A thesis submitted to the Department of Environmental Sciences and Policy of Central European University in part fulfilment of the Degree of Master of Science

> Criteria for Sustainable Investment: Delivering Sustainability Value

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May, 2011

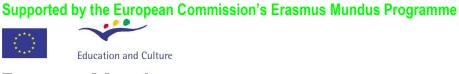
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ABSTRACT OF THESIS submitted by: Galyna PRYMAK for the degree of Master of Science and entitled: Criteria for Sustainable Investment: Delivering Sustainability Value Month and Year of submission: May, 2011.

Environmental and social challenges have reached the point when there is a need in weaving

them into core business practices to achieve sustainability. Investment market responds to this by shifting of the focus towards Sustainable Investment (SI). SI funds have claimed to contribute to the world's future sustainability and to perform well on the market at the same time. One of the ways to check these claims is through their selection criteria.

There is a perceived uncertain linkage between the criteria and the sustainability value the funds claim to deliver. As a result stakeholders often cannot clearly verify whether there is a systematic approach to screening and selection behind the funds carrying the name and be assured of the funds' contribution to sustainable development.

This study presents an approach to evaluate the ability of SI funds to deliver a real sustainability value through a framework of sustainability parameters. In total it was developed 71 parameters and each of the six funds selected for the research was assessed gaining a certain number of points. Furthermore, the study aimed to provide valuable lessons on developing sustainability criteria as well as to investigate the link between financial returns and compliance to sustainability principles.

Although the outcome of the statistical tests on the connection between criteria and financial performance remains inconclusive, the results suggest that SI funds indeed express a concerned attitude and fundamental approach towards sustainability criteria.

Keywords: investment, sustainability, Sustainable Investment, Socially Responsible Investment, SRI, SI, criteria, screening, sustainability performance, sustainability value

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Chapter I. Introduction

1.1. Problem statement

Environmental and social challenges like climate change, water scarcity, poverty, finite nonrenewable energy sources and so on, have reached the point where the adequate response from business is in great demand. The investment community, by shifting the focus from conventional to Sustainable Investment (SI), is trying to prove that it can weave these challenges into core business practices to achieve sustainability.

Sustainable Investment (SI) has evolved from the broad Socially Responsible Investment (SRI) domain into a separate branch. In general, both SRI and SI perceive their mission as making investments with the application of certain screening criteria. These criteria are there to help to choose those companies which act in accordance with ethical, social and/or environmental norms. So SRI takes social, ethical, socio-economic and environmental factors into account (Koellner *et al.* 2007). However, unlike SRI that can be referred to as a "mission investing, responsible investing, conscious investing, double or triple bottom line investing, ethical investing, sustainable investing, or green investing" (Jo *et al.* 2010), SI funds are claimed to contribute to the world's future sustainability without sacrificing the financial returns (HGI 2010). Moreover, according to Gunther (2010a), the ability of SI funds to outperform the market is what distinguishes them from SRI funds. However, Helena Hagberg (pers. comm.) mentioned that there is no clear split between Socially Responsible and Sustainable Investment yet.

SRI has become an umbrella concept surrounded by definitional ambiguity. SRIs would be more successful in meeting their goals if they were better distinguished through suitable criteria. This need is even stronger since the emergence of SI funds, where understanding and demonstrating how the funds manage to deliver real sustainability value, is essential. Sustainable Investment funds are the investment entities which apply Environmental, Social, Governance (ESG) criteria and take into account financial performance during the selection of companies for their portfolios. At present, almost every fund has its own screening method that leads to a confusing diversity of notions of "sustainability" and SI criteria. The need for clear SI criteria is particularly important when there are trade-offs between high economic performance on the one hand and social or environmental performance on the other.

Ambiguity does not only bring confusion but also provides opportunities for further research related to 'responsible investment' in general. Responsible investment carries different names, but do the funds with different names serve different purposes in the end? Based on an initial literature review and personal communications with selected experts, it seems to be clear that there is no satisfactory answer to this question. In the view of some, different names like "socially responsible", "ethical", "sustainable" investment serve only marketing purposes (Andreas Hoepner, pers. comm.). Others claim that the different names also reflect real differences in the nature of the funds (David Lehrer, pers. comm.).

Given the growing volume and diversity of such instruments, investigating whether SI-type funds have real sustainability value is an important area for research. In more specific terms, the issue is whether and how the funds incorporate sustainability principles into the criteria they apply during the portfolio selection process.

In summary, the problem can be presented as follows:

There is a perceived uncertain linkage between the screening criteria applied by SI funds and the real sustainability and economic value they claim to deliver. As a result stakeholders, including investors often cannot clearly verify whether there is a systematic approach to screening and selection behind the funds carrying the name and be assured of the funds' contribution to sustainable development.

1.2. Aim, Objectives and Research Question

SI funds are committed to investing in companies with high sustainability performance. Some of these funds have shown high profitability and competent risk management in the long run. This research will focus on SI funds which have stated that they aim to contribute to sustainable development and to perform well on the market at the same time. Given the limitations in time and resources, I have randomly chosen six funds which satisfy this criterion (see the fund's characteristics in Appendix 1).

The **aim** of the research is to explore how SI funds approach the issue of sustainability through fund screening and selection and contribute to the development of a general SI criteria framework to inform investment funds practices. In addition, the research also aims to investigate the impacts the criteria can have on increasing the funds' transparency, credibility and sustainability performance.

The issue of transparency has been approached by the academia from various angles and some of them find it to be impossible to reach but at the same time necessary to aspire to (Fenster 2005).The results of the current research are expected to contribute to the increase of the funds' transparency. Most of the funds have their own approach to sustainability criteria. There is no general scheme for the funds' accountability regarding sustainability performance. They may be committed to present criteria consistent with some principles of responsible investment but it is up to them whether to do so and to disclose it or not.

The funds' documentation often states that the process of criteria development is based on SRI research, engagement of external assessment and advice, but eventually the final decision is made by fund managers. Although the funds attempt to address the issue of credibility by addressing these external sources of knowledge, the process is voluntary. Determining the extent of the funds' compliance with broader societal sustainability expectations is

challenging. This thesis aims to assess the present situation regarding the credibility of the criteria applied by the funds, and to suggest possible improvements.

Finally, the research also aims to investigate the connection between SI criteria as a driver and sustainability and financial performance as an outcome. Some of the literature states that the composition of the investment portfolio (which is one of the main issues that criteria intend to address) has a significant impact on its sustainability performance. Therefore, this research will seek to provide some guidance that will be able to increase it.

The *objectives* that will help to achieve these aims are the following:

Objective 1: to identify key common principles of sustainability performance that SI funds should comply with.

Objective 2: to investigate how these principles are reflected in the criteria of selected SI funds.

Objective 3: to assess the hypothesis that sustainability criteria can have a significant linkage with SI funds' financial performance.

Objective 4: to propose how the experience of specific SI funds with regard to their sustainability criteria can contribute to the development of a general SI criteria framework.

Consequently, the thesis aims to answer the following research question:

How do the criteria of SI funds reflect the sustainability and economic value they claim to deliver and how could the experience and lessons of selected SI funds with sustainability criteria help in developing a general SI criteria framework?

The research question will be addressed by answering the following **sub-questions**:

Sub-question 1: What is the motivation of the funds to move towards SI?

Sub-question 2: How are sustainability performance principles reflected in the funds' criteria?

Sub-question 3: Is there a linkage between compliance to sustainability principles and financial performance?

Sub-question 4: What are the common elements in selection criteria applied by the chosen SI funds?

1.3. Methodology

In the current research I will assess the claims that SI funds make regarding the sustainability and financial value they want to deliver. In order to answer the research question of the current thesis, the following qualitative and quantitative methods were chosen: literature review as a source of secondary information, case-studies and, interviews as primary information sources, and some statistical tests.

I will develop an assessment framework for the criteria these funds apply and analyze whether there is a real sustainability value behind these criteria. Further I will conduct several statistical tests, namely, z-score tests, correlation tests and independent t-tests, in order to verify whether the financial return of SI funds is significantly different from other SRI funds and whether compliance to sustainability principles influences the financial return.

The funds' experiences on the criteria development and application serve as case-studies. The analytical framework for case-study analysis will be defined through literature review. Guiding principles such as the BellagioSTAMP Sustainability Assessment and Measurement Principles (Pintér 2009) and the UN Principles for Responsible Investment (UNPRII 2011) will facilitate the critical assessment of SI criteria. In order to meet objectives 1 and 2 a framework will be developed based on the breakdown of sustainability principles into a set of parameters and relevant questions.

The literature review and information available from public sources will be complemented with personal communication with the following:

- experts in sustainable investment;

- managers of SI funds applying relevant SI criteria.

The common elements identified through this research will contribute to the development of a general SI criteria framework.

1.4. Theoretical framework

In order to get acquainted with the topic of sustainable investment, let us introduce some theoretical review on the definitions of the notions that will be used plentifully throughout the paper. In fact, the main research question of the thesis is tied to the discussion around the diversity of the terminology in the fields of "sustainability", "socially responsible investment", "environment, social and governance factors" and so on. It is important to set borders in order to deal with a confusion that has gone beyond just the terms. The following concepts will form the theoretical framework for this thesis:

- Sustainability audit
- Sustainability
- Socially Responsible Investment vs. Sustainable Investment
- Investment strategies
- Transparency
- Sustainability investment criteria

These concepts will be further discussed in the section of literature review.

Chapter II. Research methodology

2.1. Research design

According to the aim of the research I will try to contribute to the development of the general criteria that guide sustainable investment funds when they are selecting businesses for their portfolios. The ultimate result is intended to represent a number of lessons from SI funds and some statistical tests.

So in order to structure the investigation process, BellagioSTAMP Sustainability Assessment and Measurement Principles (Pintér 2009) have been chosen as a framework for development a list of specific parameters. With their help there will be created a number of questions which will be set in order to get to know the issues we have outlined above. Precisely, the principles have been broken down into several groups, and each of the groups was in its turn broken down to a number of parameters. This was made, firstly, to adjust the Principles to the investment topic specificity, and secondly, to concretize the things I would like to explore.

2.2. Data collection

In order to conduct the research on the outlined question, the necessary information is planned to be derived through the following ways:

Discussion with colleagues and teachers on:

 The best ways to extract information taking into account the specificity of the chosen topic.

2) Identification of the informant groups.

3) Sources of literature.

Literature review of the academic, businesses' information and intergovernmental material focusing on:

4) Economically successful and unsuccessful practices of SRI and SI.

- 5) Reports of investment funds.
- 6) Comparison of SRI and SI in terms of definition, criteria and performance.
- 7) Collation of SRI and conventional funds performance.
- 8) Identification of the criteria and stock indices outlook.
- 9) Contribution of SI to sustainable development.

Interviews with the following informant groups:

- 10) Experts on sustainable investment.
- 11) SI funds' managers.

2.3. Interviews

The choice of presented informant groups was made based on the particularity of the intended research that will focus on the analysis of the different parts of the investment process. That is why the stakeholders directly engaged in the stages of investment selection, developing of the criteria and conducting the following related activities including the final phases of outcome assessment, are anticipated to become the most informative and useful for this research paper.

In total, 3 semi-structured interviews with experts (1 personal and 2 telephone) and 6 e-mail communications with the funds were arranged. The list of interviewees is given in the "Personal communication" section, after the "References" section. The list of questions for the funds is given in the Appendix 2.

Regarding the experts' role of this process, it is to be noted that the Principles breakdown was made mostly according to the author's perception which was formed by the literature review as well. However, I realize that experts' in sustainability investment (consultancies, research agencies, research institutions) will be definitely beneficial and their opinion will help to: - outline the most important issues that I should pay attention to while conducting the research;

- better formulate the questions;

- develop a set of specific questions on the trade-off situations.

In order to get information about the funds that were included in the research, I contacted the funds' managers. Most of the communication was undertaken via e-mail correspondence. The list of questions was sent out and the answers as well as additional funds' reports were received. Further I started doing an assessment of the funds' sustainability criteria based on the answers I had received, prospectuses and reports, funds' web-sites and references to them in the Internet. However, the characteristics on some parameters from the list I created remained unclear. Consequently, I contacted the funds again asking to clarify the confusing points. As the first communication was undertaken in the form of open questions, the second round was more about specifying some points, so the list of questions were of "Yes \setminus No" format. This was done in order to avoid assumptions as much as possible and get the most credible results of the research.

Reports of the funds on European SRI Transparency Code (EuroSIF 2011) have provided a lot of valuable information. The questions asked in this Code cover most of the issues related to investment criteria.

2.4. Scope and limitations

This study does not focus on the investment of companies into sustainability practices. Rather it addresses how investment funds are dealing with these companies and their sustainability commitments by investing into them. The analysis of SI criteria applied in practice will be based on a randomly selected six SI funds which have claimed to contribute to sustainable development and satisfy shareholders' expectations on the financial return.

Chapter III. Literature review

3.1. Introduction

While doing the research – literature review and contacting experts and investment funds for interviews, the author of this thesis has met a lot of challenges that in particular were connected with the lack of clarity in definitions. These challenges can be represented as following:

1) Diverse attitude to such terms as "sustainability" due to the absent consensus on its meaning. That is why investment funds often create different proxies for "sustainability" and "sustainable performance". Consequently, the investigation of these proxies will give a better picture of the present state of things.

2) The need to clearly identify the scope and limitations of the funds included in the research. In order to avoid generalization and focus on the right range of funds, additional attention had to be paid to the diversity of Socially Responsible Investment (SRI) strategies. Notably, the author received some questions on the point of which SRI funds were going to be researched and why. In order to anticipate these questions from the readers of the thesis, a section on the SRI strategies is provided.

3) Financial performance of SRI funds is one of the focuses of the thesis. The materiality of ESG factors in driving investment strategy has been acknowledged in literature (UNEP&Mercer 2007). However, the opinion was recently expressed that the funds classified by different SRI strategies are not homogeneous regarding their financial return. That is why it was necessary to investigate the research that has been already done, meaning the

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hypothesis about the SRI funds' ability to outperform conventional investment. Further it was realized that the idea about the influence of the application of sustainability criteria has not received enough scientific (statistical) evidence. Consequently, this research direction was decided to be worthy to include in the current thesis.

Having said this, I try to provide an overview of developed knowledge in this domain. First of all, there will be presented a theoretical framework guided by sustainability audit, then I look at the definition and views on sustainability, after which I move further with looking at SRI vs. SI followed by finding out the role of transparency and finally come closer to defining sustainable investment criteria.

3.1.1. Sustainability audit

Theoretical framework for the current research employs features of sustainability audit which in its turn considers such aspects as accountability, responsibility and transparency. Additionally, in order to complement the theoretical base, the concepts of sustainability, investment strategy, sustainability criteria and confusion in definitions of SRI and SI will be addressed.

As the main objective of the research is to verify the linkage between criteria and sustainability value, it is tied to the necessity to track the input-output flow. While approaching an issue of sustainability audit, it is worth mentioning that it has a lot to do with environmental indicators and its "peers" – financial and environmental audit. Basically, sustainability audit incorporates both of them representing an integration of economic and environmental issues. When talking about this integration, Milon and Shogren (1995) also point out to the input-output flow that can be viewed in either monetary (financial results) or physical (actual environmental impact) units. Furthermore, Bartelmus (1995) appeals to accountability for environmental impact as an important part of sustainable development.

Notably, the Pressure – State – Response (PSR) framework developed by OECD (1998) can be taken as a guiding principle for the theoretical framework (Figure 3.1).

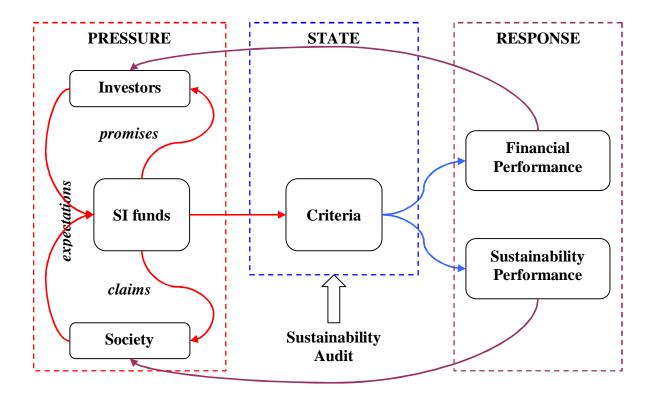


Figure 3.1 Theoretical framework

Source: Created by the author with the framework adapted from OECD (1998)

So the input or "Pressure" is the claims that SI funds make and the expectations from the society, including shareholders. The "State" is the actual sustainability criteria that SI funds develop. And the outcome or "Response" is sustainability and financial performance. Sustainability audit in this framework stands for the confirmation of those claims through applying a set of parameters. In other words, according to Cahill (1996), it insures that "an adequate system is competently applied".

3.1.2. Sustainability

Apparently, the main challenge regarding the concept of "sustainability" is a difficulty, if not to say impossibility, to measure it. It has been approached through applying specific measurements and indicators methods. Thus, it is obvious that if we take a certain indicators system, each of the indicators will contribute to the definition of "sustainability". So "sustainability" according to a particular set of indicators will consist of the positive responds to each of them. This shows a versatile and complicated nature of the term. Basically, it is very difficult to express the meaning of "sustainability" using one sentence or one paragraph. That's why when it comes to indicators or indices it is easier and more reasonable to represent "sustainability" through its breakdown into a number of individual components. For example, one of the methods, aimed to assess countries' sustainability, provide a number of indices related to a specific area: water, biodiversity, wealth, policy, education etc. (Armstrong 2002; Phillis and Andriantiatsaholiniaina 2001).

Although the notion of sustainability has been on the tongues of men and many of the governmental policies or business strategies try to incorporate in the planning process, there is no single standard which to compare the outcome against. The commitment of businesses, for instance, to perform sustainably, does not allow investors, analysts and community as a whole to define their corporation status as there is no common metrics quantifying the subjectivity of the issue, accepted by the majority (Curran 2009).

Additionally, the question of assessment sets another important condition – ability to quantitatively represent sustainability components. One of the problems that arise in connection with assessment is a diverse nature of measurement units. Also, Phillis and Andriantiatsaholiniaina (2001) state that it is not the lack of economic or environmental information that hinders the possibility to get to a common conclusion, it is because this information is fragmentary and mostly qualitative.

In their book "Sustainability indicators: measuring the immeasurable?" Bell and Morse also bring this issue to discussion, starting with looking at what the roots of sustainability are and what stands behind this concept, and following with the idea of "systemisism" (Bell and Morse 2008). However, not everyone agrees that sustainability presents a firm substance. In regard to the question of whether sustainability stands on substantial ground, some authors refer to it as to "empty signifier" (Davidson 2010) or to "empty concept" (Fortune and Hughes 1997).

The notion of sustainability is complex and owing to this sometimes it gets too vague when it is difficult to give an unequivocal definition. However, there is another view on the process of defining "sustainability". Pearce (1999) mentions that it is not difficult to delineate the notion. What is difficult indeed is to come up with the concrete actions that need to be taken in order to achieve this sustainability. I will try to review this issue from various angles and to consider different opinions in order to provide as more comprehensive information as possible.

The basic simplified idea that stands behind sustainability is a coexistence of human development and nature conservation. One of the first attempts to bring this issues to discussion was the WCED report "Our common future" (WCED 1987) where a general, but at the same time an overarching, definition of sustainable development was given as the ability of humanity to meet "the needs of the present without compromising the ability of future generations to meet their own needs". The issue of justice here meets the problem of limitations that the nature puts on the human activity. Apparently, the task for all of us today is to find the most efficient solution on how to achieve a better quality of life for everybody under the limits of nature. Basically, we have to learn how to maintain at a certain level but holding certain limits (Voinov 2008). Importantly, the quality of life here refers not only to the economic development but also to the equal right of every individual to benefit from the healthy ecosystem and not suffer from harmful results of others' activities.

These aspects of efficiency, justice and environmental impact found their reflection in the article written by Quental et al. (2011), who propose to investigate the definition of sustainability using three scientific approaches: ecological economics, sustainability transition, and sustainability science. These approaches allow us to move from prerequisites,

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where we accept a differentiation of conventional economics that should not be any more considered as a role model of the world, to answering the questions of "What, and for how long is to be sustained?" and "What is to be developed?", and finally to the sustainability science where the interactions between nature and society are being researched. This approach resulted in defining four key sustainability principles that consider such parameters as: limits, means, needs and complexity (Quental, Lourenço and da Silva 2011).

At present there is a strong concern about the earth's ability to maintain not only environmental quality but human health as well. Of course, the latter is also a part of the ecosystem, but as it used to perceive mankind's development and nature conservation separately, at present it is crucial to start considering them as an indissoluble unity.

Economic, social and environmental factors (or "profit, people and planet" as they are sometimes referred to) create three pillars of sustainability. The common way to present them as intersection of circles shows their interconnectedness and synergic nature (Curran 2009).

There are some interesting positions that show that the notion of "sustainability" is not unambiguous. The idea that it allows every member of society both in present and in future to hold a deserving way of life, satisfy his or her needs, face the problem of social disparities that the society is witnessing today (Voinov 2008). Basically it means that sustaining this state of things we will keep the differences in development stages that various societies have achieved so far.

Voinov (2008) points out that while developing countries are more interested in change rather than maintenance, it seems that the concept of sustainability can be only applied to the developed economies which can allow themselves to consider a conservation phase of being. Another difficulty we encounter when trying to define sustainability is that it cannot be firmly stated that fostering sustainability at local level will contribute to the whole sustainable system. Although when we talk about synergy where a cooperation of components gives better result than each of them separately, there is no evidence that fostering sustainability in disperse manner will be definitely beneficial for global sustainability (Voinov 2008).

As a result, Voinov (2008) asserts that all the contradictions above could only be resolved if the biosphere and humanity as one of its parts will be considered as a whole, whose sustainability we should aspire. Despite the disagreements in the literature, several features of sustainability that are accepted by most of the sources can be still identified: equity, altruism, concern for the future, nature conservation and balanced development (Lumley and Armstrong 2004).

3.1.3. Socially Responsible Investment vs. Sustainable Investment

Since its emergence in eighteenth century Socially Responsible Investment has developed from solely religious perspective to much broader concept. While it was previously believed that investors accept a certain profit loss in exchange to some values appreciation, now it is more and more discussed that SRI can be in fact profitable (Derwall, Koedijk and Ter Horst n.d.).

The term "socially responsible investment" embraces investment in many meanings. SRI integrates social, environmental, and ethical considerations into investment decision making (Renneborg, Ter Horst and Zhang 2008). As it is admitted by many authors SRI is not a homogeneous concept (Jeruzal 2010) and at present we are witnessing a dynamic development of the whole concept of SRI when many separate directions start to appear. And if about 10 years ago, Sparkes in his book "Socially Responsible Investment: A Global Revolution" (2002) pointed out that "ethical investment" is being replaced by "socially responsible investment", today this process moved even further and the latter term is being replaced by "sustainable investment".

Most of the research recognize the different kinds of SRI but do not see the necessity to study them separately. However, the recent trend of SI brings to the public, as one of the main advantages, an ability to outperform the market. Unlike the broadly described SRI funds, sustainable investment funds are claimed to be more profitable than conventional ones (Gunther 2010a). In the interview with Marc Gunther (2010a), Cary Krosinsky, head of investor and corporate services for North America for Trucost, asserts that SRI and SI should not be mixed especially considering the issue of financial performance. He also points out that SRI funds of the first generation were not even designed to outperform the market, that is why the academic studies (in particularly the ones mentioned in this thesis) show that SRI is worth in performance as Conventional Investment (CI). In their article Galema *et al.* (2008) also state that SRI can have an impact on stock returns.

And so far, SRI is referred to "mission investing, responsible investing, conscious investing, double or triple bottom line investing, ethical investing, sustainable investing, or green investing" (Jo et al. 2010) or "ethical, responsible, clean-tech, social, and sustainable investing" (Krosinsky and Robins 2008), or "socially responsible investment, social investment, responsible investment, ethical investment and sustainable investment as a new layer" (Woods and Urwin 2010) and so on. Koellner *et al.* (2007) stress that sustainability funds range from ethical to eco-efficiency to sustainable investment funds, and only the latter take social, ethical, socio-economic and environmental factors into account at the same time. Moreover, considering SRI as a misleading concept in these terms, they claim to avoid its use in their work.

Consequently, as SRI is such a broadly defined concept which can focus on anything from religion to the environment to pacifism, there is no ideal way to represent its performance as a group (Silverblatt 2010). That is why it is such an uneasy task to clearly identify, for the sake of experiment's purity, and further investigate sustainable investment, although there are

many views on what it is about, which are being developed by SI consulting agencies and SI funds.

The main point is that it is possible that SI aims and manages to outperform the market while SRI in general does not always do so, but the confusion in terms and classification makes it difficult to address them separately. However, even among the studies on SRI only, the results vary to large extent.

According to Woods and Urwin (2010) SRI became an umbrella concept surrounded by definitional ambiguity. Different SRI types would be more advanced once distinguished and their goals would be pursued with greater clarity of aim. Although the need to address SRI and SI separately is quite reasonable, the classification criteria or even screens for distinguishing them are yet to be identified. Moreover, different performance assessment methods should probably be applied. Meanwhile, the inability of separation the terms is one of the limitations to conduct the research on common SI performance. The only thing that can be done is addressing to certain practical examples as Krosinsky did in the interview when mentioned the financial success of Jupiter Ecology Fund, for instance.

One of the most well-known positions on the terms definition was expressed by EuroSIF (EuroSIF 2010). It has also very often been referred to by other sources. The thing is that EuroSIF proposes to use the same abbreviation, SRI, but now it means "Sustainable and Responsible Investment". It is yet to be investigated whether this change is reasonable or not, but the screening criteria based partly on the shift in definition is broadly used now by regional Sustainable Investment Forums (SIFs) and referenced in many academic research. For instance, Helena Hagberg from SweSIF (pers. comm.) supports the idea that a traditional interpretation of SRI is somewhat outdated. She also points out that although this transition is driven by customer requests, there is no clear split between Socially Responsible and

Sustainable Investment yet. For the sake of clarity I will hold to the abbreviations I started with, i.e. SRI for Socially Responsible Investment and SI for Sustainable Investment.

3.1.4. Investment strategies

Some state that different titles like "socially responsible", "ethical", "sustainable" investment are only marketing speculations. Others claim that it is very important to distinguish all these types as they are different by their nature and by the consequences of their activities.

We rather accept the idea that there is a difference unless the contrary is proved. It is important to note that one of the recent trends in the discussion around definitions is the shift from the SRI acronym as "socially responsible investment" to "sustainable and responsible investment". In this way SRI and SI become closer and possibly could replace one another.

This alone might put away most of the arguments around the issue, especially in the light of sustainable development as a concept that became a household word recently. The new SRI abbreviation is being applied by the respected European Sustainable Investment Forum (EuroSIF) and all its regional branches.

However, having that said, the fact that even under the new SRI there are a lot of types of investment that hold different aims cannot be neglected. In the EuroSIF study (2010) it is admitted that this variety challenges investors to clearly define SRI. Nevertheless, it is also said that there are at least two factors that can be applied to every SRI type: its long-term perspective and incorporation of the ESG factors in the investment criteria. However, this also can be casted doubt on because such approach as negative screening, which is also considered as an SRI approach, does not take the issue of the criteria as seriously as integrated analysis, for instance.

The classifications of SRI funds are plentifully presented in literature. For instance, Cagan (2011) has classified SRI funds into three types and provided examples to each of them: eco-

friendly (Calvert Large Cap fund), alternative energy (PowerShares WilderHill Clean Energy) and sustainable resources funds (SAM Sustainable Water Fund). Another classification is made after the investment strategies that the funds employ. There are many SRI strategies that were outlined in literature. According to Vandekerckhove *et al.* (2008) there are three main groups that these strategies are divided in: exclusion and/or inclusion criteria, best-in-class and engagement. However, two more groups could be added: integrated analysis-based and specific theme investment. Each of the groups consists of several types that slightly differ from each other. Also, as it was mentioned previously, EuroSIF (2010) divided all the SRI strategies into core and broad SRI, where norms- and values / ethical-based exclusions and positive screening together with the best-in-class method fall under core SRI, and simple screening plus engagement and integration – under broad SRI. Let us have a short overview of the SRI strategies.

3.1.4.1. Exclusion and/or inclusion criteria

The most wide-spread strategy is screening – negative and positive. According to de Colle and York (de Colle and York 2009) it accounts for 73% of means employed by the SRI funds.

1. Negative screening

This type of investment applies to screening out the companies engaged in activities that contradict commonly accepted norms of moral, ethics or religion. Sometimes negative screening is extended to the company's supply chain and customers. These activities may include weapons, nuclear power, animal testing, contraception, tobacco etc. Additionally there are some types of negative screening that incorporate specific criteria guided, for example, by Islamic principles (Shariah screening) that forbid investing in alcohol, pork or usury (SRI-Connect 2011). In general, the range of so-called "sinful" activities falls under those which potentially cause environmental degradation or which are socially unfriendly and unethical (Hoti, McAleer and Pauwels 2008).

The separate branch of negative screening is norms-based screening when companies are judged on the basis of whether they comply with the internationally accepted norms (Kyoto Protocol, UN Global Compact etc.) (SRI-Connect 2011).

The first funds that began to apply negative screening were the Pax World Fund and the Dreyfus Third Century Fund who excluded "sin" stocks, nuclear power and military and defence contractors (de Colle and York 2009).

Some authors (de Colle and York 2009) consider negative screening as a flawed and misleading concept as with a priori exclusion investors do not leave the "sinful" companies any chance for improvement. However, it does not also mean that SRI has to support these kinds of business; otherwise it would not be called "responsible".

2. Positive screening

Historically negative screening emerged first supplemented by its more sophisticated follower – positive screening. Many of the first SRI funds started with negative approach and later began to employ or even switch to the positive one. Vesta Grønt Norge and Vesta Miljøinvest – Scandinavian SRI funds, can be an example (Bengtsson 2008).

Positive screening is an active approach of inclusion of the companies which bring social or environmental benefits in their products or processes. For instance, businesses engaged in organic agriculture would be considered as objects of this screening as they are providing healthy food solutions as well as ensuring the benefits for nature conservation and soil capacity. Another example could be water companies which bring social and environmental benefits by providing clean water supply and wastewater treatment respectively.

3.1.4.2. Best-in-class

One of the popular diversions of positive screening is best-in-class SRI investment which aims to select only leaders in regard to environmental and social performance. Furthermore, the type which goes beyond considering just social and environmental performance, financially-weighted best-in-class screening, takes into account the aspects that most likely will influence the fund's financial performance (SRI-Connect 2011).

3.1.4.3. Engagement

1. Corporate governance

The investment fund represents the collective allocation of financial resources united and governed under the common strategy that all of the shareholders support. It is then naturally that actions of the fund's manager have to reflect opinions, rights and responsibilities of the shareholders. This is not just a matter of showing of respect, but it is the main purpose of the fund's functioning – to satisfy investors' interests. Corporate governance as the proactive execution of the shareholders' rights and responsibilities became a driving force behind SRI shareholder activism (SRI-Connect 2011).

One of the most spread approaches is a voting policy which enables investors to wield their power. Additionally, corporate governance includes rules and procedures that define the distribution of this power between corporate management and shareholders, as well as setting objectives and means to achieve them. Finally, the control of the return is also one of the issues that corporate governance covers.

Importantly, the actions under this strategy aim to improve the overall management transparency. Thus, the procedures focused on the managing of the conflicts of interests, will enable the corporate system to function at its highest efficiency. Moreover, the ability of the shareholders to involve into the decision making process ensures that the investment policy would be more effective and credible.(VivÓ and Franch 2009)

2. Constructive engagement

If corporate governance is more about the relations between the fund's management and shareholders and their influence on the investment decisions, constructive engagement touches relations with the companies which are portfolio candidates or which have been already selected. This approach was proved to enhance the financial performance of the investment over time (Woods and Urwin 2010).

According to Brenkert (2004) engagement policy can be viewed as a critical cooperation. This name is constructed of two contradictory words due to the mix of interests – conflicting and converging – that investors and companies share. Table 2.1 shows a matrix of four possible types of relationship depending on the extent of these interests mixture.

Table 2.1 Cooperation between investors and companies with regard to their interests

	Converging interests				
Conflicting interests		Low	High		
	High	Conflict	Critical cooperation		
	Low	Non-engagement	Cooperation		

Source: Brenkert (2004)

Thus, for instance, both of them aim to enhance the share price. So talking about the converging interests, the fund will be looking for the way to effectively change (improve) company's CSR policies and the company itself wants to achieve the positive effect on its reputation and share price. But at the same time, being concerned about cost efficiency, the company might be reluctant to internalize all the negative externalities of its activity, causing the conflicting interests with the investors.

Being an active way to influence companies' behaviour, constructive engagement is there to show that sustainable investment is not only about avoiding harmful or doubtful businesses but also about how to improve the lie of the land. Through the process of research and dialogue on social and environmental issue, the fund's management tries to encourage the company to increase its sustainability performance (VivÓ and Franch 2009).

3. Shareholder advocacy

This is a strategy that the fund employs to gain more influence on the senior management of the company. According to de Colle and York (2009) it represents 26% of all the socially responsible investment strategies. In order to lobby for the company's greater social and environmental responsibility the fund accumulates an outstanding ownership position. This quite radical approach may include public campaigns against some company's activities that are considered as contradictory to the fund's mission. Shareholder advocacy may take place when mere constructive engagement was not successful.

3.1.4.4. Specific theme investment

1. Sustainability theme

If the broad range of the SRI practices looks for companies from the diverse set of industries, the sustainability theme investment is focused on the ones that pursue of contribution to sustainable development as an ultimate goal. These can be companies engaged in water treatment, poverty reduction, education etc. The significant part of this type of strategy is pointed at the alternative/renewable energy investment.

2. Community investment

The undeserved communities that are not usually the subject of traditional investment become a focus for this strategy type. Such communities as child and healthcare, for example, do not receive a fair amount of financial interest. As these parts of human life are very important in terms of sustainable development, the funds executing community investment provide credit and banking to them. It gains only 1% of investing among the whole SRI (de Colle and York 2009).

3. Solidarity funds

The fund invests a certain percentage of its portfolio into the companies which meet solidarity criteria. It can be about employment issues or "solidarity" in the meaning of supporting the victims of natural disasters (like The European Union Solidarity Fund that was created in order to support European countries suffering from floods, fires, earthquakes etc. (EC 2011)

Another example is the Quebec Solidarity Fund outlines profitability together with the Quebec economic development as main purposes of its functioning (Caledonia 2011). The fund promotes workers' rights and training, and creation and maintenance of jobs.

There are also some unique strategies, like economic empowerment, that can be considered as a sub-strategies of solidarity funds and which are directed to support economic growth, development of economic infrastructure and sustainable communities (SRI-Connect 2011).

5. Microfinance funds

Some investment initiatives may have a charitable tinge as they aim to alleviate poverty and boost local economic development. Micro-loans and micro-insurance for small-size entrepreneurs who lack access to credit help to achieve their market return goals (Wood and Hoff n.d.).

The attention to microfinance as to the means of help for emerging markets appeared over 20 years ago. However, nowadays even though microfinance is often associated with emerging market, it is not limited only to them. According to EuroSIF (2010) in 2009 microfinance accounted for about 1 billion Euros and it is predicted that this direction will pursue even greater development in future.

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3.1.4.5. Integrated analysis-based investment

Integrated analysis is a more sophisticated tool for selection of the fund's portfolio which allows complementing the screening criteria by the estimation of risks and uncertainties as well as the analysis of the stock fluctuations. The fundamental approach aims for the more substantiated decisions in regard to the applied criteria in general, while such its brunches as quantitative approach and integrated analysis for engagement focus on more particular issues. The peculiarity of the latter one is to add weight in the analysis to the programme of engagement with the owned company.

As for the quantitative approach, it touches one of the most fascinating issues around sustainable investment - the relation between sustainability and financial performances. Although there have been many attempts to show the connection between them, we still cannot assert that it really exists. The quantitative approach of integrated analysis aims to assess and predict the correlation between these two company's performances. In order to do that, different statistical methods are used and the results help the fund to manage its portfolio. Finally, there are two more strategies that stand separately. These are: income sharing and sustainable finance funds. In the first case shareholders are encouraged to allocate a part of their income to environmental donations. The second strategy is focused solely on the companies whose activities contribute to sustainable development. It has never been an easy task to identify what is sustainable development and especially to make a quantitative assessment. That is why this strategy involves a serious research, including, for instance, Input-Output Life-Cycle Assessment.

In summary, having looked at the different SRI strategies, it is important to mention that none of the funds is a representative of a pure single strategy. For instance, a certain fund can position itself as a sustainability theme fund, and then have a certain list of "tabooinvestments" and at the same time actively using a constructive engagement approach. In other words, many SRI funds construct their policies on the basis of shareholder engagement and dialogue in combination with negative screening conducted prior the investment (Bengtsson 2008).

The issue of how Sustainable Investment, as one of the SRI types, differs from others fell under special interest of the author. In particular, I want to investigate whether the criteria, used by these funds, are really different from other SRI strategies and what the specific consequences of their implementation are. For instance, in literature there have already been presented some comparative analyses of positive and negative screening. It was investigated whether the indices based on positive criteria are less subjected to spillages and are affected by the financial indices than those incorporating negative screening (Hoti, McAleer and Pauwels 2008). The study was focusing on the quantitative correlation and financial return rates. In the current research I will try to present a qualitative and quantitative analysis and investigate the criteria of the sustainable investment funds and to get to know whether the mentioned differentiation is reasonable.

Additionally, I aim to check the hypothesis expressed in literature about the ability of SI funds to perform well on the market. In their report for Monitor Institute, Freireich and Fulton (2009) presented a segmentation of investors with regard to the impact they cause or aim to cause. Investment fund according to this diagram range from solely profit-maximizing to philanthropy, having in between so-called "yin-yang" deals which are combinations of capital from financial first investors and also sometimes add in philanthropy. The high-right angle of the diagram (Figure 3.2) shows investors who intend to combine their social and environmental impact and financial return.

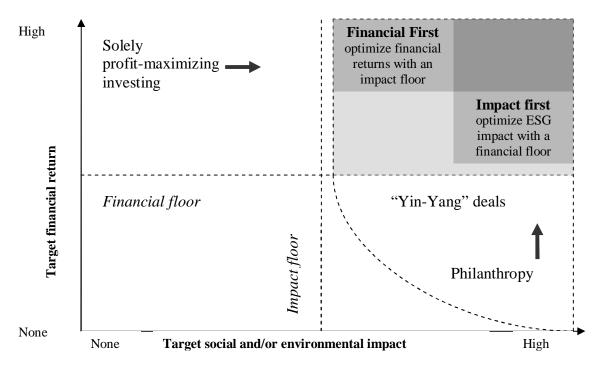


Figure 3.2 Segments of impact investors Source: Freireich and Fulton (2009)

These investors fell under my special attention. But as we see the very high-right part of this upper block is blank. One can suggest that this is a place for "ideal SRI funds" that care equally about financial and environmental issues. On practice this is not the case yet and even though the new generation sustainability funds aim for both environmental and financial performance, they still make a choice which area they will assess first. Assuming that the funds' criteria can be used as a kind of measurement of their sustainability, I will assess, by means of several statistical tests, the relationship between the extent to which a certain fund commits to keep to the sustainability criteria and its financial performance.

3.1.5. Transparency

The fact that a certain fund identifies itself as sustainability investing one obliges it to comply with some commonly accepted principles and guidelines. According to Glavic and Lukman (2007) "principles are fundamental concepts that serve as a basis for actions, and as an essential framework for the establishment of a more complex system". Although there is no public standard to assess the funds' behaviour and performance (Scholtens *et al.* 2007), and

any official regulation that investors have to comply with, the growing demand for responsibility from customers makes them to develop and implement their own schemes of accountability. In this way investors have an opportunity to declare about their mission and goals and the ways to achieve them. In other words, once the fund call itself "sustainable" it becomes responsible for the outcome of its activity. That is why we have such guiding frameworks as Principles for Responsible Investment or SRI Transparency code, developed by United Nations and EuroSIF respectively.

On one hand, the situation by its complexity reminds the organic food certification processes. One could argue why the "good deeds" have to go through so many steps and put so much effort. On the other hand, for the sake of credibility we can not avoid external expertise and guidance. Consequently, the question of incentives that rule the investment bodies to pursue sustainability path, becomes even more crucial.

In 2009 the first attempt of launching the SRI label, Novethic, has been undergone. It is expected to improve transparency on the SRI funds and make them available to individual investors. The label was awarded to 92 and 142 funds in 2009 and 2010 respectively (EuroSIF 2010). It is awarded to the funds which comply with the following conditions:

- 1. They apply ESG screening.
- 2. They comply with the EuroSIF Transparency Code.

3. They provide an extended financial reporting (this means that they give qualitative and quantitative information on ESG characteristics).

4. The funds provide the full list of portfolio holdings.

As it was mentioned, besides the SRI regulations regarding pension systems in eight European countries, there are no laws on the SRI funds activities regarding transparency. However, such voluntary frameworks as United Nation Principles for Responsible Investment or SRI Transparency code have been successfully improving the situation with the ESG issues disclosure. The credibility for SRI funds activities and understanding from the public are the consequences that are expected to get. Additionally EuroSIF is actively collaborating with the European Commission on improving regulation around ESG disclosure. For instance, it has suggested improvements of Directive 2004/109/EC (Transparency Requirements for Listed Companies) where EuroSIF proposes to pay greater attention to the ESG issues disclosure (EuroSIF 2010).

Interestingly, the benefits of transparency improvement go far beyond the provision of corporate accountability for their decisions. It can facilitate replication of the good practices, in other words to serve as a positive benchmark for other market players. It also helps consumers and policy makers to take more efficient decisions. But more importantly, according to Armstrong (2002) there is a correlation between the approach to transparency and the operational efficiency, as well as increase in shareholder value.

3.1.6. Sustainable investment criteria

Although sustainable investment is a concept beyond of just a financial interest, the main ultimate goal of it is still profit maximization. Funds' managers are divided by the way they approach an investment strategy – passively or actively. Passive investment manager will look only at the investment style, whereas active one – at both style and selection (Sharpe 1992). Therefore, the actions which investment managers undertake influence the outcome of the investment, notably, the rate of return. Selection, as one of their tasks, is reflected in developing criteria for investment portfolio. The sustainability goals require them to assess companies based on both directions – financial and non-financial criteria (environmental, social, ethical etc.) (Koellner et al. 2005). It is also expected that non-financial criteria stands on higher hierarchical level than financial one. However, the reality is not that definite and the study by Bügl *et al.* (2009) showed that sustainability criteria of real estate investors primarily focuses on economic aspects which outweigh social and environmental ones.

One of the incentives for elaboration and disclosure of the criteria that SI funds use is an aspiration for transparency. Assuming that in order to be highly rated regarding sustainability performance of the fund itself, it will aim for presenting the criteria it uses against the businesses in the portfolio. Additionally, transparency is perceived to reduce the reputation risk (Clark and Hebb 2005).

There is one important question: which consequences will the SI criteria have besides the obvious benefits for the fund? Does it lead to any positive changes regarding sustainability performance on macro or at least on micro (firm's) levels? According to (de Colle and York 2009) one of the purposes of SRI funds is to encourage companies to improve their sustainability performance. This can be achieved directly (active shareholder advocacy) and indirectly (through the application of screening criteria). Koellner et al. (2005) assert that the influence funds' managers can have on companies goes beyond financial borders. For instance, they can encourage sustainable practices or even expressing their opinion through voting at stockholders' meetings. Moreover, fund managers can influence even extremely bad companies encouraging them to improve their sustainability performance. In this regard, issue of sustainability criteria is especially important.

3.2. SRI trends and market evolution

Environmental and social challenges like climate change, water scarcity, poverty, finiteness of non-renewable energy sources and so on, have reached the point where the adequate response from business is in great demand. European SRI study (EuroSIF 2010) came to a conclusion that the times of crises that the world has been experiencing in recent years (financial in 2008 and environmental and social like BP Deepwater Horizon case) showed the real merits of sustainable investment. The evidence of the influence that environmental and

social risks have on the financial results start to convince investors to pay more attention to ESG factors. The investment market presents a significant shift of focus towards Sustainable and responsible investment (SRI).

Consequently, we have been witnessing an enormous SRI market growth rates, especially in comparison to the growth of traditional investment market. De Marcillac (2009) states that the SRI market size in 2002, 2005 and 2007 was 2.6, 3.6 and 6.8 trillion dollars respectively. In 2009 the global SRI market represented €7.59 trillion (EuroSIF 2010).

According to EuroSIF (2010) the European SRI market size in 2009 has reached 5 trillion dollars which constitutes to 87% growth comparably to the previous study in 2007. In Figure 3.3 the breakdown of the whole investment and SRI markets evolution.

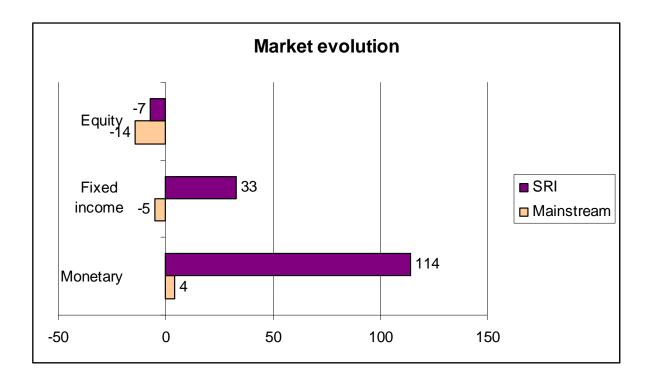


Figure 3.3 Market evolution: traditional and SRI investment Source: EuroSIF (2010)

Although the equity market for both traditional and SRI experienced negative growth in 2007 – 2009, h situation for SRI was better. As for other two classes SRI presented much higher growth rates than traditional investment.

In Europe the total assets under management accounted for ≤ 10.7 trillion by the end of 2008 and core SRI assets make 10%. The discretionary mandates and investment funds represent 84% and 14% respectively. Let us remind that our research is focused on the latter group.

Core SRI, which, generally speaking, is based on positive screening including best-in-class and norms' and values / ethical-based exclusions, accounts for 1.2 trillion, and the rest is broad SRI (simple screening, engagement and integration). The market growth for core and broad SRI in 2007 – 2009 was 20.7% and 119% respectively. The composition of SRI market by the strategies investors use is represented in Figure 3.4.

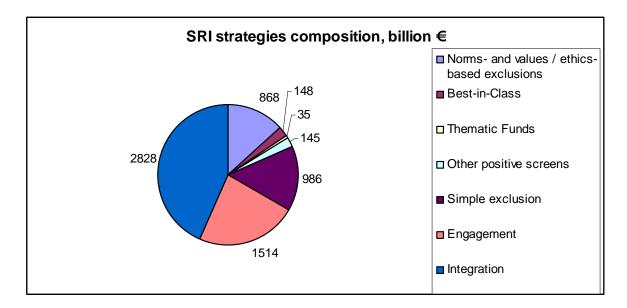


Figure 3.4 SRI strategies composition in 2010 Source: Adapted from EuroSIF (2010)

Especially remarkable was the growth of integration-based approach (191%) that testifies that investors started to apply a more fundamental approaches to the criteria they use rather than just simple screening (EuroSIF 2010).

In the USA, the biggest SRI market, the global market of all investment under management grew by 260%, while the growth of SRI constituted to 380% between 1995 and 2010 (SIF, 2010). This growth has led to a current share of about 10% SRI assets in total assets under management in the USA (Zieglerand and Schröder 2010). According to Social Investment

Forum (SIF) SRI's share in the USA is even greater – about 12%, constituting to \$3.07 trillion out of \$25.2 trillion by the end of 2009 (SIF 2010).

3.3. Sustainability performance

In order to investigate the definition of "sustainability performance", let us distinguish three approaches that can easily to be mixed but which are of definitely different nature. The first one is the performance of businesses' activities regarding sustainability which can be guided and assessed by means of different system of indicators, for instance, one of them is BellagioSTAMP principles. The second approach is rating for funds that are managed according to sustainability (Koellner et al. 2005). Finally, the third one is more about economic performance of the companies that commit to comply with sustainability standards and are under attention of the SI funds managers. Here we mainly deal with diverse number of sustainability stock indices. One can suggest that these three approaches can be followed in sequence and would be probably right, but let us look at each of them closer.

3.3.1. Sustainability performance indicators

Some of the sources indicate that sustainability performance comprises of a number of indicators that show how the company contributes to sustainable development (Singh et al. 2007). However, needless to say that these indicators' schemes have to be rigorously elaborated in order to avoid statements that are too general and do not provide any precise impression.

Therefore, one of the ways to present and explain sustainability performance is by means of a certain assessment framework. The first initiatives aimed to establish sustainability reporting were presented by World Business Council for Sustainable Development (WBCSD), Global Reporting Initiative (GRI) and Organisation for Economic Co-operation and Development (OECD) (Singh et al. 2007). The outcome of the assessment, namely, the information delivered by principles and guidelines or the answers to parameters and indicators, is

intended provide a holistic meaning of the notion. Nevertheless, Singh et al. (2007) mention that regarding integrated sustainability assessment at the corporate level there is no framework, besides some indices like Dow Jones Sustainability Stoxx Index (DJSSI), that would give a comprehensive view on the issue.

Regarding the assessment framework, I decided to employ an approach of reductionism which is discussed by Bond and Morrison-Saunders (2011). They mention two ways of conducting a sustainability assessment: holism and reductionism. The first one touches upon the idea that the system can only be understood by taking it as a whole. While the second insists that through breaking down of the complicated vision of sustainability into smaller units and derivation of indicators we will manage to get a thorough picture. Consequently, my approach with sustainability parameters will help to evaluate the funds' aiming for sustainability.

3.3.2. Sustainability rating of investment funds

The second approach towards sustainability performance I look at is rating for investment funds which act sustainably. Koellner et al. (2005) produced a set of principles that are proposed to be followed while assessing funds' sustainability performance. It is important to mention, that the authors talk not about sustainability criteria that a certain fund would elaborate, but here the fund itself is presented as an object of sustainability assessment.

The main findings from these principles are:

- to consider both drivers (research process in fund management) and outcome (portfolio's sustainability performance);

- comprehensiveness of the rating that should include all the aspects (economic, environmental, socio-cultural, ethical);

- the rating should serve for improvement of the funds' management regarding sustainability goals;

- the sustainability rating should aim for complementing the financial rating and contribute to transparency on the investment market.

3.3.3. Sustainability performance of businesses

Continuing on the interesting topic of emerging approaches to SRI and SI, and whether it is reasonable to separate them while investigating economic performance, another equivocal issue arises – stock indices. Here I look at the third approach towards sustainability performance. Usually indices are utilized to compare financial performance of the investment fund with a benchmark. Regarding SRI and SI, a number of specific indices were elaborated.

As I have already touched the topic of slightly perceptible difference between SRI and SI, let us transfer the same discussion to the differences between SRI and SI indices and whether different approaches here are necessary at all. Krosinsky mentioned that SI is the more positive strand of SRI, it helps to create long-term value, identifies "predictable surprises", such as climate change, diminishing water availability, human rights issues and others that influence investment outcomes (Gunther 2010a). However, it remains unclear how to incorporate this criteria if we wanted to create a specifically tailored index in order to measure SI performance. Notably, it is not clear whether the notion of "sustainable investment" consists of "green investment" in commonly accepted meaning, which is the one functioning in the renewable energy sector, for instance.

However, some opinions on what to include in the definition of SI give us some light on the specific SI indices as well. For instance, the study on SRI performance in France (Amenc and Le Sourd 2010) separates "green funds" describing them as investment in businesses that stresses their attention on the "E" in ESG criteria, though engaging in activities connected

with ensuring water quality, exploitation of renewable energy, prevention of climate change caused by human activity, and so on.

And according to (Siddy 2009) there are two main groups of SRI indices: broad-based indices of stocks from all industry sectors (FTSE4Good, the BM&FBOVESPA Corporate Sustainability Index (ISE), the Johannesburg Stock Exchange Socially Responsible Investment Index, the NASDAQ OMX GES Sustainability Nordic Index, the Wiener Börse VÖNIX Sustainability Index and so on) and specific indices that focus on the companies which provide solutions to sustainability challenges in relation to clean technology, sustainable energy and environmental services (FTSE's Environmental Technology Index series, Deutsche Börse's DAXglobal Alternative Energy Index, the NASDAQ OMX Clean Edge Global Wind Energy Index, and the NYSE Arca Cleantech Index etc).

As one of the performance characteristics, stock indices play a multiple role. Besides being a yardstick for the businesses and investment funds, they also can influence the investment decisions. Talking about SRI or sustainability stock indices, we assume that the corporations included in one or another index become more attractive for investors. In this way, the mere idea to launch a certain index may have positive consequences on the willingness of the companies to achieve a certain standard from one side, and readiness and awareness of the investors to pour in money, from another (Consolandi et al. 2009)

Thus, the fact that a certain company was chosen to be included in some sustainability stock index, indicates, firstly, that its performance towards sustainability complies with the standard, and secondly, that it is one of the best-in-class group that means that it is successful enough to be considered as part of the benchmark. However, it is obvious that only comparably small amount of companies get into the indices' lists, so for most of the funds these businesses are not necessarily targets for their portfolios. But they are useful because

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they comprise aggregate benchmarks which are essential for funds' functioning and performance assessment.

In their study, Consolandi et al. (2009), show with a statistical evidence that there is also a correlation between inclusion or exclusion a certain company from the sustainability stock index (in the article they investigate DJSSI) and the way the market reacts on this information. Particularly, they state that a company is able to generate abnormal returns right after its inclusion in the index, and on the contrary – abnormal returns diminish after its deletion from the index. Moreover, the negative reaction of the market (as a response to the deletion from the index) usually is stronger than the positive one.

3.4. Financial performance

3.4.1. Indefinite nature of performance

According to Woods and Urwin (2010) statements like 'responsible investment outperforms the market' or 'performs better or worth than conventional investment' are not definitive. The conditions or time frame play a crucial role in performance assessment. They might influence the funds to the extent when these statements can be true or false while all other things being equal. For instance, due to the global economic crisis in 2008 the historical performance of the investment funds worsened. Thus, randomly picking a SI fund, TD Global Sustainability Fund, we see that its performance since inception and the last year one differ quite significantly. The benchmarks of Dow Jones Sustainability World Index (DJSI World) and Morgan Stanley Capital International World Index (MSCI World) are also represented in Table 3.1. Here we receive evidence that even though the cumulative performance of the chosen fund since its inception is worth than both indices, this might be because of the world economic crisis when all the industries were under great recession. Because the 2009 performance is better than MSCI World index.

Table 3.1 Performance of TD Global Sustainability Fund

Performance	Since inception	2009, %
	(September, 2007), %	
DJSI World	- 9.6	15.5
MSCI World	- 10.2	10.4
TD Global Sustainability Fund	- 11.7	10.7
$S_{\text{extract}} TDCCE(2000)$		

Source: TDGSF (2009)

A chasm between performance beliefs and reality is another issue that is perhaps one of the reasons that the question of SRI performance was put in question by a number of academic studies. Once a suggestion was pronounced researchers got interested in checking the hypothesis and, as results show, the SRI outperformance is yet to be either proved or denied.

3.4.2. SRI funds financial performance

The task of the academic research is not to convince investors (stockholders) that socially responsible investment (SRI) can outperform conventional investment (CI). It is rather in testing the hypothesis that many consultancies, investment management agencies and funds (on their web-sites, presentations, case-studies etc.) bring to the public: "SRI is able to generate added economic value", "It is possible to do well while doing good", "In long term SRI can outperform CI" and so on.

Some studies have been already conducted in order to verify these hypotheses. It is important to mention that this task requires an intellectual detachment. It is also worth saying that while gathering information on the topic, one thing was becoming more and more evident – there is a clear need in distinguishing the notions of socially and sustainable investment. It will be further discussed in the following sections of the paper, however the line and borders remain to be uncertain. That is why, for the sake of building up an information base, I will try not to narrow the scope too much.

It is also needed to decide whether to aim for giving "recommendations" in any outcome, or stay neutral, providing just the results of the academic research.

It is quite clear why such statements are announced – in order to provide incentives for potential stockholders. While SRI is a niche in investment market, equity funds cannot function without pouring of the money from investors.

However, some of the recent studies on the issue claim that it is not a niche anymore, it became a competitive market player (Lewis and Juravle 2010). According to Siddy and Kumar (2007), fund managers involved in sustainable investment now vary from niche SRI firms such as Calvert and Domini Social Investment to mainstream investment firms such as ABN AMRO, F&C and Henderson Global Investors.

Prior to getting closer to the SRI and SI vs. CI equity funds performance one can set up another hypothesis. If performance is equal or lower just a little, that would be probably enough for being an incentive for the "caring" investors. And following, that would not be enough for those for whom the profitability maximization is on the first place.

The issue of SRI financial performance has being raised since the concept's inception. One can suggest that in this way the search for additional evidence for SRI benefits has been under inspection. A number of studies have addressed to broad range of issues like SRI average equity funds performance, SRI vs. CI and even SRI vs. vice investment performance.

One of the possible classifications of theories describing SRI funds' performance is represented in Figure 3.5, where two hypotheses, value-discounting and value-enhancing, are given as main confronting positions on the issue. They are supported by theoretical frameworks – financial portfolio and classical firm theories from one side and social firm theory from another. Financial portfolio theory suggests that worse fund's performance is caused by the application of screening criteria that constrains investment possibilities. Limited diversification and consequently greater risk exposure lead to excessive costs and situation when profitable potential assets beyond the chosen criteria scope are avoided.

Classical firm theory asserts that the firms, which are objects of SRI, are less financially efficient and incur higher costs, therefore they are less profitable.

On the other hand, social firm theory states that SRI funds perform better than conventional funds because more information is considered during the decision-making process. Consequently, SRI funds choose companies that are better in managing economic, social and environmental risks and thus are able to outperform the market.

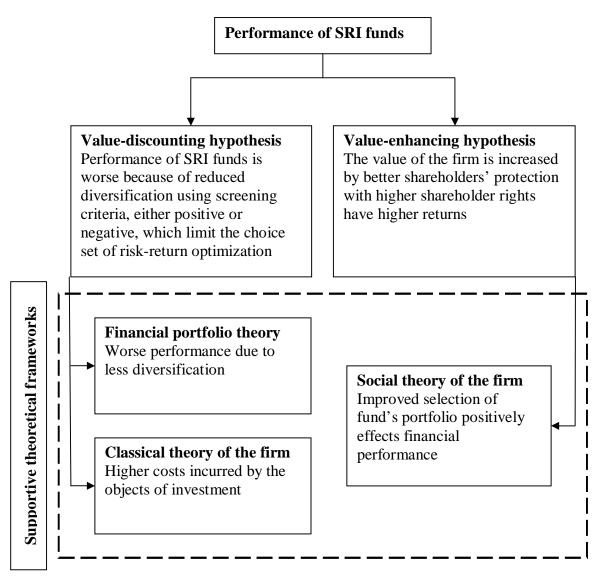


Figure 3.5 Theoretical frameworks of SRI funds' performance Created based on (Jo et al. 2010; Sánchez and Sotorrio n.d.)

Let us take a closer look at the literature findings on the topic of SRI performance and different ways of comparison.

Firstly, it is interesting to address to SRI vs. vice investment performance. Of course, most of the conventional equity funds lie somewhere in between these two, but some conclusions can follow on the influence on performance of social criteria incorporation and also the attitude of stockholders to different types of investment. Sin stocks¹ (Investopedia 2011) behave like value stocks² and were able to outperform the market in the period by 6.84 % annually to 2004 (Jo *et al.* 2010). In the same source certain suggestions on why the sin funds behave in such way are given as well, but this is not of our interest at present. According to Jo *et al.* (2010) Domini Social Equity Mutual Fund (DSEFX) outperformed vice fund (VICEX) over the recent year, while VICEX has outperformed DSEFX over the long term. Here the time and screening issues arise, which have strong effect on the outcome of the comparison and will be further discussed later in this paper.

Now let us move further to SRI vs. CI collation. Existing studies often show that even if there is a difference in SRI vs. CI performance, it is statistically insignificant. For example, in (Jo *et al.* 2010) it is stated that the monthly Jensen's alpha³ (Investopedia 2011) of DS400 during May 1990 – April 2004 exceeded that of the S&P 500 Index by 0.09%, so the performance of SRI was slightly higher than CI. Additionally, according to (Gunther 2010a) S&P 500 Index versus the FTSE KLD 400 Social Index, from May 1, 1990 through July 31, 2010, presented an annualized return of 8.39 % and 9.14 % respectively.

Another two studies on the SRI performance in France (referring to 2008 and 2010) showed different results(Amenc and Le Sourd 2010), where SRI funds did not produce positive outperformance. Another research made by (Blanchett 2010) also shows that SRI funds tend to slightly underperform CI ones, but again, the results are statistically insignificant.

¹ Sin stocks - stocks from companies that are associated with activities that are considered to be unethical or immoral (alcohol, tobacco, weapons and sex-related products manufacturing).

² Value stocks - include a high dividend yield, low price-to-book ratio and/or low price-to-earnings ratio, because these stocks are considered undervalued by a value investor.

³ Alpha – a measure of performance on a risk-adjusted basis.

Additionally, the study in Brazil compares performance of the second emerging market sustainability index in the world, ISE, to Brazil's main benchmark index, the IBOVESPA, and shows no statistically significant evidence of positive abnormal returns which is shown in Figure 3.6. However, negative abnormal returns were also not detected (Siddy 2009).



Figure 3.6 ISE vs. IBOVESPA indices performance Source: IFC (2009)

Ackerman (2010) brings another conclusion that large-cap SRI funds beat the S&P 500 by more than 6%. Spiller (2000) claims that NZSE 40 (the index of the 40 largest companies listed on the New Zealand Stock Exchange) and an ethical portfolio screened for the conventional "sin" funds showed that there was no significant difference between the two portfolios for the five years.

As we can see from all these examples, it is impossible to come up with an unequivocal conclusion. In broad terms this might mean decision making of investors who are looking for the financial performance in the first place (even if they do care about sustainability issues) should not be based on these general results. Moreover, researchers admit that there is still lack of information on the issue. And the one available is often contradictory as it has been shown earlier in the provided examples. For instance, property investors in the interviews

conducted by Myers (2008) considering the role of sustainability in a portfolio, express the need for more information about the financial impact of sustainable buildings and for the evidence, analysis tools and methodologies that identify and prove the impact of sustainability on market value, which, in turn, will assist in investment decisions about sustainable buildings.

Available information is often not sufficient to enable effective assessment of Environmental, Social and Governance (ESG) issues that might make mainstream investors to be reluctant to consider SRI as a primary choice. The results of some selected studies, provided earlier, prove that investors' concerns are fair. First of all, the SRI performance is relative, depending on the angle from which to look at. Secondly, an enormous part of studies state that the difference in performance is statistically insignificant. It could be then assumed that these differences could be neglected.

So it is understandable why SRI is promoted as one that does not yield to CI. Often this position is provided by SRI consultancies or funds but without giving supportive evidence with numbers. In fact, some sources (Gunther 2010b) indicate that SRI has never been claimed as the one being able to outperform the market. And others are even more sceptical saying that corporate social responsible behaviour can be negatively connected with financial returns (Margolis and Walsh 2001).

Consequently, the opinion, which does not express the reality to full extent, can be formed relying on the general statements. To be fair and it was to some extent discussed already, the reality of SRI performance can vary significantly. So it is possible, and there are practical examples of superior SRI equity funds performance, especially if the time factor is taken into account. However, the point is in necessity to avoid generalizing in order to prevent misleading in judgments.

3.4.3. SI funds financial performance

While the SI concept is quite new, there are not so many studies comparably to SRI. However, there are many claims about SI financial success potential. One of them was already represented earlier, providing the point of view of Cary Krosinsky.

The report made by IISD (2011) mentions that some of SI funds have outperformed the market, but it remains unclear whether it is owing to sustainable business practices or just because of the fact that sustainable businesses are larger, high-tech enterprises. However, again it is stated that all the attempts to prove the cause-and-effect relationship have been inconclusive.

Other statements on the issue, mainly given utterance by SI consultancies, are provided in

Table 3.2.

	ty"; ormance requires a long-term outlook";
	ormance requires a long-term outlook":
	1 0
- "invest	ment results for long-only equity strategies are
maximize	d by taking a long-term investment horizon because a
majority	of a company's value is determined by its long-run
performat	nce"
	able investment not only makes sense from a social and
•	perspective, but is financially rewarding as well";
	hable investments promise more consistent returns,
	for investors with long-term horizons, by avoiding the
investmer	ciated with a conventional "unsustainable" approach to
	nable investment products have favourable risk
	stics and investment return profiles at least similar to
	financial products, if not superior";
	able investment products are suited to investors who
	combine financial success with a contribution to
	e development";
	managed according to sustainability factors in Europe
	layed steady growth over the years despite economic
-	and crises"
Source: GIM (2010), Inrate (2010) and	

Table 3.2 SI potential to outperform CI in view of SI consultant agencies

Interestingly, people can only decide whether to trust or not to trust the claims of the SI outperformance, only certain examples (like the funds that were mentioned by Krosinsky) are available for the public. This issue remains to be further investigated and systematized. According to QFinance (2010) SRI's ability to create stockholder value is ultimately an empirical one. Empirical findings on the performance of SRI are mixed. Accepting this for SI as well I assume that only empirical studies will show the correctness of the claims above.

However, some findings that confirm the ability of SI to outperform the market are already available. Coming back to the French study, I should mention the results on the "green funds" performance. Supporting the claims in the previous section, the "green funds" index showed better financial performance than traditional SRI funds index and better than conventional MSCI World index as well (Table 3.3).

Performance	2002 – 2009, %
	, ,
DJSI World	0.26
MSCI World	- 0.62
Average SRI fund indices (All SRI funds)	- 0.39
Average SRI fund indices (Traditional SRI funds)	- 2.13
Average SRI fund indices (Green funds)	1.14

Table 3.3 "Green funds" index performance in comparison with benchmarks

Source: Amenc and Le Sourd (2010)

Having all that said, the main question that comes out is: If all those claims about SI's ability to perform well on the market are true, what in its nature does it make to perform well? One could answer that the key of success is in the strategic focus on sustainability. However, to say "sustainability" is not enough for substantiating an argument. That is why I decided to come up with some proxies for this notion in order to investigate how the fact that the fund is a sustainability investment fund influences its financial performance. These proxies are reflected in my assessment framework with sustainability principles and parameters.

As SI funds criteria are the most obvious way to identify whether the fund incorporates sustainability principles in its main activities, it is natural that it can become one of the variables in this assessment. Therefore, the sustainability investment principles and parameters framework that I developed in this thesis will be used for multiple goals:

- to verify whether there is a real sustainability value delivered by SI investment;

- to make a qualitative-quantitative assessment of the certain funds sustainability and further on to use the results in order to find out whether there is a connection between with financial performance;

- to derive the interesting lessons from the SI experiences.

3.5. Investment engagement

Different stakeholders can influence the firm's behaviour, in particular, the attitude towards sustainability. For instance, consumers and media can have an impact on the company's decisions regarding CSR, governmental environmental policies require compliance the standards, but I will look at whether and how SI funds influence the companies' behaviour in this area. Particularly, which role the criteria they apply play in this process.

If we think about the actions that could motivate the companies to improve their sustainability performance, we realize that selection methods that have incorporated "negativity" (like negative screening) seem to have bigger potential to be a driving force for changes. It seems like this because if some companies were excluded from the list as "bad" ones, they would probably want to rehabilitate and improve their performance in order to be selected by these investors. However, it is not necessarily true as long as there are hedge funds and investors who care about the extreme economic return at most. Although, some sources indicate that SRI is no longer a niche investment, the sustainability criteria are not applied by all the funds, thus many of the "bad" businesses will continue to exist. Also we

have to distinguish "bad" meaning "polluting" (in general terms) and "vice" investment when we deal with such commonly condemned industries as tobacco, gambling and weapon, for example. In the first case the firms have a chance to reform and become acceptable for SRI investment, but the second case is hopeless in these terms.

There are some studies that attempted to assess the impact of excluding criteria of SRI funds on the firms' readiness to reform and on the investment market as a whole (Barnea, Heinkel and Kraus 2005). They revealed that the price of the reforming plays a crucial role and in cases when reforming costs a significant amount of money for the firms, the ethical screening (which was assessed in the study) reduces investment in the economy.

The analysis of the funds' sustainability criteria showed that one of the issues that stand out is a constructive nature. That means that unlike the older conception of SRI with the biggest attention being paid to excluding, SI funds tend to develop a deeper look into the companies' processes, including quality of the management in terms of incorporating sustainability. Moreover, the common issue is the funds' readiness to engage with the so-called amber\red marked companies and negotiate the change of behaviour instead of just "walking away" and selling the stock. So my suggestion is that sustainability investment should consider not only choosing the best in class business but also take responsibility and try to influence their activities whenever it is starting to become out of the scope of being sustainable.

The modern community of SI funds look not only for screening out and in of certain companies, but they begin to be actively involved and play an "advocacy" role (IISD 2011). The funds tend to encourage the companies they hold in their portfolios to keep to the high standard and improve if it is needed. Consequently, we can confront the issue of SI funds being more than marketing moves but actually have positive consequences on sustainable development besides economic performance.

Chapter IV. Results and Analysis

4.1. Qualitative assessment

4.1.1. Delivering a real sustainability value

This research aimed to investigate what is the impact that SRI funds carry along with their activities. This impact (in a good meaning of the term) stands for sustainability value which can be broken down to a couple of groups: economic value and ESG value. Additionally, I look at the efforts that funds can undertake in order to influence the companies' behaviour (engagement practices).

The main challenge when it comes to evaluation these kinds of impact is how one can actually assess them? The two groups of methods are quantitative and qualitative. If we take economic value it is obvious that it should be assessed by the total return, for instance, which the fund provides. However, when we talk about ESG value, quantitative assessment becomes a challenge. Although, there were some empirical and theoretical studies on how to quantify the environmental impact that SRI has, for instance, an Input-Output-Life Cycle Assessment (IO-LCA) method presented by Koellner et al. (2007), I focused on qualitative assessment of the funds' practices.

As Uno (1995) pointed out, there is a perceived disproportion between records that are often made regarding environmental impact of human activities and socio-economic performance. As usually the increased level of production serves as a measure for the latter, the former remains unrecorded. However, it is not acceptable that only positive side of economic development would be tracked neglecting its negative side. The method of IO-LCA is called to quantitatively assess the impact that investment funds have on the environment. The challenge here is to transform the environmental impact into monetary terms. The difficulty is in the following:

- even if we have a list of environmental impact indicators, they are not homogenous by the units of measure;
- often this impact is given qualitatively.

In order to deal with these challenges, Koellner et al. (2007) represented a number of equations including relative return of the fund portfolio, volatility and risk-adjusted performance. The method uses environmental ratings of the companies from funds' portfolios and IO-LCA assessment of their environmental impact (e.g. GHG emissions or energy used) and environmental damage (e.g. health damage in Ecoindicator points). This makes possible to estimate an investment of \$1000 into certain fund based on the industry allocation. Risk-adjusted performance (RAP) was taken as a functional unit.

The results of their study appeared to be less impressive as they promised to be. Although sustainability funds show lesser means of environmental impact and damage and higher environmental ratings than conventional funds, the difference is smaller that it was expected. Only several parameters showed significant difference, such as: GHG emissions, energy use and external costs. But the environmental impact relative to RAP (functional unit) did not represent significant difference.

I have not conducted the same research in order to compare environmental impact of sustainability funds and SRI funds as a whole. But I assume that if the difference between sustainable investment and conventional funds were statistically insignificant, then the difference with SRI funds would be even less. Nevertheless, IO-LCA method is a good tool to account for the impact the fund has in monetary terms. This would be useful for concerned shareholders - to show the real facts but not just assumptions and talking.

In summary, IO-LCA is able to show only negative consequences of the funds' operation (environmental impact and damage) but not the positive contribution to sustainability.

So I have built my findings around these two groups of methods – quantitative and qualitative. In order to check whether the funds deliver a real sustainability value and to answer the research question, I applied a framework of Bellagio STAMP Sustainability Assessment and Measurement Principles (Pintér 2009) and adjust them to the financial area. By developing a number of parameters and giving the funds the scores according to them, I identified how consistent the funds are with their stated goals and objectives. Finally, I made a section with the lessons which the funds can provide regarding their criteria.

4.1.2. Sustainability parameters

In order to check whether sustainable investment funds deliver real sustainability value, I developed an assessment framework. It consists of 8 sustainability principles (Pintér 2009) and 71 specific parameters. The scores are 1 and 0 for "Yes" and "No" respectively. I chose 6 funds for the assessment (their characteristics are provided in Appendix 1), the

results are represented in Table 4.1.

Principles	Parameters	Fund #1 TD	Fund #2 First State	Fund #3 Petercam	Fund #4 Henderson	Fund#5 Green Century	Fund#6 New Alternatives
1. Guiding vision							
1.1. Delivering wellbeing within the capacity of the biosphere.	1.1.1. The fund considers which environmental issue is under focus of the company's activity.	1	1	0	1	1	1
	1.1.2. The fund estimates how far the company is from the critical thresholds with regard to a given environmental issue.	1	1	0	1	1	1
1.2. Aiming to satisfy shareholders' expectations regarding sustainability	1.2.1. The fund tracks the historical progress of the company on these aspects.	1	1	1	1	1	1
performance from its both pillars: financial and environmental.	1.2.2. The fund uses a specific set of measurements: quantitative and qualitative.	1	1	1	1	1	0
	1.2.3. The fund investigates financial performance of the companies.	1	1	1	1	1	1
	1.2.4. Such parameters as risk adjusted return and comparative capital growth are taken into account.	1	1	1	1	1	0
	1.2.5. The fund assesses the company's economic growth prospects.	1	1	1	1	1	1

Table 4.1 Principles and parameters for criteria assessment

2. Essential considerations							
2.1. Consideration of the social, economic and environmental system as a whole and the interactions among its components.	2.1.1. The fund perceives sustainability performance as a system comprised of economic, social and environmental performance.	1	1	1	1	1	1
	2.1.2. The selection process starts with the ESG performance considerations and is followed by financial performance assessment.	1	1	1	1	1	1
2.2. The adequacy of governance mechanisms.	2.2.1. The fund interacts with the top-management of the company in order to get a full picture.	1	1	0	1	1	0
	2.2.2. The fund reviews the company's external and interim reports.	1	1	1	1	1	0
	2.2.3. The fund investigates whether the company's records have been an object of sustainability audit.	0	0	0	1	0	0
	2.2.4. The fund checks for the presence and verifiable implementation / use of CSR management systems focused on key aspects of sustainability, such as ISO14001, GRI, The Natural Step etc.	1	1	0	1	1	0

2.3. Considering the driving forces contributing to sustainability and unsustainability.	2.3.1. The incentive to engage in sustainable investment is clearly reflected in the criteria.	1	1	1	1	1	1
	2.3.2. The motives for sustainable investment that guide the fund are explained.	1	1	1	1	1	1
	2.3.3. The fund investigates how the company contributes to the driving forces of sustainability.	1	1	0	1	1	0
	2.3.4. The fund outlines a number of "veto" parameters which under no circumstances can be outweighed by other positive environmental and financial performance of the company.		1	1	1	1	1
	2.3.5. The companies who are clearly contributing to driving forces of unsustainability are being screened out.	1	1	1	1	1	1
2.4. Risks and uncertainty considerations.	2.4.1. The fund looks at positive and negative externalities of the company's activities.	1	1	1	1	1	1
	2.4.2. The aversion of the environmental risks and the strategy on this issue are considered as important parts of the criteria.	1	1	0	1	1	1

	2.4.3. The fund assesses the company's ability to estimate the scope of its activity and how the company deals with risks of transboundary effects.	1	0	0	1	0	0
	2.4.3. The fund is ready to sacrifice a certain amount of economic return if the environmental risk aversion actions are being undertaken.	0	1	0	1	1	1
	2.4.4. If the high probability of environmental risk together with the high profitability levels makes a case, the fund's preference is considering the risk first.	1	1	1	1	1	1
2.5. Dealing with trade-offs.	2.5.1. The fund pays a special attention to the trade-off cases.	0	1	0	1	1	1
	2.5.2. If the situation of positive and negative outcome of the company's activity is ambiguous, the fund undertakes additional actions towards rigorous assessment and valuing.		1	1	1	1	1
	2.5.3. The fund initiates a fundamental assessment of profit consistency, level of economic and environmental risks, delivering overall	1	1	1	1	1	1

	social benefits etc. in order to make a decision on the investment.						
3. Adequate scope							
3.1. Understanding the essence of long-term investment.	3.1.1. The fund's main aspiration is a long-term investment.	1	1	0	1	1	1
	3.1.2. The fund checks whether the company makes projections of its long term sustainability effects and legacy of its operation.	1	1	0	1	1	0
	3.1.3. The fund considers an appropriate time period for assessment of the company's sustainability performance (following the example of financial performance periods it can be: 1Y, 2Y, 5Y).	1	1	0	1	1	0
	3.1.4. Different factors like economic crises, market fluctuations, and political situation are taken into account during the assessment of the company's historical sustainability performance.	0	1	0	0	1	1

3.2. Appropriate geographical scope.	3.2.1. The fund clearly identifies and substantiates the geographical preferences of the investment.	0	1	1	1	1	0
	3.2.2. The fund considers the spatial scope of the company's environmental impact (local, regional or global) and checks how it corresponds with its stated aims.	0	1	0	0	1	0
4. Framework and indicators							
4.1. Conceptual framework.	4.1.1. The fund uses a conceptual framework to guide sustainability related screening of firms in its portfolio.	1	1	1	1	1	0
	4.1.2. The fund identifies which investment strategy it applies (positive screening, theme-investment, best-in- class etc.)	1	1	0	1	1	1
4.2. Trends and scenarios.	4.2.1. The fund makes an assessment of market historical trends and future projections regarding financial performance and sustainability criteria applied by peers and incorporated in the stock indices.	1	1	0	1	1	1

		4	4		4	4	
	4.2.2. The fund uses a set of	1	1	1	1	1	0
	indicators in assessing						
	companies' performance.						
4.3. Consideration of	4.3.1. There is a set of	1	1	1	1	1	0
comparability during the	standardized measurement						
sustainability assessment	methods in order to assess						
of the investment	the companies' sustainability						
candidates.	performance and to allow the						
	comparison of alternatives						
	4.3.2. The fund applies	1	1	1	1	1	0
	quantitative and qualitative	1	1	1	1	1	0
	measures during assessment.						
4.4 Sotting target velues	4.4.1. The fund checks	1	1	0	1	1	0
4.4. Setting target values		1	1	0	1	1	0
as important component in	whether the company has a						
decision making and	set of sustainability goals and						
tracking the results.	targets.						
	4.4.1. Conventional stock	1	1	0	1	1	1
	indices are used to track the						
	fund's performance in						
	comparison to the whole						
	market.						
	4.4.2. The fund uses some	1	1	0	0	1	0
	specific sector benchmarks						
	(sustainability stock indices).						
	$_{\Xi}4.4.3$. The fund perceives the	0	1	0	0	0	0
	trends of the benchmark						
	indices cautiously (for						
	instance, the sector						
	composition trends which						
	might not be good for the						
	fund's sustainability						
	performance).						
	performance).						

5. Transparency							
5.1. Accessibility to the public of the portfolio companies' data.	5.1.1. The fund discloses the information regarding its portfolio: composition, companies' names etc.	1	1	1	1	1	1
	5.1.2. It is important that the company declares its aim and results regarding sustainability in its publicly accessed reports, declarations and web-site.	1	1	0	1	1	0
5.2. Explanation of the choices, assumptions and uncertainties determining the results of the assessment.	5.2.1. The fund uses internal and external resources (research agencies or advisories, for instance) in order to substantiate its decisions.	1	1	1	1	1	1
	5.2.4. If the fund has doubts regarding a certain company's sustainability (even after getting the results of external assessment), it acts in its own view while grounding its decision.	1	1	1	1	1	1
	5.3.1. The fund presents the methods which it uses to assess the company's sustainability performance.	1	1	1	1	1	0
	5.3.2. The company's readiness to provide data gains additional points.	0	0	0	1	0	0

5.4. Funding and potential conflicts disclosure.	5.4.1. The company must be open in its financial issues.	1	1	1	1	1	1
	5.4.2. As the fund has to consider environmental risks	1	1	0	1	1	1
	and conflicts; the same is						
	required from the portfolio candidates.						
6. Effective							
communication							
6.1. Clear and plain language.	6.1.1. The fund makes sure that sustainability targets and results are understood by both the company's	0	0	0	1	1	0
	management team and community.						
	6.1.2. The information provided by the fund should be clear for non-professionals.	1	1	0	1	1	0
6.2. Fairness and objectivity.	6.2.1. The fund employs external sources (sustainability audit, research assistance etc.).	1	1	1	1	1	1
	6.2.2. The fund applies standards, principles, initiatives and benchmarks developed by the professional community in order to make the assessment process as objective and thorough as possible.	1		1		1	1

	6.2.3. The fund avoids any kind of bias during the decision making process.	1	1	1	1	0	0
6.3. Visual tools and graphics.	6.3.1. The fund applies visual tools and graphics to analyse and compare the companies' financial and sustainability performance.	1	1	1	1	1	0
	6.3.2. The fund tracks industries' benchmark results of ESG scores to support its decision.	1	1	0	1	0	0
6.4. Data availability.	6.4.1. All data requested by the fund has to be provided.	1	1	1	1	1	0
	6.4.2. No decisions are made basing on assumptions.	1	1	1	1	0	0
7. Broad participation							
7.1. Reflection of the public views.	7.1.1. The fund assesses the company's CSR strategy: how it deals with stakeholders, which information it provides etc.	1	1	0	1	0	0
investment stakeholders'	7.2.1. The fund manager commits to act according to the fund's mission and aims.	1	1	1	1	1	1
	7.2.2. The fund manager presents the results of his/her work in regular reports. The criteria s/he uses are clearly identified in them.	0	1	0	1	1	1

8. Continuity and	7.2.3. The fund considers the stakeholders whose opinions have to be reflected in the criteria.	1	1	0	1	0	1
capacity							
8.1. Repeated measurement.	8.1.1. The company's sustainability performance assessment is conducted on the continuous basis.	1	1	1	1	0	0
	8.1.2. The fund has the exact time-frame and procedure of the actions it undertakes, if the company fails to comply with the criteria.	0	1	1	1	0	0
	8.1.3. The reasons for exclusion of the company from the portfolio are stated.	0	1	0	1	1	1
8.2. Responsiveness to change.	8.2.1. The fund outlines the measures that are taken in case the company's poor financial or sustainability performance.	1	1	1	1	0	1
8.3. Investment to develop and maintain adequate capacity.	8.3.1. The fund verifies that the company allocates sufficient amount of funding to maintain and improve the sustainability level.	0	0	0	1	0	0
8.4. Continuous learning and improvement.	8.4.1. The commitment to be innovative gains additional points in the company's assessment.	1	0	0	1	1	1

8.4.2. The company's	1	1	0	1	0	0
strategy and targets review						
should be done regularly.						
8.4.3. It is important that the	1	1	0	1	1	0
company is not reluctant to						
the positive changes and						
does not keep to						
conservatism in its decisions.						
Score (total number of points is 71)	48	60	36	67	57	36

Created based on BellagioSTAMP Sustainability Assessment and Measurement Principles (Pintér 2009)

CEU eTD Collection

The parameters presented in Table 4.1 were developed by the author of the thesis in order to achieve the 1st and the 2nd objectives and to assess how the claims that sustainable investment funds tend to make are reflected in their criteria.

Obviously, the funds showed different scores in the assessment framework and two of them gained only a half of the points, namely, Petercam and New Alternatives. However, these two funds had the least ambitious goals regarding "contributing to sustainable development" whereas the other four funds advertised themselves as those who want to make the change in the world's sustainability and to prove that SI is a new perspective direction of SRI.

Therefore, I suggest that SI funds indeed express a concerned attitude and fundamental approach towards sustainability criteria. The presented assessment framework helped us to identify their performance on this point, taking into account the eight principles of sustainability.

In the next section I will provide the main interesting points and some pitfalls in the funds criteria.

4.1.3. Lessons the researched funds

The following list of lessons represent features of good funds' practices regarding sustainability criteria that I derived from personal communication with funds' representatives and such publicly available sources as funds' prospectuses, annual reports, transparency codes, codes of conducts as well as some internal documentation.. Most of them are common for all the funds, yet some own unique approaches.

1. Guiding by an overarching sustainability focus.

Henderson Fund is undoubtedly one of the leaders among sustainable investment funds in terms of well elaborated investment philosophy, transparency code and investment criteria. It surely goes beyond just acknowledging the necessity to commit to sustainability principles

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and owing to this it has been continuously included in the FTSE4Good UK Index. Notably, it developed Responsible Investment Policy where it goes in depth with such issues as local and international corporate governance, corporate responsibility and policy implementation.

Interestingly that *Henderson Fund* approaches its own corporate responsibility issues and also makes sure that the companies it invests in adopt standards, policies and management processes covering these issues. The fund has a detailed list of requirements that a company has to comply with regarding CSR issues. As opposed to many other funds, which limit themselves only by saying "we make sure that a company has implemented a CSR policy", Henderson identifies expected actions of the board and specific issues to be covered in the annual report.

First State Fund also sees its policy from different perspectives which come together in the point of Sustainability Focus. It outlines 6 key areas (Figure 4.1)

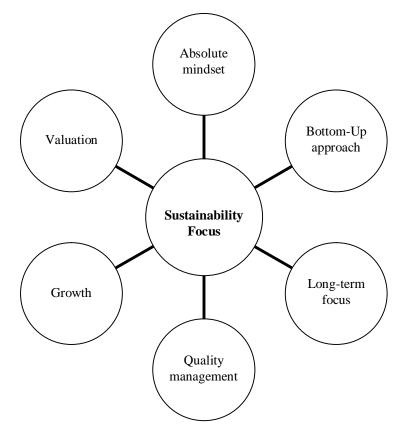


Figure 4.1 Key areas of First State's sustainability focus

Source: Kevin O'Neill (pers. comm.)

2. Shift from traditional Socially Responsible Investment to Sustainable Investment.

TD Global Sustainability Fund's philosophy sees the development of the sustainable investment as a natural evolution from ethical investment through SRI (Figure 4.2). In this regard, to include this fund into my research was the right decision as it is in the movement of the latest trends. Thus, it confirms one of the main points of the thesis that sustainable investment makes an independent branch from the whole batch of SRI. It could be assumed that it is going to become the next stage with gradual replacement of all other types of SRI, however, so far the big variety remains to exist.

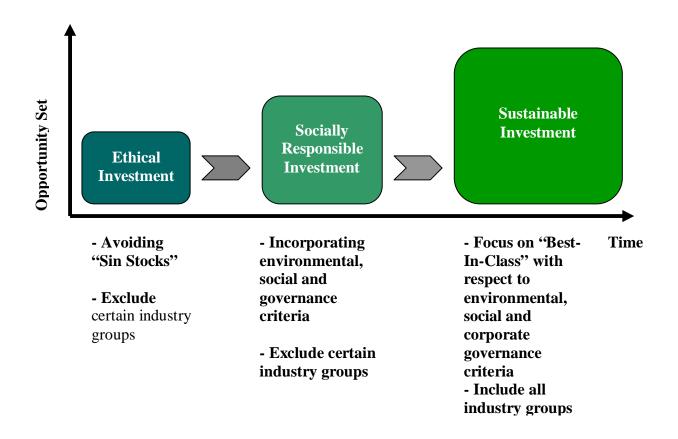


Figure 4.2 Sustainable investing as a natural evolution of SRI Source: Zehrt (2009)

3. Clearly presented sustainability challenges.

First State Fund has a concrete image of which sustainability challenges the businesses should tackle. So that the firms do not distract on many environmental issues but try to focus on the ones that are connected to their businesses. For instance, it is mentioned that the fund is not interested in whether the company has built schools or hospitals, but it should rather identify the key sustainability issues facing their businesses and have long-term plans to manage them.

Petercam Fund identified as a very important criteria parameter of how far the company is from the critical thresholds with regard to a given environmental issue. With this regard *Petercam Fund* uses two major principles: micro call and scientific evidence. The first one incorporates the vision of the world development and the consequences for companies (rising importance of carbon credits, reputation management, demographic structure etc.). The second one addresses to academic studies about the impact of non-financial ESG reporting. Moreover, the fund has conducted its own correlation tests in order to investigate the influence of ESG factors on the financial performance.

4. Combination of two types of companies: sustainability leaders and environmental leaders.

TD Fund pursues a criteria strategy where investment in sustainability leaders is complemented by environmental leaders. The first group is represented by the sector leaders in ESG factors; the second one is comprised of the companies dealing with such environmental issues as water, resource efficiency and alternative energy. This hybrid approach offers a lot of flexibility and, as the fund believes, should ultimately outperform the combination of the underlying asset classes (MSCI World and S&P Global Clean Energy).

First State Fund also, as many other sustainable investment fund, sees sustainability investment criteria as a combination of sustainability leaders and environmental-theme leaders.

5. External verification as a part of the investment strategy.

Petercam Fund uses a combination of external and internal assessment. It receives assistance from the research agency which applies a list of 38 SRI and ESG indicators for each company. It is up to the fund which indicator to choose in every separate case that depends on the sector of a company's operation. Also the fund gives an own weight to every indicator according to its importance. Additionally, there is an individual sustainability score matrix that allows the fund to choose the best 40% of all the companies. This rigorous procedure surely can be benchmarked by the funds who want to improve their sustainability criteria.

External verification is also one of the elements of triangulation employed by *First State Fund* (Figure 4.3).

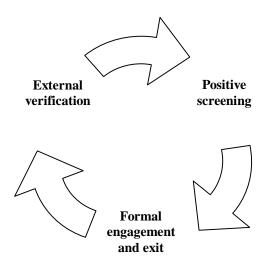


Figure 4.3 Triangulation of the criteria development process at First State fund Source: Kevin O'Neill (pers. comm.)

The fund presents a comprehensive approach towards verification of its investment choices. In order to ensure whether the company provides true information, the fund undertakes such actions as:

- meeting senior management face-to-face and trying to understand the spirit in which management operates;

- cross reference with: other companies, industry sources, government representatives, international and local NGOs, independent ESG research houses.

6. Heightened attention to risk management strategy.

First State Fund sees the probability of environmental risks to happen as a danger to losing investors' money. Therefore, the fund presents a perfect blend of economic and environmental issues which in turn comprise sustainability performance. *Henderson Fund* also pays special attention to managing environmental risks and opportunities as well as short- and long-term legacy of the company's operation.

7. Openness to collaboration with shareholders, market stakeholders, government and NGOs

The purpose of an investment fund is to satisfy its shareholders expectation and I believe that their views should be reflected in the criteria. However, not all the sustainable investment funds pay enough attention to this issue. Furthermore, usually it is stated that a fund's manager takes into account the fund's mission but in the end acts in his\her own view, so basically shareholders cannot influence the criteria in the middle of the process. Of course, the voting policy allows shareholders to express their opinions but only during the regular meetings which normally take place once a year. New Alternatives Fund goes beyond this and takes actions towards utilizing the shareholders' knowledge and invites them to provide their opinion on the propriety of the companies in which the fund is going to invest. *First State Fund* also gets an insight from outside, even though the input on ESG factors comes mainly from the fund's own research efforts. However, the fund expresses openness to collaboration with other industry representatives, with the companies themselves, with NGOs and government representatives.

TD Fund shows serious intentions regarding analysis of its portfolio members' activities and attitude. The continuity of the criteria's reassessment is crucial that is why the fund estimates challenges and opportunities in order to improve its policy towards the asset owners. For instance, one of the sustainability criteria parameters suggests that the fund makes sure that its sustainability goals are clearly understood by the companies and broad community. Consequently, in one of its reports the fund states that the concept of sustainable investment is sometimes misunderstood and further changes and improvements should be undertaken.

8. Engagement as a way to influence company's sustainability performance.

Many of the funds express interest in engagement practices. For example, *First State Fund* cautiously assesses the sustainability reports that the companies submit. It also prefers to engage with the companies that are under environmental concerns rather then to walk away. As a part of its sustainability strategy the fund conducts formal and informal engagement. The fund expresses the firm opinion on the shared responsibility once the investment was made. In this way the fund is indeed contributing to sustainable development as it takes care not only about the financial terms of the input and output.

9. Revised attitude to screening.

Henderson Fund developed a much grounded screening criteria which go beyond just presenting a list of 5-10 "veto – industries". The fund wants to prove that Sustainable Investment is more than just negative screening (Dieppe 2010). The screening is divided into 3 groups and both positive and negative screenings are applied (Figure 4.4)

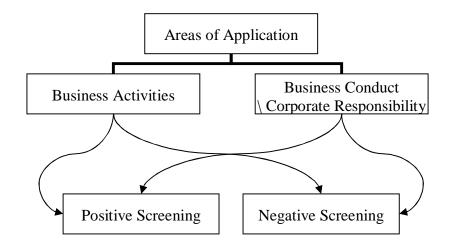


Figure 4.4 Henderson's screening scheme Source: HGI (2010)

Furthermore, the fund has in total 13 categories of positive and 12 of negative together with 5 of positive and 7 of negative screening for Business Activities and Business Conduct \ Corporate Responsibility respectively. Each item is explained in detail.

One of the points that *TD Fund* sees as a step forward towards sustainable investment is moving from exclusion of certain industry groups. Although sustainable investment means is supposed to be supported by the rigorous assessment of every candidate company, some of the "veto" indicators must be remained. If it is clear that activities of a certain company (or industry) are contributing to unsustainability, they should be excluded from the focus of investment.

On the contrary to *TD Fund* which does not accept an idea of exclusion some businesses from the selection process, *First State Fund* has a slightly different opinion. Although it does not call it negative screening, the fund considers some industries as unable to present sustainability. It is not about the bias that these sectors are predominantly "bad", it is just the fact that there are no companies out there (or very little) that can be considered sustainable. Additionally, a social component plays an important role as the fund does not believe that the company having a high negative impact on society would provide new sustainability opportunities. Additionally, the fund emphasizes that it is more of a verification process/ incident check than a screen.

Green Century Fund's investment policy is comprised of three pillars: positive and negative screening and shareholder advocacy. The feature of the positive screening which stands out is the fund's willingness to invest in environmental innovators. Some parameters of my assessment tool deal with the importance of innovative mindset – whether it is crucial for the fund that a company shows a proactive approach to its environmental performance. Green Century fund emphasizes on the necessity of the contribution to the global sustainability. Therefore, if a certain company shows commitment to tackle the most pressing environmental problems and provides solutions through innovative approaches, such company would gain additional points in the fund's evaluation.

10. Comprehensive approach to the criteria classification.

Communicating and substantiating the choices is a very important part of the sustainability criteria issues. In order to provide the fullest picture *TD Fund* presents to the public constituents of the selection process. The fund breaks down ESG factors by E, S and G pillars and provides benchmark relative position on these scores.

Green Century Fund divides its criteria into six groups. Consequently, the criteria is not just "environmental, social and governance" issues. These groups are:

- CEU eTD Collection
- environmental performance criteria;
- community and society criteria;
- employees and supply chain criteria;
- customers criteria;
- governance and ethics criteria.

11. Close interest to sustainability indices.

One interesting peculiarity of *Green Century Fund* is its intention to duplicate KLD400 index which is comprised of the companies selected with ESG criteria. It is not definitely an advantage of the fund because of inflexibility that arises from this intention. Although, the fund holds a position of a capital growth fund claiming that sustainability criteria can bring financial benefits on the long run, it is prioritizing environmental performance over financial one. It is mentioned that regardless the KLD400 performance, the fund will not withhold its money from one sector \ stock or another. So in this way it is ready to sacrifice some part of the return but this firm position does not go along with many of the sustainability parameters that I identified, as flexibility and proactive mindset are by far some very important issues.

12. Intention to be innovative and get a competitive advantage over rivals.

Henderson Fund has been a pioneer of launching of "carbon audits" to measure and compare the performance in terms of carbon dioxide emissions. It also has a fundamental approach to companies' monitoring in place. The thing that distinguishes it from other funds and could be benchmarked is a creation of internal IT system. The discussions between top-management, ESG and sector analysts and fund managers are quite often and take place on a regular basis. This IT system keeps records of all the engagement voting including the rationale for voting decisions.

13. Individualistic approach to the companies.

One of the important parts of sustainability investment is communication and engagement with the portfolio candidates. *TD Fund* presents its individualistic approach regarding the requirements towards the companies to commit to some environmental goals and targets. Its unique approach is in breaking down the list of firms according to environmental issues. Thus,

different reporting schemes are applied to certain companies' groups that are presented in

Table 4.2.

Report of Sustainability	Apple, Aqua America, Bed Bath & Beyond, Berkshin		
	Hathaway, Boston Properties, Fifth Third, Las Vegas Sands,		
	MGM Mirage, Sandisk, International Paper and Yum Brands		
Report on climate change,	Dover, Ultra Petroleum, Ameren, Danaher, Massey Energy,		
remediation,	Avis Budget Group, Mirant, Dow Chemical		
environmental progress or			
recycling			
Report on the Carbon	Great West Life		
Disclosure Project			
GHG Reduction	Exxon Mobil, Standard Pacific, Ryland Group, Lennar,		
	International Coal Group, Ida Corp, Home Depot, Dynergy,		
	Conoco Phillips		

Table 4.2 Breakdown of the portfolio according to different reporting schemes

Source: Zehrt (2009)

Although *Henderson Fund* expects the companies to comply with the principles of either UK Corporate Governance Code or other relevant national code, it takes into account the particular circumstances of each individual company. In this way the fund applies different approaches in every single case.

14. Fundamental approach to investment process.

An interesting peculiarity of *New Alternatives Fund*, which adds more points to its strong commitment, is the fact that *New Alternatives Fund* not only applies principles of sustainable investment but also ensures to hold its cash in socially conscious banks and credit unions.

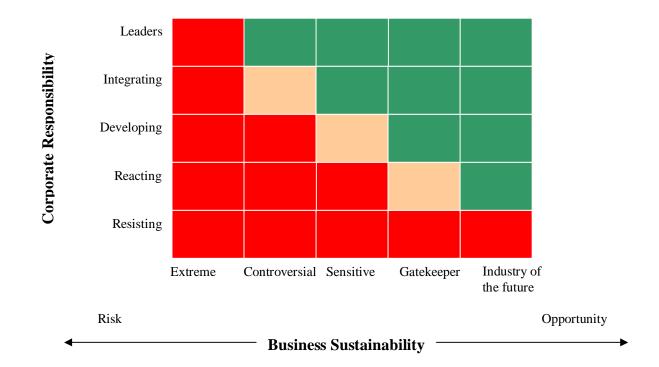
It is worth mentioning that *Henderson Fund's* investment process is unique and comprehensive. In the Transparency Code (HGI 2010) report they represent 5-steps strategic approach which includes:

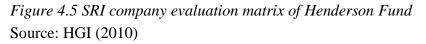
- top-down scheme selection;

- idea generation;

- corporate responsibility evaluation;
- financial analysis;
- portfolio construction.

First of all, we see that financial analysis comes on the last phase advanced by the SRI factor research. Secondly, the company's sustainability evaluation consists of evaluation of two areas that were already mentioned above, - business sustainability and corporate responsibility. Both of them contain several categories that each company falls under. As a result the fund gets an evaluation matrix where it can easily see whether the company is worth investing or not (Figure 4.5).





The colours are indicating suitability for inclusion a company in the fund's portfolio: green

(yes), red (no) and pale pink (maybe).

15. Special attention to trade-off cases.

New Alternatives Fund is one of the few funds which pay a special attention to trade-off cases of investment decisions. These cases, in my opinion, are of those serious challenges that funds encounter quite often but not all of them have a prepared plan how to deal with them. By trade-off case I mean, the situations when a company presents a promising environmental product but its other characteristics are not acceptable to socially responsible standards, for instance. *New Alternatives Fund* presents a sound position of not investing in a firm with the negative behaviour even if the fund will lose some promising results.

4.1.4. Common pitfalls

Having looked at the number of funds and presented their main insights and some unique approaches, I cannot avoid mentioning the weak sides in the funds' criteria policies. Undoubtedly, none of the funds can be perfect. However, I believe that there is always a room for improvement. So the following are the drawbacks in the funds' criteria that I came across during the analysis:

a) Lack of formalization and systematic approach.

Some funds did not have a specified conceptual framework on how they are doing their investment assessment. For instance, New Alternatives Fund, having an explicitly stated position towards clean technology, alternative energy and social benefits, does not present a concrete assessment methodology with the list of indicators, measurements etc. Instead, it states that decisions are based on the subjectively balancing factors. This absence of a systematic viewpoint is dangerous in terms of high probability of mistakes and oversights.

b) Not tracking either conventional or specific sustainability stock indices.

This pitfall concerns the ability of the fund to compare its performance with peers. Some of the funds, whose criteria I assessed, mentioned that the risk for them is not to not being able to match a certain index but to not satisfy shareholders' expectations and lose their money. But stock indices, especially specific ones as Dow Jones Sustainability Index and others, can provide valuable information on how the fund is performing. However, over obsession with matching an index is also not reliable and risky.

c) Moving away from negative screening as something that is obsolescent.

Many of the new generation SRI funds, who strive for the new attitude towards portfolio selection, do not do negative screening. Moreover, they specify that negative screening is to some extent an obsolescent idea. Some of them say that negative screening is not necessary when best-in-class approach is applied (George Thomas, pers. comm.). Others mention that even without formal negative screening their substantial sustainability research will net let in the industries that are commonly unethical (Kevin O'Neill, pers. comm.). According to IISD report (IISD 2011) sustainable investment funds should not just screen out "bad" companies but look for those who set a completely new ground in social and environmental performance. Nevertheless, I believe that there should be a certain black list of industries that sustainability funds commit not to invest in (e.g. nuclear power, tobacco, pornography etc.)

4.2. Quantitative assessment

As for quantitative part of the research, I attempted to investigate a link between these two kinds of value delivering (economic and ESG making together sustainability value) and looked at the following:

1. How the funds approach the idea that incorporation ESG factors brings added economic value.

2. Whether a better score on sustainability parameters goes together with a better economic performance.

3. What the fund's attitude to risks is and whether there is a connection between their preparedness to risks and performance during the economic crisis.

4. Whether there is a significant difference in financial performance between sustainability funds and other SRI funds.

4.2.1. ESG factors and added economic value

Although almost all the SI funds are quite explicit in stating that sustainability criteria will directly affect their financial performance, there are still some who do not link it in a causeand-effect relationship. For instance, Stijn Decock from Petercam (pers. comm.) mentioned that they do not have a track record of the influence of the criteria on economic performance. Also in their prospectus it is said that the fund provides its shareholders an opportunity to benefit from the growth of the companies which are selected basing on the certain ethical, social and ecological criteria.

So in other words, Petercam does not perceive sustainability criteria as a way to increase its total return. The same attitude is shared by the New Alternatives Fund. It is very interesting to mention that the current research showed that these two funds gained the least amount of points in the sustainability parameters assessment. Notably, both of them received 36 points being way behind the other four funds. This gives us a hint that not all the SRI funds are the same. Moreover, even if the fund uses a word "sustainable" in its policy statement, this does not necessarily mean that it fundamentally applies sustainability criteria and delivers a real sustainability value.

Nevertheless, the biggest part of the "new generation" SRI funds are not philanthropy funds anymore – they truly believe that sustainability principles help them to improve their sustainability performance that is comprised of both financial and environmental performance. So four other funds that I decided to include in the research have a clear intention to benefit financially from the ESG criteria they apply. Also they received higher amount of points in my assessment.

According to Green Century Fund (GCF 2010) the least environmentally sound practices are at the greatest long term risk of negative economic consequences, while those which strive to be more environmentally responsible may benefit financially as a result.

The hybrid approach of sustainability leaders and clean technology, applied by TS Global Sustainability Fund, is unique. The vice president of the fund, George Thomas, mentioned that they perceive this combining of the two offers a lot of flexibility and ultimately should outperform the combination of the underlying assets classes.

In summary I can classify all the funds into three groups:

a) Those funds, described above, who do not drag a special attention to the influence sustainability criteria may have on financial performance. These funds engage themselves in SRI practices due to various reasons, for instance, in order to satisfy shareholders expectations regarding ethical values.

b) The funds which associate SRI with "doing well by doing good", as it was mentioned by the Henderson's SRI team, but who do not explicitly link sustainability criteria as an input and increased financial performance as and outcome.

c) Finally, the funds who are strongly convinced that the sustainability positioning of companies is playing an increasingly important role in determining long-term shareholder returns for all companies in Asian emerging markets, as it was mentioned in an internal document of First State Asia Pacific Sustainability Fund, written by fund's managers David Gait and Sashi Reddy, entitled "First state asia pacific and emerging markets sustainability strategy. Q&A".

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In literature there have been many attempts to prove the relationship between ESG factors or CSR implementation and financial performance. However, most of the findings remain to be inconclusive. For instance, Aras, Aybars, and Kutlu (2010) found that there is no significant relationship between CSR and profitability (however, they were assessing firms, but not investment funds). And Lo and Sheu (2007) proved the opposite – corporate sustainability has a connection with increased market value. As for the results, no firm inferences can be made, but some interesting findings are presented in the following sections.

4.2.2. Connection between the score on sustainability parameters and economic performance

In order to answer this question I decided to conduct two tests – z-score and correlation. The data for the funds was derived from various online databases including the following: Bloomberg (2011); Finanzen (2011); Funds.ft (2011); Fundlab Credit-Suisse (2011); Bestinvest (2011); Fondsweb (2011); Sustainable-Investment (2011); Trustnetoffshore (2011).

4.2.2.1. Z – score test

I also would like to know whether financial performances of those funds which gained the highest score are significantly different from the mean value of the group. In order to do so I use z-score test (Anthony 2009). In Table 4.3 we can observe sustainability score, financial performance, mean values and standard deviation of it for the six researched funds. These parameters I will need in calculating z-score.

The equation for the z-score test is the following

$$Z = \frac{X - \overline{X}}{S},$$

where Z – z-score, X – variable value, \overline{X} - mean value, S – standard deviation (Anthony 2009). The results of the calculations are given in Table 4.2.

Table 4.3 Z-score test results

	z-score test			
	2010	2009	2008	3Y
Green Century Equity	0,2851485	0,051962	-0,33755	-0,19007
First State Asia Pacific Sustainability	0,7889745	1,75012	1,34105	1,911018
Henderson Global Care Growth	0,7633861	-0,54405	1,05185	0,204099

In order to get to know whether these results are statistically significant I check the critical values for Z in case when alpha is 0,05. This is 1,64 or 1,65 (Anthony 2009).

Conclusion

We see from the table that only two cases (in bold) out of 12 show significant difference. Consequently, I can conclude that funds with the highest sustainability score do not show

significantly higher financial results.

4.2.2.2. Correlation test

I calculated correlation pair wise for 2010, 2009, 2008 and for 3-years cumulative financial

return. The results can be observed in Table 4.3

	Financial return, %				Sustainability	
Funds	2010	2009	2008	3Y	Score	
Green Century Equity	10,89	30,37	-35,48	1,3	57	
First State Asia Pacific Sustainability	16,6	60,6	-16,5	38,24	60	
Petercam Equities Europe Sustainable	15,59	18,6	-40,49	-7,1	36	
New Alternatives	-7,26	36,61	-44,85	-4,12	36	
TD Global Sustainability	-6,18	10,73	-32,89	-8,7	48	
Henderson Global Care Growth	16,31	19,76	-19,77	8,23	67	
Mean	7,6583	29,4450	-31,6633	4,6417	N/A	
Standard deviation	11,33328	17,80164	11,30706	17,58138	N/A	
Correlation with Sustainability Score	0,526367	0,211142	0,87483	0,606367	N/A	

Table 4.4 Sustainability funds: financial performance, sustainability score, mean, standard deviation and correlation

Source: Data taken from (Bloomberg 2011; Finanzen 2011; Fondsweb 2011; Fundlab.Credit-Suisse 2011; Funds.ft 2011; Sustainable-Investment 2011; Trustnetoffshore 2011) Now I would like to know whether the calculated correlation is statistically significant. With 4 degrees of freedom (df = n - 2 = 6 - 2 = 4, where df – degrees of freedom and n – number of cases) the significance threshold is 0,729 (Anthony 2009). The last raw shows that only one correlation is statistically significant which is correlation between Sustainability Score and financial return for the year 2008.

As we see the correlation in 2010 and 2009 years differs quite noticeably, yet remains positive. According to StatSoft⁴ in order to be able to prove the nil-correlation, one has to have a large sample, so within the limited resources I can only suggest this direction for future research.

Although the calculations showed a positive correlation in both years, it remained quite weak in 2009. However, in the following section I look at the crisis period which has presented significantly different results.

4.2.3. Fund's preparedness to risks and performance during the economic crisis Another interesting point is how the funds perceive risks – both financial and environmental. A significant part of the parameters aims to describe funds' risk policy and how it is reflected in the criteria.

It is well-known that during and after the economic crisis in 2008 the whole investment community was under stress and suffered significant losses – European and Japanese share markets experiences decrease by 20 % and US market – by 16 % (Collett 2008). So basically the question was not about who performs best, but who loses the least. Now let us come back to the correlation tests. Remarkably, the only case that showed significant correlation value was the crisis year – 2008. Figure 4.6 shows a scatter plot for this correlation.

⁴ StatSoft, Inc. Statistica (data analysis software system), version 8.0.

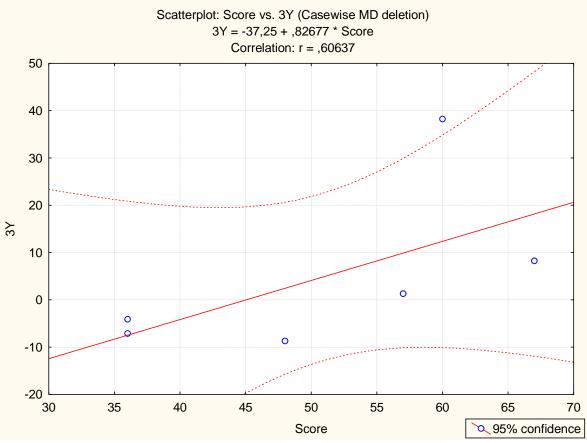


Figure 4.6 Scatter plot correlation between sustainability score and financial return in 2008 Source: Calculated in STATISTICA⁵.

Yet, there were positive correlations in all the years I observed, including the cumulative 3year period, the strongest one appeared to be the year of economic crisis. My suggestions why it is so are the following:

- the funds with greater sustainability score have stronger risk-management strategy;

- fortuity took place;

other factors than incorporation sustainability principles influenced this outcome.

Under no circumstances, I assume that financial losses of some funds were lower than of others only owing to the fact that they had a and well-elaborated sustainability strategy in place and were keeping to sustainability principles in their investment decisions. Of course, there are so many different factors that influence the financial success especially during such

⁵ StatSoft, Inc. Statistica (data analysis software system), version 8.0.

a complicated period as global economic crisis. For example, in some cases a fund can thank for its great return to a competent and cautious fund manager. In fact, Lauterbach et al. (2007) state that managers with accumulated experience tend to outperform their peers. Or political situation can drastically differ in the countries of different funds' operation. Other factors that can have an influence on financial return are represented in Figure 4.7 by means of Ishikawa fish-bone visual method.

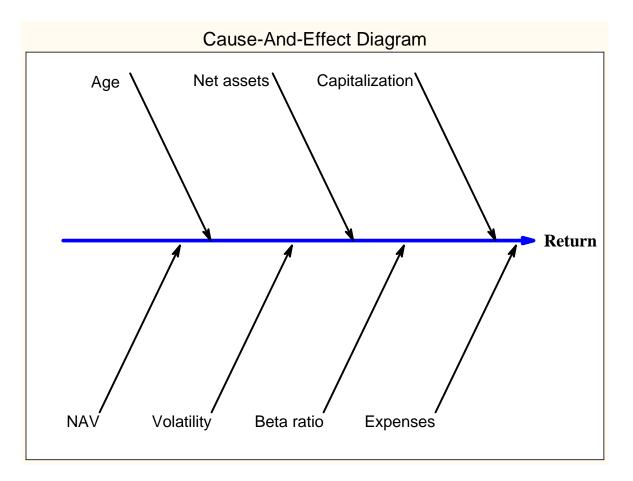


Figure 4.7 Factors that influence financial return of investment funds Source: Rao and Daita (n.d.)

Thus, a great factor of uncertainty is always in place when we want to find a cause-and-effect relationship. In fact, the correlation can be spurious, so it is necessary to be cautious in judgments and desires to make causal inferences (Stigler 2005). There is one example that Stigler calls a casualty to infer causality from correlation, which goes back to 19th century when William Stanley Jevons established a link between sunspot activity and business cycles.

However, this idea has not leave people's mind and returned in 1982 with Sheehan and Grieves's attempt to prove that it is other way around – business cycles cause sun spots. Stigler suggests to have a "heavy dose of scepticism" when we read these kinds of results (Stigler 2005).

However, even if we cannot be 100% sure about the causality basing only on the existing correlation, the causality itself is impossible to prove if there is no correlation. Although Stigler believes that the answer to the question "Does correlation means causality?" always is "No" and (2005), correlation can be a hint and a reason for further research (StatSoft 2007). Having a limited amount of time and resources the author of the thesis did not conduct a fundamental research involving a sufficient amount of funds, but it is a great opportunity to investigate this problem in future.

4.2.4. Do sustainability funds stand out in the SRI community?

4.2.4.1. The independent t-test

In order to complement my findings on the correlation between the sustainability score and financial performance, I decided to make additional calculations involving t-test. As I already mentioned, one of the present challenges regarding SRI funds is that there is too much generalization. Although, all of the SRI funds are not considered conventional, they are not the same within a group. We already made sure that investment strategies they develop and their contribution to sustainability are different. Thus, I can say that sustainability funds manage to provide anew vision and approach, and in the end – even influence companies' behaviour regarding sustainability performance.

Now let us get to their point about their ability to outperform the market. I conducted several statistical tests (t-test) which aim to show whether there is a significant difference in mean values of the funds' financial returns (Anthony 2009). I took six sustainability funds that I

have been already using in the research and compared to six ethical funds which mainly use

negative criteria.

I took 3 cases: 2010, 2008 (economic crisis year) and 3-years cumulative, this data is given in

Table 4.5.

Sustainability Funds	Financial return, %			
	2010	2009	2008	3 Y
Green Century Equity	10,89	30,37	-35,48	1,3
First State Asia Pacific Sustainability	16,6	60,6	-16,5	38,24
Petercam Equities Europe Sustainable	15,59	18,6	-40,49	-7,1
New Alternatives	-7,26	36,61	-44,85	-4,12
TD Global Sustainability	-6,18	10,73	-32,89	-8,7
Henderson Global Care Growth	16,31	19,76	-19,77	8,23
Ethical Funds	2010	2009	2008	3 Y
Carnegie Worldwide Ethical	18,17	20,46	-38,25	-7,75
Ohman Etisk Index Europa	-3,7	22,7	-35,4	-4,03
S EthikAktien	12,03	29,27	-44,29	-10,7
LIGA-Pax-Cattolico-Union	7,7	21,1	-32,6	-1,61
AXA WF Framlington Human Capital	21,32	40,74	-43,83	7,39
SEB Ethical Europe Fund	9,72	31,08	-51,06	-20,09

Table 4.5 Financial return: for sustainability and ethical funds

Source: Data from (Bloomberg 2011; Finanzen 2011; Sustainable-Investment 2011)

If we nip on ahead and look at those mean values in Figure 4.8 (4.64 and -6.13%) we might think that the answer to this question is positive. It is true – the difference really exists, but is it significant? In Table 4.6, Table 4.7 and Table 4.8 the results of t-test are given for 3-year cumulative return (2008, 2009 and 2010) and for years 2010, 2008.

Financial return for 3 years for two groups of funds			
Ethical funds			
-7,75			
-4,03			
-10,7			
-1,61			
7,39			
-20,09			
Equal Variances			
Sustainability funds	Ethical funds		
4,641666667	-6,131666667		
309,1048967	85,20433667		
6	6		
197,1546167			
0			
10			
1,328945739			
0,106695106			
1,812461102			
0,213390213			
2,228138842			
	Ethical funds -7,75 -4,03 -10,7 -1,61 7,39 -20,09 Equal Variances Sustainability funds 4,641666667 309,1048967 6 197,1546167 0 10 1,328945739 0,106695106 1,812461102 0,213390213		

Table 4.6 Independent t-test for sustainability and ethical funds for 3-years cumulative financial return

Source: Data from (Bloomberg 2011; Finanzen 2011; Sustainable-Investment 2011)

Table. 4.7 Independent t-test	for sustainability	and ethical funds	for 2010 financial return

Financial return for 2010 for tw		
Sustainability funds		
10,89	18,17	
16,6	-3,7	
15,59	12,03	
-7,26	7,7	
-6,18	21,32	
16,31	9,72	
t-Test: Two-Sample Assuming	Equal Variances	
	Sustainability funds	Ethical funds
Mean	7,658333333	10,87333333
Variance	128,4431767	77,49886667
Observations	6	6
Pooled variance	102,9710217	
Hypothesized Mean Difference	0	
df	10	
t Stat	-0,54876208	
P(T<=t) one-tail	0,29760393	
t Critical one-tail	1,812461102	
P(T<=t) two-tail	0,59520786	
t Critical two-tail	2,228138842	

Source: Data from (Bloomberg 2011; Finanzen 2011; Sustainable-Investment 2011)

Financial return for 2008 for tw		
Sustainability funds		
-35,48	-38,25	
-16,5	-35,4	
-40,49	-44,29	
-44,85	-32,6	
-32,89	-43,83	
-19,77	-51,06	
t-Test: Two-Sample Assuming	Equal Variances	
	Sustainability funds	Ethical funds
Mean	-31,66333333	-40,905
Variance	127,8495867	45,89299
Observations	6	6
Pooled variance	86,87128833	
Hypothesized Mean Difference	0	
df	10	
t Stat	1,71740529	
P(T<=t) one-tail	0,058329363	
t Critical one-tail	1,812461102	
P(T<=t) two-tail	0,116658727	
t Critical two-tail	2,228138842	

Table 4.8 Independent t-test for sustainability and ethical funds for 2008 financial return

Source: Data from (Bloomberg 2011; Finanzen 2011; Sustainable-Investment 2011)

Setting the hypothesis for 3-years cumulative:

1. Null-hypothesis: There is no significant difference in 3-years cumulative financial return

between sustainability and ethical funds.

H0: $\mu 1 = \mu 2$

H1: $\mu 1 \neq \mu 2$

2. α = .05

3. t = 1.329

df = n1 + n2 - 2 = 6 + 6 - 2 = 10

- 4. Reject H0 if $2.228 \le t \le -2.228$
- 5. Accept H0, p < .05, two-tailed

6. There is no significant difference in 3-years cumulative financial return between sustainability and ethical funds.

Setting the hypothesis for 2010 year:

1. Null-hypothesis: There is no significant difference in 2010 year financial return between sustainability and ethical funds.

H0: $\mu 1 = \mu 2$ H1: $\mu 1 \neq \mu 2$ 2. $\alpha = .05$ 3. t = -0.549df = n1 + n2 - 2 = 6 + 6 - 2 = 10 4. Reject H0 if 2.228 $\leq t \leq -2.228$

5. Accept H0, p < .05, two-tailed

6. There is no significant difference in 2010 year financial return between sustainability and ethical funds.

Setting the hypothesis for 2008 year:

1. Null-hypothesis: There is no significant difference in 2010 year financial return between sustainability and ethical funds.

H0: $\mu 1 = \mu 2$ H1: $\mu 1 \neq \mu 2$

2. $\alpha = .05$

3. t = 1.717

df = n1 + n2 - 2 = 6 + 6 - 2 = 10

4. Reject H0 if $2.228 \le t \le -2.228$

5. Accept H0, p < .05, two-tailed

6. There is no significant difference in 2010 year financial return between sustainability and ethical funds.

Conclusion

Although we may observe the differences in financial return between sustainability and ethical funds, these differences are statistically insignificant. I can say that the claims that SI funds make regarding their ability to perform better than other SRI funds are not supported by the statistical evidence and remain inconclusive. However, in order to get more reliable results one should conduct more fundamental research with a longer track record, bigger sample size and more elaborated analytical framework.

Chapter V. Conclusions

Selection criteria of SI funds should serve not only as a tool to form a portfolio but also to present a systematic approach. As all of the SI funds claim that prior to the financial assessment they conduct sustainability assessment, the well elaborated criteria seem to be the right means to incorporate all the issues, biases and preconditions that should be taken into account.

It is obvious, after undertaking a simple observation involving funds' factsheets, annual reports and web sites, that in different funds' conceptions the question of criteria is approached differently. Commonly, it is a matter of how deep in detail a certain fund goes, so basically whether it provides just several lines on how the selection process should look like or gives a thorough framework of principles and stages of research and decision making scheme. Some funds take it very seriously and provide a grounded approach while the others contend themselves with a few lines of "sustainability strategy" barely explaining what they mean under "sustainability".

Thus, the fund can base its considerations on how the criteria should look like on its own perception of sustainability. It is important to note that there is no mandatory framework on sustainability performance that funds must pursue and I do not contend that the funds have to comply with some set of rules, like otherwise they will not be contemplated as "sustainability investment" funds. Nevertheless, this also does not mean that the funds are free to predicate whatever they want without bearing responsibility and presenting some evidence of their position to be sustainable in the general conception.

My analysis aimed to be as objective as possible, basing on the theoretical implications elaborated by the academia. For instance, the main tool for assessment of how sustainability is incorporated in the funds' criteria is a list of sustainability performance principles (BellagioSTAMP) in conjunction with the UN PRI. If the latter was developed specifically for investors' guidance, the former framework was developed with a broad perspective aiming for sustainability measurement in a public domain. However, I suggested should be used as a method to understand how the funds approach sustainability performance of the candidate companies. The principles were decided to adjust to the investment domain by breaking them down into grouping sections and afterwards into specific parameters. Also a set of questions, developed in accordance with this framework, which were used during the personal communication with funds. In order to understand whether a certain fund provides a real sustainability value and is able to prove it by means of the criteria it applies, I tried to analyze all available information together with the one derived through the interviews. This analysis intended to satisfy the following objectives:

- to reveal the extent to which the fund responds to the parameters I outlined;

- to investigate the common trends among the funds;

- to find out the possible additional issues that funds address and which are not covered by the theoretical framework I formed. In other words, to get to know how the funds by their practices can contribute to build the theory;

- to define the common pitfalls in funds' criteria;

- to identify the relationship between sustainability principles implementation and funds' financial performance through several statistical tests.

I managed to achieve these objectives and answer the research question and sub-questions. First of all, I identified the main features that funds own in order to develop their sustainability criteria:

1. Guiding by an overarching sustainability focus.

2. Shift from traditional Socially Responsible Investment to Sustainable Investment.

3. Clearly presented sustainability challenges.

4. Combination of two types of companies: sustainability leaders and environmental leaders.

5. External verification as a part of the investment strategy.

6. Heightened attention to risk management strategy.

7. Openness to collaboration with shareholders, market stakeholders, government and NGOs.

8. Engagement as a way to influence company's sustainability performance.

9. Revised attitude to screening.

10. Comprehensive approach to the criteria classification.

11. Close interest to sustainability indices.

12. Intention to be innovative and get a competitive advantage over rivals.

13. Individualistic approach to companies.

14. Fundamental approach to investment process.

15. Special attention to trade-off cases.

These features can be suggested as lessons on how to build an investment strategy according to principles of sustainable investment. Although the pitfalls that I identified in regard to certain funds were not typical for all the researched funds, I consider them important to mention, because they can be considered as ways to further criteria improvement:

- 1. Lack of formalization and systematic approach.
- 2. Not tracking either conventional or specific sustainability stock indices.
- 3. Moving away from negative screening as something that is obsolescent.

CEU eTD Collection

Regarding the first sub-question on the motivation of the funds to move towards SI, it is addressed in the lessons section and also in the funds' characteristics (Appendix 1).

As for my goal to check whether the compliance to sustainability principles is related to financial performance, I conducted several statistical tests. In particular, they were: correlation tests, z-score tests and independent t-tests. As the main conclusion on them, I can say that although we observe a slightly better financial performance of the funds with higher sustainability score, these differences did not appear to be statistically significant. The only period when there was a significant correlation was 2008 which was a year of economic crisis. Also, after having independent t-tests done, I can say that the claims that SI funds make regarding their ability to perform better than other SRI funds are not supported by the statistical evidence and remain inconclusive. By this I mean that although we may observe the differences in financial return between sustainability and ethical funds that I took for comparison, these differences are statistically insignificant.

However, in order to make firm conclusions, one would need to have:

- bigger sample size;
- longer track period;
- more elaborated analytical framework;
- longer time for research.

Finally, I admit that correlation does not mean causality and under no circumstances do I assume that financial losses of some funds were lower than of others only owing to the fact that they had a and well-elaborated sustainability strategy in place and were keeping to sustainability principles in their investment decisions. Of course, there are so many different factors that influence the financial success especially during such a complicated period as global economic crisis. Nevertheless, correlation can be a hint and a reason for further

research (StatSoft 2007). Having a limited amount of time and resources I did not conduct a fundamental research involving a sufficient amount of funds, but it is a great opportunity to investigate this problem in future.

In summary, after accomplishing the study by doing literature review, contacting experts and the chosen funds, I conclude that in general sustainable investment funds present a comprehensive approach towards the criteria they use when it comes to choose companies for their portfolios. Obviously, the funds showed different scores in my assessment framework and two of them gained only a half of the points, namely, Petercam and New Alternatives. However, it may be surprising but this fact helped us to get convinced that those funds who assert that they want to contribute to future sustainability (e.g. "to deliver a real sustainability value", as it appears in the current research statement), are able to prove it by their thorough criteria. In other words, these two funds which showed the worst scores had the least ambitious goals whereas the other four funds have been promoting themselves as those who want to make the change in the world's sustainability and to prove that SI is a new perspective direction of SRI.

Therefore, I suggest that SI funds indeed express a concerned attitude and fundamental approach towards sustainability criteria. The presented assessment framework helped us to identify their performance on this point, taking into account the eight principles of sustainability.

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Appendix 1 – Summaries of the researched SI funds

Fist State Asia Pacific Sustainability Fund

Term - long-term

Region – Asia Pacific region (excluding Japan, including Australasia)

Objective – The fund aims to provide a long-term capital growth for its shareholders by investing sustainably and ethically.

Capitalization – small cap

Investment style – The fund expresses conservatism and focuses on capital preservation and capital growth. It seeks for the companies with lower levels of volatility and stronger cash flows. The fund is applying positive screening approach together with considering sustainability theme investing. It also practices a positive engagement policy with companies.

Benchmark - MSCI AC Asia Pacific ex Japan Index

Primary focus on – The fund searches for sustainability leaders in the following areas: renewable and cleaner energy; waste and pollution management; energy efficiency; water; environmental consumer goods and services; broad sustainable development (meaning, not theme-investment). The last category comprises 50% of all investment.

Dealing / mentioning risk – The fund aims to invest in companies with a particularly good attitude to risk as it believes that investing in sustainability leaders reduces the risk of losing money from ESG-related incidents.

Specificity – The fund developed a list of areas where it intend to invest more and some restrictions where it invests less: lower companies; lower weighting in commodities and oil; higher weighting in gas; higher weighting in industrials; higher weighting in environmental

consumer goods; lower weighting in Turkey and Russia; higher weighting in India and Greater China.

Green Century Equity Fund

Term - long-term

Region-USA

Objective – The fund aims to achieve a long-term total return and maintain the performance at the level of an index (KLD 400 Social) which consists of companies selected based on some ESG criteria.

Capitalization – As the fund takes a certain index cue, it adopts its capitalization pattern as well. KLD 400 Social Index represents a float-adjusted market capitalization when the largest companies form a higher percentage of the portfolio.

Investment style – capital growth; positive and negative screening

Benchmark - MSCI KLD 400 Social Index

Primary focus on – The fund is guided by the idea of sustainability that is satisfying environmental and social needs of the present without compromising the quality of life of future generations. Sustainability is seen through five categories of companies: community and society; governance and ethics; employee and supply chain; customers; environment.

Dealing / mentioning risk – The fund informs about six risk groups: market risk; equity securities risk; large cap companies risk; small and mid cap companies risk; index fund risk; environmental and socially responsible investing risk.

Specificity – The main feature that makes this fund different is that it invests all its assets in solely in the companies which make up the MSCI KLD 400 Social Index.

The fund also represents a thorough approach towards analyzing companies' performance regarding legal rules conformity (toxic emissions, fines and penalties) and their innovative efforts to emissions reduction, recycling, use of environmentally beneficial fuels etc. Additionally, the fund assesses companies' employee relations and consumer attitude.

Henderson Global Care Growth Fund

Term – Long-term

Region - Global

Objective – The fund aims to invest in those companies which improve the environment and life of the community. It intends to contribute to future sustainability and not compromise on returns.

Capitalization – All sizes; medium

Investment style – Capital growth and increasing income through investing in equities, convertibles and fixed interest stocks.

Benchmark – MSCI World Index

Primary focus on – The fund searches for so-called Industries of the Future, thus applying a thematic investment approach. It uses both positive and negative screening.

Dealing / mentioning risk – The main risk is connected with the currency exchange rate as the fund currently invests on a global basis. The risk-management section is not that comprehensive as the other funds have. However, in the annual report in the manager's section the various future opportunities are described together with the specific risks. For instance, it is presumed that investing in China is better than in UK and Europe because the global recovery is led by emerging markets (like China).

Specificity – The assessment process consists of two stages: business activity and corporate responsibility evaluation.

New Alternatives Fund

Term - Long-term

Region – USA and other countries with no limitation of assets invested abroad

Objective – Long-term capital appreciation.

Capitalization – All sizes; medium

Investment style – The fund invests in equity securities (common stocks).

Benchmark - S&P 500 and Russell 2000 Index

Primary focus on – The fund invests in companies operating in sectors that contribute to sustainability (including alternative energy as a separate section).

Dealing / mentioning risk – The mains risks identified are: general risk; market risk; concentration risk; new technology risk (which does not guarantee cost effectiveness); political risk; small cap equity securities risk (which comprises of three parts – less trading, fewer research analysis back-up and wider fluctuations in price); foreign company risk (particularly connected with currency exchange rates).

Specificity – The fund makes sure that at least 25% of the total assets are invested in alternative energy. Other sectors of investment are: recycling; clean air; clean water; photovoltaic cells; fuel cells; environmentally grown and organic food.

Petercam Equities Europe Sustainable

Term – Not identified

Region – Europe

Objective – The fund aims to invest in European companies and to satisfy its shareholders' expectations of both capital growth and application of ethical, social and/or ecological criteria. The fund wants to invest in the most sustainable large cap names in Europe and have a performance in line with a similar non-sustainable fund.

Capitalization – Large companies

Investment style – Capital growth by investing in shares.

Benchmark – Not applicable

Primary focus on – The companies selected using certain ESG criteria (which is not disclosed).

Dealing / mentioning risk – The fund identifies 10 types of risks giving a rank to each of them in range of "High", "Moderate", "Low", "Possible" or "None". These 10 types are: market risk; credit risk; closing out risk (risk of counterparty default in the framework of purchase\sale transaction); foreign exchange risk; concentration risk (risk of high concentration of investments in a given class of assets or on a given market); performance risk; capital risk (following share redemption and distributions exceeding the yield); inflation risk; lack flexibility risk (which limits the options to move to other suppliers). The risk scale is from 0 (the lowest risk) to 6 (the highest risk).

Specificity – The fund's manager expresses intention to pick companies with a clear growth strategy in emerging markets, applying a bottom-up approach. Also the fund established an evaluation matrix and in order to get to the fund a company must overcome 40% threshold.

TD Global Sustainability Fund

Term - Long-term capital appreciation

Region – Global

Objective – The fund aims to achieve long-term capital appreciation by investment in the companies contributing to the world's future sustainability.

Capitalization – Primarily large-size, but also small and medium-size, including emerging markets.

Investment style – Capital growth; best-in-class selection

Primary focus on - The fund focuses on the best-in-class companies with respect to environmental, social and/or economic factors. It also seeks for emerging specialists in clean energy technology and resource. A special attention is paid to the companies displaying environmental leadership in water, resource efficiency and alternative energy.

Benchmark - Dow Jones Sustainability World Index and MSCI World Index

Dealing / mentioning risk – Moderate risk profile. However, risks are not as well described as in case of other funds.

Specificity – The fund does not apply negative screening and does not establish any "veto" parameters. Instead, it assesses all the companies on the basis of sustainability driving forces. Thus, obviously that if the company is clearly contributing to unsustainability, it will be screened out.

Appendix 2 – List of questions for interviews with the funds

1. What were the incentives to start up the fund?

2. How would you characterize the main purpose of the fund? What are you aiming for?

3. Do you single out yourselves from the SRI-family? What are the features that differentiate your fund?

4. How would you define "sustainability performance"? What should be included in this concept?

5. What does the sustainability assessment process consist of?

6. What is your selection criteria based on? Are there any principles you are guided by?

7. Is there any standards, frameworks, reporting schemes that you take into account and incorporate into the decision making process?

8. Do you have any specific decision making schemes for the cases when the sustainability of the company is under question?

9. To what extent is the sustainability assessment based on: self-reporting of the candidate company and on the fund's additional expertise?

10. What do you do if it is not clear whether the benefits (in terms of sustainability) outweigh the negative externalities (trade-off situations)?

11. Do you encourage companies to reform/to improve towards sustainability?

12. Which role does the selection criteria play in the economic performance of the fund? How does the economic success depend on the criteria (or does it at all)?