Uncovering the Diversity of Impact Assessment: Evidence from French Investment Professionals

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August 2019
First draft. Preliminary and incomplete. Do not quote or circulate

Abstract

This paper studies impact assessment of investments in terms of environmental footprint, job creation or contribution to the Sustainable Development Goals. From a survey based on the audition of the leading actors in the field of impact assessment and responsible investing of the French SRI (Socially Responsible Investment) Market we have three main findings. Firstly, the study shows that the views of investment professionals on impact assessment vary considerably both in terms of content and format, suggesting that the contours of the concept are far from being defined. Secondly, there is strong statistical evidence that those views are fashioned by the professionals' investment strategies and their relationships to nonfinancial information. Lastly, the study shows that the current challenges of impact assessment in the investment industry do not result exclusively from a scarcity of data, but rather from the lack of shared understandings of how these data should be treated. Elaborating on these results, the article outlines avenues for further research and policy recommendations on impact assessment and responsible investing.

Classification JEL: M14; G30

Introduction

The investment industry has shown a growing interest for measuring the impacts of its investments, whether in terms of environmental footprint, creation of jobs or contribution to the Sustainable Development Goals set by the United Nations. Yet little is known about how investment management professionals envision and implement impact assessment in practice. This article addresses this gap through a research led by the Scientific Committee (i.e. the authors) of the French SRI (Socially Responsible Investment) public label. Data collection included the audition of the leading actors in the field of impact assessment and responsible investing, a national survey – gathering the answers of 88 investment management professionals – and documentary evidence.

The study aims to answer to five issues. What is impact assessment? What are the most efficient impact measures? What are the motivation for impact assessment? What are the main impediments to impact assessment? What are the styles an determinants of impact assessment?

The article enriches previous research on impact assessment and responsible investing on three dimensions. Firstly, the study shows that the views of investment professionals on impact assessment vary considerably both in terms of content and format, suggesting that the contours of the concept are far from being defined. Secondly, there is strong statistical evidence that those views are fashioned by the professionals' investment strategies and their relationships to nonfinancial information. Lastly, the study shows that the current challenges of impact assessment in the investment industry do not result exclusively from a scarcity of data, but rather from the lack of shared understandings of how these data should be treated. Elaborating on these results, the article outlines avenues for further research and policy recommendations on impact assessment and responsible investing.

Impact Assessment in the Investment Industry

From Negative Screening to Impact

The inclusion of non-financial criteria into investment processes is not new. In the 1900s already, Quakers and Methodists excluded companies belonging to the "sin stocks" (e.g. tobacco, gambling and weapons) from their investments. In the 1970s, pressured by their students, North American universities spurred a divestment movement from South African companies to put an end to the Apartheid. In 2006, the Principles for Responsible Investment (PRI) were created with the support of the United Nations to encourage investors to integrate Environmental, Social and Governance (ESG) criteria into their practices (Gond and Piani 2013). Within two decades, responsible investing has shifted from being a niche gathering a few ethical investors to becoming mainstream (Arjaliès 2010; Crifo and Mottis 2016). In 2018, it was estimated that $30.7 trillion worth of assets were integrating non-financial criteria or about half of the global assets under management.[1] Amidst these practices, a new trend is emerging: impact. The notion of impact is complex and multi-faceted. The world comes from the Latin

[1] https://www.ipe.com/top-400/total-global-aum-table-2018/10007066.article, accessed 21 June 2019

impactus which means "to push into, drive into, strike against." By referring to the notion of impact, investment management professionals want to show that they make a change. Apprehending the novelty of the concept and its implications for financial actors requires understanding the differences between (negative) screening, engagement, ESG integration and impact assessment: the main four strategies used today by responsible investors.

Responsible investing first emerged as an ethical practice whose goal was to align investments with the religious beliefs of their investors, mainly by excluding companies that did not abide by those principles. Although not at the core of most financial practices included in today's movement towards responsible investing, such approach remains topical,(Louche et al. 2012). For instance, Islamic finance, that consists in financing companies in accordance with the principles of the Sharia, was estimated to $2,05 trillion worth of assets in 2018[2] (Hayat et al. 2013). Most often, investment managers include some form of negative screening in their selection of companies. European investors, in particular, have started divesting from the fossil fuel industry, both for ethical and financial reasons. The exploitation of oil resources is judged to be both wrong for the planet and financially risky, as most of those stocks are becoming stranded assets. Negative screening raises issues in terms of risk exposure, since it reduces the investment universe – hence the diversification of the portfolio, but it is easy to implement. Investors only have to choose the types of companies they want to invest in. Screening could also be "positive" when only a few sectors referred to as positive for the environment and/or society are selected. Thematic funds that invest only in renewable energy or companies adopting bottom of the pyramid strategies are a good example. Given the importance of the normative views in this approach, previous research on negative screening has searched to understand the antecedents and practices of such choices (Arjaliès and Durand 2019).

From an historical perspective, the second approach to responsible investing that appeared in the aftermath of the anti-Apartheid movement was shareholder engagement. Instead of excluding companies from portfolios, engaged investors used their shares in these companies to transform them towards better social and environmental practices (Gond and Piani 2013). Shareholders can use proxy voting, which consists of voting against or in favor of some resolutions at the annual meetings (A. K. Agrawal 2012). They can also propose some resolutions, alone or by cooperating with other shareholders, such as asking companies to report on their carbon emissions. Or they can engage in one-to-one practices during which they exchange directly with the companies whose shares they own. This form of engagement is long and fastidious but facilitates learning and cooperation among both parties (Ferraro and Beunza 2018). In many countries, investment management professionals have to report their proxy voting policy to their clients. Shareholder engagement is therefore widely practiced all over the world. However, its effects are difficult to uncover as most investment managers have limited influence on companies. First, they tend to have a small number of shares, as compared to the total amount of shares available in the market. Second, they are incentivized not to adopt firm positions on topics such as climate change or gender diversity, as their clients might disagree on

[2] https://www.globenewswire.com/news-release/2019/03/20/1758003/0/en/Global-Islamic-Finance-Markets-Report-2019-Islamic-Banking-is-the-Largest-Sector-Contributing-to-71-or-USD-1-72-Trillion.html, accessed 21 June 2019

those topics. Faced with these difficulties, most research on the topic has therefore focused on the strategies through which investors can successfully engage with companies.

The most numerous publications in the field of responsible investing belong by far to what is usually referred to as ESG Integration. Such approach consists in integrating ESG criteria into the investment practices, usually with the aim to generate higher financial performance (Amel-Zadeh and Serafeim 2018; Dumas and Louche 2016). This inclusion aims to select both companies that better manage their societal risks and those that have transformed societal issues into competitive advantage (e.g. green products) (Ioannou and Serafeim 2015). The bulk of the research explores the relationships between the ESG selection and the financial performance of investments (Flammer 2015). Although recent meta-analyses have suggested that ESG integration is financially beneficial, the academic consensus is unclear (A. Chatterji et al. 2016; Orlitsky et al. 2003; Revelli and Viviani 2015; Van Beurden and Gössling 2008). Endogeneity problems, lack of comparable historical data or disagreement on what ESG includes count among the issues usually identified by scholars doubting these results (A. K. Chatterji et al. 2009). Qualitative accounts of investment management practices show that practitioners share similar problems as ESG criteria, which are often qualitative and whose choice is often subjective, are difficult to include in the financial models in-use (Arjaliès and Bansal 2018; Beunza and Ferraro 2019; Déjean et al. 2004). Despite those difficulties, responsible investors have gradually come to use a common set of indicators offered by a few social rating agencies and which include criteria such as carbon emissions, board diversity or human rights violation.

ESG integration has been key to the mainstreaming of responsible investing. By using a financial lens, investment management professionals could gradually transform their practices towards the inclusion of non-financial criteria that were previously outside their realm of competencies and beliefs (van Duuren et al. 2016). The emergence of impact constitutes a new turn. Impact investing whose primary goal is to produce social and environmental benefits through targeted investments in specific projects – e.g. social housing or education mobile applications – is not new (A. Agrawal and Hockerts 2019; Barman 2015). A by-product of venture philanthropy, impact investing applies traditional investment techniques to settings that were previously outside the scope of investors (Cooper et al. 2016; Höchstädter and Scheck 2015). The financial returns are usually lower but the societal impact of the investments is relatively demonstrable and sizeable. The integration of impact assessment measures by the rest of investors (e.g. mutual funds or institutional investors) is a much more recent phenomenon. Encouraged by initiatives such as the Sustainable Development Goals (SDGs) launched by the United Nations in 2017, the financial industry now wants to demonstrate its positive impacts on society (Bebbington and Unerman 2018; Hollensbe et al. 2014). The form, content and evaluation of those impacts, however, remains relatively unclear. Are there significant differences between this approach and the previous ones? Are investors able to measure their impact, and if so how? What do motivate investors to shift towards impact? We do not know. This article aims to address this gap in the research by investigating the meanings and practices associated with impact assessment by French experienced responsible investment professionals. The challenges of impact assessment in the investment industry are numerous, as the next section will explain.

The Challenges of Impact Assessment in the Investment Industry

The notion of impact assessment has recently appeared in the investment industry. Yet the concept and practices attached to the evaluation of impact are not novel. In 1970 already, the *National Environmental Policy Act* in the United States required that federal agencies factored the environmental impacts of any project to get approved (Caldwell 1988). Environmental and social indicators at the global level abound, such as the OECD framework for measuring well-being or the quantity of solid waste diversion and disposal. According to the OCDE, impact refers to the primary and secondary long-term effects, positive and negative, produced by an intervention, directly or indirectly, voluntarily or not.[3] Burckart, Lydenberg and Ziegler (2018, p. 10), translate this definition in the investment industry as the "direct incremental change caused by investor individual market transactions (portfolio-level activities)." Which change and how this change is measured, however, is not explained besides the need for "quantifiable assessment of established performance indicators" (Burckart et al. 2018, p. 10). Approaches of impact investing vary and lack standardization (Mudaliar et al. 2017; Reeder et al. 2015; Weber 2013).

Impact at the level of an investment is particularly difficult to assess for several reasons: the lack of counterfactual measures, the short time horizon of the investment and the necessity to aggregate the measures at the level of the portfolio. First, impact assessment requires evaluating the effects of an investment on a practical situation, in comparison to what the situation would have been without this investment. It then necessitates to uncover a causal mechanism that links the investment to the changes observed in a particular setting. For instance, investors would like to determine how investing in renewable energies have enabled the reduction of carbon emissions. Such account is difficult as most environmental and social issues targeted by responsible investors are systemic ones, hence likely to evolve due to a variety of reasons and stakeholders (Costa and Pesci 2016; Ormiston 2019). To control for external factors, investors would need to compare the effects of two similar types of investment, one including ESG factors, the other not, also known as matching statistical techniques. Such pairing, however, is difficult to fabricate in real settings, such as financial markets. Given the methodological complexity of impact assessment, many measures are actually chosen for their ability to be easily communicable to the general public (Ebrahim 2013; Hall and Millo 2018).

The second problem for impact assessment in the context of the investment industry is the shortness of the time horizon of the investments. In 1960, the NYSE's average holding period for stocks was eight years and four months, in 2000, it was one year and two months, and was estimated to four months in 2016[4]. Such limited involvement questions the very possibility to attribute the observed changes to the investments (Louche et al. 2019). Transforming practices towards better social and environmental outcomes requires time and commitment (Bansal and DesJardine 2014; Busch et al. 2016).

[3] https://www.oecd.org/dac/results-development/what-are-results.htm, accessed 21 June 2019

[4] https://www.politifact.com/virginia/statements/2016/jul/06/mark-warner/mark-warner-says-average-holding-time-stocks-has-f/, accessed 21 June 2019

The last issue relates to the necessity to aggregate the measures at the level of a portfolio. This aggregation is difficult to obtain at two levels. First, it implies adding or subtracting individual companies' assessment to give an overall evaluation to the portfolio. Such compilation is not obvious as the types of effects might vary and their ability to be compared might be limited. The societal impacts of an insurance product are likely not the same as a chocolate bar. Second, it requires attributing the effects of a company on an environmental or social issue to the investments made in the company. Besides specific project financing, such as green bonds or green infrastructure projects, it is impossible to trace the flow of the money towards its use. As a matter of fact, impact assessment in the case of an investment is particularly difficult to obtain.

Despite those difficulties, several initiatives have recently been launched. The Investment Leader Group hosted by Cambridge University[5] offers a few indicators that could be used by investors to assess their contribution towards the SDGs (Cambridge Institute for Sustainability Leadership 2016). The Investment Integration Project has published a set of guidelines to help investors think at the system-level by outlining the systemic impacts of problems like climate change or food security. In 2018, the French Ministry for Finance and Economics, in charge of awarding the Socially Responsible Investing (SRI) labels to French mutual funds (cf. Arjaliès et al. 2013; Arjaliès and Durand 2019 for further information about the label), launched a working group tasked with suggesting impact assessment metrics to be attached to the label. The authors, all members of the Scientific Committee of the label, were in charge in this consultation process. The French industry is considered to be one of the most advanced of the practices of responsible investing (Crifo and Mottis 2016). Its work on impact assessment could therefore be considered to be at the cutting edge of the topic. The rest of this article is based on this work. Based on a survey, auditions with key actors of the industry and documentary evidence, the article enriches previous research by uncovering the reality and modalities of impact assessment in the investment industry.

Research Methods

Research Context: The French SRI label

The article is based on auditions and a survey conducted within the working group on impact assessment led by the scientific committee of the French SRI label (whose authors are the members). The French SRI market is among the most active national markets worldwide, whether in terms of assets under management or product innovations[6]. French SRI appeared in the late 1990s and progressively became mainstream thanks to several laws pushed by a few politicians supported by trade unions and the actions of three main (market) actors: institutional investors (e.g. public pension funds), regulators and market intermediaries (e.g. social rating agencies) (Arjaliès 2010; Crifo et al. 2019; Gond and Boxenbaum 2013).

[5] https://www.cisl.cam.ac.uk/business-action/sustainable-finance/investment-leaders-group , accessed 10 July 2019

[6] http://www.eurosif.org/sri-study-2016/france/, accessed 10 July 2019.

In January 2016, the French government launched two state-back labels aimed at guaranteeing the "SRI" quality of mutual funds bought by retail consumers. The E*nergy and Ecological Transition for Climate Label* (formerly referred to as TEEC, now GREENFIN) is dedicated to products with measurable environmental benefits, usually invested in some specific "eco-sectors" such as renewable energies and waste management. The SRI label under study in this article includes a wider range of Environmental, Social and Governance (ESG) criteria. To qualify for the label, mutual funds must notably exclude 20% of companies among the initial investment universe on the basis of ESG criteria, or comprise an average ESG rating of the portfolio that is higher than the rating of the benchmark index used to measure its financial performance (see Arjaliès and Durand 2019 for further information). The SRI label is one of its kinds in the world and was developed with the aim is to increase the visibility of SRI products among savers in France and Europe. In 2019, there were 222 labelled funds, representing 57 BN euros under management.The SRI label committee is appointed by the French Ministry for the Economics and Finance and composed of one President, an around 10 individuals selected based on their expertise, academic or professional experience in employee savings or corporate finance ; in third-party asset management ; in financial investments or consumer and saver protection; or in institutional investment or savings product distribution. The SRI label committee is augmented with a scientific committee composed of four academic members.

The label is awarded for a three-year period, during which follow-up certification audits are conducted. The fund labelling audit is conducted by two independent bodies accredited by COFRAC (a semi-public body that ensures the quality of labelling organisations accross all sectors), Afnor Certification and EY France. These organisations review the applications submitted by asset management companies, based on the label's terms of reference, and independently decide whether or not to award the label. They conduct an annual labelling assessment and suggest technical changes that may be made.Under the delegation of the French Ministry of Finance, an organization is in charge of promoting the label. Run by the *Association Française de la Gestion Financière* (French Asset Management Association – AFG) and the *Forum pour l'Investissement Responsable* (Forum for Responsible Investment – the French SIF), this promoting organization is collecting the fees paid by asset managers for the labelling of their funds.

Data Collection: The Impact Assessment Survey

One important aspect of the label is the evaluation of the ESG performance of the funds and their ability to demonstrate that they have an impact. There is a major stake of credibility for the SRI label behind such an impact assessment. To address this concern, the members of the Scientific Committee of the SRI label (authors of this article) have launched a working group to examine these issues of impact assessment. This research draws upon this work.

The *Impact Assessment Working Group* was launched on December 1st, 2017 by the SRI label committee. The work of this group consisted in realizing a literature review on impact assessment, organizing auditions of innovative players from France and Europe in this field, conducting an online survey on impact asessment and generating recommendations for the label committee. Four meetings gathering more than 30 participants from the finance community were organized between January and June 2018. The final report, which was largely

distributed and included some feedbacks on the recommendations made by the *Scientific Committee* was discussed during another meeting in September 2018.

The following sections elaborate on the results of the Impact Assessment survey conducted within the working group. A first draft of the survey questions was developed directly on a web tool Qualtrics® based on a review of the literature on impact assessment and responsible investing. This internet-based survey instrument was used to run a pilot test and optimize wording and tone of the questions. Feedbacks on this draft of the survey were also solicited from a group of three academics and three investment professionals. Thanks to these feedbacks, the pilot survey was fine tuned, and the final version of the survey included 25 questions regarding impact assessment, and 14 questions regarding the background of respondents (see Appendix for an exemplary of the study). The survey did not require subjects to disclose their names or affiliations. Respondents could skip questions if they chose not to answer. The order of choices within questions was not randomized. The multiple-choice questions allowed for free-text responses or for an exclusive negation of all response choices. Where appropriate we refer to some of the qualitative responses to provide further information.

The survey was distributed via email via the support of several professionals bodies, such as the AFG or the FIR, between March and June 2018. We received 151 responses, 88 were fully complete. Our approach relies on a self-administered survey which allows us to combine both quantitative and qualitative analyses. The advantage of integrating both sources of data relies on their complementarity and the possibility to interpret and generalize the results from quantitative data in the light of qualitative, less standardized, ones.

Demographic Data and Descriptive Statistics

The descriptive statistics of demographic variables are reported in Table 1. Our study characterizes SRI professionals on several dimensions: positions, seniority, age and gender. The main occupations of the respondents included investment intermediaries (auditor, consultant and analyst), asset manager, and sales/financial advisor. The respondents have a large seniority in asset management and especially in SRI (80% have an experience of five years or more). They were CEO, managing director, responsible for SRI, and sales manager. The majority of them is under 45 years, and male. Most of them are working, first in asset management firms, second for institutional investors. The asset under management of those organizations vary, from small size (under 5 billion Euros) to large size, which was the most frequent occurence (more than 50 billion Euros). Regarding the strategy of organizations, 77% of respondents answered that SRI was a priority, and 48% disclosed that the organization comprised SRI labeled funds.

To better characterize the sample, we analyze the correlations between variables (see Table A1). Analysts are mainly young women, working in asset management firms, with seniority in SRI less than 5 years. Directors are older. Asset management firms are characterized by the amount of asset under management, SRI label strategy, and respondents which are analyst and under 45 years. Conversely, the analysis reveals no specific characteristic of Institutional investors. The different SRI strategies are associated with younger respondents. The SRI priority strategy is associated with Director, and the SRI label strategy with Asset management firm and low seniority on SRI.

Table 1: Demographics and company data

Variable	Definition	Mean (SD)	Min – Max
Respondent Role			
Analyst	Auditor, advisor, consultant, analyst, asset manager, sales/financial advisor	0.454 (0.500)	0 –1
Director	CEO, Managing director, SRI responsible, sales manager	0.363 (0.483)	0 –1
Respondent seniority in asset management			
Less than 5 yrs	Less than 5 years	0.261 (0.441)	0 –1
Respondent seniority in SRI			
Less than 5 yrs	Less than 5 years	0.193 (0.397)	0 –1
Respondent age and gender			
Less than 45	Less than 45 years	0.568 (0.498)	0 –1
Gender	Female	0.375 (0.486)	
Firm			
AM	Asset management company	0.454 (0.500)	0 –1
InIn	Institutional investor	0.136 (0.345)	0 –1
Asset under management			
Less than 5 BN	Less than 5 billions	0.113 (0.319)	0 –1
5-50 BN	between 5 and 50 billions	0.125 (0.332)	0 –1
More than 50BN	More than 50 billions	0.218 (0.415)	0 –1
SRI strategy of firm			
SRI priority	SRI is a priority in the company	0.772 (0.421)	0 –1
SRI label	SRI labeled funds under management	0.488 (0.502)	0 –1

Methodology: Sampling and Data Collection

Definitions and descriptive statistics of our variables of interest are reported in Table 2. To analyze impact assessment, we refer to different styles (see section 2 for definitions). Impact assessment on *Pure ESG indicators* is the most frequent (85% of respondents). Then, we have impact assessment based on *Engagement measures* (51% of respondents), and in the same proportion (28% of respondents) *Monetary ESG* and *Negative screening* measures.

From the correlation table (see Table A1), we observe that two impact assessment styles are associated with specific characteristics of respondents. *Pure ESG* is associated with Asset management firm, role of Director, SRI priority and SRI label strategies. *Monetary ESG* is associated with Institutional investors. Moreover, the correlation analysis suggests that impact assessment styles are strongly different. *Monetary ESG* and *Negative screening* are exclusive. Only two styles, *Pure ESG* and *Engagement*, are associated.

To explain the impact assessment choices, we use four variables (see Table 2). The first one is linked to the *Relevance of impact assessment for the SRI label*. Two-thirds of respondents considered impact assessment as a key factor for the SRI label. The second variable is *Impediments to impact assessment*. We consider two types of impediments: *Methodological obstacles* and *Cost or availability of Information*. The other two variables are *Motivations* and *Relevant indicators for impact assessment*. They are analyzed in the next sections.

Table 2: Variables definition and descriptive statistics

Variable	Definition	Mean (SD)	Min – Max
Impact assessment (IA) style			
Pure ESG	IA based on pure ESG indicators	0.852 (0.356)	0 –1
Monetary ESG	IA based on ESG indicators in monetary value	0.284 (0.453)	0 –1
Negative	IA based on negative screening measures	0.284 (0.453)	0 –1
Engagement	IA based on engagement measures	0.511 (0.502)	0 –1
Relevance of impact assessment for the SRI label			
IA key for label	IA is key for the SRI label	0.636 (0.483)	0 –1
Impediments to impact assessment			
Information	Cost or availability of information	0.431 (0.498)	0 –1
Methodology	Methodological obstacle	0.477 (0.502)	0 –1
Motivation for impact assessment			
SRI label	IA used to meet the SRI label requirements	0.352 (0.480)	0 –1
Self-evaluation	IA used for self-evaluation (internal use)	0.306 (0.463)	0 –1
Communication	IA used for communication towards customers	0.670 (0.472)	0 –1
Competition	IA used to increase competitive advantage	0.443 (0.499)	0 –1
Differentiation	IA used to differentiate SRI/conventional funds	0.568 (0.498)	0 –1
SDGs	IA used to encourage sustainable development goals	0.465 (0.501)	0 –1
Future of SRI	IA used to identify tomorrow's SRI themes	0.5 (0.502)	0 –1
Relevant for saver	IA used because it is relevant for the saver	0.579 (0.496)	0 –1
Relevant indicators for impact assessment			
Environment			
	Direct greenhouse gas emissions	0.738 (0.441)	0 –1
	Water consumption	0.431 (0.498)	0 –1
	Energy consumption	0.215 (0.413)	0 –1
	Waste	0.306 (0.463)	0 –1
	Biodiversity protection	0.261 (0.441)	0 –1
	Fight against climate change	0.522 (0.502)	0 –1
Social climate			
	Absenteeism rate	0.420 (0.496)	0 –1
	Permanent contracts rate	0.193 (0.397)	0 –1
	Percentage of employees trained	0.488 (0.502)	0 –1
	Frequency rate of work accident	0.465 (0.501)	0 –1

Table 2 (cont.): Variables definition and descriptive statistics

Variable	Definition	Mean (SD)	Min – Max
Relevant indicators for impact assessment			
Governance			
	Percentage of independent board members	0.647 (0.480)	0 –1
	Percentage of sectorial expert board members	0.215 (0.413)	0 –1
	CSR contracting (bonus based on ESG)	0.545 (0.500)	0 –1
	Easy access to data	0.125 (0.332)	0 –1
	Controversies and scandals	0.488 (0.502)	0 –1
Respect for human rights			
	Fundamental human rights in society	0.443 (0.499)	0 –1
	Labor rights (union and collective bargaining)	0.511 (0.502)	0 –1
	Respect of human rights in supply chain	0.702 (0.421)	0 –1
Discrimination			
	Non-discrimination practices	0.363 (0.483)	0 –1
	Non-use of prohibited labor practices	0.284 (0.453)	0 –1
Gender			
	Percentage of women in executive committee	0.488 (0.502)	0 –1
	Percentage of women in managerial positions	0.397 (0.492)	0 –1
Sustainable Development Goals (SGDs)			
	Percentage of turnover contributing to SDGs	0.625 (0.486)	0 –1
	Percentage of turnover from low income population	0.159 (0.367)	0 –1
	Number of decent jobs created	0.409 (0.494)	0 –1
	Contribution to circular economy	0.181 (0.387)	0 –1
	Alignment of business model with SDGs	0.431 (0.498)	0 –1

Key findings and results

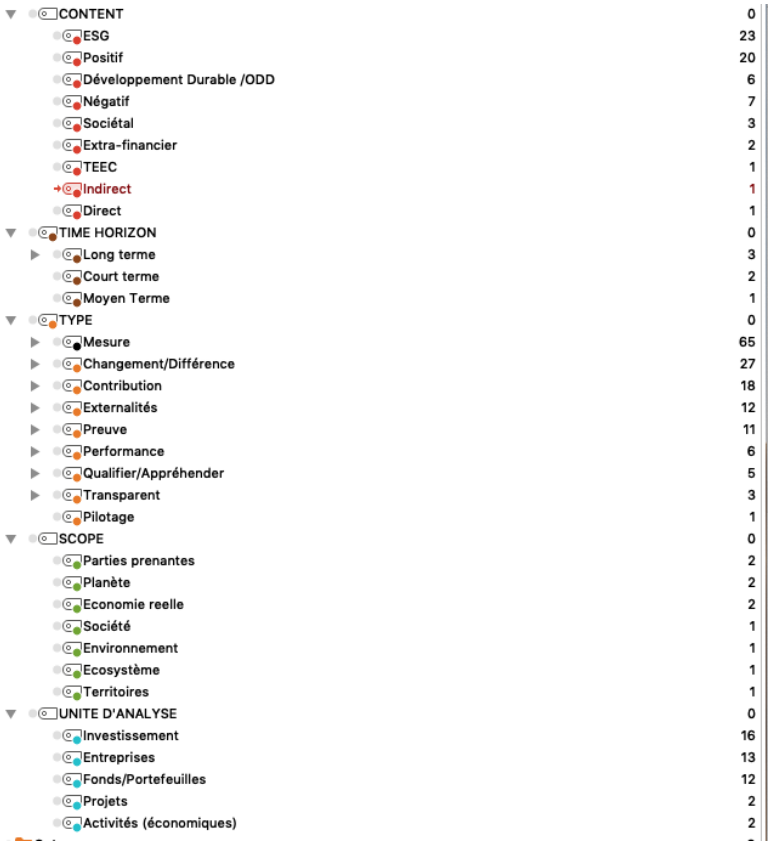
Main results and findings are analyzed answering our five questions.

What is impact assessment?

There is no consensus on what impact assessment is. The responses varied to a great extent, with nevertheless a focus on impact assessment as dealing with the (negative) externalities of companies, ESG measurement and the need to provide evidence. There is little evocation of issues due to the aggregation of measures at the portfolio leveln or the time horizon of the

impact assessment – which are nevertheless key to impact assessment in the context of the investment industry (see above).

What is Impact Asssessment (coding structure)



What are the most efficient impact measures?

When asked about criteria that could be used to assess impact, respondents instead converge to a few ones – mainly GHG emissions and job creation. Some important topics, such as biodiversity or employee well-being are non-existent. Also, most criteria evoked are very similar to what ESG criteria would look like, not to impact measures per se. Table 2 shows ESG indicators are considered as relevant for impact assessment.

The most cited items (around 50% or more of respondents) by categories are:

- Environment: direct greenhouse gas emissions, fight against climate change;
- Social climate: % of employees trained;
- Governance: percentage of independent board members, CSR contacting (bonus based on ESG), controversies and scandals;
- Respect for human rights: respect of human rights in supply chain, labor rights;
- Gender: percentage of women in executive committee;
- SDGs: % of turnover contributing to SDGs.

The Most Efficient Impact Measures

Impact measures cited	Total numbers of citations 158
Climate change (GHG emission, 2° alignment)	58
Number of jobs created	23
Gender equality	16
Corporate governance	14
SDGs	7
Water consumption	4
Training programs	4
Weight of these 7 measures	80%
Others (very diverse i.e. more than 20 measures	20%

What are the motivations for impact assessment?

From Table 2, we observe that the *Motivations for impact assessment* are numerous, various and most often shared by respondents. Four reasons to use impact assessment are cited by half (or more) of them: communication towards customers (67%), relevance for saver (58%), differentiation of SRI funds from conventional fund, and identification of tomorrow's SRI themes (50%). Impact assessment is also perceived as a way to increase competitive advantage. The weakest motivations are to meet the SRI label requirements (35%), and self-evaluation of portfolio and funds performances (30%). In short, the results show that impact assessment is used to satisfy the demand of clients for information, to develop the present business activity, but also to enhance the future's one. The fact that quite half of respondents use impact assessment to encourage sustainable development goals suggests that this is a challenge of SRI professionals for future.

The correlation analysis (see Table A1) reveals three results. First, the motivations (except Self-evaluation and Communication) are significantly linked to respondents' characteristics and affiliation. The SRI label is an objective chosen by respondents with a low Seniority in asset management. Competition is a motivation shared by Analysts, younger respondents, low amount of Asset under management and SRI priority strategy. Differentiation is associated with Director, high Seniority in asset management and low Seniority in SRI. The Sustainable Development Goals (SDGs) seem not be a key motivation for the Asset management firms (significant negative correlations). In the same way, the Future of SRI is not a motivation for respondents with a low Seniority in asset management, and the fact to be Relevant for savers is not a motivation for low Seniority in SRI.

Second, some motivations seem to be exclusive (negatively correlated). These are SRI label exclusive with Differentiation and SDGs, Self-evaluation with Differentiation and Relevant for saver, Communication with Future of SRI and with SDGs), and Competition with SDGs and Relevant for saver.

Third, motivations are not significantly linked to impact assessment styles (there is no significant correlation between the variables). This finding is very important in the understanding of today's behavior of professionals on SRI market.

What are the main impediments to impact assessment?

When the respondants are asked to explain qualitatively which elements could prevent impact assessment, respondents mainly evoke two causes: the lack of available data and the lack of standardized reporting, which represent almost ¾ of the total responses. Yet, othe access to data is an obstacle for less than 50% of the respondents, whereas this factor is often cited as the major issue for impact assessment. The other causes are mainly related to technical aspects (costs of measures, lack of methodology, etc.)

Main obstacles for the adoption of impact measures

Main obstacles	Total numbers of citations 66
Availability of data	31 (48%)
Lack of a collective shared framework (regulation, standards…)	17 (43%)
Weight of these 2 obstacles	73%
Others (very diverse i.e. more than 10 obstacles)	27%

The Correlation analysis (see Table A1) complements this qualitative insight by offering two results. First, the relevance of the two aspects (information, methodology) depends on the style of impact assessment considered. Indeed, information concerns are only correlated with the *Pure ESG* and *Monetary ESG* styles. Also, the *Methodological obstacles* are not correlated with any impact assessment style. Yet we find that younger respondents are sensitive to Methodology concerns. Second, the Impediments are associated with SRI priority strategy, but not with the SRI label strategy (data is not a concern for those using labeled funds).

To better understand the effects of these barriers, in the next section we analyze them according to each style of impact assessment, and considering Motivations and ESG indicators.

What are the styles and determinants of impact assessment?

We now focus our analysis on the question: are impediments, motivations and ESG Indicators determinants of impact assessment styles? The regression results on the determinants of the impact assessment styles are presented in the Tables 3 to 6. The tables report Probit regressions explaining the perceived determinants of impact assessment. We explore impediments, motivations and ESG determinants of the 4 impact assessment styles, based on "Pure ESG indicators" (Table 3), "ESG indicators expressed in monetary value" (Table 4), "Negative screening" (Table 5), "Engagement measures" (Table 6).

The dependent variable is a discrete variable taking the value of 1 if impact assessment is based on "Pure ESG indicators" (table 3), "ESG indicators expressed in monetary value" (table 4), "Negative screening" (table 5), "Engagement measures" (table 6). The independent variables

we use are: Impediments, Motivation, Relevant ESG indicators. We control for individual (respondent role) and firm (institutional investor) fixed effects.

Detailed variable definitions are presented in the descriptive statistics tables (see Tables 1 and 2). t-statistics (between brackets) are based on robust standard errors. ***, **, * indicate significance levels of 1%, 5%, and 10%, respectively.

Econometric model

Tables 3 to 6 show that the impact assessment styles are determined by Impediments, Motivations and Relevant ESG indicators. Pure ESG style is the best explained, the pseudo R^2 of regressions varying from 0.53 to 0.61 depending on the model. In the next paragraphs, first we analyze the determinants for each type of impact assessment, second we emphasize the key results and findings.

Pure ESG (Table 3)

The choice of Pure ESG style is strongly explained both by impediments and motivations, and less by ESG indicators. The most important barrier is the cost or availability of information. The second one is methodological obstacle, depending on ESG indicator category. The non-effect we find for this obstacle when we refer to Environment is in line with the know-how of SRI professionals about environmental indicators. In the same way, the reduced effect of methodological factor when we consider Social indicators is coherent taking into account the measures available, especially in the French market.

Pure ESG is a way to satisfy the various motivations of actors. Its use is strongly explained by five motivations: SRI label, Communication, Competitive advantage, SDGs, Relevant for individual savers. As we mention it previously, Pure ESG is referred by 85% of respondents and associated with Asset management firm, role of Director, SRI priority and SRI label strategies. So, these results suggest that Pure ESG is today in adequacy with the characteristics and behavior of a majority of SRI French market actors. This style seems to correspond to a first step in impact assessment, mainly focused on ex-post measures.

Pure ESG adoption is also determined by four ESG indicators, among those on which the attention of the responsible investing strategy "ESG integration" is focused. Pure ESG is increasing with Work accident, Human rights in supply chain (significant at 10%)[7], and Controversies. While the two first factors are well known, the last one is corresponding to a new result. The increasing attention paid by SRI actors to controversies seems to be on the way. The fourth indicator “Non-discrimination practices” has a reverse effect. Pure ESG is less adopted considering discrimination practices. The reason could be other impact assessment styles better integrate it, as for example Engagement.

Motivations and relevant ESG indicators suggest the Pure ESG is a style mainly corresponding to the investment strategy of ESG integration.

[7] All the variables we refer in comments are significant at 1 or 5%, except those are mention as « significant at 10%”.

ESG indicators in monetary value (Table 4)

The choice of ESG indicators in monetary value is mainly explained by concerns about access to information. This result is fully coherent as this impact assessment is based on the financial materiality of ESG, needing a lot of information to be assed. Thereby, the cost and availability of information are important. Conversely, the use of monetary indicators is not explained by motivations. This result could be non-conclusive considering the low percentage of respondents referring to this style (28%).

The use (or non-use) of such an impact assessment is explain by some ESG indicators relying to Environment, Governance and Gender. These indicators are expected to be able to value in monetary terms the effects of investment decisions. Water consumption is recognized as a crucial element about environmental aspects. In the same way, Independent directors and Sectorial expert directors are needed to value impacts of Governance. Reverse, this impact assessment style is less adopted when Waste is considered. The explanation of this result could be the difficulty to access to information and to price the underlying risk. Indeed, the effect of this impediment is the highest for the regression with Environment indicators (model 1). In the same way, Controversies (significant at 10%) seems to be a barrier. Such impact assessment could be less used considering the difficulties to price the impact of Controversies, for example in case of large pollution, financial penalties and legal proceedings. A last negative factor, which is ambiguous, is Women in managerial position (significant at 10%). These two weakly significant results are offering an avenue for further research.

Negative screening (Table 5)

The choices about Negative screening are explained by Impediments relying to Information, but not to Methodological obstacle. The negative link we find with Cost and availability of information suggests that users of this impact assessment observe fewer difficulties about information. We could also consider they are less dependent on data, as they have their own opinion about investments and firms. This explanatory factor works in opposite way to the case of ESG indicators in monetary value, in line with the negative correlation between these two styles.

The use of this style is strongly supporting by Motivations, when we take into account Impediments and Relevant ESG factors. It is interesting to know we find no significant effect of Motivations in the regressions without these variables. This means that interactions between these variables are relevant.

The choice of Negative screening is not explained by ESG indicators. This result is coherent because this impact assessment is not focused on such indicators. Negative screening is an impact assessment style mainly corresponding to the eponymous strategy of responsible investment.

Engagement (Table 6)

The choice of Engagement is not explained by Information. Methodological obstacle is effective only when we consider Social indicators. These results are logical because this style is not based on traditional ESG indicators, but on engagement measures.

Two motivations are explanatory factors: “Relevant for individual savers”, and “Invent the future of SRI (significant at 10% in models 1 and 5). These results are in line with the expectations of individuals investing in portfolios based on ESG engagement strategy, and with their quest for innovation in SRI.

Engagement is explained by Environment, Social and SDG’s indicators. Environment indicators are the most explanatory (model 1). The use of Engagement is increasing with Energy consumption, Waste and Climate change. These results are consistent with the large use of the first two indicators, and with the increasing consideration of Climate change. They are also in line with the two relevant motivations of Engagement.

Taking into account Social indicators has to opposite effects on Engagement (model 3). First, the choice of Engagement is negatively linked to Trained workers. The explanation of this result could be that this indicator is not properly addressed by Engagement. An alternative explanation could be the ambiguity of this indicator, considering cost and benefit of this aspect. The second result is Methodological obstacle increases the use of Engagement (significant at 10%). This type of assessment could be a way to avoid difficulties observed to measure some social indicators.

Finally, the analysis introducing SDGs indicators (model 7) shows a negative effect of the indicator “Turnover contribution to SDGs” (significant at 10%). In the same time, Implement SDGs is an explanatory motivation of the use of Engagement (significant at 10%). An interpretation of these weakly significant results could be the consideration of this indicator is not in favor of Engagement, other styles of impact assessment valuing it better. They enhance the need to better study SDGs practices in SRI industry.

Conclusion

Our study focused on the French SRI market allows us to add new findings. The detailed analysis reveals that impact assessment styles are determined in different ways by Impediments, Motivations and Relevant ESG indicators. The impediments to impact assessment are working very differently depending on styles. We show that the lack of data is mainly a concern for Pure ESG. The relevance of the two aspects (information, methodology) also depends on impact assessment style. Moreover, they are barriers for SRI priority strategy, but not for SRI label strategy, i.e. when using SRI label funds.

ESG indicators are themselves determinants of impact assessment styles. They have no effect on Negative screening, and influence differently other type of assessment. We evidence that the effect of ESG indicators must be analyze taking into account impediments and motivations, and that styles and determinants are linked to specific characteristics of respondents. These arguments suggest that impact assessment styles, and ESG indicators considered as relevant, are in line with generic investment strategies mainly focused on the corresponding type of impact assessment. Pure ESG is corresponding to ESG integration,

Negative screening and Engagement to their eponymous investment strategies. ESG indicators in monetary value seem to be an impact assessment style uncorrelated to any responsible investment strategy.

The correspondence we suggest between Impact assessment, motivations and investment strategy is important to characterise today SRI market behaviors en France. Moreover, our results bring to the fore the coexistence of three types of behaviors in impact assessment: historical as Negative screening or Engagement, mainstream as Pure ESG indicators focused on ex-post measures, and new using for example Controversies or SDG's indicators. A renewed approach of impact assessment is on the way to answer the need from Responsible investment evolution. This challenge is crucial to succeed in investing more with real impact on sustainability and climate change.

Our study is dealing with the French SRI Market, where label play an historical and significant role. What do we learn about SRI label experience? Sample characteristics show label importance and impact assessment challenge: 48% of respondents use SRI label, 35% consider SRI label as a motivation for impact assessment, and two-thirds of respondents consider impact assessment as a key factor for label. Nevertheless, the research results show first, there are no significant correlation of "Impact on SRI label" with characteristics of respondents, and the studied variables. Second, the analysis of impact assessment determinants evidence there is no significant effect of "impact assessment key for label", whatever the impact assessment style. So, impact assessment is recognized by SRI actors as a key factor for SRI label, but is not a determinant of impact assessment styles. This finding is important in a market where actors are used to refer to SRI label. It argues in favor of further research to better understand the effects of labels on impact assessment behaviors in SRI industry.

Table 3: Determinants of Impact Assessment (impact assessment) based on Pure ESG indicators

	Pure ESG indicators						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Impact assessment is key for SRI label	0.191	0.630	0.335	0.882	0.312	0.714	-0.083
	(0.459)	(0.623)	(0.474)	(0.539)	(0.524)	(0.540)	(0.571)
Impediments to impact assessment							
Cost or availability of information	1.861***	3.297***	3.083***	3.260***	3.037***	3.274***	3.011**
	(0.638)	(1.119)	(0.668)	(1.117)	(0.980)	(0.847)	(0.741)
Methodological obstacle	0.899	1.468**	0.952*	1.403**	1.180**	1.317**	1.280**
	(0.589)	(0.651)	(0.544)	(0.629)	(0.571)	(0.564)	(0.533)
Motivation for impact assessment							
Satisfy the SRI label requirements	3.239***	4.450***	5.253***	5.732***	3.562***	5.033***	4.462***
	(6.640)	(1.527)	(1.679)	(1.431)	(1.168)	(1.257)	(1.159)
Self-evaluation (internal use)	1.827	2.296**	2.512*	3.111**	1.605	3.333**	2.904**
	(1.227)	(1.150)	(1.446)	(1.293)	(1.181)	(1.320)	(1.147)
Communication towards customers	2.700**	3.964***	3.765***	4.185***	3.248***	4.775***	3.906***
	(1.185)	(1.394)	(1.379)	(1.443)	(1.126)	(1.295)	(1.045)
Competitive advantage	3.612***	4.541***	5.042***	5.856***	4.221***	5.540***	4.783***
	(1.274)	(1.426)	(1.571)	(1.486)	(1.443)	(1.343)	(1.112)
Differentiation SRI/ conventional funds	2.100*	2.754**	3.557**	3.716***	2.134**	3.472***	3.447***
	(1.172)	(1.150)	(1.559)	(1.260)	(1.074)	(1.304)	(1.104)
Implement sustainable development goals	3.655***	4.539***	5.512***	6.024***	3.719***	5.477***	5.246***
	(1.291)	(1.484)	(1.788)	(1.689)	(1.346)	(1.380)	(1.237)
Invent the future of SRI	2.218*	2.692**	3.288**	3.491***	2.750**	3.777***	3.445***
	(1.204)	(1.215)	(1.483)	(1.300)	(1.125)	(1.278)	(1.035)
Relevant for individual savers	3.540***	4.636***	5.271***	5.963***	4.083***	5.451***	4.796***
	(1.224)	(1.495)	(1.483)	(1.597)	(1.275)	(1.240)	(1.132)
Relevant ESG indicators for impact assessment							
Environment							
Direct GHG emissions	0.726						
	(0.670)						
Water consumption	0.086						
	(0.446)						
Energy consumption	0.410						
	(0.530)						
Waste	0.363						
	(0.435)						
Biodiversity	-0.332						
	(0.585)						
Climate change	0.201						
	(0.478)						
Gender							
Women in executive committee		1.061					
		(0.699)					
Women in managerial positions		-0.458					
		(0.746)					
Social climate							
Absenteeism			-0.218				
			(0.526)				
Permanent contracts			1.436				
			(0.943)				
Trained workers			0.560				
			(0.569)				

Work accident			1.399***				
			(0.545)				
Ethical charter			-0.103				
			(0.903)				
Governance							
Independent directors				-0.488			
				(0.601)			
Sectoral expert directors				0.713			
				(0.963)			
CSR contracting				-0.192			
				(0.557)			
Data access				-0.519			
				(0.662)			
Controversies				2.051**			
				(0.914)			
Human rights							
Fundamental human rights					0.763		
					(0.546)		
Labor rights (union and collective bargaining)					-1.050		
					(1.005)		
Human rights in supply chain					1.518*		
					(0.897)		
Discrimination							
Non-discrimination practices						-1.325**	
						(0.537)	
Non-use of prohibited labor practices						0.394	
						(0.593)	
SDGs							
Turnover contributing to SDG							-0.522
							(0.554)
Turnover from low income population							-0.504
							(0.548)
Nb of decent jobs created							0.722
							(0.595)
Contribution to circular economy							0.856
							(0.592)
Alignment of business model with SDGs							0.210
							(0.519)
Constant	-11.984**	-15.662***	-18.138***	-20.232***	-13.827***	-18.530***	-16.544***
	(4.693)	(5.502)	(6.213)	(5.905)	(4.669)	(4.977)	(4.074)
Firm control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Respondent control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log pseudolikelihood	-17.208	-17.060	-15.729	-14.216	-15.462	-16.272	-16.760
WaldChi2	37.98	21.09	39.78	53.33	18.49	39.01	41.92
Prob > chi2	0.0060	0.1341	0.0022	0.0000	0.2961	0.0006	0.0011
Pseudo R2	0.5330	0.5370	0.5731	0.6142	0.5804	0.5584	0.5452
Nb. of obs.	88	88	88	88	88	88	88

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; robust standard-errors between brackets.

Table 4: Determinants of Impact Assessment (impact assessment) based on ESG indicators expressed in monetary value

	ESG indicators expressed in monetary value						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Impact assessment is key for SRI label	-0.268	-0.165	-0.166	-0.280	-0.110	-0.052	0.062
	(0.304)	(0.362)	(0.335)	(0.416)	(0.331)	(0.333)	(0.387)
Impediments to impact assessment							
Cost or availability of information	1.180**	0.846**	0.621*	0.749*	0.851**	0.748**	0.805**
	(0.467)	(0.333)	(0.367)	(0.388)	(0.357)	(0.345)	(0.354)
Methodological obstacle	0.085	0.201	0.109	0.069	0.021	0.094	-0.083
	(0.412)	(0.347)	(0.366)	(0.348)	(0.332)	(0.334)	(0.333)
Motivation for impact assessment							
Satisfy the SRI label requirements	0.018	0.189	0.103	0.194	0.206	0.133	0.139
	(0.474)	(0.404)	(0.416)	(0.416)	(0.384)	(0.394)	(0.394)
Self-evaluation (internal use)	0.237	0.630	0.384	0.514	0.353	0.552	0.341
	(0.537)	(0.443)	(0.462)	(0.445)	(0.440)	(0.433)	(0.458)
Communication towards customers	-0.968*	-0.381	-0.370	-0.628	-0.490	-0.408	-0.717
	(0.534)	(0.430)	(0.447)	(0.450)	(0.432)	(0.406)	(0.440)
Competitive advantage	0.029	0.171	0.218	0.171	0.122	0.146	-0.025
	(0.477)	(0.445)	(0.427)	(0.471)	(0.464)	(0.409)	(0.436)
Differentiation SRI/ conventional funds	0.059	0.256	0.341	0.518	0.350	0.211	0.277
	(0.504)	(0.408)	(0.427)	(0.424)	(0.437)	(0.416)	(0.425)
Implement sustainable development goals	0.052	-0.026	-0.025	-0.178	-0.074	0.033	-0.521
	(0.449)	(0.437)	(0.385)	(0.416)	(0.441)	(0.411)	(0.479)
Invent the future of SRI	-0.288	-0;123	0.035	-0.157	-0.064	0.060	-0.127
	(0.445)	(0.420)	(0.394)	(0.429)	(0.402)	(0.402)	(0.398)
Relevant for individual savers	-0.158	-0.015	-0.192	0.045	-0.064	-0.0006	-0.009
	(0.425)	(0.381)	(0.387)	(0.392)	(0.412)	(0.361)	(0.376)
Relevant ESG indicators for impact assessment							
Environment							
Direct GHG emissions	0.673						
	(0.623)						
Water consumption	1.011**						
	(0.416)						
Energy consumption	0.563						
	(0.506)						
Waste	-1.399***						
	(0.543)						
Biodiversity	0.164						
	(0.492)						
Climate change	-0.266						
	(0.381)						
Gender							
Women in executive committee		-0.071					
		(0.372)					
Women in managerial positions		-0.697*					
		(0.367)					
Social climate							
Absenteeism			0.251				
			(0.344)				
Permanent contracts			0.620				
			(0.440)				
Trained workers			0.136				
			(0.382)				
Work accident			-0.448				
			(0.415)				
Ethical charter			0.303				
			(0.551)				
Governance							

Independent directors				0.669*			
				(0.382)			
Sectoral expert directors				0.922**			
				(0.393)			
CSR contracting				-0.202			
				(0.380)			
Data access				0.518			
				(0.574)			
Controversies				-0.710*			
				(0.374)			
Human rights							
Fundamental human rights					0.260		
					(0.355)		
Labor rights (union and collective bargaining)					0.265		
					(0.436)		
Human rights in supply chain					-0.239		
					(0.415)		
Discrimination							
Non-discrimination practices						-0.537	
						(0.378)	
Non-use of prohibited labor practices						0.467	
						(0.391)	
SDGs							
Turnover contributing to SDG							0.456
							(0.353)
Turnover from low income population							-0.012
							(0.454)
Nb of decent jobs created							-0.029
							(0.378)
Contribution to circular economy							0.421
							(0.476)
Alignment of business model with SDGs							0.596
							(0.425)
Constant	-0.620	-0.643	-0.812	-0.769	-0.700	-18.530***	-16.544***
	(0.956)	(0.959)	(0.882)	(0.898)	(0.933)	(4.977)	(4.074)
Firm control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Respondent control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log pseudolikelihood	-33.106	-41.593	-41.242	-37.338	-42.705	-41.551	-41.156
WaldChi2	26.29	17.60	12.52	20.41	11.08	15.96	16.23
Prob > chi2	0.0933	0.2256	0.7680	0.2539	0.7471	0.3160	0.5076
Pseudo R2	0.3123	0.1360	0.1433	0.2244	0.1129	0.1369	0.1451
Nb. of obs.	76	76	76	76	76	76	76

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; robust standard-errors between brackets.

Table 5: Determinants of Impact Assessment (impact assessment) based on negative screening

	Negative screening						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Impact assessment is key for SRI label	0.100	0.079	0.094	0.210	-0.010	0.107	0.372
	(0.0.343)	(0.327)	(0.344)	(0.389)	(0.320)	(0.330)	(0.390)
Impediments to impact assessment							
Cost or availability of information	-0.960***	-0.721**	-0.616*	-0.850**	-0.823**	-0.778**	-0.870**
	(0.371)	(0.348)	(0.365)	(0.371)	(0.363)	(0.359)	(0.359)
Methodological obstacle	-0.483	-0.454	-0.564	-0.493	-0.449	-0.484	-0.301
	(0.305)	(0.321)	(0.360)	(0.337)	(0.319)	(0.321)	(0. 331)
Motivation for impact assessment							
Satisfy the SRI label requirements	4.948***	4.166***	4.148***	4.468***	3.913***	4.274***	4.220***
	(0.982)	(0.764)	(0.871)	(0.844)	(0.775)	(0.836)	(0.969)
Self-evaluation (internal use)	4.994***	4.455***	4.031***	4.563***	4.081***	4.426***	4.269***
	(0.977)	(0.811)	(0.975)	(0.871)	(0.829)	(0.842)	(0.969)
Communication towards customers	6.029***	5.146***	4.907***	5.248***	5.038***	5.164***	5.309***
	(0.799)	(0.601)	(0.852)	(0.698)	(0.608)	(0.616)	(0.705)
Competitive advantage	5.789***	4.934***	4.970***	5.195***	4.907***	5.077***	5.075***
	(1.003)	(0.825)	(0.901)	(0.851)	(0.879)	(0.868)	(1.008)
Differentiation SRI/ conventional funds	5.137***	4.310***	4.228***	4.523***	3.951***	4.424***	4.150***
	(0.903)	(0.708)	(0.845)	(0.731)	(0.693)	(0.704)	(0.861)
Implement sustainable development goals	5.347***	4.577***	4.452***	4.897***	4.314***	4.710***	4.639***
	(0.854)	(0.707)	(0.798)	(0.759)	(0.739)	(0.770)	(0.901)
Invent the future of SRI	5.291***	4.464***	4.408***	4.766***	4.409***	4.676***	4.653***
	(0.847)	(0.661)	(0.850)	(0.763)	(0.694)	(0.729)	(0.854)
Relevant for individual savers	4.668***	4.047***	4.028***	4.332***	3.941***	4.159***	4.155***
	(0.870)	(0.713)	(0.778)	(0.800)	(1.275)	(0.785)	(0.926)
Relevant ESG indicators for impact assessment							
Environment							
Direct GHG emissions	-0.131						
	(0.418)						
Water consumption	-0.599*						
	(0.359)						
Energy consumption	0.043						
	(0.396)						
Waste	-0.128						
	(0.412)						
Biodiversity	0.264						
	(0.397)						
Climate change	-0.052						
	(0.381)						
Gender							
Women in executive committee		1.172					
		(0.335)					
Women in managerial positions		-0.532					
		(0.359)					
Social climate							
Absenteeism			-0.331				
			(0.415)				
Permanent contracts			0.324				
			(0.398)				
Trained workers			-0.178				
			(0.352)				
Work accident			0.148				
			(0.364)				
Ethical charter			0.579				
			(0.544)				
Governance							

Independent directors				0.027			
				(0.363)			
Sectoral expert directors				0.139			
				(0.415)			
CSR contracting				0.219			
				(0.377)			
Data access				-0.630			
				(0.601)			
Controversies				0.315			
				(0.379)			
Human rights							
Fundamental human rights					0.274		
					(0.347)		
Labor rights (union and collective bargaining)					-0.547		
					(0.363)		
Human rights in supply chain					-0.219		
					(0.457)		
Discrimination							
Non-discrimination practices						-0.084	
						(0.336)	
Non-use of prohibited labor practices						0.098	
						(0.344)	
SDGs							
Turnover contributing to SDG							0.382
							(0.394)
Turnover from low income population							-0.753
							(0.500)
Nb of decent jobs created							-0.518
							(0.388)
Contribution to circular economy							0.428
							(0.441)
Alignment of business model with SDGs							-0.434
							(0.387)
Constant	-21.434**	-15.662***	-18.205***	-19.972***	-17.648***	-19.106***	-19.046***
	(3.338)	(5.502)	(3.229)	(2.846)	(2.726)	(2.770)	(3.352)
Firm control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Respondent control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log pseudolikelihood	-40.037	-41.065	-40.293	-40.843	-40.587	-42.168	-38.697
WaldChi2	344.33	314.71	358.10	303.77	304.20	343.24	347.92
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.2376	0.2180	0.2327	0.2223	0.2272	0.1970	0.2631
Nb. of obs.	88	88	88	88	88	88	88

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; robust standard-errors between brackets.

Table 6: Determinants of Impact Assessment (impact assessment) based on Engagement

	Engagement						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Impact assessment is key for SRI label	-0.212	0.113	-0.071	-0.122	-0.027	0.010	-0.195
	(0.327)	(0.304)	(0.303)	(0.346)	(0.303)	(0.302)	(0.331)
Impediments to impact assessment							
Cost or availability of information	-0.145	0.270	0.356	0.256	0.381	0.295	0.338
	(0.379)	(0.306)	(0.332)	(0.311)	(0.323)	(0.314)	(0.332)
Methodological obstacle	0.132	0.313	0.582*	0.331	0.243	0.347	0.312
	(0.313)	(0.299)	(0.327)	(0.299)	(0.305)	(0.293)	(0.320)
Motivation for impact assessment							
Satisfy the SRI label requirements	0.075	0.063	0.231	-0.003	0.092	0.101	0.053
	(0.366)	(0.346)	(0.340)	(0.346)	(0.349)	(0.344)	(0.365)
Self-evaluation (internal use)	-0.195	0.173	0.518	0.280	0.212	0.261	0.324
	(0.406)	(0.364)	(0.370)	(0.355)	(0.365)	(0.351)	(0.352)
Communication towards customers	-0.435	-0.198	0.055	-0.170	-0.125	-0.138	-0.185
	(0.409)	(0.357)	(0.374)	(0.364)	(0.382)	(0.364)	(0.384)
Competitive advantage	0.172	0.329	0.352	0.335	0.522	0.359	0.579
	(0.397)	(0.341)	(0.358)	(0.349)	(0.348)	(0.343)	(0.361)
Differentiation SRI/ conventional funds	0.129	0.023	0.098	-0.071	-0.020	0.013	0.102
	(0.408)	(0.332)	(0.341)	(0.366)	(0.353)	(0.340)	(0.354)
Implement sustainable development goals	-0.011	0.303	0.355	0.309	0.363	0.339	0.709*
	(0.367)	(0.326)	(0.317)	(0.310)	(0.337)	(0.314)	(0.384)
Invent the future of SRI	0.599*	0.468	0.486	0.453	0.519*	0.425	0.478
	(0.348)	(0.323)	(0.299)	(0.326)	(0.314)	(0.318)	(0.322)
Relevant for individual savers	0.642**	0.562*	0.689**	0.529	0.601*	0.568*	0.762**
	(0.327)	(0.323)	(0.318)	(0.328)	(0.343)	(0.323)	(0.335)
Relevant ESG indicators for impact assessment							
Environment							
Direct GHG emissions	0.339						
	(0.414)						
Water consumption	-0.496						
	(0.326)						
Energy consumption	1.459***						
	(0.454)						
Waste	1.728***						
	(0.447)						
Biodiversity	-0.110						
	(0.392)						
Climate change	0.987**						
	(0.423)						
Gender							
Women in executive committee		0.197					
		(0.310)					
Women in managerial positions		0.348					
		(0.326)					
Social climate							
Absenteeism			0.311				
			(0.317)				
Permanent contracts			0.061				
			(0.428)				
Trained workers			-0.703**				
			(0.342)				
Work accident			0.272				
			(0.378)				
Ethical charter			0.485				
			(0.437)				
Governance							
Independent directors				0.113			

				(0.336)			
Sectoral expert directors				0.302			
				(0.343)			
CSR contracting				0.181			
				(0.342)			
Data access				0.447			
				(0.492)			
Controversies				0.038			
				(0.317)			
Human rights							
Fundamental human rights					0.488		
					(0.325)		
Labor rights (union and collective bargaining)					0.181		
					(0.347)		
Human rights in supply chain					-0.246		
					(0.365)		
Discrimination							
Non-discrimination practices						0.229	
						(0.300)	
Non-use of prohibited labor practices						-0.078	
						(0.321)	
SDGs							
Turnover contributing to SDG							-0.644*
							(0.337)
Turnover from low income population							-0.096
							(0.397)
Nb of decent jobs created							0.292
							(0.324)
Contribution to circular economy							0.334
							(0.408)
Alignment of business model with SDGs							0.182
							(0.358)
Constant	-1.877***	-1.518**	-1.851***	-1.451**	-1.561**	-1.428**	-1.529**
	(0.636)	(0.624)	(0.585)	(0.635)	(0.660)	(0.643)	(0.677)
Firm control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Respondent control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log pseudolikelihood	-43.095	-54.958	-52.306	-54.972	-54.477	-55.517	-52.508
WaldChi2	35.86	16.31	22.91	15.17	15.62	13.19	17.08
Prob > chi2	0.0110	0.3621	0.1942	0.6504	0.4797	0.5880	0.5175
Pseudo R2	0.2932	0.0987	0.1422	0.0984	0.1066	0.0895	0.1388
Nb. of obs.	88	88	88	88	88	88	88

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; robust standard-errors between brackets.

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APPENDIX:

A1: CORRELATION MATRIX

Variables		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	Analyst	1.00													
(2)	Director	-0.69*	1.00												
(3)	AM Seniority <5 years	0.13	-0.13	1.00											
(4)	SRI Seniority <5 yrs	0.25*	-0.19	0.56*	1.00										
(5)	AM	0.31*	-0.03	-0.02	0.07	1.00									
(6)	InIn	-0.16	0.18	-0.01	0.06	-0.36*	1.00								
(7)	AUM < 5 BN	0.11	-0.05	0.03	0.10	0.39*	-0.14	1.00							
(8)	AUM 5-50 BN	0.07	0.07	0.01	-0.01	0.41*	-0.15	-0.14	1.00						
(9)	Female	0.38*	-0.15	0.18	0.10	0.09	0.03	-0.13	0.13	1.00					
(10)	Age < 45 years	0.47*	-0.25*	0.15	0.31*	0.29*	-0.06	0.17	0.05	0.30*	1.00				
(11)	SRI priority	0.11	0.30*	0.20	0.06	0.17	0.06	0.11	0.12	0.14	0.40*	1.00			
(12)	SRI label	0.20	0.06	0.04	0.27*	0.48*	0.08	0.08	0.04	0.18	0.21*	0.21	1.00		
(13)	Pure ESG	0.19	0.25*	0.03	-0.04	0.38*	-0.02	0.15	0.16	0.12	0.15	0.31*	0.22*	1.00	
(14)	Monetary ESG	0.13	-0.11	-0.03	-0.12	0.13	-0.25*	0.17	0.14	-0.12	0.04	0.10	-0.06	0.05	1.00
(15)	Negative	-0.12	0.21	-0.03	-0.05	0.03	0.19	0.01	-0.09	0.03	-0.11	0.04	0.09	0.12	-0.29*
(16)	Engagement	-0.02	0.17	0.06	0.13	0.03	0.12	0.14	-0.11	0.10	0.16	0.18	0.09	0.23*	-0.14
(17)	IA key fir label	0.07	-0.02	0.07	0.07	-0.02	0.03	0.12	-0.07	-0.05	0.06	0.04	-0.02	0.09	-0.05
(18)	Information	0.03	0.20	0.00	0.04	0.17	-0.01	0.12	0.02	0.13	0.20	0.25*	0.20	0.30*	0.21*
(19)	Methodology	0.27*	-0.06	0.21	0.11	0.04	0.02	-0.06	-0.09	0.20	0.28*	0.25*	-0.02	0.21	0.05
(20)	SRI label	-0.05	0.04	0.27*	0.12	0.09	-0.09	0.11	-0.06	-0.03	-0.13	-0.11	0.14	0.11	0.06
(21)	Self-evaluation	0.14	-0.04	0.11	0.05	0.09	0.10	0.15	0.12	0.15	0.13	0.18	0.09	-0.07	0.07
(22)	Communication	0.01	0.03	0.20	0.10	0.20	-0.14	0.18	0.05	-0.06	0.07	0.20	0.15	0.19	-0.09
(23)	Competition	0.29*	-0.15	0.04	-0.09	0.20	-0.09	0.26*	-0.06	0.21	0.32*	0.21*	0.00	0.18	0.10
(24)	Differentiation	-0.13	0.23*	-0.32*	-0.27*	-0.08	0.01	-0.19	-0.02	0.06	-0.16	0.02	-0.02	0.03	0.04
(25)	SDGs	0.02	0.00	-0.04	0.01	-0.21*	0.03	-0.12	-0.08	0.03	-0.01	0.07	-0.09	0.07	-0.08
(26)	Future of SRI	0.00	-0.05	-0.23*	-0.03	-0.05	-0.07	-0.14	0.03	-0.02	0.05	-0.11	-0.07	-0.03	0.08
(27)	Relevant for saver	-0.06	0.07	0.04	0.24*	-0.01	0.07	-0.13	0.11	-0.20	-0.05	-0.13	0.05	0.04	-0.13

* shows significance at the .05 level

A1: CORRELATION MATRIX (CONTINUED)

Variables		*(15)*	*(16)*	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
(1)	Analyst													
(2)	Director													
(3)	AM Seniority <5 years													
(4)	SRI Seniority <5 yrs													
(5)	AM													
(6)	InIn													
(7)	AUM < 5 BN													
(8)	AUM 5-50 BN													
(9)	Female													
(10)	Age < 45 years													
(11)	SRI priority													
(12)	SRI label													
(13)	Pure ESG													
(14)	Monetary ESG													
(15)	Negative	1.00												
(16)	Engagement	0.21*	*1.00*											
(17)	IA key fir label	0.06	*0.02*	1.00										
(18)	Information	-0.09	*0.12*	-0.01	1.00									
(19)	Methodology	-0.15	*0.12*	0.11	-0.01	1.00								
(20)	SRI label	-0.10	*-0.04*	-0.09	-0.07	0.11	1.00							
(21)	Self-evaluation	0.02	*0.01*	0.09	-0.03	-0.04	0.08	1.00						
(22)	Communication	0.17	*-0.11*	0.12	0.12	-0.11	-0.04	-0.11	1.00					
(23)	Competition	0.10	*0.00*	0.10	0.15	0.16	-0.08	0.10	0.14	1.00				
(24)	Differentiation	-0.01	*0.02*	0.06	0.07	0.10	-0.37*	-0.32*	-0.17	-0.19	1.00			
(25)	SDGs	0.07	*0.05*	0.04	-0.12	-0.03	-0.31*	-0.13	-0.22*	-0.28*	0.17	1.00		
(26)	Future of SRI	-0.08	*0.11*	-0.09	0.18	0.00	-0.02	-0.17	-0.36*	-0.21	0.00	0.02	1.00	
(27)	Relevant for saver	-0.03	*0.09*	-0.02	-0.14	-0.06	-0.10	-0.28*	0.14	-0.31*	0.05	-0.13	-0.12	1.00

* shows significance at the .05 level