for discussion with their AMs, as ESG is a broad concept. AOs use the narrative to read up on their portfolio and to ''know what they own'' and challenge AMs. Respondents stated that they do not take specific action based on these reports, but merely use them for review purposes. Sometimes trustees want to see how the portfolio compares to the benchmark on ESG criteria. One of the AOs started using ESG ratings in a similar way to credit ratings: they defined an investable universe for their AMs according to a pre-determined threshold.

Discussion

The initiatives described in this paper have experienced tremendous growth. Companies use ESG ratings to benchmark their efforts, customers use them to identify ''good'' employers or buy ''better'' products, investors use them to identify more ''responsible'' investments, and academics use them to investigate the financial value of ESG. However, some recent evidence has shed doubt on the reliability of ESG initiatives – somewhat unsurprising since we have not agreed on what indicators matter and materiality differs for every company. It is also not surprising that once so many indicators are aggregated, the final score becomes a noisy proxy for ESG. The lack of consensus and understanding of what ESG entails is precisely what has made many of these initiatives popular.

There is no doubt that some of these initiatives have supported the development of responsible investment, evidenced by the role of the ICCR in the South Africa Divestment Campaign (MacLeod, 2014; Shapiro, 1992). To this date, ESG-related initiatives can play an important role as watchdogs; consider Amnesty International's recent investigation into the supply chain of multinationals like Unilever (Amnesty International, 2016). According to Waddock (2008), some of these initiatives serve as a voluntary responsibility assurance system. They give an "independent" perspective on how a given company is upholding their social contract, and thus serve as a monitor. This exerts some degree of normative pressure on companies and can help change dominant conventions (Sun et al., 2011).

Some company respondents also suggested that ESG ratings help to get certain topics on the agenda by creating a sense of urgency. Because sustainability managers are not often in a room with investors, they tend to use these initiatives as a proxy for investor demand, which helps to convince their superiors to take action. The finding that companies barely talk to their investors about ESG is interesting, as this further underlines the role of the ESG-initiative industry as an intermediary and emphasizes the need to better understand this industry.

Given resource constraints and a lack of understanding, investors will likely continue to use this intermediary. A handful has transitioned from scores to narrative, using their investment skills to interpret investment implications. For AOs, this can be helpful preparation for a review meeting with their AMs, as they often do not have the skills or time to do ESG research in-house. (Nearly all AOs indicate that they do not expect AMs to do this in-house.) Given portfolios often comprise hundreds of stocks (or more), ESG scores remain the most efficient way to screen them. It is therefore important that AMs thoroughly understand the rating methods they choose (Chatterji et al., 2015; Delmas et al., 2013). Some interview respondents subscribe to more than one rating agency to avoid major errors. This solution, though, can be quite costly and still may not provide an accurate proxy for ESG. At some point, it may be more cost-efficient to train employees in ESG analysis and have more all-around analysts on the investment team. With regard to academic use, it may be better to break scores into component parts for a less noisy proxy; this could help reveal financial relevance of individual indicators.

Even though the industry serves a purpose, the accuracy of this proxy for ESG performance is questionable, with no consensus on what it means. Several other concerns are equally problematic. First, there is the time that companies must put into ratings questionnaires. Based on interviews, it appears that reporting fatigue is close to a peak; respondents are frustrated. Some made it clear that they will soon start to implement a strict filter. One idea from Schaefer (2005) is that rating agencies should lower transaction costs of processing ESG data for companies. Respondents that do have a filter or priority system have a clear preference for more established players. This means that smaller rating agencies will have to exclusively deal with public information once excluded. They will thus become even more likely to be shaken out or acquired. This supports findings in the ILCA and shows that the industry is reaching maturity.

Another problem is that most of the reported ESG data are not audited and reliability is debatable, at best (Eccles et al., 2015). The same is true of the input information. This lack of reliability and convergence in findings adds to the confusion that surrounds this topic. Additionally, due to the proprietary nature of methodologies it is difficult for ESG initiatives to be fully transparent. From my interviews, it seems that this is especially problematic with rankings like the Transparency Benchmark or Corporate Knights – and even the DJSI, to some extent. This only adds to frustration as companies put in an effort and are then left in the dark as to how they received a certain score. In some cases, as with the DJSI, companies can find out how to improve their performance for a fee of roughly EUR50,000. Although a clever way to make money, this does not help the credibility of the DJSI and makes companies question the value of responding.

There are a few rating agencies that appear to offer high-quality data. According to company respondents, the most credible ratings/rankings are MSCI ESG, Sustainalytics, and the DJSI. Other favorable mentions were oekom and the CDP. Although companies mentioned the DJSI frequently, it was also a source of frustration. What is more, investors did not mention the DJSI at all. For them, the leading providers were MSCI and Sustainalytics. They sometimes mentioned Trucost, CDP, and RepRisk. This is not fully in line with other research, which also mentions ASSET4 and EIRIS (now VIGEOEIRIS) as leading ESG providers (Dorfleitner et al., 2015; Sustainable Insight Capital Management, 2016). No interview subjects mentioned these players.

Conclusion

The ESG-initiative industry has become an important intermediary between companies and their investors. Though recent evidence along with the sheer number of initiatives have cast doubt on the value of this industry, billions of dollars in capital are allocated based on these tools and companies spend at least half of a full-time job responding to requests from ESG ratings agencies. Given the implications for the adoption of responsible investment, it is crucial to develop an understanding of this industry. Namely, is the ESG-initiative industry a vice or a virtue in the development of responsible investment? To answer this question, I investigated 218 ESG initiatives and analyzed the industry with ILCA. I also explored the role of ESG initiatives by conducting 45 interviews. The respondents were AOs, AMs, and companies located in the Netherlands, the UK, and Germany (see Appendix 2).

In weighing the pros and cons, my findings indicate that the ESG-initiative industry is an impediment to the adoption of responsible investment. The industry has helped boost the adoption by exerting normative pressure on companies, exposing them to ESG-related discourse, and serving as a monitor. There is also, currently, not a more efficient way to screen on ESG criteria. The problem is that there are simply too many rating agencies and their judgement is questionable. Looking at the 218 initiatives in the database I compiled, the obstacles named by interview respondents, the academic evidence that casts doubts on the accuracy of ESG ratings, and the fact that Volkswagen was announced an industry leader just prior to the emissions scandal makes it clear that this market is not functioning.

The ESG-initiatives industry is now at a crossroads: the number of ratings, rankings, and indices spread more confusion and reporting fatigue than they spread benefits. For some companies in my sample, the time has come to be more selective, as much of the rating industry is little more than a nuisance. Those who have a filtering approach in place must reinforce their focus on the established and credible agencies. This is bad news for newcomers. As evidenced by the ILCA, the growth in new entrants is already stabilizing and the industry is likely to transition to maturity in the next few years. More partnerships

and acquisitions are expected, which is good news for companies suffering from reporting fatigue. It would also help if more users became aware of the flaws inherent in ratings/rankings and if companies published evidence on how much time this industry requires. This would exert more pressure on ESG initiatives to be transparent, build credibility, and even collaborate by producing a standardized question list. Initiatives such as the Global Initiative for Sustainable Ratings (GISR) help to set some minimum standards and encourage best practices (Makower, 2013). They have also previously organized training on ESG ratings for companies; it might be helpful if they continue to offer this type of education.

At the end of the day, investors will rely on the expertise of the ESG industry. Even if they have the skills to do ESG analysis, portfolios are simply too large. This know-how will take another few years to become mainstream, given that ESG has not yet been integrated into the curricula of most business schools and industry certification bodies (Krosinsky, 2015). Companies may be better off talking to their investors about what information matters to them; they can more effectively focus their efforts if they are on the same page. This point is worth emphasizing, as many people are under the impression that investors use ESG scores without knowing which ones, how to do it, or how much time this requires. As an alternative to spreading thin, companies could respond only to those initiatives that align with their goals and industry type: heavy water users can, for example, participate in CDP's water program. A couple of respondents already use this approach. They said that this focus frees time and helps them to work toward their goals more effectively.

The findings in this paper have important implications for scholars and practitioners alike. The overview in Appendix 1 and in-depth discussion demonstrate that the ESG-initiative industry has become a web of confusion. It is important that users are aware of the pitfalls of this proxy and that they proceed with caution. Besides acknowledging its limitations, scholars may also be better off researching individual indicators as opposed to aggregated scores. This can reduce the noise and subjective weights in their search for financial significance. It is also important for companies to establish a strategy to deal with the workload. Being on the same page with investors is one way to do this. Asset managers should also be careful of the extent to which they rely on the ESG rating industry. Crosschecking with a second provider may be helpful if there is no way around the scores. Asset owners should also make sure they are on the same page as their AMs. It may not help for AOs to identify an investable universe based on these scores or to evaluate their AMs with the ratings. Rather, clearly communicating objectives and goals regarding ESG is useful, as is regular and challenging discussion with AMs. It is important to note that the noise, or disconnect, between investors and companies may be the tip of the iceberg. The fact that companies do not tend to talk to their investors about ESG hints at a large misalignment in the investment chain.

One limitation of this paper is that I investigate several parties in the investment chain, which makes the sample of respondents rather small. Future endeavors could focus on a larger number of interviews. It would also be interesting to obtain data on the response rate of ESG initiatives. If this has declined over time, it would support the findings of this paper. Getting an ESG rater's opinion on this would also provide a useful angle. Other projects could look at the influence on a company's share price once they stop responding to a major rating agency, or once they are de-listed from the DJSI. There is some research on this already (see Cellier and Chollet, 2015), but our understanding of this industry and its impact is unsatisfactory. This is especially true given the size of the industry and its role as an intermediary between companies and investors. After all, they are our point of reference in allocating substantial capital to ''responsible'' companies. On top of that, sustainability managers need to invest approximately half a full-time job in taking part.

References

Abernathy, W.J. and J.M. Utterback. 1978. "Patterns of industrial innovation." *Technology Review*. 80(7): 40–47.

Adner, R. and D. Levinthal. 2001. "Demand Heterogeneity and Technology Evolution: Implications for Product and Process Innovation." *Management Science.* 47: 611–628.

Amnesty International. 2016. "The Great Palm Oil Scandal. Labour abuses behind big brand names." Available from https://www.amnesty.org/en/documents/asa21/5184/2016/en/.

Andrews, P.W.S. 1952. "Industrial Economics As a Specialist Subject." *The Journal of Industrial Economics*. 1: 72–79. doi:10.2307/2097681.

Audretsch, D. and M. Feldman. 1996. "Innovative clusters and the industry life cycle." *Review of Industrial Organization.* 11: 253–273. doi:10.1007/BF00157670.

Audretsch, D.B. 1995. "Innovation and Industry Evolution." SSRN Scholarly Paper No. ID 1496179. Available from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1496179.

Bain, J.S. 1959. *Industrial Organization*. Wiley: New York, NY.

Barthwal, R.R. 2007. *Industrial Economics: An Introductory Text Book.* New Age International: New Delhi, India.

Bowen, F. 2014. *After Greenwashing: Symbolic Corporate Environmentalism and Society*. Cambridge University Press: Cambridge, UK.

Branding Institute. 2016. "Ranking of the Rankings." Available from https://www.branding-institute.com/rating-the-rankings/ranking-of-the-rankings.

Cellier, A., and P. Chollet. 2016. "The effects of social ratings on firm value." *Research in International Business and Finance.* 36: 656-683. doi:10.1016/j.ribaf.2015.05.001.

Fombrun, C. 1998. "Indices of Corporate Reputation: An Analysis of Media Rankings and Social Monitors' Ratings." *Corporate Reputation Review.* 1(4): 327–340.

Chatterji, A., D.I. Levine, and M.W. Toffel. 2009. "How Well Do Social Ratings Actually Measure Corporate Social Responsibility?" *Journal of Economics and Management Strategy*. 18(1): 125-169.

Chatterji, A.K., et al. 2015. "Do ratings of firms converge? Implications for managers, investors and strategy researchers." *Strategic Management Journal*. 37(8): 1597-1614. doi:10.1002/smj.2407.

Clark, C. 1940. *The conditions of economic progress*. Macmillan: London, UK.

Coase, R.H. 1937. "The Nature of the Firm." *Economica*. 4: 386–405. doi:10.2307/2626876.

Coffee, J.C. 2006. *Gatekeepers: The Professions and Corporate Governance*. Oxford University Press: Oxford, UK.

Crockett, A. 2003. “Conflicts of Interest in the Financial Services Industry: What Should We Do about Them?” Center for Economic Policy Research.

de Graaf, F.J., and M. Haigh. 2011. "Activism in European Pension Funds: Exerting Pressure on Intermediaries." In Finance and Sustainability: Towards a New Paradigm? A Post-Crisis Agenda. Ed. W. Sun., C. Louche, and R. Perez.

Deans, G.K. F. Kroeger, and S. Zeisel. 2002. "The Consolidation Curve." *Harvard Business Review.* Available from https://hbr.org/2002/12/the-consolidation-curve.

Delmas, M.A., D. Etzion, and N. Nairn-Birch. 2013. "Triangulating Environmental Performance: What Do Corporate Social Responsibility Ratings Really Capture?" *Academy of Management Perspectives.* 27: 255–267. doi:10.5465/amp.2012.0123.

Dillenburg, S., T. Greene, and O. Erekson. 2003. "Approaching Socially Responsible Investment with a Comprehensive Ratings Scheme: Total Social Impact." *Journal of Business Ethics.* 43: 167–177. doi:10.1023/A:1022987127960.

Domini, A., P. Kinder, and S. Lydenberg (Eds). 1992. *The Social Investment Almanac: A Comprehensive Guide to Socially Responsible Investing.* 1st edition. Henry Holt & Co.: New York, NY.

Dorfleitner, G., G. Halbritter, and M. Nguyen. 2015. "Measuring the level and risk of corporate responsibility – An empirical comparison of different ESG rating approaches." *Journal of Asset Management.* 16: 450–466. doi:10.1057/jam.2015.31.

Fowler, S.J. and C. Hope. 2007. "A Critical Review of Sustainable Business Indices and Their Impact." *Journal of Business Ethics*. 76: 243–252.

Geroski, P.A., 1995. "What do we know about entry?" *International Journal of Industrial Organization.* 13: 421-440. doi:10.1016/0167-7187(95)00498-X.

Gladman, S. 2015. "Corporate governance research and ratings firms." In The Routledge Handbook of Responsible Investment. Eds. Hebb, T., et al. Routledge: New York, NY.

Grayson, D. and J. Nelson. 2013. *Corporate Responsibility Coalitions: The Past, Present, and Future of Alliances for Sustainable Capitalism*. Stanford University Press: Palo Alto, CA.

Hagart, G. and I. Knoepfel. 2008. Research Centre Stage. Four years of the Enhanced Analytics Initiative. Enhanced Analytics Initiative. Available from https://www.onvalues.ch/images/publications/08-12_EAI_4-year_review.pdf.

Hannan, M.T. J. Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review.* 49: 149–164. doi:10.2307/2095567.

Hannan, M.T. and J. Freeman. 1977. "The Population Ecology of Organizations." *American Journal of Sociology.* 82: 929–964.

Hanson, K.O. 2015. "The role of the leader in shaping the ethical culture of the corporation." In Corporate Stewardship: Organizing for Sustainable Effectiveness. Eds. Mohrman, S.A., J. O'Toole, and E. Lawler. Greenleaf Publishing: Sheffield, UK.

Hockerts, K. and L. Moir. 2004. "Communicating Corporate Responsibility to Investors: The Changing Role of the Investor Relations Function." *Journal of Business Ethics.* 52: 85–98. doi:10.1023/B:BUSI.0000033109.35980.16.

Igalens, J. and J.-P. Gond. 2005. "Measuring Corporate Social Performance in France: A Critical and Empirical Analysis of ARESE Data." *Journal of Business Ethics*. 56: 131–148. doi:10.1007/s10551-004-3529-7.

Jeon, D.-S. and S. Lovo. 2013. "Credit rating industry: A helicopter tour of stylized facts and recent theories." *International Journal of Industrial Organization*. 31: 643–651. doi:10.1016/j.ijindorg.2013.02.004.

Jovanovic, B. 1982. "Selection and the Evolution of Industry." *Econometrica* 50: 649–70.

Juravle, C. and A. Lewis. 2008. "Identifying impediments to SRI in Europe: a review of the practitioner and academic literature." *Business Ethics: A European Review*. 17: 285–310. doi:10.1111/j.1467-8608.2008.00536.x.

Klepper, S. 1997. "Industry Life Cycles." *Industrial and Corporate Change*. 6: 145–81.

Klepper, S. and E. Graddy. 1990. "The Evolution of New Industries and the Determinants of Market Structure." *The RAND Journal of Economics* 21: 27–44.

Krafft, J. 2006. "Introduction: What do we know about Industrial Dynamics?" *Revue de l'OFCE* 97 bis, 13–19.

Krosinsky, C. 2015. "Overcoming distractions on the road to increased levels of ESG integration." In The Routledge Handbook of Responsible Investment. Eds. T. Hebb, et al. Routledge: New York, NY.

Kuznets, S. 1930. "Equilibrium Economics and Business-Cycle Theory." *The Quarterly Journal of Economics.* 44: 381–415. doi:10.2307/1885790.

Langlois, R.N. 1992. "Transaction-cost Economics in Real Time." *Industrial and Corporate Change.* 1: 99–127.

Langlois, R.N. 1989. "Economic Change and the Boundaries of the Firm." In Industrial Dynamics: Studies in Industrial Organization. Ed. B. Carlsson. Springer: Netherlands. doi:10.1007/978-94-009-1075-1_4.

Langlois, R.N. 1983. "Internal Organization In a Dynamic Context: Some Theoretical Considerations." C.V. Starr Center for Applied Economics.

Langlois, R.N. and P.L. Robertson. 2002. *Firms, Markets and Economic Change: A Dynamic Theory of Business Institutions*. Routledge: New York, NY.

Lomi, A., E.R. Larsen, and J.H. Freeman. 2005. "Things Change: Dynamic Resource Constraints and System-Dependent Selection in the Evolution of Organizational Populations." *Management Science.* 51: 882–903. doi:10.1287/mnsc.1050.0364.

Lydenberg, S. and A. White. 2015. "Responsible investment indexes. Origins, nature and purpose." In The Routledge Handbook of Responsible Investment. Eds. T. Hebb, et al. Routledge: New York, NY.

Lydenberg, S.D., A.T. Marlin, and S.O. Strub. 1986. *Rating America's corporate conscience: a provocative guide to the companies behind the products you buy every day.* Addison-Wesley: Reading, MA.

Lydenberg, S. and K. Paul. 1992. "Types, Methods, Goals." In The Social Investment Almanac: A Comprehensive Guide to Socially Responsible Investing. Eds. A. Domini, P. Kinder, and S. Lydenberg. Henry Holt & Co: New York, NY.

MacLeod, C. 2014. "Mobilizing SRI through investor governance networks: the politics of collective investor action." In Critical Studies on Corporate Responsibility, Governance and Sustainability : Socially Responsible Investment in the 21st Century. Eds. C. Louche and T. Hebb. Emerald Group Publishing Limited: Bradford, UK.

Makower, Joel. April 19, 2013. "GISR launches principles for rating the raters." GreenBiz. Accessed on November 29, 2015. Available from http://www.greenbiz.com/blog/2013/04/29/gisr-launches-principles-rating-raters.

Malerba, F. 2007. "Innovation and the dynamics and evolution of industries: Progress and challenges." *International Journal of Industrial Organization*. 25: 675–699. doi:10.1016/j.ijindorg.2006.07.005.

Malerba, F. and L. Orsenigo. 1996. "The Dynamics and Evolution of Industries." *Industrial and Corporate Change.* 5: 51–87. doi:10.1093/icc/5.1.51.

Marshall, A. 1890. *Principles of economics.* Macmillan: London, UK.

Marshall, A. and M.P. Marshall. 1879. *The Economics of Industry.* Macmillan and co.: London, UK.

McAfee, R.P. 2002. *Competitive solutions the strategist's toolkit.* Princeton University Press. Princeton: NJ.

McGahan, A.M., N. Argyres, and J.A.C. Baum. 2004. "Context, technology and strategy: forging new perspectives on the industry life cycle." In Business Strategy over the Industry Lifecycle, Advances in Strategic Management. Emerald Group Publishing Limited: Bradford, UK.

Peltoniemi, M. 2011. "Reviewing Industry Life-cycle Theory: Avenues for Future Research." *International Journal of Management Reviews.* 13: 349–375. doi:10.1111/j.1468-2370.2010.00295.x.

Munro, E. 2015. "Getting Beyond the Data Point." In Perspectives on the Long Term, Building a Stronger Foundation for Tomorrow. Focusing Capital on the Long Term.

Oekom, HypoVereinsbank, and Societe Generale. 2013. *The Impact of SRI. An Empirical Analysis of the Impact of Socially Responsible Investments on Companies.* oekom research. Available from http://www.oekom-research.com/homepage/english/oekom_Impact-Study_EN.pdf.

Oh, C.H., J.-H. Park, and P.N. Ghauri. 2013. "Doing right, investing right: Socially responsible investing and shareholder activism in the financial sector." *Business Horizons.* 56: 703–714. doi:10.1016/j.bushor.2013.07.006.

Porter, M.E. 1998. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press: New York, NY.

Porter, M.E. 1980. *Competitive Strategy*. Free Press: New York, NY.

Ransome, W. and C. Sampford. 2013. *Ethics and Socially Responsible Investment: A Philosophical Approach.* Routledge: New York, NY.

Rostow, W.W. 1960. *The stages of economic growth: a non-communist manifesto.* Cambridge University Press: Cambridge, UK.

Rostow, W.W. 1953. *The process of economic growth*. Clarendon Press: Oxford, UK.

Sadoswki, M., K. Whitaker, and F. Buckingham. 2010. Rate the Raters - Phase 1. Available from http://sustainability.com/our-work/reports/rate-the-raters-phase-one/.

Scalet, S. and T.F. Kelly. 2010. "CSR Rating Agencies: What is Their Global Impact?" *Journal of Business Ethics.* 94: 69–88. doi:10.1007/s10551-009-0250-6.

Schaefer, H. 2005. "International Corporate Social Responsibility Rating Systems - Conceptual Outline and Empirical Results." SSRN Scholarly Paper No. ID 2177843. Available from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2177843.

Schumpeter, J.A., 1939. *Business cycles: a theoretical, historical, and statistical analysis of the capitalist process*. McGraw-Hill, New York ; London.

Searcy, C., Buslovich, R., 2014. Corporate Perspectives on the Development and Use of Sustainability Reports. *Journal of Business Ethics* 121, 149–169. doi:10.1007/s10551-013-1701-7

Searcy, C., Elkhawas, D., 2012. Corporate sustainability ratings: an investigation into how corporations use the Dow Jones Sustainability Index. *Journal of Cleaner Production* 35, 79–92. doi:10.1016/j.jclepro.2012.05.022

Shapiro, J., 1992. The movement since 1970, in: Domini, A., Kinder, P., Lydenberg, S. (Eds.), The Social Investment Almanac: A Comprehensive Guide to Socially Responsible Investing. Henry Holt & Co, New York, pp. 8–23.

Singh, J.V., Lumsden, C.J., 1990. "Theory and Research in Organizational Ecology". *Annual Review of Sociology* 16, 161–195.

Sonnenfeld, J., 2004. "Good governance and the misleading myths of bad metrics". *The Academy of Management Executive* 18, 108–113.

Suchman, M.C., 1995. "Managing Legitimacy: Strategic and Institutional Approaches." *The Academy of Management Review* 20, 571–610. doi:10.2307/258788

Sun, W., Louche, C., Perez, R., 2011. *Finance and Sustainability: Towards a New Paradigm? A Post-crisis Agenda.* Emerald Group Publishing.

Sustainable Insight Capital Management, 2016. "Sustainable Perspective For the Mainstream Investor. Who are the ESG rating agencies?"

Sylla, R., 2002. A Historical Primer on the Business of Credit Rating, in: Levich, R.M., Majnoni, G., Reinhart, C.M. (Eds.), Ratings, Rating Agencies and the Global Financial System, The New York University Salomon Center Series on Financial Markets and Institutions. Springer US, pp. 19–40. doi:10.1007/978-1-4615-0999-8_2

Utterback, J.M., Abernathy, W.J., 1975. "A dynamic model of process and product innovation." *Omega* 3, 639–656. doi:10.1016/0305-0483(75)90068-7

Van Duuren, E., Plantinga, A., Scholtens, B., 2015. "ESG Integration and the Investment Management Process: Fundamental Investing Reinvented." *Journal of Business Ethics*. doi:10.1007/s10551-015-2610-8

Vandekerckhove, W., Leys, J., Alm, K., Scholtens, B., Signori, S., Schäfer, H., 2012. *Responsible Investment in Times of Turmoil*. Springer Science & Business Media.

Williamson, O., 1979. "Transaction-Cost Economics: The Governance of Contractual Relations." *Journal of Law and Economics* 22, 233–61.

Williamson, O.E., 1981. "The Economics of Organization: The Transaction Cost Approach." *American Journal of Sociology* 87, 548–577.

Williamson, O.E., 1975. *Markets and hierarchies: analysis and antitrust implications: a study in the economics of internal organization.* Free Press; Collier Macmillan, New York : London.

Williamson, O.E., 1973. "Markets and Hierarchies: Some Elementary Considerations." *The American Economic Review* 63, 316–325.

Appendix 1 ESG initiatives

This appendix contains an overview of the 218 ESG initiatives that are investigated. They were collected by means of google search, interviews, existing reports/literature and company reports. They were then divided into 7 different categories:

1. ESG Awards – 8 observations
2. ESG Indices – 57 observations
3. ESG Rankings – 38 observations
4. ESG Ratings – 57 observations
5. ESG Research – 27 observations
6. Shareholder services – 15 observations
7. Other initiatives – 16 observations

It must be noted that there can be overlap between the categories, but the ESG organizations are categorized according to their main focus.

Organization	ESG Award
World Environment Center	World Environment Center Gold Medal for International Corporate Achievement in Sustainable Development
Institute of Directors	Golden Peacock Awards
US Chamber of Commerce Business Civic Leadership Center (BCLC)	Corporate Citizenship Awards
The PR News Group at Access Intelligence	PR News CSR Awards
Ethical team limited	International Green Awards
Terrapinn	Vaccine Industry Excellence Awards
The Ethical Corporation (FC Business Intelligence)	Ethical Corporation Responsible Business Awards
Effie Worldwide	Positive Change Effie Award

Organization	ESG Index
KLD (Kinder, Lydenberg, Domini)	KLD (Kinder, Lydenberg, Domini)
WM Company	Ex-vices Index
Citizens Fund	Citizens Index
ECPI	ECPI
Ethical Screening	Ethical Screening
Oeko Invest	Nature Equity Index
NPI	NPI Social Index
Robeco & Dow Jones	Dow Jones Sustainability Indexes &

	Sustainability Year Book
Wespac Investment Management	Westpac-Monash Eco-Index
Calvert	Calvert Responsible Index Series
UN Global Compact	UN Global Compact 100
FTSE	FTSE4Good Index Series
Business in the Community (BITC)	CR Index and the Community Mark
Forum Ethibel	Ethibel Sustainability Indices & excellence label
Kempen SNS	Kempen SNS Smaller Europe SRI Index
Bloomberg	Bloomberg new energy finance indices
Johannesburg Stock Exchange	JSE Socially Responsible Investment Index (SRI)
HypoVereinsbank Nachhaltigkeits Index	HypoVereinsbank Nachhaltigkeits Index
Tel-Aviv Stock Exchange - (TA) and Maala	Maala CSR Index
VINIS Gesellschaft für nachhaltigen Vermögensaufbau und Innovation "	Vonix Index
BBGI Group	BBGI Group Indices
Cleantech Group (CTG)	Cleantech Indices
International Securities Exchange Holdings	ISE Global Wind Energy Index
Shenzen Stock Exchange (SZSE)	CORP Governance Index
WilderShares	Progressive Energy Index
BÖAG Börsen AG	Sustainability Index
Boston College Center for Corporate Citizenship	Reputation Institute CSR Index
Deutsche Börse Group	Dax Global Sarasin Sustainability Indexes
Goldman Sachs	GS SUSTAIN Focus List
HSBC	HSBC Global Climate Change Index
Landesbank Baden-Württemberg (LBBW)	Nachhaltigkeit Strategie Index
MSCI	MSCI Indices
Solactive	Solactive
Thomson Reuters	Thomson Reuters Corporate Sustainability Indices.
S&P	S&P Carbon Efficient Index
Indonesia Stock Exchange	KEHAIT SRI Index
Korea Exchange	Governance & SRI Eco Index
Nasdaq	The NASDAQ OMX CRD Global Sustainability Index
Shanghai Stock Exchange	Shanghai Stock Exchange Indices
Walmart	Wal-Mart Sustainability Index
Wiener Börse AG	The CEERIUS (CEE Responsible

	Investment Universe)
BM&FBOVESPA	Carbon Efficient Index (ICO2)
Hong Kong Quality Assurance Agency	Hang Seng Corporate Sustainability Index Series
Bolsa Mexicana de Valores (Mexican Exchange)	BMV Sustainability Index
Hawkamah	ESG Index
STOXX	STOXX Global ESG leaders (Broad Indices)
Ethinvest	Ethinvest Environmental Index
ERI	ERI Scientific Beta
Euronext	Euronext Vigeo Indices
Rhein Asset Management	Deutschland Ethik 30 Aktienindex
Borsa Istanbul A.S	BIST Sustainability Index.
"Environmental Investment Organization"	ET Index
Finvex Group	Finvex Group
Fossil Free Indexes	Fossil Free Indexes
SIX Swiss Exchange	SIX Swiss Exchange Sustainability 25 Index
Etho Capital	Etho Capital index
Nataxis	Natixis Climate Optimum Prospective Index

Organization	**ESG Ranking**
Fortune (Time Inc.)	Fortune 100 Best Companies to Work For and Most Admired Companies
Working Mother Magazine	Working Mother ranking
Universum	Universum - ranking
Equal Opportunity Magazine	Equal Opportunity's Top 50 Employers
Great Place to Work®	Great Place to Work®
Computerworld ranking	100 Best Places to Work in IT
The Brand Keys	Customer Loyalty Engagement Index
LATINA Style	Latina style 50
CR Magazine	100 Best Corporate Citizens
DiversityBusiness.com	America's Top 50 Organizations for Multicultural Business Opportunities
DiversityInc	DiversityInc's Top 50 Companies for Diversity
AARP	Best Employers for Workers over 50
Mediacorp Canada	Mediacorp Canada rankings
National Association for Female Executives (NAFE)	Top 50 companies for Executive Women

Sunday Times	Best Companies to Work for
Corporate Knights	Global 100
Human Rights Campaign	Corporate Equality Index
Political Economy Research Institute (University of Massachusetts)	Toxic air polluters
PROhumana Foundation	PROHumana ranking
Stonewall	Top 100 employers
Transparantie Benchmark	Transparantie Benchmark
CRD Analytics	Smart View™
Diversity MBA Magazine	50 Out Front for Diversity Leadership
Ethisphere	Ethisphere World's Most Ethical Companies
Forbes	Forbes' 100 Most Trustworthy Companies
Glassdoor	Top 50 Best Places to Work
Access to Medicine	Access to Medicines Index
Greenpeace	Greenpeace Cool IT Leaderboard
Management Today	Britain's Most Admired Companies
Newsweek	Newsweek Green Rankings
Rank a Brand	rankabrand.com
Interbrand	Best Global Green Brands
Pride in Diversity	Pride in Diversity - ranking
Access to Seeds Foundation	Access to Seeds Index
Points of Light & Bloomberg	Civic 50
Access to Nutrition Foundation	Access to Nutrition Foundation ranking
Channel NewsAsia	Sustainability Ranking
Ranking Digital Rights	Corporate Accountability Index

Organization	**ESG Rating**
Experts in Responsible Investment Solutions (EIRIS)	Company ratings
Innovest	Innovest
Jantzi research	Jantzi research
BMJ ratings	BMJ ratings
oekom	oekom Corporate Ratings
Eco-Frontier	Eco-Frontier
Inrate	Inrate Sustainability Assessments
Safety and Environmental Risk Management Agency (SERM)	Safety and Environmental Risk Management Agency (SERM)
Arese	Arese
Reinhard Friesenbichler Unternehmensberatung Management Consulting (rfu)	rfu Sustainability model
The Good Bankers	The Good Bankers

Corporate Monitor	Rating
RepuTex	RepuTex Sustainability / ESG Ratings
The Corporate Library	The Corporate Library
Center for Australian Ethical Research (CAER)	Center for Australian Ethical Research (CAER)
Ecovalores	Ecovalores
Etikanalytikerna (Global Ethical Standard)	Etikanalytikerna (Global Ethical Standard)
Governance Metrics International	Governance Metrics International
Scoris	Scoris
SIRIS	SIRIS
Stock at Stake	Stock at Stake
Sustainable Investment Research Institute (SIRI)	Sustainable Investment Research Institute (SIRI)
BHF-BANK	BHF-BANK
Covalence	Covalence
Avanzi	Avanzi SRI Research
Carbon Disclosure Project (CDP)	CDP Ratings & Indices
Dutch Sustainability Research (DSR)	Dutch Sustainability Research (DSR)
Thomson Reuters	ASSET4 ESG Ratings
Vigeo	Vigeo Ratings
CoreRatings	CoreRatings
DNV GL	Tomorrow’s Value Rating
EthiFinance	EthiFinance
Standard Ethics	Standard Ethics
Züricher Kantonalbank	Züricher Kantonalbank
Management and Excellence Ratings (M&E)	Management and Excellence Ratings (M&E)
ASI	ASI
SolAbility	SolAbility
B Lab	B Ratings System (B Corporation)
Greeneye	Greeneye
HIP Investor	HIP Impact Ratings
Climate Counts	Company Scorecards
CSRHUB	CSRHUB Ratings
EcoVadis	EcoVadis Supplier Sustainability ratings
KO-CSR	KO-CSR
Solaron	Solaron
Underwriters Laboratories	GoodGuide rating
Sustainalytics	Sustainalytics
Bloomberg	Bloomberg ESG data
Responsible Research and CSR Asia	Asian Sustainability Rating
Gender Diversity Directory	2020 Women on Boards
GMI Ratings	GMI Ratings
MSCI	MSCI ESG Research
Champlain Research	Champlain Research
Frontis	Frontis Governance Rating Report

FTSE	FTSE4Good ESG ratings
Sustainability intelligence	Hidden Champion Rating
TruValue Labs	Insight360

Organization	ESG Research
Investor Responsibility Research Center (IRRC)	Investor Responsibility Research Center (IRRC)
Co-op America	Co-op America
British Ethical Consumer Research Association (ECRA)	Corporate Critic
EthicScan Canada Ltd.	EthicScan Canada Ltd.
Fundación Ecología y Desarrollo - ECODES	Fundación Ecología y Desarrollo - ECODES
Institut für markt umwelt gesellschaft (Imug)	Imug
Centre français d'information sur les entreprises (CFIE)	Centre français d'information sur les entreprises (CFIE)
Forum for the future	Forum for the future
RepRisk	RepRisk
Ethix SRI Advisors	Ethix SRI Advisors
Trucost	Trucost
IW Financial	IW Financial
Verisk Maplecroft	Verisk Maplecroft Sustainability Performance Benchmark (MSPB)
Regnan	Regnan
SynTao	Syn Tao
Global Footprint Network	Global Footprint Network
Source-Asia	Source-Asia
The Centre for Sustainable Organizations.	True Sustainability Index
South Pole Group	South Pole Group
Sustinvest	Sustinvest
The Climate Registry	The Climate Registry
P&G Scorecard	"P&G Supplier Environmental Sustainability
DZ Bank AG Deutsche Zentral-Genossenschaftsbank	Sustainability research
Sustainability Partners Inc.	Sustainability Partners Inc.
SD-M	SD-KPIs
Transparency International	Transparency in corporate reporting ranking
Oxfam International	Behind the Brand

Organization	Shareholder Service
Institutional Shareholder Services (ISS)	Institutional Shareholder Services (ISS)
Pensions & Investments Research Consultants Ltd. (PIRC)	Risk Rating

Deminor Rating	Deminor Rating
Global Engagement Services (GES)	Global Engagement Services (GES)
Corporate Governance International (CGI)	Corporate Governance International (CGI)
Manifest	Manifest
Proxinvest	Proxinvest
Ethos Foundation	Ethos Services
Proxy Australia	Proxy Australia
The Expert Corporate Governance Service (ECGS)	The Expert Corporate Governance Service (ECGS)
Shareholder support	Shareholder support
Glass Lewis (Glass Lewis is a portfolio company of the Ontario Teachers' Pension Plan Board ("OTPP") and Alberta Investment Management Corp. ("AIMCo")	Glass Lewis
IVOX GmbH	IVOX GmbH
zRating	zRating
Institutional Shareholder Services (ISS)	Institutional Shareholder Services (ISS)
Pensions & Investments Research Consultants Ltd. (PIRC)	Risk Rating
Deminor Rating	Deminor Rating
Global Engagement Services (GES)	Global Engagement Services (GES)

Organizations and initiatives included under "other initiatives"	
The Interfaith Center on Corporate Responsibility (ICCR)	The Interfaith Center on Corporate Responsibility
Sullivan Principles	Sullivan Principles
Ceres	Ceres
Ethical Investors	Ethical investors
Centre Info	Centre Info
VBDO	VBDO
Forética	Forética
The Prince's Accounting for Sustainability Project	The Prince's Accounting for Sustainability Project
Shareaction	Shareaction
Eumedion	Eumedion
Diversum	Diversum Label & Ratings
The Water Footprint Network	The Water Footprint Network
Conflict Risk Network	Conflict Risk Network
Plastics Disclosure Project (PDP)	Plastics Disclosure Project (PDP)
German Council for Sustainable Development	The Sustainability Code
CAMRA Data Services	CAMRADATA ESG reporting

Appendix 2 Interviews

The interviews were conducted with 3 Dutch, 3 German and 4 UK Asset Owners. The majority has more than EUR 30 billion AUM. They were asked the following questions, relating to the ESG initiative industry;

Questions for Asset Owners	Type
• Do you prefer external or internal ESG research (or don't know)	Categorical
If so, why?	Open
• Do you evaluate your asset managers based on ESG ratings?	Yes/No
• Why and how did you choose your provider?	Open
• Are you aware of academic research on the low correlation between ratings?	Yes/No

Additionally, 15 interviews were conducted with Asset Managers. Of those, 6 are Dutch, 4 are German, and 5 are located in the UK. They are all among the 400 largest in the world by AUM, according to IPE[3]. The following questions relating to the ESG initiative industry were asked;

Questions for Asset Managers	Type
• Do you do the ESG research yourself?	Yes/No
If so, by the same person?	Yes/No
If not, why don't you conduct it internally?	Open
• Which research provider? How did you choose?	Open
• Are you aware of academic research on the low correlation between ratings?	Yes/No
• Do you look at why ratings have changed before you adjust your investment accordingly?	Yes/No
• Do you make use of any other ESG initiatives, such as rankings? Why and how does this work exactly?	Open

On the company level, 20 organizations were interviewed. Of those, 8 companies have their headquarters in the UK, 7 in the Netherlands and 5 in Germany. These companies are all listed and about half have market cap between EUR 1 billion and 20 billion. Only a quarter has a market cap of more than EUR 50 billion. Different sectors are included such as food staples, retail, chemicals, and technology. The financial sector is not included. The following questions relating to the ESG initiative industry were asked;

Questions for companies	Type
• Do you receive requests from ESG (ratings/rankings/awards/	Yes/No
If so how many?	Numerical
• How do you prioritize and how long does it take you?	Open

[3] https://hub.ipe.com/top-400/total-global-aum-table-2016/10007066.article

• Why do you respond?	Open
• Do you see any added value from these ESG initiatives/Important to score high?	Yes/No
Please explain?	Open
• Do you think it is important to be part of an ESG ranking index?	Yes/No
Please explain	Open
• Do you ever receive negative comments from the investment community if you don't verify or correct your rating?	Yes/No
• Do you ever receive positive comments if you increase your rating or become part of a ranking/index?	Yes/No
• Do you use these ratings for internal evaluation (do you subscribe to any)?	Yes/No
• Do you feel pressured by any of these ESG initiatives?	Yes/No
• Do you keep an eye on the ratings or awards of your competitors?	Yes/No
• Do you also apply to awards/certification?	Yes/No
If so, how do you prioritize?	Open