


Integration of Advanced Sri Practices Into the European Asset Management Industry: A Survey of Drivers

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Abstract

Sustainable and responsible investment (SRI) has experienced impressive growth in the last two decades. However, the adoption of advanced SRI strategies that go beyond the mere exclusion of companies or asset classes has not kept pace with this expansion, a critical development regarding its potential impact on sustainability. For this reason, this study aims to identify the main drivers for the adoption of advanced sustainable and responsible investment practices by asset management companies to know why and which companies better advance the strengthening of SRI in the European financial market considering an original combination of different SRI drivers. To investigate which factors seem to be more decisive in adopting more sophisticated SRI practices, we first conducted a survey among fund management companies that manage and/or distribute investment funds in Europe. Second, we used logistic and multivariate regressions as analytical tools for testing the hypotheses. Results show that societal pressures and a formal corporate social responsibility policy are the main drivers for adopting advanced SRI practices by asset management companies.

Plain Language Summary

Survey on the drivers of advanced SRI practices in the European Asset Management Industry

Based on a survey of European asset managers or asset managers with a presence in the European market, we set out to find out which factors are the most important determinants of the adoption of more advanced sustainable investment practices.

Keywords

sustainable development, sustainable and responsible investment (SRI), asset management companies, environmental, social and governance (ESG) factors, advanced SRI practices

Introduction

Since the launch of UN Sustainable Development Goals (SDGs) in 2015, the global community has a new agenda and framework on how to face the most urgent global problems challenging the world. Given the magnitude and the scope of these 17 SDGs, the participation of the private sector and financial markets, especially institutional investors, is crucial to achieving sustainable development.

The relevance of the role of institutional investors is underlined by Sandberg (2011), since they are the major players in the world's financial markets. Busch et al. (2015) explored the role of financial markets for sustainable development, suggesting that a reorientation toward a long-

term paradigm for sustainable investments is essential. Sievanen et al. (2017) consider that part of the financial industry has responded by promising it will do better.

The European Union is making efforts to integrate sustainability issues into its financial policy framework to

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mobilize finance for sustainable growth. To that end, the European Commission (EC, 2018) has released an “Action Plan for Financing Sustainable Growth.” A central plank of the European Commission Action Plan for Financing Sustainable Growth is the Sustainable Finance Disclosure Regulation (SFDR) that provides greater transparency on the degree of sustainability of financial products that channel private investment toward sustainable investing. In this context, institutional investors have the opportunity to be an integral part of the global sustainability agenda, integrating sustainability into the investment decision-making process through sustainable and responsible investment (SRI).

SRI is “a long-term oriented investment approach, which integrates environmental, social and governance (ESG) factors in the research, analysis and selection process of securities within an investment portfolio. It combines fundamental analysis and engagement with an evaluation of ESG factors to better capture long-term returns for investors and to benefit society by influencing the behavior of companies.” (Eurosif, 2016)

Within the finance universe, the asset management industry is now more committed than ever to sustainable and responsible investments. Global growth in sustainable investments demonstrates the increasing demand among investors—both institutional and retail—for greater disclosure and integration into the investment process of ESG issues. Lewis and Juravle (2010) consider that explaining this growth is complex. From their point of view, it involves shifts in personal and collective values, reactions to corporate scandals, scientific and media pronouncements about climate change, governmental and supranational initiatives, responses from financial markets, and the influence of SRI innovators. In this combination between external pressures and internal pressures, we could outline some of the drivers responsible for the evolution and explosion of SRI, from niche to mainstream. However, further research is needed.

There is a clear research gap in the field and only a few research papers have focused on SRI drivers. Dilla et al. (2016) studied nonprofessional investors’ views regarding SRI; Przychodzen et al. (2016) analyzed fund manager’s “objective” (e.g., professional experience) and “subjective” (e.g., personal points of view, attitudes, and perceptions) motivations toward ESG issues and, Balaguer Franch et al. (2008) covered the relationship between fund management companies’ internal policy on CSR and the fact that they manage and/or market SRI funds. Nilsson (2009) addresses reasons for consumer investment in SRI-profiled mutual funds, and Nilsson et al. (2010) analyzed the SR-investor decision-making process.

For this reason, the objective of this paper is to identify the main drivers for the adoption of advanced SRI

practices by asset managers in order to know why and which companies better advance the strengthening of SRI in the European financial market. Advanced SRI practices are those that go beyond the mere negative screening and according to Folqué et al. (2021, 2023), adopting more advanced SI practices (such as integration, engagement, voting, and impact investment, among others) may improve the contribution of the asset management industry to sustainability.

In particular, we investigate which factors—whether in the organization of the asset management companies or their working environments—seem to be more decisive in the adoption of more sophisticated SRI practices and therefore fostering sustainability in the financial market. Our research questions focus on the influence of internal and external drivers. We seek to answer the following question:

RQ.1. Which factors (internal or external) to the asset management companies can be considered as drivers for the adoption of advanced SRI practices by the European asset management industry?

To answer this research question, we propose an empirical analysis, concretely a logistic regression model. To gather data on asset management companies, we conducted a survey among 45 asset management companies that manage and/or distribute investment funds in Europe, which represent a third part of the total assets under management in open funds in Europe, excluding Fund of Funds and Feeders, according to Morningstar Direct data. This survey has allowed us to obtain specific data not available in traditional databases.

Specifically, on the one hand, our study is focused on Europe because it is the world region where SRI has grown more and where is finding more support and impulse through legislative initiatives. According to the report *Global Sustainable Investment*, and Alliance (GSIA, 2018) elaborated by GSIA, at the start of 2018, there were global \$30.7 trillion of assets professionally managed under SRI strategies. Nearly half of these global assets are managed in Europe, where total assets committed to sustainable and responsible investment strategies reached \$14.07 trillion.

On the other hand, several reasons justify putting the asset management industry in the spotlight of this study.

First, SRI funds in Europe are now, given their growth and volume, a force to be recognized and a phenomenon that merits further and more in-depth research. As Escrig-Olmedo et al. (2013) consider following Epstein and Widener (2011), better management of the impacts of corporate products, services, processes, and other activities on various corporate stakeholders can improve both corporate sustainability performance and financial performance.

Second, more in-depth knowledge of how asset management companies integrate SDGs in their strategies and their investment process, using ESG criteria is necessary, since as R. H. Berry and Yeung (2013) point out, screening is just a phase in the process of building a portfolio. Given the dual nature of SRI, the analysis of extra-financial risks and returns deserves more attention. This research seems more critical in this post-COP 21 and SDGs era.

The research findings indicate that societal pressures and having a formal corporate social responsibility (CSR) policy are the main drivers for adopting advanced SRI practices by asset management companies. This research makes a significant contribution to the extant literature, clarifying how the new advanced SRI practices—that could contribute to sustainable development—are integrated into the asset management industry and deepening the study of the main drivers of SRI in the new financial context, where investors are more committed to social and environmental aspects. Moreover, from a practical standpoint, the paper is expected to contribute to changes in the asset management industry, providing useful insights about different market actors interested in integrating SRI practices into the financial market, which could be useful for the design of new strategies and investment products.

This study is organized as follows: Section 2 reviews the relevant literature, while Section 3 describes the methodology, including the econometric model, data, and study variables. Section 4 presents the empirical results. Section 5 concludes the study.

Theoretical Framework and Hypotheses

Drivers of SRI

In the last 20 years, sustainable and responsible investment (SRI) has been a major trend in the mutual fund industry, evolving from a niche concept to a mainstream approach. Most of the authors agree on the dual nature of SRI versus conventional investments. According to Auer and Schuhmacher (2016), SRI investors seek financial and nonfinancial utilities that are consistent with societal and personal values. Capelle-Blancard and Monjon (2014) talk about the “double dividend” since, as Managi et al. (2012) notice, SRI has a double objective: financial performance and social good. Humphrey and Tan (2014) consider this dual nature from the management point of view since nonfinancial information is incorporated into decision-making. Therefore, SRI could be defined as an investment process that has a potentially positive impact on sustainable development through the integration of not only financial concerns but also long-term ESG criteria into investment decisions (Escrig-Imledo et al., 2017).

The literature shows how some factors favor integrating SRI practices into the investment process, nevertheless Scholtens and Sievänen (2013) remark that the research about the key determinants of SRI is still limited. Daugaard (2019) addresses the motivation topic through a literature review to conclude that more research on investor motivation is needed.

In this context, several theories have an important presence. This research can be framed within the theory of social norms (Elster, 1989). According to Ezzine and Olivero (2018), the social norm theory has great importance as a determinant of economic behavior in the financial market for two main reasons. First, there is evidence that investors exhibit social preferences when economic decision-making. Second, these preferences have a fundamental impact on economic matters. However, the impact of social norms on managers’ behavior has been largely unexplored.

Asset managers may, in turn, consider SRI practices in the investment process motivated by different types of drivers, which can be classified into *business pressures*—distinguishing between external pressures (e.g., societal pressures, future regulations or norms, industry trends, and investor demand) and internal pressures (e.g., coherence with the strategy of the company and influence of internal stakeholders)—corporate social responsibility (CSR) policy development and business structure.

External pressures—exerted by social movements—seem to be influencing economic systems (Arjaliès, 2010). In this context, societal pressures could be considered as an essential driver to integrate SRI practices into the investment process. These pressures took the form of client mandates in the 1970s when the Pax World fund that excluded companies profiting from the Vietnam War was created in the US (Renneboog et al., 2008). According to Puschunder (2015), the societal demand for imbuing social responsibility in financial markets climaxed in the aftermath of the 2008 World Financial Crisis.

Currently, societal pressures have found an echo in differing national regulations and norms that the United Nations (UN) has attempted to harmonize with the UNPRI. This initiative encourages institutional investors to incorporate ESG issues into their investment practices (Sandberg et al., 2009). In their study of the drivers of SRI among Swedish Institutional Investors, Jansson et al. (2011) highlight that this supranational initiative has enforced the rapid increase in SRI assets under management in the last years. Scholtens and Sievänen (2013) see the growing number of UNPRI signatories as an indicator of the relevance of SRI for investors.

If societal pressures and their translation into regulations and norms could be considered the drivers of emerging SRI practices, the academic literature has pondered other factors that could explain their expansion and

growth in recent decades. In their study for Arabesque and Oxford University, Clark et al. (2015) view sustainability as one of the most significant trends in financial markets for decades. This trend has made SRI a global practice, in a more diverse market, encompassing different stakeholders (Bengtsson, 2008), among them retail and institutional investors, who have changed their personal and collective values according to the new market trends (Puaschunder, 2015). In this vein, Jansson et al. (2011) found that the adoption of SRI may be influenced both by regulations and by the example of other investors (herding), a factor also mentioned by Juravle and Lewis (2008). Moreover, Sandberg (2011) underlines the role of institutional investors not only as an actual determinant of SRI adoption but also as the key to the future growth of this type of investment. Hummel and Szekely (2022) find that companies are more willing to disclose their contributions to sustainability when they have institutional investors who could factor in those achievements. Among institutional investors, Lewis and Juravle (2010) explore the influence of human agency in the development of SRI, through interviews with so-called “SRI champions.”

Besides societal pressures, in the form of client mandates or regulations, and the market trends, embodied in institutional and retail demand, another strand of research has paid attention to *internal pressures*, in the form of strategic coherence and influence of internal stakeholders, as potential drivers to integrate SRI practices into the investment process.

It seems evident that the corporate strategy—which considers managers’ values and beliefs—should be integrated into all aspects of business operations and processes. In this sense, asset managers should manage their portfolios in coherence with the corporate strategy. Acting in coherence with the strategy of the companies has often been referred to as “doing well by doing good” (Statman, 2000), and regards the use of values to select investments as a source of competitive advantage (T. C. Berry & Junkus, 2013). Internal pressures relate to the business case of sustainability (Clark et al., 2015; Lewis & Juravle, 2010) since integrating ESG criteria in the investment processes could lead to better financial outcomes by anticipating costs linked with poor performance in social, environmental, and governance domains (Arjaliès, 2010).

However, a significant part of investors are still skeptical about the SRI approach (Kuzmina & Lindemane, 2017), so internal pressures could have operated for a time against ESG integration. The reasons are manifold. In their review of the academic and practitioner literature on responsible institutional investment, Juravle and Lewis (2008) argue that adopting SRI practices requires institutional investors to overcome three categories of

obstacles: individual cognitive biases and belief systems more focused on short-term returns than long-term sustainability; organizational structures, processes, and cultures suspicious of SRI; and institutional barriers. Lagoarde-Segot (2019) points out that a deeper practice of sustainable investment is in contradiction with the positivist framework of finance as is currently practiced and understood. Diener and Habisch (2020) consider the lack of attention to non-financial information could explain why the current asset management practices do not reflect entirely their role in environmental and societal betterment. Sandberg (2013) points out that a narrow interpretation of fiduciary duty precludes a vast amount of institutional investors from doing anything that does not involve seeking maximum returns on investments. Woods (2009) considers this view of fiduciary duty as a way to mask the short-termism of many institutional investors.

Despite some efforts to dispel this interpretation of fiduciary duty, particularly after the Freshfields Bruckhaus Deringer (2005) report for UNEP for Kotsantonis et al. (2016), a restrictive consideration of fiduciary duty is one of the “myths” still working against ESG integration in the practices of many institutional investors. From their point of view, this interpretation is related to the fact that the most common sustainable investing practice is still negative screening. Since this practice represents a relatively low level of integration of ESG factors into investment processes, it does not ripe the direct or indirect material impact that a more in-depth integration could produce by improving the risk-return profile of investments. Alessandrini and Jondeau (2020) suggest that ESG investing is fundamentally different from screening out sin stocks.

In connection with business strategy, a long array of research has studied the relationship between SRI and CSR policy development. Early studies aimed to understand whether including CSR within a business strategy would improve economic performance (Revelli & Viviani, 2015). Margolis et al. (2007) and Orlitzky et al. (2003) have corroborated a positive relationship. Weber et al. (2014) link CSR to sustainability and define it as corporate self-regulation to manage sustainability risks and opportunities. Alshehhi et al. (2018) reviewed 132 papers to find that 78% of publications report a positive relationship between corporate sustainability and financial performance. The view of the positive relationship that dominates literature is confirmed by Muhmad and Muhamad (2021) in a study of 56 articles published between 2010 and 2019, where 96% report a positive relationship between sustainability practices and the financial performance of companies.

For Moon (2007), CSR is, in essence, a form of self-regulation to contribute to social welfare. More recently,

Bilbao-Terol et al. (2019) propose the integration of CSR valuations with the financial performance of companies in a unique measure of global sustainability performance. Considering the nature of the relationship between CSR and SRI, it is essential to study if the adoption of formal CSR policies by asset management companies contributes to adopting SRI-advanced policies. In a previous study carried out by Balaguer Franch et al. (2008) a positive relationship between fund management companies' internal policy on CSR and the fact that they manage and/or market SRI mutual funds was found.

Finally, some authors have paid attention to the "business structure" of asset management companies. In their study of impediments to SRI becoming mainstream, Juravle and Lewis (2008) analyze the agency problem concerning the structure of modern corporations, in particular, the divorce of ownership from control. Despite that for some authors, many factors are contributing to the weakening of the agency logic (Cusumano et al., 2008), decision power has shifted from the shareholders (owners) to the corporate directors (agents) in modern corporations. This change made us ponder if independent asset management companies—where the divorce of ownership from control is not so evident—could favor adopting advanced SRI practices more than non-independent asset management companies, where the agency problem could persist.

Therefore, once reviewed the SRI drivers explored by previous research, three main categories of drivers could be identified:

- Business pressures: external pressures (societal pressures and market pressures) versus internal pressures
- Business structure: ownership structure- independent versus non-independent
- Business strategy: Formal CSR policy

However, in the current context, it seems necessary to analyze which ones could be more determinant in the asset management companies' decision to adopt advanced SRI practices helping, in this way, to the achievement of the SDGs and the transition toward a low carbon economy.

SRI Strategies

During the last few years, the SRI industry has grown, and its sophistication has significantly increased such that distinct SRI strategies and practices and SRI products can now be identified. Through SRI products, financial institutions have started to influence sustainable development through their core business (Weber et al., 2014). Institutional investors, especially those with long-

term horizons, such as pension funds, play a major role in encouraging corporate directors to focus on long-term firm value (Busch et al. 2015) and to integrate ESG issues into the investment process.

The European SRI Study (Eurosif, 2016) shows the last classification of SRI strategies. The seven strategies identified in the study are: (1) Exclusion of holdings from the investment universe, (2) Best-in-class investment selection, (3) Norms-based screening, (4) Sustainability themed investments, (5) Integration of ESG-factors in financial analysis, (6) Engagement and voting on sustainability matters, and (7) Impact investment. The evolution of these SRI strategies has been coupled in time with the development of SRI products, specifically socially responsible investment funds (SRI funds). Viviers and Eccles (2012) note that SRI practices are increasingly concentrated on screening (both positive and negative) and shareholder activism.

Following Renneboog et al. (2008), the oldest and most basic SRI strategy is negative screening, which excludes companies or sectors according to social, environmental, or ethical considerations. According to Diener and Habisch (2020), purely exclusionary strategies offer limited sustainability effects since there is no motivation for investee companies to act in specific ways. The construction of a portfolio of SRI funds however, can also be based on positive screenings, that is, selecting companies that efficiently comply with environmental, social, and good governance requirements. Capelle-Blancard and Monjon (2014) argue that negative screening leads to underperformance and positive screening has no impact on the financial performance of French SRI funds. Whereas, Auer (2016) notes that negative screening has no impact and positive screening negatively impacts the financial performance of European stock portfolios.

Positive filters are usually combined with a "best in class" approach, by which companies are scored according to their level of fulfillment of different ESG criteria. Sustainability-themed investments involve the selection of assets that contribute to addressing sustainability challenges (e.g., climate change, energy efficiency, etc.) and could be a concrete example of a positive screening strategy. Another approach is shareholder activism as a way to exercise active ownership. It is a hybrid positive screening strategy because it allows putting pressure on companies with weak ESG results, and allows rewarding those with better ones (Dawkins, 2018). According to Widyawati (2020) SRI institutional investors are becoming more interested in shareholder activism. This SRI practice is positively associated with long-term, risk-adjusted returns (Borgers et al., 2013).

Institutional investors can exert their influence with engagement policies, usually a combination of proxy

voting, shareholder resolutions, and management dialogue (Clark et al. 2015). Studying the effects of active ownership, Dimson et al. (2015) discovered that successful engagements are followed by positive abnormal returns in the stock price of the companies and that, particularly on environmental and social issues; there is an improvement in accounting and governance performance and increased institutional ownership.

Since the launch of SDGs, impact investment strategies have become one of the major topics today for practitioners. The Global Impact Investment Network (2018) defines impact investments as investments with the intention to generate positive, measurable, social, and environmental impact alongside a financial return, focusing on issues related to sustainable development.

According to the GSIA (2018), the use of negative screening remains the dominant strategy in Europe at \$19.77 trillion. ESG integration is the second biggest SRI approach, with over \$17.54 trillion in assets. Engagement and voting follow in terms of popularity, with over \$9.83 trillion in assets.

ESG integration is gaining ground in business, as well as in the operations that asset managers and owners conduct (Orsato et al., 2015). ESG integration is “the explicit inclusion by asset managers of ESG risks and opportunities into traditional financial analysis and investment decisions based on a systematic process and appropriate research sources” (Eurosif, 2016). The idea that integrating ESG factors into investment analysis and decision-making may offer investors potential long-term advantages in performance is gaining general acceptance (Capelle-Blancard & Monjon, 2012; Dam & Scholtens, 2015; Friede et al., 2015).

Accordingly, the analysis of the integration of ESG factors in the portfolios is related to the first hypothesis of our study:

H1. There is a positive association between the integration of advanced SRI strategies into portfolio construction and external pressures, independent ownership structure, and formal CSR policy.

According to Van Duuren et al. (2016), ESG criteria are starting to be used even by conventional investors—mainly for red flagging and risk managing. Institutional investors have started to define frameworks and strategies for environmental issues and related risks showing an increase in awareness to assess climate-related financial risk (Breitenstein et al., 2021). This practice can be encouraged by the new European regulations and initiatives. For instance, the European Banking Authority (EBA) launches consultation until February 2021 to incorporate ESG risks into the governance, risk management, and supervision of credit institutions and

investment firms. This practice underscores the relevance of evaluating extra-financial risks and their materiality when building investment portfolios (Khan et al. (2015)) . Seitanidi (2007) already has underlined the need for investors to prioritize intangible resources to protect their assets.

For SRI to thrive as an investment practice and make an accountable contribution to sustainability, it is vital to transcend the mere negative filters with more in-depth research that considers which ESG criteria and extra-financial risks could be more significant, given their economic impact, for each company candidate to integrate an investment portfolio (Eccles, 2015; Eccles & Serafeim, 2011, 2013).

Regarding the relevance of ESG risks, we thus hypothesize:

H2. There is a positive association between extra-financial risk management and external pressures, independent ownership structure, and formal CSR policy.

H3. There is a positive association between ESG risk integration in the portfolio construction/measurement and external pressures, independent ownership structure, and formal CSR policy.

The complexity of some of the challenges the world is facing and their potential impact on economic activities underscore the necessity of the asset management industry to become more sophisticated, not only from the perspective of better management of risks but also to be able to tackle the opportunities that this environment creates. This new scenario encourages asset management companies to apply a combination of SRI strategies (Hernaus, 2019).

Among the most advanced SRI strategies to face current global risks, we find engagement and voting on sustainability matters. Engagement with stakeholders has been studied most prominently from the Stakeholder Theory approach (Freeman, 1984), and it seems related to an efficient way to promote sustainability in companies (Clark & Hebb, 2005). The 2008 global financial crisis forced investors to pay more attention to democracy and responsibility in the markets (Banerjee, 2010). There has been a claim for greater transparency and accountability of market participants. Recently, the European Second Shareholders’ Rights Directive (SRD II) requires asset managers to disclose their engagement policy publicly. With this in mind, many asset managers employ an engagement strategy. Considering the critical roles of transparency and engagement in sustainable investments, we hypothesize:

H4. There is a positive association between higher levels of information about ESG issues and external

pressures, independent ownership structure, and formal CSR policy.

H5. There is a positive association between having an Engagement policy and external pressures, independent ownership structure, and formal CSR policy.

Academic literature has focused much attention on the difference in returns of sustainable versus conventional investment (Revelli & Viviani, 2015). In the present context, given the urgency of the fight against climate change and the importance of achieving the SDGs, this discussion seems somewhat outdated. If different SRI strategies produce different outcomes in terms of sustainability (Folqué et al., 2021), we aim to identify the main drivers for adopting advanced SRI practices in asset management companies.

According to the reviewed academic literature (Jansson et al., 2011; Renneboog et al., 2008; Sandberg et al., 2009), the six principles of UNPRI, and practitioner literature (Fulton et al., 2012, for Deutsche Bank Group DB Climate Change Advisors), a fund management company has adopted advanced SRI practices when it:

- adopts engaged and robust advanced SRI strategies (e.g., engagement and voting practices or impact investment) into the portfolio construction,
- measures sustainability risks of its portfolios, that is, any environmental, social, or governance event that if it happens, could harm the value of the investment,
- follows transparency practices during the management and decision-making process of its portfolios and,
- has an engagement policy.

Our goal is to know why and which companies better advance the strengthening of SRI in the European financial market, and therefore, make a more significant contribution to climate change and sustainable development.

Methodology

Sampling and Data Collection

The information required for the study is based on an online self-administered survey sent both to asset management companies that already manage and/or market mutual funds in Europe. We have focused on Europe given its global leadership in SRI investing regarding assets under management, as shown in the analysis of the SRI market conducted by GSIA (2018).

The questionnaire for the study (available upon request) was made up of 42 questions and included seven sections: (1) characteristics of the asset management

company; (2) CSR policy; (3) management and distribution of SRI funds; (4) SRI funds characteristics; (5) financial and extra-financial risks management; (6) communication with investors; and (7) engagement.

The content of the questionnaire is based on various sources, including the literature on ESG factors, such as Junkus and Berry (2015) review of critical issues of SRI, T. C. Berry and Junkus (2013) research on the investors' perspective on SRI, Balaguer Franch et al. (2008) analysis of the role of fund management institutions in the development of SRI, and Koellner et al. (2005) analysis of the principles for sustainability rating of investment funds.

The questionnaire was designed in the spring of 2016. During the summer, it was tested by a team of SRI product specialists from an asset management company. We incorporated their suggestions in September 2016 and programmed the final version to be sent in October 2016. Afterward, a hyperlink to the questionnaire was emailed to heads of distribution of the most important asset-managing companies around Europe. Of the total population of asset-managing companies who manage or distribute their products in Europe, we identified the most important ones according to their volume under management and the number of European countries in which they distribute their products.

When targeting the potential respondents, we prioritized those companies with the largest volume under management that distribute their products in more than two European countries. Finally, 95 questionnaires were sent between mid-October and December 2016. Initially, 41 questionnaires were filled out. After a follow-up email, this number increased to 45, resulting in a response rate of 47%.

Research using small sample sizes is not uncommon in this field of study. Van Duuren et al. (2016) surveyed the opinions of portfolio managers concerning ESG integration among a group of 126 portfolio managers. Balaguer Franch et al. (2008) explored the role of fund management institutions in the development of socially responsible investments with a sample of 47 asset management companies. Valor et al. (2009) targeted 99 representatives of financial rating agencies and fund managers to understand the demand for retail socially responsible investments. Jansson et al. (2011) surveyed 38 investment institutions to understand the drivers of SRI in Sweden. In our study, the total volume of assets under management of the 45 respondents could compensate for the size of the sample, since according to Morningstar Direct data from October 2017, it represents the third part of open funds domiciled in Europe, excluding Funds of funds (FOF) and Feeder funds.

The profile of the respondent belongs to an asset managing company domiciled in Europe, with transnational

Table 1. Profile of Sample Rates.

Variables	Total sample (n = 45) (%)
Domicile of origin	
USA	10
European Union	64
United Kingdom	13
Switzerland	11
Others	2
Distribution	
Domestic distribution only	18
Transnational. Fewer than three countries	9
Transnational. More than five countries	73
Focus	
Generalist	93
SRI specialist	7
Assets under management (AUM)	
Up to 20 bn euros	38
20–50 bn euros	7
50–100 bn euros	13
More than 100 bn euros	42
Ownership	
Independent	38
Non independent	62
CSR policy	
No	33
Yes	67
SRI Funds	
No	20
Yes	80

distribution in more than five countries, a generalist focus, and assets under management over €100 bn. Moreover, most of the respondents are companies that belong to banks, insurance companies, or financial groups. Finally, note that 67% of them have implemented corporate social responsibility formal policies, and 80% manage or market SRI funds. Definitions of the main characteristics of the sample are reported in Table 1

Variable Description

Definitions and descriptive statistics of the independent and dependent variables are reported in Table 2. All variables are observed for year 2016.

Dependent variables depict what we have denominated determinants of advanced SRI practices, while independent variables are the possible drivers of such practices. We have grouped the different drivers into three big categories according to previous literature review:

Business pressures: Considering the reasons to manage SRI funds provided by the asset managers different business pressures were identified:

- External pressures: societal pressures and market pressures

Societal pressures: international initiatives (UNPRI signatory) and clients' mandates (e.g., Jansson et al., 2011; Sandberg et al., 2009; Scholtens & Sievänen, 2013)

Market pressures: trends in the market and retail and institutional demand (e.g., Bengtsson, 2008),

- Internal pressures: coherence with the strategy of the company (e.g., Clark et al., 2015; Lewis & Juravle, 2010)

Business Structure: It is important to test whether the ownership of the company has an influence on the adoption of advanced practices (e.g., Juravle & Lewis, 2008). The companies in our sample are either independent, or belong to a bank, insurance company, or financial group. We have labeled these three types as non-independent.

Business Strategy: Considering previous studies, it seems essential to analyze if the adoption of formal CSR policies by asset management companies contributes to the adoption of SRI-advanced policies (e.g., ; Balaguer Franch et al. 2008; Margolis et al., 2007; Orlitzky et al., 2003; Revelli & Viviani, 2015). Most of the respondents in our sample declared to have a formal CSR policy.

A majority of the asset management companies analyzed are not independent and have a formal CSR policy. Moreover, most of them declare to manage extra-financial risk—while the measurement of ESG risk is lower-, disclose information publicly and frequently, and have an engagement policy.

Empirical Design

To analyze the influence of the business structure, strategies, and pressures on the asset managing industry we used a linear probability model, namely, the logistic regression model (Tabachnick & Fidell, 2007). Generally, logistic regression is well suited for describing and testing hypotheses about relationships between categorical outcomes variables and one or more categorical variables (Peng et al., 2002). Previous studies in this area have used multivariate regression as the main method for modeling and discrimination problems (e.g., Cooper & Weber, 2021; Escrig-Olmedo et al., 2013).

With logistic regressions, it is possible to handle dichotomous outcomes without having to meet strict statistical assumptions, that is, linearity, normality, and continuity for OLS regression and multivariate normality with equal variances and covariances of discriminant analysis (Lei & Koehly, 2000).

Based on the type of dependent variable analyzed in our study, we have opted for multivariate binary logistic regression, used when the dependent variable has two categories. Since the outcome is dichotomous, predicting unit change as in regular linear regressions has little

Table 2. Definition of Variables and Descriptive Statistics.

Independent variables	Definition	M (SD)	Min-Max
Business pressures			
Societal pressures	=1 if the company admits societal pressures and 0 otherwise	0.80 (0.40)	0–1
Market pressures	=1 if the company admits market pressures and 0 otherwise	0.51 (0.50)	0–1
Internal pressures	=1 if the company admits internal pressures and 0 otherwise	0.33 (0.47)	0–1
Business structure			
Ownership structure	=1 if the company is not independent and 0 otherwise	0.62 (0.49)	0–1
Business strategy			
CSR policy	=1 if the company has a written CSR policy and 0 otherwise	0.69 (0.46)	0–1
Dependent variable			
Integration of advanced SRI strategies ^a	=1 for advanced strategies and 0 for non advanced	0.55 (0.49)	0–1
Extra-financial risks management ^b	=1 if managed and 0 if not managed	0.6 (0.49)	0–1
ESG risks (environmental, social, and governance risks) in the portfolio measured	=1 if measured and 0 if not measured	0.53 (0.50)	0–1
Other extra-financial risks (e.g. legal risks, reputational risks) in the portfolio measured	=1 if measured and 0 if not measured	0.51 (0.50)	0–1
ESG issues info and disclosure	=1 if frequent information and 0 if not frequent	0.64 (0.49)	0–1
Public Info	=1 if public information and 0 if not public	0.57 (0.49)	0–1
Engagement policy	=1 if the company has an engagement policy and 0 otherwise	0.64 (0.48)	0–1

^aFollowing Renneboog et al. (2008), we have considered two types of SRI strategies: Advanced SRI strategies, that include positive screening, best in class, ESG integration, sustainability themed and engagement and voting, and non-advanced SRI strategies, that include negative screening, norms-based exclusion and sector-based exclusion.

^bIn the questionnaire, we distinguish between managing extra-financial risks, that is, considering them when composing the portfolios and effectively measuring ESG risks.

meaning. As an alternative to modeling the value of the outcome, logistic regression focuses instead on the relative probability (odds) of obtaining a given result category (Guido et al., 2006).

A logistic regression will model the chance of an outcome. Because chance is a ratio, what is actually modeled is the logarithm of the chance given by:

$$\log \frac{p}{(1-p)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_m X_m \quad (1)$$

Where the odds of the event is $\frac{p}{(1-p)}$, the log-odds is $\log \frac{p}{(1-p)}$, and p indicates the probability of an event. X_1 , X_2 , and X_m are the explanatory variables, and β_1 , β_2 , and β_m are the regression coefficients associated with the reference group. Last, β_0 is simply the intercept.

The results of our analysis are in the form of an odds ratio and Wald test. For logistic regression with a dichotomous independent the odds ratio is a measure of association that approximates how much more likely or unlikely it is for the outcome to be present among those with $x = 1$ than among those with $x = 0$ (Hosmer & Lemeshow, 2000). The predicted odds ratio is presented in the column “Exp(B).” The statistical significance of individual regression coefficients (i.e., β_s) of each independent variable is tested using the Wald chi-square statistic and are given in the column “Wald.” The p -values

for the test statistics for each individual predictor are given in the column “Sig.”

Empirical Analysis and Discussion of Results

This section first shows the results of logistic regressions and then discusses the main findings.

Research Results

With regard to the integration of advanced SRI strategies into the portfolio construction (Table 3) we found that societal pressures and market pressures are statistically significant explanatory factors.

The variable “societal pressures” has a positive and statistically significant impact ($p < .05$) on the adoption of advanced SRI strategies. Societal pressures are part of what we have considered as external pressures along with market pressures. Societal pressures comprise being a signatory of UNPRI and/or clients’ mandates. Therefore, if an asset management company of our sample is a signatory of UNPRI or has clients’ mandates is 12 times more likely to adopt advanced SRI strategies, according to the odds ratio. However, the variable “market pressures-that includes retail and institutional demand and the appearance of new trends in the financial markets” is significantly ($p < .05$) and negatively related to the integration

Table 3. Test for H1: Advanced SRI Strategies.

Dependent variable: advanced SRI strategies	B	E.T.	Wald	Sig.	Exp (B)
Ownership	0.693	0.760	0.832	0.362	2.001
CSR policy	0.147	0.828	0.032	0.859	1.159
Internal pressures	0.210	0.856	0.060	0.806	1.234
Societal pressures	2.550	1.126	5.129	0.024**	12.810
Market pressures	-1.681	0.806	4.351	0.037**	0.186
Constant	-0.443	0.914	0.235	0.628	0.642

* $p < .10$. ** $p < .05$. *** $p < .01$.

Table 4. Test for H2: Management of Extra-Financial Risks.

Dependent variable: Management of extra-financial risks	B	E.T.	Wald	Sig.	Exp (B)
Ownership	0.727	0.750	0.940	0.332	2.069
CSR policy	0.552	0.858	0.413	0.520	1.736
Internal pressures	-0.529	0.831	0.405	0.525	0.589
Societal pressures	2.787	1.230	5.132	0.023**	16.232
Market pressures	-0.367	0.772	0.227	0.634	0.693
Constant	-2.324	1.349	2.969	0.085	0.098

* $p < .10$. ** $p < .05$. *** $p < .01$.

of advanced SRI strategies, contrary to what we were expecting. The rest of the independent variables have no statistically significant explanatory power in explaining the adoption of advanced SRI strategies. Therefore, H1 could be partially accepted.

As shown in Table 4, which asset management companies manage extra-financial risk could be due to societal pressures.

The variable “societal pressures” appears positively and significantly ($p < .05$) correlated with the management of extra-financial risks. Therefore, if an asset management company of our sample is a signatory of UNPRI or has clients’ mandates is 16 times more likely to manage extra-financial risks, according to the odd ratio. The rest of the independent variables do not seem to be significantly related to the dependent variable. Therefore, H2 is partially accepted. Going deeper into this aspect, Table 5 shows whether the incorporation of ESG risks or other specific extra-financial risks (legal risks, reputational risks, or sectorial risks) in the construction of portfolios and their measurement depends on business pressures, business structure or business strategy.

It appears that none of the independent variables proposed is statistically significantly related to the measurement of extra-financial risks. Marginally significant ($p < .10$) does exist between societal pressures and the

Table 5. Test for H3: Integration in the Portfolio Construction and Measurement of ESG Risks.

Dependent variable: Measurement of ESG	B	E.T.	Wald	Sig.	Exp (B)
ESG risks					
Ownership	0.526	0.712	0.546	0.46	1.692
CSR policy	0.824	0.829	0.989	0.32	2.279
Internal pressures	-0.635	0.794	0.639	0.424	0.53
Societal pressures	2.205	1.205	3.352	0.067*	9.073
Market pressures	-0.616	0.734	0.705	0.401	0.54
Constant	-2.081	1.316	2.5	0.114	0.125
Other specific extra-financial risks					
Ownership	0.172	0.711	0.058	0.809	1.188
CSR policy	1.34	0.852	2.472	0.116	3.817
Internal pressures	0.065	0.795	0.007	0.934	1.068
Societal pressures	1.851	1.206	2.358	0.125	6.369
Market pressures	-0.673	0.731	0.846	0.358	0.51
Constant	-2.238	1.317	2.889	0.089	0.107

* $p < .10$. ** $p < .05$. *** $p < .01$.

measurement and integration of ESG risks in portfolio construction. Therefore, H3 cannot be accepted for these data.

Regarding the drivers that foster fund asset management companies to offer frequent and public information about ESG issues to their investors (Table 6), the results confirm those fund management companies that have a formal CSR policy defined are more likely to offer public and frequent information.

A formal CSR policy has a positive and statistically significant impact ($p < .01$) on both offering frequent information and its public disclosure, while societal pressures also show the same kind of relationship with offering frequent information ($p < .05$). The odd ratios indicate that asset management companies with a formal CSR policy are 20 times more likely to offer frequent information about ESG issues and 27 times to disclose it publicly. Moreover, the companies that admit societal pressures are 16 times more likely to offer frequent information. A certain degree of relationship ($p < .10$) though

Table 6. Test for H4: Information Frequency and Public Disclosure.

Dependent variable: Info frequency and public disclosure	B	E.T.	Wald	Sig.	Exp (B)
Public disclosure					
Ownership	0.057	0.864	0.004	0.948	1.058
CSR policy	3.321	1.274	6.802	0.009***	27.699
Internal pressures	0.608	1.049	0.335	0.563	1.836
Societal pressures	1.808	1.272	2.019	0.155	6.096
Market pressures	-2.174	1.162	3.502	0.061*	0.114
Constant	-2.43	1.447	2.82	0.093	0.088
Frequent information					
Ownership	0.436	0.948	0.211	0.646	1.546
CSR policy	3.028	1.2	6.37	0.011**	20.653
Internal pressures	1.19	1.34	0.788	0.375	3.287
Societal pressures	2.833	1.376	4.235	0.039**	16.989
Market pressures	-1.968	1.25	2.48	0.115	0.14
Constant	-2.97	1.645	3.257	0.071	0.051

* $p < .10$. ** $p < .05$. *** $p < .01$.

Table 7. Test for H5: Engagement.

Dependent variable: Engagement	B	E.T.	Wald	Sig.	Exp (B)
Ownership	-0.435	0.909	0.229	0.633	0.648
CSR policy	2.614	1.005	6.764	0.009***	13.648
Internal pressures	1.631	1.38	1.398	0.237	5.109
Societal pressures	2.883	1.355	4.522	0.033**	17.859
Market pressures	-0.75	1.007	0.555	0.456	0.472
Constant	-2.77	1.598	3.005	0.083	0.063

* $p < .10$. ** $p < .05$. *** $p < .01$.

negative, does exist between market pressures and the public disclosure of the information. Therefore, H4 is partially accepted. This finding confirms the importance of communication for the development of advanced SRI strategies.

Finally, Table 7 displays the logistic regression analysis to understand the main drivers for having a formal engagement policy defined. The variables “formal CSR policy” ($p < .01$) and “societal pressures” ($p < .05$) have a positive and statistically significant impact on having a formal engagement policy. Therefore, H5 is partially accepted.

Results Discussion

To sum up (see Table 8), H3 is not accepted for these data, and H1, H2, H4, and H5 are partially accepted. The variables with more explanatory power are “societal pressures” and having a “formal CSR policy.”

“Societal pressures” is positively and statistically significant in H1, H2, H4, and H5 and has a certain degree of positive relationship ($p < 0.10$) to the dependent variable in H3. This findings confirm what has been stated

in part of the extant literature (Arjaliès, 2010; Jansson et al., 2011; Puaschunder, 2015). Societal pressures were the original force beyond the creation of the first SRI funds, and their relevance does not seem to be fading. These pressures, translated currently in legislative changes (EC, 2018), international initiatives like the UNPRI, and the direct client mandates, are driving SRI practices toward a deeper level of ESG criteria integration in Europe.

“Formal CSR policy” is positively and statistically significant in H4 and H5. Previous studies show that CSR is a driver of SRI (Balaguer Franch et al., 2008). However, this research delves into this aspect and shows that it is specifically a driver for the integration and measurement of ESG risks and the definition of engagement policies.

We have also found that the variable “market pressures,” which is part of what we have called external pressures, has a negative statistically significant relationship to the adoption of advanced SRI strategies (H1) and the public disclosure of information (H4). The sign of the relationship is the opposite of what we were expecting. Both variables show a negative Pearson correlation (-0.249).

This outcome comes as a surprise given the relevance that recent literature has given to the market pressures in the form of institutional and/or retail demand (Sandberg, 2011) and the strength of the market trend as potential drivers of SRI expansion. This result may be explained if we consider that indeed market pressures are contributing to the growth of SRI, but not necessarily yet to the adoption of more advanced and sophisticated strategies. Therefore, at the moment of our inquiry, the clients’ mandates, and being a signatory of UNPRI, the determinants of the variable “societal pressures” are more relevant as drivers to explain the adoption of advanced SRI strategies than the retail and institutional demand.

Table 8. Hypotheses.

Dependent variable	Independent variables	Hypothesis	Nature of the relationship
Integration of advanced SRI strategies	Ownership structure, CSR Policy, Societal Pressures, Market Pressures, Internal Pressures	H1. Integrating advanced SRI strategies into the portfolio construction is positively associated with external pressures, independent ownership structure, and formal CSR policy; and negatively associated with internal pressures and non-independent ownership structure.	H1 shows a positive relationship with societal pressures and a negative relationship with market pressures
Extra-financial risks management	Ownership structure, CSR Policy, Societal Pressures, Market Pressures, Internal Pressures	H2. Extra-financial risk management is positively associated with external pressures, independent ownership structure, and formal CSR policy; and negatively associated with internal pressures and non-independent ownership structure.	H2 shows a positive relationship with societal pressures
ESG risks measured	Ownership structure, CSR Policy, Societal Pressures, Market Pressures, Internal Pressures	H3. ESG risk integration in the portfolio construction and their measurement is positively associated with external pressures, independent ownership structure, and formal CSR policy; and negatively associated with internal pressures and non-independent ownership structure.	None
ESG issues info and disclosure	Ownership structure, CSR Policy, Societal Pressures, Market Pressures, Internal Pressures	H4. A higher level of information about ESG issues is positively associated with external pressures, independent ownership structure, and formal CSR policy; and negatively associated with internal pressures and non-independent ownership structure.	H4 shows a positive relationship with societal pressures and CSR policy and a negative relationship with market pressures
Engagement policy	Ownership structure, CSR Policy, Societal Pressures, Market Pressures, Internal Pressures	H5. Having Engagement policy is positively associated with external pressures, independent ownership structure, and formal CSR policy; and negatively associated with internal pressures and non-independent ownership structure.	H5 shows a positive relationship with societal pressures and CSR policy

The two other explanatory variables, “independent ownership” and “internal pressures,” do not have a significant relationship with the dependent variables in any of the Hypotheses. Therefore, neither the business structure nor the coherence with the strategy of the company seems to be relevant to explain any of the dependent variables that define the advanced SRI practices, contrary to what we were expecting considering previous literature (T. C. Berry & Junkus, 2013).

Concretely, we also hypothesized that an independent structure of the ownership of the company could be relevant to explain the adoption of SRI advanced strategies. Independent asset management companies could be more open to innovation without the pressure of

prominent business structures and are not that exposed to the so-called agency problem (Juravle & Lewis, 2008). However, the results in our sample are inconclusive. The same happens with the variable “internal pressures,” defined as “coherence with the strategy of the company.”

Given the skeptical attitude of part of the asset management industry toward SRI practices, regarding the risk-return profiles in light of a classic interpretation of the fiduciary duty, we proposed a negative impact in the adoption of SRI advanced practices. In one of the hypotheses (H2, management of extra-financial risks) its beta shows a negative sign as we expected. Therefore, the variable “internal pressures” does not seem to be relevant in our sample.

Concluding Remarks

SRI has experienced impressive growth in the last two decades; however, the adoption of advanced SRI strategies has not kept pace with it in terms of its potential impact on sustainability. If we consider the scope, magnitude, and urgency of the challenges included in the UN Sustainable Development Goals (SDGs) global agenda, the asset management industry would contribute to sustainability to a higher degree by adopting more sophisticated strategies, with effective integration of ESG criteria in their portfolios. Our aim with this study is to contribute to a better understanding of the factors driving the adoption of advanced SRI strategies in the European Asset Management Industry, which will help the European financial market integrate sustainable finance into the mainstream.

This study presents empirical evidence from a survey of 45 fund management companies that manage and/or distribute investment funds in Europe to address the following question: Which factors (internal or external) to the asset management companies can be considered as drivers for the adoption of advanced SRI practices by the European asset management industry?

The results show that having a formal CSR policy and societal pressures are the main drivers for the adoption of advanced SRI practices. Therefore, they underline how critical it is for the fund management industry to be open to societal demands and concerns, contributing to a more sustainable model of growth and adopting a formal CSR policy that explicitly guides this commitment.

Theoretical and Practical Implications

This research is of potential importance for academics and the financial market (see Figure 1).

On the one hand, the study offers a threefold contribution to responsible investment literature. First, this study contributes to the academic debate on the motivations of the fund management industry to adopt ESG criteria for more effective integration. Specifically, this research goes further and shows that social pressures are a driving factor in three critical areas within the asset management industry: (1) for the integration of advanced SRI strategies, (2) for the integration and measurement of ESG risks, and (3) for the definition of engagement policies. This highlights the need, on the one hand, for regulators to support adequate lines of action for the financial industry for the integration of advanced SRI strategies and, on the other hand, for asset managers to fully understand international sustainability initiatives and participate in their development. It will help bring sustainable finance into mainstream creating a sustainable financing market that helps achieve the climate and sustainable development goals.

We have also seen confirmed the relationship between CSR and SRI. Therefore, given this fact, asset managers should make efforts to define a formal CSR policy that allows the integration of advanced SRI practices into the European asset management industry.

Other findings may result at least surprising since in our sample the variable market pressures, which comprises institutional and retail demand and the need to follow the market trend, show a negative relationship with the adoption of SRI advanced strategies, contrary to what we were expecting and to what part of the literature states (Sandberg, 2011). It appears that market pressures have contributed to SRI growth, but maybe they are not yet driving in a significant way the evolution of SRI practices into a more in-depth commitment to sustainability. A possible development remains to be seen and merits further research.

Second, a comprehensive overview of SRI practices used in the financial market is presented. Societal pressures (regulatory changes and international initiatives) have led to a change in the type of investment strategies where advanced SRI practices, such as the integration of ESG risks, seem essential for the design of investment products that help achieve the SDGs. This influence is now reflected in the Sustainable Finance Disclosure Regulation (2021), the new European regulation on the disclosure and classification of financial products. SFDR distinguishes between Article 6 products that take into account financially material sustainability/ESG risks but do not necessarily affect the portfolio construction, Article 8 products that promote sustainable, environmental, or social characteristics, and Article 9 ones, that have the explicit objective of having a positive and measurable impact on environmental or social issues.

Third, a clear definition of advanced SRI strategies is provided. A fund management company adopts advanced SRI practices when (1) integrates engaged and robust advanced SRI strategies into the portfolio construction, (2) manages sustainability risks in its portfolios, (3) follows transparency practices during the management and decision-making process of its portfolios, and (4) has an engagement policy. Considering these aspects will allow the creation of new sustainable financial products within this framework.

On the other hand, it may also be useful for asset management companies. First, this research helps to increase awareness of the crucial importance of moving forward in the practice of SRI. Second, identifying the main drivers of the integration of advanced SRI practices in asset management companies will allow them to design investment products and make more informed investment decisions according to the needs of the different market actors. Finally, the results help bring sustainable finance into the mainstream.

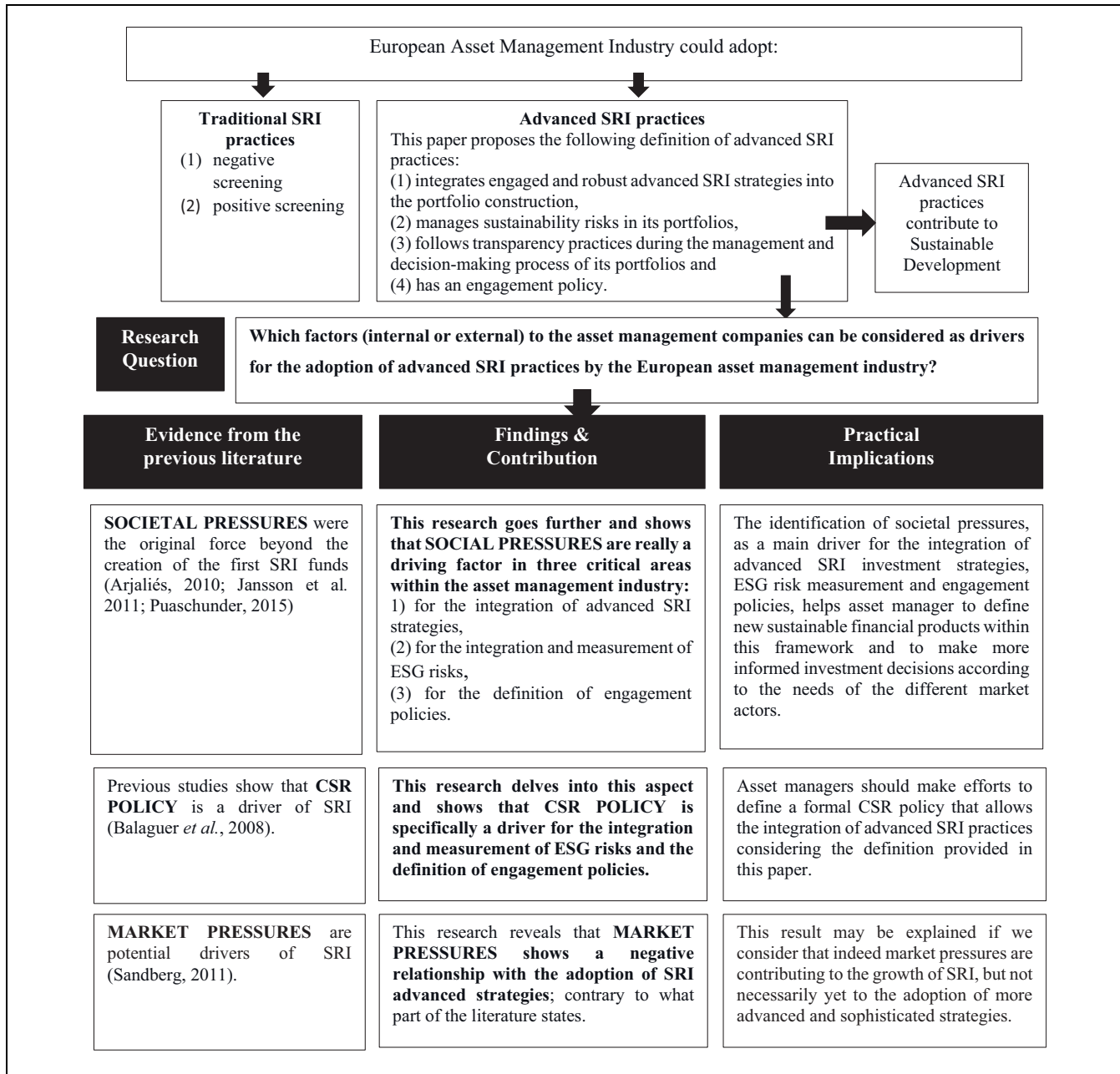


Figure 1. Contribution to SRI literature and practical implications.

Limitations and Future Research Directions

The method employed in this study could have limitations. First, regression methods per se may present some limitations for the analysis of certain social and economic processes. One of the challenges of logistic regression, used in this paper, is the interpretation of the coefficients. Contrary to linear regression, in this technique, the coefficients cannot be directly interpreted as changes in the probability of the event. To understand the impact of the independent variables on the probability of the event, it

is necessary to calculate odds ratios. This may require a higher level of analysis and statistical understanding. However, unlike classical linear regression in which parameters are estimated using the least squares method, logistic regression estimates parameters using the likelihood ratio (Hosmer et al., 1997). In fact, one of the main advantages of logistic regression over discriminant analysis, which is often used alternatively, is its robustness (Sreejesh et al., 2014). Therefore, logistic regression is one of the most widely applied methods for working with

categorical dependent variables in the field of sustainability studies (e.g., Bayar et al., 2020; Cheah et al., 2011; Escrig-Olmedo et al., 2013; Krause & Battenfeld, 2019; Jonwall et al., 2022).

Second, the sample is composed of 45 asset management companies. Although this may seem a small sample, the results can be extrapolated to a large part of the market players. This is because, at the time the study was conducted the asset management companies included in the sample managed the third part of open funds domiciled in Europe, according to Morningstar data in 2017, with the sample being a reflection of the financial market. Moreover, at present, the sample continues to reflect what is happening in the financial market, since five of the asset management companies that responded to the survey are among the top 20 fund managers with the most assets in the world in 2023 (with two of them in the top 5 positions) according to a recent study by the Thinking Ahead Institute. Furthermore, according to a PwC report on the ESG fund industry at the close of 2022, three of the top five ESG asset management companies under Article 8 of the SFDR, by volume of assets under management, are in this sample. However, to make the results even more generalizable, in future studies it would be interesting to extend the sample by focusing on the domicile of origin since, although this work includes companies from other continents, it is focused on the European fund management industry. Thus, future research in advanced SRI practices should focus on different markets and players. In this sense, it would be valuable to extend the study to the USA fund management industry. This would allow a better understanding of the factors driving the adoption of advanced SRI strategies in the global SRI market.

Finally, it should be noted that this study was carried out in 2016. Since then, financial markets have seen profound regulatory developments in sustainable finance, especially since the launch of the “Action Plan for Financing Sustainable Growth” (EC, 2018). However, the impact of these regulations on the integration of advanced SRI practices in the European fund management industry is not observed. This is because these regulations have not yet been comprehensively adapted to financial practice. Thus, for example, Bengo et al. (2022) point out that despite the launch of the SFDR, fund managers still lack clear guidelines on its implementation. In fact, it barely connects with the social impact measurement practices currently available to financial actors to assess their ESG contributions. Moreover, in the European fund management industry the main SRI investment strategy is still asset exclusion (Eurosif, 2018). Therefore, the results of this study are consistent with current practices in the European fund management industry and have special relevance for advancing the

integration of advanced SRI practices in the context of this new regulatory framework. In future research, it would be interesting to analyze the integration of advanced SRI strategies in the European fund management industry once the new regulation is effectively implemented in the financial market. Moreover, this research is pre-covid, so it could be interesting to carry out this study in the current context to analyze the incidence of COVID-19 as a driving factor of SRI and new models for measuring extra-financial risks

Authors' Contribution Statement

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Maria Folqué and Elena Escrig-Olmedo. The first draft of the manuscript was written by Maria Folqué and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

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