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Executive Summary

This paper elaborates the possible contributions of responsible investments towards the Sustainable Development Goals (SDGs). The focus lies on the investigation of the assumed chain of effects from responsible investments through corporate social responsibility actions of their target companies onto the SDGs. This happens on the basis of a correlation analysis between ESG-scores and return indexes of the constituents of the Global Challenges Index. The chain of effects is being analyzed in detail on the case of the household and personal goods manufacturer Henkel. In the case of Henkel, the international norms and expectations stemming from the emerging responsible investing industry did impact the company's behavior towards using measurable and comparable steps such as energy or water consumption and amount of waste as goals. The observations were conducted from a transdisciplinary perspective in an attempt to open the topic to more disciplines other than the businesses and economics.

Zusammenfassung

Diese Arbeit beschäftigt sich mit der Frage nach möglichen Beiträgen durch verantwortungsvolle Investitionen zur Erreichung die Agenda 2030 (Sustainable Development Goals). Dabei ist liegt das Hauptaugenmerk der Untersuchungen auf der angenommenen Wirkungskette von verantwortungsvollen Investitionen auf Unternehmen, die dadurch zu nachhaltigeren Praktiken tendieren, und somit einen Beitrag zu den Sustainable Development Goals leisten. Die Grundlage der Betrachtungen liefert eine Korrelationsanalyse der ESG-Faktoren und dem Return Index der im Global Challanges Index gelisteten Unternehmen. Auf dieser aufbauend wird die erwähnte Wirkungskette in einer Fallstudie am Beispiel des Haushalts- und Pflegeprodukte Herstellers Henkel im Detail untersucht. Auf Henkel wirken verantwortungsvolle Investitionen vor allem dadurch, dass die um sie entstehende Industrie, ein Rahmen und Richtwerte vorgibt, welche die Firma übernimmt. Sie zeigt vor Allem eine Tendenz dazu vermehrt Zielvorgaben in messbaren und vergleichbaren Werten, wie Energie- und Wasserverbrauch oder die Menge an anfallendem Abfall zu definieren. Die Arbeit wird aus einer Transdisziplinären Perspektive geschrieben, die das Themenfeld für eine wissenschaftliche Behandlung außerhalb der Wirtschaftswissenschaften öffnen will.

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Introduction

Can humankind make a transition towards a sustainable way of life on earth? This is one of the biggest questions of our time. Nowadays, the most pressing issues such as hunger, increasing societal inequality, global warming and international tensions, can be traced back to resource sufficiency and the impacts of it. Within this light, I see the United Nation's Sustainable Development Goals (SDGs) as a big achievement within the global community. It provides a goalsetting framework to make a societal turn towards a more sustainable way of living on this planet.

This position is not shared by everyone, some structural criticism against it argues that the SDGs are a part of a global hegemony or could not provide the structural transition which would be needed to achieve a sustainable way of life. But I do not want to elaborate whether this is theoretically the case or not. Within this thesis I want to focus on the practice and whether the SDGs can be achieved, because serious doubts can be raised concerning that. Not only because of the increasing tensions in the diplomatic arena, but also because the financing of this ambitious agenda 2030 is not secured nor close to being realistic.

Therefore, I want to focus within my master thesis on responsible investing, which presents itself as a possibility to finance the SDGs (PRI Website 2018). My interest for this, unusual topic in the development studies stems from the new attention towards companies within the development practice. Not only the SDG through its 17th goal of cooperation and through the UN Global Compact looks upon companies as actors in development schemes. The German government sees companies as an important factor in its new development policy "Marshallplan mit Afrika" (Marshallplan with Africa) as well. The companies, however, do not see their task in altruistic gestures, but rather in their core business. This poses the question, who could push companies towards action and could eventually reshape the business environment for companies, making it their core business to be part of a sustainable development. The consumers are also occupied with a different aspect, namely the maximizing of their individual opportunities. So, I turned to the other actor group with a significant power over companies: investors.

Recently unexpected opinions get raised more and more frequently from this specific actor group. The private sector acknowledges the UN goal-setting with regard that "the 17 SDGs have emerged as the new standard for businesses and investor"(Novethic 2017) and Larry Finkh, the CEO of the world's biggest investor Blackrock, recently turned heads with the claim that a new investment model, one of social purpose and long-term value was needed in these

pressing times (Website Blackrock 2018). Even though this seems like an absurd direction of a push for sustainable development. The investors perspective is an interesting way to look at this issue. The metaphor for and profiteers of capitalism and inequality as helping hand for the ending world? I do not write about a rebellious selfless attempt of rescuing the world. But it also is not all greenwashing and conscience clearing. There is a general objective of social change within the movement (Ballestero et al., 2015, p.5), which I want to have a closer look on through this paper.

With my master's thesis I want to contribute to the young field of investigating responsible investing from a non-business or economics approach. The topic is complex, especially since I will not focus my research on one discipline. But I will pay tribute to this instance by narrowing my research down to a mixed method approach of a calculation and a case study of an exemplary fragment of the complex transdisciplinary issue.

More precisely, I will first conduct a correlation analysis of the ESG-scores of constituents of the Global Challenges Index (GCX) and their respective return indexes, to establish a picture of the Responsible Investment (RI) market. This is relevant to establish a consistent data base and for the selection of a company for the next step. This will be a case study on the constituent of the GCX Henkel, in which I will investigate a chain of effect from responsible investments through the policy changes of the company to the pay in to the SDG indicators. With this step I will deliver an approach to understand the impact of RI on the SDGs. But beforehand I will deliver content and landscape of the topics, industries and interests surrounding this roughly described set up, so that the reader can enjoy it fully, as he or she gets there.

Investments, ESG-Factors and Responsibility

In this section I will describe the industry, which has developed surrounding "ESG", sustainability and responsibility in the financial sector. In the investment world "ESG" refers to the non-financial dimensions and indicators of a company. To be precise, the acronym is used to describe the *Environment*, *Social* and *corporate Governance* factors of a company (Friede and Busch 2015, p. 210). The three topics describe how a company impacts the world around it beyond its financial success. It is no secret that, while interconnected, the three areas all pose their own consequences for the UNs global sustainability agenda. Specifically, each indicator has its own, unique impact on global warming and ecologic sustainability as well as plays a role in the rising tide of dissatisfaction with socioeconomic inequality and defects in the global financial system. Bearing these societal shifts in mind, the financial sector has claimed to become more involved in facing these challenges. Certainly, this change in corporate policy might be a response to changes in their own value chains, but these societal shifts also pose a real threat to the company's future. It is out of this environment that the responsible

investment industry emerged. However, a scientific analysis of the responsible investment industry's dynamics and impacts requires a detailed knowledge about the sector, its boundaries and limitations as well as about its location on a macro-social scale.

This section will provide a detailed overview of the status quo of responsible investment. First, I will elaborate on the meaning and heritage of the term and explain the usage of it in this paper. Building on that background, I will introduce the practice of responsible investing along the main investment strategies. After I have made the industry's objective clear and explained its range, I will describe the economic and social surrounding structure of it. Then, within the sub-sections "Links to Corporate Social Responsibility (CSR)" and "Criticism", I will contextualize the topic within popular discussions around the issue, which are important external factors, one should be aware of. This overview should provide the reader with a baseline for a transdisciplinary analysis with the phenomenon.

However, the reader must be aware that even market participants of the RI market have recognized the industry's fast development and transformation. In fact, last year's annual "Forum für Nachhaltige Geldanlagen" or *Forum for Sustainable Investment* has described the current situation of RI as the most dynamic for the structure of RI thus far (FNG 2018, p.5). In an industry which is heavily influenced by trends and different market actors, it is important to establish a solid understanding of what it is, what it is not and what its greatest influences are. In the following pages I will present the RI industry at its current state, while recognizing that through new trends, discussions or structural changes its essence may change fundamentally.

Responsible Investing: Terminology

The term "Responsible Investment" (RI) might sound obvious and self-explanatory. But the choice of this term and its origins are both complex and contested, which has had a direct impact on the industry in practice as well as the greater business community opinion on the industry itself. The "Principles for Responsible Investment" (PRI) is a document created by a United Nations-supported international network of investors that acts as the biggest advocate for responsible investing. They define RI as "an approach to investing that aims to incorporate environmental, social and governance (ESG) factors into investment decisions, to better manage risk and generate sustainable, long-term returns" (unpri.org, 2018). As clear as this may sound, in practice and in theory multiple variations of understanding exist. All of them have different backgrounds and nuances. The use of the term RI in this thesis is not without implications.

Many terms have been coined to refer to investment that considers social and environmental implications ethical investing, green investing, socially responsible investing, socially conscious investing, ESG investing and sustainable investing are just some of the terms. In

practice the terms are very differently used depending on the actor, his or her focus and region of origin (Rachocka, 2007, p. 15). Furthermore, the terminology changes as soon as the concept differs slightly in its approach, as it is the case with impact investing, a concept I will describe later. Many authors see this flood of terms as conceptual inconsistence or "fuzziness" (Pokorn 2007, p. 332; Hiß, 2011, p. 651). But there is also ground to argue that this is in fact a result of the contested environment of the practice. As Eccles and Viviers show, the different terms can be allocated to certain backgrounds and areas of origin: their analysis of 34 years of scientific research shows that the terms *ethical investment* and *socially responsible investment* were the most frequently used ones (Eccles and Viviers 2011, p. 389). Ethical investment came from a more impact focused background and established itself as the dominant term in the United Kingdom and Europe. Socially responsible investment has a more business focused background and was most frequently used in the United States (comp. Eccles and Viviers, 2011).

The United Nations (UN) and their partners re-organized the term-landscape in 2005 by using the term responsible investment in their "Principles for Responsible Investment" (unpri.org 2018). At the time this document gave a variety of actors, from investors, banks and financial service providers to non-governmental organizations and public officials, a new, global reference point (Eccles and Viviers, 2011). I have decided to use their definition of RI for two reasons. First, I am writing this thesis as an analysis of the UN Sustainable Development Goals (SDGs) framework and, thus, think the use of UN terminology is appropriate. Second, this thesis is an attempt to bring disciplines and concepts together. While it can be argued that RI must be seen as a word of hegemony with a backpack of predispositions, which could hinder a transdisciplinary neutral view, I think that it is important to not enlarge the prism of terms in my thesis in the interest of an improved scientific dialogue.

There are multiple strategies and approaches to adding social or environmental value to one's investment. RI describes the largest scope of extending the investment strategy beyond monetary value creation. The incorporation of ESG-factors into investment decisions generally means a consideration of other factors outside of the strictly financial customarily considered in developing an investment strategy. An investment does not require a commitment to consider sustainability or mitigate social and environmental harm. Instead, to qualify as responsible, RI simply needs to consider ESG-factors (Ballestero, Pérez-Gladish & Garcia-Bernabeu 2015, p. 5). Impact investments on the other hand are defined, by the Global Impact Investing Network, the biggest impact investing forum, as "investments made into companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return"(thegiin.org 2018). Therefore, impact investing strives for a specific change towards sustainability while not focusing on the returns (Lindmayer & Dietz, 2018, 163).

Depending on the degree and focus of commitment towards an ESG-aspect, there are many intermediate terms that define the space between RI and impact investing. Its nomenclature is again rather "fuzzy" and is of no particular interest for this paper. All the levels of engagement from RI to impact investing qualify generally as RI. But it is important to be aware of the intermediate steps, because they have their own dynamics. Green Investing[1] has its dynamics, constituted by specific funds, investors and interests; as does impact investment. Thus, the individual structures of the intermediate steps within RI need to be recognized as RI is an umbrella term.

Whether it be publicly, closed, through a debt purchase or a loan; the ways to invest money in a company are numerous. And I cannot deliver a full analysis of all sorts of investments that might qualify as a RI. Instead, within this paper I will focus on *share investments*, so on investments in company shares and on the impact, they have through the target companies. This will ensure, that I can deliver a closed analysis within the frame of this thesis. In phase A I will exclusively observe share investments; however, I cannot exclude other investments as completely in phase B. Nonetheless, I will not delve deeper into the structural differences between them, but I do suggest greater scientific elaboration of the topic in the future in order to further clarify which investment streams produce the highest societal impact.

Responsible Investing in Practice

After describing where RI originates from and how it acts as an umbrella over the levels of sustainability engagement as investors, it is relevant to clarify how RI looks like in practice. I will describe the concrete strategies and approaches to RI in the following section. But before I do that, it is important to stress one fundamental thing: RI is and remains an investment. Therefore, it is fundamental that it has a strong business case. The RI, as with any other investment, must serve as a positive financial pay off for the investor. Even though practitioners may sometimes present themselves as selfless donors (Carollo & Guerci 2018, p. 255) the underlying objective of RI, and specifically how I define it in this paper, is that it creates a reasonable return for its investor. Of course, the nature of the return and its height differs depending on the expectations of the investors, as it does with all traditional investments.

Since profit is not the one and only objective of RI, there are some structural differences to the business case of a RI compared to a traditional investment. For instance, the investment period tends to be longer in RI, since speculations with shares and quick money stands contrarily to responsible care with investments and long-term returns (unpri.org 2018). Furthermore, even though scientific evidence nowadays suggests that traditional investments do not outperform

[1] Green Investing is an umbrella term for responsible investments, particularly focusing on environmental issues.

RIs (Friede & Busch 2015, p. 210), investors integrating ESG-factors tend to be more risk adverse. As a result, RI often has lower profit expectations (Carollo & Guerci 2018, p. 258).

This setup constitutes a different investor composition then it is the case for traditional investments. In the long term a low risk business case makes RI especially interesting for actors who need to maintain their assets and are under public pressure to not invest in controversial sectors or matters. Hence, pension funds, insurances and state funds as well as religious or academic funds are major actors on the RI market. This is one explanation for the dominance of institutional investors on the market (Hiß 2011, p. 253), which I will come back to in my description of the market later on.

While market actors in the RI industry can be mapped relatively easy; this is not the same case for those actors' strategies. This is particularly true, because investors often spread their assets and adopt different strategies at once. Nonetheless, there are several basic strategies, which can be identified. Even though they might not always exist in their pure form, they shape the multitude of responsible investment strategies. There are multiple ways to engage in RI. In the following I will introduce the most common strategies: screening, devesting and advocacy (Schueth 2003, p. 190) as well as the "Best-in-Class" approaches. While these strategies are all based on the consideration of nonfinancial factors, they are obtaining through individual logics. This makes it necessary to describe them in detail first before I perform a more detailed analysis later to acknowledge these logics.

The oldest RI strategy is *devesting*. Depending on the culture, the non-investment in "sin"-industries can be traced back to ancient times (Schueth 2003, p. 189). In practice, this meant that the investor in question did not invest money in unethical industries, which, depending on the religion, generally included: weapons, gambling, prostitution as well as alcohol and/or tobacco (Hiß 2011, p. 256). If the investment supported an industry that was deemed unethical, it would make the whole transaction unethical and therefore impossible for the investor to be a good Christian, Jew or Muslim. Only later in time responsible investments appeared apart from religious beliefs.

At its core the logic of devesting has not changed much today. Devesting is still about not investing in or repealing the money from companies which act in ways the investor does not agree with, for any reason. Investors still avoid industries they, or their funders, see as unethical. In addition, some of the old "sin"-industries remain among the most popular industries to blacklist. In Germany the weapons industry is, for example, the industry most targeted by this strategy (Lindmayer & Dietz, 2018, p. 160).

But over time the logic did change and became more diverse. Nowadays devesting; or its logic – to not invest in unethical practices - is also referred to as *negative screening*. Negative

screening does not necessarily have to target an entire industry. It also targets single companies or topics, which are present across all industries, such as the respect for human rights or labor rights. These topics are the second and third most targeted issues of devesting in Germany (Lindmayer & Dietz, 2018, p. 160). Thus, investors have picked up the old idea and applied it to any sort of misconduct of a company. Today, a wrongdoing against sustainability of any kind by a company, which comes to the attention of the public, can lead investors to choose to withdraw their assets from the violating company. In fact, devesting has is a popular RI-strategy on the market today, according to investors (Capital Access Group 2017, p. 2). It is unclear whether this method is chosen due to the low threshold of being worthy of devesting relatively easy adoption (i.e. the declaration and performance of non-investment in the weapon industry is enough to declare oneself as a responsible investor) or its clear message to share- and stakeholders (i.e. we do not support such unethical company behavior.) Further analysis of the possible reasons behind devesting should be examined in the future.

Unfortunately, nowadays the devesting logic is not as easy to perform as it may have been in ancient times. Due to the complex and interconnected nature of today's supply chains, it is not as easy to ensure financial refusal for unethical business practices. The non-transparency of supply chains can lead to a situation where investors cannot fully trace the suppliers or contractors of their original investment targets. For example, an investor might accidently end up cross-financing a metal supplier of weapons by investing in a solar energy company. Responsible investors usually bypass this dilemma by declaring to their stakeholders that they cannot ensure middle steps, such as that the companies "meet basic standards of good corporate conduct" or "the products or services provided by the companies… don't cause widespread harm." (Website fisher funds 2018). This shows how hard it is for investors to track their investments and that the world's problems cannot be easily approached, as simple answers may suggest.

The *screening of ESG-factors* within an investment decision is a basket expression for acknowledgement of non-financial factors in the investment strategy (Eccles and Viviers 2011, p. 389). But it is important to separate between the different screening strategies, as they follow different logics. Besides the just described negative screening strategy, I want to elaborate on two more screening strategies: positive screening and "Best-in-Class" approaches.

The integration of ESG-data into an investment decision as well as the decision to invest in companies that are performing well in them in absolute terms is called *positive screening*. This strategy is widely used by (self-declared) sophisticated and responsible investors. Based on decades of scientific discussions regarding existing profit tradeoffs in ESG-high performing investments, it has been established that investments in sustainably cautious companies pay

off (Friede and Busch 2015, p.210). Therefore, it is not surprising that consulting ESG-data to find investment opportunities is generally a popular investment strategy. Yet, although it may sound easy in reality the minute details of the strategy can be very complex. The logic which an investor applies to improve their investment decision using ESG-data can vary drastically. Basically, the application of the ESG-data is only limited to one's imagination and, of course, the availability of the data. Investors usually pick the ESG-data that fits their investment mission or is most relevant to their particular sector, meaning most recognized by experts or the public. In fact, investors rarely use data from all three ESG-dimensions, and instead focus on certain areas most relevant to them (Herz & Rogers 2016, p. 34).

The extent to which ESG-data is used is usually kept as a part of an investors confidential investment plan. "Responsible" investors still see the potential of relative market advantage stemming from the adoption of ESG-data, because the data is not yet fully being used by all market players (Lindmayer & Dietz 2018, p. 169). The level of disclosure often does not even start with the application of the data, but already with the production of it. Many big players in the RI industry gather their own ESG-data or work closely with ESG-rating agencies on their data and strategies. Therefore, when it comes to ESG-screening, one usually distinguishes between investors who adopt internal or external ESG-scoring systems. This situation of low disclosure poses a problem for external viewers, such as myself, who cannot judge the level to which the ESG-data is being applied as well as the logic behind its application, such as impact- or profit-orientated. Finally, it is even harder for researchers to assess whether or not the claim of using ESG-screening is just a way of greenwashing the investment.

Even though there are a lot of closed doors when it comes to positive-screening, I will build upon the lowest common denominator: positive-screening is a strategy in which good ESG-performance (in total or in parts) in absolute terms is seen as an added value for an investment. This usually leads to greater investments in ESG-outperforming companies and industries by responsible investors. But positive- and negative- are not the only adoptions of ESG-data screening in an investment strategy that I am investigating in this paper. I will also present the "Best-in-Class" approach in the same context.

The *"Best-in-Class" (BiC)-approach* basically follows the same logic as positive screening but is more sensitive towards industries. An investor, who invests according to a BiC logic in RI, invests in companies with the best ESG-performance in its specific company or reference group (such as an index). In this approach it is the relative ESG-score that matters the most, whereas regular positive screening assesses absolute ESG-score in absolute terms. This strategy pays tribute to the different situations various industries will find themselves in regard to the ESG-Dimensions. For example, a company from the renewable energy sector usually

performs better in terms of ESG then a clothing company. Nonetheless, there are differences in ESG-potentials within the companies of the clothing sector as well. While positive screening would simply ignore those potentials, "Best-in-Class" is able to effectively tackle them.

This approach, to reward the ESG-outperformer relative to other companies in the same sector, is fully established in the RI market. This approach led developments in the past and continues to lead certain developments today. First, competition among companies in many sectors to perform better than each other in terms of ESG- factors exists. Lindmayer and Dietz draw this evidence from observations in the DAX. They also report that the competition between DAX companies gained speed (Lindmayer & Dietz, 2018, p. 162). This has led to an absolute increase of ESG-scores from leading companies of a sector or reference group. In the meantime, this structure, has also distorted the market situation. Through the BiC approach, capital from investors flows mainly to big, established companies. It takes resources and knowledge about ESG-scoring to improve one's own score. Thus, established companies across all sectors prefer to take the safest, more conservative investments. Therefore, the same circle of the well-known, yet limited range of companies usually ends up taking home the majority of capital. This leaves well-performing, rather unknown companies lagging behind more established companies, who might simple have figured out how to market their ESG-dynamics the best (Lindmayer & Dietz, 2018, p. 163). In this case, the investment does not necessarily depend on which company has done the best in their sector, but which one has been promoted most by rankings or scores. Finally, the BiC approach can justify investments in unsustainable industries, such as fossil fuels, for RIs. While the argument of "sleeping potentials" is often stressed here (e.g. E-mobility), it can also pose a threat to the credibility of RI.

In conclusion, the "Best-in-Class"-approach prefers relative over absolute ESG-performance. As a result, the approach is widely used in the RI market, because its dynamics must be recognized when analyzing the influence of RI on a company. The approach diversifies the dynamics on the RI market by guiding capital towards ESG-leaders in industry sectors or reference groups. I will not discuss the implications of increasing credibility for RI or supporting sustainable development where it is needed (i.e. increasing ESG-competition within the automobile industry). But certainly, examples can be found for both cases.

The last concrete RI strategy I will present and analyze in my paper is *advocacy*. This strategy is fundamentally different from the first three. The strategies I presented so far can be categorized as passive strategies, while advocacy is considered an active strategy (Ballestero, Pérez-Gladish & Garcia-Bernabeu 2015, p. 7). The decisive question between those categories is whether the investor has actively tried to change a target company or if he/she

has simply avoided investing in unethical business practices (ibid.). Investors who have engaged in passive strategies do not do more than approach RI through their investment decision. Instead, advocacy is an approach that implies that the investor has targeted weak ESG-performers with the intention of approaching them to change their behavior (Wallis & Klein 2015, p. 69). This can happen either through regular activity as shareholder or direct approaches.

RI literature perceives this strategy through different lenses. It is either understood to be an absolute core impact investment strategy (Hiß 2011, p. 664) or a sort of activist investment, which might hinder a company's management and future development (Zarbafi 2011, p. 44). In the first years of RI advocacy and shareholder activism were not a big player within the industry (Zarbafi 2011, p. 7). Nonetheless, advocacy is becoming increasingly relevant for investors who are working to boost a company's ESG-score (while also hoping for better turnovers). The EU commission is currently pushing towards stronger shareholder rights in order to make long-term investments more interesting (Mugnier & Delerable et al. 2014, p.7 / Lindmayer & Dietz, 2018, p. 162). In addition, investors are seeing direct company engagement for boosting sustainability topics, especially while partnering with other investors, as a relevant and promising strategy (Capital Access Group 2017, p. 2). Further, it is not unusual for investors to team up. The same situation can be applied to sustainability funds. These funds which have a focus on sustainability are already a form of collected opinions. By investing in those funds investors show their approval towards sustainability issues. This action can bolster the message for the investors as a whole better than each individual investor could do themselves (Lindmayer & Dietz, 2018, p. 169).

However, advocacy is not limited to target companies with an absolute bad ESG-score. It can also occur in instances where an investor sees room for improvements. To prove this behavior, in later sections I will investigate a case study in which cases of advocacy and direct engagements of any form, regardless of the ESG-performance of the target company, can be observed.

The strategies described above only cover macro logics, but beneath these approaches the dynamics can be widely different. For example, investors may go directly for SDG-investment (Novethic 2017, p.3), other certain solutions/inventions (solution investing), or simply target certain sustainability topics such as clean energy or e-mobility. Such strategies can influence investment flows differently than anticipated (Lindmayer & Dietz, 2018, p. 163). Throughout my research, I took various kinds of strategies into account. Depending on the industry and position of the company, these strategies may also apply to a different degree. Yet, the

strategies presented, can appear both in practice and deliver within a broader framework. This can help coordinate the immense variety of strategies on the market.

The aspect of risk prevention is a tempting factor, which all types of RI usually share. While it sometimes might be presented as if altruism is the main reason behind RI, it often is the decrease of risk, when ESG-information are being recognized in an investment decision. Including ESG information can mean to recognize risks of mismanagement and environmental or social scandals. Cases like the explosion of the oil platform Deepwater Horizon in 2010 or the collapse of the textile factor Rana Plaza in 2013 showed drastic dives of market values of the respective companies, which could have been hindered through better security mechanisms and recognition of labor standards, which are part of every responsible company behavior. This is the theoretical model behind screening strategies. Advocacy directly tries to eliminate those risks in order to benefit from a safer image of a company.

Independently from the different strategies, I need to stress again, that the practice of RI also occurs according to the basic rules of investments. Therefore, without a business case, there would be no investment. RIs might not aim for short term profit maximization, but nonetheless the investor wants to see their investment work in favor of his/her best interest. The topic of this paper is by no means philanthropy. I am analyzing a global investment trend, which has made it to the main-stream market. This leaves a huge gray area for individual interpretations.

Responsible Investment Actors and Societal Structure in the EU

To understand RI and its impact, it is important not only to focus on its strategies and practices, but also analyze the structure surrounding it. By structure I mean the actors, trends, discussions and rules concerning the topic. Through the range of literature that analyzes business practices certain aspects have been well researched and others not. The RI market and its trends are described in detail while the societal structure is often only roughly summarized. RI is a complex topic, especially all aspects and implications of it. For example, now cultural or legal matters and discussions are being recognized. In order to stay within a reasonable workload, I decided to narrow my focus down. Among the most prominent prisms of RI are the geographic location and the industry. These two factors strongly determine the RI approach, strategy and, in the end, its realization (Auer & Schumacher, 2016, p. 61).

In this paper I want to focus on the EU, with a special prioritization of the German market. Due to the interdependency and global spread of investment relations, this focus does not mean a complete exclusion of influences outside of the EU. That would be neither possible nor helpful. It means a thematical focus towards the structural conditions of the EU and, Germany, more specifically. While the regional focus might not generally be needed for the construction of a

general analytical framework, it is important for thematic filling. Later, in my case study, I will also set the sector focus.

To develop a general understanding of RI I will describe the structure surrounding it within the following pages. First, I will describe the actors, which are shaping the RI market. Afterwards, I will elaborate, on how the RI-sector can be seen embedded in society. And finally, I will provide readers with a short overview of the RI-market data of the last years.

The relevant market actors are asset owners, asset managers and providers of support services (Louche, 2017, p.33). They are furthermore influenced through actors, which shape the overall structural conditions. Namely, these include the UN, governments, regional government organizations and other major actors within the global financial system, such as central banks, the Financial Stability Board and the World Bank (Wadell 2012, p.2). The development of RI as a sector has been shaped by these actors in the past and will continue to be shaped by them in the future.

First, I want to have a closer look on the relevant market actors. Their interests and decisions are strongly influenced by their distinct structural predispositions. With their positions they have established the RI market landscape. Asset owners in the investment field are either private persons or companies that invest their capital to generate profit. Traditionally, they strive towards profit maximization over varying timespans. In the beginning, RIs were considered less profitable than traditional investments (Friede and Busch 2015, p. 210). Over time that perception has changed. Nowadays, public opinion may still think that RIs do not generate as much profit as traditional investments. However, many research studies have shown that this is not the case (Friede and Busch 2015, p. 227). The profitability of RIs differs strongly depending on the sector and the strategy of investment. In fact, depending on the investment period, RIs tend to outperform traditional investments (Friede and Busch 2015, p. 226). Within the responsible investor community, the narrative usually differs slightly. Short-term investments are generally rejected by responsible investors (unpri.org 2018), because the RI asset owners are usually not as opportunistic. The long investment period and the ethical notion of this type of investments mainly attracts big institutional investors such as pension funds, insurances or religious funds. RIs have been more appealing for those investors who have had to maintain their assets, rather than heavily boost them, and for those who have actively chosen not to invest in harmful industries. Therefore, the development of the RI sector has been strongly dependent on the engagement of the institutional investor (Hiß 2011, p. 658). As the topic of sustainability is getting more attention from every angle and the supply of RI products improves (Blank, Sgambati & Truelson 2016, p. 103), RI is attracting a more diverse mixture of asset owners.

The increasing prominence of sustainability as a topic in society has led to increased attention among investment cycles (Ballestero, Pérez-Gladish & Garcia-Bernabeu 2015, p.6). What may have started out in a US-niche, has slowly and then more rapidly become an established topic among asset managers. It is difficult to judge the role and position of this actor group. For instance, responsible investors usually do not disclose their ESG-approach, since it is part of their business model. Secondly, a wide spectrum of positions is imaginable: from a manager who wishes to engage in greenwashing to a real change agent. These factors make it harder to judge the reasoning behind the non-transparent marketing façade. However, I would generally argue that the position of asset managers tends to be rather traditional. More often than not they see ESG-data as a risk prevention tool and use it accordingly in their daily business (Herz & Rogers 2016, p. 38). Of course, pioneers and novice investors exist to whom this concept does not apply. Yet, major drivers beyond the creation of RI products, where there is a clear demand, cannot be expected from asset managers.

RI products (and ultimately the industry as a whole) have other requirements for information than traditional investments. These requirements may include the effects a company has on its surroundings or even which data captures it best. This is the essence of ESG-data. ESG-information and its processing is a complex field, which up until today is far from consensus. Depending on the industry, context and the situation of a company in general, information such as CO2-emmissions, energy consumption, size of the board or gender relation in the workforce can indicate different impacts on or relation to society. The data can be seen and valued differently depending on the point of view or the interest of the spectator. In the 90s, Germany attempted to create a taxonomy in order to evaluate which companies acted most ethical. They summoned a transdisciplinary expert group under the lead of Johannes Hoffmann, which later presented its result in the "Frankfurt Hohenheimer Leitfaden" (FHL). The content of the FHL later will be discussed in more depth later on, but in this case, it is important to simply state that the expert group evaluated the development of the RI industry and the application of the FHL with devastating results. "The World did not become more sustainable – even though Sustainability became an inflationary used term" (Hoffmann 2016, p.4). While the team sticks to its findings from 20 years ago, they do not see enough progress towards sustainability (ibid.). This situation is assumingly due to the many conflicting interests among the investment cycles. The creation and adaption of ESG-data is a contested environment in which, along with altruistic tendencies, the fear of rapid change has a strong influence.

Within this field of complex intersections and subjectivity spans the third actor group: *providers of support services*. This group exists because ESG-data usually cannot be processed by the asset owners or even the asset managers themselves. Products such as rankings, market descriptions or ESG-sub- and -overall-scores have a big influence on the market (Hiß 2011, p.

660). This set of data is also created (and, of course, then manipulated) done by a wide range of service providers. Worldwide around 60 ESG-rating agencies develop ESG-data according to their own taxonomy as well as specific technical or geographical areas (Schäfer, et. Al. 2006, p.1). While this might look great in terms of power distribution, compared to classical financial-rating agencies, the situation is far from helpful. This distribution makes it difficult for providers of support services to create confidence in any single sustainability measurement. Most of the rating-agencies emerged within the last 20 years due to an immense increase in the demand for ESG-information. However, their data and conclusions have varied widely (Hiß 2011, p. 661). I do not believe it is relevant to go into a detailed analysis of the market situation and interests of the particular agencies, but it is important for the reader of my thesis to be aware of the different data sets in which investment decisions and scientific research can be based on.

These three actors, (the asset owners, asset managers and the support service providers) constitute the RI market. But there are other indirect actors which can also shape the market. Those indirect actors are especially relevant, because they showcase how deeply rooted in and determined by society the RI sector is. The most influential of them are the United Nations with its agencies as well as national and regional governments, who either shape their policies or provide a concrete legislative structure with the wiggle room for RI. In the following section, I will provide a short overview of the positions and situations among the most influential indirect actors for this research, the UN with the PRI, the EU and Germany.

As I mentioned before, I am writing this thesis within the "UN framework." I used this term to clarify that I work within an internationally agreed upon agenda. This has allowed me to build upon a clearly articulated policy language from a public side. Without going into detail on the global power structures or international politics, it is safe to say that even though the UN provides the greatest possible public consensus, its position and targets are not binding and, in fact, far from being realized. It is easy to get the impression that the power of the UN is one of days once past over when reading about humanitarian crises, bilateral diplomatic conflicts or cultural disputes in the international diplomatic arena. However, on a practical level the UN is very present. In 2015 with the Sustainable Development Goals (SDGs) the UN adopted the largest set of goal setting policy initiative to date. Every country as well as actors across all fields (from universities and non-governmental organizations to banks and companies) are in the process of streamlining their policies within the framework of the 17 goals, 169 sub-goals and 700 indicators of the SDGs or 2030 agenda (United Nations General Assembly 2015, pp. 14-27). This process is happening in a decentralized manner both in terms of its geographic and sectoral substructures. As a result, I will treat RI and the developments of the sector as one aspect of the UN agenda. By founding the Principles of Responsible Investing (PRI) and

searching for new ways of financing the SDGs (Douma, Scott, Bulzomi 2017, p.9) the UN has created this logical connection themselves.

Even though the UN might be the most famous international body, it is not necessarily the most powerful one. The regime of multiple financial institutions such as International Monetary Fund, the Financial Stability Board, the Bank for International Settlements and the World Bank which can be summarized under the term "Global Financial System" (GFS) (Wadell 2012, p. 2), is at least similarly powerful. It is important to mention the GFS in this context, because RI is part of the global finance industry. The question of how RI is being treated through the GFS has a big impact on the effectiveness and growth of the approach. According to Wadell, the GFS is not interested in RI and does not push the topic (Wadell 2012, p. 14). As a result, the UN remains the only international organization to push the RI agenda. One reason behind this could be that they see the world more like an NGO (Wadell 2012, p.12).

With the SDGs as an extensive goalsetting framework, the United Nations and its member states are in need of sources to finance their plan. In addition to the nation state, money from the private sector is needed, which is why private sector initiatives such as the United Nations Global Compact or the Principles for Responsible Investments (PRI) are so important for the UN (Novethic 2017, p.2). Whilst in many topics intertwined, the PRI is more relevant to RI, than the Global Compact, because they target investors directly, while the Global Compact has companies and their CSR at the heart of its agenda. The PRI is an UN initiative, which is supposed to boost responsible investing and to establish a sustainable global financial system (unpri.org 2018). Even though the PRI was funded in 2005 on the initiative of then UN general secretary Kofi Annan, the principles are not a part of the UN. Rather, the PRI are a combination of investors, committed to engage in responsible investing, as defined by the PRI's six principles. The principles are to (1) incorporate ESG issues into the investment strategies, (2) to incorporate ESG issues into the owner companies, (3) to seek appropriate ESG disclosure from their investment targets, (4) to promote acceptance and implementation of the PRI in the financial industry, (5) to cooperate to implement the principles and (6) to report on their progress on implementation (ibid.). Beginning with 63 signatories and 6.5 trillion US$ under management of the signatories, the PRI had close to 2000 signatories and 81.7 trillion US$ under management in April 2018, making it by far the biggest RI body (ibid.). As a result, today the PRI is a key driver in the development and attention of RI (Fuller 2012, S. 41). Within this position, it is shaping the RI industry in multiple ways, whether as agenda setter or as compass for the terminology.

Coming from this global policy perspective, we now enter in the arena of regional structural boundaries. Here, the first layer to analyze the German RI market is the European Union (EU).

The EU provides legal guidelines and policies, of which member states have to follow. As a result, they create a structural umbrella. This umbrella does not imply a homogenous development beneath it. RI is a rather young topic and only arrived recently to the EUs agenda. Yet, the industry has already arrived in the member countries. RI developed quite differently in accordance to the different legal and societal structures of the member states. The description of the status quo of the EU position towards RI is nonetheless important for the development in Germany.

As of today, the EU's legal framework is neither an obstacle nor a supporter of RI (Mugnier & Delerable et al., 2014, p.9). This is about to change, as policies are currently being developed at the EU level to encourage institutional investors to engage in sustainable development strategies more often (Mugnier & Delerable et al., 2014, p.9). One of the levers for EU lawmakers is the fiduciary duty, which they plan to strengthen in order to ensure greater influence over asset owners and the practices of the asset managers. (Lindmayer & Dietz, 2018, p.162). The fiduciary duty is also shaped very different in EU member countries, and not all of them are streamline in their influence over the asset owners, like the EU may wish.

This approach is just one component of a larger EU program focused on sustainable finance. Not only have the SDGs raised the question of how to finance sustainable development, but they have provided a broad platform for discussion to take place. This question was also posed in the EU commission and resulted in the formation of the EU High-Level Group on Sustainable Finance (HLEG) in 2016. The HLEGs task was to develop an EU roadmap towards a sustainable finance infrastructure. Based on this framework the EU commission was to undertake further action. Based on this framework the HLEG was focused on two areas, which were "to improve the contribution of finance to sustainable and inclusive growth" and to "strengthen financial stability by incorporating ESG factors into investment decision-making" (HLEG 2018, p. 6). These two focus areas highlight the two areas of interest, which accompany RI throughout its development: financing sustainable developments and generating more security for investors. The final report of the HLEG includes recommendations, which would structurally simplify responsible investments, such as the creation of a unified sustainability taxonomy, extending the time horizons of investments, increasing disclosure requirements in the finance sector, developing European sustainability standards, as well as raising awareness and empowering citizens to engage with sustainable finance (HLEG 2018, p. 5).

The EU commission published their "Action Plan: Financing Sustainable Growth" in March 2018, building on the recommendations of the HLPG. With 27 initiatives categorized into 10 actions, the Action Plan looks like, and is being presented as, a plan with multiple approaches all over the actor landscape (European Commission 2018, p. 19). The three goals are shaping

the nature of the initiatives themselves. The goals include the (1) reorientation of capital flows towards sustainable investment, (2) better management of financial risks stemming from climate and social issues and (3) a conscious attempt to foster transparency and long-termism in financial and economic activity (European Commission 2018, p. 2). These initiatives among others will influence the development of RI in the EU until the end of 2019 through a "technical expert group on sustainable finance" (European Commission 2018, p. 4). As promising as this may sound, for RI in the EU, only three of the 27 initiatives stand out as future legislative proposals: the EU sustainability taxonomy, a clarification on the (fiduciary) duties of institutional investors and asset managers and the creation of an EU ecolabel for financial products (European Commission 2018, p. 2).

Considering the differing positions, the EU member states' legislative structures see RI and fiduciary duty (Mugnier & Delerable et al. 2014, p. 9), it is a far stretch to expect a fundamental change in the financing of development from this. But building a legislative baseline for a unified, sustainability taxonomy in the EU generates the much-needed groundwork for future developments in the RI field (FNG, 2018, p. 6). It is safe to say that RI structures in the EU are in the process of changing and that the sector will see a simplified market access within the next years.

Germany is one example within the EU, in which RI did not witness a big development. The development was in fact so slow, that the PRI saw the need to publish a "Germany Roadmap" with policy recommendations, aiming at simplifying RI through legislative measures such as rewriting wording about the fiduciary duty (Heath, Neunmeyer, & Martindale 2016, p.7). It is true, that the current legal situation in Germany is not promoting for RIs. German law does not recognize RIs as "explicitly benefitting for the investor" (Preu & Richardson 2011, 880). Therefore, several institutional investors such as insurances, who comprise a big share of the RI market in other countries, cannot or tend not to invest accordingly in Germany. Institutional investors in Germany generally lack the RI market activity as seen in other countries. I will deliver shortly one explanation why this could be the case. But to summarize the structural situation for RIs in Germany; RI as a topic and market did not receive much attention as compared to the French, English or American markets. The situation changed slightly in Germany through an EU policy codified only recently into law. Through the lens of Corporate Social Responsibility (CSR) big companies in Germany have been forced to report on sustainability issues on yearly basis since 2017 (Bundestag 2017, p.1). This reporting duty scientifically improves the ESG-information landscape in Germany. Furthermore, in 2017 the German government acknowledged the increasing important of finance sustainability in the "Hub for Sustainable Finance" (H4SF), in which public officials and the German Stock Exchange worked together to coordinate and improve the sustainability activities in the

German financial sector (Website Nachhaltigkeitsrat 2018). The H4SF is lobbying to push a sustainable finance agenda in Germany, including the point that the finance industry must contribute to the SDGs (Website H4SF 2018).

Now, after covering all the easily identifiable direct actors (asset managers, asset owners and service providers) and indirect actors (legal structures and policy setters) I need to include one more factor; the societal structure. For this factor I will provide more of a contextualization than for the actor groups. I only mentioned those groups here to simplify and model the RI market. A model bears the danger of leaving important factors out when it comes to complex societal topics (such as sustainability or economic mechanisms) on a macro level. I hereby want to recognize that fact, because it is of special importance for RI. Modelling RI can work to a certain degree. But one must be aware of the blurring factors for society. Although RI might seem just like any other investment strategy that has been described as a model a million times before, it is not in reality. I would like to briefly elaborate why and will use Germany as an example.

RI brings an ethical component to the financial sector. Of course, questions about ethics are strongly influenced by the society in which they appear. A society's culture, beliefs, history and its norms influence the discussion regarding a topics ethical nature. Even though in many instances a topic may be viewed through only one of these lenses, it does not mean that it is not being discussed through other lenses or even that the outcomes of the discussions are permanent. I am bringing this up, because throughout my research I have come across snippets of multiple discussions about RI. Those discussions, which are based on historic predispositions, have heavily influenced the shape and development of the RI market within a given reference group, for example a country. In an earlier paper I worked out that the different developments of RI in the US (exponential growth) and Germany (hesitant growth) can be explained through a combination of societal perception and historically developed structures, which then in turn determine one another (Steinmann 2018 p. 19).

In the case of Germany, we can see a society in which the financial market has historically been viewed as open to all. This perception lies in stark contrast to that in the US. One reason for this is that the pension scheme in the US is typically based on the financial market, while in Germany pensions are normally organized within a closed system (Preu & Richardson 2011, p. 877). These perceptions shape the opinions of and reasons to engage in RI as well as the attention with which the legal system treats the practice. Germany is an example of a skeptical society towards philanthropy through a business case (Hiß 2011, p. 657). It should be noted that I attempted to remain independent and not let my biases effect my conclusions from my research. But I want to stress that the preconditions of a society can influence the RI development differently, even though the model might be the same.

Market Overview

From a small niche phenomenon in the United States 15 years ago, RI established as an increasingly growing part of the global financial market. In 2016 almost 23 trillion US$ were under management through responsible investment scheme (Reuters Website 2017). The total asset under management summed up to just 81 trillion US$ (ibid.). Therefore almost 30 % (28.4 to be precise), of total asset under global management were acquired through claimed responsible investment schemes. Hence, some might claim, that the "mainstreaming" of RI already happened (Fuller 2012, p. 41).

But the development of RI happens quite differently across the world. In 2016 over 50 % of the responsible assets were invested from Europe, which surpassed the oldest and most established market, the United States, which carried a share of 38 % or the RI assets in the same year (Reuters Website 2017). Both of the markets sum up to 90% of the global RI assets, making responsible investments a quite "western" phenomenon (ibid.). Here, it is important to note that the national markets within Europe showed different developments.

Within the German speaking European countries RI developed more hesitant than in, for example Great Britain, France, or the Netherlands. To clarify how hesitant this development was it is helpful to compare the markets volumes of the countries. The market volumes of RI in the United States in 2010, was 3 trillion US$, while the German RI market only comprised to 13 billion Euros (Preu & Richardson 3011, p. 874). Researchers identified the composition of market actors as one of the reasons for the hesitant development. Institutional investors, whose general investment strategy aligns strongly with RI-strategies, pose 55 % on the German speaking market, while in the United Kingdom, they even pose 96 % (Preu & Richardson 2011, p. 875). This tendency towards a smaller percentage of institutional investors did long pose a problem for the German RI market, in which only church governed investors engaged in responsible investing in the beginning.

Recently the German-speaking RI market picked up speed. From 2014 to 2017 the assets invested responsibly in Austria, Germany and Switzerland grew from 875 billion Euros to 2.7 trillion Euros (FNG 2018, p. 15). The same increase, that happened in the German speaking countries over 3 years took the United States 12 years from 1995 to 2007 (US SIF 2016, p.1). However, the comparison is very unequal, since the US did deliver pioneer work and had a much worse information accessibility, than the investors today. Nonetheless, this shows that RI eventually arrived in the investment-wise hesitant middle European countries.

In summary, responsible investing, very vaguely understood, is an established part of the investment market. This does not mean that 30 % of the global investments are sustainable, but that almost every third investment happens under consideration of ESG factors. To

manage expectations towards RI: while in 2017 2.7 trillion Euros were invested responsibly only 280 billion are considered to be truly sustainable investments (FNG 2018, p. 15). These high numbers are nonetheless reason enough for me to investigate the societal impact of these so called responsible investments.

RI and Corporate Social Responsibility

Responsible Investing and Corporate Social Responsibility[2] (CSR) are linked in many ways. For example, many scholars argue that responsible investing is simply CSR for private individuals (Rachocka 2007, p. 15). The concept of reflecting on the impact of one personal or business spending on the environment or society through responsible action can theoretically be represented by both concepts. Companies, asset owners and asset manager often declare their ethical intentions throughout their business case. Due to the same conceptual root and the vicinity of the main actors (investors and companies) these actors both influence each other in their development as well as draw attention to one another. For example, the Global Compact and the PRI, the UNs organizations for CSR and RI, often work together and advocate for each other. At the end of the day, CSR efforts and the streamlining of a company's ESG-performance is a practice of risk procurement (Herz & Rogers, 2016, p. 38). This fact only becomes more exacerbated as public awareness increases and becomes more evolved. Thus, engaging in CSR can be a win-win situation (Fuller, 2012, p.41). But with a lot of confusions and barriers surrounding it. Obviously, both business strategies can be critiqued, which I will elaborate further in the next section.

Nonetheless, RI and CSR are also structurally different. The discussions and the attention they receive are different in. CSR spans a larger group of participants, a more diverse field of business cases and topics as well as covers a larger audience, because they often address consumer needs. In this sense RI can be seen as a sub-category of CSR. However, I have not chosen to review CRS in an attempt to provide more detail to the variety business-driven responsibility attempts.

I believe that it is imperative to review CSR for three reasons. First, to give context to RI and its surrounding topics. Second, CSR is important to mention, because it influences RIs trends and topics due to its more main-stream use and, therefore, is more relevance for the data generation and information. As a result, CSR is helping RI grow (Escrig-Olmendo et.al., 2013, p.428).

[2] According to the European commission "to fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders"(European Commission 2011, p.6).

Finally, what I find most pertinent for my thesis is the significant role that CSR plays in the chain of effects of RI. While there are other possible effect chains, I am most interested in how RI companies are pressured into engaging in CSR and, as a result end up generating or improving their impact on the environment and society. Throughout my case study I will try not only to provide a detailed overview of the RIs over that I observed during my observation period (2002-2017), but also the changes in policy in terms of CRS that the company has undertaken. I am aware that those policy changes should also be seen and analyzed from a CSR perspective. However, I cannot deliver that within this workload. Nonetheless, I consider it important for the reader to be aware of that aspect.

Criticism

It is important to point out that criticism on CSR and RI is widely spread. From my perspective these criticisms have a solid basis. Even actors of the market admit that both concepts are often misused. Yet, as it is with many cases: the truth lies somewhere in between. Regardless, I think that either way there should not be a blind spot in my research due to prejudgments. Every attempt to solve solutions deserves and requires scientific analysis, especially when established systems show increasing malfunctions and opinions and emotions are increasingly mistaken for facts. Part of this is a critical reflection and analysis of the topic under investigation.

In the following section, I will describe the most common points of criticism towards RI and the reasoning behind them. Since RI is not as known or prominent as CSR, I will extend the points of criticism against CSR to the concept of RI. I divided the criticism, which comes from many sides (including the sciences, the public and actors of RI) into two groups: structural criticism and practical criticism. Structural criticism is typically directed more against the concept and the power dynamics surrounding it. While practical criticism targets the status quo of RI in its functions.

A key focus point in *structural critique* relates to how RI functions in practice. Specifically, this criticism focuses on how RIs orientation towards societal, environmental or governmental best practice within a business case can have the ability to contradict the traditional investor's logic of profit maximization (Hiß 2011, p. 655). Why should investors care if workers are being treated badly or if product resourcing is harmful to the environment when the profit is high? This point of criticism is being raised by multiple sides. Some actors believe that RI could negatively affect their business case. Other actors question the intentions of "responsible" investors or point out that they cannot act responsible because society's structure prevents them from doing so.

This goes hand in hand with the next point of criticism, which is the credibility of RI. The public often brings a lot of skepticism to the table when large companies that operate in a capitalist structure engage in philanthropy.[3] In many ways the public is right in thinking so. For starters there are examples where the greed of investors or companies has damaged and continues to damage the society and environment to an unmeasurable amount. In addition, there is also the criticism surrounding the practice of green washing. There exists enough evidence for the damage that the greed of investors and businesses has caused to be skeptical of any attempt by the private sector to engage in developing solutions for the world's problems. As the leading advocate for the RI industry, PRI has not helped this cause as their policies leave a lot of room for interpretation and strategies of implementation with their broad definitions regarding RI (Fuller 2012, p. 41). I am aware that the damages which I am talking about do not originate from individual companies or investors. Instead, this damage can best be traced back to consumer patterns of human beings and wealth distribution. Yet, the private sector is an expression and also mechanism of those damaging aspects of capitalism and are, therefore, intrinsically associated with them. Part of the reflection process of our society is to understand that we are, in fact, often the root of many of our own problems.

The previously described criticism is being addressed by political scholars. One answer to this criticism is that the economics behind the business case has changed. This means that as a result of either changing perspectives of society or an increase in the scarcity of a given resource or resources it has not become profitable to act responsibly (Friede & Busch 2015, p. 210). Therefore, the core criticism of a lack of profit maximization is weakened. Noreen, takes a more pragmatic approach and says that multiple motivations behind RI exist. A responsible investment can be achieved through ethical, aesthetical or selfish reasons (Noreen 1988, p. 365). So, he argues that all narratives within RI are true. An investor can invest in something, because he thinks it is the right thing to do. He/she may also invest, because it makes the company look better. In addition, a central actor may take this position, because they believe that not doing so could lead to a positive effect, such as improved profit or decreased risk.

I have also observed the pragmatic approach to structural criticism, which says that the impact chain is too long and, therefore, too weak. This criticism questions if the money should not be used to address the problem in society directly, if the goal is to have an impact of society. Or, at least, if the money should be invested with a clear goal. This is indeed a problem with RI and leads to the issue of whether or not it is ethnical to obtain a clean conscious while making a profit. I think this criticism is relevant and needs to be addressed. However, it is important to

[3] This perception depends on the society and that it might differ in countries in which philanthropy is part of the culture and is seen as "giving back to society."

note that RI does provide the possibility for more money to be use responsibly. It is this impact chain and, specifically, the strength of this impact chain that I wish to explore.

Finally, I would like to address the responsible aspect of structural criticism towards RI. This realm of criticism asks for a clear definition of responsibility as well as for whom this responsibility is meant. A company can be responsible in their actions towards their employees, but not towards other social groups. For example, does responsibility mean low prices for products in order to increase access for a larger section of society? Does it include the consideration of animal rights even if it endangers the standard of living of a human community? Readers should be aware that there is a multitude of ethical questions and points of discussion that arise when it comes to responsible behavior. There are also many opinions and not just one right answer. There are no one simple answer in this analysis, especially as all answers must take into account the influence of power dynamics. This is a problem of which I am aware and one that requires attention from both the scientific and public spheres. However, I do not see myself in the condition to discuss this here in detail. This is one aspect of why I decided to take the SDGs as decisive institution over what is sustainable and good. I consider this to be a product of a global consensus. It is the closest, we can get to it through the power dynamics and conflicting interest; through an arena of discussion amongst public officials.

After mentioning some of the criticism regarding the fundament principles of RI, I will now discuss the *practical critique.* I will do this based on the assumption that RI is generally a good idea that could lead to a marked improvement of the world.

This critique includes the fact that public perception remains weak. Since the public does not always believe in or know what RI does, its benefit system does not work to full capacity. This can lead to low demand and unnecessary low return expectations (Escrig-Olmendo et.al., 2013, p.426). From a business perspective this criticism may sound a bit unusual right after the fundamental critique. However, this is a fundamental component of the criticism targeted at RI and, as a result of lack of public acceptance, RI does not function to its full potential.

Another rather general criticism derivative of other actor groups is the level of disclosure amongst the RI sector is generally too weak. While through CSR companies are increasingly forced to improve transparency through their reporting duties, a responsible investor does not have any legal duties to disclose anything. Throughout my research I did not come across any self-proclaimed RIs that also publicly declared their cash flow. To some degree this might be a result of market competition. However, it poses a fundamental problem to the RI industry, because the public cannot judge the validity of the actors claim responsibility.

Another component to practical criticism revolves around ESG-data. Besides the obvious question of whether or not ESG-scores can actually measure the level of responsible behavior of a company, there remains additional levels of criticism. For example, through their role ESG-scores have a lot of power (Auer & Schumacher, 2016, p. 52). They track a wide range of data and translate that information into a single measurement. Through these scores rating agencies bear a lot of power about the definition of what is and what is not responsible. The earlier described Frankfurt Hohenheimer Leitfaden is one of the few examples in which a transdisciplinary group of scientists have developed a system of judging ethical corporate behavior. Many of the other ESG-data providers lack such a sophisticated basis.

In the same vain, the competition and culture that surrounds the rating agency industry results in limit disclosure and transparency. As a result, numerous different rating systems and logics have developed. This has lead ESG-data to differ strongly in message and quality (Halbritter & Dorfleitner, 2015, p. 26). This poses problems for the credibility, comparability and scientific access of the data available. As a result, the public and scholars alike are unable to properly assess the accuracy, intentions, level of disclosure, and validity of the data available. I will later explain how I dealt with this situation throughout my thesis.

The problematic nature of multiple actors becomes even clearer after exploring the industry's origin. The rapid growth of RI has led to a boom in ESG information supply. This, in turn, has resulted in a rather uncoordinated increase in company reporting and score releases. Therefore, many data providers lack a sophisticated database. As a result, high quality standards are often missed or not established in the field at all (Bartley et al., 2017, p. 113). Again, this poses a risk credibility of the data and, therefore, the practice of RI as a whole. Since RI is right now merging with the financial mainstream, it is still very much derived from quantitative data. If the sector does not manage to develop a higher quality of data, the approach will lose its attractiveness all together.

In summary, not only do ESG-Data providers have a lot of power, they also have many different opinions and provide a low-quality standard. It has become so bad, that even market actors are complain about the low level of credibility (Novethic 2017, p. 1). Transparency and unified taxonomies can help solve some of these problems. It seems as if the EU is attempting to address these issues through their action plan. In fact, the EU has already begun to influence the RI sector through the ESG-reporting duty when they developed their CSR action plan. However, skepticism towards whether this action plan can duplicate such an impact is also understandable, because RI would most likely contribute to the economic growth of the EU while not specifying how large the societal impact might be. Many countries would have to agree on the strategy and many of these countries prioritize different topics.

Another area of criticism is target at impact measurement. Even market participants, such as Novethic (Novethic 2017, p. 4) have argued, that there is not enough progress being made in measuring the impact for the society. It is irrelevant how fast RI strategies develop if they lack a reasonable measurement their justification. It is in this way that I believe my thesis will contribute to the study of RIs. I want to develop a framework to measure the many aspects of the societal impact of RI. By doing this I hope to provide a small contribution to the study of sustainable development.

Thoughts on Theory

As already mentioned I consider this work to be a transdisciplinary paper on a topic that has only been explored from one side thus far. The dominance of the business sciences and its theoretical and methodological pre-assumptions do, therefore, also play a role in this paper. Hence, I intend to build upon data and methods used in the business field and some aspects of my thesis follow those predispositions. This is a positivistic understanding of science and a quantitative dominated catalogue of methods. In the following section I will explain how I have adapted and divided these predispositions to maintain the transdisciplinary nature of this thesis.

Transdisciplinarity

The topic of responsible investing has picked up speed over the last decade, mainly being pushed by the investment practice and the business- and economics-field. Consensus is hard to find, because research is heavily influenced by market actors along with their interests and perceptions. The market reports and surveys provided and conducted by companies provide a rich, yet biased data foundation on which academic scholars can build on. As these companies, which do have own interests on the market what has to be considered, are often the only data provider, the scientific research may build upon a groundwork in which they have limited insight and which credibility exists within a business dictated methodology.

The lines between science and practice seem to blur in the economic sciences. Researchers switch rapidly from academia to the practice. In fact, many researchers will even write articles for scientific journals, while being employed by a market player who might have a financial interest in the result of the study. This is generally understandable, due to the rapidly changing business environment and the requirement of experience sharing. Where should the experience come from, if not from the field/practice? But in order to achieve a high quality of scientific research, the data from the practice must be treated with due diligence with regard to its biases. Throughout this work I must also rely on data retrieved by sources with a financial interest in the field. I will treat them accordingly or will disclose, where certain biases cannot be eradicated due to a lack of alternative data.

In the end, the research situation towards RI has only been explored through the lens of the economic and business sciences. This is one aspect which I want to address on a theoretical basis with my thesis. I do see a problem in a business developed practice, which is presented as a magic wand to the world's social and environmental problems. This is especially the case when the research on the approach only comes from the same circles, posing and even greater risk to the theoretical biases. Practices, which claim to address social, cultural and environmental issues, should also be observed and analyzed from those sides. However, I believe the transdisciplinary view is an appropriate approach to validate such extensive self-proclaimed solution schemes, because unilateral observations from the disciplines all pose certain bias risks.

I do not claim to be able to provide a thorough analysis with the knowledge of all the relevant disciplines. It is difficult for all scholars in this field to identify which disciplines can contribute valuable insight into responsible investing. However, I will attempt to choose the most appropriate theoretical frames and useful methods, while showing a sensitivity towards possible contributions from academic insight other than the economic and social sciences. I am certain that the different cultural perceptions of the roles which companies or the financial market play have a significant impact on the acceptance and activity in RI. Nevertheless, I am not capable of directly identifying all the factors which cause it: such as the religious, cultural or societal impacts of a country or community.

It is my goal to offer an attempt of breaking the difficult interconnection between practice and theory by introducing transdisciplinary elements. Practices such as responsible investing must be investigated and approached from positions outside of neoliberal doctrines and basic economic assumptions such as the shareholder value orientation or the thrive towards profit. I want to open the door for more transdisciplinary approaches, not only necessarily to bring more credibility to the field, but also to expand the knowledge about the complex problems RI is facing, such as different interests, perceptions and realities on a global scale. Transdisciplinarity exists because of the multitude of problems, which cannot be addressed by single schools, but need a multi-level solution (Mittelstraß 2007, p. 5). In my eyes, RI needs exactly that to be investigated appropriately, because it is a multi-level practice, which is asked by the global community, through the UN via the PRI to find multi-level solutions.

Macrosocial Attempt

Business and economics usually operate and develop within models. They often require many predispositions such as complete information or economically rational behavior to work. While these models are very useful to understand financial and numerical processes and relationships, they often fail to describe social phenomena. However, responsible investing deals with various ethical and social questions or trends as well normative considerations,

which require a broader understanding of the world than a calculated model, to analyze its relevance.

In addition, financial and physical markets are in many ways globally connected. Within the RI sector's different sustainability perceptions, goals and corresponding societal institutions, a multitude of self-proclaimed ethical actors (NGOs, ethical donors, unions, politicians), discussions and trends come into the mix. Within this multitude of connections, mechanisms and structures, I do not claim to have discovered all of the effects or relationships. But I think that economic or business models do not provide the appropriate toolkit for a thorough investigation. Instead, I want to try to observe the RI sector with an appropriate analytical tool, which might give some sort of structure and orientation to the field and connection points for future research. Therefore, I conduct my analysis through the lens of a societal analysis in the tradition of Marx and his analysis of the formation of societies. This approach is useful in this regard, as it provides enough of a model and structure to conduct analyses and leaves enough theoretical space in its detail, to grasp social and cultural aspects.

This will be my point of view on the topic. Nonetheless, I have to base my research on real indicators. And those available come from the daily business world and business or economics research. So, I want to note a methodological change at this point; I am aware that financial data or quantitative research is often treated as hard facts in a positivistic world. But this is not the case in my analysis. I will see the data as indicators or reference points which try to grasp an idea of the status quo, always depicting a temporal state, which can pay into different narratives, depending on the point of view. I will therefore build upon a constructive realism in an attempt to explain the relationship between RI and a social impact.

I purposely used the term "lens" above, because I do not plan on fully situating my research within full theoretical framework such as Marx' formation of societies. Since, I am working in front of a transdisciplinary background, I suspect that concepts and models could hinder the researcher and reader from main important observations. Nonetheless, I want to describe what structural predispositions shape my treatment of the topic: upon the already mentioned constructive realism I acknowledge that we live in a connected world defined by power structures, much as a world perception in Marxist tradition. In this world arguments that hegemonic groups such as the Global Financial Systems or an international manager class exist and execute their power, I consider to be true (Cox 1998, p. 69).

Even though I do not want to use dependency theory within this study, I want to base my perception of the society on some remarks, which Amin made in his build up to the dependency theory; which is, that the production means and the overlying structure does impact a society (Amin 1975). This is a core, which I carry in the perception of the world, which I want to use in

this thesis. Even though Amin presented the development of a society unilateral around one production mean (ibid.), I would argue that multiple production means are existing parallel to each other nowadays, which also extend across borders. This complex system is influencing us depending on our individual production bubble, gets even further shaped by the national, or in EU terms, international society and its production, as well as societal history; which shaped very different perceptions about our perception of modern values and especially consumption, which then again is in many cases the root cause for problems the SDGs are facing today.

As confusing as this may sound, I want to investigate whether "responsible" investors moved companies towards more sustainable practices and business models. But not as standalone subjects, but as actors in an interconnected society, which is a target to trends and phenomena influencing them.

Research

Now that I have described the background to my research along with its theoretical framework, I will quickly recap the scientific gap that I am attempting to address with my research. My research has three focuses. First, it is an attempt to find an answer to my title question, which asks if responsible investing can help nations in reaching the SDGs. This means finding a clear chain of effects that stems from a responsible investment to a positive effect in terms of reaching the SDGs and which could have enough volume to significantly support the financing of the SDGs.

My second focus is the attempt to deliver an approach to impact measurement of RIs and CSR. This focus is a side effect to the research I must conduct in order to properly investigate the before mentioned chain of effects. My contribution will be validated by the degree in which my measurement schemes are transferable to other companies.

The final focus is an attempt to open the topic to a scientific editing of many disciplines. I believe that topics such as RI and CSR, which touch many disciplines, should be treated accordingly. The cultural, social and natural sciences should all contribute to the understanding of a topic which claims to help society and the environment.

In the research section I will provide an overview of my research setup as well as a detailed description of my two research phases; the correlation analysis and the case study.

Research Question

The title question, whether an unexpected push towards sustainable development is coming from RI, contains multiple layers and aspects. Over everything lies the question of whether capitalist mechanisms can contribute to sustainable development. The answer to this question could fill many volumes for decades to come, and, as such, I have paired my answer down.

In addition, there remains the question as to what drives companies to act more sustainable. Here, I focus on one of the most powerful stakeholders, the investor. The question remains if evidence for an impact of claimed responsible investment can be found. I want to reveal if the theoretical chain of effects from the responsible investment through the target company and its resulting behavior change can have a positive impact on society and the environment. Or at least, deliver an approach which can be observed, to better understand whether this chain exist. Within this chain lie two questions. First, do ESG-Investments lead to policy changes in a company? Second, do those changes help to fulfill the goals set in the agenda 2030? Over this setup lies my general assumption, that if this chain of effects exists, it would have the potential to significantly contribute to the SDGs, as its effect would multiply with the number of responsible investors and companies, being influenced by them.

As I mentioned earlier, that I specifically do not want to engage in a discussion about the meaning of sustainable development and its multiple implications. I am aware of existing dispute in the field of development studies. Also, it is clear to me that other disciplines perceive the term differently. However, for the purposes of this thesis I will take the UN Sustainable Development Goals as given roadmap and definition of sustainable development. The SDGs are a globally agreed upon framework, which is a result of long negotiations and research. These negotiations mirror a status quo that exists in our global society as well its power structures. I have chosen to take this approach in order to be more concise and contribute to a solution orientated scientific approach. I am aware that this mindset is not perceived well by critical scholars such as Robert W. Cox (Bieling & Deppe 1999, p. 2). However, in our current global situation, where the clock on many social and environmental problems is running out, I consider it a duty of science to work together and to develop solutions. Therefore, this work elaborates on whether the existing phenomenon of RI is credible and how it could help to reach globally agreed upon goals. And it does not focus on the underlying power dynamics.

Research Setup

In an attempt to find answers to these questions, I have designed a mixed method research setup with two phases. First, I will conduct a correlation analysis of the ESG-scores and the returns of the constituents of the Global Challenges Index (GCX) from 2002 to 2017. Afterwards, I run a case study of the CSR efforts of Henkel (one of the GCX constituents), its causal connections to RI and its impact towards the SDGs.

Within my correlation analysis I want to show how an investigation of measures of financial performance can be used to establish an impression of the ESG-landscape between companies. While these calculations function as a pretest for my case study company, I want to emphasize that it could also be enhanced with other information such as the number of shares, the shareholder structure or the turnover of the company. This could either improve

the dataset by making investments better visible or cut out other influential factors on investors besides responsibility.

On the basis of these calculations I will then investigate the history of Henkel over the observation timespan (2002 to 2017). I chose that observation period for the simple reason, that ESG-data was not available for earlier ears. Throughout this timespan I will look for two things. First, I will look for indications that responsible investors targeted the company through one of the four described investment strategies: devesting, positive screening, best-in-class approaches or advocacy. I will also look for policy changes regarding sustainability in the companies' history. Based on this information I will contextualize and observe whether they have a cause-effect connection. In the final step of my case study I will check whether the policy changes of Henkel contributed to the SDGs, regardless if the agenda was in place at that time, which was the case for the years 2002-2015. Due to the small proportion of my timespan within the SDG period, and also because the adaption phase for actors within the SDG framework is still ongoing, it is safe to say, that the SDGs themselves did not play a role as a policy setter within the strategies of the investors or the company, in this case Henkel. Nonetheless I will use the SDG as a defining background for sustainable development.

Even though this setup only allows me to scratch the surface of both approaches, it is necessary in order to achieve consistency in the observation. Academic consensus on the societal impact of companies does not exist while scientific "evidence" on a variety of positions does. Among the most prominent reasons for the large number of positions are different populations in the research in terms of industry or location as well as different research focuses and methods (Friede and Busch, 2015, p226.). While research on economic performance of responsible companies can often be found (Friede and Busch, 2015, p.210), investigations on specific societal impacts are scarce. I consider this two-level-setup to be necessary to deliver a sufficient groundwork for the analysis of the impact of RI to the sustainable development, in order not to rely on contradicting business research on the impact of RI.

Only one of the approaches would not be able to deliver that groundwork. On the one hand, market calculations and a quantitative based macro view or a quantitative based macro view, both on their own could not deliver explanations about the reasons for eventual correlations. And on the other hand, would a singular qualitative approach miss contextualization and would bear the risk on building upon differently directed data. The two steps are necessary to develop an understanding for the market view and to deliver reference points for the case study, which then can investigate the possible influences of the different RI strategies in the process.

Using GCX as an observation population creates certain boundaries for my thesis, because there are limitations in the data itself. This creates certain complexities that cannot be answered within the length of the thesis.

Phase A: Correlation Analysis of ESG-Scores and Price Developments

The correlation between the ESG-score of a company and its return comes from its interest, because it gives an indication about the relationship of the CSR activity of a company and its attractiveness for investors. While this calculation does not give insight into the mechanisms of the relationship, it can indicate its strength. This does not indicate whether RIs are responsible for the relationship, but a strong relationship may indicate a high probability for such a connection. As I did not come across any such contextualization of this calculations in my research, it was necessary to conduct them. Through these calculations I will contribute this approach to the scientific discussion as well as create reference points for the selection and the implementation of the case study in phase B. ESG- and sustainability-performance and -attention varies widely depending on the industry (Herz & Rogers, 2016, p. 34) and the location (Auer & Schumacher 2016, p. 61). One aspect of the correlation analysis is to conduct a pre-test on how the different companies appear to behave within their industries and coming from their specific geographic backgrounds. Another is to deliver a new approach of looking at the relationship of economic- and ESG-performance.

In the following section I will go into further detail about the correlation between the return of the GCX constituents and its corresponding ESG-scores. Due to the limited availability of the ESG-data, I will produce a correlation analysis of yearly return numbers and ESG-scores from 2002 until 2017 of 33 of the 50 GCX constituents by June 2018 (GCX Website 2018).

Data Selection

In the beginning, the challenge of how to quantitatively observe the relationship between investments in companies and the societal impact seemed very challenging. Investments and its accompanying objectives are not part of publicly available datasets. And throughout my research I did not find any attempt to measure the societal impact of a responsible investment, on which I could build. Quantitative analysis of RI typically seeks to answer whether the RI-industry is profitable or not. Since skepticism towards the profitability of RIs is still one of its biggest barriers (Eskrig-Olmedo, Muñoz-Torres & Fernández-Izquierdo 2012, p.426), this is not surprising. But even though those calculations had a different target, their use of market observation helped me find a solution to my data limitations. The profitability calculations of RIs usually check how companies with good social scores do in terms of economic success, compared to companies with bad to average social scores. Thus, I have chosen to apply this logic and investigate the relationship between measures of economic success and the social performance of a company to my case.

For the economical side I decided to use the yearly *return* of the company. More precisely, the return index. This is a number with many influence factors, and I cannot simply draw a direct line between a return increase and an increase in RIs in a company. Nonetheless the return provides an indication on how interested investors are in a company within a year. This aspect of the return is what I want to set in relation to its societal performance. I did consider other statistics such as number of shares, shareholder breakdown or the share price. However, these numbers either lacked consistent availability, fell short in describing the investors interest or, as in the last case, where even weaker indicators for investor interest in a company. Since I am not able to isolate the responsible investments or even the investor activity, I decided to go forward with the return index, even though I am aware that it can at most provide an indication. In my analysis I treat the numbers accordingly, with a view on possible other market influences. Especially in my case study I try to single out other possible influences on the return.

The data landscape of the *social and environmental performance* of a company looks quite different. Two figures are generally used: ESG-scores and rankings. I decided to analyze the ESG-scores of my population, because it gives me the opportunity to develop a sense of the performance across sectors or other peer groups on which the rankings are usually based upon and therefore limited to. The ESG-score, as mentioned previously, is an attempt to numerically capture the environmental and social performance of a company. There exists some skeptics surrounding the possibility of measuring all aspects of the societal impact of a company, even by market actors such as banks (Novethic 2017, p. 8). I would claim that there are some effects which cannot be measured; for example, if and to what extend companies and brands constitute the identity of individuals. Yet, in general, multiple promising approaches do exists, which accumulate or work with the existing data for societal or environmental impact or performance. Measurement of the amount of water or renewable materials used, waste produced as well as the demographic or gender composition of staff are all figures which can be numerically captured, and which can reveal something about the social and environmental status quo of a company. I am aware that those figures create a perception of good social and environmental practices, which might be limited.

But what exactly are ESG-scores? And how do they indicate responsible performance? Multiple answers for these questions exists. Early on responsible investors in Germany sought to understand exactly how ethically good company behavior could be defined. This triggered the above-mentioned creation of the Frankfurt Hohenheimer Leitfaden. This guidance, which was written by a transdisciplinary working group, argues that three aspects of ethical behavior of a company exist: compatibility with culture, compatibility with social issues and compatibility with the environment (Hoffmann et. Al., p. 3). Within these three categories they came up with

over 800 indicators (Projektgruppe Ethisch-ökologisches Rating 2009, p. 63) and identified cases that represented best practices. This rather elaborate approach is part of the history of origin of one calculation approach of ESG-scores. Oekom Research, a German sustainability rating agency, claims to use the FHL in their ESG-rating model. Nowadays former members of the FHL research group work together with Oekom Research to improve the standards of ESG-rating systems. (Or so they say.) Yet, the ESG-rating landscape includes roughly 60 providers or more (Schäfer et. Al 2006, p.1) and each of them follow their own calculation model (Hiß 2011, p. 663). This results in vastly different ESG-scores, -grades or -ratings. This posed the problem of choosing the right ESG-figure for my calculations. I realized I could either find the most useful score methodology for my own research or combine different scores to reduce the risk of buying into a potentially biased or inconsistent ESG-approach.

However, after thorough research on ESG-methodologies, I discovered that this problem structurally does not fully arise for me. All the private ESG-providers sell the data as core of their business model. The provider of my choice (Oekom Research[4]) did not give me free access to their dataset upon request. My only available access to ESG-data was the Thomson Reuters database "datastream". The Thomson Reuters ESG-score is one of three available ESG-scores through datastream. On the platform are also the ASSET4 ESG-score, which was developed by a company, that Thomson Reuters acquired in 2009 (Thomson Reuters 2013, p. 3) as well as a combined ESG-score, which I later use in the case study. After pre-tests with all three of these ESG-scores, I decided to go with the one who's approach is most comprehensible, the Thomson Reuters ESG-score. The ASSET4 score did not provide thorough methodological explanations, while the combined approach added a controversy score to the Thomson Reuters score (Thomson Reuters 2018, p. 15). While this approach is interesting and promising, its foundation on the amount of controversies in a company and a sector (Thomson Reuters 2018, p. 14) appeared to me as too complex to include. The controversies discount influenced some companies heavily, giving them a big power within the score. This would have the result, that I would have to elaborate many of the scandals or controversies further to draw myself a picture and this is not something I can do within this thesis. For example, two different VW scandals became public within the last years: the cheating in the CO2 tests (SPIEGEL online 2015) and that the CO2 levels had been tested on monkeys (peta Website 2018). They both would generate a similar discount in the controversies score, while they were not equally relevant for investors. I do not want to elaborate which types of scandals are how important. But they surely influence responsible

[4] Oekom Research claims to use the Frankfurt-Hohenheimer Guideline in their ESG-rating methods. This guideline is a product of a transdisciplinary research group in the 1990s . Former members of the group nowadays work together with Oekom Research to further improve the standards of ESG-rating systems.

investors differently. In my opinion there needs to be further elaboration on the influences these different scandals have. And since, I cannot deliver this here, I chose not to use the combined ESG-score in my thesis. Even though I want to note, that it is an approach, which should be analyzed further from a transdisciplinary perspective.

Another note, I want to make is, that I conducted my calculations for all three of the scores and I can confirm, that they all drew very different pictures. As mentioned before, the combined score heavily influenced some particular companies. But also, between the ASSET4 score and the Thomson Reuters score, which both are methodologies used in the same company to measure the same phenomenon, did vary. With an average of the correlation coefficient of 0.3737 for the ASSET4 data and of 0.3628 for the Thomson Reuters score, the results were similar but nonetheless different. This showed me how hard it is to develop a consensus on the sustainability performance of a company. I decided not to include the ASSET4 data in my research, because I did not find sufficient methodological explanations of it. Therefore, I did go forward only with the Thomson Reuters data and not a combined approach.

Thomson Reuters claims to provide measurements, which transparently and objectively measure a company's ESG-performance (Thomson Reuters 2018, p. 3). They published the methodology of their ESG-score in order to live up to their claim of transparency. The Thomson Reuters ESG-score is created through a "percentile rank scoring," which includes 10 category scores within the E, S and G pillar (Thomson Reuters 2018, p. 8). They define their "percentile rank scoring" as a comparative calculating scheme. As a result, to get a category score of a company one must know the number of companies that have a value for the specific indicator, how many companies have the same value as the company in question, how many companies have a worse value than the company in question (Thomson Reuters 2018, p. 8)[5]. Thus, the comparative performance of a company is rewarded, but not necessarily by the company's absolute performance. The values for the calculation come from 178 ESG-indicators, which Thomson Reuters identified to be relevant. These indicators are distributed equally among the following 10 categories: resource use, emissions, innovation (all environmental pillar), workforce, human rights, community, product responsibility (all social pillar), management, shareholders as well as CSR strategy (all governance pillar) (Thomson Reuters 2018, p. 8). The social (four categories and 35.5%) and the environmental pillar (three categories and 34 %) have slightly more weight than the overall score of the corporate governance pillar (three categories and 30.5%). While the categories are all weighted different, the category of work force weights the heaviest (29 indicators and 16%) and human rights and CSR strategy (each 8 indicators and 4.5%) are the smallest contributors (Thomson Reuters 2018, p. 13). The

[5] Score= (Number of companies with worse value + Number of companies with same value/2)/Number of companies with a value (Thomson Reuters 2018, 8).

indicator data is compiled from publicly available data that must pass a quality check, including an external audit (Thomson Reuters 2018, p. 4). The ESG-data available from Thomson Reuters can include data from as far back as 2002. Even though Thomson Reuters would not have been my first choice, they do put a substantial effort into including available quantitative ESG-data in their comparative rating system.

As I have mentioned above, I obtained all my datasets, the ESG-data and the financial information, from datastream. As ESG-scores at Thomson Reuters are conducted on yearly basis, which is the case for many ratings, I have decided to group them with yearly numbers of the return index.

Now, the question remained as to which companies I would observe? ESG-data is provided on many publicly traded companies. But that does not necessarily mean, that they would be targeted for RIs. Important points of orientation for responsible investors are sustainability rankings and sustainability indices. I decided to use a sustainability index as an observation group, because rankings are often based on single sectors or do rate the reporting practice. A multitude of sustainability indexes exist with varying focuses, numbers of constituents, influence on the market and admission criteria. In the end I decided to choose the Global Challenges Index (GCX) as an observation group. This decision was due to three factors. First, the perception of sustainability and responsibility, especially when it comes to investors and companies is dependent on the societal background, as I already mentioned in the previous section. Therefore, based on my own perception I chose a European, or even better a German index, which led me to GCX. The next factor was the target and the strictness of the admission criteria. In this category the GCX was convincing, because the index has six clear areas of action. These areas of action include climate change, drinking water, demographic development, poverty, biodiversity and deforestation (Börse Hannover 2018, p. 9ff.). The German stock exchange, which created the GCX, teamed up with Oekom Research to determine how suitability would be included into the index. Since the index started in 2002 (Deutsche Börse 2007, p. 6) the GCX has seen 38 exclusions from the index. Of these exclusions 25 were due to violations against GCX criteria (GCX Website 2018). The other ten were due to mergers or acquisitions. Finally, the number of constituents also convinced me to use them. GCX has 50 constituents from 22 industries which are spread across 14 countries globally (Börse Hannover 2018, pp. 46ff) as of May 2018. This seemed like a suitable composition of companies for this thesis.

So, I used the return index and ESG-scores from Thomson Reuters for the population of the constituents of the GCX as the research object of my first phase. Unfortunately, Thomson Reuters does not provide ESG-data on all 50 GCX constituents, cutting the number of

companies that I was able to analyze even shorter. I ended up with a dataset of 33 GCX constituents from 11 countries and 21 industries (Appendix A) with ESG-data provided through datastream. The ESG-score coverage from the largest possible time span (2002-2017) differs between 8 and 16 years. Thomson Reuters provides data for one company for a time span of eight years and one for nine. They also provide data from 15 companies that covers the whole observation period. The timespan within the 16 years is covered in different ways. 13 of the companies do not start in 2002 while 12 of them do not end in 2017 (Attached Excel). Information on the return index was available for every year and company.

Calculations

Before I started to calculate with the obtained datasets, I made some considerations. First, I wanted to gather as much data on the relationship between the ESG-scores and the share prices as possible, in order to properly analyze the data. Then, I considered creating a combined analysis for the GCX. This would mean an accumulation of the different correlations in order to be able to make a statement on the accuracy of the index. However, I did not take that route, because on thirty-three out of 50 was not a sufficient quota to state something on a nonetheless weak argument. I chose a different route, because GCX has some fluctuation among its constituents and this would require a larger workload for a number of companies, which does not respond to my research question.

This fluctuation is just one of the elements of the data, which I had to be aware of throughout my calculations and analysis. The listing or delisting of a company in an index can have an influence on its economic and also ESG-performance. The points of entry of the companies into the GCX would be points to watch and analyze alone. The other anomaly throughout my dataset, I considered were the financial crises.

I am aware that the financial crises of 2007 to 2009 generated extremely negative values in my dataset. Nonetheless, I decided to leave them in the observation spectrum. The financial crisis was a big part of the financial reality of the last decade and I cannot make any statements on how it influenced the ESG-development and economic relation on a greater scale. I will take a closer look into the issue during the case study. In this section it will not get into any special treatment, because I do not know what developments I might ignore. Since the financial crises lead to many questions of ethics and risk in the financial sector, it is probable that those discussions had an influence on RI. However, I am not able to identify what specific influence this had on the different industries and their investors. Therefore, I will treat the financial crisis as normal part of the calculations in phase A, so that I reduce the risk of ignoring information. Nonetheless, it would be reasonable to specifically research the connection between the corporate and investor sided responsible behavior during the financial crisis.

After the accumulation of the data I used Microsoft Excel to organize and analyze the 33 datasets. Part of the organization of the data was to plot the ESG-scores (X Value) and the return index (Y Value) of all the 33 companies. I then used these ESG-scores and their corresponding share prices to create a point chart as well as a trend line for the first test year. In doing so I was able obtain a first impression of the data, which I kept as a reference for later checkups. Then, I ran a regression analysis on the same 33 datasets. The correlation coefficient often fell through the logic check with the scatterplot, which is why I did a separate correlation analysis with the numbers. I noted the correlation coefficient, the coefficient of determination, the standard deviation, the amount of observations and the p-value for X (Appendix B). I then ranked the datasets according to their correlation coefficient from the smallest to the biggest number and created graphs, which protocol the correlation coefficients (Appendix C).

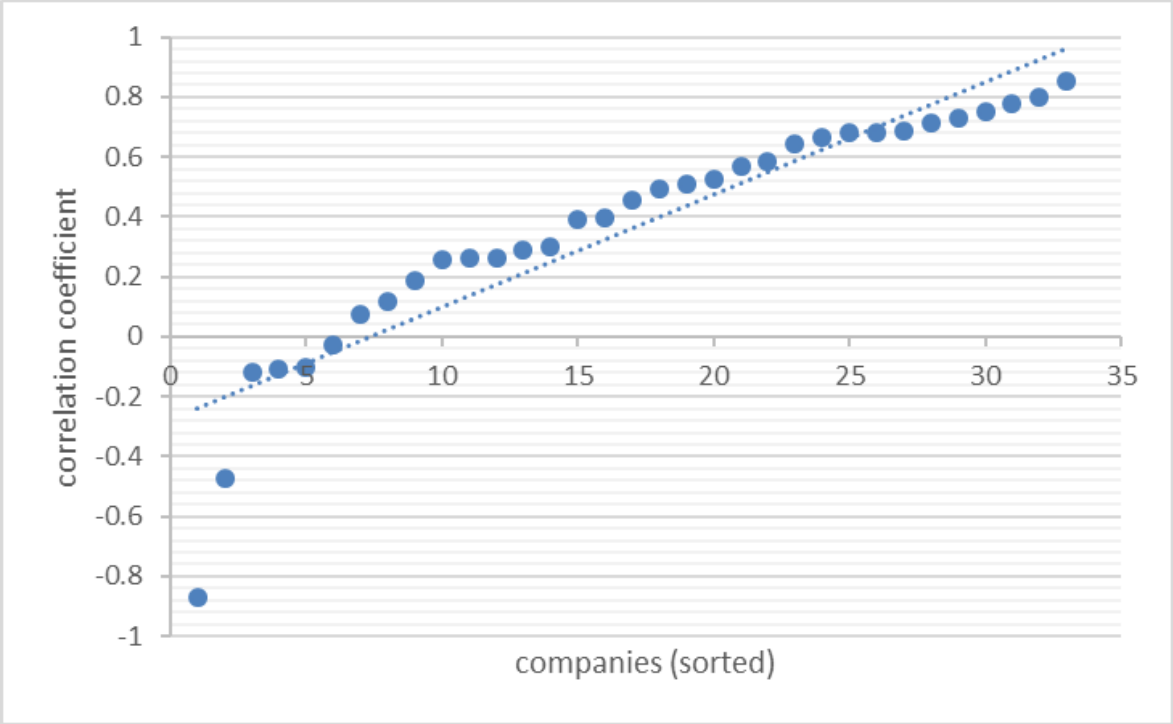
Due to the different amount of observations within my company datasets and to establish a further check of significance, I did categorize the companies not only with regard to their correlation coefficient but also to their p-value for x. I therefore obtained six categories with the two defining measures relation, which is defined by the correlation coefficient and significance, which is defined by the p-value. In terms of relation I defined the three groups negative relation, no relation and positive relation. Based on a research on appropriate levels for those categories, I defined, that a correlation coefficient below or equal to -0.4 defined a negative relation, one between -0.4 and 0.4 did not show any relation and one equal or above 0.4 defined a positive relation. I am aware that 0.4 and -0.4 are relatively close to 0 for datasets with a maximum n of 15. But therefore, I also used the p-value to support significance of the value. Here, I defined a value below 0.05 as significant and everything above as not significant, what complies with general assumptions about the p-value. The p-value is a measure of certainty, which describes the probability of not achieving the calculated outcomes. While 5% is a reasonable probability, the p-value does not solve the problem of the small n. But since more data does not exist on one company series, I cannot eradicate this problem.

The correlation analysis segment of the regression analysis is the most important calculation that I conducted for my investigation. The correlation coefficient, which is the key factor of interest for the correlation analysis, is a measure of strength between two datasets. It is a standardized form of the covariance, which describes the distance between corresponding random variables and their means as well as the associations between their deviations. The correlation coefficient is found by dividing the covariance and the standard deviation of both variables. This indicator can only be between 1 and -1 and by its size indicates the sort of linear relation between the datasets. As a result, a correlation coefficient of 0 indicates no linear relationship, which can suggest that the variable is independent of one another. A

negative correlation coefficient indicates a negative relationship between the datasets. This means that if one dataset shows growth the other will fall. Alternatively, a positive correlation coefficient indicates a positive linear relationship. In this case, this result indicated that the developments in the datasets are similar. The probability in which this relationship exists is indicated by the size of the number. Results of 1 or -1 express the most certainty. Therefore, I expected correlation coefficients above 0 and, at best, close to 1 for my calculations, which would indicate a positive correlation between ESG-performance and the financial performance of RI target companies.

Analysis

Based on those calculations, I contained a specific picture of the correlation between the ESG-performance and the financial performance of the GCX constituents. More than half of the companies showed signs of a positive correlation (52 %) between the two indicators, while 42 % did not show any sign of correlation. Only 6 % showed a negative correlation between their variables. Sonova Holding had the largest correlation coefficient (CC) with 0.8525 and SunPower exhibited the smallest with -0.8714. The average lies correlation indicating no relationship was 0.3628. Atlas Copco exhibited the median score with 0.4561, which is just inside the area of a positive correlation. (Appendix B)



Graph 1 Display of the correlation coefficients of the companies in sorted order

The datasets provided the following results: of the 33 companies examined only two, SunPower and Ricoh, exhibited a correlation coefficient equal or lower than -0.4 (Appendix C). SunPower, which exhibited a value of -0.8714, was by far the lowest correlation coefficient (r).

This value cannot be considered significant as it was coupled with a p value of 0.0022. Ricoh, with a cc of -0.4710, also does not qualify as significant as it has a p-value of 0.0892 (Appendix B).

A larger group of the companies analyzed showed no signs of a correlation whatsoever. 14 of the 33 constituents had an (this is where you could say 'r' value) between -0.4 and 0.4 and register therefore no sign of a relationship between their Thomson Reuters ESG-scores and their return index. Among them are, as already mentioned, the Pennon Group (*r* of 0.1202 and p-value of 0.6823), Aurubis (r of 0.2984 and p-value of 0.4023) and Renault (r of 0.3929 and p-value of 0.1474), as my three potential candidates I will use during the case study. As it can be seen in graph 1, only 4 of the 14 companies obtained a cc lower than 0, showing a strong tendency of 10 companies towards the positive side.

The remaining 17 companies displayed a cc larger than 0.4 and were therefore categorized as having a positive correlation. However, of the 17 totals, four companies had p-values above 0.05 and fell therefore in the category of not significant. Among them were Atlas Copco (r: 0.4561; p-value: 0.0758), Vestas Wind Systems (r: 0.4919; p-value: 0.0530) and Enagas (r: 0.5112; p-value: 0.0617), which displayed the with the lowest ccs of the companies that presented a positive relation. Finally, Ormat Technologies (r: 0.6840; p-value: 0.0614) also presented a positive but not significant connection between their financial and ESG-performance. The remaining 13 companies of the 17 totals with a r above 0.4 have a p-value smaller than 0.05 and are, therefore, considered significant. Nonetheless, the companies displayed a significant range in their cc with Dessault Systèmes (r: 0.5278; p-value: 0.0356) marking the lowest and Sonova Holding AG (r: 0.8525; p-value: 0) marking the highest value.

In conclusion, the correlation coefficients of my 33 datasets provided roughly what I expected; a mixed set of results with a tendency towards a positive relation. With 39 % of the companies categorized as showing a positive and significant relation between their ESG-score and their return index and 82 % obtaining a r above 0, it is safe to say that there seems to be a positive correlation between the ESG-score and the return index of the GCX constituents, on which data was available. But along with this picture it has to be mentioned, that as only 15 to 61 % of the observed companies did not show enough evidence for this statement, I can only describe these results as a tendency.

Results and Takeaways

Within this section I want to build upon the results presented in the previous section. First and foremost, I do not find that the results of the correlation analysis proved that responsible investors have an influence over the companies observed in the way that I initially expected.

The variables of the ESG-score and return index are too complex and the correlation between them is not strong enough to say with confidence that this definitely has to do with RIs.

Nonetheless, I want to share some observations that I noted from my results, which might help to develop a deeper understanding of the relationship between ESG-score and the return of a company. During my research I looked into some of my general assumptions, which arose from my research. These assumptions were based on the idea that a company's sector, geographical location as well as level in which a company has embed itself in a society can all play a significant role in this relationship. However, before I provide my takeaways, I want to note that all the examples I will use are based on small sample sizes and can, therefore, not be directly translated into evidence. Nonetheless, these sample could indicate a case for further investigation.

The assumption, that the sector is a structural decisive factor of the correlation, is one I cannot back with my analysis. I build sub-categories based on the industries of the companies and searched for significant similarities. The categories I constructed were "assumed sustainable" (containing of: renewable energies, sustainable transportation; population of 5), "assumed unsustainable" (automobile, oil & gas; 3), IT (IT, services & IT services; 5), construction (constructions, construction materials, furniture & fittings; 4), metal and products (automobile, machinery, metals & mining; 4), mobility (automobile, transport & logistics, sustainable transport; 4) and "consumer orientated" (insurance, household & personal products, retail, media, utilities; 7). None of the 7 categories presented any pattern among the companies included and, therefore, I could not draw a coherent picture. Not even the "assumed" categories showed a strict positive or negative relationship. Therefore, no sector or industry seems to have a noticeable significance within its correlation of the ESG- and financial performance.

My other basic assumption, that the location or the societal background plays a significant role, does not hold up either. The companies I analyzed were headquartered in Asia, Europe and Northern America—none of which showed any significant variation in their rs. None of the three Asian companies (all Japanese) companies fell into the same category. 9 of the 22 companies in Europe all fell into the category of positive significance, which somewhat confirmed the ratios of the overall situation. If anything, with 5 of the 8 companies in Northern America falling into the positive and significant category, this could be seen as a confirmation of the above stated more established US RI market. However, I do not want to jump to conclusions, because 8 is too small of a population to make such a general statement.

Another set of my assumptions was that long established members of the GCX would exhibit a significantly high rs, because they are seen as established RI assets in the market. I also

expected similar results would be exhibited for relatively young members, as they would show a significant high percentage of high rs because of their prime position among responsible investors. After investigating both, companies that have been on the GCX for longer than 10 years and shorter than 5 years, I can say that neither of the two assumptions were proven correct. 44 % (4 of 9) of the new members fall into the positive and significant category, while 39% (7 of 18) of the long-term constituents fall in this category.

In the end I found that on the basis of my calculations the positive relationship between ESG- and financial performance cannot be assigned to a specific industry, location or duration of high ESG-performance. The only two takeaways were, a general overall positive connection between the two variables that I analyzed and a clear understanding of which company I would use in my case study.

Phase B: Case Study

In my case study I have attempted to unveil whether proof can be found that responsible investors influence companies towards achieving a more sustainable performance which would, in turn, contribute to the SDGs. This often-mentioned assumed chain of effects can be seen visualized in figure 1. Since I cannot take any interesting observations from the correlation analysis this remains the only main objective of the case study. Henkel[6], the company I chose to analyze as my case study, is representative of a rather traditionally debated sector. Household and personal products can contain harmful substances to the consumer and the environment. Additionally, issues of animal testing, toxic waste and the amount of plastic waste that a company produces are all issues that come to mind when one thinks about a given sector with regard to its level of sustainability. Henkel tried to avoid these images early, by starting as one of the first German companies to report on their sustainability topics (Henkel 1993, p. 3) in 1992. The results from the correlation analysis and those first impressions about Henkel and the household and personal products sector set a certain expectation timeframe, which I want to disclose here. The calculations have shown that the RI market cannot easily be described by some assumptions and seems to be rather complex. I do expect to confirm that impression throughout the case study. Furthermore, I expect Henkel to present variety of data on its level of sustainability in their official documents as they seem to be aware of and transparent in terms of their situation. That being said, I will now describe how I designed my case study setup.

[6] Founded in 1876, Henkel AG & Co. KGaA is a household and personal products manufacturer based in Düsseldorf, Germany. As one of Germanys biggest companies, it is listed in the DAX 30.

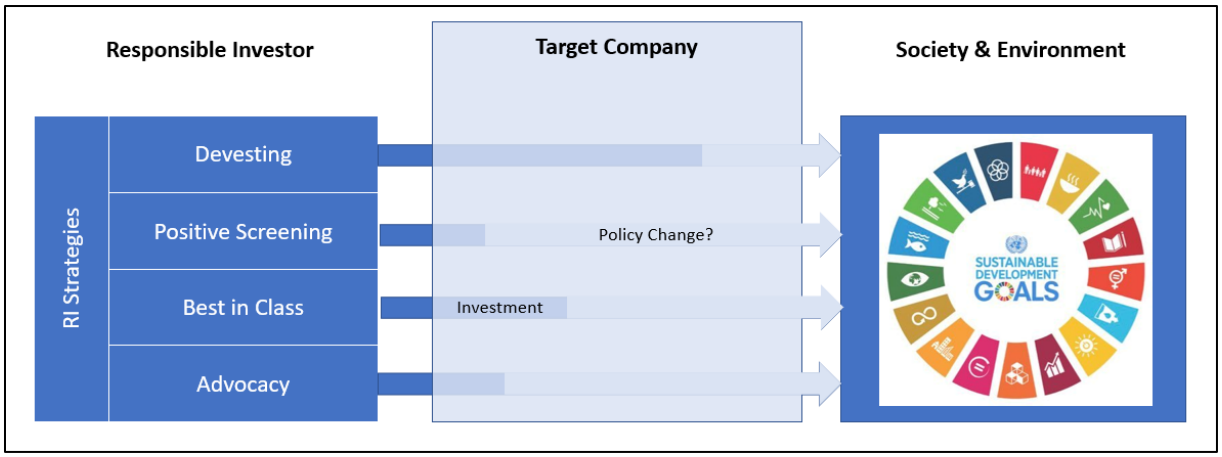


Figure 1 Visualization of the chain of effects from responsible investors towards sustainable development in society and environment

General Setup and Explanations (Blueprint)

While I want to reveal the influence of responsible investments on the sustainable development through my case study, it is also my goal to do this within a reconstruct able and adaptable fashion. As mentioned multiple times that it is my goal to open RI to a transdisciplinary analysis. I hope to provide a blueprint, which can later be adapted to other companies or expanded through different approaches and disciplinary angles.

That being said, I divided the chain of effects depicted in figure 1 into three analytical steps in order to more thoroughly observe it. These steps are the three points of observation of the effect chain: The investor action, the company (re)action and the societal impact.

The investor action sphere concerns the activity of the responsible investors. In this step I investigate the investment market with regard to the specific case Henkel. It still is the case that specific investments are rarely disclosed, which makes this a challenging step to analyze. I will split this step into four parts, one for each RI strategy I presented. As already mentioned, each of them obtains a specific investment logic, which makes it necessary to search the market with specific angles and approaches for each of the strategies.

The second step concerns the sphere of company (re)action. Here I will observe Henkel's firm history with a specific focus on changes of its sustainability policies and -performance. The underlying assumption here is, that RIs might have triggered such events. After my screening of Henkel's history the step also includes a search for alternative explanations for the findings. I will then compare the found policy changes and points of noticeable sustainability performance with the moments of suspected RI from the first step, to come up with a list of cases where RIs apparently or surely where responsible for Henkel's sustainability picture. It goes without saying that the RI cannot happen after the observed company action, as the support or strengthening of sustainability topics is not part of my research framework. But I will

be flexible towards the timeframe from the RI to the policy change, as internal company changes may take time.

Finally, I will then investigate how those instances pay in to the sustainable development goals. Again, I am aware that the SDGs have only existed since 2015 and that the development of its indicators is still not complete. As a result, I only have an observation period of 2 years with the SDGs in force. This is not only too short for measuring the impact of RI, since I do not suspect to find cases in those two years, but also does not really matter for the analysis of RI. The underlying objectives of the SDGs are not new and should have been at the core of RI since the beginning of its existence. Nonetheless, I will include this aspect into my consideration and will take a closer look at whether structural changes in RI are observable after 2015. In order to establish a standard measurement, I will use the business indicators from the SDG-compass (Website SDG Compass 2018). I am aware that this tool was set up and is mainly used by UN bodies as well as other advocates of CSR and RI. As the tool is open for anyone to add indicators, there are many critical ones from NGO based principles or agreements (ibid.). In the Section "SDG pay- in" I will further elaborate on how the indicator landscape drawn from SDG-compass looks like. For now, I will say that I will check to see whether any of the cases where RI and company action fell together where as a result of any of 614 different indicators. And if this is not the case I will check whether this is due to inconsistent implementation, different objectives over time or missing indicators.

By the end of step three I hope to have a list of cases, where an RI caused an effect at the target company which then resulted in a SDG pay-in. I define such instances as "success". Cases where I can only find parts of the assumed chain of effects, I define as "failure". A summary of my research setup or analysis blueprint is visualized in figure 2.

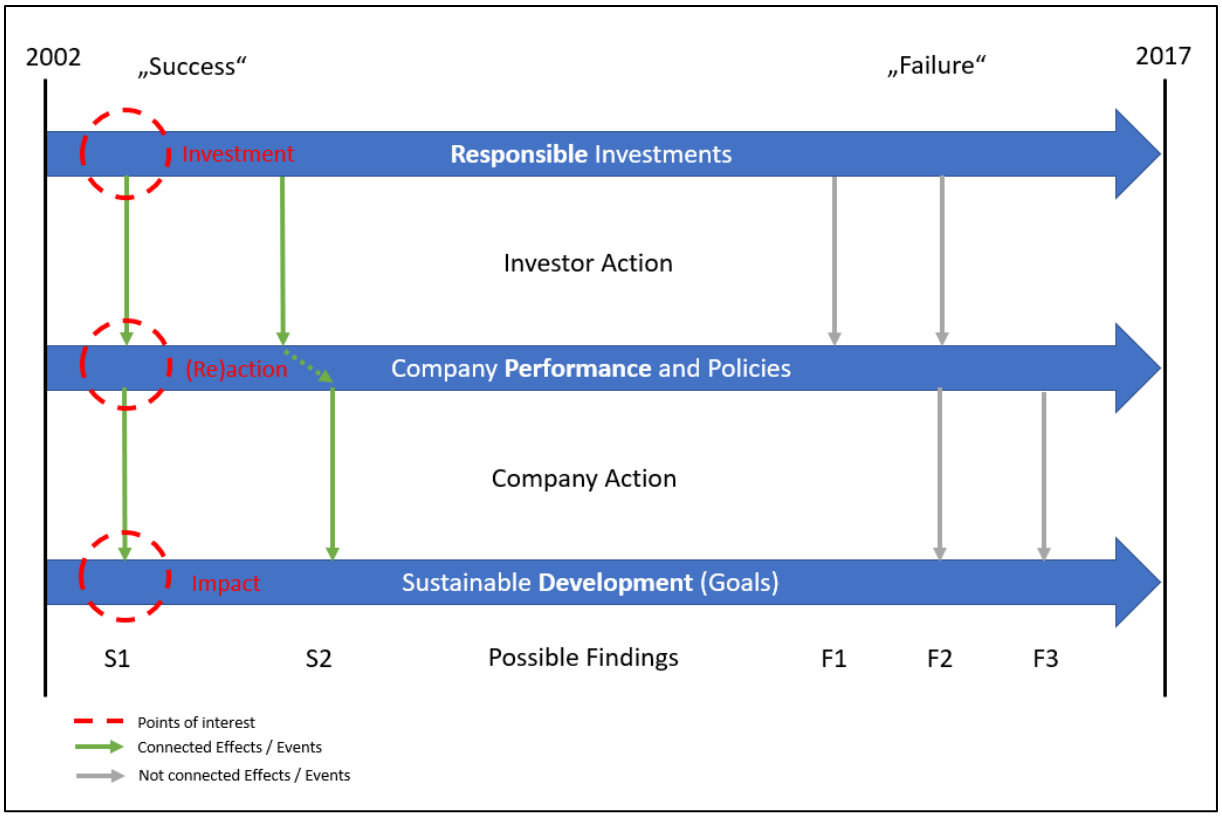


Figure 2 Overview of the analytical blueprint

While the terms may suggest a temporal following of my research phases, this is not necessarily the case. The research on my different points of interest where not conducted in this order. First, I analyzed the SDG business indicators to get an impression of the possible variation in SDG pay-ins. This was part of my preparation for the case study. The preparation for the above described framework is necessary, since I described it as a general blueprint. Yet, the stakes and approaches to sustainability differ depending on the industry (Herz & Rogers, 2016, p. 35). This makes it necessary to first conduct a thorough research on the sector with its processes, neighboring industries, potential risks as well as its goalsetting framework, which in this case is the amount of SDG business indicators applicable for the companies practice. Here it is visible to what extent my definition of the SDGs as target, as sustainable sevelopment, simplifies my research. I cannot discuss at this point which specific goals every industry or every company should attempt to achieve in order to obtain a certain subjective, maybe even utopian, world. But I see a possibility for adaption of my framework or further research towards specific goals. This approach can also be used to test the impact of RI towards other goals or specific topics.

Company Selection

As mentioned above, one purpose of phase A of my research was to identify my case study target. Before I implemented my calculations, I already set a couple of bottom lines. The

company analyzed in the phase B should come from Europe, preferably from Germany or Austria.

It should furthermore come from a sustainability-wise controversial sector, since there is the highest chance for publicly visible change. A renewable energy company has key sustainability elements in the core of their business case. I do not argue that those companies cannot improve their sustainability performance. However, they are far less under public observation. It could furthermore be argued that the potential for a positive impact on the environment and society through policy changes could be bigger on rather controversial or even destructive business models, since they produce some of the problems, which they could work directly on. At this point I do not want to discuss whether responsible investments should support sustainable companies or if they should reward others for the slight improvement in their unsustainable models. In reality, I believe that unsustainable business models will continue to exist throughout 2030. As a result, I chose to observe the rather unsustainable case, due to a suspected better data availability. In addition, I expected unsustainable companies could have fast, measurable impacts as a direct result of policy changes.

My pre-selection included the Pennon Group (utilities), Renault (automobile) and Boiron (pharma), due to their specifically controversial business sectors. For their geographic location in Germany or Austria I included Aurubis (metals & mining), Hannover Rück (Insurance), Henkel (household & personal products), Lenzig (Textiles), Nordex (renewable energy) and Vossloh (sustainable transport). Of these geographically selected companies I considered Aurubis, Henkel and Lenzig to work in controversial sectors. After the data collection I sadly had to cut Lenzig, Nordex, Vossloh and Boiron, since Thomson Reuters did not provide ESG-data for them. From the remaining set of five (Aurubis, Hannover Rück, Henkel, Renault, Pennon Group) I decided to go with Henkel. Henkel comes not only from a controversial sector with much consumer observation, but also from Germany. Its correlation coefficient (0.5711) was high enough and its p-value (0.0208) low enough to be considered to have a positive and significant relationship between the ESG performance and the return index (APPENDIX B), while outscoring Aurubis, Renault and the Pennon Group, which all did not show a sign of relationship between the two numbers (APPENDIX B). Hannover Rück's correlation coefficient was even higher (0.7141) while the p-value was similar (0.0061) (APPENDIX B). However, these numbers should be observed while keeping in mind the fact that the insurance sector is under far less public pressure then the household and personal products sector. This is true because often chemicals used in the products production can have harmful side effects.

Company and Sector Predispositions

For each industry company sustainability means something different. Not only because of individual perceptions, but also because the companies and sectors affect their surrounding

societies and environment in unique ways. On top of a general bottom line of respect for human rights, strengthening of diversity and respecting the environment; the key issues are defined individually for each industry and are dependent on the market and production situation of each company. In simple terms: a good sustainability performance for a car company means something different than for ICT companies. They might share some issues, such as energy efficiency, contested resources and diversity in the workforce; but the key issues differ, as automobile producers will focus on fuel efficiency or even e-mobility and IT companies have to prominently think about privacy rights. In addition, companies are dependent on the set of products or services they provide, the countries in which they operate, their own relative size, competition from other companies within an industry, as well as changed in sustainable priorities. Therefore, it is important before talking about sustainability in a business context, to make yourself aware of what it truly means. This is what I want to describe in the following seconds. First in terms of household- and personal products sector, and then for Henkel as my case study.

The size of the household- and personal products sector might not be present for everyone right away. Yet, products of this sector can be found in the lion's share of each household in the world, with the number steadily increasing as the demand in China, India and Brazil steadily rises (Sustainability Consortium Website 2018). Cleaning products for the house and laundry as well as household products (such as batteries) and personal products (including any sort of cosmetics) includes a wide range of products that most individuals purchase on a regular basis. Market actors are the manufacturers of these goods, who usually sell their products to any sort of consumer selling actor such as supermarkets, drug-stores or e-commerce retailers (SASB 2015, p. 1). The market is dominated by competition in terms of brand awareness, product quality, performance, pricing and packaging (ibid.) The sector is relatively stable and immune to crisis, because most parts of the world consider such daily hygiene and regular cleaning products to be a necessity. The products of the sector contain a multitude of different ingredients. Natural resources such as palm oil and wooden fiber (SASB 2015, p.17) as well as more unnatural chemicals are important for production. The sector is therefore dependent on the resources from the agriculture and chemical companies, making them part of their supply chain and therefore their sphere of responsibility.

The household and personal products sector is aware, that sustainability is and will continue to be a growing area of interest for consumers. As a result, major companies from the field have founded the Beauty and Personal Care (BPC) sustainability project. Many companies including Henkel are part of this initiative, which claims to try to provide more sustainable products to the consumers (Forum for the Future Website 2018). The Sustainability Accounting Standards Board identified following issues as the key sustainability topics of the industry:

energy management, water management, packaging lifecycle management, product performance (environmental, health and safety) and environmental & social Impacts of the Supply Chain (SASB 2015, p. 2). I would generally recommend doing a thorough materiality analysis for the sector or even the company, if the resources allow it. This would ensure a more reliable basis of issues, as the positions of multiple stakeholders would be captured. But I cannot deliver this within my thesis. Therefore, I will use these five issues as topics of orientation for my case study. I am aware that the Sustainability Accounting Standards Board is an entity close to the economy and especially investors, with the interest of simplifying RI and therefore to quantify possibly complex issues. This is why I will not fully incorporate these topics in my case study. Rather I will develop my issue areas throughout my Henkel analysis and research.

The takeaways from the household and personal products industry address almost the entire market segment of Henkel. Internally, Henkel has split its company in three areas: laundry & home care, beauty care and adhesive technologies (Henkel A 2018, p. 5). While the first two areas are fully covered by the core of the industry, the adhesives section has a slightly different take. Generally, the same key issues apply as they do for the other two areas. However, because adhesives usually do not come into contact with the human skin and the majority of sales are business to business sales industrial adhesive materials, they are generally less often under public pressure and lower in the internal priority order. I do not think that the adhesive section is less relevant to the environment. But structurally, since the pressure usually comes through the public and the business to business connections tend to provide bigger blind spots than business to consumer, I expect to see less sustainability efforts by Henkel towards this area as for the other two areas.

Henkel is the 5th biggest household & personal care public company in the world according to the latest Forbes 2000 Ranking (Forbes Website, 2018). With rank no. 293 it is the smallest of the five companies from the sector among the 500 biggest companies in the world. Proctor & Gamble (No. 55), Unilever (No. 103), L'Oréal Group (No. 207) and Reckitt Benckiser Group (No. 282) are ahead of Henkel (ibid.). Nonetheless, the observed company and DAX constituent can be considered as one of the big players of the industry. Henkel has more than 53,000 employees (Henkel A 2018, p. 5) in 188 production sites across all continents (Henkel B 2018, p. 38), buying from suppliers from 110 countries (Henkel A 2018, p. 7). It can therefore be considered a big multinational company. In terms of sustainability consideration, this means that probably all possible risks of the industry as well as multinational companies can be applied to Henkel.

Yet, Henkel seems to be aware of this fact and was even one of the first German companies to report on their sustainability issues. Their first Sustainability Report was published in 1992. This was five years before the Frankfurt Hohenheimer Leitfaden started to define a baseline for other German companies to orientate themselves to (Döpfner & Hoffmann 2009, p. 8). Throughout my research it became apparent that sustainability for Henkel has always been an important topic, as the company claims that it is "aiming at a long-term increase in shareholder value, has always been a part of Henkel's identity" (Henkel 2005, p.3). I will go more into detail about performance indicators and numbers as well as policies of Henkel throughout the observation period. The important key indicators can be found summed up in Appendix D. For now, it is important to know, that sustainability, and especially environment, as Henkel's first sustainability reports were called environment reports (Umweltbericht), has been on the agenda for the company before RI arrived in Germany. Therefore, RI did no to deliver the reason or the first push for Henkel to engage in sustainability issues.

Investor Action

In the following sections I will investigate whether the four major responsible investing strategies devesting, (positive) screening, BiC and advocacy can be observed as having an effect on Henkel since 2002. For this enterprise I have to follow the specific investment logic, which is why the observations from different datasets and sources have been investigated using various methods. In the beginning of every one of the next four sections I will provide a short summary of the investment logic and present my observational approach. This will be followed by a description of the observation timespan from 2002 to 2017 through the investment logic specific lens. I will then flag specific points in time of particularly interest, in which proof, suspicion or notable indications of responsible investments towards Henkel could have happened. , I will try to pre-organize my view on the CSR policy changes of Henkel, which I will conduct in the section Company Action.

Strategy A: Devesting

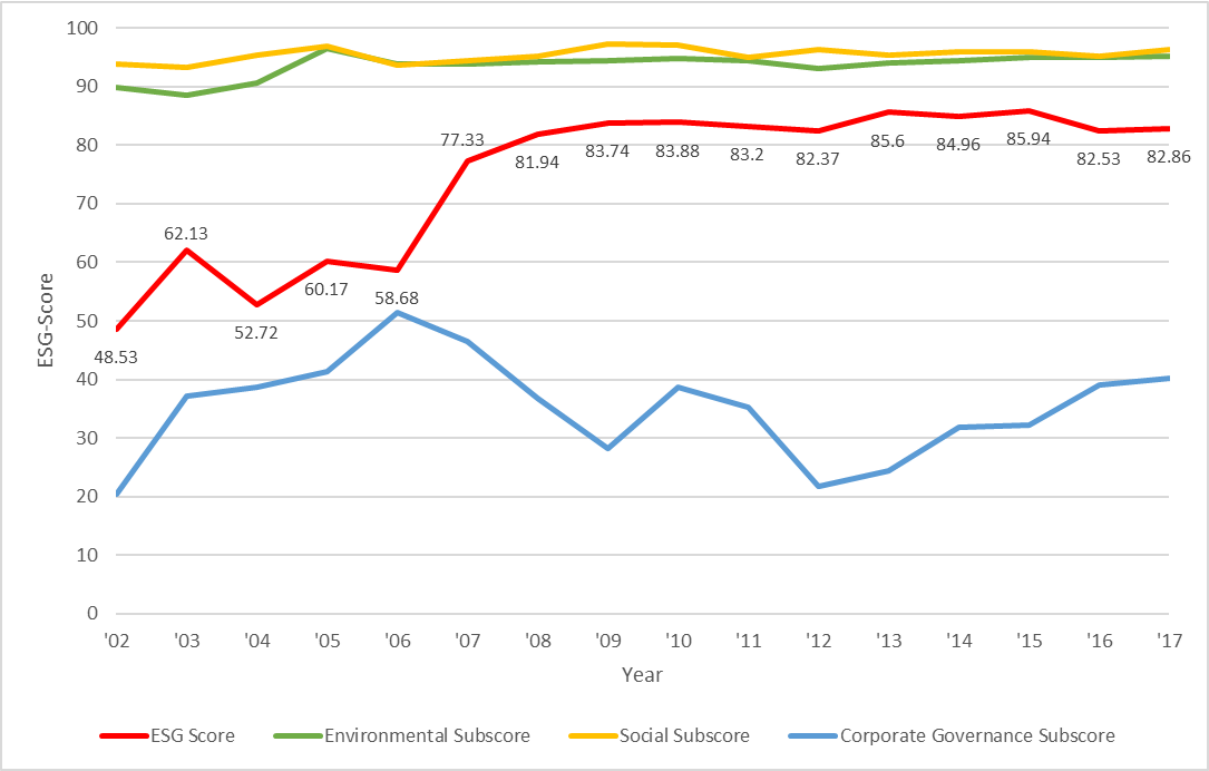
Devesting, the antiquated punishment approach, is still very popular among responsible investors. But, as already mentioned, the logic of not investing based on one's ethics has been extended beyond the sin industries towards any form of company action, which an investor does not support. Therefore, I will approach my analysis of divesting by finding points of criticism in Henkel's policies and actions as well as points in time, where the issue might have been extraordinarily relevant.

For this I will conduct a thorough research of criticism and sustainability scandals surrounding Henkel. I will also seek to find potential indicators of such actions, which include delisting from sustainability indices or rankings as well as bad sustainability grades. NGO claims, newspaper articles, as well as press releases from public officials or Henkel themselves will play an

important role in this process. While I will conduct a general research throughout the whole timespan, I will take a closer look during points in time where Henkel's return index displayed a steep fall in value, there was a significant downgrade in the ESG-score or mergers and acquisitions involving the Henkel took place. A big return decrease, usually does not occur without public notice or effect. I will check whether they originate from economic performance or some sort of public scandal. A downgrade of the ESG-score can also be an indicator of policy changes, which might be known to informed responsible investors and which goes against their position. Finally, I will also bring acquisitions or mergers timelines of companies into my analysis. This might also include scandals, unethical actions or mismanagement. This makes an acquisition or merger to a point of specific interest, which needs a detailed look into the recent history of the other company as well as the ESG-performance after the merger.

In the beginning of my analysis of every RI strategy analysis, I will draw information from the data used in or acquired for phase A specifically useful to the particular strategy logic. As stated above, the data was collected from the Thomson Reuters database, called datastream. I did not necessarily use all the data presented in this section in my correlation analysis, but they were all in consideration. In general, in understanding the strategy of devesting all information related to ESG-performance decreases or indications of scandals can be useful.

The first logical step is therefore to check the ESG-score over the observation period and whether certain years see a significant decrease in its rating. For this, I showed the ASSET4 ESG-score in



Graph 2 Henkels ASSET4 ESG-Score and ist E, S and G Subscores from 2002 to 2007

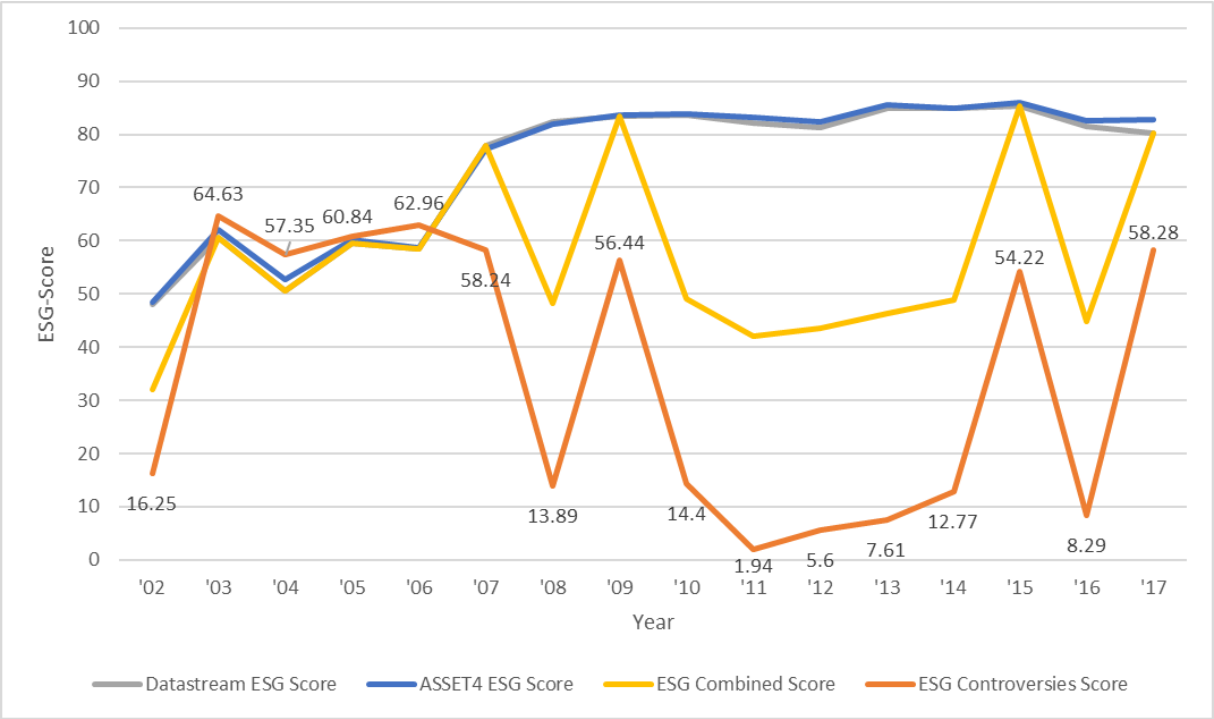
graph 2. As already mentioned, the ASSET4 ESG-score is not the one I used in my correlation analysis. Nonetheless, I chose to present the score here because (1) the score does not differ much from the datastream ESG-score used in the calculations (which can be seen in graph 3) and (2) the ASSET4 dataset datastream provided the sub scores as well (also depicted in graph 3). Looking at the overall ESG-score (red), only 2004 stands out as a year with significant decrease of 9.41 from 62.13 to 52.72. The years 2011, 2012, 2014 and 2016 also record decreases, but not in a manner that could be a reason for divestments.

I want to show two more things from this graph. First, Henkel seems to have an excellent sustainability profile when it comes to social and environmental issues, as they almost exclusively score above 90 throughout the whole observation period. The sub scores do suggest that the majority of downgrades happened due to governance issues, especially in the years 2009 and 2012. I will look for changes in the governance structure in these years. The second thing is that I want to show why I did not choose the ASSET4 score. Since the three sub scores are supposed to produce the overall score and the movements in the corporate governance score cannot be seen in the overall score, I was not confident to use this score, without a methodological explanation. During my research I was unable to find such an explanation. Nonetheless, I do not think that it is harmful if I use these numbers in order to indicate possible points of interest. If no significant changes occurred in 2009 and 2012, it will

not interfere with my result. On the other hand, if using this data is able to indicate points of interest to me, then that is even better.

The even more relevant indicator for the devesting strategy is the controversies score. This score tracks the amount of scandals or controversies that affect a company within a given time frame in order to compare those experiences to that of other companies and controversies in the same sector (Thomson Reuters 2018, p. 14). Cases of controversies downgrade the score and as soon as the score is below 50, it has an impact on the combined score. Both of these indicators and the relationship between themselves can be seen in graph 3. The controversies score counts all the controversies of a companies within the last X years while prioritizing the most recent ones (ibid.). Henkel's controversies score has its highest rating in 2003 with 64.63. A score above 50 generally means that the company was not part of major controversies. Controversies within a sector can influence the score of every company within a given sector. Scores between 100 and 50 indicate how many controversies happened in the industry with a higher number indicating fewer scandals (ibid.). Henkel seems to have been an epicenter for controversies and have, in fact, scored not even lower than 50 but lower than 20, eight out of 16 years that it has been scored. The years 2002, 2008, 2010 to 2014 and 2016 all resulted in very low scores with an extreme score in 2011 of 1.94. Especially in the years 2010-2014 there seemed to have been controversies or scandals within Henkel that were significant. I note these years as reference points for further research. Interestingly, the year 2009, which I noted as low, scoring corporate governance score year, did not result in a bad controversial score performance (56.44). I would, therefore, either suggest that these scores did not have anything to do with each other or that the bad controversy score in 2008 would have something to do with it.

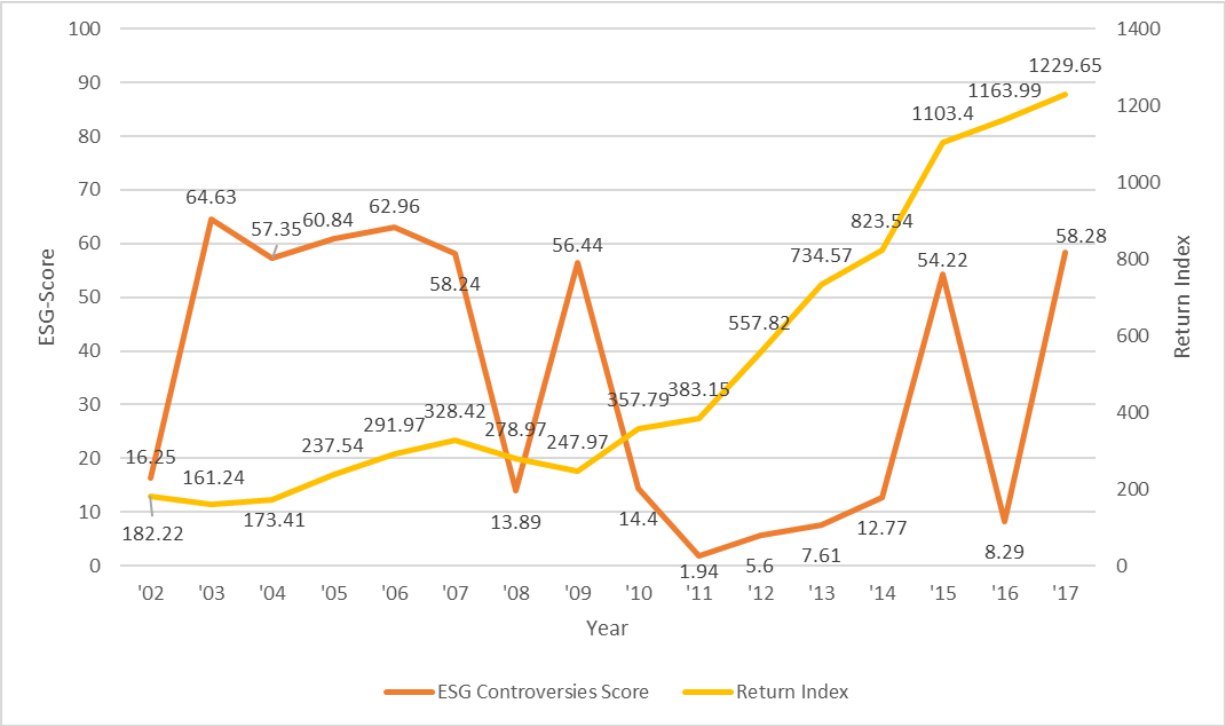
While datastream does not specifically mention what the controversies are, they provide a categorization of them, which can be seen in Appendix E. Based on this dataset, 14 cases of controversies from five different types occurred at Henkel within the observation period: 7 cases of anti-competition controversies (2008, 2011, 2012, 2014, 2016), 2 cases of employee health & safety controversy (2013), one case of insider dealings (2002), one case of intellectual property controversy (2010) and three cases of product responsibility / responsible marketing controversy (2010 - 2012). After thorough research, I was not able to find all the events leading up to the numbers, but I will nonetheless take them into consideration, as the might have influenced single big responsible investors.



Graph 3 Thomson Reuters ESG Controversies Score and its impact on the Combined Score for the case of Henkel from 2001 to 2017

Of course, financial data could also be an indicator for devesting. If indeed a scandal was strong enough to convince a big part of the shareholders, that it is a good idea to devest from a company, this could be seen in a steep decrease of value. For a check in that regard, I again used datastream data from my correlation analysis. In graph 4 one can see the development of Henkel's yearly return index and the controversies score. The return index did only drop in 2008 and 2009 compared to the previous year. Other than that, past 2011 it records yearly steep increases from 383.15 in 2011 to 1229.65 in 2017. As the chain of most recent financial crises started in September 2007 with the US-subprime crisis, the global economic structure seems to be responsible for the decrease of the return index of Henkel in both following years (Welt website2009) rather than the negative controversies score in 2008.

In addition to the datastream data, I conducted further research, to draw a better picture of Henkel's sustainability rankings, in order to get a more diverse and established roadmap to potential reasons of devesting. Unfortunately, I again faced the problem, that many rankings and scores were not easy to access. One exception was the Carbon Disclosure Project (CDP), a NGO with the goal to publish any information on environmental misconduct. Part of their work is to grade companies in regard to climate related issues. Here I obtained data for Henkel from 2010 to 2017 for questions regarding climate change and from 2016 to 2017 for questions regarding water and forests (Website CDP 2018).



Graph 4 Comparison of Return Index and ESG Controversial Score of Henkel from 2002 to 2017

For the climate change issue Henkel scored a B (school grading system) for every year besides 2011 and 2012, where they scored a C. The published disclosure grades, were at least from 69 to 100, giving the numbers a degree of leverage. In the forests section Henkel scored a C for timber in both years and for palm oil in 2016. The water related answers were graded with B (Appendix D). I should note, that in 2011 and 2012 the climate change grades were only at C and also that Henkel does not seem to perform in the timber related questionnaire. But none of this data gives a hint towards a scandal big enough to trigger divestments.

With this baseline of indications, I started to investigate specific scandals regarding Henkel through sources other than the company itself. From that research, in which I prioritized the eight years with low controversies scores, two topics arose. First, Henkel was involved in multiple cases of illegal price fixings. In 2011 three cases of price fixing with Henkel's involvement surfaced. The most prominent one concerned an oligopoly between Henkel, Proctor & Gamble and Unilever from 1997 to 2004 in which Henkel was fined with 92 million Euros (Süddeutsche Website 2011). A couple of months before the scandal surfaced, Henkel fixed priced of dishwashing tabs with its competitor Reckitt Benckiser (RP online 2011). In both cases Henkel cooperated with public officials during the investigation resulting in a more lenient fine in the first instance and just a "slap on the wrist" in the second. In the same year Henkel was identified as being part of a bigger group of consumer goods manufacturers who exchanged competition relevant information (Bundeskartellamt 2011). But Henkel was not fined further, since it had already been fined and sentence in their role during a price fixing

case with Unilever concerning drugstore products (Bundeskartellamt 2008). The total fine in this case for all companies involved was 38 million Euros.

The second topic in which Henkel's name was connected to, concerned consumer health. In 2011 Henkel was involved in the "Humidifier Sterilizer Scandal" in South Korea. More than 100 people died and many more suffered lung damages from a toxic humidifier sterilizer which was sold in South Korea. At the time Henkel's competitor Oxy Reckitt Benckiser was the center of criticism, while Henkel was not even investigated. This is because the number of product they sold were not of significance. But by the end of 2016 South Korean lawmakers called for a probe to also investigate Henkel (Korea Times Website 2017). The scandal was and continues to be very visible in South Korea, as many people were impacted and many more have and continue to demonstrate for justice. This could influence local investors to not divest from the sector completely. The scandal could also be an explanation for the minimum score in 2011, as scandals within an industry also affect every company's controversies score.

During my second probe into the Henkel case study, I focused on the five sustainability issues identified by SASB. Through two of these indicators, product performance (environmental, health and safety) and environmental & social impacts of supply chains, I was able to find a wealth of criticism related to Henkel. Within the supply chain multiple sources criticized the use of palm oil by Henkel. Palm oil was target for criticism for a long time, specifically for its production of illegal deforestations and destruction of eco systems (Amnesty International 2016, p. 4). In a reaction to this, the Roundtable on Sustainable Palm Oil (RSPO) was founded in 2004, which was set up to target and prevent such occurrences (RSPO Website, 2018). In 2008, Henkel joined the project. Within its time in the RSPO it increased its score on the palm oil scorecard, which is published by the RSPO supporting NGO Word Wide Fund (WWF) (WWF 2017, p. 15 / WWF 2013, p. 17). While the RSPO is often referred to as a good example on an initiative supporting palm oil sustainability, it is not without criticism. One argument is its ineffectiveness with regard to the fact, that deforestation continues to happen even within the RSPO (Klima-Lügendetektor Website 2010) and that the RSPO's criteria is very week, especially with regard to human- and labor rights violations (Amnesty International 2016, p. 11).

Concerning product performance, recent press releases and studies by Greenpeace accused Henkel and other personal care product manufacturers of not fighting to prevent micro plastic pollution well enough, despite claiming to do so (Greenpeace Website 2016). Greenpeace specifically criticizes that Henkel and others claim to provide micro plastic-free products, but in reality, still sell products that contain liquid plastics. Liquid plastics are often included in the

category of micro plastics, because they are harmful to wildlife in the oceans (Greenpeace 2017, p. 6).

Within the observation period Henkel acquired multiple companies and brands from competitors of all its divisions. I conducted research on whether any of the major takeover targets were involved in any ESG-scandals, which might have an impact on Henkel. The research on the acquisition targets National Starch (2008), Schwarzkopf (2010), Cytec Industries adhesives division (2012), Spotless, Bergquist Company (both 2014) and the Sun Products Corporation (2016) did not raise any suspicions about scandals in these companies, which might motivate an investor to divest.

The above noted research steps were all conducted via Google and major NGO press releases (Greenpeace, WWF, Amnesty International). I conducted this rather light research, because I assumed that a scandal that would be big enough to motivate investors to withdraw their money would also be easy to find on publicly available sources.

In conclusion, the cases of price fixing seemed to be the most prominent scandals concerning Henkel and, therefore, the most probable reason for why individuals might of chose to divest from the company. I will investigate further to see if any policy changes within the corporate governance structure took place prior to 2011 and if indications point towards investors as a related, causal factor for this change. I will also take a closer look on initiatives or comments towards micro plastic after 2016, as the topic of plastic-free oceans was a prominent topic at this time. I do not expect to find divestments with regard to palm oil or the case of toxic sterilizers in South Korea. Even though palm oil might generally be an issue, that is being targeted by RI actors, I do not expect them to withdraw their money from Henkel within the observation period. The would probably not have invested in Henkel in the first place, as palm oil has been part of Henkel's production cycle the whole time. Nonetheless, I will keep my eyes open, if specific statements with regard to investors arise surrounding the time Henkel entered the RSPO in 2008. The case of toxic sterilizers seems to be loosely connected to Henkel and could also be a target of divestments for that reason. I will, furthermore, keep my eyes open and see if Henkel explains themselves in relation to the period of the negative controversy scores from 2010-2014 originated from.

Strategy B: Positive Screening

Positive screening describes the strategy of investing in companies, which perform good sustainability-wise in absolute terms. The goal of this investment strategy is only to invest in responsible or ethical companies. This means in financial terms a good ESG-performance. I will check whether I can find any trace of this investment strategy. First, because Henkel indeed

performs well in terms of ESG-scores and, second, in order to provide a complete overview of what analysis could take place.

The biggest amounts of capital within RI are being invested through positive screening. However, the problem with tracking them is, that investors can design positive screening individually. Part of the observation span includes 2007 to 2016 where there is a large increase in responsible investments (Eurosif, 2016, p. 13) This boom did not only originate from existing responsible investors but also from new ones. It is therefore hard to pinpoint positive screenings throughout the observation span to a specific point in time. I will nonetheless try to find evidence or indicators of RI through positive screening.

To do so I will first take a closer look at the years with the best ESG-performance of Henkel. I will do the same thing with the best sub-ESG-score performances, in case that an investor has a topic related investment policy. This could indicate a specific role that environmental performance could play, since green funds are rather common on the market in relation to social funds. I will also take a closer look at these points in time, because they seem to have the best conditions for a responsible investor who invests after a positive screening approach. I will do the same thing with other moments, which indicate a strong absolute ESG-performance by Henkel, such as the listing in sustainability indexes or a good ranking in overall sustainability rankings.

Another approach will be to check for evidence of known responsible investors, which utilized a positive screening strategy and invested in Henkel itself. To do this I will explore the shareholder structure of Henkel over the observation time as far back as possible and see whether investors with a positive screening background are among them. In addition, I will check for press releases of big known RI funds or investors that they included Henkel in their portfolio.

To begin with, according to both ESG-scores from datastream and ASSET4, Henkel has performed significantly better since 2007. From 2006 to 2007 the ESG-score jumped 18.65 points from 58.68 to 77.33 (Appendix D), indicating not only a much improved ESG-performance but also a recognition as absolute good score. After 2008 Henkel's ESG-score did not fall under 80, making it a generally well performing company in terms of ESG and structurally interesting for positive screening. The environmental and social sub scores from ASSET4 even indicate, that Henkel performed very well throughout the entire timeframe (graph 2), making it an interesting investment for funds specialized in related topics. Only the corporate governance sub score did not show a good performance with a maximum of 51.47 in 2006.

From a comparison with the financial performance in form of the return index no clear connection between investor interest and ESG-performance increase can be seen. It could nonetheless, be argued, that the relatively steep increase after the financial crises beginning in 2010 (graph 4), could also be rooted in a strong ESG-performance and the interest of responsible investors.

The Henkel family currently holds 61.02 % of Henkel's shares (Henkel Website 2018). The floating shares are mostly held by institutional investors from the US or the UK (29% & 23%) (ibid.). According to third sources the major shareholders besides the family are Norges Bank, the Vanguard Group, Fiduciary Management, Tweedy Browne, BlackRock and J.O. Hambro Capital Systems in that order with each above 1 million shares (Market-Screener Website 2018). Of these sic shareholders three can be identified as responsible investors. BlackRock and Vanguard, the two biggest investment actors in the world, each engage in RI as part of their investment strategies and with specific funds. I could not identify whether the shares in Henkel had a RI background. The Norges Bank, the Norwegian central Bank, also manages the government pension fund of Norway and only invests responsibly (Czuray, Gartner & Scholz 2016, p. 316). Luckily, the bank not only invests responsibly but also transparently. They provide data, showing that they held shares of Henkel throughout the whole observation period, beginning with a market value of 100.5 Million NOK and 0.173 % of the shares in 2002 (Norges Bank 2002, p.39) up to 8,094 million NOK and 1.77 % of the shares in 2017 (Norges Bank Website 2018). The data from Norges Bank also shows, that the company invested significantly into Henkel in 2008, rising from 649 million NOK and 0.509 % in 2007 (Norges Bank 2008, p. 3) to 1,020.7 million NOK and 1.18 % in 2008 (Norges Bank 2009, p. 18). Regardless of eventual changes in the number of shares and the value of it, Norges Bank must have been purchasing Henkel shares in 2008. Exactly the year in which the 2007 ESG-scores were published including an almost 20-point jump.

Another possibility through which RI engagement could be seen, and where positive screening would be the most probable explanations would be capital increases of Henkel within the observation period, accompanied by buy ins of responsible investors. Therefore, I obtained the number of shares of Henkel from datastream. As shown in Appendix D, the number of shares does stay the same with the exception of 2007. In this year the number of shares rises from 86.6 million to 259.8 million. (Appendix D). What looks like a massive capital increase by Henkel was in fact a share split in the relation 1:3 (Westdeutsche Zeitung Website 2007). Since the stock of Henkel was performing so well, they decided to split the existing shares. Thus, no new shares have been created throughout the observation period.

As a takeaway from positive screening I will take the investment activity of Norges Bank in 2008 as proof of RI activity towards Henkel into my analysis of the company's action.

Strategy C: Best-in-Class

The vicinity of the "Best-in -Class" approach to positive screening continues through its logic to the analysis of possible investment decisions and its analysis. As already mentioned, the BiC-strategy is a specific type of positive screening. In the BiC approach it is not necessarily the absolute ESG-performance which is relevant but rather the relative ESG-performance to a peer group, which is usually the industry. Through this strategy not only are the overall best practice cases being targeted but also the best practice examples within a sector. This could lead to a different set of targets, especially in contested industries. Therefore, the question of whether investments in the investigated company are even considered through this approach is more likely to be affirmed.

Within this strategy the analysis approach will also be constructed out of the perception of Henkel's performance. In this case, I will not refer to the absolute ESG-performance. The number one indicator for possible BiC investments will be a top ranking in sector rankings for the award of being a best practice example of an industry. After identifying such mentions, I will once again take a look at the shareholder structure towards responsible investors. Through this observation I expect to be able to better understand who publicly invests according to the BiC strategy. Then, I will check for the biggest BiC investors and funds and see if they mention Henkel as an investment target.

Henkel had sustainability on its agenda for a long time. But the question for BiC focused responsible investors is; are they delivering better in their ESG-spectrum compared to other companies from the industry? This logic is widely spread across the RI market, which is why plenty of sector rankings and awards exist. Also, sustainability indices, list only the best practice cases from specific industries. Therefore, it is important to have a look on how Henkel was treated by rankings, awards and indices. Henkel was described as a business leader, or as part of a leader group, from more than 30 different indices, ranking or award providers throughout the observation period, as one can read in their Sustainability reports throughout the time (Henkel SR 2002-2017). While I did not use data provided by Henkel in the previous strategies, it makes sense in this case, as a best in class mentioning of any kind is worth mentioning for Henkel, as it leverages their sustainability performance and might attract investors. I ensured not to analyze biased information by conducting further research on whether other important ratings exist and by checking, where possible, with the website of the external assessment provider.

From the over 30 providers, I decided to include 11 in my research (Appendix F). Because, the other providers where either singularly conducted and had a limited reach or ended within the observation period. That the market of sustainability ratings and indices developed can also be seen among the 11 included providers, as six of them did not exist in 2002 and one of them (ECPI) changed their set up. While the focus and the nature of the six indices and five ratings or rankings included are different, their main objective is that they certified Henkel a leadership sector among a peer group.

The analysis of external assessments shows, that Henkel was part of the "best in class" throughout the observation period. The changes in the total number of assessments listing Henkel are with exception of 2012, 2015 and 2017 explained by the amount of available assessments on the market. In the three cases, where Henkel was not listed among the assessments (Vigeo World Index 2012, Dow Jones Sustainability Index 2015, Forbes World's most ethical companies 2017), no explanations for the exclusion was provided from the side of the assessor. Notable is, that Henkel was part of the leading group in the Dow Jones Sustainability Index from 2007 to 2013, meaning that they belonged to the most sustainable companies globally. Nonetheless, the drop to not being listed in 2015 is without explanation. I will have a closer look on the issue in the "Company Action" segment.

I did not conduct further research on scandals of competitors of Henkel, as the company had been on top of the class from the beginning (sam 2009, p. 75). With the biggest growth in the return index happening from 2010 to 2015, the BiC approach does not deliver a clear explanation for this development anyways. It could be argued, that the increased amount of external assessments, with three of the 11 starting in 2012, can be seen as a sign of increased interest in the approach, therefore explaining why Henkel's share performed as good throughout the years. With the addition of Henkel to the Vigeo World Index in 2013 and a step up in the Sustainalytcs rating from number 2 to number 1, this ear could also be seen as one, in which BiC investments could have flown into the direction of Henkel. But in the same time the downgrade from a leading company to a delisted one in the Dow Jones Sustainability Index, which belongs to the most influential ones in the world, falls with 2013-2015 also exactly into that period. In the meantime, the number of shares of Henkel did not change (Appendix D).

I see no clear evidence for RIs through the Best-in-Class approach from my analysis. I will nonetheless take the period of 2014 as potentially suspicious year into the company action observation, as it is within the downgrade period of the Dow Jones Index.

Strategy D: Advocacy

Advocacy is significantly different in its investment logic. Responsible investors, which are using this strategy buy shares of a company to actively push towards sustainable policy changes. To investigate this strategy, I will not take a look at the economic or sustainable performance scores, as it was the case in the previous observations. The observation must instead take place on a qualitative level.

I will observe reports and protocols of annual general meetings as well as other shareholder meetings or communication concepts for signs of investors pushing towards a specific sustainability agenda or single sustainability topics. For this I will consult Henkel's annual reports, NGOs and press releases from the largest shareholders. Another topic of interest will be dramatic policy changes or public brainstorming projects of Henkel. By observing these changes, I will be able to better understand if and how they can be connected to responsible investors. The only tool that I use from earlier findings will be to include an observation of the shareholder structure. Through this observation I will be able to check whether there are shareholders that invest in Henkel that are known activist shareholders with a specific sustainability agenda.

On its website Henkel provides relevant documents regarding its annual general meetings from 2008 to 2018 (Website Henkel 2018). Unfortunately, documents from 2002 to 2007 were not available. Throughout the period from 2008 to 2017 only in four years counter motions were raised from shareholders. In all cases (2008, 2009, 2011, 2013) the motions were not sustainability related (ibid.). All the motions were made from an individual, who is known for raising rather irrelevant issues, in which the ones at Henkel's general assembly were no exception (Welt website 2017). Therefore, no responsible investor approached Henkel through a motion at their annual general assembly in the time from 2008 to 2017.

There was also no sign of evidence that advocacy would have happened through the shareholders' votes over that time span. The majority of decisions were backed by the shareholders with over 99 % of the votes (Website Henkel 2018). Exceptions from that were votes to the amount of the dividend or proposed individuals for certain positions, in which cases the confirmation rate still was never below 90 % (Appendix E).

From the top 9 shareholders (Norges Bank, The Vanguard Group, Fiduciary Management, Tweedy Browne, BlackRock, J.O. Hambro Capital Systems, Selected Equity Group, Invesco Canada and Azimut Capital Management), none is known to be a specifically active investor. This includes the Norges Bank as only completely responsible investor among them, as they declare on their website that they never raised a motion towards Henkel (Norges Bank Website 2018). The other four PRI signatories among the top shareholders (Vanguard Group,

Blackrock, JO Hambro Capital Systems and Invesco Canada) alos did not show any sign of engagement, as neither their website nor a google research indicated a potential active approach from them towards Henkel. I am aware that such instances do not necessarily happen publicly. But since for all of the companies RI does not play a significant role and they are not generally known for being an active shareholder, I interpret that silence as a confirmation of the assumption that they did not engage in advocacy in the case of Henkel.

Within their publicly available communication, especially in their sustainability report, Henkel never mentions specific approaches from investors to push sustainable issues. They publicly state that stakeholder dialogue is important to them, but forms of shareholder activism from Henkel side did not happen (Henkel SR 2002-2017).

From the Investor Action section, I will take three points of interest forward to the analysis with the content of the company action. These are first, the jump in the ESG-score in 2008, as it structurally makes Henkel a better investment for responsible investors, and its potential effects on the financial market could have been swallowed by the financial crises. Secondly, 2012 as peak of listings in ESG ratings, because the increasing number of good ESG listings makes Henkel increasingly appealing for investments with BiC approaches. And finally, 2011 as the year in which the controversies and the controversy score showed extreme values.

Company Action

After completing the first part of my case study, the search for potential responsible investments towards Henkel, I will now continue by looking for the second group of points of interest, to stay in my blueprint language (figure 2). In the following I will present my research of Henkel's sustainability action throughout the observation period. In the process, I had a closer look on and around periods in time, where I already identified potential responsible investments (colored in Appendix E). Nonetheless, I conducted an overall research based on Henkel's publications, especially their sustainability reports. Besides the points in time identified in the Investor Action section, I watched out for major policy changes and actions by Henkel towards the five sector issues identified by SASB: energy management, water management, packaging lifecycle management, product performance (environmental, health and safety) and environmental & social Impacts of the Supply Chain (SASB 2015, p. 2). Furthermore, I watched out for any major action or news which might have sustainability reasoned market impact, to make sure to address any relevant issues towards responsible investors in order to if other reasons, besides the ones identified in the previous sections had an impact.

With a growing attention towards the sustainability report, through either rising number of assessors, an increasingly sustainable aware public or the increasing number of responsible

investors, the importance of the report increases and so does the effort, which is being put into it. The volume of Henkel's sustainability report tripled in the observation period from 46 pages in 2002 to 157 pages in 2017, not counting an annex of further 40 pages with additional data. This is an indicator of how the presentation of sustainability changed over time, what makes it difficult to conduct a consistent analysis of the approaches. Henkel produced a lot of content and metrics in their attempt to present their sustainability approaches over time. But they lack in consistency and bear the risk of misrepresenting certain years, as a different measurement method or an acquisition might change timelines massively. Therefore, in my analysis I focus on the main policy changes as well as the sustainability goal setting. These are the most visible factors of a company's sustainability actions, as they summarize the own perception as well as the performance. They are relevant for potential investors and are consistently being presented in the observation period.

Throughout the observation period the sustainability policy of Henkel underwent several changes. Some of them were minor, such as goal setting and adapting. Some of them were major and part of either governance restructurings or fundamentally changed the sustainability perception and presentation of the company. In the following, I want to summarize them in order to give a quick overview about the points in time of major changes, before going into detail concerning specific topics.

The early sustainability reports still refer to two documents before the observation period: The SHE Standards (Safety, Health and Environment), which were the first sustainability commitment for the company (Henkel SR 2006, p. 7) and its 2000 code of conduct (Henkel SR 2006, p. 4). This changed after 2004, when Henkel further utilized their entrance into the Global Compact (Henkel SR 2007, p. 1). In the following years Henkel presented itself as a good UN Global Compact member and even made references to the Millennium Development Goals, as they were active in "developing" countries (Henkel SR 2008, p. 32). With 2007 Henkel started to restrict their CSR policy, by setting goals until 2012 (Henkel SR 2007, p. 9). This process continued with the introduction of a sustainability board in 2008 and a policy adaption, now containing the core goal to pay into sustainability issues with each new product (Henkel SR 2008, p. 3). They delivered right away with the presentation of their new brand "Terra Activ", the first "ECOCERT" sustainability certified washing product (ibid.). As the financial crisis reached Europe and Henkel, the company stressed in its 2009 Report that even in financially challenging times, sustainability stays at their core business objectives (Henkel SR 2009, p. 1). This tone continued in the following year, as the leadership "promised to extend their leading sustainability positions"(Henkel SR 2010, p. 1), since they reached their 2012 sustainability goals early. Building on that achievement, in 2011 Henkel formulated a set of goals to be reached by 2030, their "Faktor 3" goals (Henkel SR 2011, p. 1). The following years

were driven by that set of goals and their path towards them as the company conducted a materiality analysis in 2014 based on a multi stakeholder questionnaire (Henkel SR 2015, p.117). In the same year as the SDGs kick off, Henkel picks them up in their SR, seeing it as an important guideline for the worlds future (Henkel SR 2015, p. 2). This is not necessarily self-evident, as the beginning of the SDGs was rather hesitant, with the indicators set three years later (UN 2017, p. 2). In the following years Henkel kept it with this remark, continuing their own agenda 2030. By 2017 they started to utilize the SDGs to show their impact on their surrounding environment (Henkel SR 2017, p.148).

In conclusion, the decisive years for the CSR policies were 2007 & 2008 with a major policy change and 2011 with the kick from the "Format 3" goals and the 2030 sustainability agenda. Interesting in the context of RI and SDG impact measurement is, that Henkel conducted a stakeholder questionnaire for their materiality analysis in 2014 and that they utilized the SDGs in 2017. This last step is not self-evident, as many major companies do not do so.

Henkel approached sustainability issues throughout the time proactive with goalsetting initiatives. From 2002 to 2006 these objectives were formulated on annual basis in the three business categories laundry & home care, cosmetic and consumer and craftsmen adhesives, plus the two overall categories technologies and Henkel group objectives (Henkel SR 2002, pp. 38-39). In 2007 Henkel changed that approach and introduced overall company objectives, which were to reduce certain indicators until 2012 (Henkel SR 2007, p. 5). With this step Henkel moved away from an individual goalsetting procedure to an orientation on international codes and standards (Henkel SR 2007, p. 10), making their sustainability activities easier to track, measure and compare. Their sustainability policy now consisted of five focal areas and four company-wide goals (Appendix G). After reaching these 2012 goals, Henkel set sail to new achievements by putting "[w]e are committed to leadership in sustainability" as the key value in the center of their sustainability agenda (Henkel SR 2011, p. 3). The main objective of the new policy was the "Faktor 3" program as their sustainability agenda 2030, in which they wanted to multiply their efficiency by three. This toolkit contained mid-term goals, which were supposed to be achieved in 2015, leading up to the long-term goal the efficiency multiplication by three by 2030 (Henkel SR 2011, p. 5). With this new set of goals, Henkel also adapted their sustainability policy, now including value as a focal area (Appendix G). Finally, in 2015, after achieving their set objectives (Henkel SR 2015, p. 2), Henkel formulated a new set of mid-term goals with the deadline of 2020. (Henkel SR 2015, p. 8) Stemming from its stakeholder dialogue, Henkel cemented many of their already set goals (Henkel SR 2015, p. 54). But they generally stayed with their sustainability policy from 2011. In the following I will have a closer look on how the five SASB sustainability topics are being addressed, how and when they were being pushed and which other areas Henkel addressed.

In the time span from 2002 to 2006 the topic of *energy management* or even renewable energy were a minor topic. Only one goal of the 36 objectives formulated by the time addressed energy issues on their products, which was to achieve better energy efficiency within washing cycles with the washing powder. That goal was set in 2002 and achieved in 2003 (Henkel SR 2003, p. 43). No objective targeted the companies own energy consumption. In the early years of the observation period energy was not high on the agenda. This does not mean, that energy management was not at all on Henkel's agenda, they indeed reduced their energy efficiency by about 10 percent from 2002 to 2006 (Henkel SR 2007, p. 9), but it was not prominent in the company's communication.

With the adoption of international reporting logic in 2007, energy management made it into the objectives for 2012. Henkel pledged to improve their energy efficiency with reducing the energy consumption by -15 % per metric ton of output for the base ear 2007 (ibid.). The topic received even more attention by the company as they defined "energy and climate" as one of their five focal areas for their sustainability policy.

In 2011 Henkel pushed their sustainability concept further. Not only did they set new mid- and long-term goals, but they also restructured their take on sustainability. The notion of producing more value while generating a smaller ecological footprint is the dominant picture of the new sustainability policy. The five focal areas got extended by the value focal area to six. Three of the focal areas focus on Henkel's output while the other three are targeting its input. The four goals got redefined and a fifth goal, to increase the performance of the company was added, while other sub-goals gave the setup a more diverse and established appearance (Henkel SR 2011, p.3).

That being said, the energy management received more attention through the new policy. The take from 2007 remained, with the focal area of "energy and climate" and a renewed set of improved energy efficiency further 15 % in 2015 (ibid.). But the origin of the energy got more attention as Henkel formulated the objective to conduct "[r]egular checks of our production sites to determine whether the use of renewable energy sources is ecologically and economically worthwhile" (Henkel SR 2011, p. 9). Renewable energies in Henkel's production are hereby first mentioned as a main objective. Henkel used renewable energies before and tracked them but did not position them as prominent. Noteworthy is, the notion that they check whether renewable energies are economically worthwhile. Depending on the take, this can either be interpreted as realistic and transparent or as unambitious. This impression arises even more as the sub-goals vanish in 2015 and only the measurable goals towards the "Faktor 3" agenda remain as sustainability goals. (Henkel SR 2015, p. U2). Based on the success of reaching the efficiency goal for 2015, Henkel continued with the same objective for the next 5

years, as they committed to another 15 % reduction in energy consumption per ton of output until 2020 (ibid.).

While the goalsetting suggests that energy management and especially renewable energy, might have decreased in the priority of the company, this is not the case. Through the materiality analysis Henkel and their stakeholders established that renewable energies, CO2 emissions and the CO2 footprint of the Henkel are important issues for the company (Henkel SR 2015, p. 54). Henkel took a step back from its approach to communicate all topics through goals, but rather focused on the topic based within certain SR sections.

As it was the case with energy management, *water management* had a slow start as well. Again, the water management of the company was not addressed, while the impact of Henkel's products to water was the issue for two of the 36 objectives from the period 2002 to 2006. Henkel pledged to develop biodegradable water treatment products, what the achieved by 2005 and to reduce nickel contamination of rinse water in washing processes, for which they developed a pilot product in 2005. Again, this does not mean that reduction of water use was no issue for the company at all. Henkel managed to slightly reduce its water consumption, despite a temporary steep increase due to expansions (Henkel SR 2007, p. 9).

In 2007 water management was again similarly treated like energy management. With the attempt to deliver overall applicable and measurable objectives, Henkel targeted their water consumption and efficiency. The company promised to reduce their water consumption compared to 2007 by 10 % per metric ton of output (ibid.). Water management was even more addressed as "water and wastewater" became one of the five focal areas of Henkel in the sustainability policy (Henkel SR 2007, p. 8).

With the policy makeover of 2011 water management issues and their focal point "water and wastewater" were pushed into the "reduced footprint" part of Henkel's sustainability approach (Henkel SR 2011, p. 3). This means that the reduction of water usage and improvement of efficiency will be a key goal for the company for 2030. As the mid-term goal the company formulated a further 15 percent reduction in water consumption per production unit until 2015 (Henkel SR 2011, p. 5). The content of the "water and wastewater" focal area was expanded with the goal to "[i]ncrease in the proportion of readily biodegradable ingredients in soaps, shower gels and shampoos to 90 percent" by the next year (ibid.). All its mid-term goals were achieved by Henkel and new ones were set as they expired. For water management this meant, again similar to energy management, that the goalsetting focused on the reduction of water consumption per ton of output for another 15 % until 2020 (Henkel SR 2015, p. U2). But biodegradability, in addition with wastewater disposal were marked as top issues for Hankel and its stakeholders in its materiality analysis (Henkel SR 2015, p. 54).

As normal as the category *packaging and lifecycle management* might sound today, that was not the case with Henkel within the first five years of the observation period. No goal was set towards that direction. The same was the case for the goalsetting procedure in 2007. Lifecycle management did not seem to be applicable for the approach to define overall company optimization metrics, as it was the case for all other goals. Henkel defined three topics as also central to their commitment. One of them could target this category: all new products shall contribute to at least one of the five focal sustainability areas (Henkel SR 2007, p. 9). Of these focal areas at least "materials and waste" could be understood as targeting this category. But with the 2011 sustainability policy, Henkel explicitly refers to packaging for the first time. The "materials and waste" focal area now contained the goal to develop packaging with the smallest ecological footprint possible (Henkel SR 2011, p. 5).

With the 2015 goal setting, lifecycle management once again vanished from the objectives. But in the process of developing their sustainability process to a topic- not goal-based system, they kept the commitment to packaging reduction as a comment in their implementation strategy. With the introduction of a focal area-based measurement system for the impact of their products, which I will further explain a little bit later, packaging reduction was measured and evaluated for each product from that point on.

In the beginning of the observation period issues of *product performance (environmental, health and safety)* played by far the biggest role in the objective setting of Henkel. 21 of the 36 goals formulated by Henkel from 2002 to 2006 targeted issues of product improvement. Every one of the business fields of Henkel as well as the technologies and the whole group category had targets to either develop products with less harmful ingredients, to use more renewable resources or to improve the consumer feedback tools. It is of no use for the bigger picture of this paper to go into detail here. The goals and their status can be found in the publicly available sustainability reports of Henkel (Appendix G). But it is relevant to show, that around 15 years ago, the key perception of sustainability for the company was to improve their products in terms of environment, health and safety.

Comparably to the overwhelming focus on product improvements in the beginning of the observation period, the 2007 sustainability agenda with its goals looked like a step back on first sight. None of the four overall company scores targeted product related issues (Appendix G). But the already mentioned additional central topic, that all new products shall contribute to at least one of the five focal sustainability areas, was meant to address this category. With the five focal areas being energy and climate, water and wastewater, materials and waste, health and safety and social progress, a multitude of sustainability aspects of a product could fall under this policy. Henkel showed the next year that they took this additional central topic

seriously, when they introduced a new brand. "Terra Active", the first "ECOCERT" sustainability certified washing product (Henkel SR 2008, p. 3) was released with high hopes and prominently presented among Henkel's sustainability activities. But after a continuous disappointing selling rate the company reviewed their sustainable brand critically (Henkel SR 2011, p. 22), and finally terminated it in 2012. The "Terra Active" adventure did not end as a success for different reasons. For once, Henkel broke into another market, one of sustainable cleaning products, which is already contested and has its powerhouses, in this case "Frosch" in Germany, and another problem was the credibility, which both seemed not to appeal to costumers (Handelsblatt Website 2014). This can be seen as an example of how hard it is for a company to do the right thing, in sustainability terms. Or it shows how hard it is to unite business logics with sustainability goals.

With the 2011 sustainability policy makeover, product performance did not reenter in the policy scheme of the company. The six focal areas still did not address any issues related to the performance of specific products (Appendix G). But within the objectives, Henkel clarified how important the sustainability take of their products is to them. The company defined four overarching goals, which shall apply for all focal areas. Two of them target product performance. To the already existing goal, that every new product shall pay into one focal area, Henkel added the goal to establish a measurement system to assess their product's contributions to the society and environment. This step underlines their longest core goal, not to develop harmful products. This take is very advanced and not at all usual for companies, as it requires a great amount of effort to develop an elaborate measurement system.

While in 2015 product performance vanished from the company's goals, it was established within the measurement system, and as part of the implementation strategies for the company. The measurement system based on a three-step analysis of a product concerning its approaches to the six focal areas performance/value, health and safety, social progress (all output side), materials and waste, energy and climate and water and wastewater (Henkel SR 2015, p. 23). The six areas are each addressed along the value chain of the product, which contains according to Henkel's measurement scheme raw materials, production, logistics, recalling, use and disposal (ibid.). The three steps are a first identification of approaches to the value chain-focal area matrix, followed by two rounds of evaluation (Henkel SR 2015, p. 20). This system is relatively elaborate for its kind and continues to show that Henkel wants to avoid risks through their products.

The *environmental and social Impacts of the Supply Chain* were not at the center of thoughts at Henkel in the beginning of the observation period. While 9 goals of the 36 from the period of 2002 to 2006 were formulated towards certifications and training within the company and its

employees, the supply chain was not mentioned. Awareness for corporate impact on environment and society existed for the Henkel group itself, but not for the supply chain.

In 2007 Henkel included suppliers into their sustainability policy by declaring that it was central to their commitment that all their strategic suppliers live up to their expectations in terms of corporate ethics (Henkel SR 2007, p.9). They elaborated further, that their 1997 formulated safety, health and environment (SHE) standard did always apply as an expectation horizon for their suppliers. (Henkel SR 2007, p. 17). Interestingly, this was not presented as prominent in the previous years. As supply chain management has always been a factor in international CSR standards and ESG ratings. It appears likely that this aspect was presented more prominently to make it more visible for external viewers such as investors.

The supply chain received a similar treatment in the 2011 sustainability policy makeover as product performance did. They are also not referred to in the focal areas but with the other two of the four overarching objectives (Henkel SR 2011, p. 5). The already known claim that strategic suppliers are expected to conform with Henkel's corporate ethics, got extended to the point that they now want to ensure this. Additionally, they commit to an annual increase in percentage of suppliers audited according to their sustainability criteria (ibid.). Henkel shows, that they know that supply chain responsibility is an important part of a responsible company and now tries to underline the credibility of their claims. This is especially interesting in combination with the objective from the "materials and waste" area after which Henkel tries to ensure that the entire volume of palm oil and palm kernel oil that is used as the basis for raw materials in their products is covered by certificates from the Roundtable on Sustainable Palm Oil by 2015 (ibid.). Palm oil and the RSPO has been a prominent target of criticism (Amnesty international 2016, p.11). By mentioning it at such a prominent place, Henkel shows that they are aware of the topic and confident in their measures.

In 2015 the supply chain, as other topics, vanished again from the goals of Henkel. But here it is once again rather to be understood as a drive to maturity concerning the topic, than it is a decrease of its importance. In its 2015 sustainability report Henkel presented a five-step due diligence process consisting of risk assessment, assessment, analysis, audit and further development (Henkel SR 2015, p. 16). With 78 % of their suppliers audited, and therefore taking responsibility for their businesses as well (ibid.), Henkel has an elaborate supply chain control mechanism.

The aspect of *working conditions and employee safety* did not appear within the SASB standards, as they are not specifically prominent for the household and personal products sector. It is nonetheless relevant for every company, to ensure human rights, labor rights and overall employee satisfaction and appropriate remuneration as part of current CSR and ESG

reviews (Morrow & Vezer 2017, p. 35). Henkel addressed employee safety as well as trainings for continuous education throughout the observation period. First, with nine of the 36 foals from the period of 2002 to 2006 (Appendix G), then with the goal to achieve zero occupational accidents by 2012 and the inclusion of employee trainings in their central commitments (Henkel SR 2007, p. 9) and a further highlighting of the issues as all the objectives from the "social progress focal area, introduced in 2011, are concerning employees (Henkel SR 2011, p. 5).

But the employees did not only headline Henkel's sustainability policy as a target. Through the "Make an impact on Tomorrow" (MIT) initiative, Henkel supported employees, who wanted to set up social projects. Over the years, the projects piled up and were presented more and more prominently within Henkel's sustainability agenda. In 2002 the employees completed 408 projects with social focus (Henkel SR 2002, p. 22). While in 2017 more than 13,800 projects had been conducted (Henkel SR 2017, p. 125). These projects are not possible to evaluate due to inadequate information about them and the high number. In addition, Henkel financed several projects throughout the years through their Frits Henkel foundation. I do not want to elaborate their activities further, as they are not part of their core business model and do rather show signs of philanthropy than of steady financing. But it is noteworthy in the context of SDG impact measurements, as Henkel categorized the impact of their projects to the respective MDG and from 2016 on SDGs. In 2017, 44.5 % of the Henkel projects addressed the SDG 4, quality education, 28.9 % contributed to the SDG 3, good health and well-being, and 12.2 % of them were issued towards SDG 1, poverty reduction. The other SDGs were targeted with below 10 % of Henkel's projects (Henkel SR 2017, p. 148). I will not count this within my impact measurement section. But it gives nonetheless interesting insight into the direction, in which Henkel sees a need to address their projects to.

Investors were barely directly addressed in Henkel's sustainability communication throughout the whole observation period. They sometimes played a minor role and were referred to as stakeholders. Even in the sustainability dialogue segment, which repeatedly came up in the sustainability reports, were, with one exception, no direct mentioning of investors. The exception is 2014, where Henkel mentioned, that investors shall remember sustainable aspects in their investments (Henkel SR 2014, p. 45). Between the lines Henkel created nonetheless a positive environment mentioning multiple sustainability dialogues with stakeholders as well as their positive external assessments. Furthermore, the letters from the CEO always emphasized the need for private sector engagement and contribution to "worlds big problems", while repeatedly warning in "Club of Rome" report like fashion.

Linkages

In order to identify first causal relationships between responsible investor action and Henkel's company action I will now summarize the findings from the two respective sections. They are

also depicted in a table in Appendix G. This is an intermediate step before the impact assessment, which can be seen under "SDG pay-in".

From the investor action analysis, I took three points of interest forward to this connection search. For the devesting approach the controversies surrounding the company are either not extremely relevant towards investors or apparently not public enough to be found after extensive research. Nonetheless, I noted 2011 as the year with the lowest controversies score and the most controversies at Henkel. 2011 was the only year in which the Norges Bank did not increase its investments (Norges Bank Investment Website 2018), while the return index saw its lowest rise in post financial crises years within 2011, followed by the biggest rise in the following two years (Appendix D). The available indicators therefore point towards a short-term reaction of the market, what could mean a reaction of the responsible investors. But one responsible investor is too small of a decisive sample size and the return index showed only a short-term change. Henkel took immediate action though, claiming vaguely within their 2011 sustainability report, that they will put increasing attention towards compliance measures (Henkel SR 2011, p. 7).

The other two takeaways from the investor strategy analysis are the year 2008, in which Henkel's ESG-score jumped by almost 20 points to a higher level (Appendix D) and 2013, in which Henkel improved their positioning in and the number of rankings, making it increasingly appealing for responsible investors to target them. Both of these indications can be understood as in a causal relationship with the sustainability policies at Henkel. The baseline for that assumption is, that 2007, the year where Henkel adopted their new sustainability policy, including the 2012 goals is the ear on which basis the company received a higher level of ESG score. By adopting to the international ESG environment of measurable overall goals for a company, the company knowingly optimized their appearance for responsible investors. RI has therefore contributed to the strategic CSR setup of Henkel past 2011.

This adaption and increased attractiveness for international RIs could have helped Henkel to recover quickly after the financial crises. Henkel appeared as an ethically good choice with sophisticated sustainability approach and the return index and the increase in ranking participations show (Appendix D; F), that the economic recovery and good structural conditions at Henkel fall together.

There appears to be a scheme that Henkel wants to stay on the sustainability track and is making some effort to boost their sustainability performance. Regardless of the CEO, this path was continued. There might be multiple reasons for that, such as that the Henkel family still holds the majority of shares (Appendix D), or that throughout the years, sustainability became part of the management DNA of Henkel, as they so often claim within their sustainability

reports. But they are also making some effort to be appealing to investors. While I cannot identify specific responsible investments, other than the leadership position in the shareholder structure by Norges Bank, the optimized conditions for responsible investments towards Henkel, indicates that RIs are a part of the capital invested in Henkel and that the company is aware of that.

I will therefore assume, that the restructured sustainability agenda of Henkel past 2007 can be to some degree contributed to the RI environment. This means, that I will take the key elements, the overall goal setting, concretely: the reduction of energy consumption (1), water consumption (2), waste amounts (3) and occupational accidents (4) (Appendix G), which were part of the 2007 goal setting and continue within the 2030 framework, as elements to investigate towards their SDG contribution. As the perception of the measures changed over time to efficiency rather than simple reduction, I will take the value increase (5) of Henkel into account. I will also include the applications to the agenda made in 2011, meaning that supply chain responsibility (6), product awareness (7) and packaging waste reduction (8) (Henkel SR 2011, p. 5) are also part of the analysis. Additionally, I will take compliance measures (9) towards price fixing prevention as my last influence point into account, as Henkel proposed them under influence of a stalling financial situation in the face of controversies (Appendix H).

SDG Pay-In

To measure a company's contribution to the SDGs is a process still under debate. Even on the country level the indicators are not yet all set up.[7] At the country level all the actors involved are cooperating in order to set clear and strict indicators and goals. On the company level actors do not seem to have such heterogeneous interests. Driving forces behind SDG-impact measurement tend to have their own limited perspectives or field of interest. The UNGC and the GRI, which set up the "SDG-Compass", a public database for more than 1,500 Business Indicators, only shows indicators which appear company-friendly. The collection of the indicators is often already established through other sustainability reporting measures or tend not to show direct impact to the original SDG indicators. On the other hand, no NGO or academics-based framework exists. Therefore, I will base my analysis on the business indicators provided by the SDG-Compass (SDG compass Website 2018).

It is not surprising, that academic work in this field did not yet get any further. Still the overlying layer of indicators is not yet fully set, and the criticism has not yet been formulated in SDG-related schemes. The formulation of SDG-indicators or pay-in structures of companies is even more complex than the original goal setting, because they are different for each company. Depending on the business model, sector, size, coverage and business structure that a

[7] Tier III Indicators are indicators with weak quantitative ground (United Nations 2017, p. 3).

company is touching the SDGs vary widely. In my eyes, thorough research and groundwork must be established in this field. For this thesis I will try to provide a first practical approach to a possible SDG-impact/pay-in framework for companies. A process of categorization of indicators and impact structures with regard to business sector or country activity would generally make sense. Due to the limited value add for this work, I will identify the relevant indicators only for Henkel.

After a thorough analysis of the whole business-indicator catalogue as of August 2018, which contained 1552 ways, businesses could measure their contribution to the SDGs (SDG-Compass Website 2018), I identified 1029 remaining ways for Henkel and its sector (Appendix H). The selection was made based on a logic check on whether the indicator would be influenced through Henkel's daily business. It is notable, that some industries are represented trough many specific indicators, as sector-specific analysis measures exist. This is not specifically the case for the household- and personal products. The catalogue could be expanded for Henkel, if an actor would develop such indicators and include them in the SDG-compass, as it is possible for everybody to include business indicators.

The 1029 ways of Henkel to measure their contribution to the SDGs do address all 17 goals and 80 of the 169 sub-goals. I identified a total of 617 different indicators, which could measure Henkel's pay-in to the agenda 2030. Some indicators do pay into multiple sub-goals and are therefore counted multiple times in the possible ways total of over a thousand. An example for this are measurements of gender treatment or composition, as they prominently pay into the goals 5 (achieve gender equality and empower all women and girls) and 10 (reduce inequality within and among countries) but also into 3 (ensure healthy lives and promote well-being for all at all ages) and 4 (ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), as women empowerment often solves issues of inequality as well as overall better education or health situations within a society.

Honestly, the 617 indicators are a wish list, as many of them are NGO proposals on what companies could measure to track their social or environmental performance towards SDG fulfillment. Nonetheless I took the whole list into the responsibility research and analysis of Henkel.

Within said analysis I checked if the 1029 different ways to contribute to the SDGs would be addressed by the nine mentioned areas, in which RI influenced Henkel's sustainability action[8]. An ideal analysis would be to compare how the respective indicators developed from the point when they were addressed through a RI triggered company action until today. But this was not

[8] Said areas are: energy consumption, water consumption, reduction of waste, reduction of occupational accidents, increased value, product awareness, packaging waste and compliance mechanisms.

possible for different reasons. First, for man indicators Henkel does not provide public data, also many of the indicators are not of quantitative nature and would require the development of an own scoring system. Finally, would an attempt to overcome these obstacles expand the content of this paper way beyond its set limits. Nonetheless, I want to note that the business indicator development as well as measurement needs attention from the scientific and especially transdisciplinary side. As this first solution was not possible, I conducted the second solution to simply count how many of these indicators would be addressed through the areas pushed by RI. With this approach it will not be possible to obtain distinct metrics of how much impact is happening towards the SDGs. But with depicting which indicator are being addressed, I can show which areas are likely to be pushed in the future through RI and in which the approach did not have any influence. It is important to note that the number of indicators addressed does not necessarily show how strong RI is pushed towards certain SDGs. Some indicators, especially water and energy management related ones are quite elaborate and easy to track, which is why a multitude of indicators had been developed stemming from approach. While for supply chain sustainability rather fewer indicators exist. In conclusion, this approach only shows the directions of pay-ins and not the amount of it.

Of the 1029 indicators identified as relevant for Henkel, I identified 286 as targeted by RI influenced company action (Appendix H). The targets for poverty eradication (SDG 1), education improvement (SDG4) and sustainable cities (SDG 11) were the only ones not addressed by the observed areas of action. The SDGs 17 (partnership for goals; 67 %), 7 (affordable and clean energy; 63 %) and 12 (responsible consumption and production; 63 %) showed the clearest sign of a pay-in, as more than 60 % of the possible indicators for the SDGs were being addressed. With 3 indicators the finding for SDG 17 is to be treated with appropriate caution. Barely addressed were the SDGs 15 (life on land; 7%), 5 (Gender equality; 11 %), 9 (industry, innovation and infrastructure; 13 %), 16 (peace, justice and strong institutions; 18 %) and 10 (reduced inequalities; 19 %) with below 20 % of the indicators addressed.

The respective areas of action showed specific tendencies towards certain SDGs. Energy consumption measures mostly pay into SDG 7 (affordable and clean energy) with 56% of all indicators for this SDG addressed. Water consumption had its focus on SDG 6 (clean water and sanitation) with 25% of the indicators covered. The three action areas, accident reduction, increased value, and supply chain responsibility, all targeted SDG 8 (decent work and economic growth) by covering 22% of the indicators. While the three action areas waste reduction, product awareness and packaging waste all prioritized SDG 12(responsible consumption and production) with a total of 33 % of its indicators addressed. The compliance mechanisms action area had all of its 7 indicators targeting the SDG 16 (peace, justice and strong institutions) with only 7 % of all the indicators covered.

The action areas show an overall coverage of 28 % of all the indicators identified as relevant. Through the water and energy reduction area is a strong focus on the SDGs for clean water and sanitation as well as affordable and clean energy, while the other six back the SDGs for decent work and economic growth and responsible consumption and production. The compliance mechanism only targets the SDG for justice and strong institutions. The SDGs for basic human needs (1-3) and the ones specifically targeting environmental issues (13-15) are barely addressed through the action areas motivated by RIs.

Results

In the end, two chains of effects can be drawn from RIs to an impact in the SDGs. One is the line from the high amount of controversies concerning price fixes and a reduced economic growth and a stagnating investment effort by a responsible investor through the claim of Henkel for immediate strengthening of their compliance mechanisms to strengthened institutions in the SDG 16. To what extend this chain does really have an effect can be doubted as after the commitment in 2011 in 2012, 2014 and 2016 further controversies towards competition matters were identified by Thomson Reuters. But these cases were not as public as the ones in 2011.

The second chain of effects did not occur strictly aligned with any specific RI strategy, but rather with general screening methods. The adoption of internationally recognized schemes such as measurable targets in 2007 and its relatively good economic performance in the following years as well as the increasingly strong positioning of Henkel in ESG rankings and indicates an increased general involvement of RI towards Henkel and lets its adoption of measurable goals and promises to seem like an action stemming from RI. Through these targets Henkel pays with its core business in to the SDGs 6, 7 and 8 as well as 12.

Reflection

As fuzzy and weak the chains of effects may seem, which I identified above, I will give some context and landscape to the results. The conducted case study is a qualitative attempt to engage with business and market structures with a transdisciplinary mindset. There were many points, where I was not able to elaborate further, as data was either not public or would take too much time to analyze in a scientific way or I would have touched bigger discussions. One example is the action area increased value, which I drew from Henkel's goal to increase their production performance. Here lies a big discussion towards sustainability whether and under what conditions production increases are helpful and in which cases harmful. While an increased production could bring value and money to more employees and could give people access to goods and possibilities; is a production increase nowadays always accompanied by questions of limits. How much more products can end up as garbage in the oceans? How much more micro plastic or CO2 emissions can the environment handle? These questions lead to the bigger question about whether our ways of production are sustainable.

"For Henkel – as well as many other businesses around the world – there is no question: Business has to be part of the solution and the sustainability agenda" (Henkel SR 2015, p. 2) with this quote I want to come back to my theoretical foundation of the Amin based societal structure. For most of the paper it was not present, as I only investigated one small aspect of it. An aspect of the production method to be precise. What I investigated was whether the claim in the quote, that companies, pushed through responsible investors, towards sustainability and well-being, is realistic. Whether there was a way that capital owners (company owners and investors) would orientate towards sustainability of the world rather than profit maximization, what would be a change towards the production mean of our current society (Amin 1975).

Henkel claims to act as a sustainable company and indeed pays into several SDGs with their business action. Therefore, it was a thankful object to show how responsible investing increased those efforts. This is probably the case for many more companies on the global market. But how far this is changing the production means I cannot say. For that many more investigations and also measurements along the road to 2030 are necessary.

As the volume of RI market rises, the competition and efforts towards sustainability action or at least the presentation of them will rise. But for developing measurements that can fully measure a company's impact, we need a different approach to transparency. For a wide part of my paper, I was only able to build my research upon data provided by the company. This poses a problem of credibility, which up until the end remains.

Conclusion

Finally, I want to note that responsible investment is an approach almost completely developed under market conditions, as regulations and services always arrived later than the case, which needed to be controlled. With this development RI shaped its market itself and is partly still waiting for regulations. As long as this is the case, a transdisciplinary analysis of the matter is lengthy and complex. But with the "Action plan: sustainable finance" of the European commission and the work of the "technical expert group on sustainable finance" towards establishing a unified sustainability and responsible investment taxonomy as well as identifying ways to shape the legal structure for responsible investments (European Commission 2018, p. 2), a change might be in sight.

Many of my assumptions turned out to be void or could not been investigated due to lack of data, insight or time. But I showed, that responsible investments have an influence on companies and that this is contributing to the Sustainable Development Goals. Therefore, I am

generally optimistic about my title question. I would argue that responsible investments do in fact push the UNs sustainability agenda. But only under certain conditions.

With my research I focused on a company, declaring that it pushes far towards sustainable production means. And I elaborated that responsible investments and the corporate social responsibility expectations and priorities supported that process by giving it a framework. For such internationally positioned publicly traded companies in a competitive environment, an ESG score can be a decisive criterion for attractiveness. But it is questionable whether this is the case for companies in different market positions or with a different ownership structure. I would propose further research into how responsible investments changes the rating systems and thereby the perception of companies, how far this phenomenon grasps and to which extent it is dependent on trends, locations and societies. This is in my opinion the next step to understand how far this sustainability push from the private sector can reach. In our current society the private sector and especially the financial industry plays a crucial role in shaping the structures surrounding and therefore the opinions and actions of the public. Thus, the private sector will have an enormous amount of influence on the transition of mankind towards a sustainable life on earth, if shaped by responsible rather than greedy motivations.

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Appendix

A: Phase A: Overview of Companies

	From GCX Factbook					*From GCX Website*			
Company	**Industry**	**Country**	**Continent**	**Last Entry Date**	**Previously kicked out**	**Months away**	**Months in GCX until 05/2018**	**Years in GCX**
Atlas Copco	Machinery	Sweden	Europe	Jan 07		0	137	11
Aurubis	Metals & Mining	Germany	Europe	Jan 07		0	137	11
Autodesk	Software & IT Services	United States	North America	Mrz 15		98	39	3
Aviva	Insurance	United Kingdom	Europe	Jan 07		0	137	11
Berkeley	Construction	United Kingdom	Europe	Mrz 13		74	63	5
BillerudKorsnäs	Packaging	Sweden	Europe	Mrz 17		122	15	1
Canadian National Railway	Transport & Logistics	Canada	North America	Feb 10		37	100	8
Coloplast	Health Care Equipment & Supplies	Denmark	Europe	Feb 10	Mrz 08	23	114	10
Dassault Systèmes	Software & IT Services	France	Europe	Jan 07		0	137	11
Enagas	Oil, Gas & Consumable Fuels	Spain	Europe	Mrz 14		86	51	4
Geberit	Construction Materials	Switzerland	Europe	Apr 10		39	98	8
Hannover Rück SE	Insurance	Germany	Europe	Mrz 17		122	15	1
Henkel	Household & Personal Products	Germany	Europe	Jan 07		0	137	11
Herman Miller	Furniture & Fittings	United States	North America	Mrz 08		14	123	10
Intel	IT	United States	North America	Sep 13		80	57	5
Kingfisher	Retail	United Kingdom	Europe	Mrz 08		14	123	10
Kurita Water Industries	Water Treatment	Japan	Asia	Jan 07		0	137	11
Ormat Technologies	Renewable Energies	United States	North America	Jan 07		0	137	11
Pearson	Media	United Kingdom	Europe	Mrz 18		134	3	0
Pennon Group	Utilities	United Kingdom	Europe	Feb 13		73	64	5
Renault	Automobil	France	Europe	Jan 07		0	137	11
Ricoh	IT	Japan	Asia	Jan 07		0	137	11
Rockwool International	Construction Materials	Denmark	Europe	Mrz 17		122	15	1
Shimano	Sustainable Transportation	Japan	Asia	Jan 07		0	137	11
Siemens Gamesa Renewable Energy	Renewable Energies	Spain	Europe	Mrz 18	Mrz 17	12	125	10
SKF	Machinery	Sweden	Europe	Jan 07		0	137	11
SNAM	Oil & Gas	Italy	Europe	Jan 07		0	137	11
Sonova Holding AG	Health Care Equipment & Supplies	Switzerland	Europe	Mrz 16		110	27	2
SunPower	Renewable Energies	United States	North America	Jan 07		0	137	11
Swiss Re	Insurance	Switzerland	Europe	Sep 15		104	33	3
Union Pacific	Transport & Logistics	United States	North America	Jan 07		0	137	11
Vestas Wind Systems	Renewable Energies	Denmark	Europe	Jan 07		0	137	11
Xerox	IT	United States	North America	Sep 10		43	94	8

Table 1 Overview of companies within the dataset used for the correlation analysis; GXC-constituents and their time away from the index

B: Phase A: Overview of Results: RI-ESG Correlation-Analysis

Source:	*From Datastream & Thoson Reuters Data Calculations*					
	RI-ESG(TR)-Score Correlation					
company	**correlation coefficient**	**coefficient of determination**	**adjusted coefficient of determination**	**standard deviation**	**observations**	**p-value (x)**
Atlas Copco	**0,45607396**	0,208003457	0,151432275	8665,651059	16	0,075806722
Aurubis	**0,298391858**	0,089037701	-0,024832587	181,0518897	10	0,402346601
Autodesk	**0,663438845**	0,440151101	0,400161894	4281,819817	16	0,005080771
Aviva	**-0,101737253**	0,010350469	-0,079617671	2472,71511	13	0,740857943
Berkeley	**0,777281035**	0,604165807	0,575891937	10078,58235	16	0,000395121
BillerudKorsnäs	**0,398898991**	0,159120405	0,094437359	210,348704	15	0,14078952
Canadian National Railway	**0,689135037**	0,4749071	0,434515338	1479,981846	15	0,004486021
Coloplast	**-0,119765885**	0,014343867	-0,056060142	12248,36679	16	0,658634573
Dassault Systèmes	**0,527806771**	0,278579988	0,227049987	404,8331203	16	0,035610871
Enagas	**0,511248555**	0,261375085	0,199823009	168,5313171	14	0,061696564
Geberit	**0,750338175**	0,563007377	0,52939256	353,0556621	15	0,001270813
Hannover Rück SE	**0,714089976**	0,509924494	0,465372175	331,7577189	13	0,006108726
Henkel	**0,571118912**	0,326176811	0,278046584	318,4181544	16	0,020844636
Herman Miller	**0,642586479**	0,412917383	0,339532055	3929,763415	10	0,045100668
Intel	**0,290619418**	0,084459646	0,019063907	26498,58417	16	0,274848119
Kingfisher	**0,681129027**	0,463936751	0,425646519	1375,662149	16	0,003672352
Kurita Water Industries	**0,261942032**	0,068613628	-0,01605786	898,093782	13	0,387299728
Ormat Technologies	**0,683997362**	0,467852391	0,379161123	58,05448325	8	0,061373191
Pearson	**0,187828338**	0,035279485	-0,038929786	6701,013314	15	0,502633333
Pennon Group	**0,120215665**	0,014451806	-0,06767721	1217,163109	14	0,682276259
Renault	**0,392880574**	0,154355146	0,089305542	116,8350253	15	0,147440357
Ricoh	**-0,470959841**	0,221803172	0,156953436	358,5131526	14	0,0891728
Rockwool International	**-0,107924956**	0,011647796	-0,098169116	334,340672	11	0,752112951
Shimano	**0,58222382**	0,338984577	0,278892266	1843,574856	13	0,036819078
Siemens Gamesa Renewable Energy	**0,263676718**	0,069525412	0,003062941	226,4746362	16	0,323759664
SKF	**0,727628917**	0,52944384	0,495832686	1504,084033	16	0,001398907
SNAM	**0,802177051**	0,643488021	0,618022879	98,1893628	16	0,000185071
Sonova Holding AG	**0,852473656**	0,726711335	0,707190716	551,5986554	16	2,7357E-05
SunPower	**-0,871441413**	0,759410136	0,725040155	51,41043445	9	0,002207105
Swiss Re	**-0,02710136**	0,000734484	-0,070641625	1365,61798	16	0,920638706
Union Pacific	**0,258024307**	0,066576543	-9,65611E-05	7497,450202	16	0,334620478
Vestas Wind Systems	**0,491852666**	0,241919045	0,187770405	675,6540747	16	0,052973069
Xerox	**0,074603505**	0,005565683	-0,093877749	35,75756479	12	0,817761069
mean	**0,362810635**	**0,280509695**	**0,219261741**	**2925,240867**	**14,21212121**	**0,23000755**
median	**0,45607396**	**0,241919045**	**0,187770405**	**675,6540747**	**15**	**0,061696564**
Max	**0,852473656**	**0,759410136**	**0,725040155**	**26498,58417**	**16**	**0,920638706**
Min	**-0,871441413**	**0,000734484**	**-0,098169116**	**35,75756479**	**8**	**2,7357E-05**

Table 2 Overview of calculation Results of the correlation analysis

C: Phase A: Overview of Results: RI-ESG Correlation-Analysis Sorted and Categorized

company	correlation coefficient (sorted)	p- value	relation and significance
SunPower	**-0,871441413**	0,002207105	negative & significant
Ricoh	**-0,470959841**	0,0891728	negative & not significant
Coloplast	**-0,119765885**	0,658634573	no evident relation
Rockwool International	**-0,107924956**	0,752112951	no evident relation
Aviva	**-0,101737253**	0,740857943	no evident relation
Swiss Re	**-0,02710136**	0,920638706	no evident relation
Xerox	**0,074603505**	0,817761069	no evident relation
Pennon Group	**0,120215665**	0,682276259	no evident relation
Pearson	**0,187828338**	0,502633333	no evident relation
Union Pacific	**0,258024307**	0,334620478	no evident relation
Kurita Water Industries	**0,261942032**	0,387299728	no evident relation
Siemens Gamesa Renewable Energy	**0,263676718**	0,323759664	no evident relation
Intel	**0,290619418**	0,274848119	no evident relation
Aurubis	**0,298391858**	0,402346601	no evident relation
Renault	**0,392880574**	0,147440357	no evident relation
BillerudKorsnäs	**0,398898991**	0,14078952	no evident relation
Atlas Copco	**0,45607396**	0,075806722	positive & not significant
Vestas Wind Systems	**0,491852666**	0,052973069	positive & not significant
Enagas	**0,511248555**	0,061696564	positive & not significant
Dassault Systèmes	**0,527806771**	0,035610871	positive & significant
Henkel	**0,571118912**	0,020844636	positive & significant
Shimano	**0,58222382**	0,036819078	positive & significant
Herman Miller	**0,642586479**	0,045100668	positive & significant
Autodesk	**0,663438845**	0,005080771	positive & significant
Kingfisher	**0,681129027**	0,003672352	positive & significant
Ormat Technologies	**0,683997362**	0,061373191	positive & not significant
Canadian National Railway	**0,689135037**	0,004486021	positive & significant
Hannover Rück SE	**0,714089976**	0,006108726	positive & significant
SKF	**0,727628917**	0,001398907	positive & significant
Geberit	**0,750338175**	0,001270813	positive & significant
Berkeley	**0,777281035**	0,000395121	positive & significant
SNAM	**0,802177051**	0,000185071	positive & significant
Sonova Holding AG	**0,852473656**	2,7357E-05	positive & significant

relation		significance	
negative	CC equal and below -0,4	significant	p-value equal or below 0,05
no relation	CC between -0,4, 0,4	not significant	p-value above 0,05
positive	CC equal or above 0,4		

Table 3 Categorization according to correlation ceofficients and p-values

D: Phase B Overview of Henkel Metrics

Sustainability Indicators							
	Datastream Scores			ASSET 4 Scores			
	ESG Score	ESG Comb. Score	Controversies Score	ESG Score	E Subscore	S Subscore	G Subscore
2002	48.02	32.13	16.25	48.53	89.92	93.84	20.4
2003	60.63	60.63	64.63	62.13	88.52	93.34	37.22
2004	50.61	50.61	57.35	52.72	90.63	95.3	38.77
2005	59.59	59.59	60.84	60.17	96.46	96.84	41.37
2006	58.4	58.4	62.96	58.68	93.78	93.68	51.47
2007	77.86	77.86	58.24	77.33	93.9	94.38	46.42
2008	82.43	48.16	13.89	81.94	94.15	95.16	36.83
2009	83.52	83.52	56.44	83.74	94.38	97.25	28.13
2010	83.64	49.02	14.4	83.88	94.81	97.07	38.68
2011	82.11	42.02	1.94	83.2	94.44	95.01	35.27
2012	81.38	43.49	5.6	82.37	93.14	96.42	21.72
2013	85	46.31	7.61	85.6	94.14	95.37	24.44
2014	84.85	48.81	12.77	84.96	94.4	95.92	31.8
2015	85.31	85.31	54.22	85.94	94.93	95.95	32.24
2016	81.54	44.91	8.29	82.53	95.04	95.11	39.11
2017	80.26	80.26	58.28	82.86	95.13	96.28	40.23

Economic Indicators			
	Return Index	Shares in Free float	Number of shares
2002	182.22	42	86599
2003	161.24	49	86599
2004	173.41	49	86599
2005	237.54	42	86599
2006	291.97	42	86599
2007	328.42	49	259796
2008	278.97	49	259796
2009	247.97	42	259796
2010	357.79	42	259796
2011	383.15	47	259796
2012	557.82	47	259796
2013	734.57	46	259796
2014	823.54	40	259796
2015	1103.4	39	259796
2016	1163.99	39	259796
2017	1229.65	39	259796

Controversies					
	Anti-Competition	Employee Health & Safety	Insider Dealings	Intellectual Property	Product Responsibility/ Responsible Marketing
2002			1		
2003					
2004					
2005					
2006					
2007					
2008	1				
2009					
2010					1
2011	2			1	1
2012	1				1
2013		2			
2014	1				
2015					
2016	2				
2017					

Table 4 Used Henkel metrics; all sourced from Thomson Reuters datastream

E: Phase B: Overview of Responsible Investment Points of Interest with Regard to Henkel

RI Strategy	Tpe of Hint	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Devesting	*Low Controversies*	16.25						13.89		14.4	1.94	5.6	7.61	12.77		8.29	
	Aquisitions						ICI Adhesives division	National Starch		Schwarzkopf		Adhesive division Cytec Industries	PZ Cussons	Spotless, Bergquist Company, Brands: SexyHair, Alterna, Kenra	Industries Wet Line SA, Brands: Cold Power, Dynamo, Fab, Sard	Sun Products Corporation, Brands: Pert, Shamtu, Blendax	
	Controversies (datastream)	Insider Dealings						Anti-Competition		Product Responsibility/Responsible Marketing	2 Anti-Competition Intellectual Property	Anti-Competition Product Responsibility/Responsible Marketing	2 Employee Health & Safety	Anti-Competition		2 Anti-Competition	
	Controversies (Research)										Price Fixing Cases Humidifier sterilizer Scandal						
	Notable							RSPO Membership	SR Report: 3 minor environmental incidents at their facilities					no longer part of Dow Jones Sustainability Index Leaders			
Screening	*High ESG Scores*							82.43	83.52	83.64	82.11	81.38	85	84.85	85.31		
Best in Class	*First time listed*						- Dow Jones Sustainability Index Leader - GCX	- Forbes Worlds most ethical Companies - Robeco Sam Sustainability Yearbook					- Vigeo World Index - Sustainalytics Rating 1st Place				
Advocacy	*All Motions passed with*						no data on website	>99%	>96%	>98%	>99%	>92%	>90%	>99%	>98%	>91%	>98%
	Counter Motions						no data on website	no relevant ones	no relevant ones	none	no relevant ones	none	no relevant ones	none	none	none	none

No information available

POI in respective Strategy

F: Phase B: Overview of Henkel External Assessments

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Dow Jones Sustainability Index	part of	part of	part of	part of	part of	**leading**	**leading**	**leading**	**leading**	**leading**	**leading**	**leading**	part of	-	part of	part of
Ethibel Index leader	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of
FTSE4Good Ethical Index	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of
Oekom Rating	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer	top performer
Global Challanges Index						part of	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of
Forbes Worlds most ethical Companies							part of	part of	part of	part of	part of	part of	part of	part of	part of	-
ECPI Ratings	part of	part of	part of	part of	part of	part of	part of	part of	part of	part of				part of	part of	part of
Sustainalytics Rating											2nd	1st	1st	1st	1st	1st
STOXX Global ESG Leaders											part of	part of	part of	part of	part of	part of
Vigeo World Index											-	part of	part of	part of	part of	part of
Robeco Sam Sustainability Yearbook							Gold Class	Gold Class	Gold Class	Gold Class	Gold Class	Gold Class	Gold Class	Gold Class	Gold Class	Gold Class
Total	**5**	**5**	**5**	**5**	**5**	**6**	**8**	**8**	**8**	**8**	**9**	**10**	**10**	**10**	**11**	**10**

did not exist

External assessments of Henkel drawn from Henkels Sustainabilit Reports from 2002 to 2007

G: Phase B: Overview of potential Influence Points of Responsible Investments & Overview of Policy Changes of Henkel

Company Action	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Notable		-UNGC Entrance	-CDP Entrance			-Share split 1:3 -Adoption of internat. Sustainability standards	- Terra Active launch - RSPO Entrance			- critical review of Terra Active			-"investors as important stakeholder group"			
Focal Areas						Energy and climate; Water and wastewater; Health ans safety; Social progress; Materials and waste				**-Output** / Deliver more value...: Social Progress; Performance; Safety and Health **-Input** / ... at a reduced Footprint: Energy and Climate; Materials and Waste; Water and Wasewater						
Structural Sustainability changes						-	-"Sustainability board introduction	-"Sustainability despite economic difficulties"	-"promised to extend their leading sustainability positions"	-2030 Goals			-Stakeholder Questionaire; -Materiality Analysis	-2020 Goals -product and process impact measurement system	-SDG utilization	
Goals	product improvement and employee training in focus 36 Goals: 1 towards energy management 2 towards water management 0 towards lifecycle management 21 towards product performnce 0 towards supply chain 9 towards employees					**Sustainability Goals 2012** clearly measureable and compearable targets until 2012: -15 % energy consumption -10 % water consumption -10 % reduction in the amount of waste generated -20 % reduction of occupational accidents				Goals achieved early; kick of "Faktor 3" long term goals; **2015 (mid-term) Goals** (all base year 2010): 10 % more net sales per production unit 20 % safer per millin hours worked -15 % less water per production unit -15 % less waste per production unit -5 % less energy per production unit			Goals achieved; **New mid-term Goals 2020** (base year 2010) +75% overall efficieny +22% more sales per ton of product +40 % safer üer million hours worked -30 % less water per ton of product -30% less waste per ton of product -30% less energy / CO2 emissions per ton of product		
Potential Influence points of RI							Jump in ESG Scores			Year of many controversies		Boost in Rankings				
Investor Acion	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**

H: Phase B: SDG pay-ins through Henkel Policy Changes

Sustainable Development Goals	energy consumption		water concumption		waste reduction		accident reduction		increased value		supply chain responsibility		product awareness		packaging waste		compliance mechanisms		TOTAL adressed	Possible TOTAL	TOTAL % adressed
	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.	No. Adr.	% Adr.			
1. No poverty	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	21	0%
2. Zero hunger	0	0%	0	0%	0	0%	0	0%	2	25%	0	0%	0	0%	0	0%	0	0%	2	8	25%
3.Good health and well-being	0	0%	2	14%	1	7%	2	14%	0	0%	0	0%	1	7%	0	0%	0	0%	6	14	43%
4. Quality education	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	13	0%
5. Gender Equality	0	0%	0	0%	0	0%	1	1%	0	0%	8	10%	0	0%	0	0%	0	0%	9	83	11%
6. Clean water and sanitation	0	0%	28	25%	3	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	31	112	28%
7. Affordable and clean energy	33	56%	0	0%	0	0%	0	0%	4	7%	0	0%	0	0%	0	0%	0	0%	37	59	63%
8. Decent work and economic growth	14	7%	8	4%	1	1%	12	6%	14	7%	17	9%	4	2%	3	2%	0	0%	73	193	38%
9. Industry, innovation and infrastructure	1	1%	0	0%	0	0%	0	0%	7	10%	1	1%	0	0%	0	0%	0	0%	9	69	13%
10. Reduced inequalities	0	0%	0	0%	0	0%	0	0%	4	19%	0	0%	0	0%	0	0%	0	0%	4	21	19%
11. Sustainable cities and communities	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	6	0%
12. Responsible consumption and production	15	18%	9	11%	13	16%	0	0%	1	1%	0	0%	9	11%	5	6%	0	0%	52	82	63%
13. Climate action	23	27%	0	0%	0	0%	0	0%	0	0%	2	2%	2	2%	0	0%	0	0%	27	86	31%
14. Life below water	3	5%	4	7%	1	2%	0	0%	0	0%	0	0%	1	2%	0	0%	0	0%	9	59	15%
15. Life on land	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	5	5%	0	0%	0	0%	7	100	7%
16. Peace, justice and strong institutions	0	0%	0	0%	0	0%	2	2%	0	0%	9	9%	0	0%	0	0%	7	7%	18	100	18%
17. Partnership for goals	0	0%	0	0%	0	0%	0	0%	2	67%	0	0%	0	0%	0	0%	0	0%	2	3	67%
TOTAL/AVERAGE	**91**	**7%**	**51**	**4%**	**19**	**2%**	**17**	**1%**	**34**	**8%**	**37**	**2%**	**22**	**2%**	**8**	**0%**	**7**	**0%**	**286**	**1029**	**28%**

Pay-ins of identified RI & Henkel company action into SDG Business Indicators (SDG compass) for observation period